

## The Adventurers' Companion: Pueblo Bonito

Pueblo Bonito is the centerpiece of Chaco Culture National Historic Park, a park celebrating the Anasazi's accomplishments. None of the other storied Anasazi sites come close to matching the size, grandeur, or romance of the Anasazi's building here.

In comparison, Canyon de Chelly was a remote backwater, Hovenweep a collection of farmsteads, and Mesa Verde a cluster of villages. Chaco Canyon was a state that rivaled European kingdoms of its era. Consisting of at least fourteen great pueblos and countless small villages all linked together by well-defined roads, Chaco Canyon was the leader in social, agricultural, and architectural development.

Pueblo Bonito was the center of it all. Rising five stories tall and containing between 650 and 800 rooms, Pueblo Bonito was the core of an urban metropolis unlike anything else in North America. Revered by the ancients, venerated by their descendents, and acclaimed by modern scholars, Pueblo Bonito was the site of the Anasazi's greatest accomplishments and, perhaps, the fallible lynch pin whose abandonment presaged the collapse of the entire society.

### Getting There

Chaco Culture National Historic Park is located in north central New Mexico. The best access is from US Highway 550, a modern ribbon of asphalt laid over some of the least hospitable land in the southwest.

From Albuquerque, drive north on Interstate 25. Take exit number 242 toward Rio Rancho and then US 550 north toward Farmington. Be alert here because the exit and turn to US 550 are less than a half-mile apart. About 115 miles from Albuquerque, just south of the hamlet of Nageezi, turn left (west) on the signed road.

From the north, catch US 550 in Bloomfield, New Mexico, and drive south. Just a mile past Nageezi, turn right on the signed road.

Once you leave 550, the route is marked with signs at key intersections. Drive carefully and obey posted limits because you will soon hit some rough dirt roads. Don't worry! The road is rough but passable—I once drove it in a Corvette! Avoid visits immediately following thunder or snow storms, and call ahead to check on road conditions if you are concerned; (505) 786-7014.

Services in the park are extremely limited. Plan to spend a full day, bring lunch with you, and fill up your fuel tank before leaving 550.

When you reach the Park, follow the well signed route to the Visitors' Center. Pay your entry fee, watch an informative video, check on weather conditions, and see what special programs are scheduled. You can also walk to Una Vida, a proximate great house, and look at the petroglyphs high on the cliff face.

Before you leave the Visitors' Center, make sure you have drinking water (this is your last chance to refill bottles and canteens), use the rest room if you like (those elsewhere in the park are somewhat primitive), and check current offerings in the bookstore.

When you are ready to go, turn right out of the Visitors' Center parking lot and drive approximately 4 miles. The parking area at Pueblo Bonito is well signed and you should have no difficulty finding it.

### Stop by Stop Guide

Pueblo Bonito is a large and complex site. You may enjoy wandering on your own, but I suggest you follow the route outlined below before branching off. To help you find your way, directions to specific locations are printed in bold text while my commentary is in plain text.

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### At the Pueblo Bonito Sign

**From the parking area, follow the trail toward Pueblo Bonito and make your first stop at the sign describing the structure.**

The artist's rendering is consistent with recent research and may stimulate your imagination. While you are at the sign, take a moment to look at the landscape around you. Today you see an arid valley scarred by a deep wash in the center. Things would have looked far different if you had visited during Chaco's heyday.

Chaco reached its zenith around 1130, and archeologists refer to the preceding century (1030-1130) as Chaco's Golden Century. During that era, you would be standing in the middle of "Downtown Chaco," a fully developed area bounded by Pueblo Bonito, Chetro Ketl to the east, and Casa Rinconada on the south.

The east side of Pueblo Bonito blended into a series of small terraces with adobe plastered surfaces, and both the buildings and the terraces would have glowed with a beautiful golden light in the morning sun.

Now, look at the cliff face between Pueblo Bonito and Chetro Ketl. Notice that the surface is smooth and that there is no rubble at the base. You are looking at the remains of an enormous man-made amphitheater. We will say more about this feature at the end of our tour.

Finally, the land would have looked far different. Where there is a wash and dry scrub today, the Anasazi maintained well tended farm fields. Planted with corn, squash, and beans, the fields were a lush green in the spring and turned a golden brown as the harvest neared. At other times of the year, reddish earth, stone boundaries, and irrigation channels would have been visible.

**When you have had your fill, continue up the path toward the pueblo. Stop at the large boulder near the southeastern corner of the structure and read the bronze plaque.**

### At the National Geographic Boulder (Southeastern corner of the structure)

The plaque acknowledges *National Geographic* magazine's contribution to research at Pueblo Bonito.

