Zuni in brief review

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PHYSIOGRAPHY

Like all other Pueblo Indian holdings, the present day reservation of the Zuñi covers much less territory than did their lands of prehistoric times; the Zuñi originally occupied an area straddling the modern Arizona-New Mexico boundary, primarily within a belt extending laterally through Gallup, New Mexico, to St. Johns, Arizona — an area more or less bisected by 33° N. Lat. and 109° W. Long. (Fig. 1).

![Figure 1. The Zuñi Region](image)

Figure 1. The Zuñi Region

Physically, old Zuñiland was situated in a basin extending from the Mogollon slope of the Winslow-Holbrook-St. Johns area into New Mexico — the slope which forms a wide southern border of the Colorado Plateau, and which dips gently to the northeast toward the Defiance and Zuñi uplifts. The basin displays anticlinal crests and troughs of synclines trending chiefly in a northwest direction. Volcanic centers are displayed especially toward the southeast (see Kelley and Clinton, 1960).

Young plateaus with moderately deep canyons characterize the northern part of the area. The eroded edges of the strata show prominently in great retreating cliffs of red, white, and yellow sandstone.

From the town of Ramah, New Mexico, Pescado creek has cut through a ridge of mesas, traversing a valley from one to two miles in width, "whose bordering walls increase in height from 200 to 600 feet before it passes through a narrow gorge into the Zuñi Basin proper. Small canyons and ravines empty into it from either side, and it is joined from the northwest by Nutria Creek just before it cuts through the uplift which forms the eastern boundary of the Zuñi Valley" (Roberts, 1932). In the south, as far as Atarque, minor nameless streams have cut shallow canyons among the lava flows; westward are salt ponds and sinks (Spier, 1917). The small but permanent Zuñi river, then, with its lesser and frequently ephemeral tributaries, flows into the Little Colorado river, draining the basin.

The higher elevations are pine clad; piñon and juniper, with accompanying low-growing plants, cover lesser heights; and the valley lands afford agricultural opportunities. Compared with other districts of the Southwest, this was an unusually advantageous environment for a sedentary people. Here, in the broad, shallow valley of the Zuñi River, the modern Zuñi pueblo is located. It is at the northern limit of the basin, just outside the Gallup sag (Kelley and Clinton, 1960).

HISTORIC PAST

It seems probable that Indian traders and adventure seekers traveled between Mexico and the area now known as the American Southwest for centuries; and it will be remembered that the current boundary did not exist between these regions prior to the time of the Gadsden Purchase (1853-1854). Until then, Mexico reached eastward to the Rio Grande and northward to the Gila. Verbal accounts concerning the Indians of the unexplored lands lying to the north found their way into central Mexico, and reached the ears of the Spanish conquerors early in the 1530's. By 1535, the Spaniards had heard of many-storied houses built of stone and adobe, in which the Indians of the north dwelt. The Spanish viceroy, Don Antonio de Mendoza, became interested in the opportunities of adding new territory and expected riches to the empire of Charles V, and of bringing the Christian doctrine to the Indians. A Franciscan friar, Marcos de Niza, was selected to lead an exploring party to the northlands. In the group, which set forth in the spring of 1539, was a Barbary Negro, Estevan, and some Mexican Indians.

Among the Sobaipura, a group of Piman Indians who inhabited the Rio San Pedro and the Gila valleys then, and until about the end of the 18th century, Fray Marcos met the first Zuñi Indian of whom specific mention is known. This old man, who must have left his home a long time previous, told of the pueblos in his homeland, and those of other peoples. He was the first one to speak of Hawikuh (Ahacus), which he said was the largest of the villages (Bandelier, 1892; Hodge, 1937).

The Negro, Estevan, had a gift for dealing with strange Indians, and Fray Marcos sent him on ahead with a small party to scout the way and pacify the natives. As Estevan progressed, Indians of various groups through which he passed, including a number of pretty women, attached themselves to his party, and he was given many gifts. He always carried a "magic" gourd, which he apparently got from some of the Texas Indians when, as a slave in the company of Cabeza de Vaca, he had been in the Gulf area, a few years before. The gourd was filled with pebbles and was decorated with a red feather and a white one (it was, thus, a ceremonial rattle). This he sent ahead with a runner, to notify the Indians of his approach.

