

SMITHSONIAN MISCELLANEOUS COLLECTIONS  
VOLUME 81, NUMBER 12

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TAOS VALLEY, NEW MEXICO, DURING 1920

(WITH 15 PLATES)

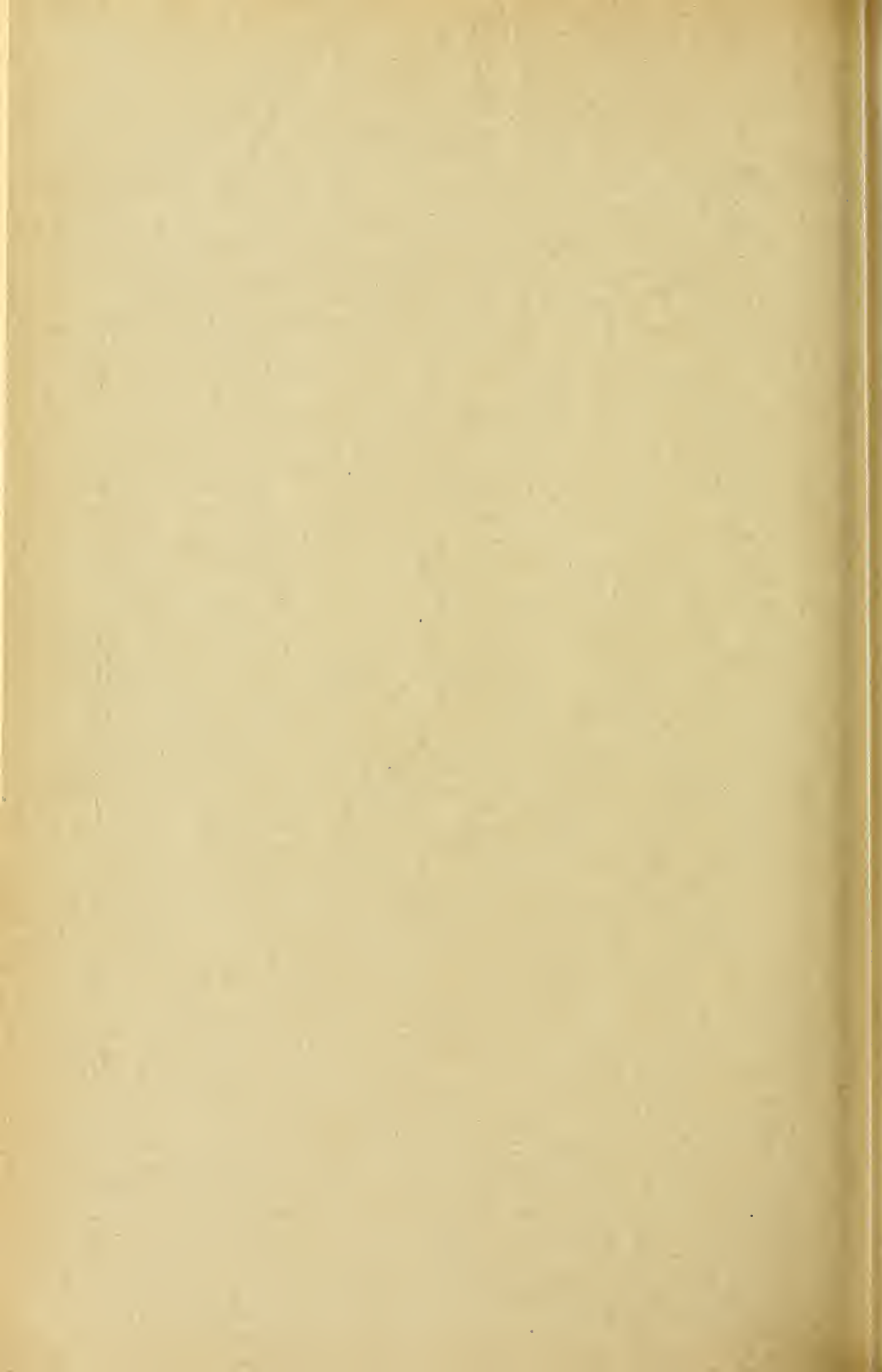
BY  
J. A. JEANÇON



(PUBLICATION 3015)



CITY OF WASHINGTON  
PUBLISHED BY THE SMITHSONIAN INSTITUTION  
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# ARCHEOLOGICAL INVESTIGATIONS IN THE TAOS VALLEY, NEW MEXICO, DURING 1920

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(WITH 15 PLATES)

## INTRODUCTION

Although it had been known that there were prehistoric ruins in the Taos Valley in northern New Mexico, they had never been considered of sufficient importance to warrant excavating. The number of sites and the extent of their distribution had never been determined and it remained for the writer to make a survey of what appears to be a very important area of the pre-Spanish Southwest. As far as it has been possible to ascertain, the chronicles of the early Spanish explorers make no reference to any ruins in this region, although they write about the Pueblo of Taos. The first mention is found in the Castañeda report of the Coronado expedition<sup>1</sup> and in the *Relacion del Suceso*. In these records the village is called Braba, Valladolid and other names. It was visited by Alvarado in 1540 and by Barriónuevo in 1547. In the Castañeda report Taos is spoken of as a large and powerful village with a river flowing through the middle of it.<sup>2</sup> According to Bandelier, the present buildings are not the same as those of the 16th century Braba, but they still preserve the same appearance and occupy the same position relative to the river and valley as did the old village.<sup>3</sup>

Comparatively little ethnological work has been done at Taos and consequently the origin<sup>4</sup> of the present people is still very much in doubt. The genesis myths of the Taos and of the Jicarilla Apaches, who occupy an adjacent portion of the State, have many points in common, and according to Mr. James Mooney<sup>4</sup> the friendship between

<sup>1</sup> Winship, G. P., *The Coronado Expedition, 1540-1542*. 14th Ann. Rep. Bur. Amer. Ethnol., pp. 329-613.

<sup>2</sup> Winship, G. P., *loc. cit.*, p. 511.

<sup>3</sup> Bandelier, A., *Final Report*, Pt. II, *Papers of the Archaeological Institute of America*, American Series, IV, University Press, Cambridge, 1892, p. 31.

<sup>4</sup> Mooney, J., *The Jicarilla Genesis*. *Amer. Anthropol. o. s.* Vol. XI, No. 7, p. 200, Washington, 1898.

these peoples was so great that they formed an alliance and intermarried. Without doubt there is a strong strain of Jicarilla blood in the present population of Taos.

The Taos Valley is bordered on the east by one of the most picturesque parts of the Santa Fe range, by lofty timber-covered hills at whose feet nestles a plain of surpassing beauty. Criss-crossed by many creeks and streams, some of which attain almost the dignity of small rivers, this well-watered country must have presented to the prehistoric dwellers an environment which could not be duplicated in most of the region with which they were familiar. The climate now is most equable, and there is no reason to suppose that at the coming of the first Indians it was very different. The summers are hot enough to ripen corn and other grains, and the winters are only occasionally extremely cold, despite the statements of the early Spaniards to the contrary.<sup>1</sup>

On the west the valley is bounded by the deep canyon of the Rio Grande, and the stream itself is practically impassable for many miles along its course. This no doubt presented a barrier to a large part of the country from the west, although access to the valley is easy from the northwest and the southeast.

The inhabitants of this region were fortunate in that the mountains furnished an abundance of timber for all purposes. The raw material was in close proximity to the villages so that it was not necessary for the people to carry their house beams and heavy logs for other purposes great distances. This was an item of considerable importance when it is remembered that the only means of transportation was man power.

The staple article of the people's food supply was corn, supplemented to some extent by wild seeds, roots, and fruit. Excellent wheat is now raised in the valley, but as it was unknown prior to the coming of the Spaniards it played no part in the life of the early Pueblos. They were not restricted to a vegetal diet, however, as game must have been quite abundant during the early occupation. Even at the present time deer and wild turkeys are fairly numerous in the Santa Fe range, and grouse, rabbits, and squirrels are plentiful. Many investigators have held that the turkey was not eaten by the Pueblo peoples, but kept for its feathers alone. Information given the writer suggests that some of the Rio Grande people used the bird for food as well as a source of feathers. During late prehistoric times the Indians even made forays into the plains area for buffalo

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<sup>1</sup> Winship, G. P., *loc. cit.*, p. 511.

meat, and at the time when the Spaniards arrived they were found wearing clothing made from the hides of that animal and of deer.

Although the streams abounded in fish, there is some question whether they were used as food. Some of the Pueblos are very much averse to eating fish because of certain superstitious beliefs; others have no such feeling and eat them as freely as does the white man.

#### SITES IN THE TAOS VALLEY REGION

The general area covered under the name of Taos Valley is somewhat larger than the valley proper.

Ruins have been reported as far north as the state lines of New Mexico and Colorado including two large sites, one at a place called "The Lobo," the other at the Hondo crossing of the Rio Grande. Owing to lack of time the writer was not able to visit these sites.

Starting at a point four miles north of Fernandez de Taos, the American village three miles southwest of the Taos pueblo, and running east to the foothills (between two and one-half and three miles) are many series of tower remains; also long lines of broken ditches. In many places the mounds have been disturbed or almost wholly obliterated by agriculture. The "tower sites" are only tentatively so named, as their exact character could not be determined without excavation. The mounds are all low, none being over three feet in height, while most of them fail to attain even that elevation above the surrounding land. All are circular, slightly higher at the center than at the periphery, and are composed of river boulders. They vary from three to twenty feet in diameter. No traces of mortar or adobe plastering were observed on any of the stones. None of the mounds appear to bear any special relation, with regard to position, to any other; they are scattered at random all over the area. As far as the writer observed they were all on the north side of the remains of a large ditch which begins in the foothills close to the present Pueblo of Taos and runs out over the valley for more than four miles. At present there are not many potsherds scattered over the area. No information could be obtained from the Indians as to the meaning of these remains.

