



# Ancient Santa Fe

## TEN THOUSAND YEARS OF HIGH DESERT LIVING

Stephen S. Post

In the summer of 2006, my research team from the Museum of New Mexico's Office of Archaeological Studies uncovered five highly unusual storage pits with fire-reddened interior walls only a few blocks from Santa Fe's central plaza. They lay within El Pueblo de Santa Fe, a centuries-old settlement underlying part of downtown. After collecting and processing archaeomagnetic samples, our laboratory director informed me that five of the pits dated from 400 to 600 CE. In amazement, I realized they were six hundred years older than anything else found at this site and could place farmers in the Santa Fe area four hundred years earlier than previously known. More than a century before, Adolph Bandelier had described this same site, which lies right under our noses, but, with the passage of time and growth of the city, we were no longer certain of its exact location. Now, after analyzing the unique storage pits, we realized we were looking at evidence of the emergence of the Ancestral Puebloan

way of life. Farming and living in villages, attributes of both Pueblo Indians and Spanish colonists, formed the foundation that defines Santa Fe and its people today. This was but one part of a rich story that reaches back ten thousand years.

### Early Santa Fe Archaeology

For more than a century, Santa Fe's rich and diverse multicultural past has fascinated archaeologists. While early archaeologists focused on large pueblo ruins and cliff dwellings, researchers today are more likely to study the smaller and less prominent sites left by early hunter-gatherers, Ancestral Pueblo farmers, and historic Spanish and Anglo-American settlers. Each of these cultural groups lived, or still lives, in the Santa Fe area with its high desert landscape backdropped by the Sangre de Cristo Mountains.

In the late nineteenth and early twentieth centuries, antiquities collectors and



*Adolph F. Bandelier at an archaeological ruin.*

archaeologists sought out ancient cliff dwellings and ruins in search of fine artifacts to send back to museums or sell to collectors in the East. Scholars like Adolph Bandelier, Edgar Hewett, and Alfred V. Kidder tried to define a historical link between the then dwindling population of Pueblo Indians of the Rio Grande and the Ancestral Puebloan sites in the Four Corners region. At Pecos, Cieneguilla, and San Cristóbal pueblos, all within twenty-five miles of Santa Fe, they employed new methods to an emerging field of archaeology.

Santa Fe, a far inland outpost of the Spanish Empire, was contemporary with St. Augustine, Florida; Jamestown, Virginia; and Quebec City in Canada. In the 1950s and 1960s, in order to learn more about the early colony, historical archaeologists Bruce Ellis of the Palace of the Governors and Stanley Stubbs of the Laboratory of Anthropology excavated several seventeenth-century sites in Santa Fe, including La Parroquia (the predecessor of today's St. Francis Cathedral), San Miguel Chapel, and parts of the Palace of the Governors. Their interest in Spanish institutions also led them to excavate the eighteenth-century sites of La Castrense,

which was a military chapel on the south side of Santa Fe's plaza, and La Garita, a *torreon* (tower) and guard house on the slopes of Fort Marcy Hill.

In the late 1980s, both the city and the county of Santa Fe enacted ordinances requiring that archaeological and historical study precede commercial and residential developments. Since then, archaeologists have had opportunities to study many small sites in diverse environments on private land. As a result, we have been able to look beyond the melted walls of pueblos and the city and report on such topics as seven-thousand-year-old hunter-gatherer camps, population increases in the first centuries of the Common Era, pottery-firing kilns left by Pueblo Indian ancestors, metalworking of Spanish settlers, and the vast Spanish acequia systems that predated Santa Fe's earliest municipal water systems.

### A Good Place to Live

Santa Fe's natural beauty captivates all who live there. Meandering river valleys, grasslands, wooded hills, and high mountains combine with a temperate climate to make it a desirable place to live. Even with its diverse plant and

animal life, however, its inhabitants sometimes found it to be a challenging environment.

Around Santa Fe, most precipitation falls as winter snow in the high mountains and intense summer thunderstorms in the valley and piedmont hills. The growing season averages 170 days, with the last frost in May and the first killing frost in October. Annual variability in the length of the growing season and the timing and amount of precipitation affects both wild and domesticated plant productivity. During historic times, unpredictable precipitation made irrigation farming risky, with the result that downstream farmers often struggled to water their crops. Periodic droughts or temperature extremes adversely affected everyone regardless of culture or technology.

Reaching nearly 13,000 feet in elevation, the Sangre de Cristo Mountains and foothills are covered by dense forests watered by narrow, fast-running streams that feed into the Santa Fe and Tesuque rivers below. In the past, both Indian and Spanish people hunted elk, bighorn sheep, and mountain goats in the high-elevation stands of fir, spruce, and aspen. They transported game and plant foods long distances over difficult terrain to valley settlements and camps. On lower slopes, pinon-juniper and ponderosa pine forests supplied wood for fuel and building. Rocky outcrops of sandstone and limestone contained abundant deposits of fine-grained, multicolored chert used by Native Americans and Europeans to make tools for hunting, plant processing, and starting fires, as well as for gunflints for flintlock rifles and pistols. Men hunted deer and small game near the quarries, while women and children foraged for yucca, cactus, pinon nuts, and other seeds, nuts, and berries in season.



La Garita ruins, ca. 1910.





