BLANKENSHIP RANCH

Historic Structures Report

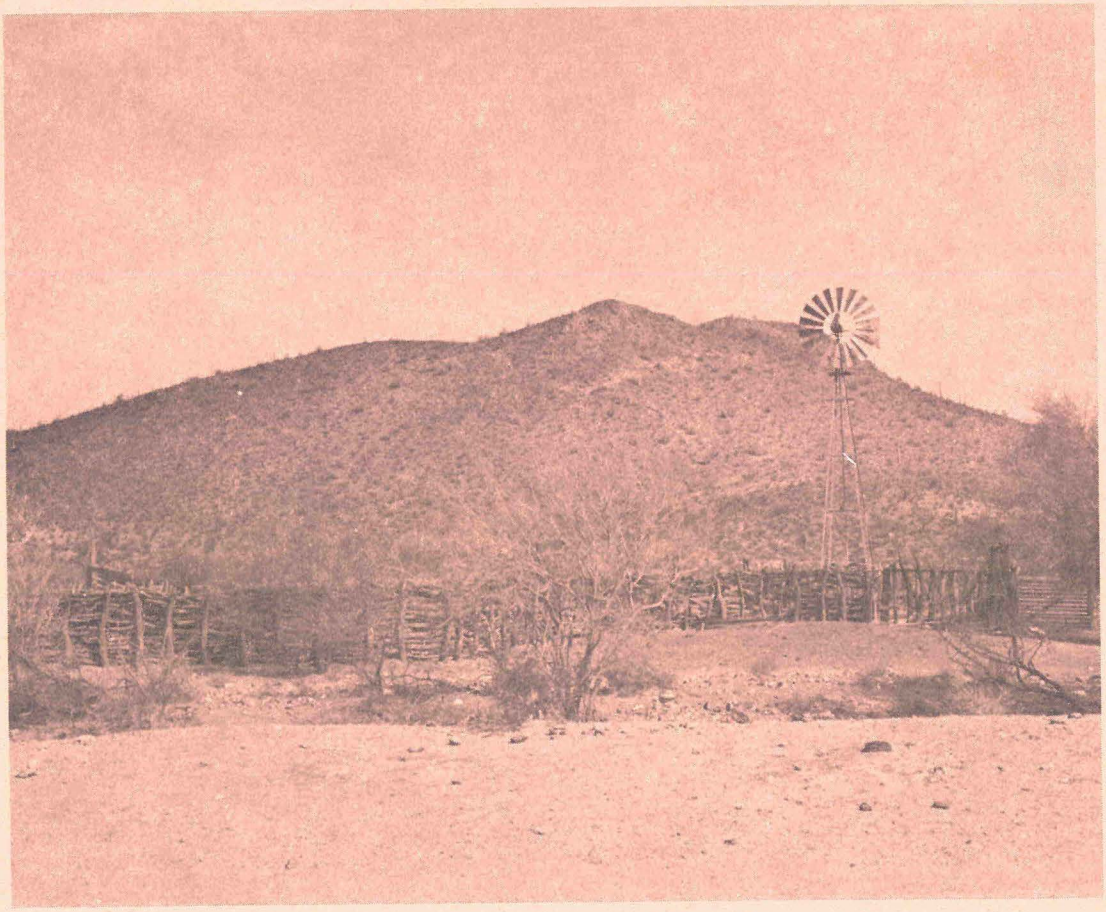
Organ Pipe Cactus National Monument

ARIZONA

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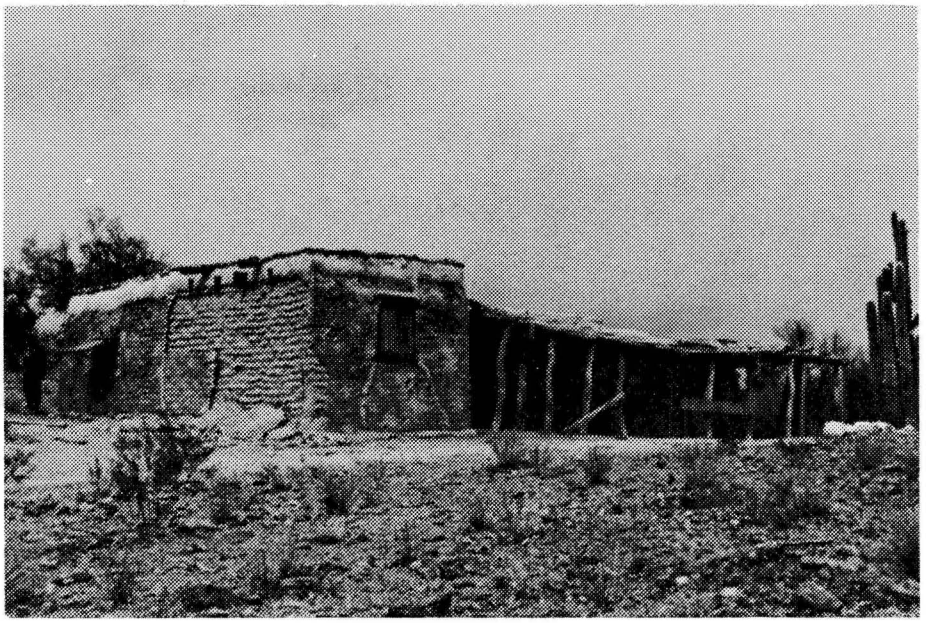


June 18, 1969

BLANKENSHIP RANCH

Historic Structures Report, Parts I & II
Organ Pipe Cactus National Monument
ARIZONA

Historical Data Section
by
ROY E. APPLEMAN
Architectural Data Section
by
RUSSELL JONES



Office of Archeology
&
Historic Preservation
June 18, 1969

U.S. DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

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HISTORIC STRUCTURES REPORT, PART I

ORGAN PIPE CACTUS NATIONAL MONUMENT

ADMINISTRATIVE DATA SECTION

Blankenship ranchstead, Building Number 4a.

A. Upon the termination of the grazing and/or acquisition of necessary rights, we propose the following use of the structure:

   1. Stabilize and partially rehabilitate the ranch house, outbuildings, and corral, and open them to the public as prime examples of border ranching architecture of the 1920s. They will serve as unmanned interpretive historic structures available to the public via a graded dirt or gravel road.

B. Justification for the proposed use of these structures is based on the present absence of such interpretation, the preservation of cultural values, and the excellent quality and representation of the complex as discussed in the Historic Sites and Structures Inventory.

C. After rehabilitation, normal maintenance will be handled through the B & U account.

D. After jurisdiction is secured from the Gray Partnership, there will be no cooperative agreements with other agencies, or persons.

E. The primary restoration on the house will involve the replacement of the hard-plaster wall on the west that has dropped off in large sheets. The roof of the house should be waterproofed. The area will also undergo a major cleanup.

F. The estimated cost of the proposed work at the site is $9,557.00. This estimate and all others are subject to further study.

Gachado Well Complex

A. Upon termination of grazing and/or acquisition of necessary rights we propose the use of the building and corral as a line-camp exhibit in a manner similar to that of the Blankenship site.

B. The justification is the same as that for the Blankenship site, but the structure has the additional value of a ceiling and roof that are unique features of border architecture within the monument.

C. The provisions for operating this structure will be the same as those for the Blankenship complex. The same access road will be used for both sites as they are only some three miles apart.

D. After rehabilitation, normal maintenance will be handled through the B & U account.

E. The primary construction will consist of mending the rift in the west wall, stabilizing the roof, and maintaining the corral.

F. The estimated preliminary cost is $3,137.00.

Pozo Nuevo Complex

A. This site will be developed as a part of the borderland ranching architecture theme, i.e., as a complement to the Blankenship Ranch. It will be unmanned.

B. This site is justified in the Historic Sites and Structures Survey Handbook because of its significance as a well-and-line-camp, with its jacal and cattle watering place. The site is also on a passable road in the western part of the monument that may, in the future, be a major visitor use route.

C. After rehabilitation, normal maintenance will be handled through the B & U account.

D. Until the termination of the Gray partnership and jurisdiction within the monument, permission must be secured from the family for any work done to the site. After their abandonment of the area, there will be no cooperative agreement needed.

E. The jacal outbuilding and corral will need to be stabilized and the area cleaned up.

F. The preliminary cost of such construction is estimated at $1,560.00.

HISTORIC STRUCTURES REPORT, PARTS I AND II

RANCH STRUCTURES

ORGAN PIPE CACTUS NATIONAL MONUMENT

Blankenship Ranch
Gachado Complex
Pozo Nuevo Complex

HISTORICAL DATA SECTION

by

Roy E. Appleman

May 15, 1969

PREFACE

This Historic Structures Report, Parts I and II, of the Blankenship Ranch buildings, incorporates also ranch structures at the Gachado Wells and the Pozo Nuevo Line Camp. These ranching complexes are owned or controlled and operated by the Gray Partnership, which carries on the only ranching operation in Organ Pipe Cactus National Monument. It seemed convenient to group the ranching structures under one general Part I and II report, since they are all part and parcel of one operation. This study was undertaken as partial fulfillment of Historical Resource Study Proposal, ORPI H-1, approved February 15, 1968, and as a part of the 1969 fiscal year History Division research program.

The narrative of the report will group information for convenient reference under the three main headings of Blankenship, Gachado, and Pozo Nuevo as it concerns construction of the buildings, digging the wells, and other related construction and identification data. The ranching operation, at least for recent years after the Gray Partnership consolidated the ranching operations in the national monument under one control, will be treated as a unified subject.

Time and funds available for the study necessarily confined my efforts to the materials available in the files of Organ Pipe Cactus National Monument, with a considerable assist from Bill Hoy of the monument staff, who gave me much pertinent information from his personal files. I will indicate the extent of this obligation in the footnotes. Assistant Chief Park Ranger Richard Begemen and Park Naturalist Dick Cunningham gave fully of their information and time in October 1968 during a guided tour of the ranching structures which are discussed in the report.

Because of the limited information available on these relatively simple and uncomplicated desert ranching structures, and the survival of most of the structures in reasonably good condition, this report combines Parts I and II of the Historic Structures Report.

Roy E. Appleman

HISTORICAL DATA SECTION

Barly Ranching in the Sonoita Valley and Sonora Desert

There apparently was no ranching or raising of livestock on the American side of the International Boundary in what is now the Organ Pipe Cactus National Monument by white United States citizens until about 1912 or later. In 1917 Lon Blankenship dug his well just north of the boundary and about two air miles northeast of the Mexican village of Sonoita, which is south of the boundary. This is a key date for it marks the beginning of organized use of the limited water resources of this region north of the International Boundary.

There had been ranching of a limited sort and the raising of livestock on a small scale in the Sonoita oasis around the Sonoita settlement, however, since Father Kino brought cattle to the little Mexican village about 1700. The Sonoita River provided the water necessary for the cattle. This stream, which surfaced from underground about two miles east of the village and ran as a small stream for a distance of about 20 miles westward before it disappeared underground again, lay entirely south of the boundary in Mexico. There was no other

water in this part of the Sonora Desert. There was not a well or major spring of any kind north of the border except the springs at Quitobaquito. Papago Indians did have a few cattle there at times. Throughout the 19th and the first quarter of the 20th centuries there were few cattle north of the border in this part of Arizona except those that strayed over from the watering places in Mexico. Ranching, and that on a limited scale, was therefore a Mexican activity in the Sonora Desert, and confined to the Sonoita oasis, until after 1912.

When Major William H. Emory of the United States Topographical Engineers was engaged in helping to run the first international boundary survey from the Rio Grande River westward to the Gulf of California in the early 1850s he found large numbers of cattle in the Sonoyta valley. He mentioned the few wells in the region, all in Mexico, as being the Ojos Escondidos, the Pozo Verde, the well at Cobota, and the springs at Quitobaquito. The principal source of water, however, was the Sonoyta River for the score of miles that it existed.[1]

When the second international boundary survey was run between Mexico and the United States in 1891-1893 the survey parties

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1. Major William H. Emory, Report on the United States and Mexican Boundary Survey, Senate Executive Document, No. 108, 1857, Washington, D.C., Vol. 1, 123-124. Modern maps usually spell the river as Sonoita. The traditional spelling is Sonoyta.

found stock raising in the region along the boundary in a depressed condition due to a three-year drought and overstocking of the range. In the Sonora Desert the Pozo Verde, at the foot of the Baboquivari Mountains and about one mile south of the boundary in Mexico, supplied a fine flow of water from a spring. This was the only natural water all the way west for 200 miles along the boundary to the Colorado River, except for the water found in the Sonoyta valley. The Sonoyta River for the 20 miles that it surfaced before it was lost in the Sonora Desert of Mexico, was typically about 12 feet wide and 6-8 inches deep.[2]

That part of the Sonora Desert lying north of the Mexican boundary in the State of Arizona is the most dreaded desert region in the United States. Until recently it was a region "as little traveled and as little known by white men as any in our country," as observed by Captain Gaillard in the 1898

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2. Report of the Boundary Commission Upon the Survey and Re-marking of the Boundary Between the United States and Mexico, West of the Rio Grande, 1891 to 1896, Parts I and II (Part II is the report of the U.S. Commission), Senate Document 247, 55th Congress, 2nd Session, Part II, 15, 20, 23, Washington, Government Printing Office, 1898. The United States Commissioners were J.W. Barlow, Col. Eng. USA; D.D. Gaillard, Capt. Eng. USA; A.T. Mosman, Asst. Coast & Geodetic Survey. Captain Gaillard wrote the narrative part of the report for Part II, U.S. Commissioners Report. This source will be cited henceforth as Boundary Commission Report, 1891-1896.

Boundary Commission report.[3] Captain Gaillard told of coming upon the skeleton of a camel, in the Tule Desert west of Quitobaquito, during the boundary survey. It was one of those brought over from Syria in the 1850s for the United States Army, and according to Gaillard's Mexican guide, it had died of thirst.[4]

The plant growth found in the Sonora Desert and in the region of the Organ Pipe Cactus National Monument is hardly suitable for livestock raising. It is preponderately creosote bush (commonly called greasewood), palo verde, palo fierro, mesquite, giant or Sahuaro cactus, organ pipe cactus in a restricted area; and there is one species of grass called "galleta," which was eaten wherever found by horses and mules. Mountains are nearly always in view in this country, and their serrated tops were sharp ridge lines so narrow and jagged that the Boundary Survey parties often could not find places on them to set up their instruments.

When the Boundary Survey party in 1891-1893 were running their surveys between the Pozo Verde Mountains and the Colorado

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3. Ibid, Pt. II, 22.

4. Ibid, Pt. II, 24.

River, a distance of 323 kilometers or about 240 miles and remote from any railroad and difficult of access, there were virtually no Americans in the region. In all this distance they found only one American ranch north of the boundary and within 30 kilometers of it. At that time there were only five badly-spaced permanent watering places in this stretch of country. It was a true desert. One of these watering places was the Tule Wells (2), which had been dug in the 1860s by Mexicans. Originally, they had been dug for the purpose of selling water to travelers on the way to California and the gold diggings. But there were too many deaths among the travelers, and the Camino del Diablo, as it was called, was abandoned. The Mexicans who had dug the well originally had built a small adobe house near it, and the walls of this building were still standing in the 1890s. At the time of the Boundary Commission's work, the Tule Wells had not been used for 20 years. The Commission had to have the well cleaned out by Mexicans from Sonoita for their use. Captain Gaillard reported in the Boundary Commission's report that this ruin was the only structure along the boundary between Quitobaquito and the Colorado River.[5]

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5. Ibid, Pt. II, 24-25.

Between Agua Dulce, a short distance west of Sonoyta where the Sonoyta River disappeared into the sand, and Yuma the road to California from Sonora was called the Camino del Diablo because of the great number of persons who died from thirst along its course. Captain Gaillard said that in the 1850s and 1860s, during the gold rush to the California and the Colorado diggings, more than 400 persons died between Sonoyta and Yuma. He counted more than 50 stone crosses marking graves at the Tinajas Altas tanks, 3½ miles north of the international boundary, in the United States. These were a number of natural rock tanks in a steep water course over a rock mountain, and only the lower one was easy to reach. If it was dry when the exhausted traveler reached it, often he could not find the strength to climb to the higher ones, and he lay down and died.

Gaillard reported that in this desert men often would drink their fill at sunrise and would become crazed during the day and sometimes die of thirst before sunset. Perspiration was so great in the daytime and evaporation so rapid that the quantity of water needed was large. He said that at one time during the survey the amount of water consumed averaged 7 quarts a day for a man and 20 gallons a day for an animal.[6]

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6. Ibid, Pt. II, 25, 30.

Such was the nature of the country of which the Organ Pipe Cactus National Monument is a part. In the days of primitive or nonexistent roads, it is not strange that this frightful desert would not support a livestock industry except a most meagre one, and that only in the vicinity of the few natural tanks or springs and the Sonoyta oasis. Dug wells in this desert were very few until recent years.

When William T. Hornaday and his party of explorers in November 1907 traveled to Sonoyta, their jumping-off place into the Sonora Desert, Hornaday said there was no water between Wall's Well in the pass between the Gunsight Mountains and the Ajo Mountains and the Sonoyta oasis, two days' traveling time. The dry camp they made the first night after leaving Wall's Well was just about where the Organ Pipe Cactus National Monument headquarters building now stands. They found there the grave of a Mexican mail carrier who had been murdered by Apache Indians.

In the map accompanying Hornaday's account of his expedition into the Sonora Desert in 1907 the only inhabited place name along the border for the 234 miles between Nogales and the Colorado River was Sonoyta. His detailed description of Sonoyta

shows it as a small village of a few adobe houses.[7] Hornaday coined the apt phrase, Sonoyta oasis.

Although Sonoyta dates back into antiquity, it has never been more than a small village in the limited oasis of the Sonoyta River in the midst of the Sonora Desert. Its mission church, established after Father Kino started to explore and Christianize Papagueria, was destroyed in the Pima revolt of 1751. The first cattle in the Sonoyta country were those the Spanish missionaries brought in about 1700. Tradition holds that the Papago Indians killed the priests and burned the church at Sonoyta and then took possession of their domestic animals. When Carl Lumholtz visited Sonoyta in 1909 an Indian woman there claimed that the horses and cattle she owned were descended from those possessed by the Spanish missionaries.[8]

From Sonoyta westward, the old Indian trail and then the missionaries' road followed the Sonoyta River for a day's journey to Agua Dulce. Eight miles beyond Sonoyta the river ceases to exist as a running stream and becomes a dry river bed, except

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7. William T. Hornaday, Camp-Fires on Desert and Lava, Charles Scribner's Sons, New York, 1908, 73, 81, 84-101.

8. Carl Lumholtz, New Trails in Mexico: An Account of One Year's Exploration in North-Western Sonora, Mexico, and South-Western Arizona, 1909-1910, Charles Scribner's Sons, New York, 1912, 175-176.

that at intervals pools of water collect on the surface. The last of these pools of water in the stream bed is at Agua Dulce. From here on westward the road became known as the Camino del Diablo. It was 135 miles before running water was again reached at Yuma. Life depended upon a few waterholes in this forsaken stretch of country--those at Tinaja del Tule, Tinajas Altas, and one or two others. Lumholtz in 1909 noted that Papago Indians at Quitobaquito made feeble efforts to raise cattle around the springs there and had a pond created by an earthen dam.[9] When Lumholtz returned eastward in 1910 he found Quitobaquito deserted but Indian cattle watering at the pond.[10]

It is abundantly clear that until wells were dug and water reached at a depth varying from 50 to 100 feet, and then pumped to the surface, cattle could not be raised commercially in the Sonora desert land north of the international boundary. All the natural water, except that at Quitobaquito, was southward in Mexico. The year 1917 may be taken as the year that marked, more than any other, the establishment of ranching by Americans within what is now Organ Pipe Cactus National Monument.

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9. Ibid, 198.

10. Ibid, 290.

Lon Blankenship drilled his well in 1917 just north of the international boundary and about two miles northeast of Sonoyta. That well is still there. Dowling Well was dug one mile west of the Blankenship Well, and two or three others were subsequently dug, spaced along the boundary.

Kirk Bryan visited the Blankenship Well the same year it was dug and has left a good description of it. He made a chemical analysis of its water. He said the well was dug just east of international boundary monument No. 167, that a fence line ran along the international boundary for several miles in both directions from the well, and that the road passed through a fence "by a gate between the well and adobe house."[11]

This, then, was the Sonora Desert in 1917 when Americans began making their assault on this hostile area--deadly to both man

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11. Kirk Bryan, The Papago Country: A Geographic, Geologic, and Hydrologic Reconnaissance with a Guide to Desert Watering Places, U.S. Geological Survey, Water Supply Paper 499, Washington, Government Printing Office, 1925, 183, 219, 342-343, 425. This work is the best available on the water resources of the Sonora Desert within the United States. It has good maps locating the roads, trails, and watering places existing in 1917. Bryan's survey was the first for a large part of the area. The previous international boundary surveys were restricted to a narrow band of land along either side of the border. Kirk's book has long been out of print and copies of it are now rarely found available in the book market.

and beast unless he could find water. There was precious little of it above ground. If there was to be water in usable quantity, it had to be found at a depth below the burning surface and pumped up. The story of ranching in the Organ Pipe Cactus area has been the story largely of man-drilled wells. And it has remained that to this day.

Lon Blankenship's Ranch

Pozo Nuevo, or new well as it would translate into English, is now part of the Gray Partnership ranching operation in the Organ Pipe Cactus National Monument, and is therefore included in the ranching operations which is commonly generalized as the Blankenship Ranch, [redacted] Pozo Nuevo was dug by a Sand Papago Indian, Jose Juan Orosco, who lived at Quitobaquito. The Papago Indian records at Sells indicate that Orosco dug the well in 1910.[12] He dug it for the purpose of watering cattle that ranged out of the Quitobaquito area. It is located north of Quitobaquito, approximately four miles north of Cipriano Junction on the Puerto Blanco Drive. During the years that Orosco used the well, water was brought to the top by a windlass and poured into a trough. It may be the oldest dug well within Organ Pipe Cactus National Monument. Henry Gray purchased the well from Jim Orosco in the autumn of 1951 and subsequently built a windmill to pump the water. In dry seasons the well often went dry, and was accordingly not wholly dependable. It appears that Jim Orosco and Henry Gray had considerable misunderstanding about the terms of

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12. Notes compiled by Bill Hoy, Organ Pipe Cactus NM, copy to Roy E. Appleman, December 1968.

the purchase, and Gray eventually drilled a new well 60 feet from the original one.[13]

The purpose of discussing Pozo Nuevo briefly here is to note that it was an Indian dug well, in existence seven years before Lon Blankenship dug his well northeast of Sonoita, and began American ranching seriously in the area. As long as Pozo Nuevo remained a Papago Indian operation it was of limited scope. Only after 1951 was it used more nearly to its full potential.

