SEARCHING FOR THE LOST COLONY • THE MYSTERIOUS FREMONT • INVESTIGATING A CIVIL WAR PRISON

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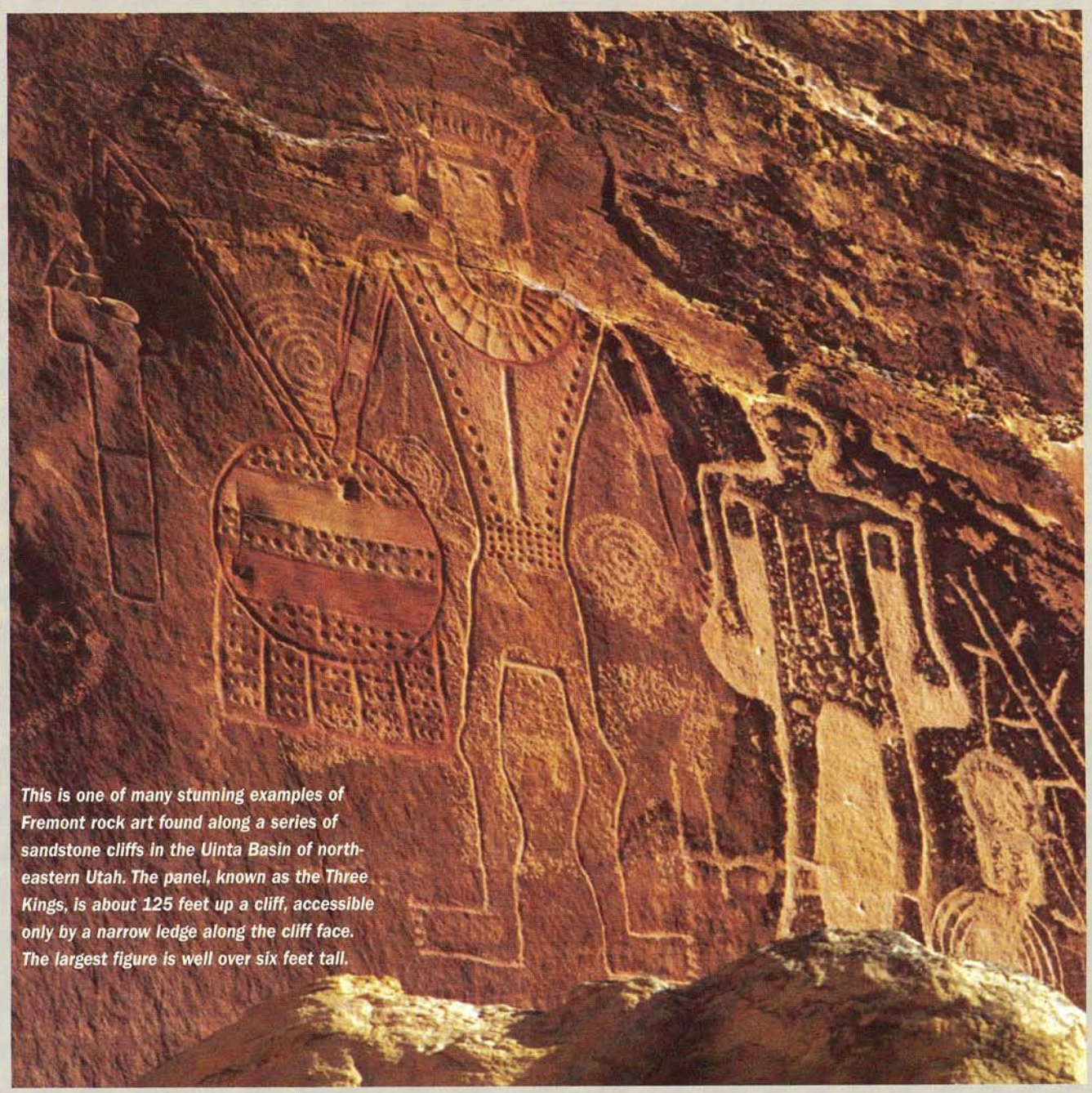
Who Were the Fremont?



This is one of many stunning examples of Fremont rock art found along a series of sandstone cliffs in the Uinta Basin of northeastern Utah. The panel, known as the Three Kings, is about 125 feet up a cliff, accessible only by a narrow ledge along the cliff face. The largest figure is well over six feet tall.

JAMES Q. JACOBS

Researchers are trying to understand the origins, behavior, and disappearance of this mysterious culture.