When you turn to the pueblo itself, you will notice that it is best described as an empty shell. Its current appearance is the result of three factors.

1. Pueblo Bonito was originally built in five major construction episodes from 860-1140. Stone from the cliffs behind provided most of the construction material while logs from the Chuska and San Mateo Mountains roughly 60 miles away served as beams. Later occupants (circa 1180-1250) modified the structure by adding kivas, dividing rooms, and filling abandoned rooms with trash. All told, construction and remodeling consumed approximately 805,000 person hours of labor.
2. Southwestern archeology was in its infancy when Pueblo Bonito was excavated and the archeologists concentrated on removing artifacts and disclosing the structure. Richard Wetherill worked here from 1896 to 1899 and moved rubble from room to room as he dug. Neal Judd supervised the *National Geographic* excavations and adopted a more aggressive approach. He laid railroad tracks and used ore carts to haul rubble to the wash. An estimated 100,000 tons of debris were dumped in Chaco Wash and subsequent floods carried it away. That is why the structure is so empty and it is so difficult to estimate the actual size of the building.
3. Finally, look at the pile of broken stone at the north eastern corner of the structure. That pile is the remains of Threatening Rock, a stone spire separated from the cliff face. A hundred yards to the east you can see another one, roughly 40% the size of Threatening Rock. We don't know why the Anasazi built beneath such a feature, but they did it elsewhere (Tse Tso in Canyon de Chelly) and it's clear that they were aware of the

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danger—the remains of a retaining wall are still visible beneath a large chunk and archeologists recovered a number of prayer sticks from the gap. Threatening Rock collapsed in 1942 and the Park Service built an overlook on top of the pile. The overlook is our final destination, but we've got a lot to see before we get there.

**When you are ready to move on, bear left and walk along the front of the structure. Ignore the Park Service sign suggesting you turn right; we will get to the same place, but you will get a better sense of the structure by working from the front to the back.**

### Along the Front Wall

**Walk past the modern door cut into the face of the pueblo and find a convenient place to stop.**

The east wing of the pueblo is the final major piece constructed by the original builders. The stonework here is among the most refined and may be the best example of the Anasazi's artistry in stone.

Curiously, the original occupants seldom saw the masterful work. The entire surface of the pueblo was coated with a layer of clay stucco that was regularly replenished. Rainfall is infrequent in Chaco, but the stucco prevented moisture from seeping into the joints and weakening the walls.

Now, turn your gaze to the left. The piles of earth here are the remains of two gigantic mounds. These mounds are unique in that they contain little trash and appear to have been deliberately created for purposes other than disposal. Both are contained within stonewalls and the tops were repeatedly plastered with adobe.

Scholars are unsure why the mounds were created. Some believe they restricted access to the pueblo, perhaps topped by wooden palisades that have rotted away. Others think the mounds were platforms created to host specific ceremonies. If so, these mounds were part of a "ritual landscape" with special meaning to the Anasazi.

**When you are ready to move on, continue along the path and turn right, into the pueblo through the next doorway.**

### Inside the East Courtyard Door

**Pause just inside the door or take advantage of the bench on your left.**

You are just inside the east courtyard. Look back and around you. I think this is the best place to appreciate the size and grandeur of Pueblo Bonito. The remnants of the back wall stand nearly three stories tall; that's roughly half of the original height. In its heyday, Pueblo Bonito stood at least five stories tall. Were you here near the end of the golden century, you would be looking into a magnificent tiered bowl. The back wall was so tall that it blocked your view of the cliff behind while tiers of room suites stepped down to meet the open courtyard. In spite of the ravages of time, you still get the feel that you are standing at the focal point of a magnificent open air auditorium.

Notice as well the cruder masonry on your right near the front wall. This is the work of the final occupants. This style of masonry is characteristic of people from the Northern San Juan/Mesa Verde area and some archeologists interpret this work as evidence that people from the north occupied Pueblo Bonito for a time. Other archeologists argue that local people adopted the less demanding style when they reoccupied the structure.

It is difficult to date the additions here because their builders used beams scavenged from other parts of the structure. Although the dates are imprecise, it appears that the original builders abandoned Pueblo Bonito shortly after 1140. The structure was vacant for several decades and reoccupied around 1200. The new occupants added the room suites you see here, divided larger rooms into smaller ones, added a number of kivas,

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and deposited trash in some of the empty rooms. Eventually, around 1280, the new occupants left and Pueblo Bonito was vacant until rediscovered by modern explorers in the middle of the nineteenth century.