*The Santa Fe River, spring 2007.*

The Santa Fe River flows out of the foothills into a valley cut through a twenty-million-year-old hilly piedmont bordering a grassy plain. Springs, arroyos, streams, and the Santa Fe River contributed to a high water table that formed a swamp north and east of today's downtown plaza. Over the centuries, this swamp and the surrounding braided floodplain with its deep soils and surface water first attracted hunter-gatherers and, later, Ancestral Puebloans and Hispanic settlers. Farmers cultivated the floodplain downstream all the way to Caja del Río canyon ten miles west of Santa Fe. In the foothills, people gathered wood to use for building materials and fuel. They also collected plants, such as yucca, to make fiber for clothing and hunted animals for meat. Chert, washed down from the mountains, supplied Ancestral Puebloans with a valuable resource for fashioning sharp-edged tools such as knives, scrapers, and projectile points. South of the foothills, juniper-covered grasslands



*A characteristic piedmont landscape west of Santa Fe.*

offered grazing for antelope and, later, cattle and sheep. In ancient times, just as today, Santa Fe's environment strongly influenced where and how people lived.

### Ancient Peoples

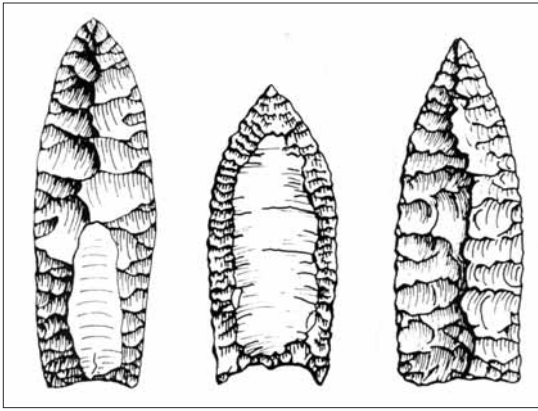
By studying the implements, stone tools, broken pottery vessels, and architecture that people left behind over ten thousand years, archaeologists can assemble a rich story about Santa Fe's cultural history. This long span of time is divided into four eras peopled by Paleoindian big game hunters, desert-adapted Archaic hunter-gatherers, Ancestral Pueblo farmer-foragers, and European-descended colonists from Spain, Mexico, and the United States.

#### *Paleoindian Hunters*

At the end of the Pleistocene era (around 9500 BCE), bands of hunters roamed the vast open grasslands as they followed herds of large mammals across the

North American continent. Archaeologists find evidence of these Paleoindian hunters throughout the New World. However, despite an abundance of local resources, we know of only one Paleoindian site in the Santa Fe area. Located on an isolated butte west of town, these early nomadic Native Americans left many spear points dating from the Clovis, Folsom, Midland, Cody, and Plainview periods (9500 to 6000 BCE). From this elevated setting, these nomadic people could monitor nearby watercourses for game animals such as bison, elk, and deer. In addition to meat, their diet consisted of fruits, nuts, seeds, and the roots of edible plants. All such food resources could be gathered from the surrounding rolling piedmont hills and the distant alpine meadows. This diverse landscape supplied everything they needed for food, shelter, clothing, and toolmaking.

Why have archaeologists found only one Paleoindian site in this resource-rich area? One reason may lie in the



*Paleoindian spear points. Left to right: Clovis, Folsom, and Plainview.*

fact that nomadic people lived in their camps for short periods of time and had few possessions, most of which were perishable and did not preserve in open settings. Another factor is erosion, which either erases or buries sites of great age, rendering them invisible to archaeologists. Due mostly to late Pleistocene climate changes, large game mammals migrated to the Great Plains. By 6000 BCE, Paleoindian culture around Santa Fe and throughout the Southwest had disappeared. At about this time, it was replaced by the Archaic culture (5500 BCE to 600 CE), of which archaeologists find abundant evidence.

#### *Archaic Hunter-Gatherers*

We describe the Archaic people of the Southwest as hunter-gatherers because they lived in many environments and relied on a full spectrum of edible and utilitarian plants and game animals for food and clothing. As the seasons changed, they traveled across the land in search of places with plentiful food resources. In a single year, a band of up to twenty members might move around within a territory of thousands of square miles—in a lifetime, hundreds of thousands of square miles. They were bound by kinship and marriage and



*Artist's reconstruction of an Archaic camp.*

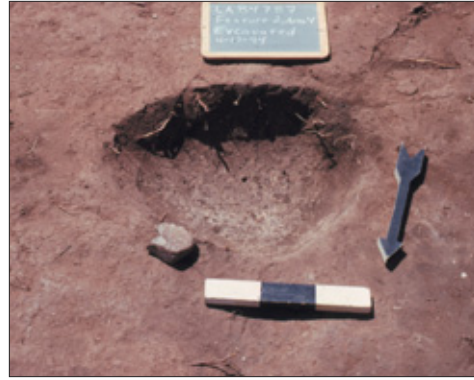
selected their leaders according to age, skill, and knowledge. While living mostly in isolation, they occasionally met with other bands to exchange food and information, conduct rituals, and meet potential marriage partners.

Early Archaic times (approximately 5500 to 3300 BCE) were dry in New Mexico with expansive grasslands barely able to support a hunter-gatherer lifestyle. A few sites around Santa Fe give us fleeting glimpses of early Archaic life. I excavated one site where a small family from this period camped, located on a wind-sheltered and warm southeast-facing hill slope overlooking the middle and upper reaches of the Santa Fe River. From the camp, the family enjoyed easy access to plants and animals of the piedmont hills. They left obsidian and chert flakes and bone splinters in a ring around a collapsed cobble-lined fire pit, evidence of having

made tools and consumed rabbit and deer. An atlatl dart point, made from basalt acquired while hunting and gathering along the Rio Grande, lay nearby, along with a hand stone (or mano) used to process fruits and seeds. These rarely found small camps were the mainstay of Early Archaic settlement. Their scarcity is attributable to low population, patchy distribution of food resources, and the destructive effects of natural processes on site preservation.