Elegantly bedecked and filled with self-importance, Estevan arrived in Zuñiland, which the Spaniards called Cibola — reflecting their usual difficulty in pronouncing Indian words; the Zuñi people call their land Shiwana or Shiwinakwin (Hodge, 1937), and refer to themselves as A'shiwi, or Shiwi, signifying "the flesh," and apparently
was associated with accounts of the Indians still farther north. The official who received his ornate token, threw it angrily on the ground, saying that he knew the people with whom the rattle had originated (see Hodge, 1937); he warned the messengers against entering the pueblo, on penalty of death.

Returning to Estevan with this adverse news, the runners found the Negro unwilling to heed the warning. He went on, "with all the people of his escort, of whom there were about three hundred men and many women" (Hodge, 1937). But the Indians refused to let Estevan enter the pueblo, which has been identified as Hawikuh. They stripped him of his many belongings and housed him and some of his escort in a building outside the village. When he went forth, the next morning, he was beset and killed. Accounts differ as to the fate of his companions, but at least some, if not all, escaped to carry word of this happening back to Fray Marcos.

It was on 21 May, 1539 that the friar learned of the Negro’s death. Although disheartened, it seems that Fray Marcos journeyed onward to a point from which he could see for himself the village where Estevan was killed, before he turned back to Mexico. Melchor Diaz, whom Mendoza sent to verify the statements made by the friar, confirmed the report; Coronado, Castañeda, and Jaramillo, who were in the same region the following year, had different versions (see Hodge, 1937).

Like the Aztec and other Mexican Indians who told of the Seven Caves of their origin, the number seven was associated with accounts of the Indians still farther north, and the “Seven Cities of Cibola” became a part of the early literature. Once after another, modern authors have recounted the coming of the Spaniards into the Southwest, frequently citing the works of those who referred to seven villages at the time of the entrada of Francisco Vasquez de Coronado. Coronado himself, writing to the viceroy in 1540 from Hawikuh (which he called Granada), mentioned “seven little villages,” all of which had “very good houses, with three and four and five stories, where there are very good apartments and good rooms with corridors, and some very good rooms under ground and paved, which are made for winter, and are something like a sort of hot baths [kivas or ceremonial chambers]. The ladders which they have for their houses are all movable and portable, which are taken up and placed wherever they please. They are made of two pieces of wood, with rounds like ours.” (Hodge, 1937).

The villages to which he referred were all within a radius of five leagues, and were “all called the kingdom of Cevola, and each has its own name and no single one is called Cevola, but all together are called Cevola” (Hodge, 1937). On the contrary, Jaramillo stated that there were “five little villages” beside Hawikuh — the Ahtac or Fray Marcos, who guided the army of Coronado (Hodge, 1937). Unfortunately, Coronado and his chroniclers did not list the pueblos by Indian name; they mentioned but one, Matsaki (Macaque).

Two modern authorities, the late Drs. Leslie Spier and Frederick W. Hodge, who carried on archaeological surveys and investigations in the so-called Cibola region, found no evidence to support the fact of seven contemporary pueblos at the time of the arrival of the Spaniards (Spier, 1917; Hodge, 1937). Spier says, “Even the most ambitious attempts to identify the pueblos do not indicate the seventh with any degree of certainty.” He adds that the accounts of 1581-1598 give them as six in number. Hodge concurs, saying, “Indeed it is much more certain that there were only six Zuñi pueblos in Coronado’s time,” and he lists these as: K’iaikima, Matsaki, Halona or Halona Itiwana, Kwakina, Hawikuh, and K’ianawa or Kechipawan, as they appeared from east to west, as shown on Figure 2 (Hodge, 1937).

With the exception of the Estevan incident, the Zuñi, like the Rio Grande Pueblos, were friendly toward the non-Indians when they first came into the region. After the short battle of Hawikuh and conquest of the Zuñi by Coronado and his small army (seventy-five horsemen and thirty footmen), 7 July 1540, the Spaniards and the Zuñi lived alongside one another amicably (Hodge, 1937).