One and one-half miles east of Fernandez de Taos is a low mound from which project corners of a wall constructed of river boulders laid up in adobe. There is also a small burial mound. Although the whole area has been more or less cut up by farming activities, a series of small house remains is still in evidence extending for one-fourth of a mile west. All of these sites are covered with a great number of



potsherds and stone artifacts. Several years ago Mr. Randall, owner of the land upon which the sites occur, built a reservoir at the eastern end of his property, and he stated that a small pueblo ruin of eight or ten rooms was completely destroyed during the construction. A few skeletons and one perfect piece of pottery were found, but he did not know what had become of them.

East of the Randall Ranch, at the bottom of the foothills, were found a few sites covered with potsherds but showing no indications of walls. Small greatly eroded house sites occur along the bottom of the foothills for a distance of five miles to the south.

One-half mile north and a little to the west of the Randall place is a bench running from the foothills west to the town of Fernandez de Taos. At a point three-fourths of a mile northwest of Randall is a rather extensive site on the sides and top of the bench. There are two ash heaps, outcropping of walls, and what might prove upon excavation to be a burial mound. The whole area has been more or less washed out and beaten down and it is impossible to plat the outlines of the ruins in their present form. Some very handsome black and white sherds, many arrow heads, and one complete black cooking pot have been taken from this site, and there still remain some very good deeply grooved metates on the surface. Judging from the few wall remains discernible most of the buildings were built on the small tongues of land which jut out from the main bench. The whole site embraces a scant two acres of ground, but is one which in the writer's opinion would warrant excavating.

One-fourth mile from this site, a little above a Penitente churchyard, is the beginning of a series of natural mounds, on the top of most of which are nearly obliterated house remains. The sites are covered with quantities of potsherds, broken stone artifacts, and other minor antiquities. No walls are indicated, and in the present condition no outlines could be established. From this point north to the Pueblo of Taos are many other similar sites, almost all of them closer to the foothills. There were no wall indications at any of them.

About three miles west of Fernandez de Taos, the writer was told, is a fair sized ruin, but unfortunately time was not available to visit this site.

According to Bandelier there are several ruin sites in and about Ranchos de Taos, which is four miles below Fernandez de Taos. The writer was unable to obtain any information with regard to these ruins except the one at Llano, one and one-half miles east from the



Plaza at Ranchos. This is where the excavation was carried on, and the site will be described in the part of this paper devoted to the excavation.

South of the town of Llano, on the mesa, are many low mounds but no wall indications. Very little pottery is scattered over the surface. There are many circular depressions which at first appeared to be kivas but were afterwards found to be pits from which adobe was taken to build walls. Again it was impossible to determine accurately outlines of even the mounds, as these are so badly washed out and so nearly obliterated that no boundaries could be established.

#### BAGLEY RANCH RUIN

About nine miles from Fernandez de Taos and five miles from Llano, on the Bagley Ranch, are two of the most interesting sites in the whole Taos region. A little less than one-half mile from the ranch houses, on the sides of a tongue-shaped projection from the main mesa, is one which is extremely puzzling. Running along the base and the sides of the projection for more than one-half mile is an area covered with thousands of potsherds, broken metates, manos, and other minor antiquities. In some places the sherd-strewn areas extend almost to the top of the hill. There are three distinct benches, each one having a definite platform running back to the next rise. These platforms are covered with what appears to be disintegrated adobe walls and ashes, mixed with a vast amount of pottery and stone artifacts. At no place in the whole area are even the faintest traces of walls apparent. The writer dug in many places where a line of stones seemed to indicate walls, but none was found. The present covering of the ground is certainly not the native soil, as its appearance is very different from that of the soil a few feet away from the borders of the ruin. Adobe and ashes are in evidence everywhere on the site, while the native soil is covered with a sandy, small-pebbled layer similar to that on the bed of a stream. If once a pueblo stood here, it must have been a very large one, although now completely obliterated. If not, what was the source of all the pottery and other artifacts? It is very difficult to conceive that even an adobe village could be so completely wiped out. The whole area is much too great in extent to suppose that it is a refuse or burial mound. No fragments of human bones were found on the surface, as would be expected had there been burials in a refuse heap showing so many signs of erosion.

## POT CREEK RUIN

The ruin to which this name has been given is one of the largest adobe-walled remains that the writer has seen in the Southwest. It is situated on the north bank of Pot Creek not more than one-fourth mile from the Bagley ranch houses and about the same distance from the main road running through the ranch. The mound covers many acres in area, rivalling in size that of Yucca House in the Montezuma Valley, southwestern Colorado. The mounds are very massive and attain a height of from 15 to 20 feet, suggesting that the village was two or more stories high. At no place are the mounds less than 15 feet wide, and in many places they are much wider.

The general ground plan of the buildings as indicated by mounds is a capital letter E with the three arms equal in length. In the middle of the site is an immense circular mound which is bisected by the central arm of the E. At the southwestern corner of the group is a compact mass of buildings almost surrounding a kiva. The other kivas are not embraced in the mass of rooms but are out in the open plaza. In many places there are indications of walls on the tops of the mounds. The whole surface of the ground is covered with innumerable potsherds and broken stone artifacts. It is possible that excavation would reveal many of the lower or ground floor rooms with ceilings intact.

Not over 500 feet east of this large mound is a smaller one. This suggests a compact mass of rooms and does not appear to have been a kiva.

Scattered over an area almost a mile square are potsherds, arrow heads and broken stone materials of all kinds. A lot of this has washed down from the large ruin, although possibly there were other small houses that have disappeared.

## HOT SPRINGS

At no great distance from a hot spring called the John Dunn, near the Hondo, is a ruin which is described as one of the largest in the Taos region. The writer was not able to visit the site, however. There are many other hot springs in the valley to which the present Indians attribute medicinal properties, but the Dunne spring is the only one with which archeological remains are associated.

## CEREMONIAL CAVE

About seven and one-half miles north of Fernandez de Taos, at the foot of a mountain called "Water Fall" or "Cascade," is a cave to which tradition ascribes ceremonial usage. Whether it was actually used for ceremonies cannot be verified at this time, as the Indians at Taos refuse even to mention it. Its situation at the foot of the mountain would be ideal for ceremonial purposes. The opening is heavily screened with trees and shrubs and would be difficult for anyone, not knowing its location, to find. The cave is not over 75 feet in depth and is about 30 feet high at the entrance. The ceiling attains a greater height inside, however. At about the middle of the back wall a trail leads to a formation which is suggestive of a seat and pulpit. The formation is between 35 and 40 feet above the floor. The trail is

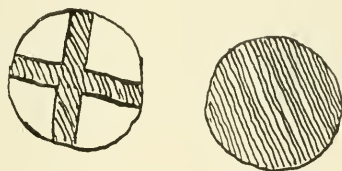


FIG. 1.—Circles painted on the roof of the ceremonial cave.

very smooth and highly polished, showing that many feet have passed over it. In front of and above the pulpit are two paintings, crudely done in white paint, possibly intended for sun symbols. Both are circular, one being filled in almost completely, while the other has a cross marked in the circle (fig. 1).

Falling from the rock, in front of the cave, is a thin trickle of water which forms a lovely little pool. The pebbly bottom of the latter was searched for offerings but none was found.

Americans who have lived at Fernandez de Taos for a long time state that the cave was actually used in comparatively recent years in connection with the August dances and other ceremonies, but no information as to their nature could be obtained. One informant said that the use of the cave was discontinued because the Mexican village of Seco was built too near to it.

## THE EXCAVATIONS AT LLANO

Beginning at a point a half-mile south of the plaza at Ranchos de Taos and extending a mile east from there is the village of Llano. The ruin excavated is just beyond the last house at the extreme

eastern end of the village. The owner of the property, Mr. J. D. Martinez, stated that when his father built his corrals and stables, a burial mound was removed to make room for one of the corrals, and that many skeletons were exhumed and reburied a short distance away.

#### SMALL MOUND

At a point about 100 feet from the corrals is located the small mound (pl. 1, *A*) which was the first to be excavated by the writer. There were very few surface indications of a building, and the walls, after excavation, stood only a little over two feet in height. The ruin contained only seven rooms and had no kiva in connection with it. (Pl. 1, *B*.) Most of the rooms are unusually large. In room 7 was found a quantity of charred and decayed roof material of the usual type. The walls were exceedingly well mixed and laid up, and the thickness of the plaster indicated long occupancy. The following description of the building of a wall as given in the Castañeda Report of the Coronado Expedition<sup>1</sup> applies to the construction of the walls at Llano:

Tiguex. The women being engaged in making the mixture and the walls. . . . They had no lime but made a mixture of ashes, coals, and dirt, which is almost as good as mortar. . . . They gather a great pile of twigs of thyme and sedge grass and set it afire, and when it is half coals and ashes they throw a quantity of dirt and water on it and mix it all together. They make round balls of this which they use instead of stones after they are dry, fixing them with the same mixture which comes to be like a stiff clay.

In the Taos mixture, small pebbles are added. After seeing walls built in the modern pueblos the writer observed that the present method differs from that described by Castañeda with respect to placing the balls of adobe after they were dry. In cases observed at Santa Clara and other Rio Grande pueblos the balls were put in position before they had dried.<sup>2</sup>

Another difference noted at Taos was that the checking of the walls, after they had dried, occurred in irregular masses. In the Chama ruins, and in modern walls, the checking was in more or less regular rectangular masses of different sizes, the cracks running horizontally and perpendicularly in the walls. At Taos the cracks in the masses were of all shapes and sizes and did not occur with any

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<sup>1</sup> Winship, Castañeda Report of the Coronado Expedition. 14th Ann. Rep. Bur. Amer. Ethnol., p. 520.

