

To the many people who have  
whose curiosity, determination, and sense of adventure  
led to the discovery of the Basketmaker  
and other families and their culture  
whose patience and generosity  
helped make this research possible.

# COWBOYS' CAVE DWELLERS

*Basketmaker Archaeology in Utah's Grand Gulch*

FRED M. BLACKBURN

RAY A. WILLIAMSON

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*The deep alcove that shelters Perfect Kiva.*

## I / THE BEGINNING

*The canyon country does not always inspire love. To many it appears barren, hostile, repellent—a fearsome, most waterless land of rock and heat, sand dunes and quicksand, cactus, thornbush, scorpion, rattlesnake, and agoraphobic distances. To those who see our land in that manner, the best reply is, yes, you are right, it is a dangerous and terrible place. Enter at your own risk. Carry water. Avoid the noontday sun. Try to ignore the vultures. Pray frequently.*

—Edward Abbey

THE HOT JUNE SUN HAD WORKED ITS WAY WELL TOWARD THE WEST WHEN WE climbed out of our vehicle, slipped on our backpacks, and headed across the piñon-juniper flats of Cedar Mesa. It was just after the summer solstice in 1981, and the four of us were in the canyon country of southeastern Utah to examine archaeological sites in Bullet Canyon, one of the tributary canyons of Grand Gulch, which archaeologist Nels C. Nelson in 1920 called “a great rift in the earth, tortuous and fantastic.”<sup>1</sup> With our two friends, we trudged for about an hour through the deep aeolian soil of the flats before reaching the edge of the canyon, where we settled in to fix a meal and eat before the sun found its home on the western rim.

It was a stunning evening. We made camp on the rimrock some two hundred feet above the canyon floor. From our campsite we looked across to a small, ancient Pueblo structure called Moon Kiva, perched high on a ledge over a precipitous drop. Above the ruin a large, flat sandstone panel displayed three circular white paintings, each about a foot across, that seemed to symbolize the moon. As we prepared our camp stew, a cooling breeze washed over us from the slope above. Later, we watched the full moon rise just above the painted “moon” symbols, now tinted rose by the setting sun.

Of the four of us, only Fred Blackburn had explored Grand Gulch before. Fred had worked in the Gulch as a ranger for the Bureau of Land Management in the 1970s, patrolling the canyons and helping protect its many archaeological sites, the long-abandoned homes of the Ancestral Pueblo, or Anasazi, people.<sup>2</sup>

Fred knew that the first archaeological excavations in the Gulch had taken place some ninety years earlier, beginning with the January 1891 expedition of Charles McLoyd and Charles Cary Graham. Bullet Canyon had been the entry point for the two entrepreneurs from

Durango, Colorado, who spent three months digging for artifacts to exhibit and sell back home. The only archaeological site mentioned in Graham's trip diary that can be easily identified today is the tiny sandstone structure we gazed at across the darkening chasm.

JANUARY 14, 1891

I went up the south fork. Just above the forks in the main canon there is a small house high up with the following painting [a sketch of 2 moons with a half moon and star between them]. White paint.<sup>3</sup>

The artifacts McLoyd and Graham brought back from their 1891 trip piqued the interest of McLoyd's acquaintances, rancher Richard Wetherill and his younger brothers, John, Al, Winslow, and Clayton, who mounted their own Grand Gulch expedition three years later. On that trip, undertaken in the winter of 1893-94, the Wetherills discovered convincing proof that the people now known as the Basketmakers had preceded the Pueblo people in Southwestern prehistory.