By Tamara Stewart

"The Fremont are the epitome of the archaeological puzzle," says David Madsen, an archaeologist at the University of Texas who has investigated Fremont sites all over Utah since 1967 and served as Utah state archaeologist from 1973 to 1991. "The interesting thing about the Fremont is that they're recent enough in history that we're likely to know a lot about them, and there are lots of well-preserved sites like Range Creek that are just being discovered. On the other hand, we have no idea what happened to them, so there are no clear descendants to compare them with. We have to figure it out purely archaeologically."

The Fremont (the name refers both to a culture and a time period extending from about A.D. 600 to 1350) have mystified researchers since they were first identified by Noel Morss of Harvard's Peabody Museum along the Fremont River in 1931. Archaeologists have long debated whether the Fremont, like their neighbors, the Anasazi, emerged from a local Archaic population, adopting agriculture and settled village life, or whether they represent a migration of early Anasazi peoples into southern Utah. Archaeologists have also debated the reasons for the ultimate demise of the Fremont, who reached their florescence about 1,000 years ago, and then disappeared some 300 years later.

Stretching from the high mesas of the western Colorado Plateau to the valleys and ranges of the eastern Great Basin, Fremont lifestyles and settlements were varied. Sedentary farmers lived in large pithouse villages in lush areas such as the Sevier Valley of the Great Basin, supplementing their corn, beans, and squash with some foraging. Forager-farmers lived in both small pithouse villages and above-ground masonry structures along the few perennial streams of the Colorado Plateau, growing crops and stashing their food stocks in nearly inaccessible mud and stone storage granaries while they foraged for wild plants and hunted game. Some inhabitants of the eastern Great Basin's rich, marshy wetlands were full-time foragers who lived in large adobe settlements, temporary brush huts, caves, or rockshelters.

Unlike the better-known Anasazi, the Fremont left few massive masonry structures or elaborate cliff dwellings as testimonies to their sophistication. Their remarkable legacy took the more subtle form of rock art, both petroglyphs and pictographs of humanoid figures with horned headdresses and elaborate necklaces, animals, shields, and other abstract images. The Fremont are also known for several other signature artifacts: a unique one-rod-and-bundle basketry construction style; moccasins made from deer hocks or mountain sheep legs; clay figurines featuring broad-shouldered figures much like those depicted in their rock art; and gray coiled pottery.

The Pilling Figurines were discovered in March 1950 by Clarence Pilling in a small side canyon of Range Creek. All of the four- to six-inch figurines are made of unbaked clay and decorated with applied clay ornaments. It's thought they were made sometime in the 11th century.

EASTERN UTAH PREHISTORIC MUSEUM

A historically accurate life-size reconstruction of a Fremont pithouse. Pithouses varied in shape, size, depth, and construction style. It's thought that most of them were semi-subterranean structures with wood poles that supported roofs of thatched branches and mud.

JOEL JANETSKI

A cache of eight ceramic vessels, including this corrugated pitcher, was discovered in a pithouse at Five Finger Ridge in Clear Creek Canyon. The pitcher is covered with a red hematite wash, which suggests it was used for special occasions.

For years Fremont investigations focused on individual sites, and consequently these projects yielded limited data. That changed when Brigham Young University (BYU) researchers, in advance of highway construction through the Clear Creek Canyon area of the Sevier Valley in central Utah, conducted the largest Fremont excavation to date. From 1983 to 1986, Five Finger Ridge, a dense pithouse village in the canyon occupied primarily between A.D. 1200 and 1300, was thoroughly investigated, and hundreds of rock art panels and numerous smaller sites in the area were also documented and tested.

Joel Janetski of BYU, one of Clear Creek Canyon's principal investigators, says the project resulted in a broader understanding of the Fremont, particularly socioeconomic and sociopolitical traits. Prior to the project, most researchers thought Fremont social organization was limited to the household level, as there was little evidence of political, social, or religious activity between these households. But researchers found a large structure at Five Fingers Ridge that lacked a wall on one side, suggesting that its purpose may have been communal. They also found evidence of what could have been a central plaza, which would indicate a level of sociopolitical organization and complexity beyond the household level.