By 3000 BCE, a cooler climate and an increase in annual rain and snow spurred greater plant productivity, resulting in more abundant game throughout much of the Southwest, including Santa Fe. Although these favorable conditions did not last, they led to increased population. From this time forward, archaeologists find that Archaic people often returned to the same well-maintained camps year after





*Remains of three types of roasting pits after excavation.*

year and built substantial dwellings and dug pits for parching and roasting food.

To obtain food and critical resources, Archaic bands moved their base camps from one resource-gathering area to another through the seasons. They often situated these camps on gentle slopes above major arroyos affording access to water and to fuel wood from snags and fallen dead trees. Set back from river valleys, these camps provided a certain amount of seclusion from prospective game animals and other nearby bands of people. Some base camps I have excavated took advantage of low sandstone outcrops for protection from the wind.

At its base camp, a family typically lived in a small hut made from juniper and piñon boughs, brush, and mud. These easily built dwellings were dug partly into the ground and, with an interior diameter rarely more than 7 feet across, could sleep only three or four tightly packed family members. Most had a small interior hearth for heat and one or two small subfloor pits for secure storage of food or valuable goods.

When excavating Archaic camps, we find many clues to the life these people lived. Some camps, which were used repeatedly season after season, cover more than 5,000 square feet and con-



*Archaeological remains of an Archaic hut base.*

tain two or three bases of huts. During clement weather, former inhabitants carried on many of their activities—making tools, parching grass seeds, roasting nuts, treating hides, cooking meals, conducting ceremonies—out of doors. We usually recover the debris from making stone tools, as well as tools used to grind or pound seeds, nuts, and fruit and to scrape and shred plant fibers. We also find dense concentrations of obsidian chips (as many as twelve thousand) from manufacturing three or four dart points dumped around campsite perimeters.

The occupants of a camp dug a variety of pits in the ground outside their houses in which to prepare food on a daily basis. During a typical season, these might number eight to ten. Some are shallow, contain fire-cracked cobbles, and are heavily burned from repeated use. (The edges of the camps often contain piles of these discarded burned rocks.) People used these pits to parch such foods as rice grass seeds and goose-foot (a leafy plant sometimes called “wild spinach”) or roast piñon nuts and yucca roots. Sometimes they abutted unburned, or slightly burned, pits used

to warm already cooked foods. In other, larger pits, located farther away from the camps, they roasted meat, such as venison. Camps that were repeatedly occupied may contain up to forty roasting pits.

We assume that women and children foraged daily for edible plants up to a distance of three to five miles from home. Such foraging activities left little in the way of tools or other detectible evidence on the surrounding landscape. Men and some women staged multiday trips in the mountains to hunt game, such as elk and bighorn sheep. At their hunting camps, they butchered the game and dried the meat for easier transport back to their homes. We recognize their hunting camps by the accumulations of tools and waste chips of obsidian, chert, or quartzite found in them, along with one or two hearths.

In the Santa Fe area, the Archaic way of life continued with some variation until 800 or 900 CE. We now recognize that this robust, resilient, and successful way of life, which lasted for six thousand years, forms an important part of Santa Fe history.

#### *Ancestral Pueblo Farmer-Foragers*

***First Farmers in the Santa Fe Region.*** In southern Arizona, corn cultivation was under way by 2500 BCE, and on the Colorado Plateau it started between 1600 and 1200 BCE. Hunter-gatherers in the northern Rio Grande region, on the other hand, did not adopt farming to a significant degree until after 500 CE (with a few exceptions, such as in the Albuquerque area and around Jemez Cave). Archaeologists attribute this late occurrence to a number of factors, including unsuitable temperature and rainfall patterns and an abundant and diverse ecology that forestalled hunter-gatherer's reliance on domesticated



*Excavated bell-shaped storage pit dating from 400–600 CE at the Civic Center site in downtown Santa Fe.*

plants. In addition, the low regional population allowed people to move freely to food sources as seasons and climate changed.

Until recently, archaeologists believed that farmers moved into the Santa Fe area from elsewhere after 850 CE. Excavations I directed at the Santa Fe Civic Center in 2006 may change that view. At this well-watered setting with deep soil, we uncovered large, deep bell-shaped storage pits with burned interiors. The pits, which dated to between 400 and 600 CE, contained the remains of charred corn and squash and corn pollen, irrefutable evidence of Santa Fe's earliest farmer-foragers.

