

THE ANASAZI: PEOPLE OF THE FOUR CORNERS

by

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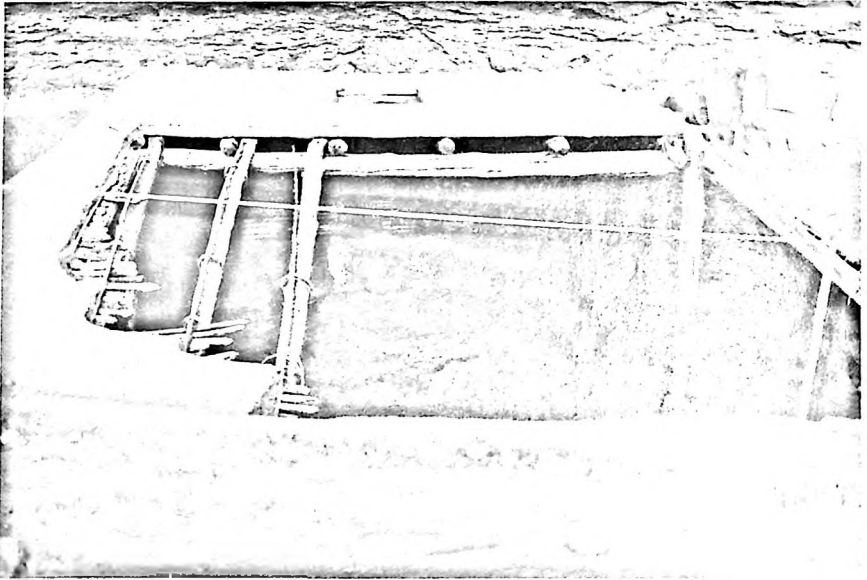
In the Four Corners region where the states of Colorado, Arizona, Utah, and New Mexico join, there once lived a prehistoric people who have been given the name, Anasazi. While they have been studied by archaeologists for many years, there is still much that is not known about them, especially their social organization. There are several areas of controversy including just what was the purpose of the large complexes such as those in Chaco Canyon, and what was the round underground room used for? In truth, there is much more than is unknown than known regarding the Anasazi.

The Navajo word, Anasazi, is most often translated to mean 'ancient ones,' but the word may be translated as 'alien ancient ones,' 'enemy ancestors,' or 'ancestors of the alien people.' Because of the conflict between the Navajo and the Hopi, possible descendants of the Anasazi, which continues to the present over control of the land, the Navajo may view the Anasazi as enemy ancestors.

At the 1927 Pecos Conference, the period of the Anasazi culture was divided into nine stages starting with the Oshara Tradition and continuing to the present. The Oshara Tradition was that time when the ancestors of the Anasazi were wandering throughout the greater Southwest as hunters and gatherers with no permanent settlements. Their major weapon was the spear, with which they used the atlatl to aid in accuracy and distance. These people left very little behind for the archaeologist to study.

The first group to be classified as Anasazi were given the name of Basketmakers by Richard Wetherill, a rancher in southwest Colorado, who developed a strong interest in these earlier settlers. He gave them the name because of the very fine baskets woven by them for use as storage containers and cooking vessels. At first, the Basketmakers were wanderers with no permanent homes, but with the introduction of farming they began to settle down and build dwellings of a temporary nature as well as storage pits. The crop that was first cultivated was maize, or corn, which had first been domesticated in Mexico around 4000 BC and had slowly made its way north. The Basketmaker would plant the seeds in a favorable area and then move on to hunt and to gather wild plants and nuts. Toward the end of the growing season, the people would return to collect what crops had grown and had not been collected by the birds and animals. During this period the turkey and the dog were domesticated but neither seems to have been used as food.

A number of changes occurred around AD 450-750 in the life style of the Basketmakers. There was the introduction of the bow and arrow which was a major advance in hunting, and with the arrival of beans as an important source of protein there was a need for something to cook them in other than baskets lined with pitch. The development of pottery made it possible to utilize this new food source. It is suggested that all or most of these new items were introduced to the Basketmakers



Pit House, Step House; Mesa Verde National Park

by neighbors to the south. Some authorities have suggested that the additional protein may have stimulated the population into a cultural leap forward.