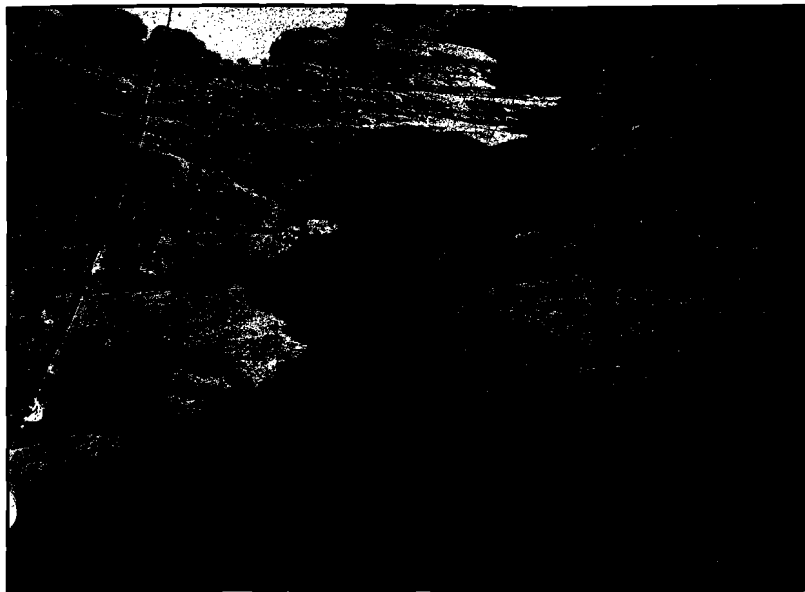
As we relaxed and watched the nighthawks circle and dive in the cooling breeze, we talked about those early explorers and what they had removed from the Gulch. McLoyd and Graham, the Wetherills, and others had taken thousands of Ancestral Pueblo skeletons, preserved food-stuffs, baskets, pots, and other artifacts. Yet the present whereabouts of many of these collections was unknown, and even when their location was known their condition was uncertain. Worse, from an archaeologist's point of view, no one knew which specific sites most of the artifacts had come from. With the exception of Richard Wetherill, the early explorers kept only minimal notes. Since museum accession and curatorial practices of the time were notoriously lax as well, museum collections from the Gulch generally lacked information regarding the origin and context, or provenience, of the artifacts.

As Fred came to know the Gulch, however, he discovered that the canyon walls themselves held invaluable clues—dated signatures left by these early explorers as they made their way from site to site. Archaeologist William Lipe suggested that the signatures might be used to trace the sites in which the nineteenth-century excavators had dug.

As much as I curse the few graffiti left by modern hikers in the Gulch, I'm thankful these pioneer archaeologists were afflicted by that human urge to record their passing. We'll keep looking for these faint old scrawblings, and may someday be able to reconstruct from them the course of that first Wetherill expedition.<sup>4</sup>

The four of us had a chance to see some signatures two days later when we hiked back out of the Gulch. On the way to Cedar Mesa we stopped at the site called Perfect Kiva, named for the intact thirteenth-century Ancestral Pueblo kiva that still exists there. Sheltered in a relatively deep alcove carved into the canyon wall by water and wind, Perfect Kiva is a well-preserved example of the underground ceremonial chambers used by generations of Pueblo people in a tradition that continues today. Kiva is a Hopi word that has come into general use to describe such structures, whether they are found in an archaeological site or in a modern Pueblo village.

As we explored the alcove, or rockshelter, Fred pointed out the inscription "Wetherill 1894" carefully etched in an ax-grinding groove on a large sandstone boulder. The prehistoric Pueblo people often used a sandstone surface to sharpen their stone axes, and one of the Wetherill



*Perfect Kiva Ruin, photographed in 1894.  
Inset: A Wetherill 1894 inscription in lower Grand  
Gulch. A similar inscription at Perfect Kiva, dated  
January 1894, has recently been obliterated.*

brothers apparently decided to use the grooves they left to indicate that he had been there, too. Inside the kiva, on the plaster wall, was the name "C. C. Graham." Fred had first seen this inscription in 1974 when he worked with the crew that repaired and stabilized the Perfect Kiva structures.

Eventually, Fred hoped to follow William Lipe's lead by using the signatures to determine both the routes of the most significant Grand Gulch expeditions and the original alcoves or rockshelters from which artifacts had been taken. Among other things, rediscovering these sites would allow archaeologists to learn more about the Basketmaker people. They would then be able to associate the artifacts with the sites and site features, establishing the artifacts' proveniences. But retracing the routes and uncovering which alcove went with which artifact would take time and the collaboration of many people. Five years after our 1981 trip, thanks to the persistent curiosity and dedicated involvement of many volunteers, Fred's dreams of tracing the routes and history of those early explorations began to be realized.