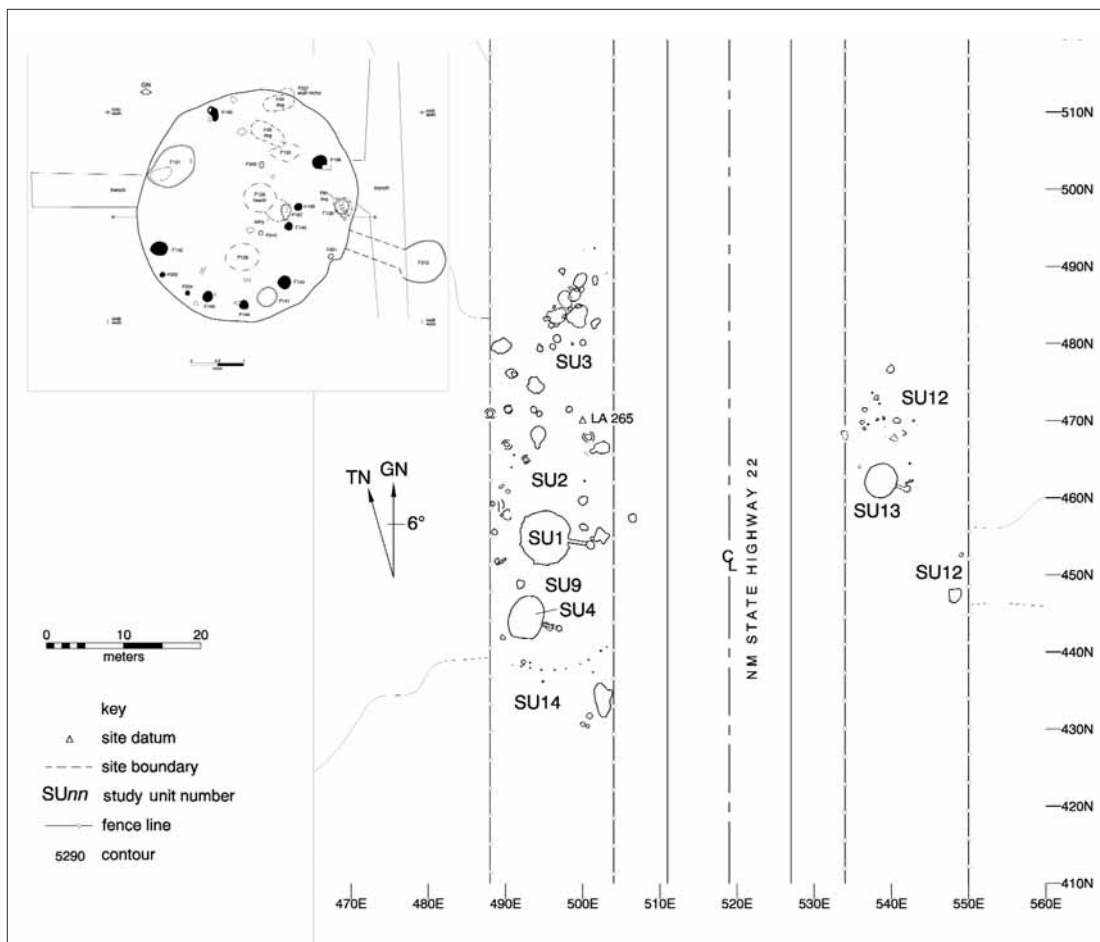
The closest early farming community to Santa Fe that we know of is in the Peña Blanca area at the confluence of the Santa Fe River and the Rio Grande. In 1998, I was part of a team from the University of New Mexico and Museum of New Mexico whose excavations illuminated the lives of these first farmers. We learned that around 750 CE, Pueblo people established a farming community in this location consisting of a clus-

ter of six residences spread across a mile of low river terraces. Each extended family had access to prime farmland.

The inhabitants of this small settlement lived in subterranean pithouses (about 14 by 22 feet in diameter), which had upright posts that supported domed roofs made from cottonwood limbs and branches, reed mats, and mud. People entered them by way of a ladder reaching down an open hatch in the roof. The floors of the houses had central fire pits to provide warmth, smaller cobble-lined hearths for light cooking, and small floor pits and wall niches to store daily food, personal items, and tools. The air intake for each house consisted of a floor-level, horizontal tunnel 3 or 4 feet long that went through the south or east wall to a vertical airshaft. The air outlet was the hatched roof entry. Floor space was sufficient to accommodate four to eight people comfortably; however, most daily activities occurred outdoors.

Following a harvest, families stored corn kernels and cobs in large, deep, bell-shaped pits placed near their home. One or two storage pits, which were sometimes burned on their interior to harden the walls, held enough corn to feed a family for a year. Similar to Archaic people, household members excavated a wide range of earthen and rock-lined pits to process, prepare, and cook foodstuffs. Using local clay, they fashioned rough-surfaced jars for temporary storage and cooking and made bowls in which to prepare, serve, and eat their meals. Cooking corn in ceramic pots enhanced its nutritional value by making starch more digestible. Domesticated beans and squash were important to the diet as well. To obtain meat protein, they hunted rabbits, squirrels, prairie dogs, gophers, and the occasional deer around their gardens.





Plan view of one site in the farming community in Peña Blanca, southwest of Santa Fe, with pit-house-drawing insert.

We think the residents stayed in their village during most of the year; however, they also traveled to hunting grounds for game animals that did not venture into their fields. Most ritual activities, we believe, were carried out by members of a given household. Able-bodied individuals made periodic trips to communities south along the Rio Grande Valley and up the Jemez River to trade, exchange news (information), find marriage partners, and participate in communal rituals of renewal and blessing. The Peña Blanca community thrived until 900 CE, when the farmers left and did not return.

***They Came to Stay.*** Ancestral farmers established permanent communities in the Tesuque and Santa Fe river valleys between 850 and 1000 CE. In Santa Fe, they settled on Fort Marcy Hill and its lower terraces. Living in pithouses, they depended mostly on agricultural harvests for food; however, they also went up into the mountains to quarry stone and hunt large game. In addition, they foraged widely in the foothills to obtain piñon nuts and seeds. Potters now made more elaborately decorated black-on-white bowls, water jars, and canteens. Archaeologists have named these pottery types Red Mesa and Kwahe'e

Black-on-white. The unpainted cooking and storage jars exhibit banded, finger-tip-indented, and tooled exterior patterns on the neck and shoulder. Later, this decoration covered the whole vessel. Because villagers expected to stay for years, rather than seasons, they invested more energy and creativity in personal and household items. This more settled life allowed them to domesticate turkeys for food and feathers and keep surprisingly large numbers of dogs as work animals and pets. Daily activities and rituals revolved around households. Later on, after 1100 CE, these Puebloans built communal religious structures, such as kivas.