As the importance of farming increased, the people were forced to remain in the areas near their fields and to build more permanent housing. The dwelling that came about was the pithouse which was dug about twenty-four inches into the ground, after which a framework of poles was placed over the pit and covered with soil to provide walls and roof. The house was entered through an antechamber, and the main room was divided into cooking and other areas. It was a single-family dwelling with food storage pits sometimes separated from the house. The depth of the house into the ground put it below the frost line and provided superior thermal qualities. Over the period of time, the size of the pithouse grew and certain changes included a roof entrance.

Fire was a major threat to the pithouse and its occupants, and most of those that have been excavated have been burned. There is the possibility that there was a custom or ritual that required the house to be burned if someone died in the house; the Navajo have a similar custom. If someone dies in the hogan, no one will live in it again.

Another change that fooled archaeologists for a while was the discovery of skulls that had a different shape from those examined previously. It was thought that a new group of people had moved into the area until someone suggested that the use of a hard cradleboard had flattened out the back of the childrens' heads causing a wider skull. This was also the time of the introduction of cotton, the full-groved axe,

and the corrugated pot which was a better conductor of heat than a pot that was smooth on both sides. While crops were providing more and more of their food, they were still hunters and gatherers with uncultivated plants contributing a large percentage of their vegetal food. One of those plants was the yucca which furnished food along with soap and materials for sandals.

As a result of these numerous changes in their life style, the Anasazi advanced into what is called the Pueblo period. The pithouse was dug deeper with the antechamber becoming the ventilator and the banquette above the ventilator being enlarged to form a recess which resulted in a keyhole shape for the room. The above-ground storage rooms became living areas during the warmer times of the year, and the underground round rooms developed other uses. Stephen Lekson spoke of these rooms at Chaco. He said, "In my opinion, almost all the 'Kivas' at Chaco Canyon were simply elements of domestic building, one room of several (together with rectangular living rooms and storage rooms) making up a 'home' or the basic unit of domestic building." (*Great Pueblo Architecture of Chaco Canyon, New Mexico, p. 6*). It is just possible that this was the role played by these rooms in most cases. The fact that there is a sipapu or "spirit entrance" hole in the floor of some of these round rooms has resulted in the room being considered to be religious in nature. A future archaeologist studying a modern dining room and finding a straw inlaid cross and a retablo of the Holy Family on the walls might be just as easily misled. The underground rooms are easy to heat in cold weather, and all seem to have hearths, but many of the large rooms above ground show no evidence of fires. A Ute once stated that the body heat from six men had made an underground round room comfortable on a cool day. There is also the belief that these rooms were used at times for the exchange and redistribution of goods. There might have been a number of uses that were not religious in nature.

There are instances where rooms above ground seem to have been designed to increase warmth. At Chimney Rock near Pagosa Springs, Colorado, some rooms were massed to increase the insulation factor. At Chaco Canyon the round rooms above ground often had a square wall built around them, and the space between the two rooms was filled with soil for support and for insulation. It is also interesting that none of the round rooms had a sipapu in the floor.

Two other architectural features for which there seems to be no answer as to their purpose are the T-shaped doorway and the tri-wall structure. The greatest concentration of T-shaped doorways is found at Chaco Canyon and Mesa Verde with the second largest concentration in the Mexican state of Chihuahua. Often at Chaco these doors open onto a plaza or onto the roof of an elevated round room. At one time, the explanation for the shape of the door was that it made entering the room easier if one had a load on his back, but as of now, no-one has come up with a reason for the shape based on archaeological evidence. The tri-wall structure is located in several areas including Chaco Canyon and Aztec Ruins. It might have served a religious purpose, but again there is no definite answer as to its use.

Beginning in some areas around AD 1000, there was a growth of population that was coupled with a more sedentary life style. This resulted in the development of larger communities. Farming had become a full-time occupation with the Anasazi

constructing checkdams and water-control devices in an attempt to increase yields of corn, squash and beans. This new development reached its greatest heights in the San Juan Basin and is known as the Chaco Phenomenon. Nothing shows this better than the Chacoan art which became the norm for the Anasazi world, and both pottery and turquoise jewelry were outstanding.