Pithouses ranging from round to nearly square were the most common habitation structures. The pithouses

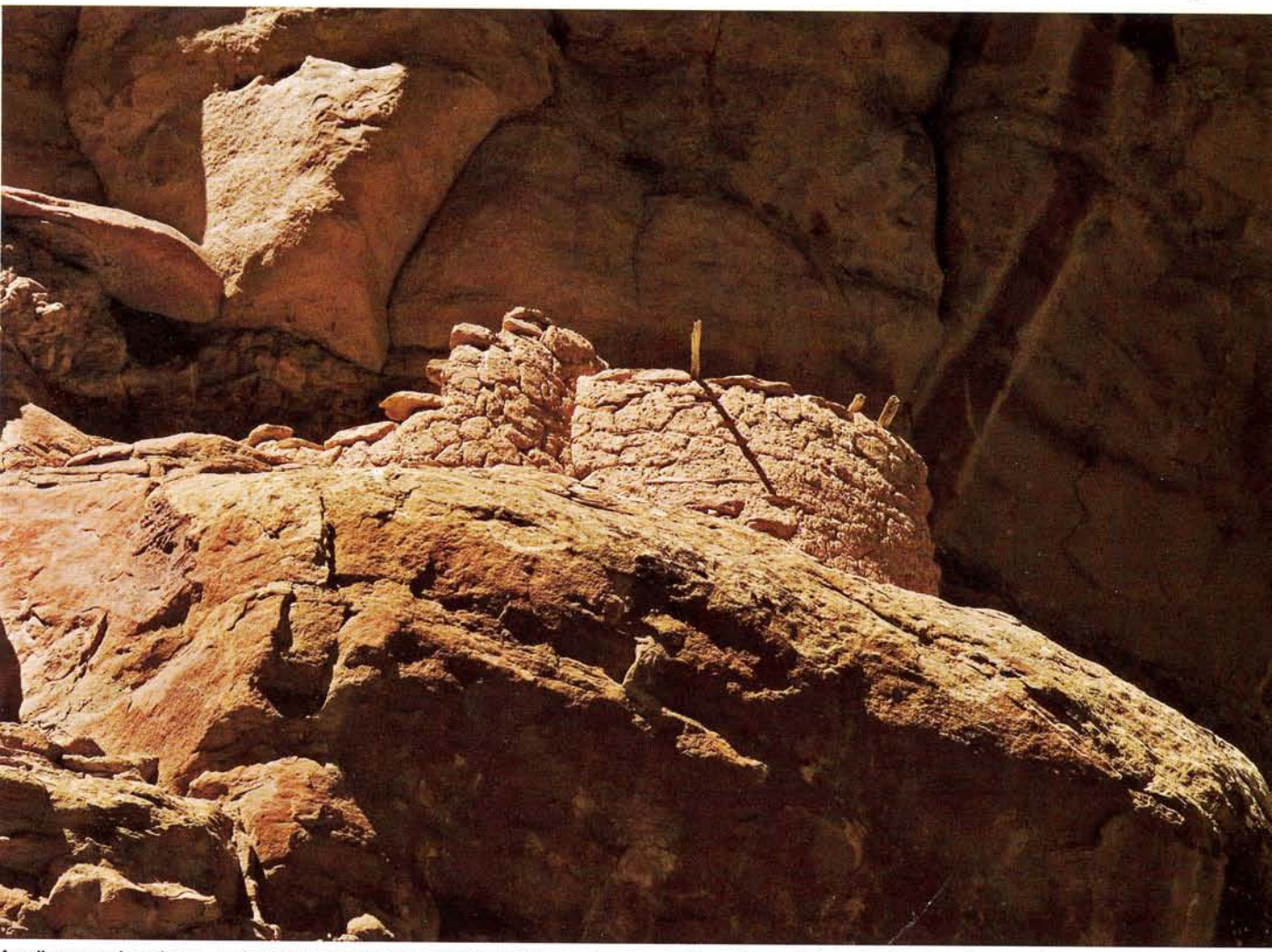
varied in size, and the larger ones often contained valuable and exotic items such as turquoise and shell, suggesting status differentiation. This evidence also indicated that trade with other cultures increased late in the Fremont period, as these exotic items haven't been found in earlier settlements. Burial practices also suggest that certain individuals, primarily adult males, achieved special status.

The Fremont gained notoriety a few years ago with the discovery of the remote Range Creek Canyon in eastern Utah. Range Creek has incredibly well preserved evidence of the Fremont. Duncan Metcalfe, an archaeologist at the University of Utah and curator of the Utah Natural History Museum, directs the state-funded Range Creek Archaeological Project. "The wonderful advantage to Range Creek is there's no imminent threat to it," Metcalfe says excitedly. "So, for the first time in my life, I've had a chance to think about research design in terms of 10 years, 20 years of work, where we can incrementally build on the knowledge of previous years."