***The First Pueblos.*** By the early 1100s, Santa Fe's farmers moved to the piedmont hills north of the Santa Fe River, where they built homes with puddled-adobe walls. The Arroyo Negro site, located three miles west of the plaza, is a good example. Over the course of fifty years, its inhabitants erected seven buildings in this community, each of which had between two and twenty-five rectangular rooms averaging 10 feet long by 7 feet wide and about 7 feet high. Like the Peña Blanca dwellings, people entered a main room from the roof. They accessed other interior rooms through doors. Rooms used for living and cooking had hearths and a few subfloor storage pits. In other rooms they stored harvest surpluses; raw materials, such as yucca fibers; personal adornments fashioned of shell, bone, and stone; clothing and feather blankets; and other personal possessions used in rituals and ceremonies. Small houses of two to four rooms accommodated single families of three to eight individuals. One building had a twenty-five-room linear arrangement, two or three rooms wide—it could have



*Santa Fe Black-on-white bowls.*



housed thirty to fifty people related by marriage and kinship. Arroyo Negro Pueblo had several kivas that were architecturally similar to pithouses of an earlier period: central hearths, ventilation systems, and roof entries. Their few floor pits, apparently, had a more symbolic than utilitarian function. In kivas, residents participated in rituals or ceremonies that renewed and reinforced their place in the social, natural, and sacred worlds. This roomblock/kiva layout became the design model for the large villages built after 1300 CE.

As population in the region grew, residents of Arroyo Negro and its contemporary villages chose to live closer together. Strength in numbers increased the ability of each community to control its prime farmland. Inhabitants of each village participated in local and long-distance trade, some communal rituals, marriage, and shared hunting and gathering territories with other local communities, including people living in the Tesuque Valley. The inhabitants of villages in the greater Santa Fe area traded with one another and sustained relationships with people as far away as the Socorro and Chupadero areas to the south and the Chaco, Chuska, and Mesa Verde regions of the Colorado Plateau. Their access to mines in the Cerrillos hills and to the plains provided them, respectively, with turquoise and

buffalo meat (and maybe buffalo robes) to barter for shells, exotic bird feathers, and lapidary materials (such as jet) with distant tribes. These long-distance relationships proved critical to people living in the San Juan Basin as deteriorating environmental and social conditions forced them to migrate to Santa Fe and surrounding areas after 1150 CE.

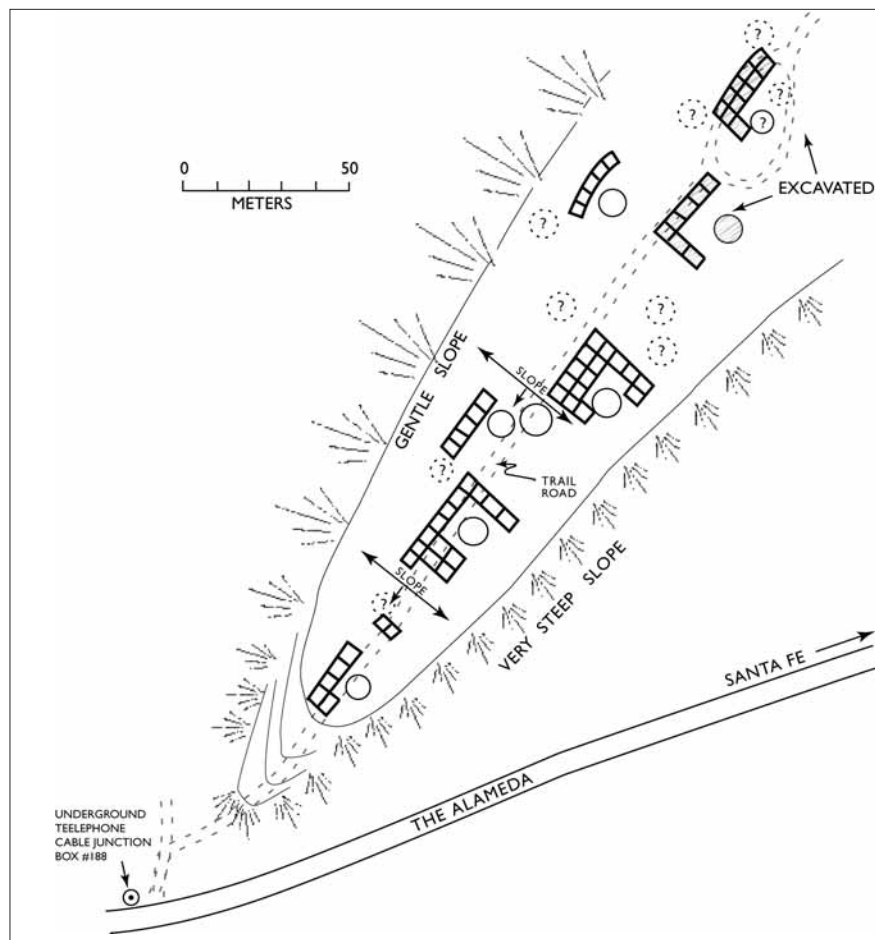
***Big and Bigger Villages.*** In the early to mid-1200s, families began leaving their settlements, which had been founded a century before, and moving to new locations on the floodplains of the Santa Fe River and its southern tributaries. There they built new villages, some of which grew into rectangular or C-shaped blocks of multistoried, puddled-adobe buildings that encircled plazas with kivas. From tree-ring dating, we know that this amazing population growth and change in village layout occurred in stages as settlements grew from within, as well as through the influx of uprooted households from the Colorado Plateau and its margins. These large villages with their long histories have been of great interest to archaeologists because they are critical to understanding the origin and development of modern Pueblo Indian villages. Since 1932, archaeologists excavated portions of three ruins: Pindi Pueblo, Arroyo Hondo Pueblo,

and El Pueblo de Santa Fe.