Long House, Mesa Verde National Park

In the Chaco region, where 2528 archaeological sites have been inventoried and twenty-seven have been excavated or tested, there are still many questions regarding the lives of the people who lived there. They built a road system of over three hundred miles, and yet they had no wheeled vehicles or draft animals to use the roads. There are steps leading out of Chaco Canyon that connect with the roads which run straight with no curves, and which have curbs in some sections. They were from twenty-five to forty feet wide and they connected the smaller settlements now known as outliers. Two examples of these towns were Aztec in New Mexico and Chimney Rock in Colorado. It is thought that the roads served an economic purpose by bringing crops to Chaco for distribution to communities that had experienced a crop failure. There could also have been a ceremonial purpose with people coming to celebrate a special event with specific rituals. It is possible that the large complexes were used for religious purposes or for distribution of food and not as living quarters for a year-round population.

Complexes such as Pueblo Bonito show careful planning and several stages of construction. There are over 1,000,000 dressed stones used in Pueblo Bonito with

many of the rooms being twice the size of rooms in other buildings. The complex faces south to take advantage of passive solar heating and contains one-half of all the corner windows and doors found in all the buildings. One of the corner windows could have been used to predict the winter solstice. It may have been used alone with the Sun Dagger located on Fajada Butte in Chaco Canyon. The construction of Pueblo Bonito is superior to any construction at Mesa Verde, and this is very easy to see by studying the construction of the rear wall.

The farmers in Chaco depended on runoff and not on streams to provide the water that was necessary for their crops. On top of the canyon, the water was channeled into specific runoff areas and directed down into the canyon where irrigation systems delivered it to the fields. As to the amount of water available in runoff, a one-hour summer storm has produced 540,000 gallons from one small side canyon. There is the distinct possibility that this runoff created problems at times and a large amount of the water was lost for irrigation purposes.

The society that developed in Chaco Canyon was extremely complicated and included a possible three-level hierarchy. There is much that will never be known about their social organization. One question is why the small villages were located on the south side of the canyon and the large complexes on the north side? There is not really much of a comparison between the modern Pueblo society and that society that developed in Chaco. Gregory L. Steward stated that "Similarities between modern Pueblo and the Anasazi are mainly the result of similar adaptations to similar environments." (*Proceedings of the Anasazi Symposium, 1981, p.157*).

A second area of Anasazi concentration was in the area around Mesa Verde. While it is estimated that over 30,000 Anasazi lived in the Montezuma Valley at the peak of population, only about 3500 lived on the mesa. Recent archaeological studies done in connection with the damming of the Dolores River have produced a comprehensive view of the total area.

No archaic or Basketmaker II ruins have been discovered on the mesa, probably as the result of people moving around, building on top of previous sites, and even reusing materials. Examples of the pithouse are found both on top of the mesa and in the caves used again in the Pueblo period. Several pithouses were excavated in Step House by the Park Service, and they also did a reconstruction. On top of the mesa, Badger House was opened to the public in the summer of 1987, and a number of other pithouses of special interest are located there.

On the mesa top more than one thousand checkdams were used to slow the runoff and to develop small plots for farming. Water was also stored in reservoirs such as Mummy Lake and two others that have been located. Long irrigation ditches were constructed to carry water to the fields and these ancient people seemed to understand that by slowing the runoff some of the water was able to percolate down through the sandstone and emerge as seeps or springs in the cliff dwelling areas.

The period of AD 1100-1300 was the classic period of Mesa Verde, with the masonry becoming better and better and the pottery designs more attractive. The sites from this time contain an exceptionally high number of small underground round rooms referred to as kivas, and at Long House there was a conversion of rooms to kivas along with a reduction in size of other kivas. There was also a greater than

usual number of storage rooms which raises a question, as storage rooms are often associated with great kivas and none have been excavated.

We really do not know what the big houses in Mesa Verde are like because they have not been studied. The result of a combination of lack of money, the desire to study them carefully, and available time has prevented this work. There are three great kivas that could be excavated at Kiva Point on the Mountain Ute Reservation, and other major structures are located at Goodman Point and Bug Point, including one structure with a base of about 900 feet.

Several structures such as Far View House would have been most difficult to live in during the winter, and as the climate became colder and the supply of wood decreased, more of the habitations on the mesa top might have become unsuitable. The last great building on the mesa top was Sun Temple which was never completed as the people moved into the cliff dwellings which provided warmer living conditions.