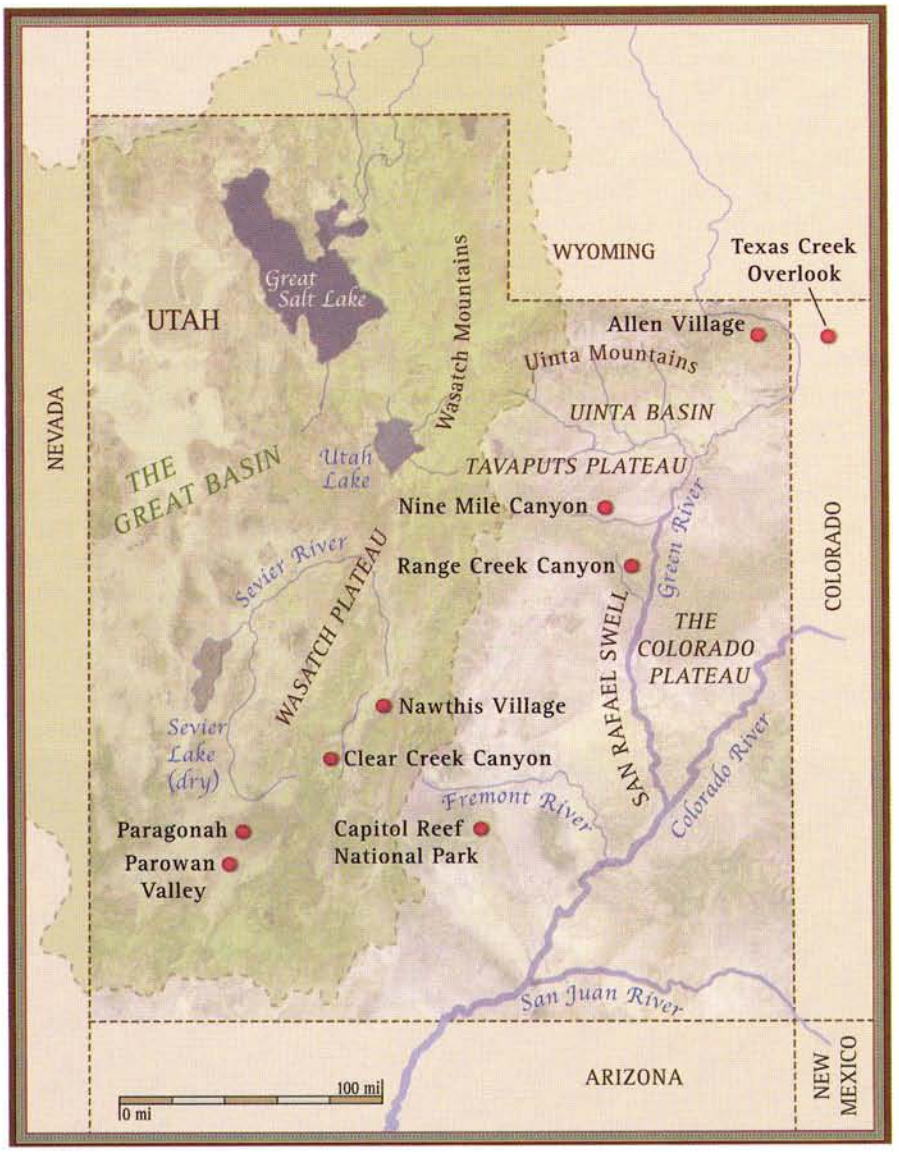
The State of Utah acquired the 4,208-acre Wilcox Ranch, on which roughly half the 25-mile-long canyon is located, in 2004. Metcalfe, archaeologist Jerry Spangler, and a team of graduate students then began the immense task of documenting sites and collecting surface artifacts. In five years they've covered a small portion of the canyon, documenting thousands of artifacts and features including stone tools and tool-making debris, ceramic sherds, numerous rock art panels, and hundreds of pithouse sites and cliffside granaries. Metcalfe suspects that the numerous canyons leading into Range Creek are also full of well-preserved Fremont sites, and he plans to eventually survey those as well.

Range Creek offers a rare view of the Fremont. Pithouse villages were built on both the upper terraces of rock formations as high as 1,200 feet, and along the canyon floor. Both types of pithouse sites contain an average of one to three structures (the largest they've found has 20) and most do not appear to have been heavily occupied, based on a general lack of deep midden deposits.

Metcalfe thought the ridge-line pithouse sites would date very late in the Fremont occupation, to a time of stress and widespread depopulation of the region. They have a clear defensive orientation, with boulders blocking



A well-preserved sandstone, mud, and wood granary perched in a cliff alcove above Range Creek Canyon. This double-chambered granary held corn and seeds. It dates to about A.D. 1050. Hundreds of these cliffside granaries were built as high as 900 to 1200 feet above the canyon floor. Researchers are trying to understand why the Fremont invested so much time and energy in constructing these storage structures in such inaccessible places.