Just when Lon Blankenship started ranching in the Sonoita valley is not clear. It seems to have been before he dug the well in 1917, and it may have been as early as 1912-1914. When Kirk Bryan visited Blankenship's Well and his ranching operations in the Sonoita valley in 1917, he recorded that on October 3 of that year the well was 65.4 feet deep and that it was 54.4 feet to the water. He gave a table of chemical analysis of the water and another which showed its mineral content.[14] By comparison with other local water it was satisfactory. It had a high mineral content and much sodium-carbonate. It foamed easily, and this made it poor for use in boilers. The high sodium-carbonate content

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13. Ibid.

14. Kirk Bryan, Papago Country, Tables, 181, 167, 183-184.

made it questionable for irrigation use, and if so used it had to be employed with care. The well was dug, however, not for these purposes, but for domestic use and watering livestock. For those uses it was satisfactory if not ideal.

At this time, in 1917, there was another well at Dowling, about one mile to the west of Blankenship Well, and there were a few others appearing along the International Boundary. One was on the Mexican side of the border, opposite the Blankenship Well.

In 1917 an old road, nearly abandoned, ran along the border from the Blankenship Well area to the ruined smelter at Dowling, and hence on west to Quitobaquito. A trail ran north from the Blankenship Well into the Ajo Mountains, to a high pasture called the Bull Pasture, where there was a small permanent spring.[15] The International Boundary for several miles indicated a growing livestock interest on the American side. During Lon Blankenship's ranching activities and ownership of the well he apparently lived in a small house built of railroad ties adjacent to the corral.

While the ranch still carries the name of Blankenship today, there would be more justice, perhaps, if it were called the Gray Ranch. The present ranch house, apparently was not

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15. Ibid., 342-343.

built by Blankenship, but by Robert L. Gray, Sr. There is confusion in the documents I have seen as to when Blankenship first sold his water rights to Robert Louis Gray, but it seems to have been during or before 1919. Robert L. Gray had three sons, Robert, Henry, and Jack. It was the Gray family that actually developed the ranching potentials of the desert country on the northern side of the International Boundary in the Sonoita valley and the desert country beyond. The so-called Blankenship Ranch House seems to have been built in 1920 by Robert L. Gray.

Lon Blankenship seems to have had in mind opening a number of wells in the area now within the Organ Pipe Cactus National Monument about the time he dug the Blankenship Well. His purpose seems to have been to make livestock raising feasible in the desert country north of the Sonoita River. He dug the Gachado Well sometime between 1916 and 1920. The Gachado Well is 80 feet deep. There had been some spring water available there for a long time, apparently, but on a very limited scale. The Papago Indians are said to have claimed Gachado as a watering place for more than 300 years. The place in the 20th Century has been named for a large and very old mesquite tree that grows at the site. It is bent and twisted by the forces of nature.

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16. Water Source Handbook, Organ Pipe Cactus NM.

From affidavits executed and sworn to on January 10, 1952, by John W. Cameron, Jasper N. Meadows, James T. Havins, and Samuel Edwin McDaniel before the Land Department, Water Division, State of Arizona, there is strong support for the belief that Lon Blankenship consolidated nearly all the water rights existing in the Sonoita valley north of the International Boundary in the decade preceding 1919, and in that year sold his water interests there to Robert L. Gray, or that Gray himself about that time otherwise acquired still other water rights not held by Blankenship. The affidavits list the following ownership of springs or wells or filings of interest.

> Gachado Wash, a tributary of the Sonoita River, Gachado Spring Well, filed in the name of Jack Gray.
>
> Dowling Wash, a tributary of the Sonoita River, Dowling Spring Well, filed in name of Robert L. Gray.
>
> Dos Lomitos Wash, a tributary of the Sonoita River, Dos Lomitos Spring Well, filed in name of Robert Gray.
>
> Aquajita Wash, a tributary of the Sonoita River, Aquajita Spring, filed in name of the Gray Partners.

The above springs and wells allegedly were used by others preceding the Gray family long before 1919, according to John W. Cameron, who claimed knowledge of them going back to 1890. Although many persons used these springs and wells as if they were on the open range, it apparently was acknowledged by them that Lon Blankenship owned or controlled the water

interests.[17]

These affidavits allege that one "B. Blankenship" about 1915 acquired and placed to beneficial use the waters of Aquajita Spring, Gachado Spring Well, Dowling Spring Well, Dos Lomitos Spring Well, Cement Tank, and Wild Horse Tank, and that he sold his interest in these watering places to Robert L. Gray and his family. They further allege that since that date, 1919, the Gray family had continuously used the waters for the watering of livestock, domestic use, and some irrigation.

The affidavits alleged that the Alamo Spring was used by William Miller and his wife before 1919 for mining, domestic, and livestock purposes, and then by the Gray family. It appears that the Williams Spring was used in 1916 in connections with mining claims near it, and after one or more transfers of ownership of the water rights, the Gray family used and bought these rights in 1919 or 1920.

The Cement Tank was built by Blankenship prior to 1919 and used for the watering of livestock, and has been used since that time by the Gray family for the same purpose.

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17. "Affidavits of John W. Cameron, Jasper N. Meadows, James T. Havins and Samuel Edwin McDaniel in Support of the Following Described Water Right Applications and Water Rights Owned by the Gray Family, Consisting of Bob Gray, Henry D. Gray, Jack Gray, and Robert Louis Gray," January 10, 1952, before State Land Department, Water Division, State of Arizona (signature of notary not readable by writer). Zerox copy from files of Organ Pipe Cactus NM.

The Wild Horse Tank is a natural tank in the foothills of the Ajo Mountains that was used by Blankenship prior to 1919 and was acquired from him by the Gray family in that year. The Gray family improved this tank in the 1930's by building cement lips that increased the holding capacity of the tank. These tanks are in gullies of rock canyons.

About 1935 the Gray family (Henry Gray) increased its control of watering places in the Sonora Desert north of the International Boundary by acquiring from John McDaniell's or his lessees the water rights to Bates Spring Well and Daniell's Well.[18]

The Robert Louis Gray Family

Having established the presence of the Gray family as the dominant ranching interest in the Sonora Desert on the north side of the Sonoita valley prior to the establishment of the Organ Pipe Cactus National Monument, it might be useful to give a synopsis here of the Gray family history as it is known to the writer before proceeding to discuss the Gray ranching interests in the national monument since its establishment in 1937 to the present.

The patriarch of the family as known to Arizona history was Robert Louis Gray, Senior. According to a statement

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18. Ibid.

his son Henry made in an interview in 1968, the Gray family came from Fort Stockton, Texas, moving from there to Cochise County, Arizona, in 1912.[19] An obituary notice of the death of Robert L. Gray, Senior, in 1962 indicates, however, that the elder Gray was born in Arkansas.[20] It is not known when his family or he moved from Arkansas to Texas. Robert Gray was 87 years old when he died at Ajo, Arizona, in 1962. He was the father of 3 daughters, 5 sons, and had 11 grandchildren and 7 great grandchildren at the time of his death. Three sons, Jack, Henry, and Robert Louis, held the ranching interests at that time in Organ Pipe Cactus National Monument.

According to the interview with Henry Gray in 1968, his father owned a ranch in French Joe Canyon near the Huachuca Mountains, south of Benson, Arizona, in 1912. A note in the files of the national monument, however, indicates that Robert Louis Gray, Junior, was born at San Simeon, Arizona, November 25, 1912. He apparently is the same Robert Gray who is now living at Dowling Wells, Arizona. Henry Gray said that his father saw a sales notice by Lon Blankenship in a Tucson bank in 1919 and that his property was for

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19. Unsigned interview in files of Organ Pipe Cactus NM, heading, "Gray Family, Interview with Henry Gray, 9/18/68," (presumably either Richard Begemen or Bill Hoy of the monument staff conducted the interview).

20. Arizona Daily Star (Tucson), July 16, 1962.

sale. His father, he said, bought the ranch in that year and moved to the Blankenship Ranch site in 1920 and built the present adobe house there. It is a short distance from the well and corral and Blankenship's original small house which he had constructed of railroad ties, immediately adjacent to the well and the corral. He bought Blankenship's cattle, apparently about 300 in number, and later brought in 500 head more.

At the time Robert Gray bought the ranch from Blankenship it was called "Rattlesnake Ranch." Gray did not like the name, and he changed it to Dos Lomitas, after the two small hills nearby. Much might be said for calling the ranch by this name today.

One old-timer who knew Lon Blankenship when he was beginning his ranching operations in the Sonoita valley remembered him as being a tall man with a "cold eye" that "told you who was right."[21] He apparently carried a six-gun, and the implication was that he would not hesitate to use it, although there is no record known to this writer that he ever shot a man. Lon had two sons, Lon, the older, and Joe. Lon was killed by a smuggler in the early 1920's; Joe became

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21. Unsigned interview in files, Organ Pipe Cactus NM, with James McGrady in 1966. Recorded an an item in the document headed "Gray Family -- Interview with Henry Gray", September 18, 1968. The interviews were probably held by Bill Hoy of the monument staff, and the data from the different interview consolidated in the paper I used.

a postal clerk in San Francisco.

Robert Gray's wife was named Sara, or Sally as she was usually called, and the children in the order of their age were the following: Henry, living at Bates Well in 1968; Abe, ranching at Sonoita; Ralph, living near Calexico; Jack, living at Alamo Well; Robert L. (Junior), living at Dowling Well; and three daughters, Lee, Mary, and Billie. The girls attended boarding school in Ajo. Two were living in California in 1968, and one was living in Tucson. The Gray Partnership in recent years consisted of the three brothers, Henry, Robert L., and Jack.[22]

Gray Family Ranching After Establishment of Organ Pipe Cactus National Monument in 1937.

It appears that when the Organ Pipe Cactus National Monument was established on April 13, 1937, the only livestock and ranching activity within its boundaries was that conducted by the Gray family. Robert Gray and his sons had by this time acquired control, apparently, of all the water rights that could be utilized and would be valuable for watering livestock in this part of the Sonora Desert.

The first grazing permit issued to the Gray family within the newly established Organ Pipe Cactus National

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22. Interview with Henry Gray, September 18, 1968, previously cited.

Monument was for 550 head of livestock at a cost of $10 a year. This permit was to terminate on the death or removal of the youngest member of the family. The authorities wished to terminate all grazing within the national monument as soon as possible. The first permit looked forward to this time.

But Robert Gray argued that he had more than 550 head of cattle, and that the permit should reflect the actual situation and grant grazing rights for a larger number. After much debate and negotiation over the issue, it was agreed that he had between 1,000 and 1,200 head of cattle in the area in 1937. The grazing permit was revised to permit him to run 1,050 head of cattle within the national monument. The fee was raised to 5 cents a head, in accordance with a Grazing Service fee practice in adjusted allotments. But Gray objected to this changed fee, and it was changed again to be the original $10 on the first 500 head of cattle and 5 cents a head on the remainder.[23]

In 1946, 806 Gray family cattle were counted in Organ Pipe Cactus National Monument. At that time the grazing fee was raised to 8 cents a head.[24]

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23. Memorandum, Regional Office Soil Conservation Service to Superintendent, Organ Pipe Cactus National Monument, June 27, 1960, and enclosure dated April, 1954.

24. Ibid.

The date when the first grazing permit mentioned above was issued to Robert Gray by the national monument is not clear from the files I have seen. One source indicates that it was in 1939 for 550 head of cattle at $10 a year. The same source states that in 1943 Henry Gray asked for a permit to cover 500 additional head of cattle. This was approved, but it was understood that there were not to be more than 1,050 head of cattle grazing within the national monument at any one time. It was also provided that when any of the permit grantees died or departed their rights could not be transferred or passed on to others.[25]

In 1962 Robert L. Gray, Sr. died, leaving three sons as the sole holders of grazing rights within the national monument.

Some idea of the value of the grazing rights within the national monument in recent times can be obtained from the livestock sales figures of 1965. Between June 21 and August 19 of that year the Gray brothers sold 777 head of cattle. Steers formed 62 percent, or 482 head. The cattle brought an average of $100 a head, or a total of $77,700.[26]

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25. Charles A. Cook, "A Documentation of the Arizona Papaguería with Special Reference to the Organ Pipe Cactus National Monument," 1967, typescript, 302-303, copy in files of Organ Pipe Cactus NM. This source states that by 1957 the grazing fee had increased to $610 a year.

26. Memorandum, Acting Chief Park Ranger Richard H. Begemen to Superintendent, Organ Pipe Cactus NM, August 21, 1965.

This was an unusually large sale of cattle and can not be considered an average for the Gray ranching operations within the national monument. A table of the sales for the years 1959 to 1963 shows the yearly average for this period to have been just a little under 400 head. For the five-year period a total of 1,978 head of cattle had been sold.[27]

Year	Sales of Cattle
1959	319
1960	289
1961	473
1962	413
1963	484

On the basis of these figures the annual income from ranching within the Organ Pipe Cactus National Monument during this period must have been approximately $40,000.

Whatever may have been the capacity and depth of the original Blankenship Well, it apparently had been deepened and improved in the years after 1917 when it was dug. It will be recalled that Kirk Bryan had reported in that year the well was 65.4 feet deep and that water stood in it at the 54.4 foot mark. But in 1966 the well was reported to be 100 feet deep with water standing at the 80 foot mark.[28]

An inventory of the improvements in Organ Pipe Cactus

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27. Memorandum, Superintendent, Organ Pipe Cactus NM to Regional Director, Southwest Region, NPS, February 26, 1965.

28. Memorandum, Chief Park Ranger James W. Carrico to Superintendent, Organ Pipe Cactus NM, March 31, 1966, Inventory of Improvements.

National Monument in March 1966 gives a good summary of the ranching and water rights private holdings of the Gray Partnership at that time, and it remains unchanged at the time of this writing. These livestock raising improvements are tabulated below.[29]

Blankenship Ranch (Dos Lomitas)

1	3-4 Room Adobe House
2	Frame Outbuildings
1	Windmill, operated by jack pump, well 4x4x100 feet, water 80 feet below surface, capacity of pump 20 gallons per minute.
1	Concrete water trough, 3x2x20 feet, 1,200 gallons capacity. (Note: The above inventory is not quite complete as a later description of the place will show.)
1	3-compartment Corral, each compartment about 40x60 feet, built of mesquite and railroad ties, loading ramp and chute, 1-way trap to prevent stock leaving corral.

	Est. Value
Water Resources and Development	$3500.
Buildings (3)	1500.
Corral	500.
	$5500.

Gachado Wells

1	Adobe House, 1 Room (used as a line camp)
1	Corral, 2 compartments, each about 60x80 feet, built of mesquite and native material, loading chute, 1-way trap to prevent stock leaving corral.
1	Windmill, same as at Dos Lomitas, 20 gallons per minute capacity, well 4x4x80 feet, water stands at 50 feet below surface.
1	Concrete Water Trough, 3x2x50 feet, 2000 gallons capacity.

29. Ibid.

	Est. Value
Water Resources & Development	$3500.
Buildings (1 room adobe)	300.
Corral	500.
	$4300.

Hocker Wells	Estimated Value	Water	Resources	$4150
Salt Well (Pozo Salada)	Estimated Value	Water	Resources	$4200
Bonito Well	Estimated Value	Water	Resources	$4300
Pozo Nuevo (Orosco)	Estimated Value	Water	Resources	$6700
Bates Well	Estimated Value	"	"	$9200
Alamo Well	Estimated Value	"	"	$4500
Walls Well	Estimated Value	"	"	$4300
Cement Tank	Estimated Value	"	"	$1500
Wild Horse Tank (30x3x1 feet, rock and cement dam in 1930's enlarged natural tinajas, badly silted in now--sheer cliff drop from tinajas and fence.)	Estimated Value	"	"	$ 500
Campground Tank	Estimated Value	"	"	$ 300
Ajuajita Spring (natural)	Estimated Value	"	"	$ 600
Burro Spring (natural)	Estimated Value	"	"	$ --
Rincon Spring (natural)	Estimated Value	"	"	$2500
Tinajas Estufa	Estimated Value	"	"	$ 100
Steel Tanks (portable)	Estimated Value	"	"	$ 375
Steel Tanks (portable)	Estimated Value	"	"	$ 150

Daniels Spring Well	Estimated Value	Water	Resources	$1000
Red Tanks Well	Estimated Value	"	"	--
Acuna Well	Estimated Value	"	"	--
Montgomery Well	Estimated Value	"	"	--
Cipriano Well	Estimated Value	"	"	--
Powers Well	Estimated Value	"	"	--
Dripping Spring Well	"	"	"	"	--

The estimated value for the wells, springs, natural and cement tanks, and steel tanks listed above includes the value placed on the water resources and the related developments, including any structures. Many of the watering places in the tabulation have no structures of any kind, and others are of the most primitive kind. It will be noted that Bates Well has the greatest value of all, being nearly twice the value of the Blankenship Ranch at Dos Lomitas. In the several instances where no value was given it is probably because no value could be agreed upon, not that they did not have any value. The total monetary value for the watering resources held by the Gray family as listed above, in 1966, is $54,175, with an unknown monetary worth to be added for those that were not given a monetary value. To gain an idea of the extremely low figure given as the value of these improvements one has only to look at the corrals at Dos Lomitas and Pozo Nuevo to know that they could not be replaced for $500 each.

It is important in keeping perspective concerning livestock raising in the Organ Pipe Cactus part of the Sonora Desert to remember always that it required about 215 acres of land to support one head of cattle, and that water and its distribution over this vast expanse of one of the driest and hottest deserts in the world is the critical problem in raising cattle at all. Structures necessarilly were of the simplest kind, and made of any material that was at hand or could be procured in this formerly isolated region. Man's successful use of this harsh and hostile land for commercial livestock was a tribute to his energy and ingenuity. In the context of such a story of man's struggle against nature, the relatively complex home that Robert L. Gray built at Dos Lomitas in 1920, now called the Blankenship Ranch, and the corrals built there and at Pozo Nuevo of any and all kinds of material that could be found take on magnified importance as cultural remains, and have high value for historic preservation. They are the castles, the chateaux, the Independence Halls of the Sonora Desert.

Present Situation and Condition of Gray Brothers Ranching Operations in Organ Pipe Cactus NM

The Gray brothers now (1968-1969) have a permit to graze 1,050 cattle in Organ Pipe Cactus National Monument. The Superintendent has informed them that the permit will not be

renewed in 1969, but at this writing it is uncertain whether grazing in the national monument will in fact be terminated in this year. The park authorities want to end grazing in the area so that the overgrazed landscape may return to its natural condition. The grazing is marginal at best, averaging out to three head of cattle a square mile for the 350 square miles of the grazing permit. This means that it requires about 215 acres to support one head of cattle.

Despite this most hostile environment for the raising of livestock, the desert has been made to return a considerable income to the Gray family after they acquired control of all the usable water rights and dug wells at numerous places. The Gray brothers' income in recent years has been in the neighborhood of $35,000-$45,000 a year. Operational costs are small and overhead expenses almost non-existent. The three Gray brothers have employed only one permanent employee for their livestock raising. He is a Mexican who gets room and board. At roundup time a second person, an Indian from Mexico, is employed. These men have been usually the only employees that Gray brothers have needed to carry on their ranching operation. In effect, the cattle roam the desert at will searching out their food and return to the water tanks and troughs as their thirst dictates.

The Gray Ranchhouse (Blankenship Ranch-Dos Lomitas)

This ranchhouse, although known generally as the Blankenship Ranch, was built by Robert L. Gray, Sr., in 1920, the year after Gray bought Blankenship's ranch and water rights. At the time of my visit to it in October, 1968, the adobe building was locked and it could be examined only on the exterior, except for limited views into two rooms from barred windows. The house has been vacant most of the time since the early 1950's. The 3-4 room structure is built of adobe, plastered over, and is in the form of an L. A mesquite post ramada extends around it in an ell-form on the south and east sides. The roof is of earth and blacktop. There has been some recent cement plastering and caping patchwork around the roof of the house. The house roof in mostly intact, but sags and has poor drainage. Six sheet metal pipes drain water from the roof on the north side which is broken through in one or two places. Iron pipes support the saguaro rib and earth roof of the ramada. The house itself is built at the base, and almost against the slope, of a steep rocky hill, which is just north of it. This and another rocky hill nearby to the south apparently led Robert Gray to name the place Dos Lomitas, The Two Hills. The Sonoita River and valley are to the south.

The adobe house has a coating of cement plaster on the outside one inch or more in thickness. This plaster has

fallen off the west side of the house, and it has fallen off the base of the outside chimney on the north wall.

Most of the windows have solid board frames on hinges. When they are closed little light can enter the house. There is one glass window. The board and hinged window shutters cover screens, so that when the board window is open, light enters but large insects are kept out. The door in the back of the house is painted red; the glass window on the east side by the ramada has its wood frame painted red; the window shutter on the north side is solid board, hinged to open with a screen behind it. Looking through the hinged and screened window on the south side, under the ramada, one can see two old iron bedsteads with springs in the room inside. They were whitewashed, and are now streaked from water that has come in through the roof.

The iron pipe ramada roof beams and the heavy mesquite log end beams are supported by Y-shaped mesquite poles. The ramada has shifted away from the house. The support poles lean to the east about 1 foot, and on the south side they have developed a lean of about 6-12 inches. The house roof should be connected to the ramada roof to give drainage. The poles should not be straightened but left as they are. Three or four of the ramada support poles need to be replaced. A board barrier went around the ramada to keep out animals, but only two of the boards are still in place now, and one of them is loose at one end.

Frame Buildings

There are two board outbuildings with metal roofs located about 50 and 100 feet respectively to the southeast of the adobe ranchhouse. The larger one is the nearer to the house. The second, smaller building is less well built and might well be called an improvised shed. It is built of miscellaneous materials, but mostly of wood and saguaro ribs. It is partly open on its sides, and part of its tin roof is missing. A considerable amount of miscellaneous junk lies scattered about on the ground around this second building. A plow and some oil cans are among the litter. This building has red paint showing on it.