Today, all that remains of Pindi Pueblo is a cluster of low mounds cut by residential roads. The site is located on the north side of the Santa Fe River in the village of Agua Fria about six miles downstream from the Santa Fe Plaza. Agua Fria is named for the cold springs that attracted Pueblo and Spanish settlers alike. Excavated between December 1932 and June 1933 by Laboratory of Anthropology archaeologists Stanley Stubbs and W. S. Stallings Jr., the project was a cooperative effort with the Civil Works Administration relief program during the Depression. The archaeologists and their hardy crew excavated more than one hundred rooms, recovered tens of thousands of artifacts, and collected tree-ring samples that documented the pueblo's 150-year occupation history and served to firmly date decorated pottery types named Santa Fe Black-on-white and Galisteo Black-on-white. Archaeologists still rely on this ceramic chronology.

Pindi was first settled in the early 1200s by one or two families who lived in pithouses. Between 1250 and 1310, the settlement grew into a village of twenty to thirty puddled-adobe rooms occupied by three or four related families. The inhabitants built this small hamlet in a style and form similar to that of Arroyo Negro Pueblo, with a linear





*Drawing of Arroyo Negro site plan.*

arrangement of two rows of one- and two-story rooms. The east-facing room-block faced three circular kivas, where the families conducted seasonal rituals. Between 1320 to 1350, the village grew to two hundred rooms arranged in rows of one to four rooms that were one to three stories high. Housing more than one hundred people, these roomblocks were built in a rectangular layout forming interior plazas that held D-shaped surface kivas and circular subterranean kivas. The new and old kiva forms accommodated founding and immigrant family ritual needs. The villagers held their seasonal community functions in the open, but secluded, outdoor plazas.

Daily life at Pindi probably differed little from that of Arroyo Negro Pueblo except that the need and competition for farmland, water, and other important resources may have increased village tensions. People farmed the floodplains and fields, covering more area than ever before. As soils became depleted, fields produced less, and villagers had to cultivate increasingly more distant fields, possibly encroaching on another community's lands or competing with newcomers. Now, domesticated animals began to play a more important part in subsistence. Inhabitants raised turkeys in well-made wattle-and-daub pens in their village plazas. They prized turkey

feathers, which they wove into warm blankets and also used as ritual adornment and to trade for scarce commodities. Archaeologists find open-air sites with hearths and fire pits three to five miles from these villages. We think villagers were foraging for edible plants, fruits, nuts, and seeds in these areas and hunting game. Near these hunting camps, we also found the remains of kilns and fired but shattered Santa Fe Black-on-white bowls and a dipper. This surprised me as I had expected that people fired most of their pottery nearer to their village. The kilns consisted of oval-shaped, shallow pits lined with cobbles on which the pots rested. During firings, the potters covered these pit kilns with a dome of juniper and pinon boughs. Temperatures could have exceeded 800 degrees centigrade. While not unheard of, kilns so far from the village suggest that some villagers voluntarily or forcibly acted outside of normally expected ways.

Dendrochronological studies indicate that Pindi's residents left around 1360 CE; we are unsure where they went. Archaeologists speculate that they left because of unsafe buildings, poor sanitation, or disputes among residents that were resolved by moving away.

Pindi Pueblo had two neighbors: Arroyo Hondo Pueblo, ten miles to the southeast, and El Pueblo de Santa Fe. In addition to being contemporaneous, these three pueblos shared many similarities, including building construction styles, the presence of circular subterranean and surface D-shaped kivas, Santa Fe and Wiyo Black-on-white pottery, and a heavy reliance on farming supplemented by foraging and hunting.

Arroyo Hondo was partly excavated by Nels Nelson in 1915 and by the School of American Research from 1970 to 1974. As at Pindi, Arroyo



*Archaeological excavations at Pindi Pueblo showing outlines of turkey pens under the plaza.*

Hondo started small, but between 1310 and 1330 it grew to around one thousand rooms. These were contained in twenty-four one- and two-story room-blocks enclosing ten plazas in which were four kivas 12 to 24 feet in diameter. A fifth kiva (33 feet in diameter), not enclosed within a roomblock, may have served greater community ceremonial needs. At its zenith, Arroyo Hondo Pueblo was the largest pueblo in the Santa Fe area, attaining a population of about eight hundred residents, a number four to five times greater than Pindi Pueblo.