Some of the sites in the Fremont Culture area are shown on this map. Based on Fremont traits, subsistence and settlement patterns, and regionally distinctive rock art styles, researchers recognize five regional variants of the Fremont: Great Salt Lake (A.D. 400-1350), Sevier (A.D. 750-1300), Parowan (A.D. 900-1300), Uinta (A.D. 650-950), and San Rafael (A.D. 700-1200). The Great Salt Lake, Sevier, and Parowan Fremont variants have been found in the Great Basin portion of Utah west of the Wasatch Plateau, and the Uinta and San Rafael variants in the Colorado Plateau in eastern Utah.

potential access to some residences. But to his surprise, the one radiocarbon date obtained so far from a ridge-line site is A.D. 1050, which coincides with all the dated sites in the lower areas of the canyon. "It's a very small sample, but it looks like they were occupied at the same time, which means that some people were living in scary, dangerous places, while others lived below in easily accessible sites. So maybe the two groups weren't very happy with each other."

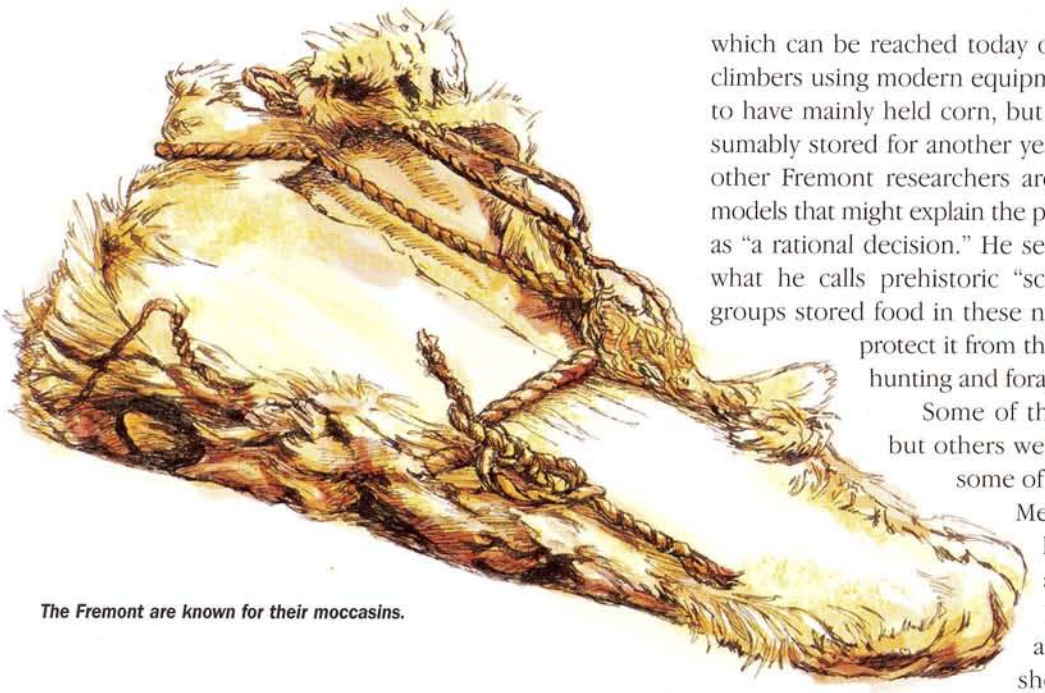
The first excavation at Range Creek is scheduled for next summer, when Metcalfe's team will explore a five-to seven-structure pithouse site the crew named "Big Village" on a canyon bottom terrace. He hopes the data from this dig will help them understand the relationships between the upper and lower canyon groups. Last summer the team created a detailed map of the site, which consists of 12-foot diameter house depressions with massive boulder walls, some weighing an estimated 400 to 600 pounds. Although generally referred to as pithouses, these structures clearly have an aboveground masonry component similar to Anasazi architecture.

Metcalfe, Madsen, and other researchers focus less on the categorical definitions of the Fremont that had preoccupied earlier archaeologists, and more on understanding past behavior. They employ a behavioral ecology approach that uses cost-benefit ratios to explain these behaviors. The cost-benefit ratios measure the energy and time expended on, say, the hunting and gathering or the cultivation of food, which is considered the cost, and the amount of food they obtained from such efforts, which is the benefit. These ratios changed over time depending on environmental and social conditions. This approach helps researchers understand and predict when behaviors such as foraging or farming would be more cost effective. "We're starting out with the assumption that these are intelligent people making intelligent decisions," Metcalfe says.