Through the years, historians and other investigators have put forth arguments and offered evidence in support of the probable routes of the conquistadores into the Southwest; and there have been varying opinions as to the location of the “Seven Cities of Cibola.” According to the research of Hodge, the area which has been described above is indeed that of which Captain Juan Jaramillo, a member of the advance guard of Coronado, wrote, years after the expedition. Important physiographic evidence is given in his statement that, “all the waterways we found as far as this one at Cibola — and I do not know what for a day or two beyond — the rivers and streams run into the South sea [the Pacific], and those from here on into the North sea [the Atlantic].” As Hodge points out, “This significant description is applicable to no other valley in the entire Pueblo region.” He adds: The Zuñi river has its source in two springs on the Zuñi reservation, Nutria and Pescado, about twenty-five and seventeen miles respectively from the present Zuñi pueblo, toward the northeast and east. From these points the Zuñi mountains extend, forming the watershed or continental divide, from the eastern and northern slopes of which the flow finds its way first to the Rio Grande and the Gulf of Mexico. The Zuñi river, on the other hand, is a tributary of the Colorado Chiquito, the waters of which ultimately flow into the Gulf of California. Even if it were not possible to locate Cibola and to identify it definitely by any other means, its situation could be determined within a few miles through Jaramillo’s decisive statement (Hodge, 1937).

The term Zuñi was first applied by Antonio de Espejo, in referring to the Ashiwi in 1583. He made use, apparently, of a Keresan designation, for the Laguna Indians called these people “Sanyist,” and other Keres-speakers used the same word with slight dialectic differences. The Zuñi were exceedingly industrious. Coronado’s expedition brought such domestic animals as fowls, horses, mules, cattle, sheep, and perhaps swine, to the Southwest; the Indians had long since domesticated the dog and native turkey. Gallegos, cited by Hodge (1937), reported that in 1581-1582 all of the Zuñi valley was cultivated, and he said “not a grain of corn is lost.” Corn and other foodstuffs were stored in times of plenty for use in less favorable periods. Irrigation was being practiced (Bandelier, 1892). Gathering of wild foods and hunting added to the diet. The Zuñi hunting grounds extended south to modern Springerville and St. Johns, Arizona, and to Salt Lake; the eastern limit was Trechado, Tinaja, and just east...
of Thoreau, New Mexico; the northern and western boundaries have not been determined (Fig. 1).

There were still six Zuñi pueblos in 1605, but four of them were almost destroyed, although all were inhabited; Hawikuh was the largest (Fig. 2). There were also six in 1629, when a mission was erected in Hawikuh, following intermittent missionary work in the region. A second mission was built at Halona, in part the site of present day Zuñi. Some of the missionaries were admired and respected by the Zuñi, others caused resentment and subsequent dispatch. Following the killing of two friars, Letrado and Arvide, in 1632, the Zuñi fled to their stronghold atop Corn Mountain or Towayalane (also called Thunder Mountain), the great rock mesa which rises nearly 1,000 feet above the valley floor, three miles southeast of Zuñi. The ruins of their structures may be seen there amidst depressions which served for the storage of water; springs occur at the base and in the slopes of the mesa (Hodge, 1937). This was the site to which the Zuñi retreated on various occasions of conflict with the Spaniards.

Several years of drought prevailed in Zuñiland before 1675, causing great suffering among the Indians. Apache depredations added to the plight of the Zuñi, posing continuous peril. On 7 October 1672, a band of Apaches, believed to be from the White Mountain group, raided Hawikuh and killed the friar, Pedro de Avila y Ayala.