<sup>2</sup> Jeançon, J. A. Excavations in the Chama Valley, New Mexico, Bull. 81, Bur. Amer. Ethnol., p. 11, Washington, 1923.



degree of regularity. Even after the many years that the walls have been buried, the mixture of which they are made becomes very hard when exposed to the air for a few days. The average thickness of walls in the ruins was twelve inches. It is impossible at this time even to approximate the height.

### LARGE MOUND

The large mound (pl. 2, *A*), located about 300 feet approximately east of the smaller one, gave the appearance before excavation of having been a two- or possibly three-storied building. This was found, however, not to be the case, the height of the mound being due to the fact that the ruin excavated had been a secondary structure built on the débris of an earlier one. No attempt was made to establish the outlines of the first occupation, except at five or six places where they were accidentally encountered. The whole mound was covered with a thin deposit of very black loam containing many quartzite pebbles, and supporting a very heavy growth of sage-brush which had to be cleared before the work of excavating could be commenced. The mound was entered from the south central end; the dirt was thrown out by hand and afterwards moved to the base of the mound by a scraper drawn by two horses. The whole surface of the mound was scraped until the walls appeared, at a depth varying from six to eighteen inches. Very little wind-blown sand from the mesas or valleys appeared in the dirt, and most of the débris removed was from decayed wall material. Even near the floors there was almost no wind-blown sand, indicating that the ruin did not stand empty long before it collapsed. The noticeable absence in many places of roof material, either charred or semi-decayed, gave rise to a supposition that possibly the second building was never completed and had not been roofed over. In some places, however, there was a lot of charred material and it is possible that where such was not found, the roof had been completely destroyed by fire and the remaining ashes had become so thoroughly mixed with deteriorated wall material that they could not be distinguished. In some rooms there were the charred remains of upright poles which indicated, despite the absence of roof material in any form, that the room had actually been finished and covered over. These upright poles were located in the center of the room, the only exception occurring in room 6 where the post was in the southeast corner. In the kiva were the remains of two upright cedar posts, and two openings in the floor where others had stood. The existence of the latter was shown in the adobe lining of the holes where decayed

bits of cedar adhered to the plaster. This use of a central upright post for a ceiling support is, as far as the writer knows, the only example thus far encountered on the Jemez Plateau and adjacent country.

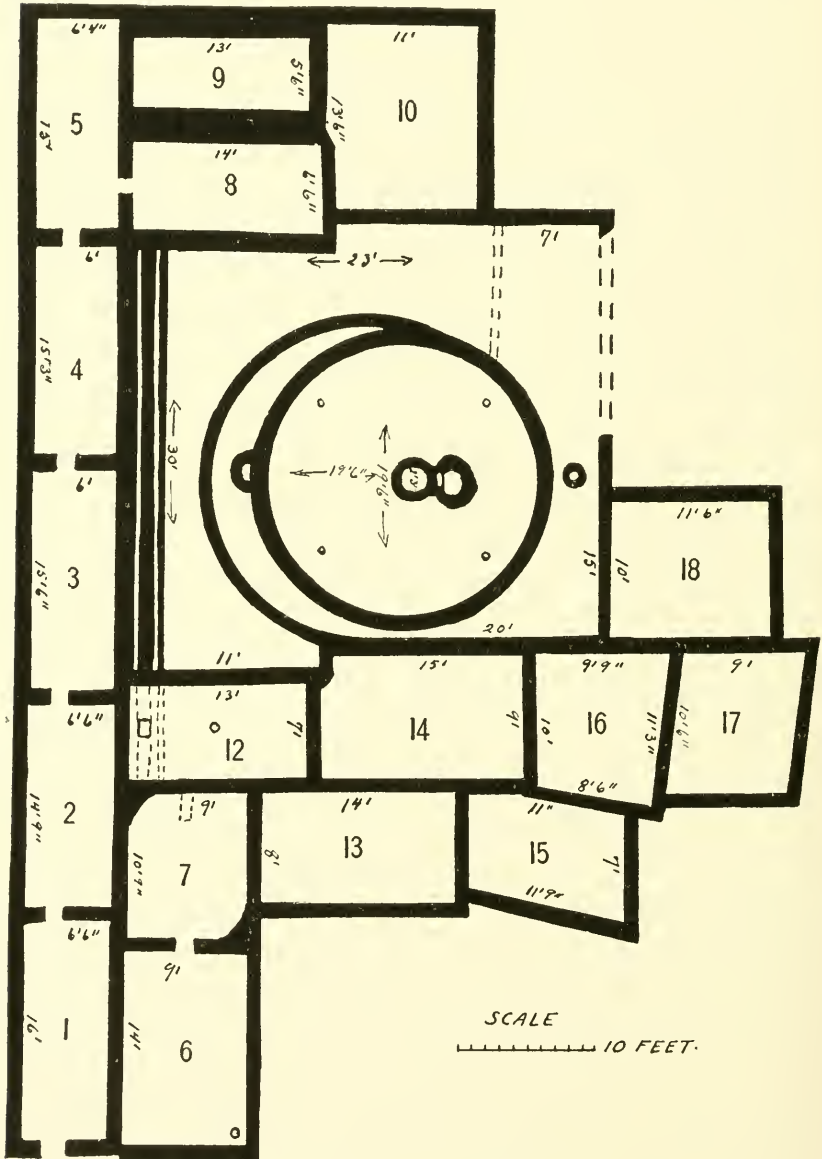


FIG. 2.—Map of large ruin at Llano.



Judging from present appearances there were no openings in the outside lower walls, not even ventilators, such as have been observed in other places on the Jemez Plateau. It is more than probable that the lower outside rooms were supplied with air and light entirely through hatches in the roof.

As far as could be determined by the excavation, the old walls did not serve as foundations for the secondary ones. There is practically no difference in the width of the walls of the buildings of the first and second occupations. All of them, old and new, are very irregular, and average from eight to twelve inches in thickness. Where the first walls were established, they ran under and on different lines from the newer ones. This was especially evident on the west side of the kiva plaza, where the original wall extended across the whole west side of the plaza and new ones were built on either side of the old one, the later ones rising from the present ground level while the older one extended for some distance below it. When these walls were

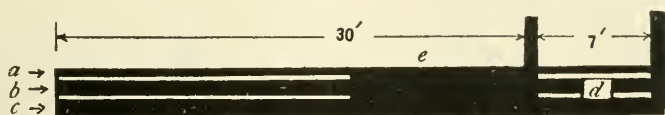


FIG. 3.—*a*, new wall; *b*, old wall; *c*, new wall; *d*, cache between walls; *e*, showing how spaces between walls were filled to make banquette.

completely excavated and swept it was found that the eastern one formed a banquette which had been plastered over the top and outer side (pl. 3, *A*). There was an open space between it and the central wall, which was built against the western one. The newer walls were not as well mixed and firm as the central one, which extended south below the room next to the plaza (fig. 3).

With the exception of room 7 all of the corners were square. In room 7 the southeast and northwest corners had been rounded off by the building of short walls across the corners. The northwest corner appeared to have been used as a fireplace, as the wall was smoke-stained from the floor to the top of the standing wall. There was no evidence of a chimney or even a hood such as the Zuñi and Hopi use. The southeast corner was not filled in solid, and the curving front wall, with the rectangular corner behind it, formed a sort of cupboard which was divided into an upper and lower shelf by a huge, flat, river boulder. The cupboard opening was circular and about one foot above the floor. There were no objects of any kind inside it, nor any smoke stains to suggest its use as a fireplace.

The walls of the large mound were built in the same manner as in the smaller mound, the only difference being their marked variation in thickness.

#### ROOMS

The rooms varied widely in size (pl. 2, *B*, *C*). No complete outlines of the first occupation were determined, but all of the second occupation rooms were uncovered and their dimensions are given in the following list:

No. 1.—16 ft. x 6 ft. 6 ins.	No. 10.—13 ft. 6 ins. x 11 ft.
2.—14 ft. 9 ins. x 6 ft. 6 ins.	12.—13 ft. x 7 ft.
3.—15 ft. 6 ins. x 6 ft.	13.—14 ft. x 8 ft.
4.—15 ft. 3 ins. x 6 ft.	14.—15 ft. x 9 ft.
5.—15 ft. x 6 ft. 4 ins.	15.—11 ft. x 7 ft. x 11 ft. 9 ins.
6.—9 ft. x 14 ft.	16.—10 ft. x 9 ft. 9 ins. x 11 ft. 3 ins. x 8 ft. 6 ins.
7.—10 ft. 9 ins. x 9 ft.	17.—10 ft. 6 ins. x 9 ft.
8.—14 ft. x 6 ft. 6 ins.	18.—11 ft. 6 ins. x 10 ft.
9.—13 ft. x 5 ft. 6 ins.	

The kiva plaza was roughly 30 ft. square.

The following measurements made in 1864 by Mr. John Ward at the present pueblo of Taos are interesting as showing the increase in size of the rooms more recently constructed:

Several rooms on the ground floor were measured by Mr. Ward and found to be in feet: 14 x 18; 20 x 22; 24 x 27; with a high ceiling averaging 7 to 8 feet.

In the second story they measured in feet: 14 x 23; 12 x 20; and 15 x 20; with a height of ceiling varying from 7 to 7½ feet.