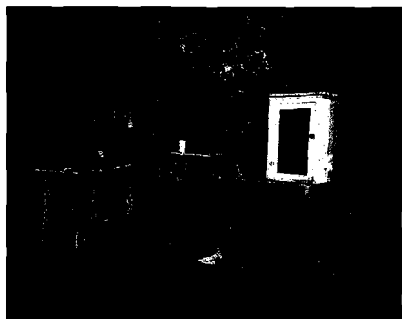
**T**HE ADVENTURE THAT BECAME KNOWN AS THE WETHERILL–GRAND GULCH Research Project was born during another hike into Grand Gulch. Ann Hayes, a writer and avid backpacker from Boulder, Colorado, asked Fred to lead a recreational trip into the Gulch. On the afternoon of November 11, 1986, the five-day expedition began.

The backpackers would long remember those first steps into the Gulch. The sky was clear, with a smoky haze building in the southwest, the temperature pleasant as a hint of fall brought that touch of crispness perfect for hiking. Fallen cottonwood leaves lent a dash of muted gold to the drab rocks and sand of the streambed. Navajo Mountain brooded far to the south.

On the surface of the old wagon road that led into a tributary canyon and onto an outcrop of slickrock sandstone, dry potholes reminded the hikers that water in the canyon might be

scarce. Beyond the slickrock, the eroded wagon trail reappeared and led the group to the canyon bottom. Climbing up and out the other side, the hikers headed south, this time following a faint cattle trail. Although cattle had not been seen in Grand Gulch since the early 1970s, in the dry climate of southeastern Utah disturbances of the land endure for years.

Nightfall found the group on the edge of one of the many natural alcoves in Grand Gulch. This site, which once sheltered Ancestral Pueblo people, was for almost a century a cow camp used periodically by the TY



*The remains of an 1880s cow camp in a dry alcove in Canyonlands National Park.*

Cattle Company, founded in the 1880s by a cowboy named Al Scorup. Scorup got his start on this arid range by rounding up stray cattle abandoned by companies that had gone bankrupt confronting the rigors of life in southeastern Utah. He lived with his cattle year-round, nurturing their health and building up a large herd. Eventually he established line camps throughout the region and built one of the largest working ranches in the country.

At purely Ancestral Pueblo sites, it takes a trained eye to recognize the many subtle signs of earlier life. Here in the cow camp, evidence of past occupation was obvious. Familiar cowboy-era artifacts were strewn everywhere: a metal grain bin for the horses, a flour sack that still displayed a proud but faded Standard Flour trademark, a box of Ohio Blue Tip matches, swelled cans of tomatoes, peaches, and beans. The alcove also held wooden frames once used to stretch and dry the pelts of bobcats, foxes, and coyotes. Ann Hayes wrote in her journal: "We sleep that night at the Cow Camp, placing our bedrolls as to avoid the cactus barb stashes of the packrat. It's quite cold. We are lucky to be falling asleep (or lying awake) by the nearly full moon."<sup>5</sup>

This historic archaeological site stood in useful contrast to the prehistoric sites the group had expected to see. But camping near archaeological sites or suspected sites of any era requires more than the usual care not to damage the environment. The backpackers used no wood fires and were careful not to disturb the ground in the alcove.

The next day the group struck out along the canyon, passing more of the small alcoves that pocked the sandstone walls above the streambed and the talus—that sloping mass of eroded stone debris at the base of a canyon wall. Fred headed for an alcove he had found on an earlier visit. Cut deep enough to provide sanctuary from rain and snow, but north facing so that it would avoid sunlight most of the day, the alcove was a good setting for an ancient summer dwelling. As the hikers climbed the short slope, they could see immediately why Fred had led them there. On the floor of the rockshelter stood a semicircle of upright sandstone slabs—the remnants of a Basketmaker cist, or storage pit, originally sealed at least two millennia earlier.

In the canyon country of southeastern Utah, Basketmaker people often dug circular or rectangular storage pits in the dirt floors of shallow alcoves or rockshelters. They lined many of these cists with large sandstone slabs and usually plastered the pit walls and slabs with adobe. In the cists they could store corn and other food for long periods, carefully sealed off from hungry mice and beetles. Once they no longer used the cists for food storage, the Basketmakers buried their dead in them. Before covering the grave with stones and sand, the mourners placed a basket or two in the pit, along with a few of the deceased's prized possessions.