**When finished with your survey, turn right and walk up the short modern stairs to the small plaza created by the final additions.**

### Near the Kivas in the East Courtyard

Find a comfortable spot from which to look down into any of the small kivas located here. This is a good place to explain what we know about kivas, but watch your step and keep your children close. There are a number of spots where someone could take a nasty tumble.

Early archeologists concentrated on recovering artifacts and exposing the structure of Anasazi sites. As they worked, they encountered circular chambers partially buried with the structures along with large, free-standing stone circles near major pueblos. Determining what these circular chambers were and how they were used was hampered by the fact that most excavators simply disposed of the refuse found within. Fortunately, a handful of excavators were accompanied by Hopi workers whose tribe still used kivas. When asked, the Hopi said something on the order of “we call them kivas and we hold ceremonies in them.” The name, “kiva,” stuck as did the belief that they were exclusively ceremonial chambers. Fortunately, modern excavations elsewhere have told us a good deal more.

Modern excavators frequently find the remnants of daily living in many kivas. Broken ceramics, discarded stone tools and flakes, animal bones, plant stalks, and pollen top the list. All have been found on the floor rather than in the fill above. This suggests that these items were set aside in the course of daily living rather than deposited after the kiva was abandoned. In addition, careful excavations also identify socket holes in the floor where looms were installed.

What does all this tell us? It tells us that kivas were more than ceremonial centers. Of course, ceremonies were conducted in them, but kivas also doubled as work areas and social centers. In other words, kivas were akin to modern family rooms. They were cleaned for special events and used for mundane, daily activities the rest of the time.

You may wonder why occupants chose to conduct their lives in partially buried chambers. The answer can be found in the prevailing climate of the southwest; bitterly cold winters alternate with scorching hot summers and unrelenting wind is constant. The natural insulation provided by layers of dirt surrounding kivas protected occupants from these extremes and created some of the most comfortable spaces in the pueblo.

Kiva design was largely standardized by the time these were built and you can see some essential features here. Most kivas were entered through a hole in the roof and there is no ground-level entrance. The southern recess, or “keyhole,” is a common feature of Mesa Verde style kivas while Chacoan kivas are perfectly circular. You can read more about this variation in Chapter 2 of *The Anasazi Guide*. Notice also that there is a bench surrounding the interior wall and several piles of stone on the bench. We believe that the bench was reserved for ancestor spirits while participants sat on the floor. The stone piles supported the roof and they are called “pilasters.”

**After examining the kivas, follow the signed trail into the heart of the east wing. Again, watch your step and be prepared to duck. The doorways here were never as tall as modern ones and they seem even lower now because the rooms here have been partially backfilled.**

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### Inside the East Wing

**Count the number of doorways you pass through. After you pass through the fifth doorway, step out of the path and look around yourself.**

You are deep in the heart of the East Wing, the last major segment completed by Pueblo Bonito's original builders. Here you see an important part of the enduring mystery of Pueblo Bonito as well as the finest examples of their construction techniques.

Archeologists and others have been puzzled by the size of Pueblo Bonito. Why, they ask, did the Anasazi need all of this enclosed space? There is little consensus and several theories have been proposed.

Early explorers thought Pueblo Bonito was a gigantic apartment house, but there is little evidence to support this view. There is no sign of a population as large as the apartment house view suggests and archeologists think that the population of the entire canyon never exceeded 2,000 people. Moreover, excavators found no signs of habitation in the lower rooms. There were few artifacts and no hearths, and we can see that interior rooms without heat, light, or ventilation would not have been very inviting.

A second group argues that Pueblo Bonito was an enormous warehouse. Those who hold this view suggest that the Anasazi stored corn and other foodstuffs to tide them over when crops failed. That is an engaging suggestion, but look around you. Just as the rooms were not suitable for habitation, they are not very practical storage areas. Excavators found neither shelves nor racks, and hauling sacks of corn through four or five doorways would have been remarkably inefficient.

Personally, I am most partial to the third suggestion. The preserved lower floor rooms were architectural supports for the rooms above. Visiting structural engineers see the first few floors as a "honeycomb" and suggest that the interior walls were supports for beams which could only span about 20 feet or so. If this view is correct, people may well have lived on the upper floors but the primary purpose of Pueblo Bonito was to impress visitors and focus attention on activities in the central courtyards. In other words, we can think of the structure as an enormous back stage for ceremonies and other activities taking place in the half shell created by the structure.

While you ponder the question, take a careful look around you.