Ramada

Six mesquite posts stand just off from the second frame building, and more distant from the adobe ranchhouse. They obviously once supported a ramada roof. Part of the roof material can be seen on the ground. This ramada shade retreat was not connected to any building. It should be restored.

Railroad Tie Building

One half of this small shed-like building is constructed of railroad ties placed upright, and the other part is of

sheets of metal. The roof is metal. This building stands about 150 feet west of the corral. There is some evidence to suggest that it was the first structure erected at the Blankenship Well, and may have been built by Lon Blankenship prior to 1919. If this should prove to be true, then it is the oldest structure surviving in Organ Pipe Cactus known to this writer.

Corral

This large corral has three compartments, with a loading chute and ramp. Heavy upright railroad ties make the posts of the corral, except on the west side where the the posts are mesquite. Lateral mesquite poles between the posts make the main barrier. There is a snubbing post in one of the corral compartments. The aeromotor windmill and the well are just outside the corral, but connected to it by an iron pipe which empties into a concrete water trough.

Recommendations

All the structures at this ranch should be preserved or restored. These include the ranchhouse, the two board or frame outbuildings, the detached ramada near the sheds, the railroad tie and metal building near the corral, and the corral. There are many large mesquite trees around the complex, and in many ways this is the most inviting of the

ranching or livestock raising cultural remains in the park. It is only a step from the International Boundary, and only a few miles from the main road through the park and crossing into Mexico.

Gachado Sub-Ranch

The Gachado Sub-Ranch buildings are part of the Gray family holdings in Organ Pipe Cactus National Monument. They, like the main ranch structure at Dos Lomitas, offer certain ranching cultural remains not duplicated exactly elsewhere in the park. For this reason they have been selected for preservation. Gachado is just above the International Boundary. The Sonoita River is about one mile to the south.

There is a one room adobe building and a corral at Gachado. The name derives from an ancient large, twisted and gnarled mesquite tree at the southwest corner of the corral. The 1-room adobe building has one door and two windows, one in front and one back. A piece of torn screen covers each window. The door is still on its hinges, but stood open at the time of my visit. The floor is dirt. The adobe needs extensive repair, both inside and outside. A large, open seam in the adobe has developed, 6-8 inches wide, from the roof line to the floor. Four heavy vegas,

manner lost to the building. The water drains off the roof on the west side, and here the deepest erosion in the brick adobe is apparent.

This structure is in bad condition and in need of emergency stabilization. It needs roof repair, closing of the walls, and plastering inside and outside. Some of the adobe bricks are so badly worn and eroded that some replacement or patching may be required. The rubbed and rounded corners of the building will have to be built up and strengthened. The base of the adobe walls will have to be repaired. This is an interesting and simple adobe structure with an unusual roof construction. It provided a temporary haven for a man on his rounds in looking after livestock in this harsh and sometimes deadly desert country.

Corral

The Gachado Corral derives its name from the aged mesquite tree that stands near its southwest corner. The corral is in two sections, one built of mesquite, and the other of mesquite and barbed wire. The mesquite section has heavy posts and smaller lateral poles. This second part seems to have been an extension on the west of the original mesquite corral. The windmill is on the ground, having fallen about a year ago. The pump base is intact, however, and a tin can caps

the pump pipe. A concrete water trough stands within the corral. A loading chute and ramp are built of mesquite.

Wind erosion is pronounced here, and the area around the corral has been eaten and tramped absolutely bare of all vegetation; even the ever present creosote bush, or greasewood as it is commonly called, is missing. A barren, dusty area extends around the corral to a distance of 100 yards. Gachado needs attention; otherwise what remains will disintegrate rapidly.

Pozo Nuevo (Jose Juan Orosco's Well)

The Pozo Nuevo is a good example of a border line camp with primitive and minimum facilities. It illustrates the search for water to allow cattle to range over many square miles of sparse vegetation in search of food. It has a bunk house to shelter a person who might have to spend the night there, a small storage building, and a corral together with the well and windmill. The corral is spectacular in the sense that the materials used in its construction range from railroad ties, planks, mesquite limbs, to wire--everything that could be found and scrounged from the desert and countryside. The railroad ties could not have come from a place closer than Ajo.

The original Pozo Nuevo well was dug by a Sand Papago Indian named Jose Juan Orosco in 1910, according to the

records of the Papago Indian Agency at Sells, Arizona. Henry Gray purchased the water rights of this well from Jim Orosco, as his American acquaintances called him, in 1951. During the time Orosco used the well he drew water from it by hand over a windlass. He probably had only a few head of cattle using the well at any one time. After Henry Gray bought the water rights, or the rights to use the well possibly under some restrictions, misunderstandings between the two men developed over the water rights. As a result, Henry Gray drilled a new well 60 feet from the old well. It appears that Orosco's well was a weak one and went dry in drought seasons. It would appear that the well now in use at Pozo Nuevo is the one Henry Gray drilled in 1951. Gray also installed the windmill now at the place. The new well is recorded as being 175 feet deep.[30]

Pozo Nuevo is located north of Cipriano Junction on Puerto Blanco Drive, and is situated toward the interior of the park in contrast to Dos Lomitas and Gachado, which are both immediately north of the International Boundary at the southern extremity of the park. Pozo Nuevo was initially used by Orosco as a water source to supplement the Quitobaquito springs and pond, and allowed the Papago cattle

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30. Water Resource Report, Pozo Nuevo, Organ Pipe Cactus NM, prepared by Seasonal Ranger Bill Hoy, July 13, 1968.

to range farther away from Quitobaquito. After Henry Gray acquired the water rights at Pozo Nuevo he used the place as a line camp, one of several widely scattered watering places, corrals, and assembling points for his cattle which were scattered over a vast expanse of desert.

The Pozo Nuevo line camp building is 1-room, about 12x12 feet square, built of railroad ties, covered on the exterior with sheet metal. The roof is of board and saguaro ribs, with earth piled on top. The building serves as a storage place for certain items needed in maintaining the place, and it also can be used as a bunkhouse for anyone finding it necessary to spend the night there. The door was locked on the day of my visit. This plank door and part of the sheet metal siding were put on the building about two years ago.

The corral is large and comprised of four compartments. All kinds of material were used in its construction. One section has railroad ties for posts and cross bars; another has railroad ties for posts with planks as cross bars; another uses mesquite posts and mesquite poles as cross bars; and still another has timber posts with planks as cross bars. In the southwest corner of the corral in the section built of mesquite there is a ramada shade shelter. A roof of saguaro ribs has been laid from the two sides of the corral

a short distance from the corner, the ramada roof supported by an iron pipe that extends from corral sidewall to sidewall and is supported near the center by a section of a telephone pole.

The windmill is in place and in operation. A water tank or trough is connected to the windmill pump. There is the inevitable loading ramp and chute. All evidence around the corral shows it to be in considerable use. The area around the corral for a distance of 200-300 feet, except at one place where there is a drainage channel, has been tramped bare of all vegetation.

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In summary, it may be said that the several structures relating to livestock raising in Organ Pipe Cactus National Monument that have been selected for preservation represent a cultural heritage illustrating the ranching theme in American history. In this stretch of the Sonora Desert ranching in the United States must certainly have met its most marginal and demanding contest with nature. That it could have survived and formed the basis for human subsistence is perhaps surprising, but it illustrates the ingenuity and persistence of human enterprise in wrenching a livelihood from

a most hostile and harsh environment. In a real sense, they represent aspects of the pioneers' ordeal as they struggled to make many parts of the West fruitful and habitable.

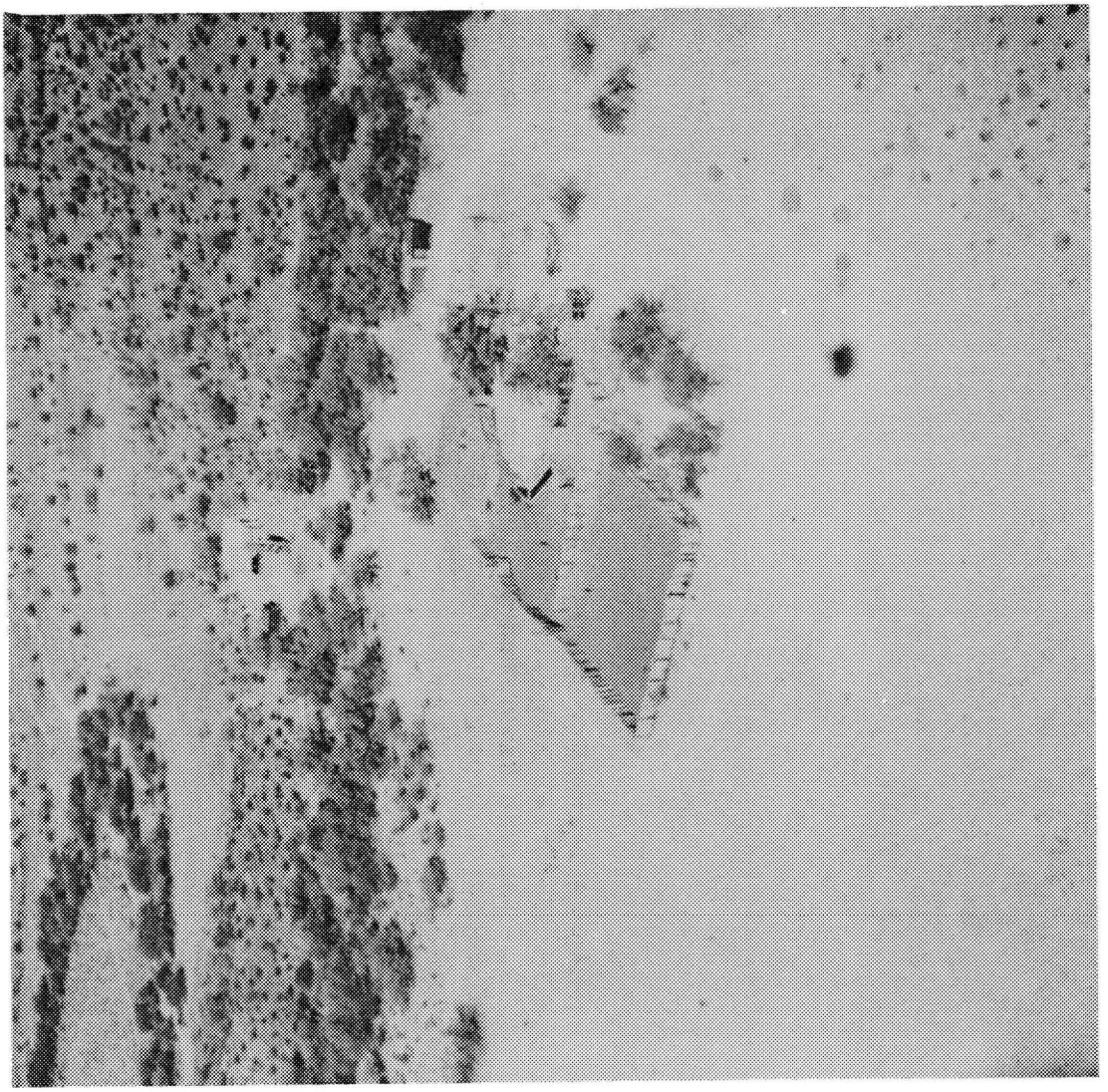
1. THE SONOYTA RIVER, only a few inches deep and about 12 feet wide, and running above ground as a stream for about 20 miles, creates an oasis in the Sonora Desert just south of the International Boundary in Mexico opposite Organ Pipe Cactus National Monument. West of where it disappears as a running stream it reappears on the surface as pools of water in a few places before it disappears entirely in the sands of the desert. Photo taken in 1907 from William T. Hornaday, Campfires on Desert and Lava, Charles Scribner's Sons, New York, 1908.



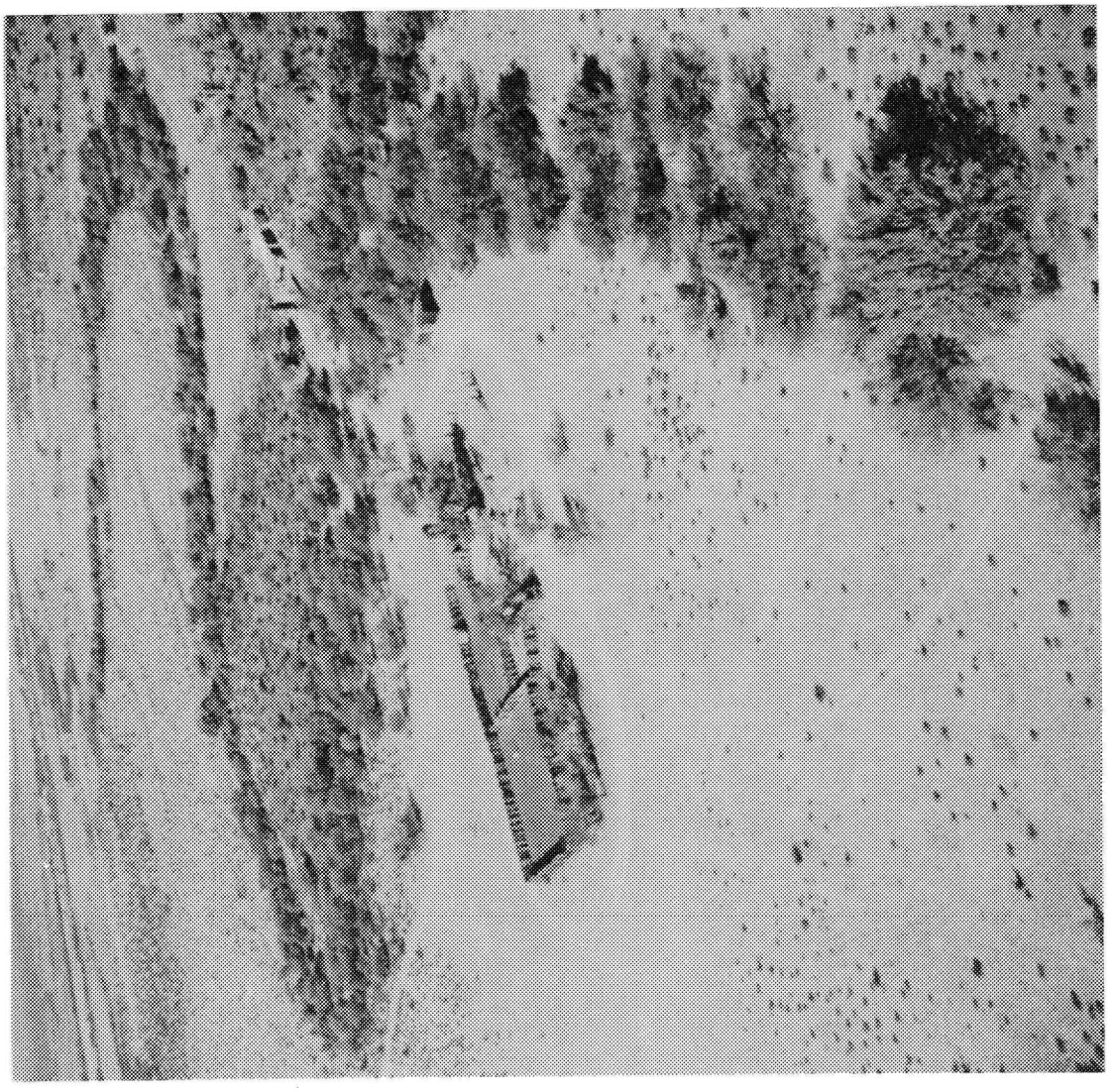
2. SONOYTA RIVER in flood from quick desert cloudburst, near Mexican village of Sonoyta, south across the International Border from present Organ Pipe Cactus National Monument. Photo taken in 1907. From William T. Hornaday, Campfires on Desert and Lava, Charles Scribner's Sons, New York, 1908.



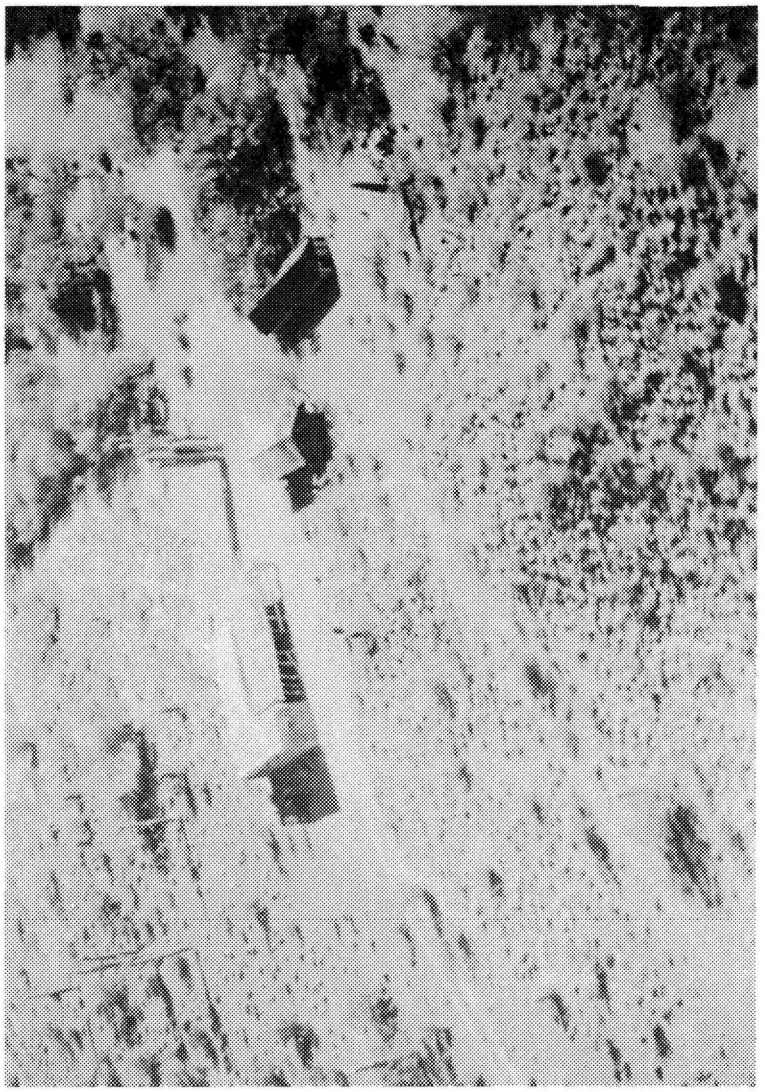
3. AERIAL VIEW OF BLANKENSHIP RANCH. The view is generally from east to west. It shows the several sections of the corral in the foreground and the well and windmill, and just beyond the corral at the middle right is the small structure built of railroad ties, probably the first building erected at the site. This is probably the structure built by Lon Blankenship prior to 1920. At the top middle of the picture and west of the corral stands the present adobe ranch house, commonly called the Blankenship Ranch, but built by Robert Gray Senior in 1920. The two small sheds appear at the left of the road, which separates them from the house. It will be observed that these structures are in a shallow pass or depression between two rocky hills that rise to the north and south of them. The area around the corral has been tramped bare by cattle. The International Boundary and Mexico are just off the picture at the left. Photo by Carrico, Organ Pipe Cactus National Monument, April 1968.



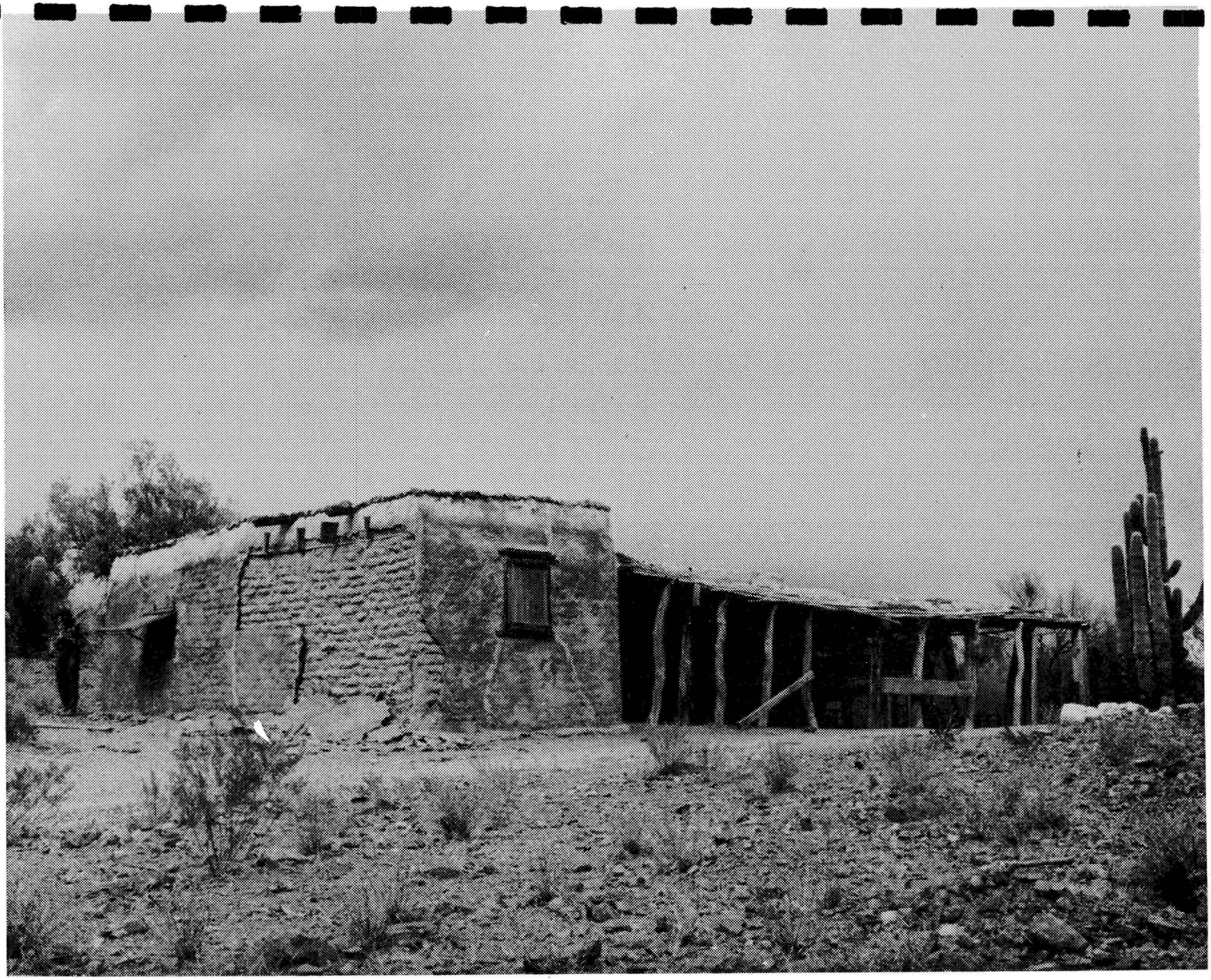
4. AERIAL VIEW OF BLANKENSHIP RANCH. View from northeast to southwest, showing relationship of corral and ranch structures somewhat more clearly than photo No. 3. Sonoyta River and Valley show at top left, in Mexico. Photo by Richard Begemen, Organ Pipe Cactus National Monument, April 1968.