Although everyone on the hike had explored Ancestral Pueblo dwellings before, few had ever seen a Basketmaker site. Now the group found more of the ancient storage enclosures—but these cists lay half open and rudely exposed. They had not been opened by natural means.

*Uncovered Basketmaker storage cists.*





*Left to right: A pair of Basketmaker sandals found along the trail; Basketmaker tray with bird and butterfly design from Grand Gulch; large incised jar photographed in situ, possibly during Cave 7 excavations, 1893.*

Excavated soil still lay in a heap in front of the stones, and bits of charcoal, probably from an ancient juniper-wood fire, littered the alcove floor. Depressions could be seen in the wind-blown sand of the shelter floor. Were they signs of recent illegal pothunting, or had the burials in the cists been disturbed years earlier?

Emotions gripped the hikers: anger that someone might have disturbed these ancient burials, deep in protected public land; curiosity about what remnants of long-ago culture the cists had held; concern over where the artifacts taken from the graves might now be; and the keen poignancy of knowing that people had been buried here who once experienced the same human feelings they themselves felt.

As Fred pointed out, whoever had opened the burials had not finished the job. Several pristine cists remained, barely visible in the sandy soil. Close scrutiny revealed a faint inscription or signature written in a dark gray substance on the flat surface of one upright slab. Although now unreadable, the inscription appeared to have been written in an elegant script.

Examining the site thoroughly, the group decided that it must have been excavated many years before. After excavation, the pits—left open by the diggers—had partially refilled with fine, windblown sand, softening the edges of the holes but not filling the pits completely, something that might take several centuries. The inscription's graceful script supported their hypothesis that it had been an early dig; the "penmanship" looked too refined to be recent. Fred speculated that they might even be looking at the remains of excavations carried out by people like Charles McLoyd, Charles Cary Graham, or Richard Wetherill.

Out of the hikers' probing curiosity arose a host of questions, some of which Fred had been asking for years. What really happened here? What had been taken from this site? Where were the artifacts now? How could the group learn more about the archaeological sites in Grand Gulch and the history of their excavation? Contemplating the fates of early explorers and their discoveries quickly became an absorbing pastime for the hikers. They also began to talk about



*Cliff dwelling in an alcove up-canyon from Cave 7, Cottonwood Wash.*

what they could learn by looking carefully at the evidence around them in the "outdoor museum" of Grand Gulch.<sup>6</sup>

Julia Johnson, a retired entrepreneur and resident of Boulder, Colorado, took particular notice. She was fascinated by the idea of returning to the Southwest some of its heritage that had been lost to collectors and museums across the country. An energetic woman with a practical bent, Julia raised still more questions: Were the Basketmaker artifacts that had come from Grand Gulch now in private collections? Were they lost to history? Or were they stored in some museum, safe but hidden away in dusty cabinets? The more the group thought about these questions, the stronger grew their determination to answer them.

The whereabouts of some artifacts were well known to archaeologists familiar with the area. Many of those collected by McLoyd and the Wetherill brothers were in the American Museum of Natural History and the Museum of the American Indian in New York City. Some of those excavated by McLoyd and Graham were in the Field Museum of Natural History in Chicago. But no one seemed to know where other artifacts might be, nor did anyone have much insight about which specific alcoves were the sources of which artifacts—either in Grand Gulch or elsewhere in southeastern Utah. So far as Fred knew, no one had even a clue where to find Cave 7, the alcove in which the Wetherills made the first recorded discovery of Basketmaker culture. Nevertheless, he was confident that with a bit of hard work in the Gulch and a research trip to the American Museum of Natural History, the hiking companions could begin to make some connections.

Out of these conversations came the germ of an idea the group came to identify by the term "reverse archaeology"—the linking of items in museum collections with their original homes. A core of people from among the hikers committed themselves to pursuing this idea. They developed a common goal: to rediscover artifacts that had been removed from Grand Gulch and other canyon systems of southeastern Utah a century earlier. With Julia Johnson's initial funding, prodding, and practical approach to action, they began.