By 1680, there were probably somewhat more than 2,500 Zuñi. They took part in the Pueblo Rebellion of that year. Although the missionary at Halona was killed, it appears that the Zuñi were less involved in the rebellion than were Indians in the Rio Grande Valley, closer to the scene of major uprisings. The Spanish grant of 1689
awarded the Zuñi 17,581.25 acres in the vicinity of Corn Mountain (Indian Lands in N. Mex., 1936). When Diego de Vargas effected his reconquest of New Mexico in 1692, he found the Zuñi withdrawn to that eminence. Presumably, it was shortly after their descent from the mesa that the building of the present pueblo was commenced. The new mission, Nuestra Señora de Guadalupe de Zuñi was established in 1699 (Hodge, 1937). Early in the 18th century, conflict between the Zuñi and the Spaniards caused the Indians to seek refuge on Towayanlame. Since 1705, they have dwelt at their present location. The mission was long since abandoned, and has gradually fallen into ruin.

The government of the United States of America confirmed most of the Pueblo grants in 1864, but the Zuñi holding was not recognized by executive order until 16 March, 1877. On 1 May, 1883, the President amended the boundaries as named in said order, and again on 3 March, 1883, there was a presidential amendment of the preceding order, defining and extending the Zuñi reservation boundaries "to except lands already settled upon and occupied in good faith by white settlers" (Indian Lands in N. Mex., 1936). The reservation, now comprised of about 440,000 acres as of 1961, lies largely in McKinley county, New Mexico, but extends slightly into Valencia county, on the south. The pueblo is built on the banks of the Zuñi River.

The Zuñi language stands by itself as a southwestern Indian speech is concerned (see Swadesh, 1956; Harrington, 1945). This linguistic isolation is an ever-present factor in all considerations pertaining to Zuñi (Roberts, 1961). Fascinating studies carried forward by linguists during recent years have resulted in a new device for classifying languages and estimating rates of change therein; this is known as glottochronology (see Swadesh, 1960; Driver, 1961). A. K. Romney has applied this procedure to a study of the Zuñi language, and has a resulting indication that Zuñi-speaking people have been in their present location for some 800 years (Romney, 1960).

At the present time, information derived from excavations and investigations among the Zuñi made by Dr. Hodge over a period of years (1917-1923), is being readied for publication by a team of thirty investigators. This will provide data not currently available. Tree-ring specimens from Hawikuh reveal a clustering of dates at A.D. 1381, a small pueblo ruin in Nutria canyon has been dated at A.D. 1031+ (Smiley, 1951), and the Village of the Great Kivas has yielded dates of A.D. 1000-1030. Westward in the region, tree-ring dates of A.D. 1150-1375 were secured at Pinedale, 1174-1382 at Showlow, and 1318 at a Chavez Pass site (Douglass, 1938).

Thus it will be seen that these two methods of culture dating bespeak the presence of Zuñi people in the area designated as their original homeland in the Southwest for 800 or 900 years. Many Zuñi legends, as well as culture variations demonstrable in the modern social organization, point to a dual origin of the Zuñi as we know them . . . one segment of the population having come from the southwest, and another from the north, the two blending together and developing a unique culture.

Woodbury points out that during the period of approximately A.D. 1100-1300, the population of the Zuñi region gradually began to leave the small, scattered settlements of the valleys, and to concentrate in large pueblos, most of which were located on the mesa summits. Hostility of neighboring Indian groups may have been a contributing factor in this movement, but Woodbury says that "it seems especially probable that the increasing complexity of the social and ritual organization of an expanding population made such a village pattern desirable and that, at the same time, an increasingly productive economy with a surplus to be diverted to the support of various specialists made it possible . . . ." (Woodbury, 1956).

Looking to background features of Zuñi, Woodbury calls attention to circular kivas which occurred in Nutria canyon and near Hawikuh, about A.D. 1100-1300. He says: "In both instances kiva details and the associated pottery showed strong similarities to the Chaco Canyon area, about 75 miles to the north. The Zuñi drainage . . . was near the southern periphery of a large region of San Juan Anasazi culture, of which Chaco Canyon was a major center of population concentration and cultural elaboration. When most of that area was abandoned in the 12th and 13th centuries the Zuñi region remained continuously occupied and probably received some minor population accretions from the deserted area. At that time, however, the Zuñi drainage came increasingly under Western Pueblo influence, from eastern and central Arizona, an influence that extended through the Zuñi towns to the Acoma area and eventually to the Rio Grande." He points out that a round kiva, which probably dates in the 1300's, at the site of Atsinna on top of El Morro, the prominent rock feature of the national monument of that name, would represent "one of the last expressions in the Zuñi area of a northern tradition in religious architecture that can be traced back in the San Juan drainage through the earliest round kivas to their pit house prototypes of the fifth and sixth centuries . . . ." (Woodbury, 1956).