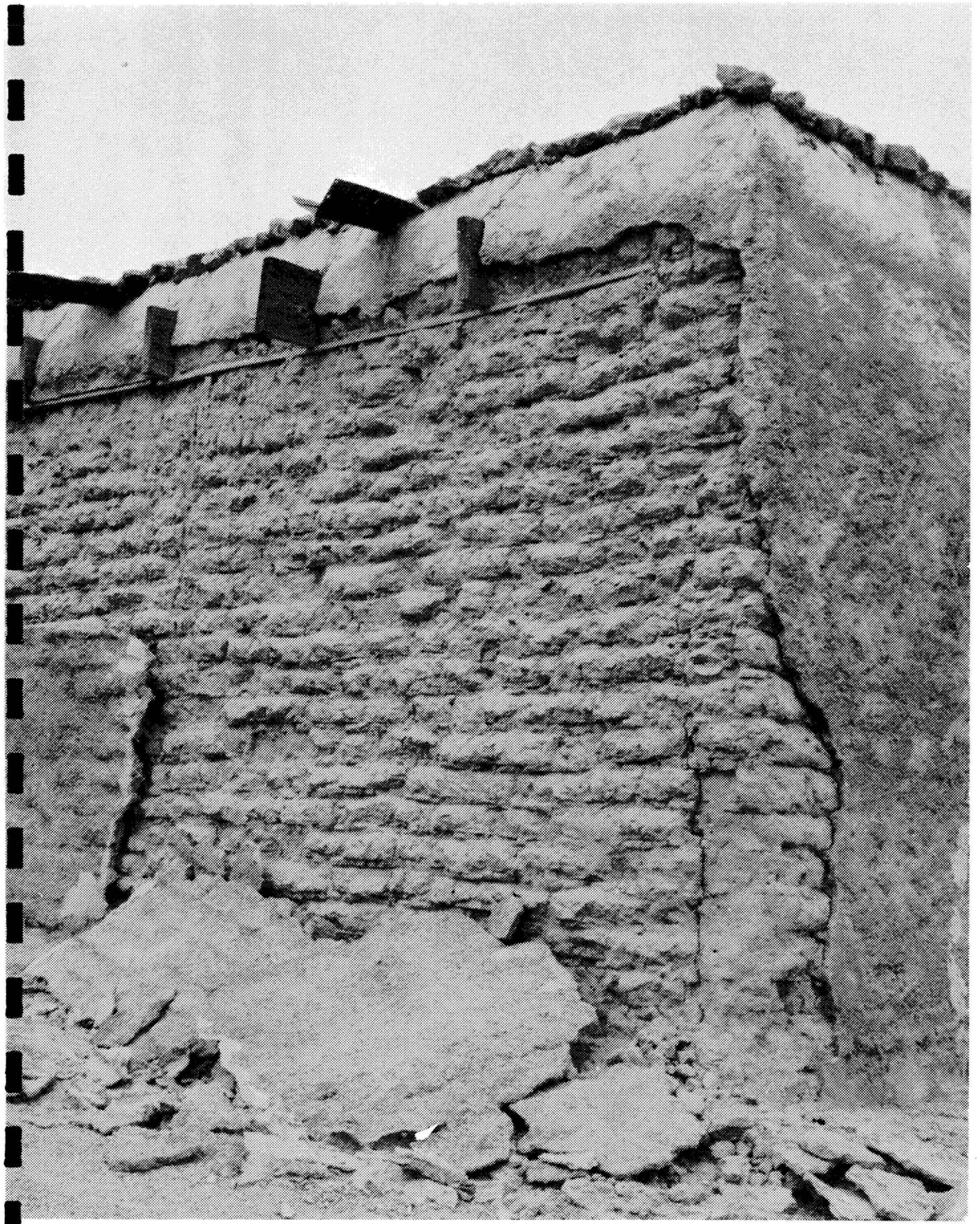
5. AERIAL VIEW OF BLANKENSHIP RANCH. View is from south to north. This view shows comparative size and location relationships of main ranch house to two nearby sheds. Corral is out of picture at top right. Photo by Richard Begemen, Organ Pipe Cactus National Monument, April 1968.



6. BLANKENSHIP RANCH. This adobe ranch house was built by Robert Gray, Senior, in 1920. The structure is rapidly deteriorating, as evidenced by the plaster that has fallen off the adobe bricks on the west wall. The ramada that extends around a part of the south and east sides of the house shows at the right. Mesquite posts hold up the roof, which has pulled away from the main house. Two of the windows show with solid board shutters. Photo by William E. Brown, National Park Service, April 1967.



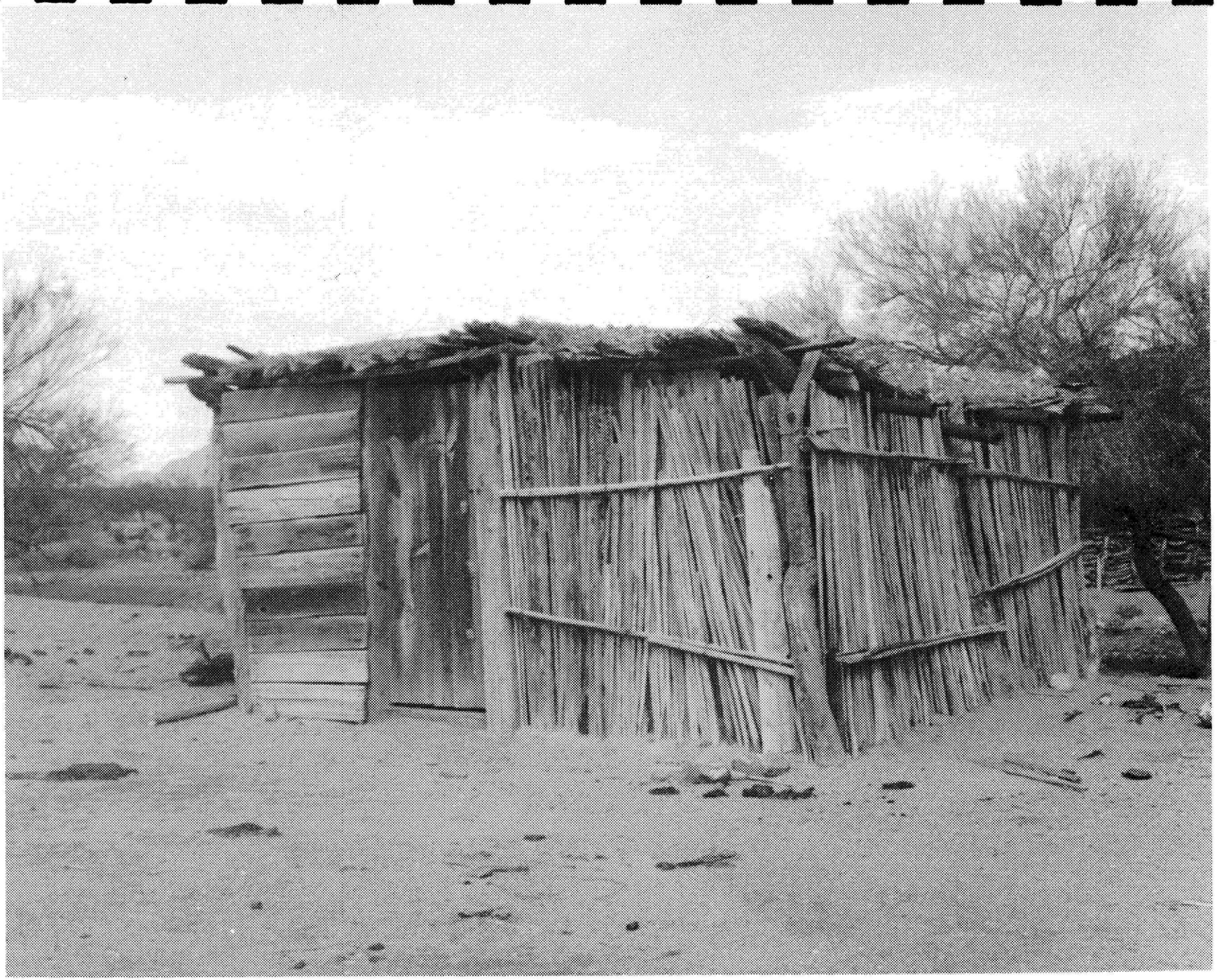
7. DETAIL OF WEST WALL OF BLANKENSHIP RANCHHOUSE. This view shows fallen plaster and exposed adobe bricks. Also shows some details of crossbeams and roof construction. Photo taken by William E. Brown, National Park Service, April 1967.



8. BLANKENSHIP WELL RANCH CORRAL. This view gives a general view of the corral and windmill, showing railroad tie and mesquite post with mesquite pole lateral construction. Photo by William E. Brown, National Park Service, April 1967.



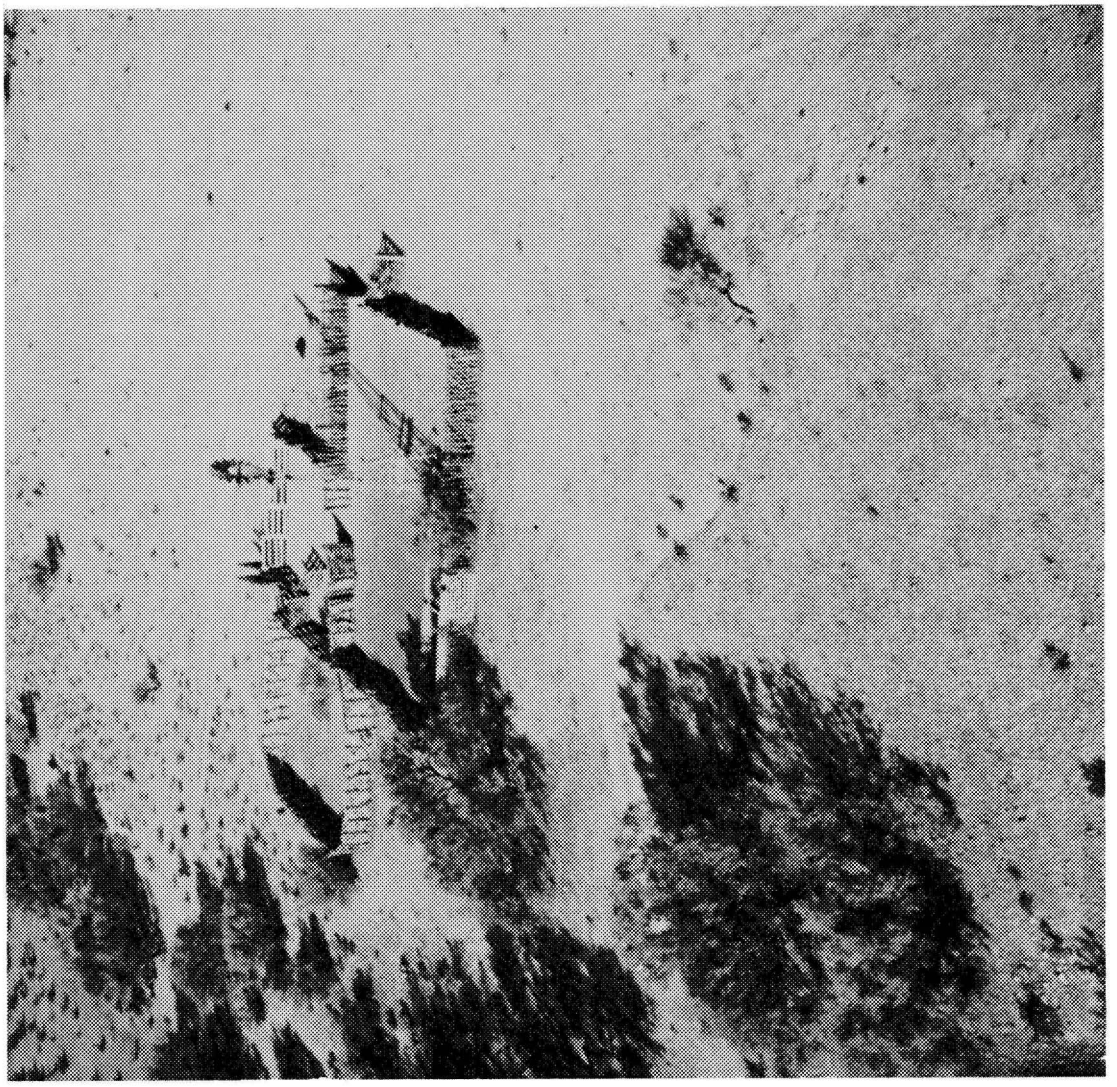
9. JACKAL at Pozo Nuevo. This structure provides overnight shelter to anyone staying at Pozo Nuevo Line Camp. Photo by William E. Brown, National Park Service, April 1967.



10. AERIAL VIEW OF POZO NUEVO CORRAL. This view gives a good idea of the three compartments of the corral and of the various types of materials used in its construction. The well and windmill together with water trough may be seen at the left of the corral in the largest compartment. The area surrounding the corral shows the sparse growth, most of it Creosote Bush, in this part of the Sonora Desert. Photo by Richard Begemen, Organ Pipe Cactus National Monument, April 1968.



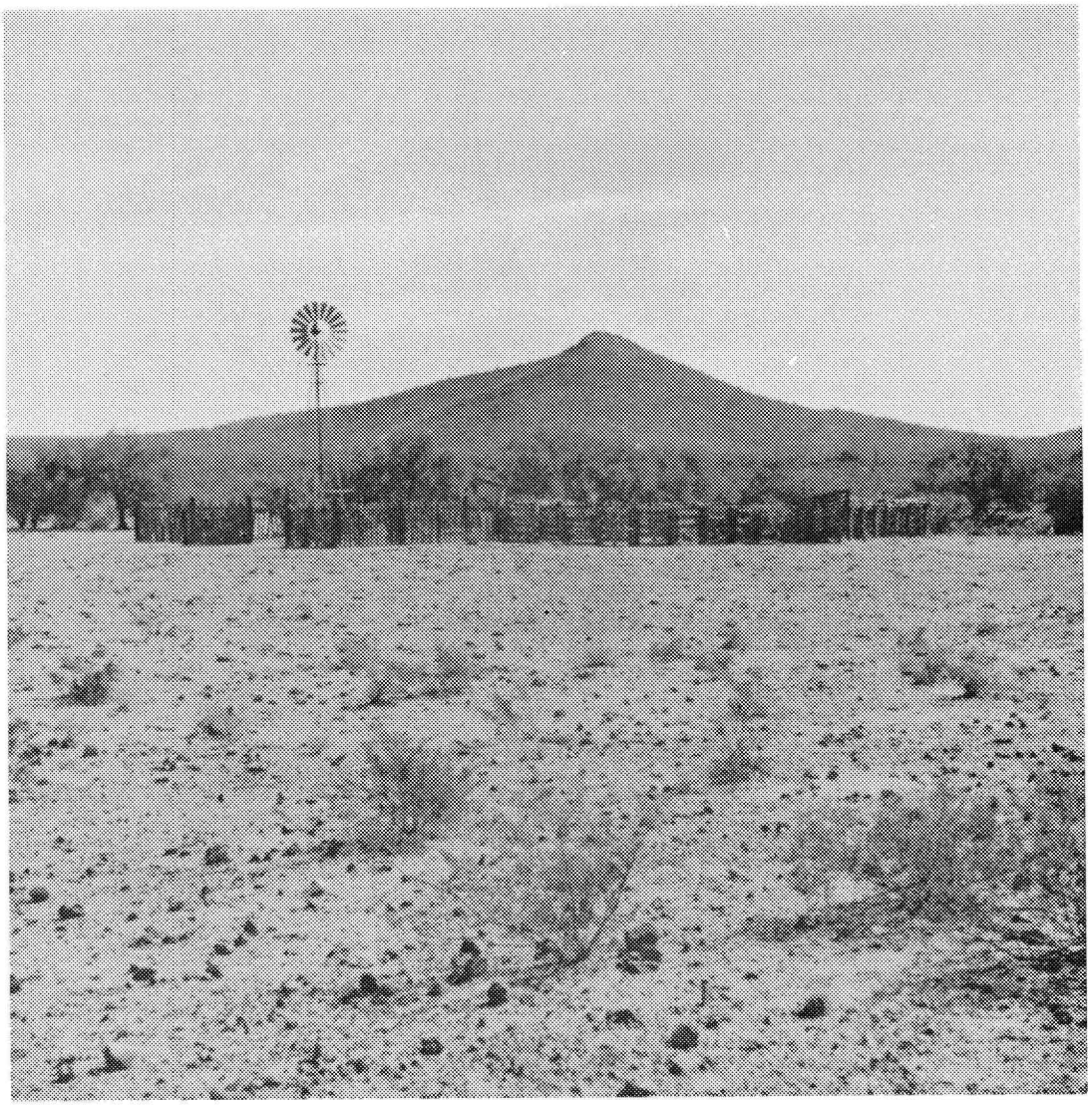
11. AERIAL VIEW OF POZO NUEVO CORRAL. This view is nearly 180 degrees different from that shown in photo No. 10, and presents many features more clearly. Photo by Richard Begemen, Organ Pipe Cactus National Monument, April 1968.



12. POZO NUEVO CORRAL. This face of the corral is constructed of Mesquite posts and poles. Photo by William B. Brown, National Park Service, April 1967.



13. POZO NUEVO CORRAL. This view is of the opposite face of the corral from that shown in photo No. 12, and shows different construction material used in its building. Photo by Richard Begemen, Organ Pipe Cactus National Monument, November 4, 1968.



14. POZO NUEVO CORRAL. This southwest corner of the corral shows mesquite post with saguaro rib shade shelter, or ramada, construction. This is a good example of the use to which mesquite, the tree of the desert, can be directed. It is just about the only desert growth that lends itself to any reasonably heavy construction purpose. Photo by Richard Begemen, Organ Pipe Cactus National Monument, November 4, 1968.

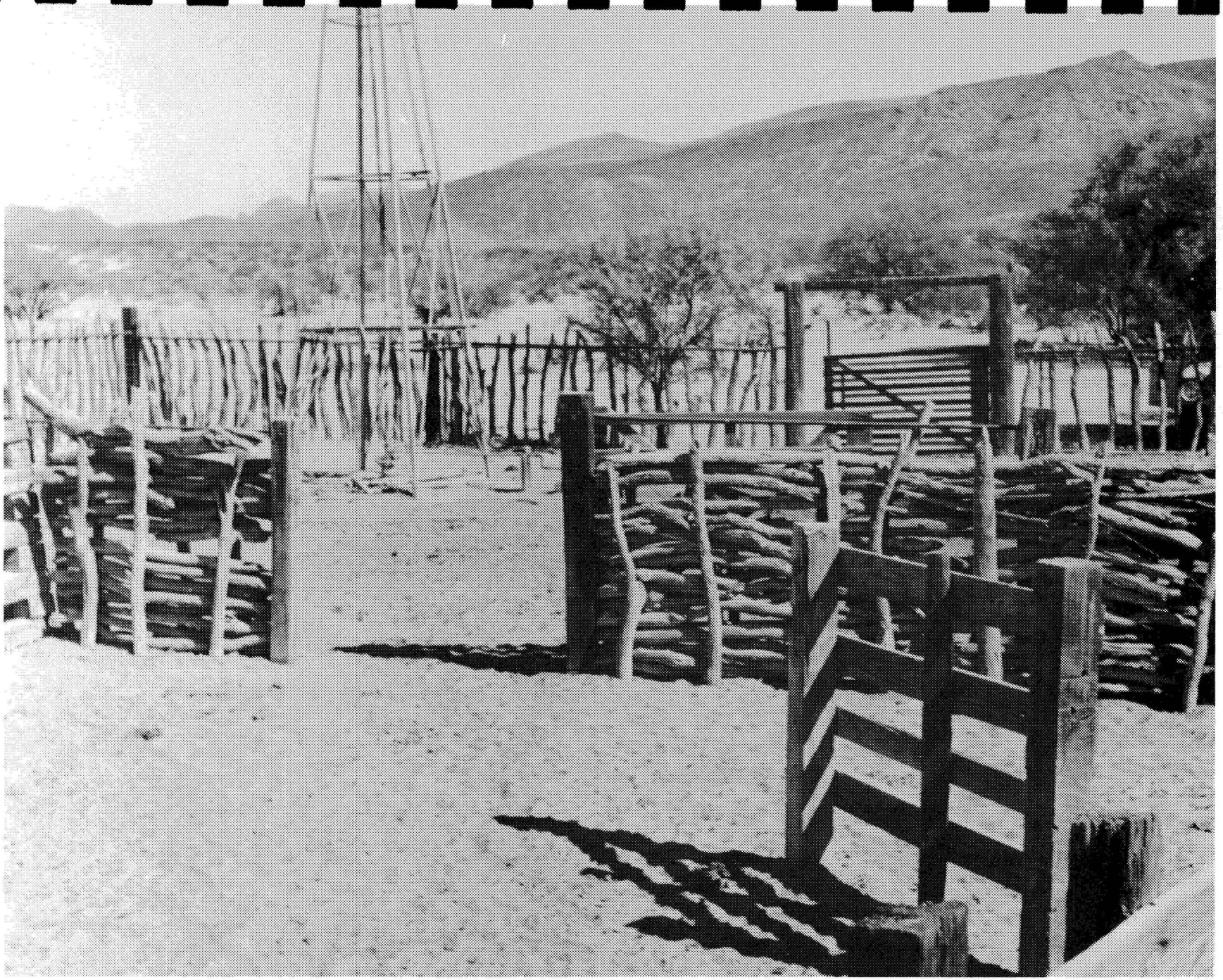


15. POZO NUEVO CORRAL. This closeup of the southwest corner of the corral shows the saguaro rib construction of the ramada. Photo by Richard Begemen, Organ Pipe Cactus National Monument, November 4, 1968.