Later, those on the hike would look back with amusement on the last night out as a portent of trials to come. Caught short of their campsite after sunset, the group trekked in darkness through an increasingly brushy, wet, confined gorge. At last reaching its far end, they found themselves inching across a narrow sandstone ledge above a large pool of cold water. One misstep and they would find themselves and their backpacks in the drink.

Somehow, everyone made it across successfully. Tired and grumpy, the hikers stumbled into camp in the dark, barely noticing their surroundings. In the morning they awoke to an array of Ancestral Pueblo pictographs and petroglyphs illuminated by the dawn. Images of deer, mountain sheep, and people in fantastic headdresses loomed above them. This must have been a special place, they felt, for the ancient dwellers of Grand Gulch. No one even noticed the faint signatures and other inscriptions left among the ancient rock art by early archaeological adventurers. That discovery would be made later.

Of the thirteen members of that 1986 expedition, five—Fred Blackburn, Julia Johnson, Ann Hayes, Bob Powell, and Carl Weil—agreed to work together on the project. Soon they were joined by Ann Phillips, an educational consultant from Boulder, whose energy and enthusiasm later helped keep them going when the project threatened to bog down. Within several months the group had drawn up a written agreement that became the basis for their quest—officially, the Wetherill-Grand Gulch Research Project.

The group's initial idea was to locate and photograph the artifacts stored at the American Museum of Natural History and then mount a photographic exhibition in southeastern Utah. In this way they would symbolically return the artifacts to their origins. Before leaving the canyon, Fred agreed to develop a proposal and a budget for photographing the known Basketmaker artifacts at the New York museum, and Julia committed funding to the endeavor.

At that early stage, the project looked relatively straightforward. As it evolved, however, it grew in both scope and membership. The original project team was later joined by photographer Bruce Hucko and archaeologist Winston Hurst, after Bob Powell and Carl Weil left the project. Joel Janetski, associate professor of anthropology and director of the Museum of Peoples and Culture at Brigham Young University, loaned his name and staked his reputation



*Quail Panel, Grand Gulch.*

as official "principal investigator," a role demanded by the research proposals the group submitted. Many other allies gave financial backing, sage advice, and access to historic letters, photographs, and other documents.

By the time the project formally concluded in May 1990, its members had each contributed hundreds of hours of time, significant amounts of money, and intense intellectual effort. What they gained from the effort was immeasurable—a more thorough understanding of southeastern Utah archaeology, museum practices, research methodology, and the history of Southwestern archaeology. Most importantly, they gained a deeper sense of their own abilities and of what individuals working together could accomplish.

*The tortuous course of Grand Gulch and its tributary canyons.*

**G**RAND GULCH, A SERPENTINE COLLECTION OF ARROYOS, DRAWS, AND CANYONS draining a large part of southeastern Utah, epitomizes the natural beauty and daily challenges that shaped the ancient people's lives. Hiking through the Gulch today gives one a solid appreciation of the survival skills the Basketmakers and their descendants, the Puebloans, possessed. They must have been highly inventive and hardy, too, in order to wrest a living from this harsh land.

Grand Gulch is aptly named. It makes a deep, seventy-five-mile-long cut in Cedar Mesa, creating a fissure where sheer sandstone walls tower hundreds of feet above the traveler. Depending on circumstances, visitors have either loved or hated this place. The naturalist Ann Zwinger wrote:

To me there is an enchantment in these dry canyons that once roared with water and still sometimes do, that absorbed the voices of those who came before, something of massive dignity about sandstone beds that tell of a past long before human breathing, that bear the patterns of ancient winds and water in their crossbeddings.