A smaller Anasazi group was located in Northern Arizona in the Kayenta area, and this location put them outside of the mainstream as is evident in their pottery during the Pueblo II and Pueblo III periods. Theirs was a more rugged region which helped keep life simple. They may have chosen to live in the cliff dwellings so that the valuable farmland would not be wasted and because it provided better protection from the weather. There was a nearby water supply for drinking and cooking, and streams may have supplied the irrigation water. The construction of their buildings was very poor compared to Chaco and Mesa Verde, and the major sites of Betatakin, Keet Seel, and Inscription House were not occupied over a long period of time. At Betatakin there was a peak population of about 125 people who built and used 150 rooms during a period from AD 1250-1286. There is a question of whether or not there were any underground round rooms or kivas here. There is one possible in the ruin and another one up the canyon. The people who lived at Betatakin came as a group and left as a group.

Keet Seel which is considered the best Anasazi ruin in Arizona was built and occupied during AD 1250-1300 with a population between 125 and 150 living in about 150 rooms. During this time, a number of changes were made in the rooms with several conversions of living areas to granaries, and several of these granaries were filled with corn and sealed when the inhabitants left. At Keet Seel one of the kivas was paved with slabs and had no sipapu.

There are six interesting aspects of the Anasazi culture that should be discussed. They are health, burials, cannibalism, the Mexican connection, Kokopelli, and why it all came to an end about AD 1300.

What little we know about the medical history of the Anasazi has been deduced from the remains. A major dental problem was worn teeth that resulted from the sand that was eaten along with the ground corn, and there were also the problems of tartar and pyorrhea. Many people over the age of twenty-nine had degenerative arthritis which was located in the spinal column for many. Poor hygiene, resulting from a lack of water and crowding, helped spread infections and resulted in diarrhea and respiratory problems. The turkeys that were kept in close proximity to dwelling units helped spread bacillary dysentery. Infectious diarrhea was probably endemic, and with other medical problems, the average Anasazi was dead by the age of forty.

There is a real mystery as to who was buried and where they were buried. Jesse Fewkes believed that he had found a special room at Mesa Verde that was used for cremations and that a round stone enclosure on the mesa top contained bone ashes. Richard Wetherill stated that he had evidence of cremation at Step House where bodies had been burned together with pottery in one large room. Neither of these discoveries has been substantiated by more recent archaeological work. Two groups of people who lived south of the Anasazi were the Hohokam who cremated their dead and the Mogollon who buried their dead in pits beneath their dwellings.

In Northern Arizona in the White Mountain region cinerary burials have been discovered where bodies were burned and the remains placed in grey vases. One major problem in studying the burials is the Navajo pothunters who have let greed overcome tribal taboos. Tsegi Canyon has been severely damaged by these pothunters for a number of years.

There is some evidence that burials indicated status as some were buried in a most elaborate way. At Yellowjacket, a young man was buried with a mat under his body and another across the center of his body, and a bowl placed near his head. In Jensen Canyon near Mesa Verde, John Wetherill uncovered a grave that contained a matting, five bodies with seventeen arrows across the head, and three infants on top of a large mat under which was an adult. Another burial was under a sandstone slab and buried with the man were his personal possessions.

In Kinboko or House Canyon near Marsh Pass a most interesting burial was discovered in 1914 by Alfred Kidder and Samuel Guernsey. In a three-foot-deep cist, there was the mummified upper body of a young woman with only one foot and no legs. The bones of an infant were scattered in her grave, and under her body was a possible trophy that may have once been tied around the woman's neck. It was the complete skin from the head of a man. The skin had been cut in three sections for removal from the skull and had been cured or tanned before being sewn back together. The hair was arranged in a most elaborate style, and the face had been painted several colors. No one today seems to know the reason for this item in the woman's grave.

At another location, the body of a man had been cut in half and then sewn back together before burial, and instead of sandals, the body wore moccasins. At Canyon del Muerto, a grave was opened that contained a pair of forearms and hands lying palms up, side by side, on a bed of grass. The wrists were wrapped with three necklaces with abalone shell pendants. There were two very fine pairs of sandals in the grave. There have also been graves in which only the skull was present.

A number of burials have been found in the refuse dump or midden that is a part of nearly all settlements. It was not a sign of disrespect to be buried there as the earth was considered sacred, and all things are from the earth and will return to the earth. It was also an easy place to dig a grave.