Renee Barlow, an archaeologist at the University of Utah, is employing the cost-benefit model to understand how Range Creek's occupants fed themselves. Trying to determine "what it costs to farm by hand" as the Fremont did, Barlow studied present and past farming communities in Utah, Mexico, and Guatemala. Like the Fremont, these communities grew maize without benefit of animals and fertilizers. To her surprise, Barlow concluded that those farmers who spent less time working their fields were more efficient than farmers who spent more time on cultivation. Consequently, she surmises that the Range Creek Fremont, who were very mobile, minimized their costs by moving from plot to plot upon depleting the soil.

"This was a pretty substantial farming community," she says. She and other researchers have recorded at least 140 granaries, leading her to conclude that large areas of Range Creek were in maize fields. Barlow suspects the Fremont's techniques were more successful than the Anasazi's agricultural practices at Chaco Canyon. The

EVOLUTION GRAPHICS

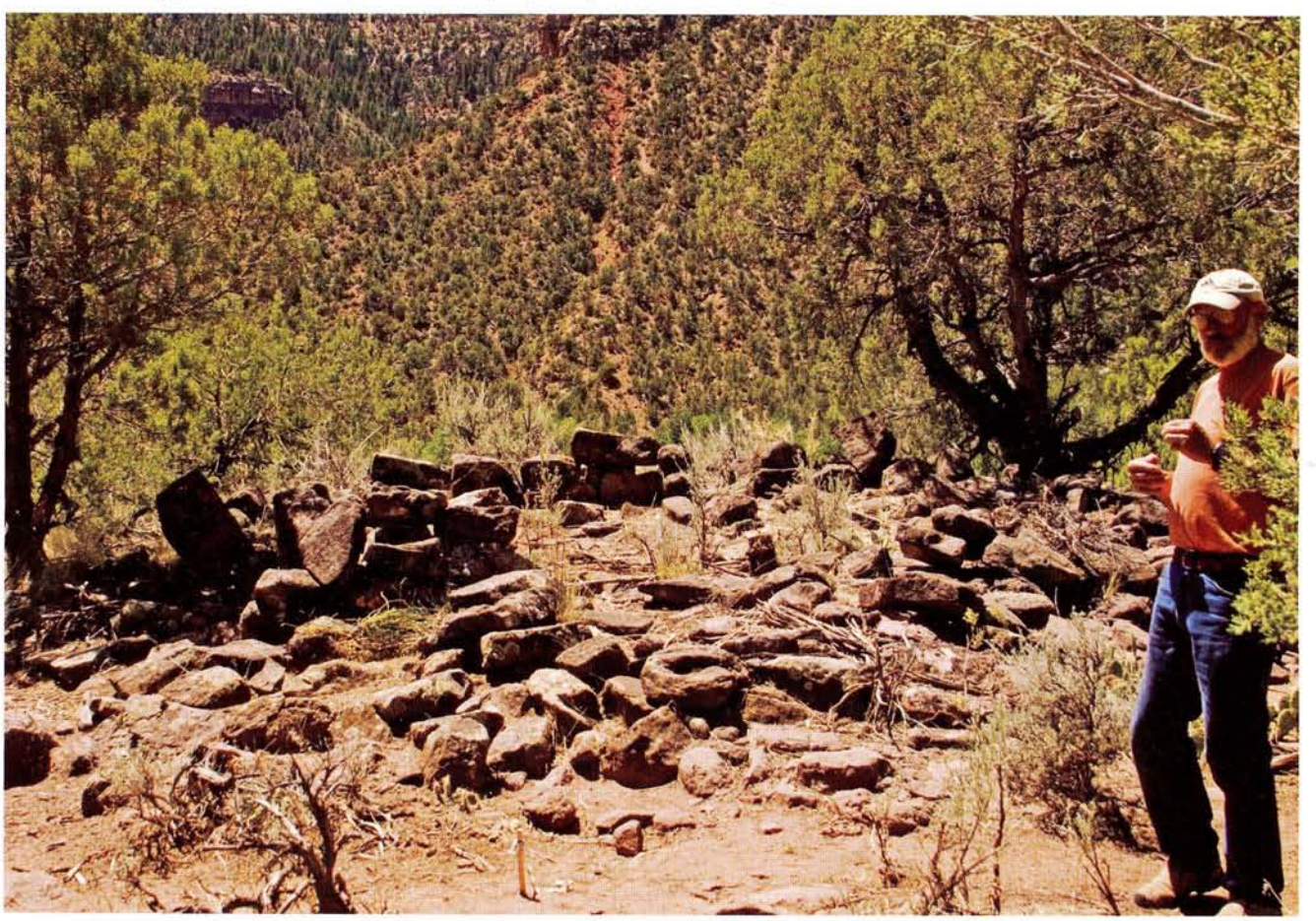


The Fremont are known for their moccasins.