It will be noted that the kivas in Zuñi today are rectangular in form. This is considered to be a feature of southern derivation, probably attributable to the so-called Mogollon culture of southwestern New Mexico and southeastern Arizona, and bespeaks an older idea than the circular ceremonial structures of the Anasazi. The Anasazi buried their dead. Early locations in the Zuñi region also produce inhumations. The Spanish chroniclers reported cremations at Zuñi, and Hodge discovered cremations dating to the late prehistoric period. Such practice of disposing of the dead was characteristic of the Hohokam culture of southern Arizona; it also occurred in sites some sixty-five miles southeast of Show Low (Point of Pines on the San Carlos reservation). These and numerous other traits indicate a factual basis for the Zuñi myths of migrations from the southwest.

MODERN ZUNI

The Zuñi, together with the Hopi, are commonly referred to as the Western Pueblos, in contrast to the Eastern Pueblos of the Rio Grande region; some authorities include Acoma and Laguna with the western division (Eggan, 1950). Among the Western Pueblo peoples, the clan — a social group claiming descent from a common ancestor — is basic in the social organization. These clans are matrilineal and exogamous (a man should marry outside his own and his father's clan); each is composed of one or more named lineages. At Zuñi there are presently fifteen, totemically named clans, the English designations of which are: Eagle (two divisions), Turkey (recently split into two divisions), Badger, Frog, Tobacco, Coyote, Elk, Tansy Mustard, Dogwood (with Macaw and Raven
divisions), Corn, Yellow wood, Sandhill crane, Roadrunner, Bear, and Sun (Ladd, 1959, personal communication). These were formerly grouped "on a ceremonial basis into phratries associated with the six directions, and there is some mythological sanction for a dual division (Eggan, 1950).

Each Zuni has affiliations with the mother's clan, and he has certain religious obligations to the father's clan. Certain individuals have hereditary clan positions which are passed from uncle to nephew, either through the consanguineous line (brother to sister's child) or extended to the overall clan (Ladd, 1959). The following diagram shows the clan organization in relation to the various religious groups, with the different societies one can join during his lifetime (after Ladd, 1959):

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The economic unit at Zuni is the household, normally composed of one extended family based upon matrilocal residence. "The central core of the household is a maternal lineage, 'a woman or group of women and their descendants through females,' to which are added husbands and miscellaneous male relatives" (Eggan, 1950). All persons born in the household normally belong to the lineage, or a segment of it. Marriage is monogamous. Divorce is simple and, therefore, common today. A man at marriage moves into the household of the wife, but he returns freely to the household of his birth; men marrying into the lineage and household have certain obligations for the duration of the marriage.

As Eggan has recorded:

The household normally occupies a series of adjoining rooms. It is an economic unit owning land and the products thereof and is co-operatively organized. The line of women who own the house look to their husbands to till their fields, though they can call on their brothers for help in emergencies. But in ritual matters the husbands are outsiders; the sacred fetishes and other ritual activities associated with the house are in the care of the women and their brothers. On ritual occasions the men return to their natal household to carry out the important duties of Zuni life. The women thus normally reside throughout their life in the household in which they are born, "the slow stream of mothers and daughters forming a current that carries with it husbands, sons, and grandsons." Their brothers are in a more peripheral position with divided loyalties and different residences (Eggan, 1950).

Certain ceremonies are associated with particular households — the "important families."

The diagram portrays something of the intense integration of Zuni society. A. L. Kroeber put this into words thus:

It is impossible to proceed far into the complexities of the social and religious organization of the Zuni without being impressed with the perception that this community is as solidly welded and cross tied as it is intricately ramified. However far one form of division be followed, it branches off by innumerable contacts into others, without ever absorbing these. Four or five different planes of systematization cross cut each other and thus preserve for the whole society an integrity that would be speedily lost if the planes merged and thereby inclined to encourage segregation and fission. The clans, the fraternities, the priesthoods, the kivas, in a measure the gaming parties, are all dividing agencies. If they coincided, the rifts in the social structure would be deep; by countering each other, they cause segmentations which produce an almost marvelous complexity, but can never break the national entity apart (Kroeber, 1917).