There is a scarcity of burials in Chaco Canyon with only seven hundred being recorded. It may be that others have been found, looted and not reported. It is also possible that many burials were in alluvial fill or in the fields and that rapid decay destroyed the remains. Another possible reason for the lack of burials could be that the major buildings were in use for only certain times of the year and there were



Spruce Tree House, Mesa Verde National Park

not that many deaths. At Kin Kletso there are seventy-six burials unearthed but Kin Kletso was built by outsiders who differed greatly from the earlier residents of the canyon. At Aztec Ruins most of the burials are from the Mesa Verde occupation after the withdrawal of the Chacoans. There are still more questions than answers regarding the disposal of the dead.

Another aspect of the Anasazi that invites a great number of questions but few answers was cannibalism. In San Juan County, Utah, there are at least fifteen documented sites that show evidence of cannibalism. At one site there are the mutilated bones of ten to fifteen people, and these bones indicate that the bodies were cut into pieces and scraped clean, and the bases of the skulls were broken open for the contents. In a twenty-two-room Pueblo in Mancos Canyon, Colorado, bones have been broken open for the marrow, the skulls cleaned and all bones broken. The fact that the vertebrae, torso and pelvic bones are missing would indicate that perhaps the people were killed at another location and that the bodies were butchered with only the meaty parts brought home.

In Northern Arizona, the remains of twenty-five to thirty humans were in a six-and-a-half-foot pit. While the vertebrae and pelvises were missing, there were a few ribs, feet, and hands. The arms and legs were broken into pieces four or five inches long which would be stewpot size. The ends of the bones were charred, but the middle sections of the bones would seem to indicate that they were cooked with the meat on the bone. In Penasco Blanco at Chaco, the debris of what has been referred to as a cannibal feast consisted of human bones, cracked open, and charred skulls. The question, is was this the remains of a religious ritual or were the Anasazi just hungry?

The amount of influence from Mesoamerica on the Anasazi culture is a topic that has aroused the interest of a number of researchers. One point of view is that

there was a process that took several thousand years but by the first century AD there was a chain of communities from Jalisco to New Mexico and Arizona. Both material goods and ideas traveled up this *pochteca*-like trade route with corn, squash, beans, cotton, macaws, and copper products coming along with new ideas in water control, human sacrifice, trophy heads, the Kachina Cult, and certain architectural features. The introduction of the great kiva which was thirty to sixty feet wide and two to five feet deep might be based on the circular community structure in Jalisco and could have been used as a *pochteca* trading center.

Some question this impact because of a lack of artifacts, but if a comparison is made with the amount of artifacts from the Spanish entrada, there is a similar amount of artifacts. The lack of artifacts of foreign or exotic nature is the rule and not the exception. The question is was the decline of Chaco related to the withdrawal of the *pochteca*?

According to several sources, the Kachina Cult was introduced about AD 1100, and the first deity depicted in rock art was a kachina known as Kokopelli whose image is seen from Mexico to the Pajarito Plateau in New Mexico. He is also a modern Pueblo kachina known as the Assassin Fly Kachina or the Humpbacked Flute Player. This kachina is often pushed into the back areas because of the non-Hopi restrictions on phallic exhibitions. He bears a resemblance to the Mayan god, Ek Chuah, and has a long nose, black body, humpback, and exposed genitals. The hump contains gifts for the women he seduces. The Hopi have added a female counterpart, Kokopelli Mana who seduces the men she catches.

There are still a few authors who try to make a mystery out of where the Anasazi moved to when they left the Four Corners area, but there is a consensus among archaeologists that the move was eventually to the Rio Grande, Zuni, and Hopi Pueblos. The real question is, why did they leave when they did? It was not a sudden event such as was considered by Nordenskiold and others who saw outside attackers such as the Navajo and Apache as the reason for leaving. It is now established that the Athabascans came into the area about one hundred years after the Anasazi had moved on to other places. There is almost no sign of warfare even in the guise of the raiding of anyone, including the Piutes who were mentioned at a recent conference. When the people left it was peacefully and in good order with small groups, possibly clans, leaving over a period of time.