Chacoans were sedentary, and Barlow believes they spent more time working their land, which gradually produced less and less maize as it became depleted.

The Fremont invested a great deal of energy constructing the numerous stone, adobe, and log storage granaries that dot the upper areas of Range Creek Canyon, many of which can be reached today only by highly skilled rock climbers using modern equipment. The granaries appear to have mainly held corn, but also seeds, the latter presumably stored for another year's planting. Metcalfe and other Fremont researchers are working on cost-benefit models that might explain the placement of these granaries as "a rational decision." He sees them as an example of what he calls prehistoric "scatter hoarding," meaning groups stored food in these nearly inaccessible spots to protect it from thieves while they were away hunting and foraging.

Some of the granaries were hidden, but others were not, "probably because some of the group stayed behind," Metcalfe says. "This would have been a very defendable resource, even for a 12-year-old with a bow and arrow, who could easily shoot a defenseless person climbing up to raid the stores." While on-site storage facilities are common in the densely settled Fremont heartland of central Utah where site occupation continued year-round, isolated granaries such as these are abundant in agriculturally marginal areas like Range Creek and Nine Mile Canyon.



Archaeologist Duncan Metcalfe stands next to one of the largest pithouses that comprise the Big Village pithouse site in Range Creek Canyon. Numerous pithouse village sites have been documented in the canyon. These structures were partly built aboveground. The walls of this pithouse were made of boulders.

In the early 1930s, researchers found numerous masonry residential and storage structures tucked up in cliff ledges along Nine Mile Canyon, just north of Range Creek. Spangler, who began work in Nine Mile as a graduate student in 1989, notes that the Fremont there "were markedly different from the traditional definition. They built spectacular surface architecture and developed a remarkable defensive orientation."

Pithouse villages located on benches above arable lands throughout Nine Mile Canyon resemble classic Fremont settlements, but defensive-oriented masonry architecture appears to reflect influences from the greater Southwest, such as the Kayenta Anasazi to the south. Similarly, large, possibly communal or ceremonial structures such as Nordell's Fort, a seven-foot-high coursed masonry structure in the canyon, are more reminiscent of Anasazi than Fremont architecture.

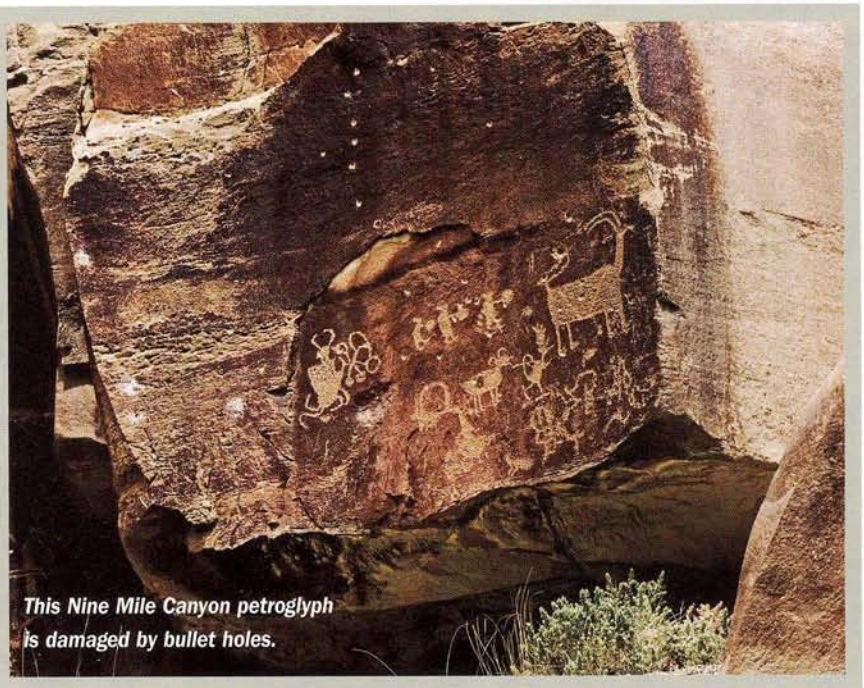
"What is very, very interesting is that my research in the Uinta Basin just north of Nine Mile Canyon shows a dramatic depopulation of the area at the same time that populations are increasing to the south in Nine Mile," Spangler says. "I do not suggest that populations were moving from the Uinta Basin south into Nine Mile, since the artifact assemblages and rock art styles are dissimilar. But it does reinforce the concept that dramatic socioeconomic changes are occurring in the Fremont culture area between A.D. 900 and 1000 that resulted in population shifts into environmentally marginal areas, like Nine Mile."