The rooms in the third, fourth and fifth stories were found to diminish in size with each story.<sup>1</sup>

It would be extremely interesting to have an opportunity of excavating and measuring rooms in the ruin of old Taos Pueblo, which lies a short distance east of the present village. Perhaps the gradual growth in size of the rooms over the period between the Llano houses and the modern Pueblo, could be obtained in these rooms. However, it would be next to impossible to obtain permission to excavate in the Old Pueblo as the Indians will not even permit the mounds to be measured, much less excavated.

#### STORAGE ROOM

One of the most interesting rooms in the group was one which had every appearance of having been used for storage purposes. It is situated just south of the kiva, and is called room 12 (pl. 3, *B*). A raised bench occupied almost three-fourths of the floor space. In

<sup>1</sup> Morgan, L. H., *Houses and House Life of the American Aborigines*. Contributions to North American Ethnology, Vol. 4, p. 145, Washington, 1881.

the south and east ends were buried seven pots, four on the south side and three on the east side (fig. 4).

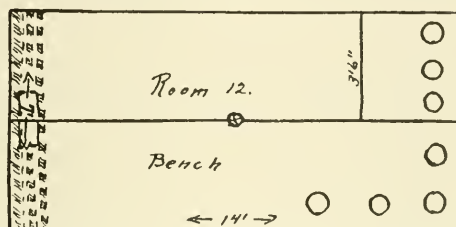


FIG. 4.—Ground plan of room 12, showing arrangement of storage jars below the bench level.

The tops of these pots came to within two or three inches of the floor; they may have been used for storing meal. At the western end was a sort of cupboard running under the wall, with an entrance about one foot square and one foot deep projecting into the room. In

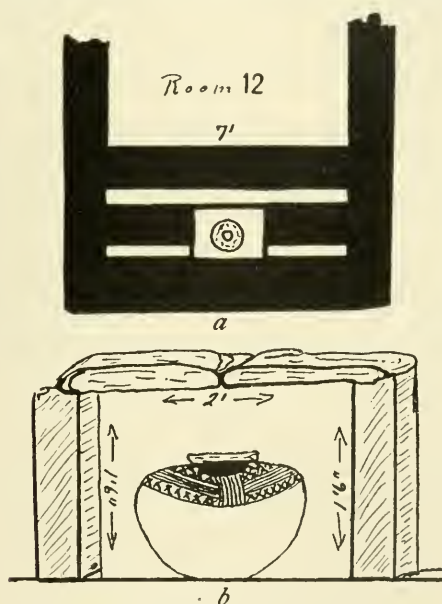


FIG. 5.—*a*, showing position of cupboard; *b*, cupboard with jar in place.

this cupboard was found a very handsome black and white heart-shaped jar (pl. 13, *d*), accompanied by a lid of micaceous schist and two small manos with flattened ends; also a fine buckhorn chisel, a large piece of buckhorn, a good bone awl, and several black and white sherds. A sketch of the cupboard is given in figure 5. Standing erect

in about the center of the room were the remains of a post approximately ten inches in diameter which was probably intended to support the roof.

#### KITCHEN

Another room in the eastern part of the group was probably used as a kitchen or cooking room. There were several poorly defined fireplaces in the floor, and a shallow trench ran along the entire south-

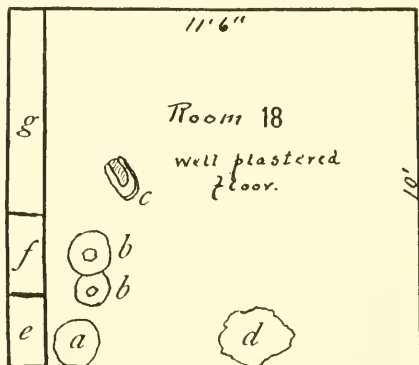


FIG. 6.—*a*, firepit containing ashes; *b*, pot rest with flat stone in bottom; *c*, metate; *d*, ash pile; *e*, *f*, storage boxes, 10 inches deep; *g*, shallow trench well plastered.

ern wall. This room was in such bad condition that it was almost impossible to get a definite idea of its original equipment of pots, etc. The few indications were enough, however, to establish its character (fig. 6).

#### KIVA

One of the most remarkable features of the ruin is the location of the kiva. Instead of being in an open plaza, detached from the main ruin, it is located almost in the center of a compact mass of rooms and is surrounded on all sides, thus completely cutting it off from the outside. The northeastern corner is enclosed by a wall which was in such bad condition that it was impossible to establish whether there had been rooms there or only an enclosing wall. The mound at this point is badly washed out, and although a thorough exploration was made, nothing definite could be established.

When the plaza, in which the kiva is located, was first cleaned off, it appeared that the area was used for dance purposes only. There

was a good hard stamped floor, with only a large river boulder in about the center to break it. After the floor was cleared, the writer decided to raise the boulder to see if there might be something below it, as it seemed out of place in the plaza. When the stone was raised a section of curved wall was disclosed, which led to the excavation of the kiva.

The one prominent problem of the kiva is the double wall on the west side (pl. 4). It was impossible from the excavation to determine why the two walls were used. At times it seemed to suggest two occupations; again this impression was destroyed by other indications which seemed to point to a single occupation. Both walls are alike in material and construction. The outside wall runs around about one half of the inner one. Starting at a point almost due north it runs around the western side and terminates almost due south. There is no outer wall on the eastern side. The ventilators are on the inner walls only, one east and one west (pl. 5, *A*). Both of these are barrel-shaped. The fill between the walls was composed of soft dirt, débris of roof material, river boulders, bits of pottery, and a few artifacts in bad condition, although a very handsome pipe was found in the trash. A curious feature occurring only in the kiva is the horizontal lines running around the inside of the walls. At first it would appear that these walls were laid up in regular courses, but an examination of shattered fragments shows that the wall was built in the same manner as all the others in the group, and that the horizontal lines do not indicate the use of moulds as would be suggested by their appearance. The walls still rise seven feet in height from the floor. They are about nine inches thick, and are very well made and hard.

The floor was formed of packed adobe, probably mixed with blood and ash as was the custom formerly. Three feet above the floor, in the débris which filled the chamber, was a deposit of two and one-half feet of drift sand, and between the sand and the floor were the remains of the roof beams, but these were in such bad condition that nothing could be learned of the roof construction.

There were two erect cedar posts at points shown on the map of the kiva, and in related positions were two holes in the floor, where additional supports had stood. These four uprights served to support the roof and show an interesting method of roof construction, one which was continued in later structures in the region.



The Castañeda Report refers to the supporting pillars as follows:

The young men live in the estufas, which are in the yards of the village. They are underground, square or round, with pine pillars. Some were seen with twelve pillars and with four in the center as large as two men could stretch around. They usually had three or four pillars.<sup>1</sup>

And again:

At this village they saw the largest and finest hot rooms or estufas that there were in the entire country, for they had a dozen pillars, each one of which was twice as large around as one could reach and twice as tall as a man.<sup>2</sup>

The feature has been found in other prehistoric ruins, however, for to quote from Judd:

fragments of curved adobe walls remained on the eastern side and these, if continued, would have circled a central fireplace about which four large pillars [posts?] formerly stood. . . . kivas with roofs supported by uprights were noted, also, during preceding expeditions.<sup>3</sup>

The fallen roof masses on the floor were not in condition to give further information concerning the construction. Scattered all through the débris were fragments of human and animal bones, as well as a few pottery sherds. There were no indications of burials in the kiva.

The fireplace (pl. 5, *B*), in about the center of the floor, was unusually fine. When first found it was full to the top with wood ashes.

Its inside diameter was two feet three inches. To the east of the fireplace stood a flat river boulder about one foot wide and one and one-half feet high; next to this (east) was a small pit, oval in form and measuring one foot nine inches by one foot six inches, with a depth of nine inches. The use of this pit is not known. Four feet east of this, in the wall, was a doorway measuring two feet in height and one foot in width from which a passage, roofed over with poles four inches in diameter, led through the wall for a distance of four feet. Here it ended abruptly against another wall. The east ventilator was directly above this, but was not connected with the passage. The only entrance to it appeared to be from the kiva.

No ceremonial objects of any kind were found in the kiva proper.

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<sup>1</sup> Winship, Translation of the Castañeda Report. 14th Ann. Rep. Bur. Amer. Ethnol., page 518.

<sup>2</sup> Idem, page 511.

<sup>3</sup> Judd, Neil M., Archeological Investigations at Paragonah, Utah. Smithsonian Misc. Coll., Vol. 70, No. 3, p. 15.



## MINOR ANTIQUITIES

## STONE ARTIFACTS

Most of the stone artifacts were of the usual character. Manos and metates were of several forms, the unusual depth of the latter indicating a long period of use (pl. 6, *b*). Maul heads of the usual type presented no new features (pl. 7, *d*). No axe heads were found. Several small cylindrical stones of unknown use were found. While they were not of any definite character, they showed plainly the marks of having been used for some purpose, probably polishing (pl. 7, *b*).

Pot lids and other articles of micaceous schist were rather plentiful (pl. 6). The writer has never before heard of the use of this material for stone artifacts. Several larger slabs of it had evidently been used as baking stones, as one surface was smoked and the other covered with a heavy deposit of grease.

*Eccentric forms.*—This group includes a troughlike stone which was possibly used for smoothing arrow shafts (pl. 7, *a*). It measured two inches long by one inch wide, the trough being  $\frac{5}{16}$  inch deep and  $\frac{11}{16}$  inch wide at the top. It showed marks of rubbing in the trough and on the top, bottom, and sides.

Another was a triangular shaped stone, with indentation, which also was probably an arrow or javelin shaft smoother (pl. 7, *c*). It was found with a fine red pipe, a banded stone, and a fossil (*Turwillana*).

*Chipped implements.*—Rather ordinary forms and workmanship were presented in the chipped implements (pls. 8 and 9), the only exception being the object shown in the upper left corner of plate 8, an unusual knife blade of especially fine chalcedony. The cutting edge is well chipped, and the top forms an excellent handle.