It is obvious that a system of matrilocal residence must influence the architecture of a village. Traditionally, after marriage of a daughter, quarters for her and her husband and children were built onto the matriarchal chambers... the more daughters who married, the greater the building accretions to the original family unit. This, then, resulted in a block of dwellings made up of contiguous rooms. Back rooms commonly served for storage purposes. Where a pueblo grew to more than one story in height, ground floor rooms often were used as storerooms, while living chambers rose to more light and security. Ladders were drawn up at night or in time of danger; loop holes in lower floor walls allowed use of such rooms as fortresses. Where a family had a majority of sons, this fact might be reflected in abandonment of home sections, as the males went to live in the households of their wives.

What serves as the roof of a lower story, also functions as an attractive outdoor area for higher stories set back from the lower levels. The Pueblo Indians have made much of these differing zones, carrying on most of their daily activities on a sunny roof or in the shade of a dwelling wall; such terraces also provide comfortable sleeping areas during the warmer months. This was the pattern followed in the larger pueblos of the past, and in Zuni until relatively modern days.

At one time, the structures at Zuni rose to five stories, erected around plazas. The houses were built of adobe or of stones which were irregular in shape and were plastered with adobe. Some of the multi-story buildings may still be noted, but this century has seen the development of a less consolidated settlement pattern, and, primarily, the use of well-worked building stones fashioned of the purple-hued sandstone from a quarry south of the pueblo. Most of the newer homes (many of which show the building date) are one story in height; they may be built onto other units, or they may be separate structures. Large windows in great abundance contrast to the pueblos of all other Indian peoples. Some houses are constructed entirely apart from the closely settled parts of the pueblo.

Electricity was brought into Zuni a number of years ago, permitting good lighting and the use of electrical appliances, refrigeration, and many aids for better living. Although modern sinks and water heaters were also in-
Figure 3. Old Zuñi matriarch with traditional pottery and basketry. 
(Ben Wittick Collection, Laboratory of Anthropology—Museum of New Mexico)
stalled, it has not been until the present time that a sewage system was provided for the pueblo, thus permitting other conveniences.

The fact of matrilocal residence and the traditional building plan have had their effect on the arts and crafts of the Zuñi people. Pottery making was highly developed in the prehistoric villages, and the art was continued by the matrons of modern times. Mother taught daughter, and daughter taught her female offspring. A skilled artisan was always at hand to start the novice, and to aid and direct her knowledge in the significance and use of designs.

In the older sites which dot the Zuñi valley, the decorated pottery shows black-paint designs applied over a white-slip background. Then the use of red paint was introduced; this gained steadily in popularity, and resulted in polychrome productions. In time, glaze-paint replaced the black in decorative motifs. These comprised the dominant pottery types at the time the Spaniards arrived.

For some reason, pottery makers throughout the Pueblo region began to show a loss of ceramic skills at this period in history. Control of the glaze-paints declined, and general sloppiness prevailed. In some pueblos the making of pottery ceased, never to be resumed. In others, after a lapse of time, the art was revived. The latter appears to have taken place at Zuñi, for the pottery of the modern period is quite unlike anything which preceded it in the Zuñi valley, "and equally unlike anything outside except the contemporaneous Hopi pottery" (Bunzel, 1929). This modern style was well developed by 1800. At first it demonstrated something of the dramatic in designing, but in time the designs became stereotyped. The styles from then on are the ones with which the public became well acquainted, and which readily bespeak "characteristic" Zuñi pottery (Fig. 3).

The clay for pottery making is secured from a place on top of Corn Mountain, where a dark grey shale abounds (Bunzel, 1929). All vessels are made by hand. When they have been fashioned and smoothed, a chalky white slip is applied to the areas to be decorated. Designs are painted on with black and red pigments. Often-used motifs include the deer, roadrunner, dragon flies, floral units, geometric figures, scrolls, etc., some of which seem to have symbolic meanings. Compared with the past, little pottery is currently being made in Zuñi.