This was a time of social upheaval throughout the Southwest, Spangler observes, and there probably wasn't enough fertile land to accommodate all the people in the region. The majority of radiocarbon dates from Nine Mile Canyon range between A.D. 1000 and 1300, reinforcing Spangler's conclusion that this was a late Fremont occupation and the same factors that influenced Anasazi adaptations, namely widespread drought, increased competition for limited resources, and possibly conflict, also influenced the Fremont.

While population growth and sedentism increased around A.D. 900 in the Wasatch Plateau in central Utah and continued until about A.D. 1200, in outer areas such as Nine Mile and Range Creek, researchers see an increasingly complex and competitive relationship between farmers and foragers, possibly due to people from central or southern Utah moving into these territories.

Between 1250 and 1350, most of the Fremont abandoned the Great Basin and Colorado Plateau areas. It remains unclear whether they left due to the well-documented mid- to late-13th-century drought that may

Preserving Fremont Sites



This Nine Mile Canyon petroglyph is damaged by bullet holes.

GEOFFREY STEWART

Beyond the gates and boulder wall that block public access to Range Creek Canyon, vandalism is rampant. Much of Utah is public land, and with federal land managers under increasing pressure to open pristine areas to oil and gas development and public recreation, archaeological sites are suffering. Nine Mile Canyon, located north of Range Creek, is called the longest gallery in the world because of its density of rock art. Unfortunately, its petroglyphs are riddled with bullet holes and recent graffiti.

"We would sit around the camp at the end of a long day of surveying and marvel at how pristine these [Range Creek] sites were compared to other ones we had worked on, and we worried about what would happen if the state were to open Range Creek up to ATVs and commercial tours and oil and gas—not ill-founded concerns, as it turns out," says archaeologist Jerry Spangler. Spangler founded the non-profit Colorado Plateau Archaeological Alliance (CPAA), a coalition of archaeologists, historians, scholars, and preservationists, in December 2005. "The inspiration for CPAA came about because of Range Creek, although its mission is much, much bigger."

CPAA already has projects underway throughout the Fremont region, where they are studying the connection between road access and site vandalism, as well as the impacts of illegal surface collecting and ATVs on sites. "We are losing the archaeological record at an alarming rate, and federal land managers need tools to better manage these resources for future generations," says Spangler, who is currently working to nominate Nine Mile and Range Creek canyons to the National Register of Historic Places as archaeological districts. More information about CPAA and its ongoing projects can be found at www.cparch.org.

—Tamara Stewart

A reconstructed masonry granary is seen in the foreground of Five Finger Ridge, the site of an extensive excavation in the 1980s. The settlement's population peaked at an estimated 60 to 100 people in the late A.D. 1200s, and then it appears to have been abandoned by the Fremont around A.D. 1350.

have caused the Anasazi to abandon the Four Corners region, or if they were forced out by nomadic groups that moved into the area. Clear Creek Canyon could be an example of the latter scenario. The most recent date for Fremont-style artifacts and features there is about A.D. 1350. While the canyon was occupied after this time, the few remaining inhabitants lived on wild foods and used different ceramics, projectile points, and a distinctive basketry style like that of the Numic-speaking ancestors of today's Ute, Paiute, and Shoshone peoples, who migrated into the area from the west about 1,000 years ago. The Fremont also could have assimilated into the Numic-speaking group, or joined other groups on the Plains, as well as Pueblo peoples to the south.

The use of fort-like masonry structures such as those in Nine Mile and Range Creek canyons suggest increased competition for resources and possibly conflict of the sort that was evident across much of the Anasazi region in the late 1200s. The latest Fremont sites, such as Allen Village and Texas Creek Overlook, are found in northeastern Utah and northwestern Colorado, a considerable distance from the postulated migration routes of Numic-speaking nomads that passed through western and southern Utah.

Due to the mysteries concerning their origins and disappearance, researchers have not been able to clearly identify direct descendants who might have ethnographic information about their Fremont ancestors. Preliminary comparative DNA tests of Fremont individuals buried around the Great Salt Lake with Anasazi remains from southeastern Utah and northeastern Arizona suggest the two people were closely related, perhaps sharing a common founding population. Similar tests of late Fremont remains from the Tavaputs Plateau, where Anasazi-style architecture and artifacts are more abundant, has yet to be done.

"Lots of groups claim to be descendants, and they could all be right, the Fremont were so diverse and adaptable," says Madsen. "The name 'Fremont' may be more reflective of our own need to categorize things than it is a reflection of how closely related these people were. Variation is the key word in describing them."

TAMARA STEWART *is the assistant editor of* American Archaeology *and the Conservancy's Southwest project's coordinator.*