The stonework around you is all core and veneer masonry—facing stones on either side of a rubble filled core. This type of masonry is incredibly strong and made it possible for the Anasazi to build multistory structures. Overhead, cut off beams mark the location of ceilings which served as floors for the rooms above. Look carefully at the points where first floor walls meet those above. Walls of the upper stories are somewhat thinner than those below. This technique reduced the weight carried by lower sections while still retaining the strength needed to support the walls above. Notice also that not all of the wall alignments are perfect. At several places, second story walls are offset from those below. These misalignments tell us that the Anasazi built and roofed the entire first floor before building the second floor, and so forth.

There is one more thing you may wish to do before moving on. Look back on the trail that brought you to this point. If the light is good, this is the ideal spot to capture the classic Bonito post card photograph: several doorways each framed by the one in front of it. If the shot appeals to you, bend over to get your camera about 3 feet above the floor, focus on the second doorway in, and then frame the shot to capture the multiple doorways.

**You can explore further if you like. There is even a room with a restored ceiling to give you a feeling of what it was like in the heart of the structure. When you are done, retrace your steps or go out the modern**

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**door and circle around. When you get back to the east courtyard, follow the central dividing wall toward the back of the pueblo.**

### Survey the West Courtyard

As you walk along the dividing wall, there are a number of opportunities to glance into the West Courtyard. It is a mirror image of the East Courtyard, but not nearly as spectacular. The structures in the west wing are not as well preserved as those in the east wing; they may never have been finished. And, the people who reoccupied Pueblo Bonito made more changes here than in the east. As a result, there is far more crude masonry and fewer examples of the Anasazi's best work.

Moreover, the most important feature of the West Courtyard is no longer visible. When Judd excavated this area, he found the remains of a pit house village buried beneath the courtyard. The pit houses were far less spectacular than the pueblo and yielded few artifacts, so Judd reburied the remnants and moved on to more productive areas.

While Judd was uninterested, modern archeologists recognize that the pit houses tell us that people occupied this site long before Pueblo Bonito was constructed. The earliest segments of the Pueblo date to 860 and the pit houses may be a century or more older. A date of 760 would make the village a contemporary of Shabik'eschee Village on the mesa to the east and Penasco Blanco to the west. That makes Pueblo Bonito one of the spots in the southwest with the longest continuous occupancy.

**Now, continue along the wall until you encounter a large kiva that was nearly bisected by it.**

### At the Great Kiva

This kiva is considerably larger than the ones we examined earlier. Archeologists call it a "great kiva," and use that name to distinguish it from family and clan kivas. Family kivas are the smallest. They are generally less than 10 yards in diameter and are situated adjacent to or in a single room block. Clan kivas are intermediate in size, roughly 10 to 20 yards in diameter, and positioned near two or more room suites. Finally, great kivas are over 20 yards in diameter and are generally located away from room suites. Some were located in central plazas like this one while others were completely outside the structure.

This great kiva is important for another reason. There are at least 33 kivas in Pueblo Bonito and 25 are still visible. Of that number, only 4 survived intact when the final occupants modified the structure. Well, this is one of the four original kivas. How do we know? Because it was buried and covered over by the wall dividing the east and west courtyards.

Look in and you will see more features than we encountered earlier. A bench is still evident and we also see a fire pit, wind deflector, and floor vaults. There is no southern recess because this is a classic Chacoan kiva. And notice that this kiva has ground level entrances on both the north and south sides. There may have been a roof entrance as well, but the top was removed when the kiva was buried and we will never know.

Finally, look closely at the walls. Recesses or "niches" probably held sacred objects used in ceremonies.

**When finished, work your way to the back of the pueblo and bear left. There are a couple doorways including one on the National Park Service tour route and either will get you to Marker #8.**

### At National Park Service Marker #8

At Marker #8, you are in the heart of Old Bonito, a remnant of the original pueblo constructed around 860. Take a close look at the contrasting masonry styles. The crude, single thickness walls are called Type One masonry.

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Like other small pueblos throughout the southwest, Old Bonito was initially built with these very simple walls. They weren't very strong and you may see several spots where vertical sticks were inserted to hold them in place.

Parts of Old Bonito were removed in later building episodes, but the remnant you see here remained in use throughout the life of the pueblo. Its rooms housed impressive burials as well as ceremonial artifacts, and this bit of the ancient structure was surrounded, reinforced, and protected by newer components. These features tell us that Old Bonito was important to the occupants and I think it memorializes two important cultural transitions.

Prior to the development of large pueblos, the Anasazi lived in simple, single story structures with 8 to 10 rooms. Called "unit pueblos," these structures housed extended families and were occupied for roughly 40 years. When the residents moved on, the simple structures were simply abandoned, and sometimes burned. Pueblo Bonito departed from this tradition in two respects.