One theory holds that Arroyo Hondo Pueblo housed groups of people from diverse geographical areas and cultural traditions. By building extensive roomblocks around plazas, each group had privacy and also was able to monitor who came and went and to maintain its own public space in which to hold ritual and community events. Ultimately, Arroyo Hondo residents may have suffered negative consequences



*An excavated pottery kiln west of Santa Fe. Note dipper on right edge.*

from such rapid growth; analysis of skeletal remains have shown that many had poor health. The catastrophic death of eight villagers combined with the sudden closing of one kiva suggests that Arroyo Hondo experienced more severe internal conflict than its neighbors. As at Pindi, Arroyo Hondo villagers moved away by 1360 when decreased rainfall reduced food availability and exacerbated social stress. Where they went is unclear. However, the Arroyo Hondoans had long maintained relations with villages in the Galisteo Basin; perhaps they took refuge there. The village reformed between 1370 and 1420, when some villagers or their descendants returned to build two hundred rooms in ten roomblocks on top of the earlier buildings. At a time when most villagers in the northern Rio Grande used glaze-decorated or biscuit ware black-white pottery, Arroyo Hondo residents continued to use mostly Santa Fe Black-on-white pottery, suggesting that they were a socially distinct group.

El Pueblo de Santa Fe is less well-known than Arroyo Hondo or Pindi pueblos. Described by Adolph Bandelier

in the 1880s, Alfred E. Kidder in the 1910s, and Harry P. Mera in the 1920s, its low mounds remained visible until the building of Santa Fe High School in the same location in 1934. The village, and especially its aboveground structures, sustained considerable damage as a result of urban development in downtown Santa Fe up until 2005. Recent excavations by the Office of Archaeological Studies revealed occupation from 1250 to 1425, six hundred years after the early farmers. As at Pindi Pueblo, its first residents lived in pit-houses but soon built and moved into puddled-adobe houses. Four surviving circular kivas resemble those of Arroyo Hondo and Pindi in their size, orientation, floor and wall pits, and niches. Archaeologists collected archaeomagnetic samples that show a sequence of occupations through the late 1200s, middle 1300s, and early 1400s. Although we do not know the full extent of El Pueblo de Santa Fe, we surmise from the large number of outdoor storage and food-processing pits that it was equal or larger in size than Pindi Pueblo. Whereas Arroyo Hondo Pueblo residents showed signs of nutritional stress, most of El Pueblo de Santa Fe's population appears to have been healthy. When a twelve-year drought ending in 1425 forced El Pueblo de Santa Fe and Arroyo Hondo villagers to leave, their strong ties to villages in the Galisteo and Tewa basins offered new opportunities to carry on.

After 1425, indigenous travelers passed through Santa Fe for 185 years but maintained no permanent settlements. As villages grew in the Tewa and Galisteo basins, Santa Fe's villages melted back into the earth. When don Pedro de Peralta arrived in 1610 and laid out the Villa de Santa Fe, he found only mounds.





View of a portion of Arroyo Hondo Pueblo during excavations in 1971.

### *Historic-Period Colonists from Spain, Mexico, and the United States*

***A Villa on the Edge of Empire.*** In 1599, under the leadership of Juan de Oñate, Spanish colonists arrived at Ohkay Owingeh at the confluence of the Rio Grande and Chama rivers. Eleven years later, Governor Pedro de Peralta led the failed settlement to a low rise between the Santa Fe River and Arroyo Mascaras floodplains adjacent to a swamp. This was the site of the future city of Santa Fe. Peralta laid out a quadrangle-shaped plaza to be surrounded by government buildings and a *parroquia*. The *casas reales* (later known as the Palace of the Governors) had generously sized rooms with ornate adobe-brick floors that reflected the governor's high status in the colony. As for the town's early private residences, they were modest dwellings with cobble foundations, adobe walls, small gardens, and outdoor kitchens. Their occupants furnished them with rugs, tapestries, and furniture of wood and leather. Most clustered around the plaza for safety, but small

ranches, granted to citizens in exchange for military service, extended down the Santa Fe River. The colonists built irrigation or acequia systems on both sides of the river to distribute water to households and farms. The remnants of these early ditches, which archaeologists have found in the plaza and Palace of the Governors and on Santa Fe's east side, attest to the complex irrigation network necessary for raising Old World native plants, including wheat, barley, lentils, grapes, and fruits, as well as corn, beans, and squash. The early colonists also kept small herds of sheep, goats, cows, pigs, and chickens.

Archaeologists rarely find physical evidence of early colonial residences; instead, working in such sites as the Palace of the Governors, Cathedral Park, Sena Plaza, and San Miguel Chapel, we have unearthed pits filled with butchered animal bone, charred seeds, grains, and fruit pits. We also have unearthed fragments of serving bowls (hemispherical plain and decorated), cooking jars of indigenous forms, European-style soup bowls, plates, platters, cups, candlestick

holders, and condiment containers, all made by Pueblo potters living in the Galisteo and Tewa basins. Intermingled with these artifacts have been a few sherds of Mexican majolica and Chinese porcelain, which were brought to Santa Fe on triannual caravans from the south following the Camino Real. These few imported items were often inherited or recycled when broken before being discarded.

### ***The Pueblo Rebellion of 1680 and the Resettlement of Santa Fe after 1692.***

Joseph P. Sánchez relates in chapter 3 that longstanding grievances over oppressive Spanish rule led to a successful rebellion by the Pueblo Indians and their allies in August of 1680. With the Spaniards in exile in El Paso del Norte, the victorious Indians destroyed most of Santa Fe and its surrounding settlements and built their own village within the downtown quadrangle. Historical accounts from Diego de Vargas, who reconquered the villa in 1693, describe it as four stories high with two plazas and kivas and housing one thousand people. Below the Palace of the Governors, archaeologist Cordelia Snow uncovered the foundations of small rooms, human burials, fire pits, and storage pits left by the Pueblo residents of 1680–1693. The Spaniards demolished this pueblo in 1699; except for Snow's work, conclusive evidence of a Revolt-period pueblo has eluded archaeologists working in downtown Santa Fe.