The material used for chipped and crude cutting edges, arrow heads, javelin heads, drill points, etc., included chalcedony, agatized wood, slate, moss agate, obsidian, and a sort of hard shale. One especially fine javelin head measured  $2\frac{1}{4}$  inches across the broadest part by  $3\frac{1}{2}$  inches in length (pl. 8, lower left-hand figure).

## BONE ARTIFACTS

Among the bone artifacts, also, only a few examples were out of the ordinary. Elk or deer horn was represented by flakers and chisels (pl. 10, *b*). Three pieces of rib bones (pl. 10, *c*) were interesting; the longest of these is 11 inches, the shortest  $2\frac{3}{4}$  inches in length, although the latter was probably longer originally, as one end of it is broken. All three of these specimens are notched, two with

teeth or notches on both sides and one with the teeth only on one side. Their use is unknown, although they suggest the notched stick which is used by many of the southwestern Indians to accentuate the rhythm of a song. The notched stick is placed with one end resting on a drum head or the bottom of an inverted basket, and another stick is rubbed across the notches; the noise thus produced falling upon the regular beat of the measure serves to accentuate the rhythm.

Only a few of the best bone articles are shown in the illustrations. These artifacts were in great abundance.

#### PIPES

Although only one whole pipe was found, fragments from several others are sufficient to indicate that the ordinary form was that of the tubular pipe or cloudblower. All were made of pottery clay. The best specimen (pl. 11, *a*), found between the double walls of the kiva and about two feet from the floor, is  $2\frac{1}{2}$  inches long,  $\frac{5}{8}$  inch in diameter at the large end and  $\frac{3}{8}$  inch at the mouth piece; it is red in color and was decorated by a series of striations beginning  $\frac{1}{2}$  inch from the mouth and running to the edge of the bowl. The clay of which it was made is so hard that it was thought at first to be made of stone.

The fragment shown on plate 11, *b*, is from a cloudblower made of the black cooking-pot paste. It is 2 inches long,  $\frac{5}{8}$  inch wide at the top, and  $\frac{6}{16}$  inch at the mouth, and is decorated with an incised snake design.

The indented fragment (pl. 11, *c*) has a grayish black soft paste, and measures  $2\frac{3}{16}$  inches long,  $\frac{3}{4}$  inch wide at the top of the fragment, and  $\frac{3}{8}$  inch at the mouth.

Plate 11, *d*, shows a fragment from a pipe made of soft black paste, with line and dot incised decoration. It is of the cloudblower shape, and is  $1\frac{1}{4}$  inches long and  $\frac{5}{8}$  inch in greatest diameter.

The last fragment shown (pl. 11, *e*) has a gray paste and is decorated with 7 incised horizontal lines which do not show in the illustration. It measured  $\frac{3}{4}$  inch in greatest diameter and  $1\frac{3}{4}$  inches in length.

#### FETISH OBJECTS

The prehistoric Indians in the Southwest had a tendency to collect curious fossils, concretions, brightly colored stones, and other natural objects, and it seems quite probable that they were used as fetishes or medicine stones. The people at Llano were no exceptions to the rule, and a number of fossils and odd-shaped stones suggesting such usage were found. Among the fossils are two which are interesting because

they bear the same name, in the Taos dialect, as a clan which formerly existed at Taos but is now extinct, the Turwillana clan.<sup>1</sup> The fossils are of the cylindrical variety marked with rings. It is possible that their presence in the ruin may indicate that such a clan had lived there.

Another of these objects was a handsomely polished banded piece of ribbon agate (pl. 11, *h*) probably used as a medicine stone, found in room 8. The colors are white, cream, gray, light brown, and black in irregular bands. It measures  $2\frac{1}{4}$  inches in length and  $\frac{1}{2}$  inch in greatest diameter.

#### INDICATIONS OF BASKETRY

While no baskets or fragments of basketry were found, many potsherds with basket impressions on them (pl. 11, *i*) were picked up during the summer, and these may be considered as a good indication that the people did have baskets. Judging from the impressions on the pottery fragments, the sticks of all the baskets used in the village were about the same size. In one case only does it appear that a larger bundle or rod had been used. On one fragment of pottery, there are what appear to be textile impressions or smears; these can be seen only under a magnifying glass; how they occurred it is at present impossible to tell.

The presence of basket impressions on pottery, which are more common in this region than at any other place where the writer has worked, has been explained by Dr. A. V. Kidder in a discussion of similar markings found on vessels from the Jemez Plateau. Dr. Kidder writes:

An extraordinarily high percentage of basket marked sherds is found at the small house ruins. Such sherds occur, it is true, in most other Black-and-White groups, but they are of greatest rarity. Here, however, they can be picked up at almost any site. The impressions show that bowls and lower parts of ollas were often formed in baskets. In these cases the clay was apparently coated on the inside of the basket and pressed down hard enough to render the marks of the weave sharp and clear. The upper parts of the ollas were probably constructed by the regular coiling method. Some bowls, however, seem to have been molded or cast entire in basket forms, as the impression of the weave runs to the rim. The baskets themselves were of the coiled variety, tray or bowl shaped; the coils measure 4 to 5 mm. in breadth and there are about six sticks to the centimeter.<sup>2</sup>

<sup>1</sup> Handbook of the American Indians, Bull. 30, Bur. Amer. Ethnol., Pt. 2, p. 690.

<sup>2</sup> Kidder, A. V., Pottery of the Pajarito Plateau and some of the Adjacent Regions of New Mexico. Mem. Amer. Anthropol. Assoc., Vol. II, pt. 6, p. 414.

## POTTERY

The pottery from Llano may be classed in three groups, the black cooking vessels; the black on white bowls, ollas, and jars; and the black on red pottery.

There were no examples of the indented or corrugated pottery in the ruin at Llano, but on the surface there was an abundance of such sherds. The large jars from the ruin appear to have been made in the usual coil technique but the coils were obliterated, by wiping the surface with a corncob or some other object with a rough surface, as work on the vessel progressed. After the completion of the pot, decorations were incised around its upper part. On many the lower portions show traces of the coils which were not completely obliterated by the rubbing process.

The following quotation from Kidder gives a good impression of the general appearance of the ware:

The latest black ware so far identified is the striated; there is, of course, no sign of the coil, but the surface is scored with a series of fine and more or less parallel scratchings, criss-crossing over each other in all directions. These were produced evidently, by some finishing tool used while the clay was moist. Experiment shows that a corncob with the kernels removed most nearly duplicates these marks.<sup>1</sup>

Although the coiling is still slightly apparent in places on the Llano vessels, the striations described by Kidder are also in evidence. As a matter of fact, the Llano forms seem to represent a combination of Kidder's black corrugated and striated forms.

The incised designs are of the simplest character consisting usually of horizontal lines, although on one pot (pl. 12, *a*) there has been an attempt to establish three zones of decoration, the middle zone different from the upper and lower ones. The short dashes of the middle zone appear to have been made with a long thumb nail.

The writer encountered a somewhat similar ware in an investigation of La Jara Cañon, New Mexico, situated at the southern end of the Jicarilla Apache reservation. However, there was considerable difference in the pastes of the two areas, that of Llano being much softer and without a great amount of temper, while that of La Jara Cañon was composed of materials that burned almost to a vitrified brick. The vessel marked *C* on plate 12 shows unobliterated coils on the neck beginning just above the shoulder. Below the coils are incised lines. The bottom has the usual obscured coils observed on practically all of the pots.

<sup>1</sup> Kidder, A. V., Notes on the Pottery of Pecos. Amer. Anthropol. n. s., Vol. 19, p. 339, Lancaster, 1917.



As will be seen from the illustrations the incisions on the various vessels were not all made with the same sort of an implement. Most of them are sharply cut, but in those shown on plate 12, *d, e, f*, a blunt broad implement was used.

All of the pots are more or less asymmetric, but so slight is the irregularity that it is rather pleasing than otherwise. The balance in form is also uneven; taking the vessel as a whole and noting the line of greatest diameter, we find that there is no set rule as to where it occurred in the vessel. Sometimes the greater part of the jar was above this line, and sometimes below it.

Plate 13, *b*, illustrates a water jar of beautiful form, grayish in color and showing only partially obscured coils in places. The paste of this vessel is much finer than that of the ordinary cooking or storage pot; it seems to fall between the black ware and the black on white decorated ware.

All of the forms are strikingly reminiscent of the earlier Apache forms, especially of the Apache water bottle.

Basket markings on the bottom of pottery vessels are so common as to give the impression that a large majority of the pots were started in the manner described by Dr. Kidder on page 19. Some of the crude black pots have excellent prints all over the bottom and often rising as much as two inches up the sides. In plate 13, *c*, a black on white piece, there may still be seen basket imprints just below the shoulder where the white slip has more or less disappeared. The prints on the bottom of this vessel are very plain. A number of interesting sherds are shown in plate 11, *i*.

Basket impressions have been recorded from many places. Dr. Kidder<sup>1</sup> speaks of them in the San Juan drainage as follows:

"Pottery vessels, on the other hand, were scarce and crude, and usually bore on their bottoms the imprint of the baskets in which they had been formed."

*Black on white ware.*—Black on white ware was well represented at Llano and appears to be related to the Rio Grande black on white ware as well as to the southwestern Colorado wares. In the Taos region fully one-third of the sherds are very good white with excellent jet black decorations. One feature is very noticeable, namely, that the crackling or crazing of the white slip appears to have been done more by exposure to the elements than in the original baking of the ware.

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<sup>1</sup> Prehistoric cultures of the San Juan drainage. Proc. 19th Internat. Cong. Americanists, p. 108. 1917.