In the Hovenweep country, the move was first to the heads of the canyons where water was available. Those in southwestern Utah held out longer than those in the Dolores Valley as they moved to the cliffs where it was drier and cooler and food storage was improved. This last item had become especially important as was seen in the building of a food storage complex in AD 1260. The narrow canyon provided springs and seeps and a greater diversity of plants and animals which was very important as the people were depending more on hunting and gathering than they had done for a number of years.

The question is, why did they leave? First, it was rare for any site to remain occupied longer than about one hundred years because of a reduction of available resources such as wood and game. At this point, there seems to have been a combination of reasons that often varied from place to place. In some areas, there had

been a rapid growth in population that strained the situation in both a physical and mental sense, and yet the small sites seem to have been abandoned first as new ideas are not as rapidly accepted by non-marginal groups. Often there was a local extinction of game and the carrying capacity of the land was reduced.

The people of Chaco started leaving about AD 1000, and the last major construction was in AD 1120. There was a later reoccupation, but everyone was probably gone by AD 1300. Did the eleventh-century collapse of the Toltec Empire and the overthrow of their outpost at Casas Grandes have any effect on Chaco? Was it a combination of several things including loss of ground cover, arroyo cutting, changes in precipitation patterns, alkalization of the fields, disease, social and/or religious breakdown, or was it just that times change and it was time to move on? It could have been any or all of these factors.

Tree rings are a better indicator of winter moisture than summer moisture, and while winter moisture dominated before AD 800, there was a shift to summer rains from AD 750-1100 which when combined with the removal of forest cover would increase the runoff and reduce the amount of water available for crops. This combined with several other factors would have had a decided impact over this long period.

It seems that the more that is discovered about the Anasazi the less is really known. Over the years, some have believed that they had the answer to the social organization of these people. One of these was Neil Judd who described the daily lives of the residents of Pueblo Bonito for the readers of National Geographic. Another group was the employees of the National Park Service who, well into the 1970s, told how 1000 people lived in Pueblo Bonito and that 7000 lived in the canyon. The problem is that archaeology can not determine social organization and come up with all the answers, but if answers are not available, some people will make them up.

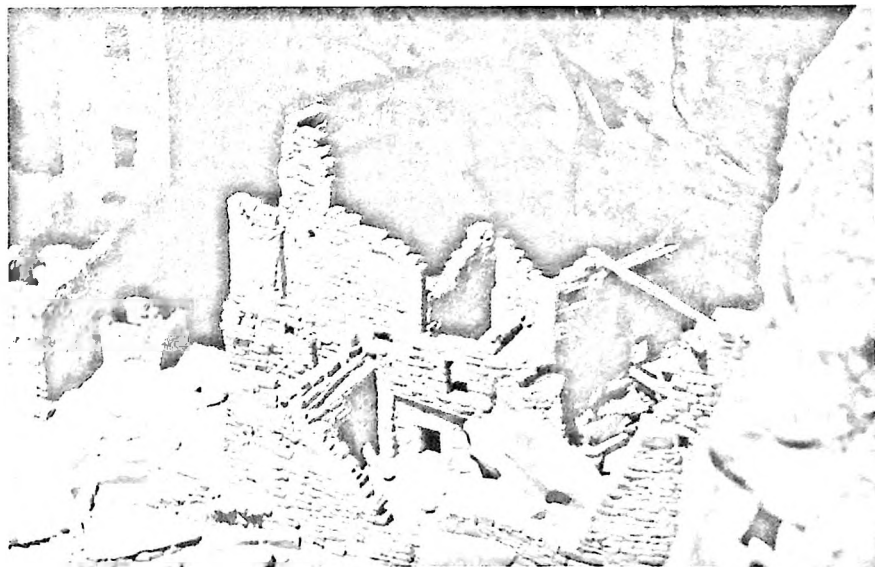
As Paul Grebinger wrote, "In Southwest archaeology there has been a substitution of analogies from present behavior and its material products for archaeologically derived description and explanation of past behavior." (*Discovering Past Behavior—Experiments in the Archaeology of the American Southwest*, p. 1). This ethnographic analogy which is a comparison with the modern Pueblo is full of possible mistakes, a number of which have been made in the past.

There are many facts that will never be discovered regarding the Anasazi, but archaeologists and others who have an interest in this topic will continue the search for information because the Anasazi lived in an area that still draws people to it in a spiritual way, and it is fun trying to find the answers.

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Square Tower House, Mesa Verde National Park