Returning Spanish citizens reclaimed their properties, and an influx of new families revitalized the villa. Throughout the eighteenth century, neighborhoods grew up around newly built and resurrected churches, including La Castrense, Nuestra Señora de Guadalupe, and San Miguel Chapel. Tree-ring dating of roof

beams shows that some eighteenth-century houses still survive in the Barrio de Analco and along Canyon Road.

The Palace of the Governors and the Presidio (a military complex) dominated the north side of the plaza. My 2002–2007 excavations behind the Palace exposed buried cobble foundations from adobe-walled barracks and store-rooms used by soldiers stationed in Santa Fe. We also uncovered three rows of adobe buildings divided into 25-foot by 20-foot rooms with corner fireplaces and compacted dirt floors. The poor soldiers living in these spartan accommodations had few imported tablewares or luxury goods and relied on Pueblo-made tableware and utilitarian pottery. Behind the barracks, we found a large volume of sheep, goat, and cattle bone and a circular butcher shop that served the many people who lived and took their meals in the Palace in the 1700s.

Santa Fe had many prosperous families. At the Civic Center site, archaeologist Stephen Lentz excavated the remains of a large residence, which is shown on the 1766–1768 map of Santa Fe created by José de Urrutia (see p. 49). Only a small portion of its cobble foundation remained, the rest having been demolished in 1789 to build a new presidio. However, its affluent residents left pits filled with burned animal bones and pottery made by Pueblo Indians, as well as assorted Mexican, European, and Oriental dishes. Lentz also found the remains of a well, corrals, and even metal-working facilities. The family's prosperity rivaled that of the governor; undoubtedly, they were regular guests at his table in the nearby Palace.

Southwest of the plaza, residences and subsistence farms lined the Camino Real (today's Agua Fria Street) after the middle 1700s. As Santa Fe grew, the

Spanish expanded the city's acequia system to distribute water to the immediate area and miles downriver as well. Artifacts recovered from a newly discovered residential site in this rural area should provide new insights into Santa Fe society and offer interesting comparisons with those excavated at the Palace of the Governors and the Civic Center hacienda.

***The Santa Fe Trail and a Territory in the United States.*** Dramatic social and economic changes followed the opening of the Santa Fe Trail. Merchants became successful as they gained access to US manufactured goods and took advantage of a new market for New Mexico's products. Initially, much of the new wealth passed through Santa Fe; consequently, archaeologists find little evidence of widespread prosperity. Many Santa Fe Trail ruts still exist from this time period, meandering across the southeast neighborhood close to major modern roads.

General Stephen Kearny and the US Army of the West occupied the Palace and presidio barracks and corrals in 1846 (see chapter 7). For the first twenty years, the military used the old presidio buildings, adding glass windows, new fireplaces, and cobble floors in some. By 1868, they had rebuilt or renovated all buildings in what became the Fort Marcy military reservation. The territorial governors lived in the Palace, which was surrounded by the military installation. North of the Palace, the recent excavations at the Civic Center site uncovered the limestone foundations of officers and enlisted men's quarters, as well as the post hospital, the hospital steward's quarters, and rock-lined privies and wells. We also found hundreds of other



*Historic-period refuse pit excavated behind the Palace of the Governors.*



*Tewa red soup plate.*

US artifacts, such as bottles, shoes, boots, dishes, dolls, some medical apparatus, and a variety of other personal items. They all reflect the burgeoning consumerism that accompanied military life and the completion of the railroad in 1879.

***The Railroad and New Mexico Statehood.*** Leading up to statehood, major changes took place in Santa Fe. Many old adobe buildings were torn down and replaced





*The foundations of a water storage tank west of Guadalupe Street.*

by brick and frame Victorian-style residences. In 1884, Bishop Lamy completed construction of St. Francis Cathedral, using sandstone quarried in Lamy, New Mexico, and transported to Santa Fe by the rail line that was completed in 1880. Speculators subdivided land at the railhead and sold lots to the Atchison, Topeka, and Santa Fe Railway for its station, water tank, engine houses, and turnstile. When workers

were constructing the Community Bank on Guadalupe Street in 1990, they were surprised to uncover the long-buried masonry roundhouse, which now is incorporated into the building. Excavations at the Santa Fe Railyard also uncovered the massive sandstone foundation for a water storage tank and pumphouse, the engine house foundations, impressions of track beds, huge quantities of cinders, and other build-

ings associated with railroad activities. With the railroad came huge quantities of manufactured goods that are found at territorial period sites large and small. When New Mexico achieved statehood in 1912, Santa Fe once again became the distant political and economic center for a country and people defined by their deep-rooted traditions of independence and self-reliance.

As archaeological investigations in Santa Fe continue, I expect new findings to reinforce some old knowledge and challenge other long-held concepts. By striving to better understand Santa Fe's past, we honor the people whose ten-thousand-year-old story we tell. At the same time, we must guard against the temptation to build monuments to truths that may be only a shovel's depth away from change.

#### *Acknowledgments*

The author acknowledges all the archaeologists who have contributed to a greater and richer understanding of Santa Fe's past. More specifically, I would like to thank Stewart Peckham, David Snow, Cordelia Snow, Cherie Scheick, Janet McVickar, Jason Shapiro, James Snead, my Office of Archaeological Studies colleagues, and, of course, Frances Levine, who authored the Santa Fe archaeology essay in the 1989 volume, blazing the trail that I followed.