16. POZO NUEVO CORRAL. This view shows the 2-inch iron pipe that supports the sagauro ribs that form the ramada roof at the corral's southwest corner. A section of an old telephone pole forms the upright support. Photo by Richard Begemen, Organ Pipe Cactus N.M., November 4, 1968.



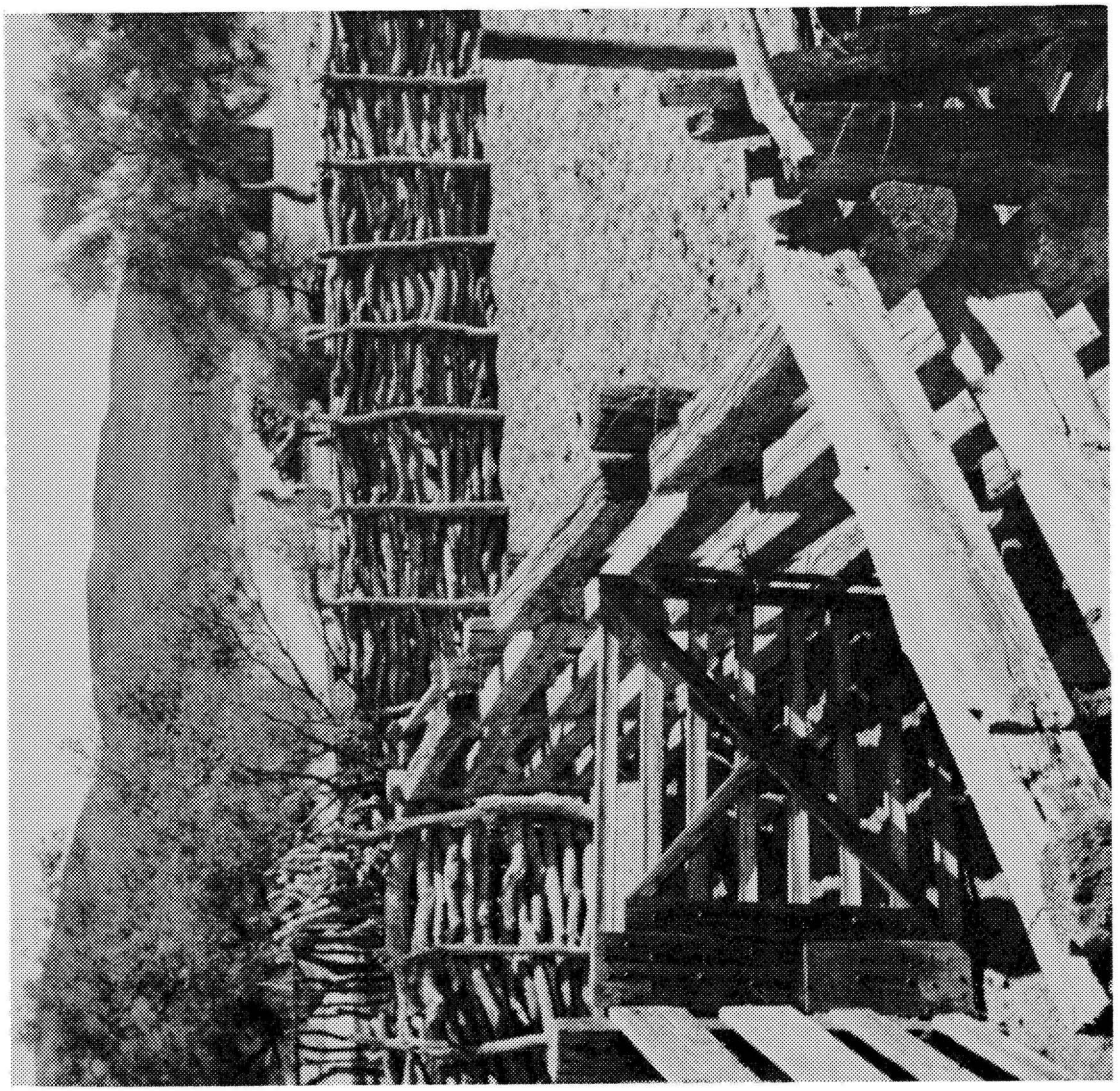
17. POZO NUEVO CORRAL. This view of the corral was taken from the loading chute. Note the different types of materials used in the corral's construction. Photo by Richard Begemen, Organ Pipe Cactus N.M., November 4, 1968.



18. POZO NUEVO CORRAL. Railroad tie fence at corner showing corner and line joints. Photo by Richard Begemen, Organ Pipe Cactus N.M., November 4, 1968.



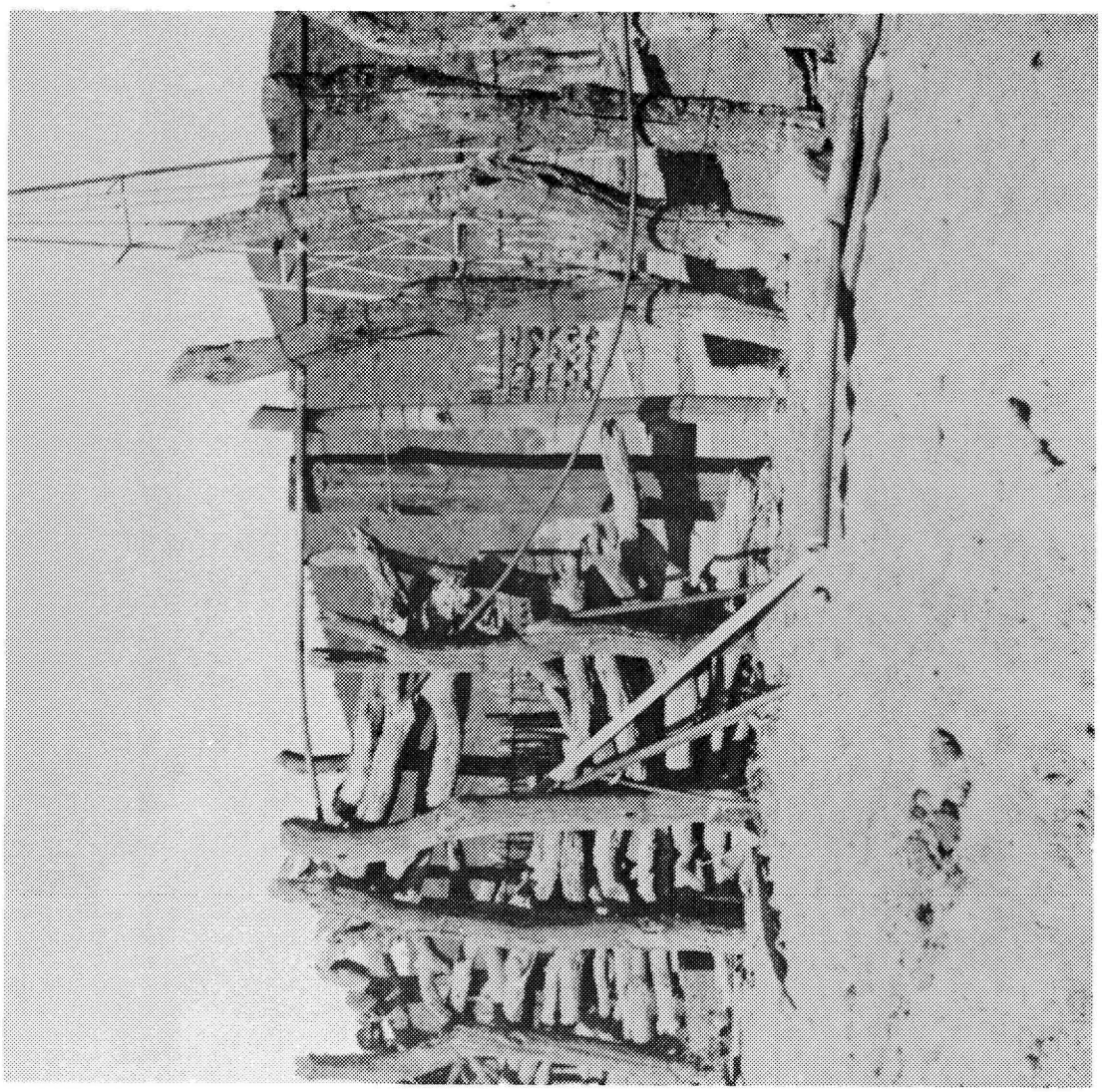
19. POZO NUEVO CORRAL. Another view from the loading chute into the corral. The jackal shows beyond the mesquite tree at the upper right. Photo by Richard Begemen, Organ Pipe Cactus N.M., November 4, 1968.



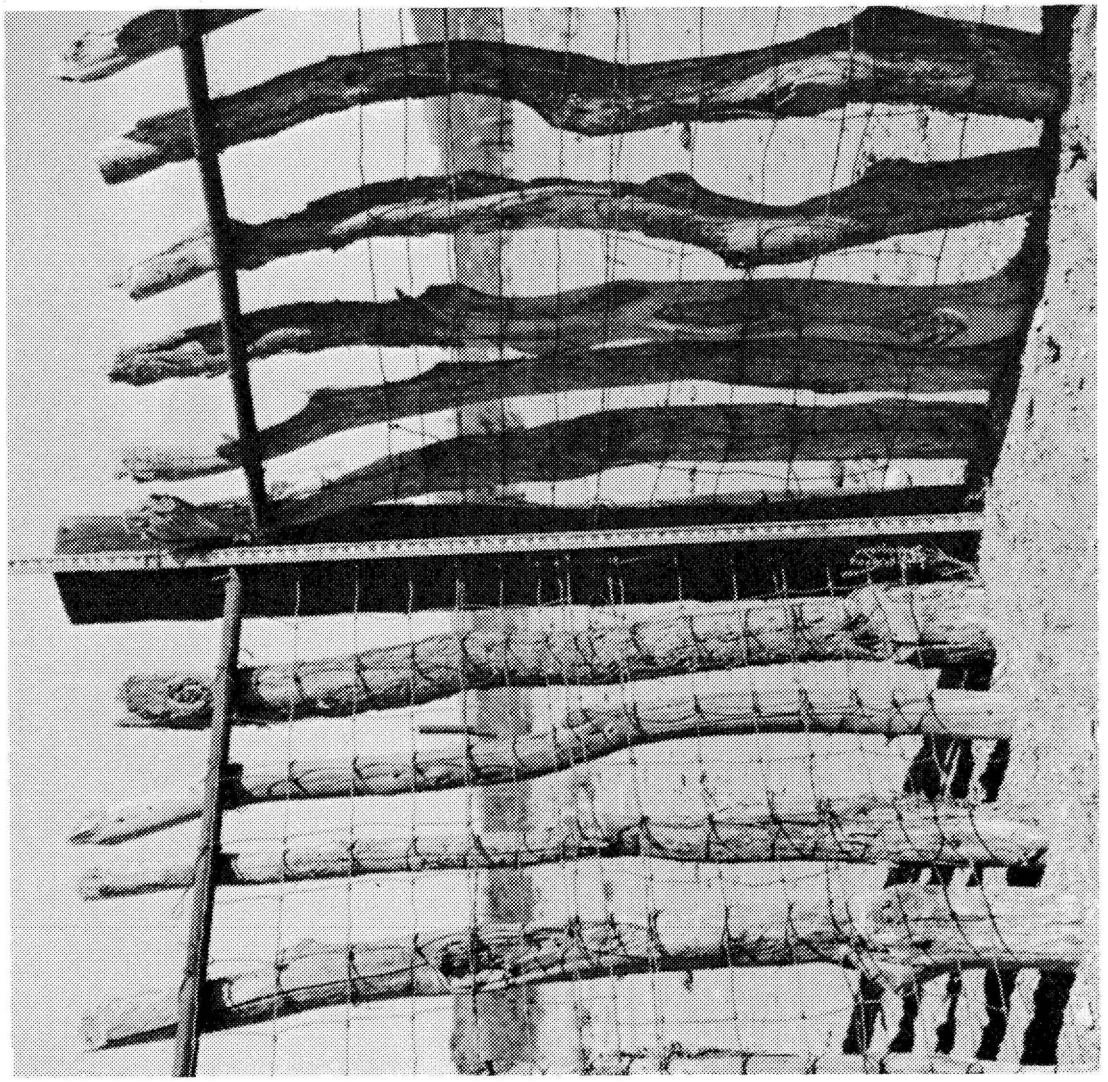
20. POZO NUEVO CORRAL. Junction of railroad tie with mesquite post construction on the west side of corral. Photo by Richard Begemen, Organ Pipe Cactus N.M., November 4, 1968.



21. POZO NUEVO CORRAL. This view shows junction of different construction materials and types at main corral. Photo by Richard Begemen, Organ Pipe Cactus N.M., November 4, 1968.



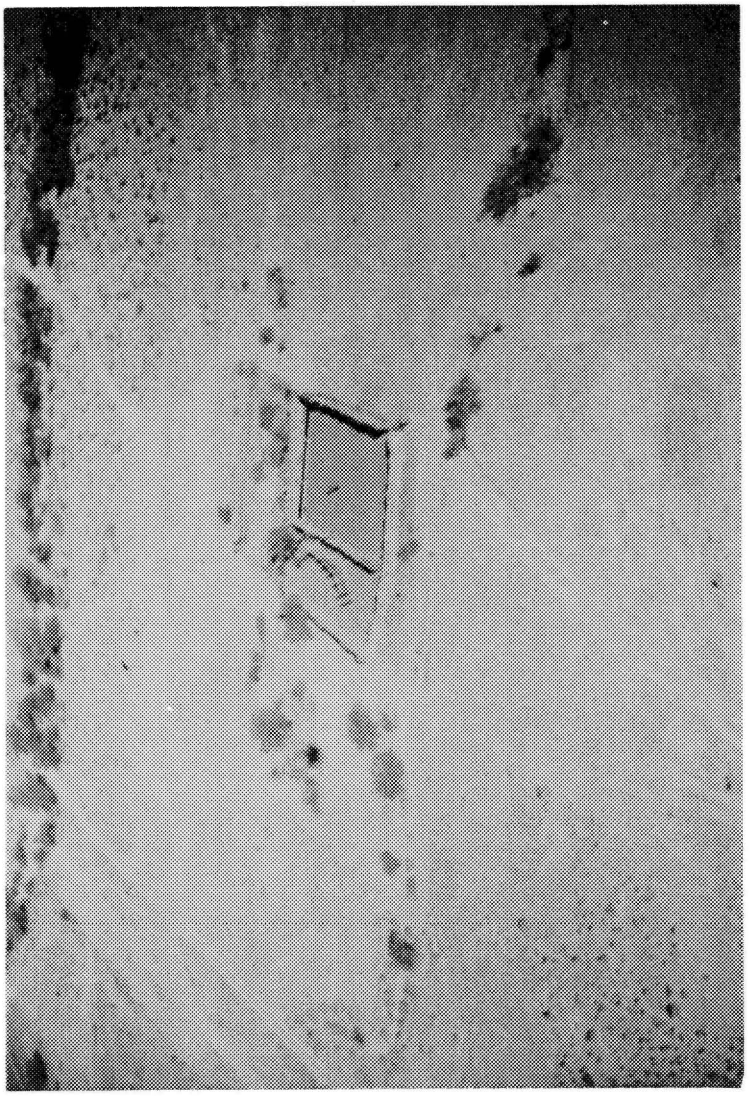
22. POZO NUEVO CORRAL. This view is at the northeast corner showing post and wire construction with railroad tie corner post. Photo by Richard Begemen, Organ Pipe Cactus N.M., November 4, 1968.



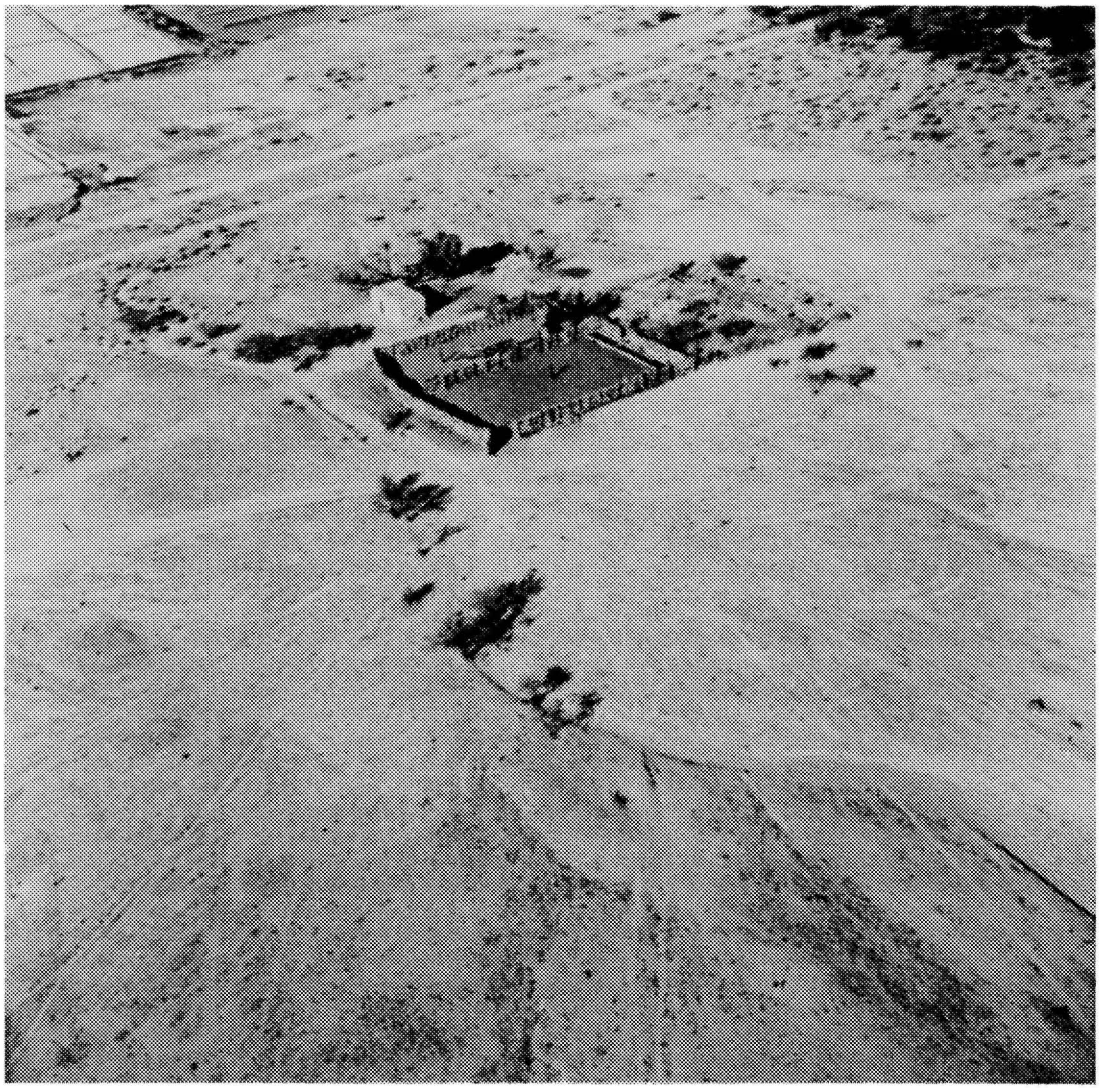
23. POZO NUEVO CORRAL. This view shows the gate on the east side of the main corral. Photo by Richard Begemen, Organ Pipe Cactus N.M., November 4, 1968.



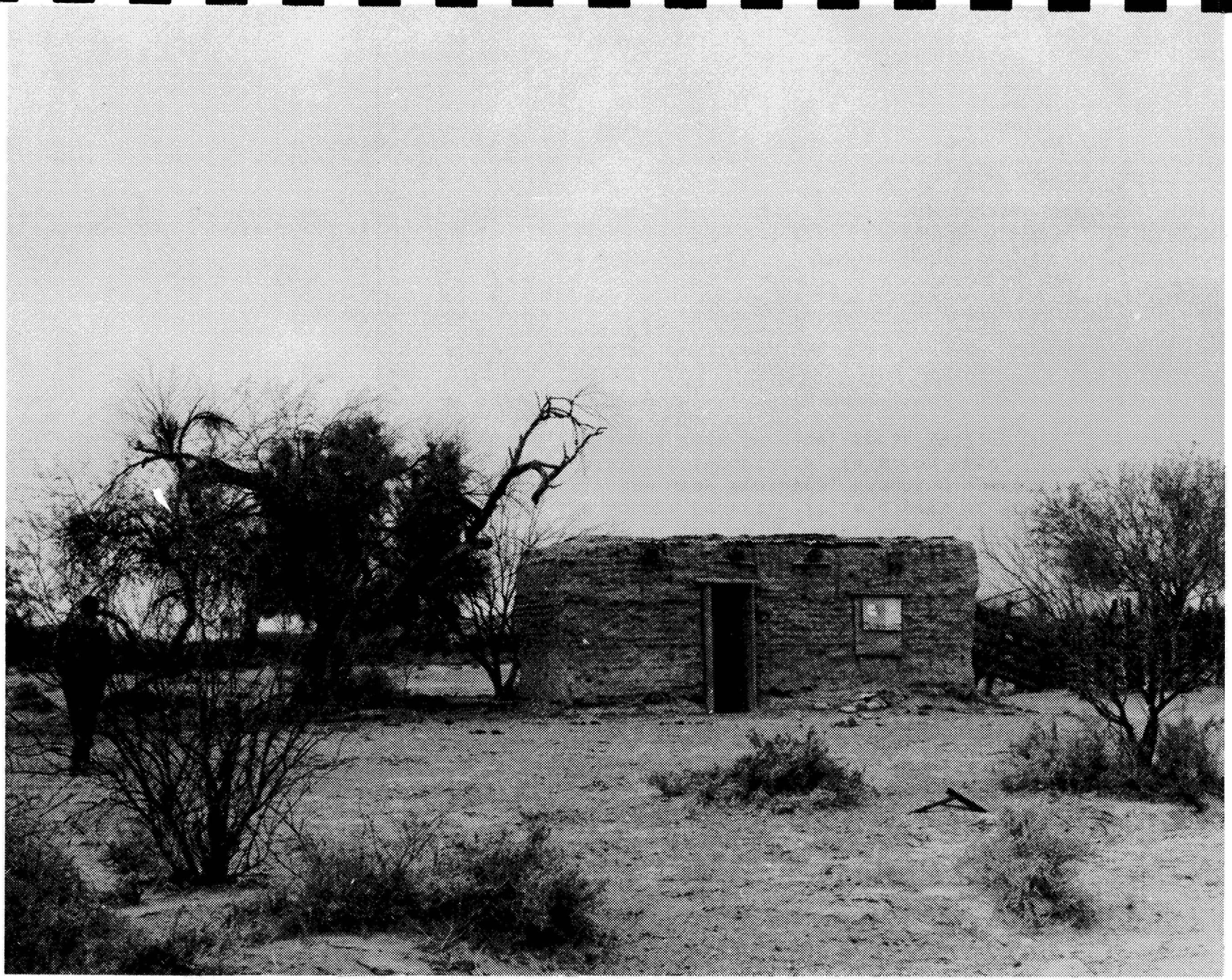
24. AERIAL VIEW OF GACHADO WELLS LINE CAMP. This view shows the trails converging on the Gachado Line Camp. The one room adobe building at the left of the corral is barely visible because of light effect, appearing almost as a part of the bleak sand waste. Cattle have tramped the area around the well and corral entirely bare except for a few mesquite trees. The windmill has fallen down and the place is in deterioration of abandonment. Reproduced from color transparency by Richard Begemen, Organ Pipe Cactus N.M., April, 1968.