Here I find something of necessity. Were I to discover that I could not walk here again, something essential would be missing from my life.<sup>7</sup>

To Platte Lyman, however, leader of a group of Mormon settlers, the Gulch's grandeur in the harsh winter of 1879–80 must have seemed a cruel joke. Traveling east from Cedar City to found the settlement of Bluff, Utah, Lyman and his party entered the canyon in search of a passable route across southeastern Utah. Its steep defiles and rugged terrain inspired the settlers to name the chasm Grand Gulch, but they suffered there from snow, frost, deep mud, and bitter cold. Winter temperatures in this desert climate can soar from below zero in the predawn to the forties or even fifties in sheltered canyons during the day, only to plummet again as soon as the sun sinks. Lyman complained in his journal:

The country here is almost entirely solid sand rock, high hills and mountains cut all to pieces by deep gulches which are in many places altogether impassable. It is certainly the worst country I ever saw. . . . Last night was the coldest night I ever experienced. It was impossible to be comfortable in bed or anywhere else.<sup>8</sup>

In summer, the sun, whose warmth is so welcome in the winter, becomes a menace. As many unprepared hikers have discovered, summer temperatures in Grand Gulch often soar to well over one hundred, especially along the south-facing talus slopes. At night, the extreme heat quickly gives way to canyon breezes, making sleeping bags a virtual necessity even in mid-August. Cooling rainstorms have their destructive side as well, for they often cause narrow canyons to become deadly flooded raceways whose waters carry everything before them in a wild rush of foam and debris. Yet unless it rains, water at this time of year is scarce. As T. Mitchell Prudden put it in 1906:

Here is elemental life, here is genuine freedom; but these exalted states are not to be won without strict conformity to the inexorable requirements of the land. Water is often very scanty, and usually, to the uninitiated, very hard to find; and the ignorant and foolhardy can readily die from thirst.<sup>9</sup>

Between the extremes of blistering summer days and darkest winter nights lie the favorable means of late spring and early fall. It is then that Grand Gulch welcomes the traveler and soothes the psyche.

When Richard Wetherill and his brothers dug Cave 7, the southeastern Utah alcove that afforded the defining moment in the discovery of the Basketmaker people in 1893, he was headed for Grand Gulch, about three days from Bluff by horseback and pack train. Today, Grand Gulch is only forty-five minutes from Bluff by automobile. This magnificent piece of geology, managed by the U.S. Department of Interior's Bureau of Land Management, draws visitors with its rugged beauty, its sheltered remnants of ancient cultures, and its challenging natural environment. For those willing and able to read its signs, Grand Gulch tells a fascinating story of ancient habitation and historic exploration.

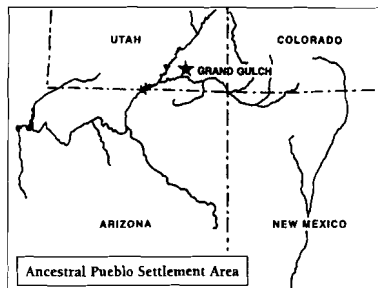
Yet the Gulch's very attractions are now under siege from both humans and nature. Arroyo cutting caused by years of overgrazing, along with high levels of visitation and deliberate looting and vandalism, is slowly but surely destroying Grand Gulch's irreplaceable resources. We risk losing the last evidence that more than two thousand years ago Grand Gulch was the home of the Basketmaker people.



## CHRONOLOGY OF THE GREATER FOUR CORNERS AREA

DATE	PERIOD	DISTINCTIVE CHARACTERISTICS
A.D. 1350–1600	Pueblo IV	Large plaza-oriented pueblos in Rio Grande and western Pueblo areas; low kiva-to-room ratio; kachina cult widespread; comugated pottery replaced by plain utility types; B/W pottery declines relative to red, orange, and yellow types.
A.D. 1150–1350	Pueblo III	Large pueblos and/or "revisionist great houses" in some areas, dispersed pattern in others; high kiva-to-room ratios; cliff dwellings; towers; triwalls; comugated gray and elaborate B/W pottery, plus red or orange pottery in some areas; abandonment of the Four Corners by 1300.
A.D. 900–1150	Pueblo II	Chacoan florescence; "great houses," great kivas, roads, etc., in many but not all regions; strong differences between great houses and surrounding "unit pueblos" composed of a kiva and small surface masonry roomblock; comugated gray and elaborate B/W pottery, plus decorated red or orange types in some areas.
A.D. 750–900	Pueblo I	Large villages in some areas; unit pueblos of "protokiva" plus surface roomblock of jacal or crude masonry; great kivas; plain and neck-banded gray pottery with low frequencies of B/W and decorated red ware.
A.D. 500–750	Basketmaker II	Habitation is deep pithouse plus surface storage pits, cists, or rooms; dispersed settlement with occasional small villages and occasional great kivas; plain gray pottery, small frequencies of Black-on-white (B/W) pottery; bow and arrow replaces atlatl; beans added to cultigens.
A.D. 50–600	Basketmaker II (late)	Habitation is shallow pithouse plus storage pits or cists; dispersed settlement with small, low-density villages in some areas; campsites important as well (?); no pottery; atlatl and dart; corn and squash but no beans; upland dry farming in addition to floodplain farming.
1500 B.C.–A.D. 50 (early)	Basketmaker II	Long-term seasonal (?) use of caves for camping, storage, burial, rock art; San Juan anthropomorphic style pictographs and petroglyphs; camp and limited activity sites in open; no pottery; atlatl and dart; corn and squash but no beans; cultivation primarily floodplain or runoff based (?).
6500–1500 B.C.	Archaic	Subsistence based on wild foods; high mobility; low population density; shelters and open sites; atlatl and dart; no pottery.