On the sherds that are buried the white slip is not crazed, but where the sherds have been lying exposed on the ground, there appears to have been a deterioration and crazing has taken place in varying degree, depending probably on the length of time they have been exposed and on weather conditions.

No hard and fast rule seems to have been followed as to the zones of decoration. In the bowls the percentage of decoration on the exterior is practically the same as on the interior. This of course applies only to bowls; ollas are decorated only on the outside.

As far as could be determined from the rim fragments found, the rims were so thin that they could not be decorated. No dots, ticks, or zigzag lines were found on the rims; in many cases the exterior as well as the interior decorations extended to the rim. No out-turned rims were found.

Decorations of banded lines occur, but are not common. The usual arrangement of such designs is a broad band at the top and bottom,



FIG. 7.—Animal figure on pottery.

with three or four thinner lines between these. The paste of the black on white ware is usually hard and homogeneous. Little variation in color can be noted in the cross section of a sherd.

The following quotation from Dr. Kidder's notes on the black on white ware of Pecos is interesting for comparison:

Slip-color ranges from light to dark gray, very rarely purely white [good white about 33½ per cent at Taos]; it is applied to the interior of the bowls in a relatively heavy coat; to the exterior usually as a thin wash, occasionally as a heavy coat, rarely omitted altogether. Slip often cracked, particularly when it is applied heavily on the exterior. Finish of the interior even but never glossy; of exterior much rougher. No specimen with corrugated or basket marked exterior observed. [Note difference in Taos basket marks.]

Ornamentation-pigment dull black, usually of slaty cast. Zones, interior of bowls exceedingly rare. [Note difference from Taos pottery.] Straight bowl rims usually plain, occasionally dotted; out-curved rims bear ticks or more commonly zigzag lines. The main ornament appears to have been in the form of a broad band encircling the interior of the bowl and leaving small blank spaces in the bottom. Bands framed above and below by single heavy lines ("N" Plate VII, Figure 7); less commonly by one heavy line with a series



of lighter ones between it and the band ("N" Plate VII, Figure 8). Line breakers in framers rare. "All over" decorations apparently fairly common, particularly on small bowls. Design preponderatingly geometric and rectilinear, life and curvilinear forms practically absent. [At Taos, a few sherds with curves, one life figure.] Elements of design most commonly observed; coarse hatching and cross-hatching; plain and dotted checker-board series of plain triangular figures; dotted lines and edges; large stepped figures in opposed pairs. Brushwork normally crude and uncertain, lines coarse.

Paste composition—Paste, fine, very hard and homogeneous; color ranges from pure white (rare) through light gray to dark gray (rare). Many sherds of even color from surface to surface, but in the majority the center is darker than the edges. Gross tempering (sand or pounded rock) apparently absent.<sup>1</sup>

No true biscuit ware was found, unless some of the vessels might be considered to come under the classification given by Nelson in the following quotation:

There seem to be two kinds of biscuit ware, the most common being of a dull white or light gray color, the other of a yellowish tone. This latter has its probable forerunner in a more or less distinguishable variety of black on white ware, but the prototype of the former has not been found so far.<sup>2</sup>

Although biscuit ware is found in the region, the writer is inclined to believe that the Llano black on white ware does not represent a form of biscuit ware, but a true black on white.

To quote again from Nelson:

The pottery actually figuring in the table is a local variety of the black on white ceramic identified with the general sub-stratum of Southwestern Pueblo culture. Bandelier generally associated the ware with "small houses," i. e., with what might be called a pre-pueblo stage of sedentary life; but the data now at hand enable us to state that the large quadrangular form of village typical of the Rio Grande valley in later times was fully developed before the black on white pottery went out of style. The ware as a whole is perhaps not quite so fine [not the case at Taos] as that of Mesa Verde and Chaco regions on the one hand or of the Upper Gila and Mimbres regions on the other. It is particularly lacking in variety of form. In decorative symbolism it approaches the abandoned northwestern Pueblo area rather more than the southwestern, and is little, if at all inferior to it.<sup>3</sup>

As far as could be determined there were no pre-pueblo houses in the Taos region. The small ruins were apparently of the same period as the larger ones. No differences were noted between the pottery and other artifacts from the large and small sites.

<sup>1</sup> Kidder, A. V., *loc. cit.*, pp. 327-328.

<sup>2</sup> Nelson, N. C., *Chronology of the Taos Ruins, New Mexico*. Amer. Anthrop. n. s., Vol. 18, p. 169, Lancaster, 1916.

<sup>3</sup> *Idem*, page 171.

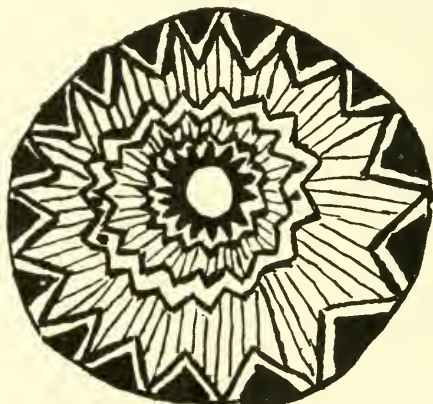


FIG. 8.—Design on black on white ware.

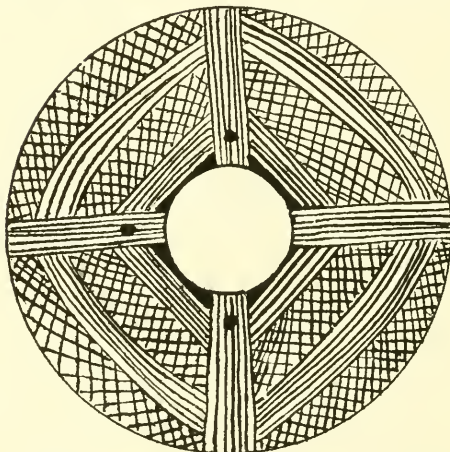


FIG. 9.—Design on black on white ware.

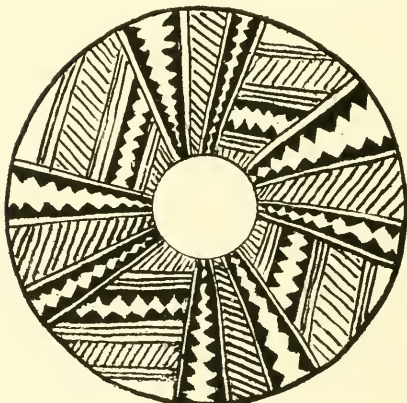


FIG. 10.—Design on black on white ware.

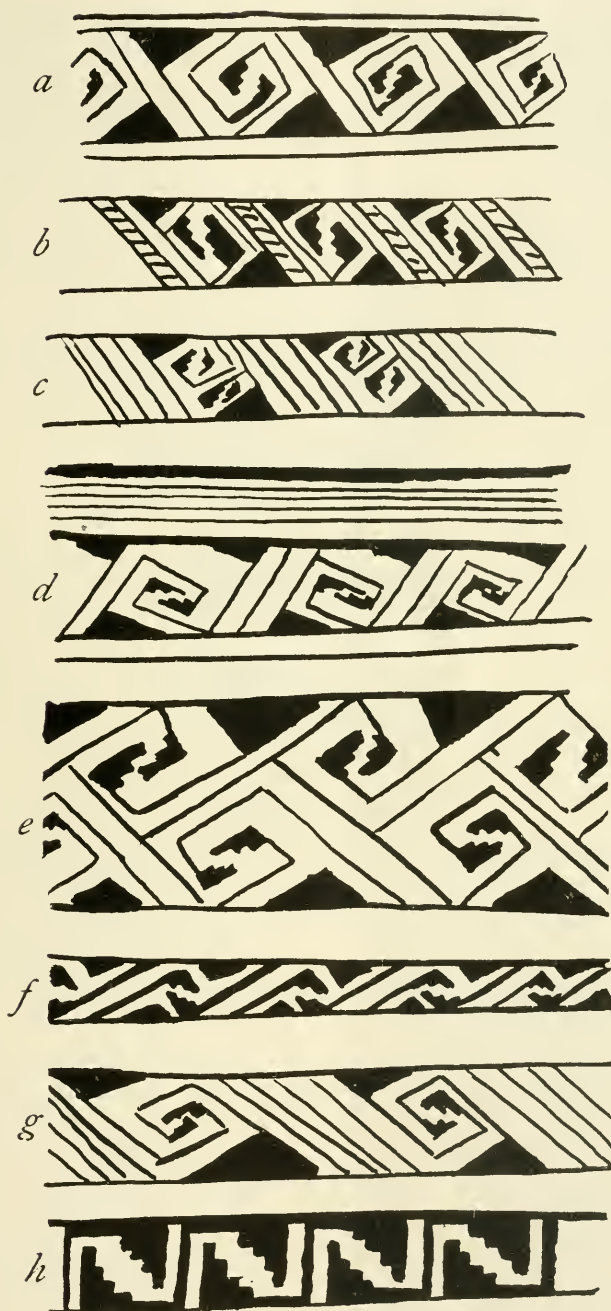


FIG. 11.—*a, b, c, d*, interlocking fret, Taos. *e, f, g, h*, interlocking fret, Aztec.

As may be seen from the figures drawn from sherds, no curvilinear designs at all were found, all being strictly rectilinear; only one life form was noted (fig. 7).

The black on white ware was mostly in the form of ollas and bowls. The small heart-shaped jars are particularly handsome (pl. 13, *c*, *d*). Two of these were found, one whole and the other in such condition that it could be restored. The designs are shown in plate 13, *c*, *d*, and figures 8, 9. Figure 10 is a reconstructed design from the top of a water jar. Enough fragments of this were found to reconstruct about five-eighths of it.