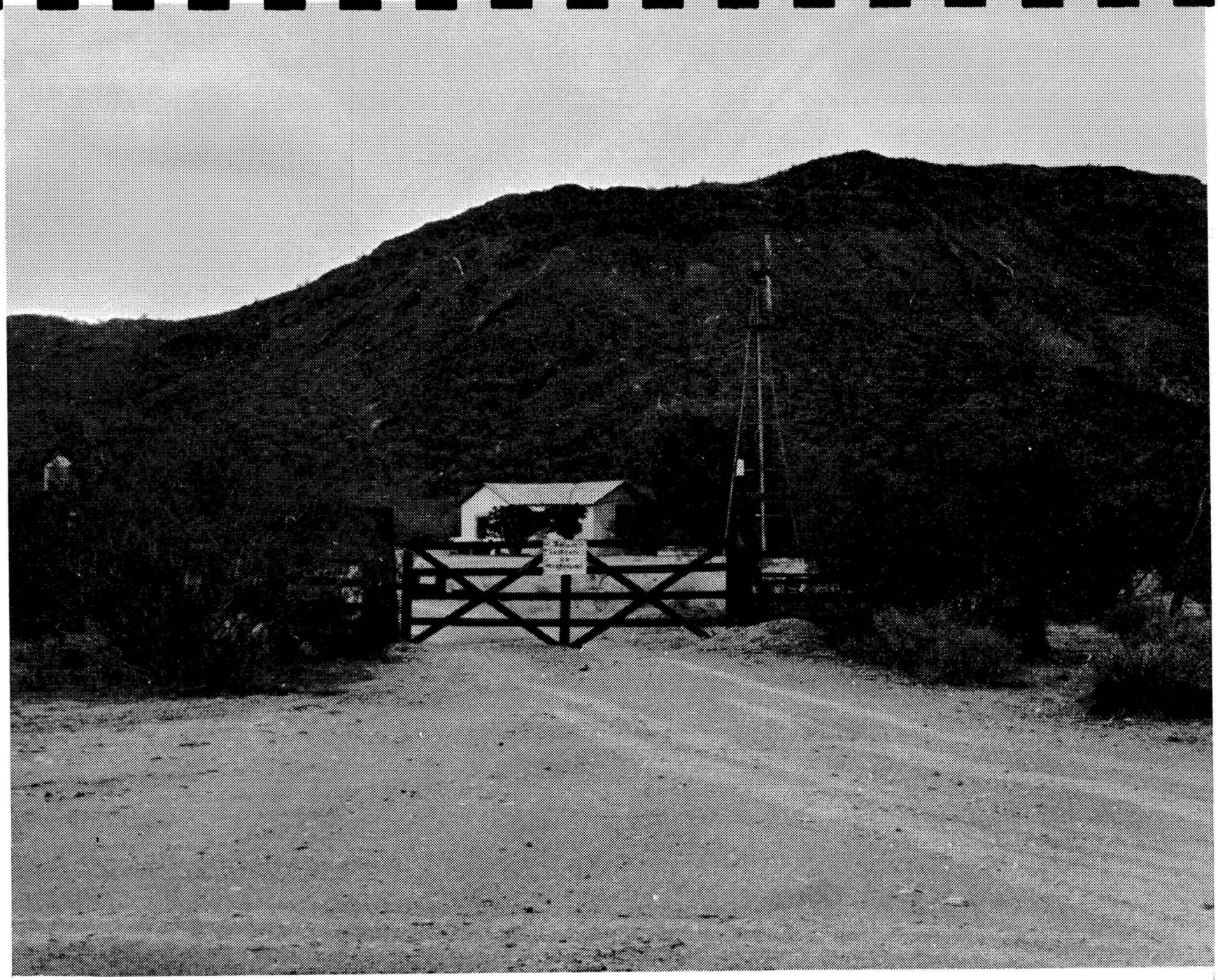
25. AERIAL VIEW OF GACHADO WELLS LINE CAMP. This aerial view shows Gachado Wells corral and adobe building, located about a mile west of the Gray Brothers ranching operation. It is just north of the International Boundary with Mexico. The International Boundary runs between the two roads that run diagonal across the top left of the photograph. The topmost road is in Mexico, as are the irrigated plots of ground that show at top left. The view is to the southwest. The name of Gachado Wells is derived from an ancient, twisted, and gnarled mesquite tree at the site. Photo by Richard Begemen, Organ Pipe Cactus N.M., April 1968.



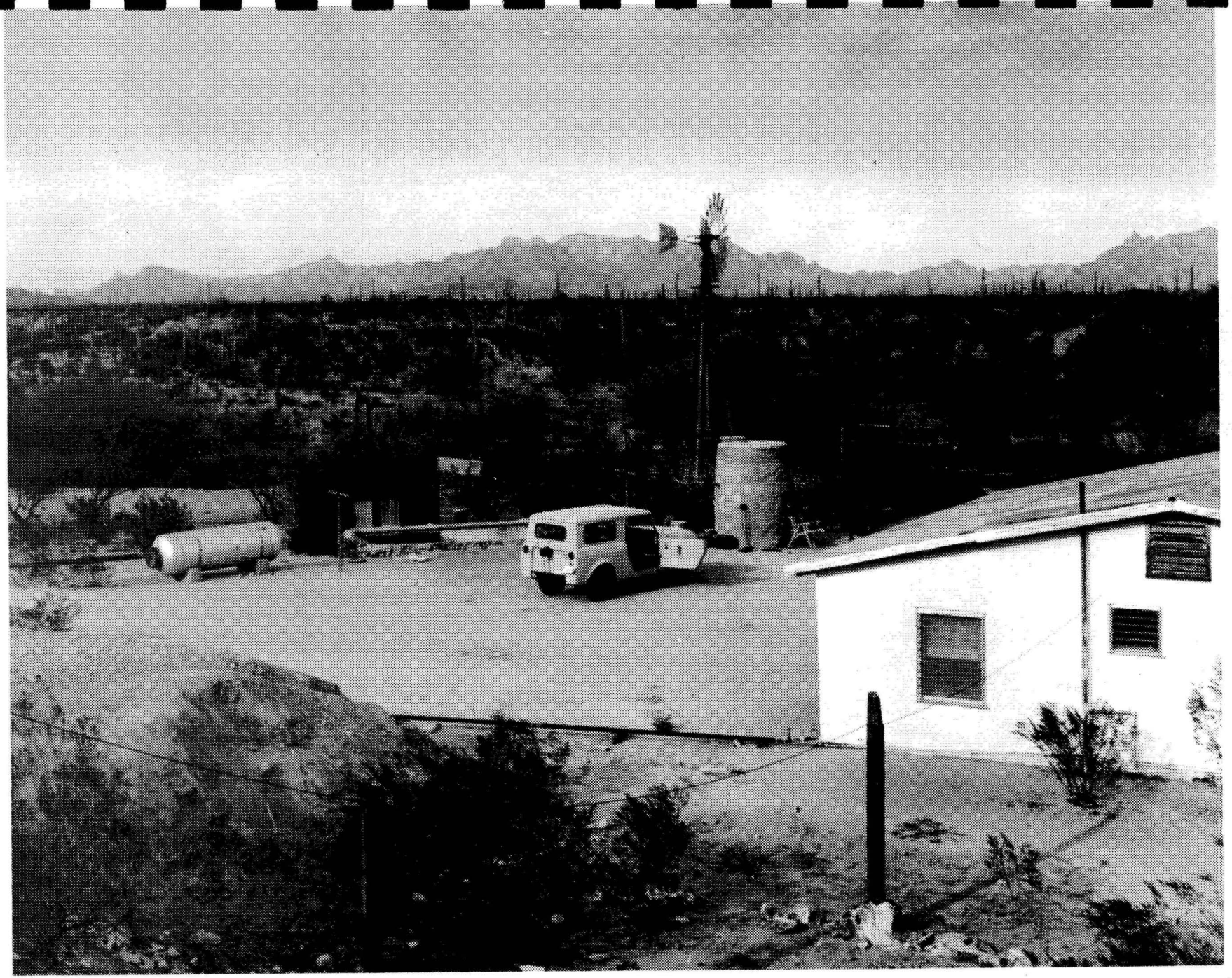
26. GACHADO WELLS BUNKHOUSE. This view shows the adobe bunkhouse which is in a bad state of deterioration and needs emergency stabilization. The plaster has all fallen from the adobe bricks, the roof is in bad condition, the base of the adobe walls has eroded in an undercut manner and may cause the walls to topple soon, and the corners of the adobe building have been rubbed and rounded off by cattle. Photo by William E. Brown, National Park Service, April 1967.



27. BATES WELL. This view shows one of the major water sources in the Organ Pipe Cactus area of the Sonora Desert. It is a part of the Blankenship, or more correctly the Gray Brothers, ranching operation, and because of its previous historic importance, is shown here. Photo by William E. Brown, National Park Service, April 1967.



28. DOWLING WELL. Another important and well known water source in the Organ Pipe Cactus area of the Sonora Desert. It has many modern improvements and facilities not commonly found in this part of the Sonora Desert. Photo by William E. Brown, National Park Service, April 1967.



29. HOCKER WELL JACKAL. This view shows a good example of the primitive shelters that are often erected in the Sonora Desert for use of human beings. They are known by the name "Jackal." In effect they are little more than a shade covering, a ramada, with one or more sides enclosed as protection from wind and sand and occasional rain. This one boasts a stone fireplace and outside chimney. Photo by William E. Brown, National Park Service, April 1967.



30. HOCKER WELL JACKAL. This view shows the interior face of the outside stone chimney at the jackal. The chimney and fireplace are flanked by deteriorating mesquite posts. Photo by William E. Brown, National Park Service, April 1967.

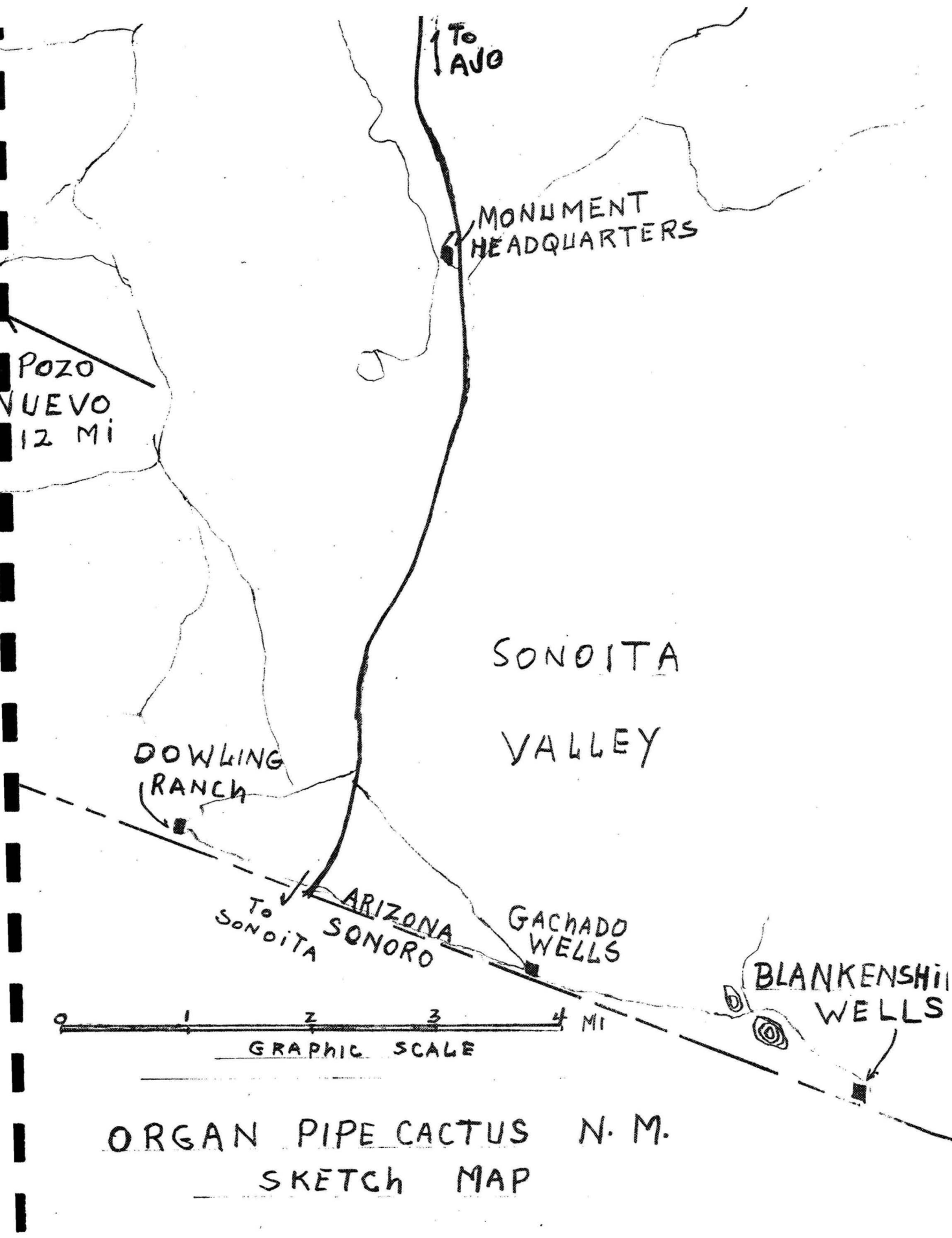


31. POZO SALADO CORRAL. This water source is in the southwestern part of Organ Pipe Cactus N.M., about half a mile north of the Mexican border. It is one of the numerous line camps and watering places used by the Gray Brothers ranching operation. The corral is newer construction, railroad tie and mesquite posts with mesh wire, than at the other corrals illustrated in this report, and which are the subject of preservation treatment. Photo by William E. Brown, National Park Service, April 1967.



32. POZO SALADO CORRAL AND WELL. This view shows the concrete water trough full of water and a section of the post and wire construction of the corral. Photo by William E. Brown, National Park Service, April, 1967.





ORGAN PIPE CACTUS N. M.
SKETCH MAP

HISTORIC STRUCTURES REPORT

RANCH STRUCTURES

BLANKENSHIP RANCH
GACHADO WELL
POZO NUEVO

Organ Pipe Cactus National Monument
Arizona

Architectural Data Section
Parts I and II

By
Russell Jones
December 1969

U. S. DEPARTMENT OF THE INTERIOR - NATIONAL PARK SERVICE
Office of History and Historic Architecture

I. RECORD DRAWINGS

The Blankenship, Gachado Well and Pozo Nuevo Ranch structures were measured in October 1968 and record drawings prepared showing the existing conditions of that date. Reduced copies of these drawings are included as part of this report.

II. RECORD PHOTOGRAPHS

Showing the conditions of the structures as of October 1968 are also included as part of this report.

III. DESCRIPTION OF STRUCTURES AND EXISTING CONDITION

A. BLANKENSHIP RANCH:

1. Ranchhouse - E11 shaped adobe building with parapet walls covered with cement plaster, and capped with field stones. The flat roof is constructed of cactus rib latias, brush and vigas. A portal extends from the ell across the front and right side of the building. The single chimney is located about mid point on the rear wall. The three exterior doors are board and batten. The windows, covered with screen wire and wood shutters are without sash. The building is a fine example of U. S. - Mexican border adobe construction. The building is reasonably sound. No large or extensive cracks have occurred to indicate foundation failure. Areas of exterior plaster have fallen from the walls but the exposed adobes have not weathered badly. The portal has pulled away from the building walls some 6 to 12 inches due to rotting of structural members and wind action. The application of asphalt

road mix to the house and portal roofs would indicate extensive repair or replacement is required.

2. Outbuilding #1 - A foundationless rectangular frame building approximately 12'x24' with a gable roof covered with corrugated sheet metal. The walls are constructed of posts set in the ground and covered with salvaged flume staves. The structure is typical of a small building erected by ranch hands using miscellaneous materials. Access was not permitted.

The building is in fair condition. A number of the posts supporting the walls and roof require replacement. The siding needs repair and renailing. The corrugated metal roof will require considerable repair and replacement to make the building weathertight.

3. Outbuilding #2 - A long, narrow, two room, dirt floor, gable roofed building measuring approximately 10'x32', and perhaps constructed in two increments. No foundation was used as the posts supporting the walls were set in the ground. The siding consists of a combination of random width boards and cactus ribs. One door is located in the north end and another in the long west side. This building is also typical of the ranchhand construction using miscellaneous materials.

This building is in very poor condition. The dry climate and the wind action has caused the nailed connections to loosen permitting the structure to become out of plumb. The wall and roof framing needs repair. Siding boards need renailing and a number of boards are missing. The cactus rib wall at the rear of the building requires repositioning, refastening, and additional ribs. The corrugated metal roof is badly rusted and distorted.

4. Outbuilding #3 - A rectangular building measuring approximately 28'x13', constructed in two sections. The south portion is constructed of railroad ties set on end with no foundation. The north portion is constructed of corrugated sheet metal on wood framing. The sheet metal roof, pitched slightly to the west (rear) for drainage is supported by four wood purlins. There are two board and batten doors, one to each section, in the east (front) elevation. There is one window, without sash or shutter in the north end wall. The building is a typical structure erected by persons unskilled in the building trade, but nevertheless ingenious, using miscellaneous building materials that were available.

The south portion of the building, constructed of railroad ties, is reasonably sound, although there is some rot in the lower ends of the ties. The north or corrugated metal portion needs renailing and some repair.

Not being permitted to enter the building the condition of the wall and roof framing could not be determined.

5. Corral - An irregular shaped enclosure measuring approximately 150'x122' consisting of two large corrals and a small stock pen with loading chute and ramp. The corral fence averages 6' high and is constructed of interwoven mesquite limbs held in place by double mesquite or railraod tieposts. Entrance is through a large trigger gate. The three enclosures are connected by gates or opening. Snubbing posts are located in the two large corrals. A windmill for pumping water to the trough is located just outside the enclosure.

B. Gachado Well

1. House - One room, dirt floor adobe building measuring approximately 22-1/2 feet by 11-1/2 feet. The board and batten door and one window are located in the east (front) wall. A second window is in the rear (west) wall. The outside chimney at the north end of the building has collapsed and the fireplace closed. A flat roof constructed of cactus ribs, brush and adobe is supported by four vigas.

This building is in very poor condition. Except for one small area all of the exterior cement plaster has fallen from the walls. Erosion of the exposed adobes has reduced the overall thickness of the walls to approximately 8 inches. Water from the roof has completely washed away a 12 inch section of the rear wall from the roof line to the ground. If protective action is not taken very soon the entire structure could collapse. The door and window frames, as well as the door require repair. It was not determined if the windows had shutters.

2. Corral - The overall enclosure consists of three corrals of about equal size. A north and south corral constructed of interwoven mesquite and west corral constructed of barbed wire and mesquite log posts. Entrance is through a wide "trigger" gate into the north corral in which the watering trough is located. The loading chute and ramp are part of the south corral. The west corral is entered by a small gate. A windmill and pump are located within the wire enclosed area.

The condition of this corral is about the same as the Blankenship corral. The mesquite posts are infected with decay and must be replaced. All of the gates need repair and refastening. The windmill has collapsed but has not been removed from the site.

C. POZO NUEVO

1. Jacal - A one room, dirt floor structure measuring approximately 13'x12-1/2' with a flat roof of saguaro ribs and adobe. A board and batten door is located in the east wall. The foundation is omitted. Mesquite and railroad ties posts supporting the walls and roof are set in the ground. The walls are constructed of saguaro ribs, railroad ties and salvaged boards. The structure is typical of the line camp shelters constructed by the ranch hands for temporary use. We could not inspect the interior of this building.

Several of the mesquite posts are decayed and require replacement. The cactus ribs in the walls should be repositioned, refastened and additional ribs provided. The siding boards and the door should be renailed. The roof must be rebuilt. Several of the beams supporting the roof are sagging and should be replaced with stronger members to provide proper drainage. This building was constructed originally as a temporary shelter and will require continual maintenance.

2. Outbuilding - A gable roof frame structure measuring approximately 12-1/2 feet by 16-1/2 feet with corrugated metal walls and roof. A single board door is located in the long north wall and one window each in the west end and south wall. A hole, through which a stovepipe passed at some time, is located in the east gable. We could not enter this building but it is thought to contain only one room.

The corrugated sheet metal walls need refastening and some replacement. The roof undoubtedly leaks and must be repaired to preserve the wood framing.

3. Corral - An irregular shaped enclosure constructed of miscellaneous materials measuring approximately 118 feet by 97 feet consisting of three corrals complete with watering trough, windmill and pump, loading chute and ramp. Entrance to the enclosure is through two gates into the largest of the corrals, which opens into the second corral. This in turn opens into the third unit. The chute and ramp is part of the second corral.

Exterior Doors - Repair existing doors and frames. Refasten hardware. Provide any missing hardware necessary to the operation.