Matrilocal residence has had an even greater influence on the silversmithing craft. This has become a household function, in which old and young, male and female members of the family participate. Adair has noted that silversmithing "is very much a part of the Zuñi work-a-day world. There is nothing ceremonial about the making of jewelry, and as a rule silversmiths do not hold ceremonial offices" (Adair, 1944). He adds:

The relationship between the art of the silversmith and the family and household is most clearly defined by the part they play in the learning of the craft. A Zuñi who wants to learn silversmithing turns to relatives for instruction in the art. They are the members of the village with whom he is the most intimate, with whom he associates in his daily life, and in whom he places his trust. The relatives with whom he associates most are the members of the family into which he was born. His father's family and his mother's family, in whose house he is brought up, will be his associates and friends for life. Even though the boy lives in the house of his bride after he is married, he will continue to see a good deal of his own family. After marriage, when the new residence is taken up, he will enlarge the circle of his friends to include the relatives of his wife . . . .

These are the two groups of relatives from which a Zuñi may choose his instructors, when he wants to learn to be a silversmith. The Zuñi learns by watching and helping, and then trying his own hand at the art.

Like the Navaho, the Zuñi first made jewelry of brass and copper. The use of these metals began about 1830 or 1840, after some of the menfolk had learned the craft of blacksmithing, which became important after the introduction of wagons.

A summer village, K'api'kwainakwin or Ojo Caliente, was established after 1795, about 14 miles southwest of Zuñi (Fig. 2). A small but permanent community is now located there, near a large and well-maintained spring. Wherever the reservation permits, farming and stockraising are practiced. There are other small, outlying settlements, including Nutria (Fig. 4), at the headwaters of Nutria creek and the Zuñi river, some 23 miles to the northeast of the main pueblo; Pescado, about 15 miles to the east; and Tekapo, some eight miles west by south. All the Zuñi, however, are a part of the central village and its social and religious organizations.

Old records show that the population of Zuñiland in 1860 was approximately 1,360. Fifty years later, there had been a gain of about 100. Since then, there has been a record of gradual increase: the census of 1941 gave the population of Zuñi as 2,252; that of 1951, 2,922; and in 1961, 4,213. The census of 1 January, 1962, lists 4,380, representing 876 family groups.

In recent years, many Indians have been trained in fire control and fire fighting. Each summer these efficient men are flown to emergency centers all over the nation to combat raging holocausts. The Zuñi have received a citation from the United States Forest Service for their outstanding work, which has cost some of them their lives. When summer blazes call the fire fighters away too frequently, the effect on the ceremonial calendar becomes evident; some dances and their accompanying rites have to be postponed; sometimes there is a "bunching" of events. An increasing number of Zuñi men and women are taking employment away from the pueblo, and commute to work (Gonzales, 1961).

Excellent school facilities have long existed at Zuñi, permitting the children to receive an education through high school without having to leave the home village. To governmental and mission schools, a fine new public high school plant was added in 1956. Catholic and Protestant churches afford Christian teachings. Over 80 per cent of the Zuñi high school graduates "avail themselves of opportunities in fields of higher learning, which include vocations, commercial training, and college" (Gonzales, 1961).

Although external changes are obvious and far reaching, the Zuñi have held on tenaciously to their unique social and religious organization (see Roberts, 1961). It is said that all Zuñi life is oriented about religious observance, and that ritual has become the formal expression of Zuñi culture. The Sun is recognized as representing the source of all life, and this celestial body bespeaks the supreme deity of the Zuñi. Ancestors (who, as the koko, reflect the earthly manifestations of those who have died)
are venerated and enter into every ceremony, being the basis for an intricate development of esoteric cults. Every Zuñi male must belong to the kiva societies or koko groups (commonly called the katsina societies among the Hopi and Rio Grande Pueblos), of which there are six, each associated with a direction: north, west, south, east, above, and below — recited in that order. Each kiva group has its own officers who direct its rites and practices.