Source: William Lipie (1983), used by permission.



Decorated Basketmaker baskets from Grand Gulch in the collection of the American Museum of Natural History.

**WHO WERE THE BASKETMAKERS? THE SHORT ANSWER IS THAT THEY WERE THE** ancestors of the Pueblo peoples who built the cliff dwellings at Mesa Verde and the graceful, symmetrical great houses of Chaco Canyon. Compared with what archaeologists know about the lives of the Pueblos, they know relatively little about the Basketmakers. An adaptable people, the Basketmakers at first lived in roughly circular pithouses dug into the earth, sometimes inside rockshelters. They apparently brought agriculture to the Southwest, focusing first on the cultivation of corn (maize) and squash. Later, as their society became more complex, they introduced beans—an important protein source—and developed pottery. Still later, they established permanent, above-ground dwellings of stone and adobe. In these later stages, the Basketmakers became what archaeologists now recognize as the Puebloan peoples, ancestors to the dozen or so Pueblo tribes of twentieth-century Arizona and New Mexico.<sup>10</sup>

Both archaeological research and Pueblo oral tradition, handed down in sacred myths and secular stories, confirm the general relationship of descent from the Ancestral Pueblo to the historically known Pueblo Indians. Yet despite years of study, the precise connections between specific historic Pueblo tribes and their ancestors remain unclear. Massive population shifts during the twelfth and thirteenth centuries A.D. severely disrupted Ancestral Pueblo society and obscured the lines of affiliation between prehistoric and historic groups.

The name *Basketmaker* was originally coined in January 1894, shortly after Richard Wetherill and his brothers excavated nearly a hundred skeletons from an alcove in southeastern Utah. Those skeletons belonged to an era later termed Basketmaker II by archaeologists who were struggling to organize their data in a meaningful developmental sequence. This term was formally introduced to the archaeological community and defined during the first Pecos Conference, held at Pecos Pueblo, New Mexico, in 1927.<sup>11</sup> Attendees at that conference originated the basic archaeological classification system still used today in Southwestern archaeology. Because evidence of an earlier "Archaic" tradition was just being unearthed when the first Pecos Conference met, the Pecos sequence began with the Basketmakers.

The Pecos archaeologists in 1927 had no way to reckon absolute dates. Neither the highly accurate dendrochronology (tree-ring dating) nor the more broadly applicable radiocarbon dating method had yet been developed. To place their finds in chronological order, they had to rely on relative dating, which was based on changes in architectural remains and pottery types observed in soil layers stratified one above the other, from oldest to youngest, at excavated archaeological sites.

The Pecos archaeologists assumed, reasonably, that because the Basketmaker sites then known revealed evidence of a relatively sophisticated people who practiced agriculture, there must have been an earlier Southwestern group who did not. Hence, they gave the name Basketmaker II to the people whose remains the Wetherills had found, reserving the term Basketmaker I for precursors whose remains had not yet been discovered. Recent research suggests that people exhibiting recognizable Basketmaker II traits lived on the Colorado Plateau at least as early as 1500 B.C. and perhaps earlier.<sup>12</sup>

At the end of Basketmaker II times (about A.D. 400–500), these people began to create crude forms of pottery and to use the more efficient and accurate bow and arrow instead of the atlatl, a weapon or hunting implement that combined a short spear with a throwing handle. As the culture grew in complexity, it changed in ways that led the Pecos Conference participants to name its time period Basketmaker III (today often called Modified Basketmaker).