Windows - Repair existing window frames and wood shutters. Replace screening. Refasten all hardware. All new material shall match the original material.

Roof - Replace decayed and weakened vigas. Rebuild roof reusing sound existing material where practical. Remove asphalt topping. Apply new adobe with imbedded waterproof membrane. Replace metal stovepipe canales. Install all necessary flashing.

Preservative Treatment - All existing and new wood shall be given a fireproofing and preservative treatment.

Site - Regrade the site to direct surface water away from the building.

Clean-up - Remove all modern debris from the area.

Interior Restoration - Since admission to the building was denied no proposal for interior restoration can be made at this time.

2. Outbuilding #1

Exterior Restoration

Walls - Replace unsound wall framing and refasten all connections. Repair and renail flume stave siding.

Door - Repair and renail door and frame. Refasten existing hardware.

Roof - Replace framing members as necessary and refasten all connections. Replace corrugated roof sheets as necessary using matching second hand material. Refasten all sheets to make weathertight.

Preservative Treatment - All existing and new wood shall be given a fireproofing and preservative treatment.

Site - Regrade site to direct surface water away from the building.

Clean-up - Remove all modern debris from area.

Interior Restoration - Since admission to the building was denied, no proposal for interior restoration can be made at this time.

3. Outbuilding #2

Exterior Restoration

Walls - Repair, replace and refasten all wall framing. Replumb building. Renail all wood siding. Replace and repair siding as necessary. All replacement lumber shall be weathered, secondhand material. Repair, reposition and refasten cactus rib end wall. Install additional ribs as necessary to complete wall.

Doors - Repair and renail doors and frames. Refasten hardware. Install any missing hardware necessary to the operation of the doors.

Hinged Side Panels - Repair and renail hinged panels. Refasten hinges and other hardware. Replace any missing hardware necessary to the operation of the panels.

Roof - Replace unsound framing and refasten all connections. Renail corrugated metal sheets. Repair or replace sheets as necessary to make weathertight using second hand material.

Preservative Treatment - All existing and new wood shall be given a fireproofing and preservative treatment.

Site - Regrade site to direct surface water away from the building.

Clean-up - Remove all modern debris from area adjacent to the building.

Interior Restoration

Partition - Repair and renail dividing partition. No door will be installed.

Floor - Remove all plant growth and modern debris. Treat dirt floor with hardner to eliminate dust.

4. Outbuilding #3

Exterior Restoration

Walls - Replace any unsound framing. Repair existing framing and renail all connections. Refasten corrugated metal siding. Replace as necessary using weathered secondhand material.

Doors - Repair and renail doors and frames. Replace broken boards with weathered lumber matching the existing pieces.

Windows - Further study will have to be made regarding these features when access to the building is permitted.

Preservative Treatment - All existing and new wood shall be given a fireproofing and preservative treatment.

Roof - Replace any unsound framing and refasten all connections. Replace corrugated sheets as necessary to make watertight and renail all sheets.

Site - Regrade to direct surface water from building.

Clean-up - Remove modern debris from area around building.

5. Corral

Enclosure - Replace decayed posts. Reposition mesquite rails and provide additional material as needed and retie.

Gates - Repair and replace broken and decayed rails and stiles. Repair or replace broken hardware. Refasten all connections.

Loading Chute and Ramp - Replace broken and decayed timbers and planks with second hand like material. Renail all connections.

Windmill, Pump, Piping and Watering Troughs - Inspect and repair as necessary. Seal any breaks in water troughs.

B. GACHADO WELL

1. House

Exterior Restoration

Walls - Trim erroded exterior face of adobe walls and veneer to original thickness. Repair wall breaks and deep errosion channels. Reconstruct parapet. Apply chicken wire reinforcing and replaster with cement plaster.

Chimney - Investigate foundation and rebuild chinmey. Plaster to match house.

Door - Repair door and frame as necessary and refasten hardware. Repair or replace hardware as required.

Windows - Repair window frames. Install new screening. Provide wood shutters constructed of second hand materials.

Roof - Replace plank viga seats where necessary and reposition vigas. Replace any decayed vigas. Rebuild roof providing waterproof membrane. Provide necessary flashing and metal stovepipe canales. Existing roof materials shall be reused. All new materials shall match the existing materials.

Preservative Treatment - All existing and new wood shall be given a fireproofing and preservative treatment.

Clean-up - Remove modern debris from area around the building.

Interior Restoration

Walls - Install chicken wire reinforcing and replaster with cement plaster. Finish to be white.

Fireplace - Rebuild fireplace to original size.

Floor - Install compacted adobe floor. Treat with sealer to eliminate dusting.

2. Corral

Enclosure - Replace decayed posts. Reposition mesquite rails, provide additional material where needed and rewire mesquite rails. Replace wire fencing where necessary and refasten at posts.

Gates - Repair all gates and refasten hardware. Replace missing hardware to make operable.

Loading Chute and Ramp - Replace broken and decayed timbers and planks using second hand weathered material. Refasten all connections.

Windmill, Pump, Piping and Watering Trough - Rebuild windmill using existing parts where practical. Repair pump and piping as required to make operable. Seal leaks in watering trough.

Clean-up - Remove modern debris from corral area.

C. POZO NUEVO

1. Jacal

Exterior Restoration

Walls - Replace decayed posts supporting the walls and replumb building. Replace decayed siding boards and renail all siding. Reposition cactus ribs and refasten. Install additional ribs as necessary.

Door - Repair frame and door. Renail all boards. Refasten hardware.

Roof - Replace weak or broken structural roof supports with like material. Rebuild roof reusing existing material where practical. New materials shall match existing material. Embed a waterproof membrane in the new adobe surfacing.

Preservative Treatment - All existing and new wood shall be given a fireproofing and preservative treatment.

Site - Grade site to direct surface water away from the building.

Clean-up - Remove modern debris from area around Jacal.

Interior Restoration - Since access to the building was denied no proposal for interior restoration can be made at this time.

2. Outbuilding

Exterior Restoration

Walls - Replace decayed structural framing and refasten all connections. Replace corrugated metal siding as needed. Replacement sheets shall be weathered, second hand material. Renail all metal siding.

Door - Repair and renail door and frame. Repair and refasten hardware.

Windows - Repair frames and replace window screening as necessary. Repair and renail wood shutters.

Roof - Repair or replace roof framing as necessary. Repair leaks and renail corrugated metal roof.

Preservative Treatment - All existing and new wood shall be given a fireproofing and preservative treatment.

Site - Grade site to direct surface water away from the building.

Clean-up - Remove modern debris from area around the building.

Interior Restoration - Since access to the building was not permitted no proposal for interior restoration is made at this time.

3. Corral

Enclosure - Replace decayed mesquite and railroad tie posts. Reposition mesquite rails and refasten. Provide additional material as needed. Replace broken plank rails. Renail all connections. Repair and refasten wire fencing.

Gates - Replace broken timbers and renail all connections. Repair and refasten hardware.

Loading Chute and Ramp - Replace broken and decayed timbers and planks using weathered lumber and renail all connections.

Shelter - Replace supports as needed. Refasten cactus rib roof. Install additional ribs as needed.

Windmill, Pump, Piping and Watering Trough - Inspect and repair windmill and pump as required to make operable. Repair leaks in water line and watering trough.

Clean-up - Remove modern debris from corral area.

V. EXTENT AND COST OF ADDITIONAL WORK REQUIRED TO COMPLETE ARCHITECTURAL RESEARCH UNDER PART II

Entrance into several of the building not owned by the Park Service was not permitted. The interior of the buildings must be inspected and the extent of the restoration determined before working drawings can be prepared. It is estimated that this would require one week of field work by the architect at a cost of approximately $1000.00 including transportation.

VI. ARCHEOLOGICAL DATA

No archeological investigation has been made at any of the three sites nor is any planned as no additional information vital to the restoration would be found.

VII. LANDSCAPE DATA

No landscape data is required for the three sites to be restored.

VIII. FURNISHING AND EXHIBITION DATA

On completion of the restoration these structures will comprise an unmanned exhibt interpreting ranching operation along the U. S. - Mexican border. No furnishings will be required.

Form 10-411
(July 1965)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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NO.	TO

PROJECT CONSTRUCTION PROPOSAL

1. STATEMENT OF MANAGEMENT'S REQUIREMENTS, PROPOSED WORK, AND ITS RELATIONSHIP TO OTHER FACETS OF THE PARK PROGRAM. *(Provide detail data for "Management Information" on Form 10-411a, Supplemental Sheet and attach.)*

The seven buildings and three corrals comprising the group of "Ranch Structures" are to be stablized and restored as unmaned wayside exhibits interpretating cattle ranching as it existed within the boundaries of what is now Organ Pipe Cactus National Monument.

The work will include repair and replastering of adobe structures. Repair of miscellaneous frame structures. Repair of roofs and the reconstruction of portals. Repair of corral fences and gates. Reconstruction of windmills and repair of water systems.

Several of the buildings will require futher research and study before working drawings can be prepared.

2. ADVANCE REQUIREMENTS DATA

LAND STATUS	MASTER PLAN NO.	APPROVAL DATE
Government Owned - National Park Service	2016-E-MN OPC	6/3/57

PCP NUMBERS OF PREVIOUSLY COMPLETE PORTIONS	INTERRELATED & DEPENDENT PROJECT PCP NUMBERS
None	

INTERPRETIVE PROSPECTUS APPROVAL DATA	DATE

WATER RIGHT NEEDS & STATUS
None

RESEARCH NEEDS & STATUS The interior of several of the buildings must be inspected before working drawings can be made.

OTHER

3. RECOMMENDED BY SUPERINTENDENT *(Signature & Date)*	4. APPROVED BY REGIONAL DIRECTOR *(Signature & Date)*

5. LOCATION WITHIN AREA OR TERMINI

6. BLDG. OR RT.# AND SEC.
No Building Nos. Assign

7. REGION
Southwest

8. PARK
Organ Pipe Cactus National Monument

9. PROJECT
Stabilization & Restoration
Ranching Structures -
Blankenship-Gachado Well &
Pozo Nuevo Well

Pima
(County)

Arizona
(State)

10. PCP INDEX NO.
M-41

CLASS ☐ (A) – Estimate based on working Drawings
CLASS ☐ (B) – Estimate based on preliminary plans
CLASS ☐ (C) – Estimate based on similar facilities in other parks

P.S. & S. by
BPR ☐ NPS ☐

ESTIMATE

ITEM		QUANTITY	COST
1. BLANKENSHIP RANCH			
House (No Interior Restoration Included)	$7,000.00		
Outbuilding #1	600.00		
Outbuilding #2	600.00		
Outbuilding #3	500.00		
Corral	800.00		
Clean-up	400.00	Lump Sum	$9,900.00
2. GACHADO WELL			
House	3,000.00		
Corral	1,000.00		
Clean-up	200.00	Lump Sum	4,200.00
3. POZO NUEVO WELL			
Jacal	600.00		
Outbuilding	300.00		
Corral	800.00		
Clean-up	200.00	Lump Sum	1,900.00

RESEARCH ESTIMATE APPROVED:

(Asst. Director, Resource Studies) (Date)

CONSTRUCTION ESTIMATE APPROVED:

(Design Office Chief) (Date)

INTERPRETIVE ESTIMATE APPROVED:

(Asst. Regional Director, Operations) (Date)

ESTIMATE TOTALS	16,000.00
RESEARCH	
Construction	
Plans, Surveys, and Supervision	3,210.00
Contingencies 10%	2,140.00
CONSTRUCTION SUB TOTAL	
INTERPRETIVE SUB TOTAL (100%)	
GRAND TOTAL	21,350.00

PLATE I

General View of Blankenship Ranchhouse. Note the Condition of Portal.

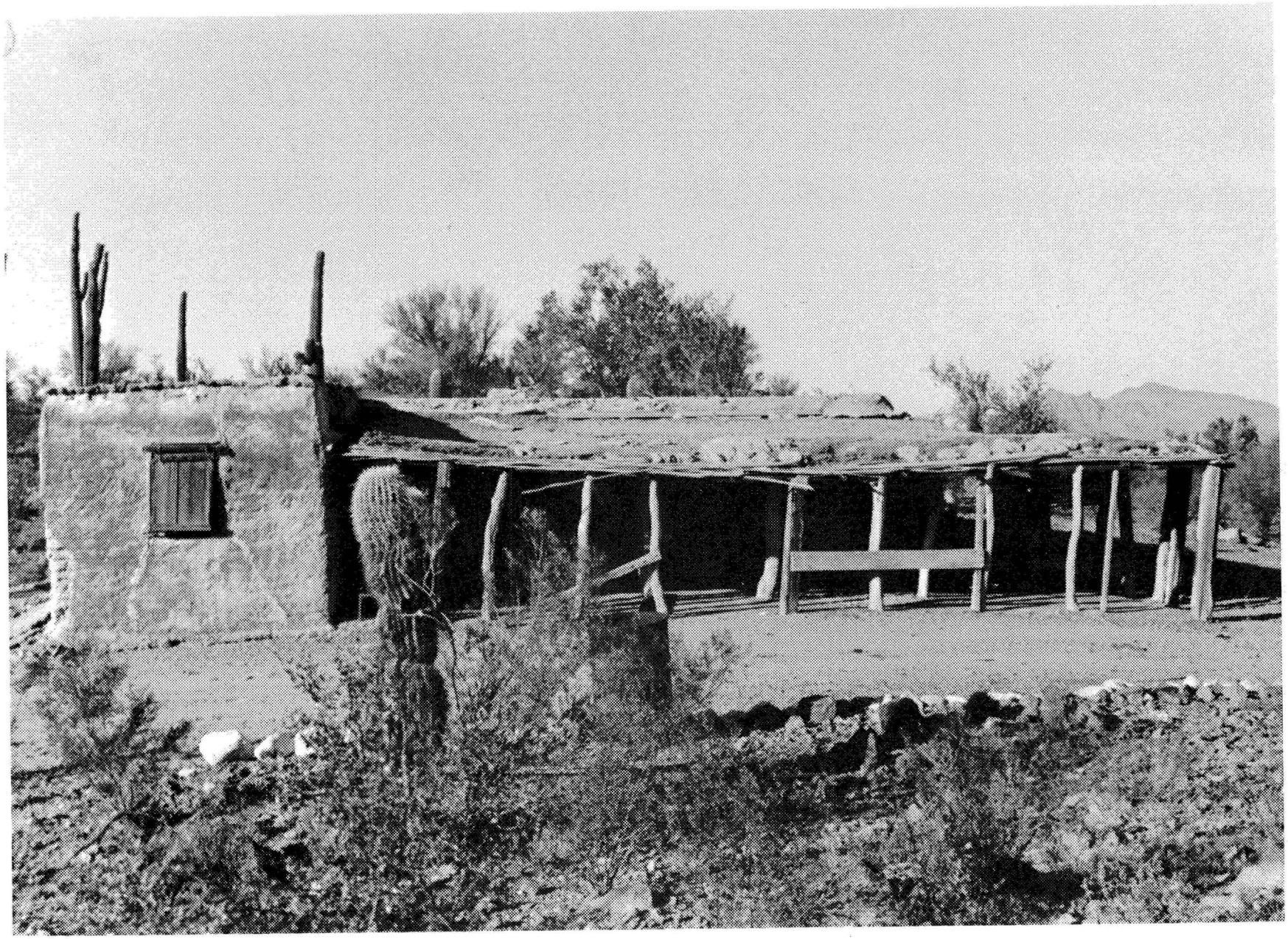


PLATE II

Detail of Portal (Blankenship Ranchhouse) Showing General Deterioration.



PLATE III

Detail of Portal at East End of Ranchhouse. Note Cactus Rib and Board Sunshades. As Posts Failed Additional Supports Were Added.

PLATE IV

Partial View of Rear Wall (Blankenship Ranchhouse) Showing Door and Chimney. Note Stovepipe Canales. The Exterior Plaster is in Very Bad Condition.

PLATE V

West End of Blankenship Ranchhouse. Most of the Plaster Has Fallen From This Wall. Attention is Directed to the Butt-Joint Between the Main Portion of the Ranchhouse (Left) and Ell Addition.

PLATE VI

Front Elevation, Out Building #2. The General Condition of the Flume Stave Siding is Good. The Door Will Require Repair and Refastening of the Hardware.

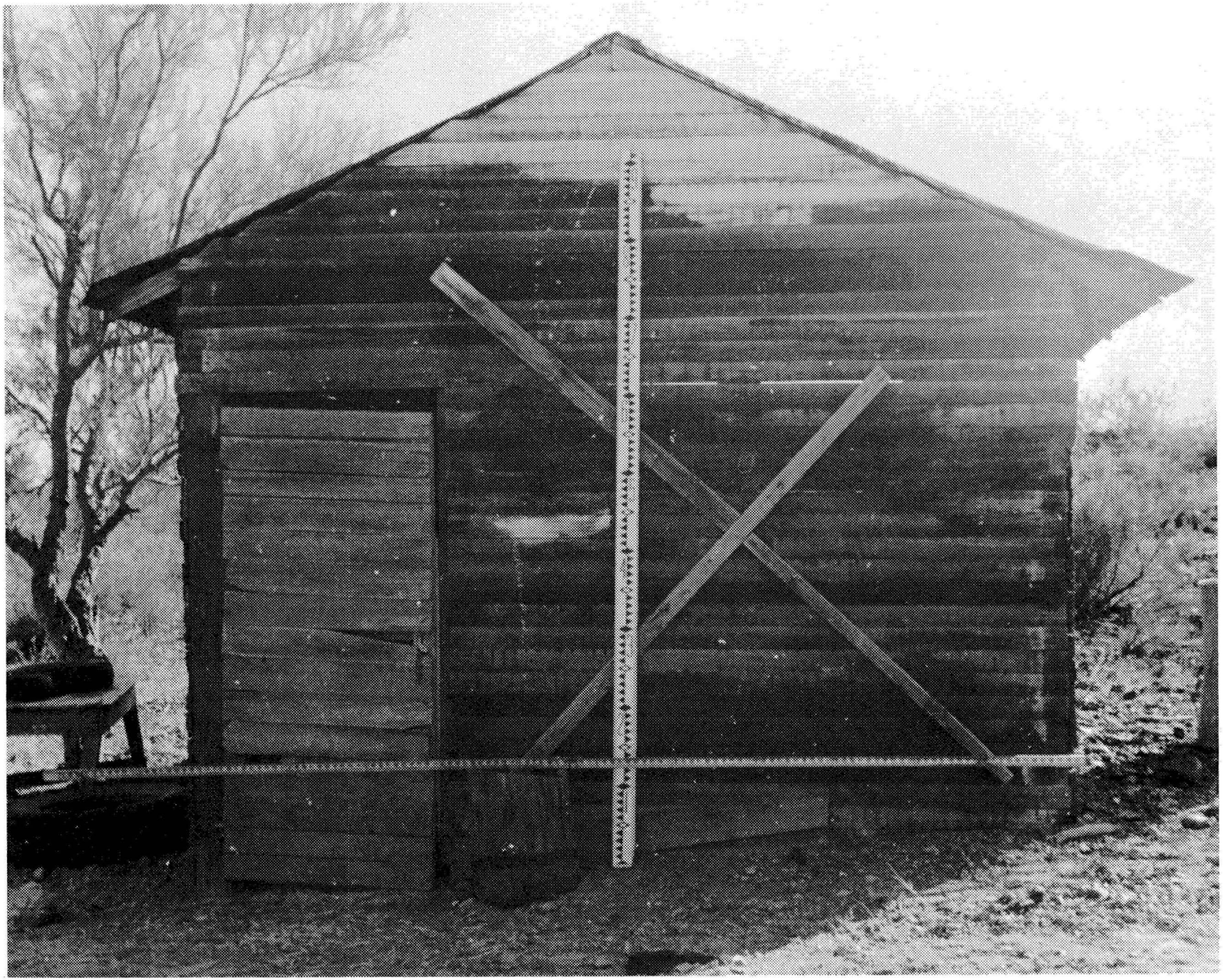


PLATE VII

Right Side, Out Building #2. Siding Will Require Some Renailing. Corrugated Metal Roof in Fair Condition.



PLATE VIII

Rear Wall, Out Building #2. Note Missing and Loose Siding.

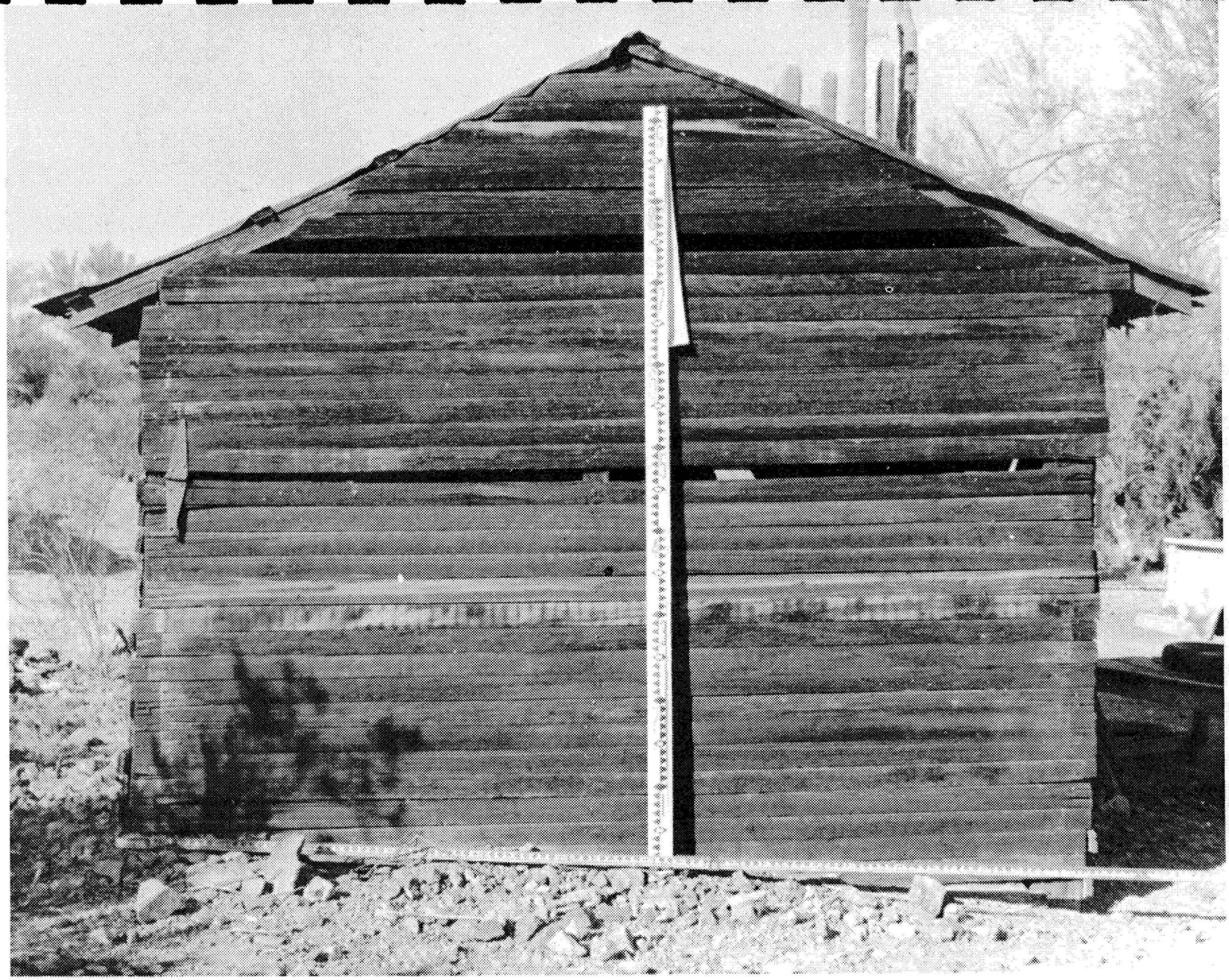


PLATE IX

Front Elevation Out Building #2 Showing Condition of Vertical Siding.