First, large numbers of unrelated people lived together. Whereas all of the residents of unit pueblos were related to one another, several extended families lived in close proximity at Pueblo Bonito. This required development of social and decision making structures far more complex than in earlier residences.

Second, Pueblo Bonito became a permanent structure. Pueblo Bonito was occupied for nearly 400 years and the core and veneer masonry, the frequent remodeling, and overall size of the pueblo tell us that it was built to last.

Similar transitions may have taken place elsewhere, but Pueblo Bonito was the model for all of Chaco and its descendants. That, I think, is why Old Bonito was revered throughout its life and remains an important site for pueblo peoples who trace their ancestry to Chaco.

**When finished examining Old Bonito, follow the modern trail through the back wall and turn right. This trail will lead you to the overlook and there are some interesting things to see along the way.**

### Along the Back Wall

Large wooden braces are the first things you are likely to notice. You may be interested to know that archeologists constantly monitor movement of this wall, but the shifting does not reflect on the Anasazi's construction skills. While excavating, Judd cut the wooden floor beams lashing the structure together. You can still see the stubs of several beams and the square ends are a sure sign that the cutting was done with a modern saw, not a stone axe. If the beams had not been cut, the back wall would probably stand as securely as it had for nearly 800 years.

As you walk, notice how well the stones are fitted together. This wall is another example of the Anasazi's mastery. There is even one feature you may not see from the ground. In the course of remodeling Pueblo Bonito, the Anasazi expanded the structure and changed its orientation a few degrees. Rather than demolishing the wall, they simply merged a new wall with the existing one. Don't worry if you can't see it here! Its visible from the overlook we will reach in a few minutes.

Finally, as you walk, notice the number of holes in the back wall. The crude ones were made by pot hunters looking for ways into the structure. Others, the finely crafted ones, are original doorways. Each doorway connects to a suite of rooms that could be entered only from the outside. Archeologists speculate that the room suites were created to house visiting traders. Each would occupy a room suite while doing business here and then vacate the suite when they moved on.

**Continue along the trail and up the modern stairs to the overlook at the northeastern corner of the pueblo.**

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### On the Overlook

This overlook is the final stop on our tour. As you remember, it was built on the remains of Threatening Rock, and you can see that the rock fall destroyed a number of rooms in the northeast section of the pueblo. I like to finish a tour here because you can see how everything fits together. And the National Park Service sign does a nice job of highlighting the construction sequence.

Before you go, take a good look around. You can see why Pueblo Bonito is called the center of downtown Chaco. To your left, almost due east, stand the remains of Chetro Ketl. With 400 rooms, Chetro Ketl was the second largest pueblo in the canyon. Due south, across the valley, is Casa Rinconada, an enormous great kiva, and to the west you can see the remnants of Pueblo del Arroyo.

Less visible along the south side of the canyon are the partially buried ruins of numerous unit pueblos. Archeologists call them "small sites," and most of the mounds along the south side of the loop road cover these villages. Three near Casa Rinconada are open for visitation. The relationship between the small sites and the great houses is a matter of conjecture. Chapter 10 of *The Anasazi Guide* summarizes what is known about the subject.

Downtown Chaco did not end at the canyon walls. Two more great houses sit on the mesas to the south and west while three more rest on the north mesa behind you. None are visible from here, but all can be visited on moderately strenuous hikes. Check at the Visitors' Center for directions and trail conditions.

### On Your Way Out

The overlook is the final stop on this tour of Pueblo Bonito. If you would like, you can follow the path back to the parking area. If you have more energy, I recommend you bear left and follow the Petroglyph Trail to Chetro Ketl.

The trail takes you past glyphs spanning nearly 1500 years. The earliest date from about 400 CE while more recent Navajo glyphs were probably carved in the 1700s. You will also see an advertisement dated 1877 along with a scattering of more modern graffiti.

Further along the trail, you will enter the amphitheater we noticed from the Pueblo Bonito sign. The amphitheater spans nearly 500 feet along a cliff face averaging 75 feet tall. Archeologists estimate that creating the smooth face required removing 2,000,000 pounds of stone, roughly 58 loads in a modern dump truck. You can read more about the amphitheater in Chapter 3 of *The Anasazi Guide*, but for now simply stand quietly near the center. You will notice that conversations between visitors in the parking area, over 400 feet away, are well amplified and that the sounds of tires rolling over the gravel sound as if the cars are right beside you.

When you reach Chetro Ketl visit the unique tower kiva before you return to your car. Then drive on to Pueblo del Arroyo to examine the unique tri-wall structure and continue around to Casa Rinconada and the exposed small sites.