During Basketmaker III times, families banded together to form pithouse villages. By about A.D. 700, beans had become an important part of the Ancestral Pueblo diet, improving nutrition. Because tightly woven baskets will hold liquids, the Basketmakers probably cooked squash, cornmeal, and even meat in a stew by putting hot rocks in a basket filled with water and food. Beans, however, are extremely difficult to cook in a basket because they must be boiled for hours. During Basketmaker III times, pottery making became more sophisticated, in part, some archaeologists believe, because the Ancestral Pueblos needed clay pots in order to cook beans properly.

In the early eighth century A.D., the Basketmakers began to evolve into what to our modern eyes are the more familiar Pueblo people. Archaeologists divide the Pueblo cultural sequence into five periods, from Pueblo I through Pueblo V, the historic period. Early Pueblo I people built sturdy stone and adobe houses and lived in loose clusters of family farms and small villages. By late Pueblo II and into middle Pueblo III times, their larger villages had become strikingly beautiful towns like those of Chaco Canyon or Mesa Verde, which often come to mind when we think of prehistoric Pueblo culture.

One of the strongest pieces of evidence that the developmental phases defined by the Pecos Conference indeed represent a steady cultural evolution is the kiva. In modern pueblos, the kiva is generally an underground chamber that serves as a place for religious observances and as a meeting room for the men of the tribe and sometimes the women. It seems to have developed directly from the Basketmaker pithouse, for it retains many of the elements of that earlier structure.

At the time of the first Pecos Conference, the Basketmaker I period existed only as a hypothesis. Remnants of earlier people had not yet been recognized in the archaeological evidence. Since then, archaeologists have discovered evidence of people they term *Archaic*, who made their living by gathering wild foods and hunting. These precursors to the Basketmaker II people followed ripening seeds and migrating game as the seasons changed, making their

homes in base camps located at the heads of canyons where good shelter was available and water was plentiful. A few Archaic groups probably grew some corn, squash, and other crops, but they devoted relatively little energy to agriculture.

How—and indeed, whether—the Archaic foraging peoples eventually became the agricultural Basketmakers spurs intense research efforts today. Archaeologists studying the origins of the Ancestral Pueblos examine, among other things, how corn agriculture was introduced into the Southwest. Although experts agree that corn and farming technology arrived in North America from Mexico and that the Basketmakers played a major role in developing them, no one knows just how that transition took place. Did the Basketmakers move in from the south, bringing corn and corn ceremonies with them? Did they evolve from the indigenous Archaic peoples? Or is the solution to the puzzle even more complicated? The story of the Basketmakers, more than a century after their discovery, is still unfolding.

The scientific study of the Basketmakers began with the work of amateurs unschooled in the emerging discipline of archaeology. The Wetherill–Grand Gulch Research Project demonstrates that the tradition of serious amateur involvement in archaeology remains strong. Whether or not the origins of Southwestern agriculture are resolved in the near future or remain a subject of inquiry for many years, the Wetherill–Grand Gulch project has demonstrated that museums contain important evidence bearing on these and other questions—evidence that has been largely overlooked because no one knew precisely where it came from. By doing “reverse archaeology,” project members have given much of that material a provenience and a more secure place in history.

This book tells several interlocking stories. It chronicles the first expeditions into Grand Gulch at the close of the nineteenth century, the explorers’ gradual recognition of the early Basketmaker culture they found there, and the economic forces that caused their artifact collections to become fragmented and scattered around the country. It tells how the dedicated amateur scholars of the Wetherill–Grand Gulch Research Project rediscovered those artifact collections and unearthed much additional historical material—a story with its own share of suspense. It summarizes the results of a century of Basketmaker archaeology. And finally, it asks what the future holds in store for the Southwest’s endangered prehistoric remains.



Basketmaker dart points, stone awls, and drills.