Inasmuch as each of the Zuñi cults has ceremonies extending through an annual cycle, many colorful pageants may be observed at the pueblo. The year's events begin with the Winter solstice and extend to that of the following year. This, the Zuñi consider to be the middle of the year, “the point common to all the different cults, and . . . the center of their whole ceremonial life” (Bunzel, 1932). Two seasons are recognized, summer and winter, each of six months' duration. Dr. Bunzel has noted that, “Their solstice ceremonies are all nicely synchronized. They are fitted into a period of 20 days, and so neatly arranged that there are no conflicts, even for a man with varied ceremonial affiliations.” The esoteric name of Zuñi, Itiwana, which means “the middle,” was the place for which the early people searched for many years; they wandered far and long, seeking the middle place for the establishment of their village. The same word is also applied to the period of the solstice. Observations of the sunrise are made, until the sun reaches its southernmost limit, and the date set by a high religious official, the Sun priest.

Religious and secular officers regulate all of the activities at Zuñi. The priests control the esoteric groups, while civil affairs are conducted by the governor, lieutenant-governor, and six assistants or tenientes.

Doubtless, the most spectacular Southwestern Indian drama available, at least in part, to the public is the Zuñi Shalako (Fig. 5) which is given annually in late November or early December (see Stevenson, 1904). It takes its name from the most conspicuous of the participants, who impersonate the koko, or ancestral beings. There are numerous characters who enact specific parts in the great presentation. Six men are appointed to act as Shalako, and each has an alternate. They have duties which extend throughout the year. Then, at the designated time, the Shalako, "giant couriers of the rain-makers," come with their colorful retinue — all elaborately costumed and wearing imposing masks — to dedicate the new houses —supposedly six in number — which have been erected or remodeled during the year.

The public — Indian and non-Indian — gathers between 3:00 and 4:00 o'clock on the afternoon that the Shalako are to arrive (news media announce the date in newspapers and over the air). Rites are performed at certain locations throughout the pueblo. Later, the all-night festivities commence, in the new "Shalako houses." Visitors go to one or another of these, and watch the various characters who dance and perform age old ceremonies. At dawn, the actors go forth to sleep and eat. They then execute rites from which the public is excluded. Later, they emerge from indoors, and one becomes aware that "things are going to happen."

Certain activities may be observed from time to time. Then, somewhere around mid-day, a great race is held on the south side of the Zuñi river. The huge, bird-like Shalako figures, whose human feet and legs appear tiny indeed, run back and forth across the leveled ground, each in turn. Onwatchers almost hold their breath until the race is concluded . . . for, should a Shalako fall, dire
Figure 5. Zuñi in the late 1800's — Shalako crossing the river. [Ben Wittick Collection, Laboratory of Anthropology — Museum of New Mexico].

results would befall him; this the whole pueblo holds as a bad omen.

Visitors to Zuñi may witness a number of masked dances at various times during the year. There are beautiful ceremonies at Easter time, and during the summer months.

The Zuñi people are kind and friendly. As long as those who come to their pueblo conduct themselves in a courteous manner and observe the regulations pertaining to trespass; photographic, sketching, or note-taking privileges; and other rules of behavior prescribed by the Zuñi Council, they will be welcomed and allowed to enjoy themselves. There is one exception: Harking back to the Spanish conquistadores and the Mexicans who accompanied them, causing such drastic changes in the Indian way of life, the Zuñi have to this day excluded all "Mexicans" from the pueblo whenever ceremonials are being enacted; this applies to Spanish-Americans who may be their friends and associates under ordinary circumstances.

REFERENCES CITED
Eggan, Fred, 1950, Social organization of the western Pueblos: Univ. of Chicago Press, Chicago, p. 177, 188.
Indian Lands in New Mexico, 1936: N. Mex. State Planning Board, 1 October.
Kelley, V. C., and Clinton, N. J., 1960, Fracture systems and tectonic elements of the Colorado Plateau: Univ. of N. Mex. Publs. in Geol, no. 6, p. 78, 81, fig. 2 (map).
Ladd, E. J., 1959, Personal communications and notes.