The interlocking fret design shown in a number of cases on the Taos black on white ware is almost identical with that found in the Aztec ruin

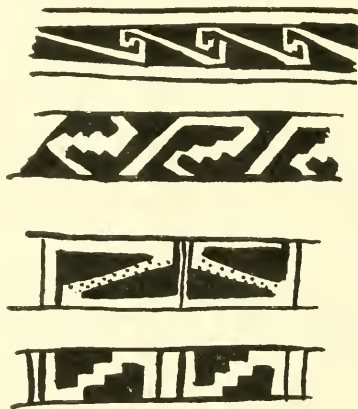


FIG. 12.—Interlocking fret design. From Oak Tree House, Mesa Verde National Park, Southwestern Colorado.

(fig. 11), and figured by Earl Morris in the *American Anthropologist*, Vol. 17, 1915, p. 676, and also on sherds found by the writer when acting as assistant to Dr. J. W. Fewkes, at Oak Tree House, on the Mesa Verde, in 1921 (fig. 12).

The dividing of the top of an olla as shown in figures 8 and 9 is common to most parts of the southwestern prehistoric Pueblo culture area. Figure 13 was taken from the paper cited above on the Aztec Ruin by Earl Morris.

The varied designs of the Taos region include zigzags, triangles, checkerboard and many other forms (fig. 14, and pl. 14).

*Black on red ware.*—Only a few sherds from vessels belonging to this group were found and these are not enough to give any definite opinion as to the general characteristics of the type in the Taos region.

The sherds obtained indicate that the ware was very pleasing in color and finish and that the decorations were chiefly of the geometric rectilinear form. The small percentage of black on red ware mixed with the black on white is a feature which is characteristic of other sections in the Southwest as well. This is notably true of the Chaco Canyon and the Mesa Verde ruins.



FIG. 13.—Jar from Aztec, New Mexico.

#### SUMMARY

During 1920 a brief survey was made of the distribution and location of ruins in the Taos Valley. The results showed that there were many sites, including a number of extensive adobe ruins, which are worthy of investigation.

Two mounds were excavated at Llano and the ruins of adobe buildings uncovered. The smallest structure constituted the remains of a 7 room pueblo which gave indication of a long period of occupancy. Considerable information on the methods of wall construction was obtained from this ruin.

The second and larger mound contained the remains of two levels of occupation. The building belonging to the second or later period was excavated. It had been an 18 room pueblo with a kiva. The building gave evidence of having been destroyed by fire and no information could be obtained with respect to the method of roof construction beyond the fact that the secular rooms had had a single



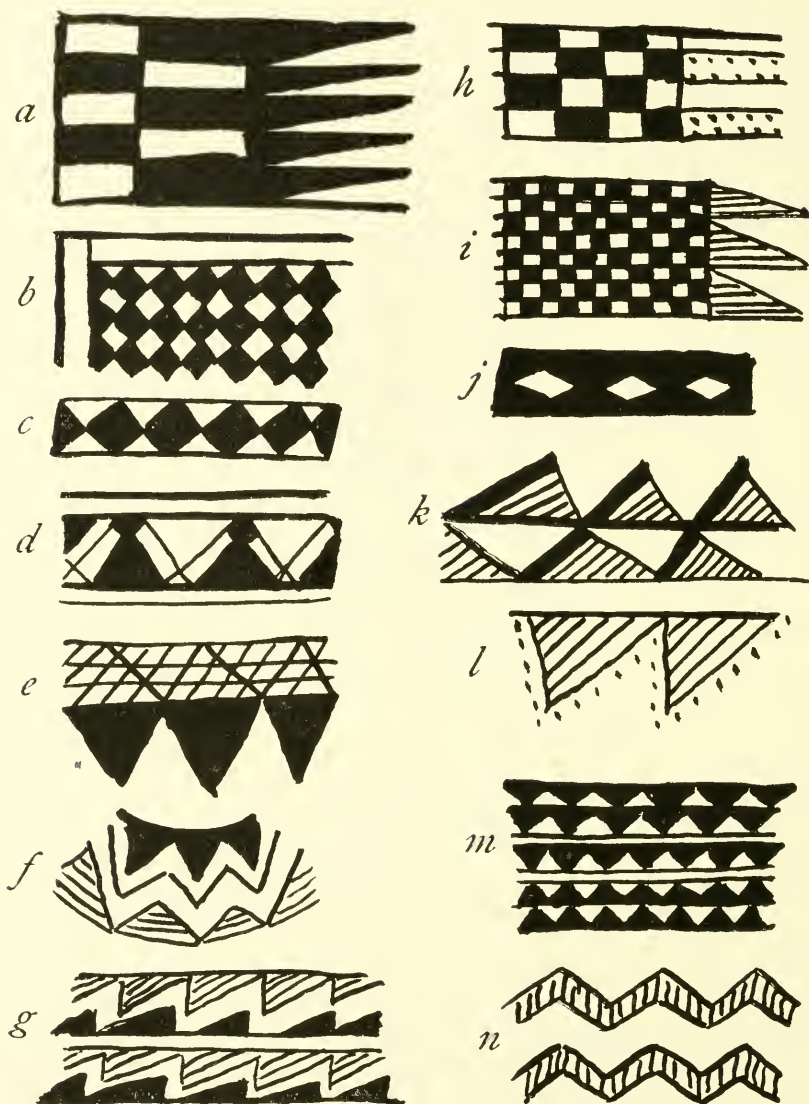


FIG. 14.—Designs on black on white ware, Taos region. *a*, interior, bowl, Bagley Ranch; *b*, exterior, shoulder, Llano; *c*, neck, Llano; *d*, interior, rim, small bowl, Llano; *e*, rim, Llano; *f*, neck of olla, Llano; *g*, interior, red ware bowl, Llano; *h*, interior, bowl, Bagley Ranch; *i*, interior, bowl, Bagley Ranch; *j*, neck, Llano; *k*, interior, small bowl, Llano; *l*, rim, Llano; *m*, shoulder, Llano; *n*, shoulder and neck, Llano.



central ceiling support and the kiva covering had rested on four upright posts. The kiva was found to have been placed in the center of a compact mass of rooms instead of in an open plaza detached from the main building.

The pottery gave evidence of a relationship to that of southwestern Colorado and the Rio Grande wares of the late black on white period. Nothing unusual in the way of stone or bone implements was found. All appear to be of the general type associated with such ruins. The chief interest in stone objects was in the absence of grooved axes and the use of large pieces of micaceous schist for cooking slabs.

The sites in general may be considered as representing a late phase of the black on white period, perhaps just preceding the beginning of the glazed wares in the Rio Grande.





A. Small mound at Llano before excavation.



B. Small mound at Llano after excavation.



A. Large mound at Llano before excavation.



B. Excavated rooms in large mound.



C. Excavated rooms in large mound.



A. Banquette.



B. Storage room.





A. Double wall of kiva.



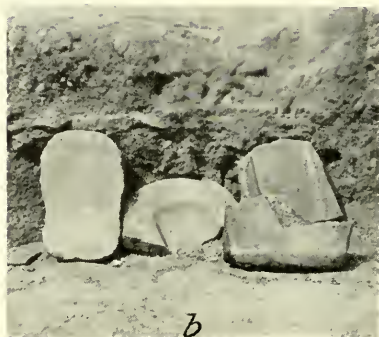
B. Double wall of kiva.



A. West ventilator.

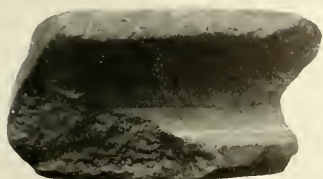


B. Fireplace.



*a, b, c.* Metates and objects of micaceous schist.





*a*



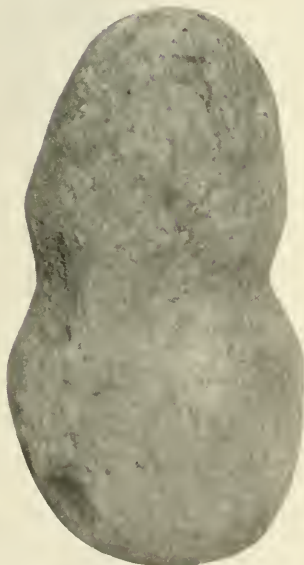
*b*



*c*



*d*



*d*



*d*

*a*, Arrow-shaft polisher; *b*, cylindrical stone; *c*, stone of unknown use;  
*d*, maul heads.



Chipped stone objects.

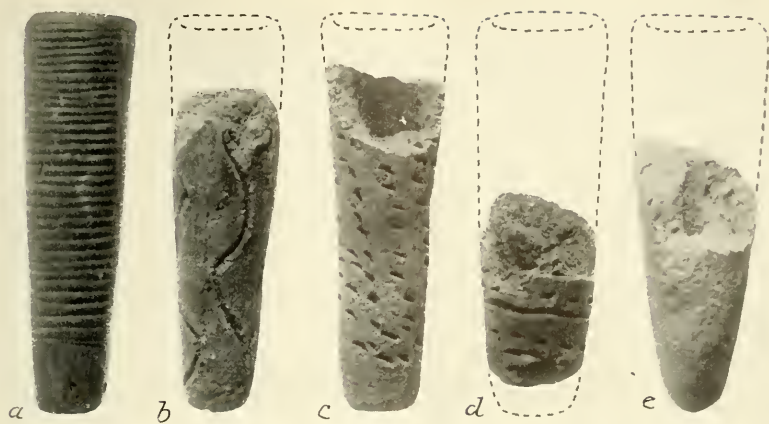




Chipped stone objects.



Bone implements.



g



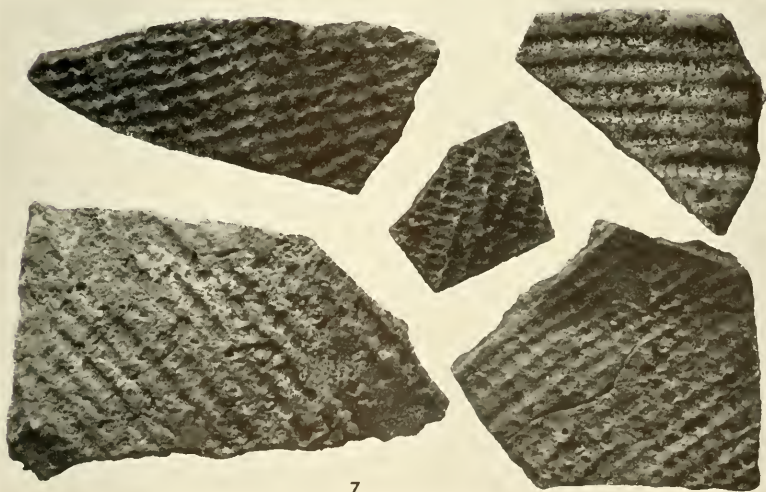
f



f



h



i

a, b, c, d, e, Pipes; f, g, fossils; h, agatized wood; i, basket impressions.

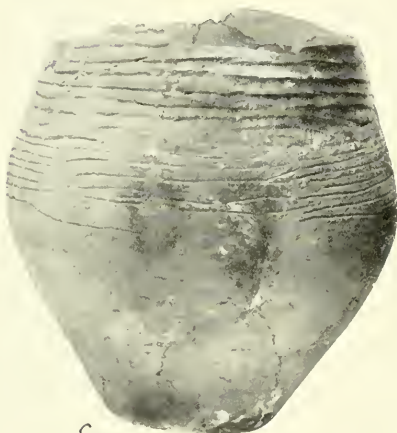




*a*



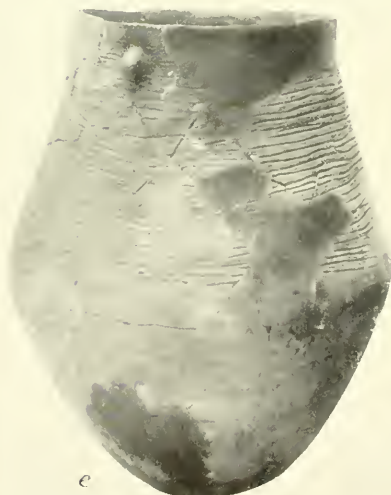
*b*



*c*



*d*

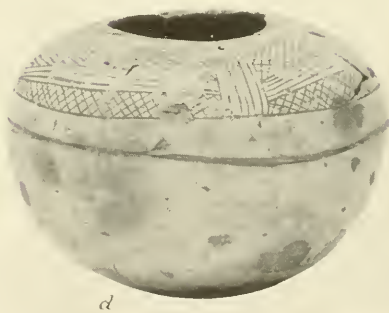
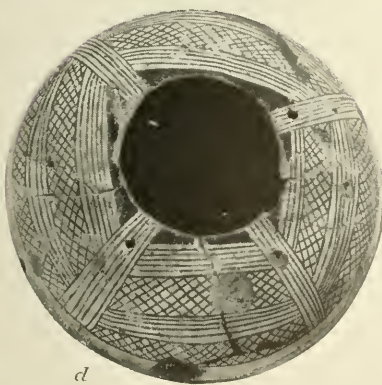
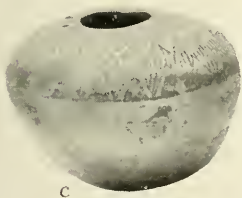


*e*



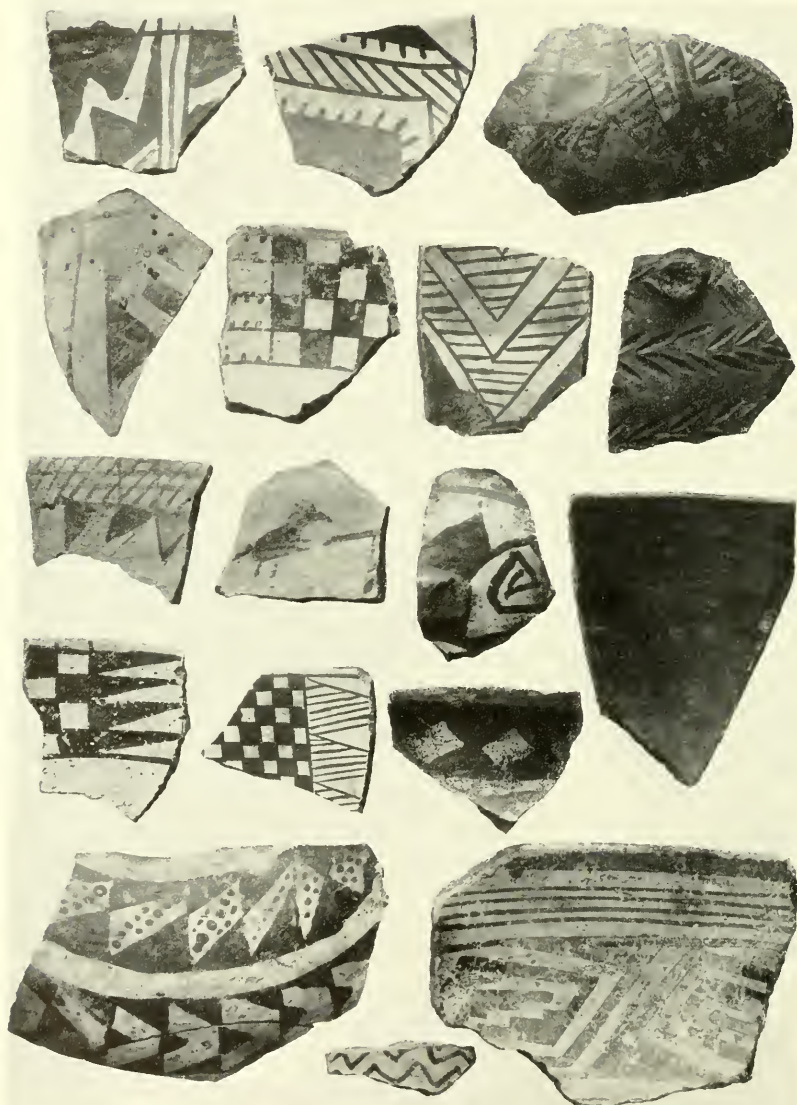
*f*

Culinary and storage jars.

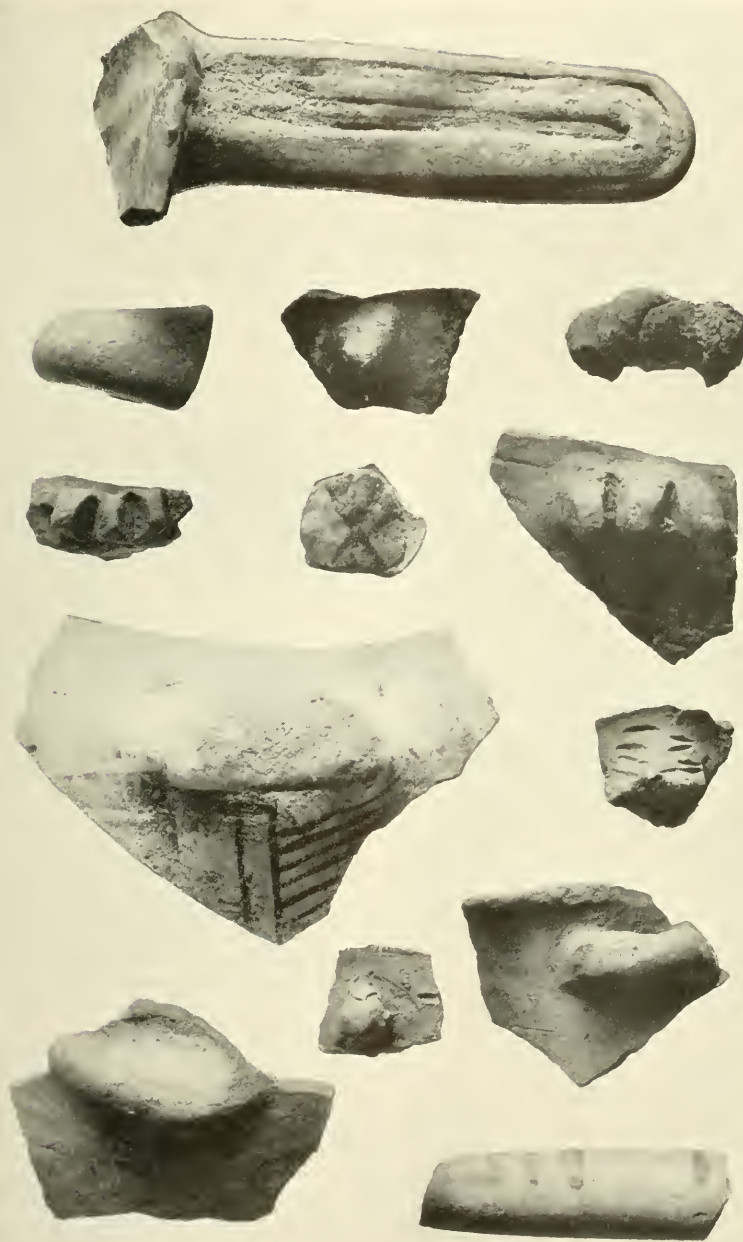


*a*, Culinary jar; *b*, water jar; *c*, *d*, black on white ware.





Types of pottery designs.



Types of pottery handles.