PLATE X

Right Side Out Building #2 Showing Condition of Siding and Roof.

PLATE XI

Rear View of Out Building #2. Note Building is Out-Of-Plumb and missing Cactus Rib Siding.

PLATE XII

General View Out Building #3. This Building is Located Adjacent to the Corral.



PLATE XIII

End View of Out Building #3. Showing Condition of Corrugated Metal Siding.

PLATE XIV

Rear View Out Building #3. Note Deterioration of the Railroad Ties at Grade.

PLATE XV

This Photograph of the Blankenship Corral Shows the General Condition of the Mesquite Fencing. The Rails Require Repositioning and Some Replacement. All of the Gates Need Repair.

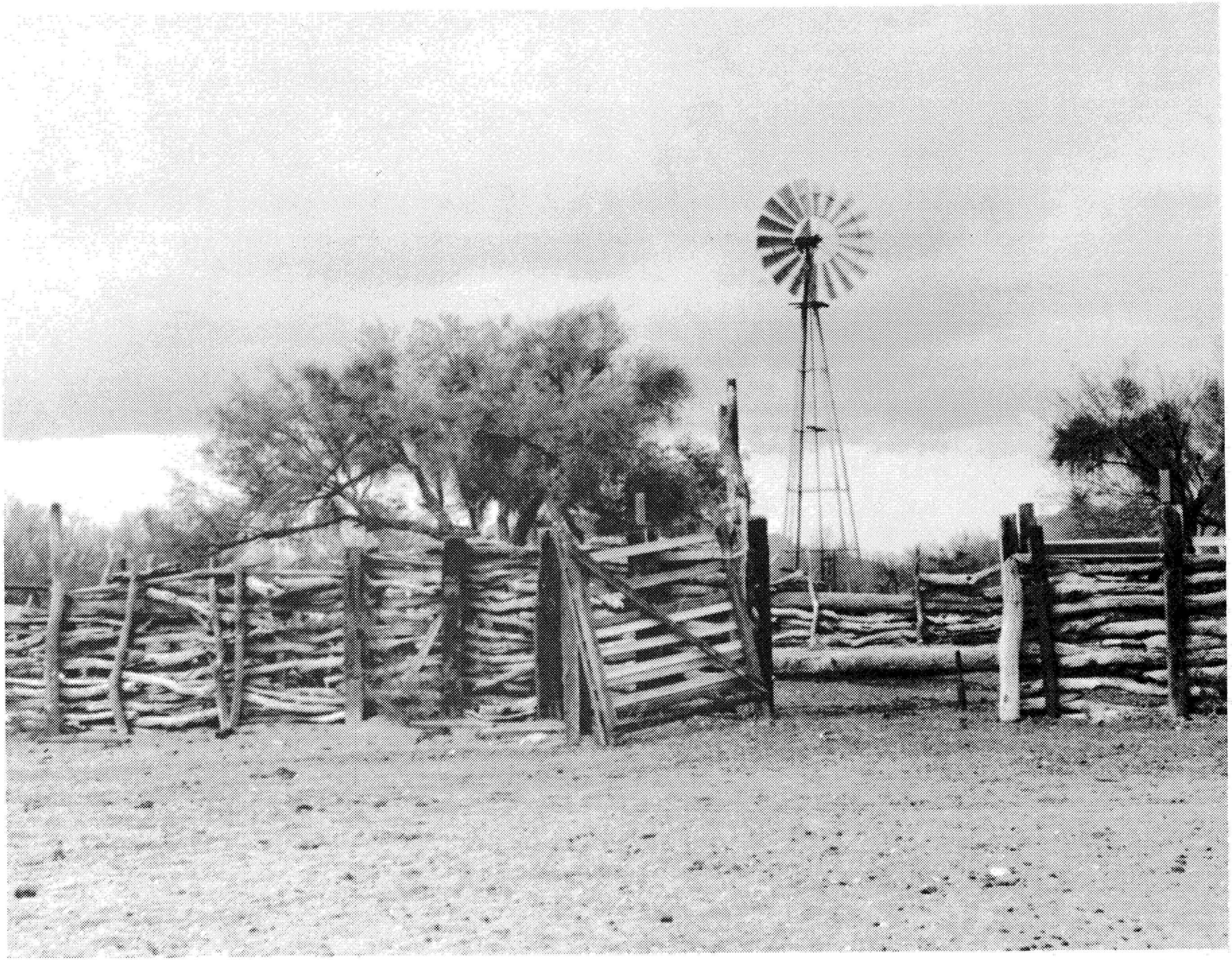


PLATE XVI

Front Elevation of Gachado House Showing Condition of Wall, Door and Window. Note How Adobe Wall has Erroded Exposing the Viga Ends.

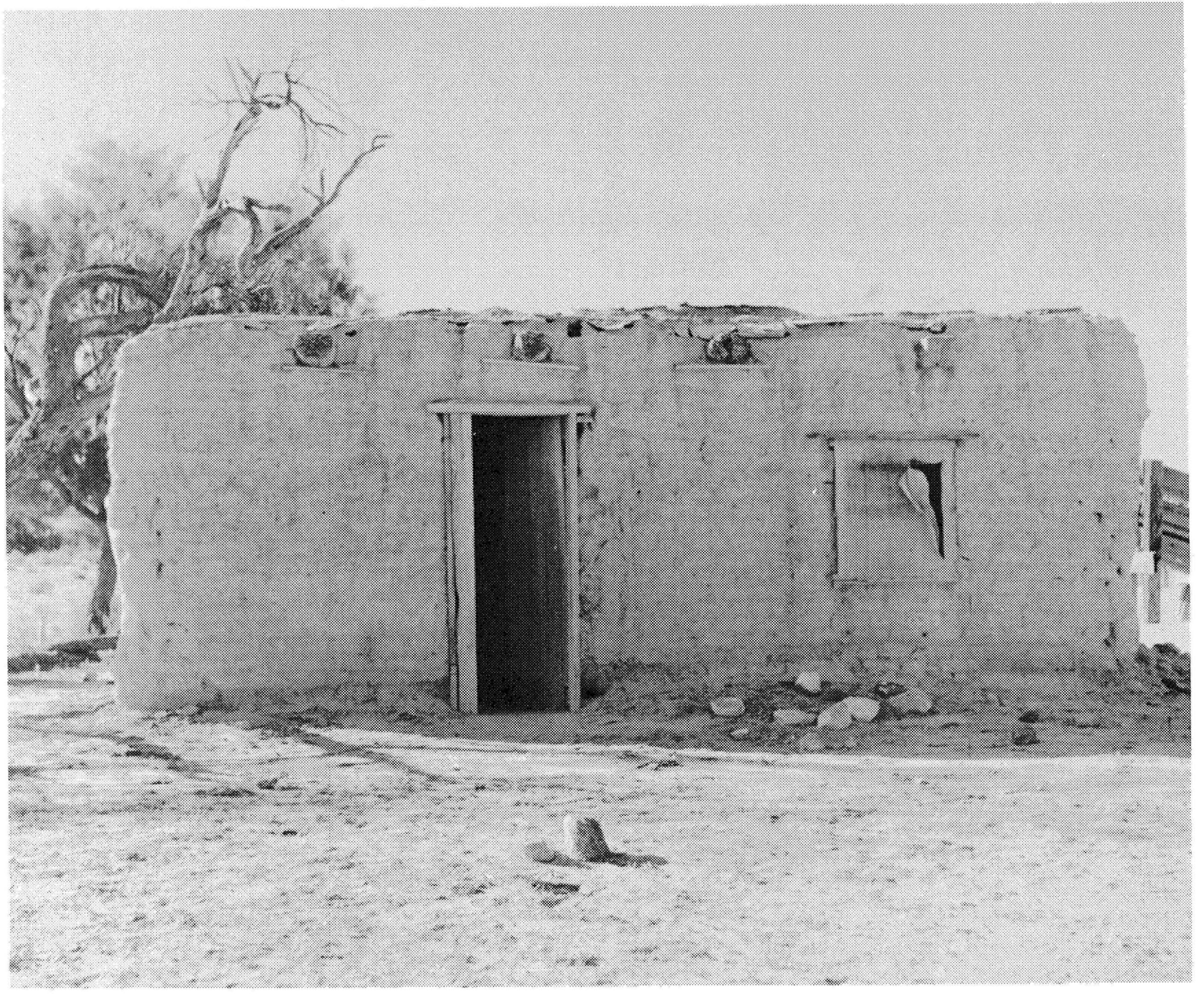


PLATE XVII

The Chimney of the Gachado House has Completely Collapsed. Remains of the Fireplace Opening Can be Seen. Observe the Exposed Ends of the Cactus Latias Due to the Errosion of the Adobe Wall.

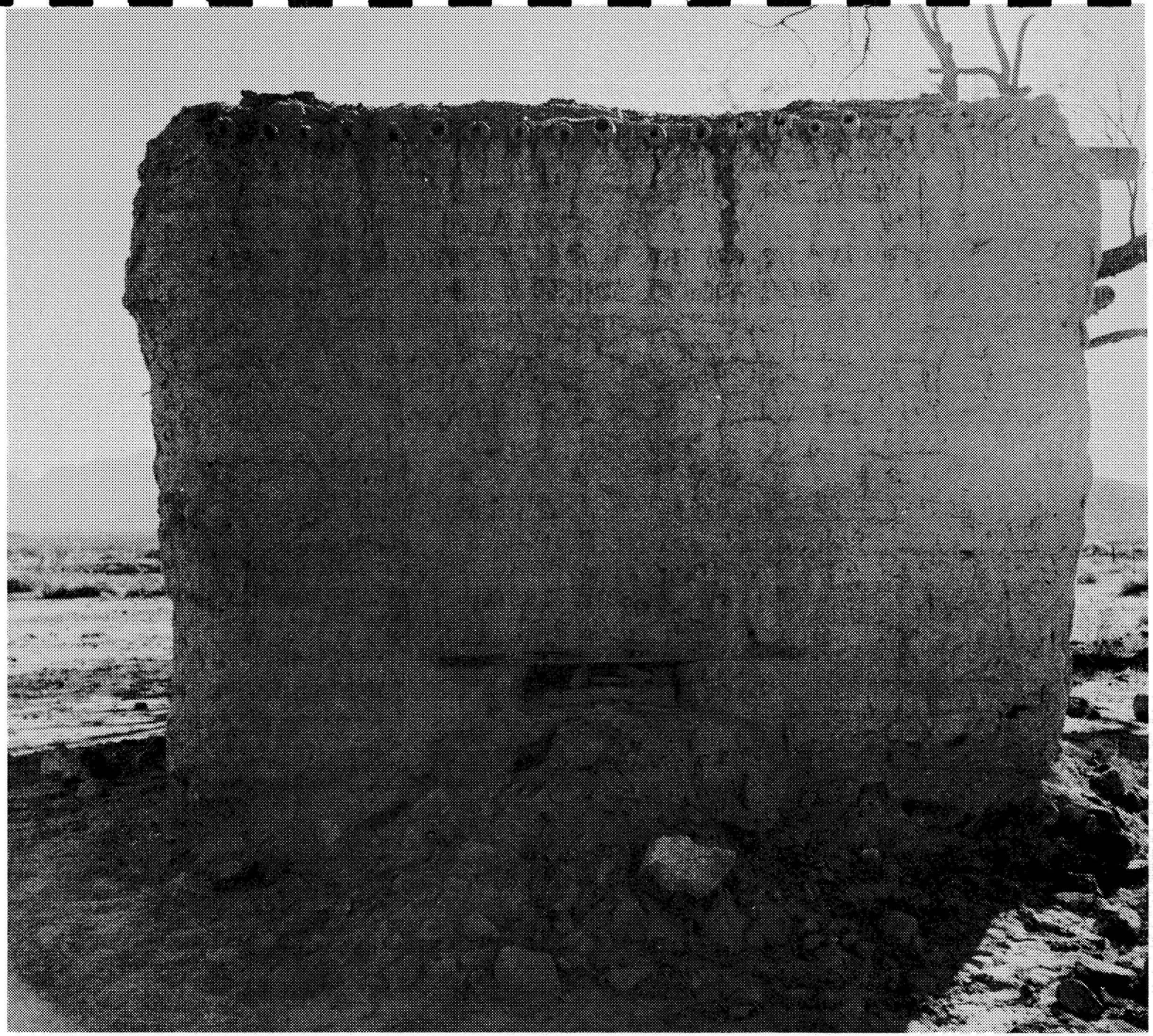


PLATE XVIII

The Rear Wall of the Gachado House is in Very Poor Condition. Water from the Roof has Cut Completely Through the Wall. Only One Small Patch of Plaster Remains in Place.. Note Under-cutting of the Wall at Grade.

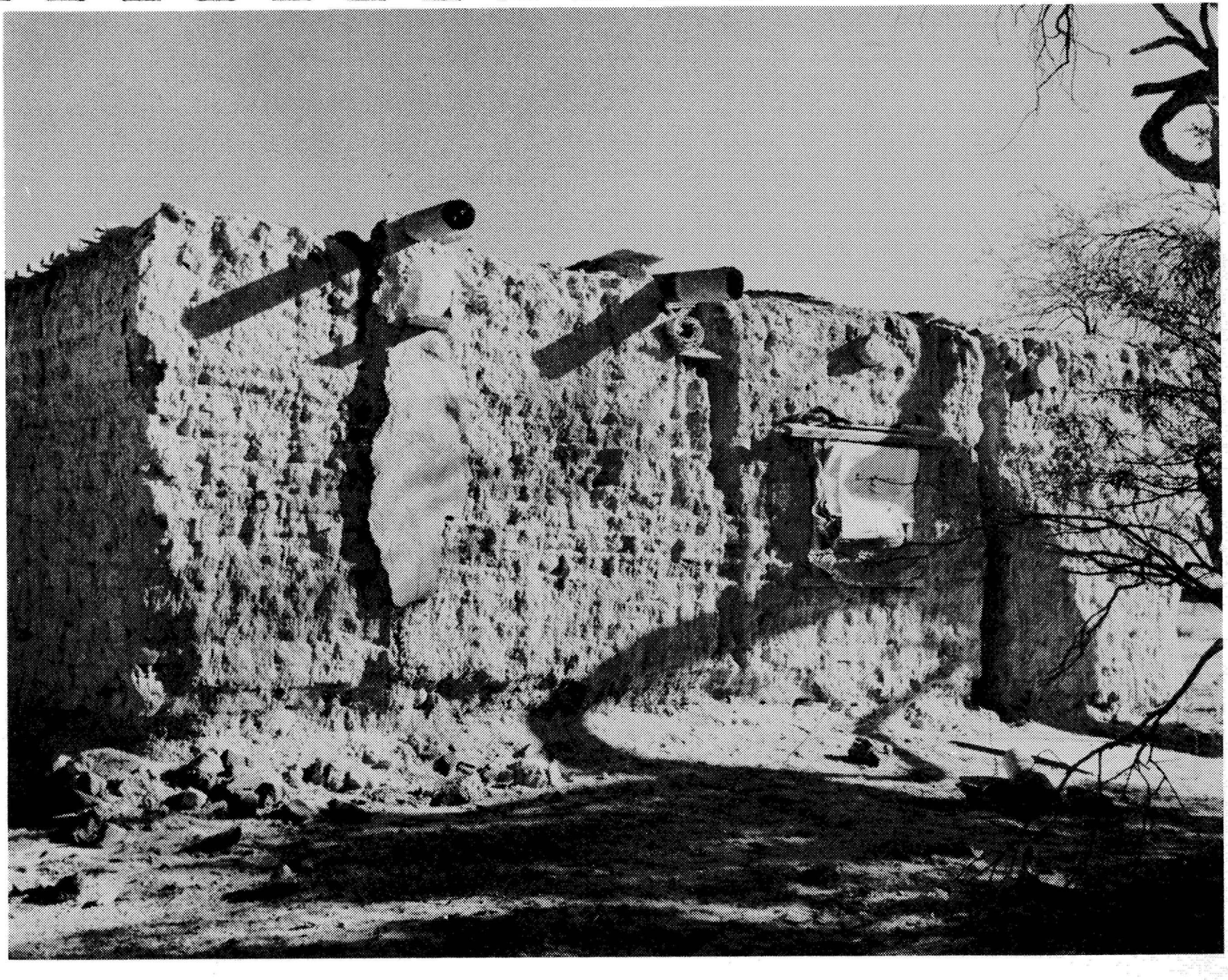


PLATE XIX

Detail of Gachado House Ceiling Showing Viga and Two Layers of Latias. Vigas and Latias Appear to be Sound and Will be used in the New Roof Construction.

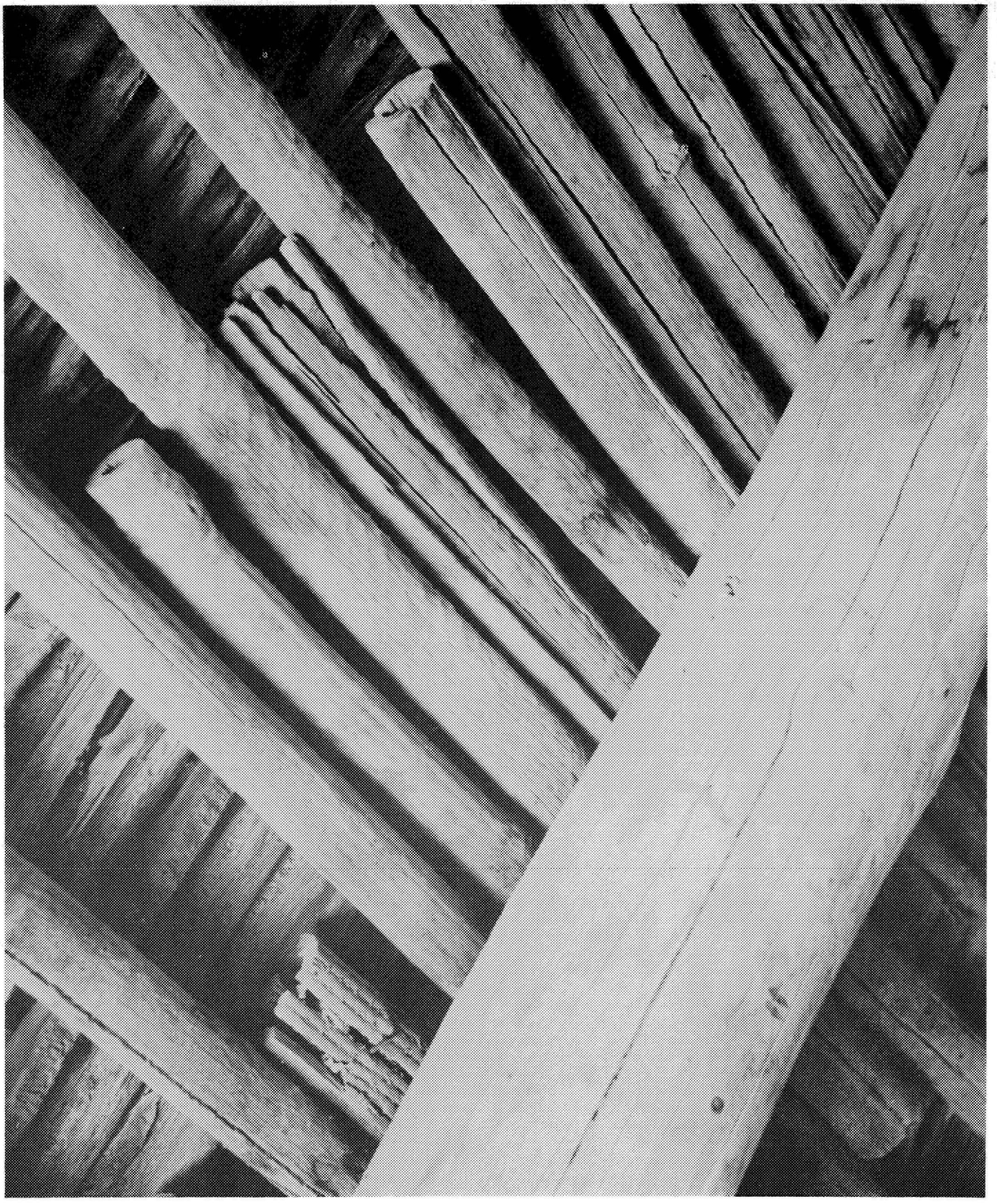


PLATE XX

View of Gachado Corral Showing Loading Ramp and Portion of the Mesquite Fence. The Mesquite Fence is in Much Better Condition Than it's Appearance Indicates. Some Posts have Rotted and the Tie Wires have Rusted Through.



PLATE XXI

The Post and Wire Section of the Gachado Corral Will Require Some Replacement of Strans and Reattaching to the Post. A Number of the Posts are Rotten or Broken at the Ground Level.

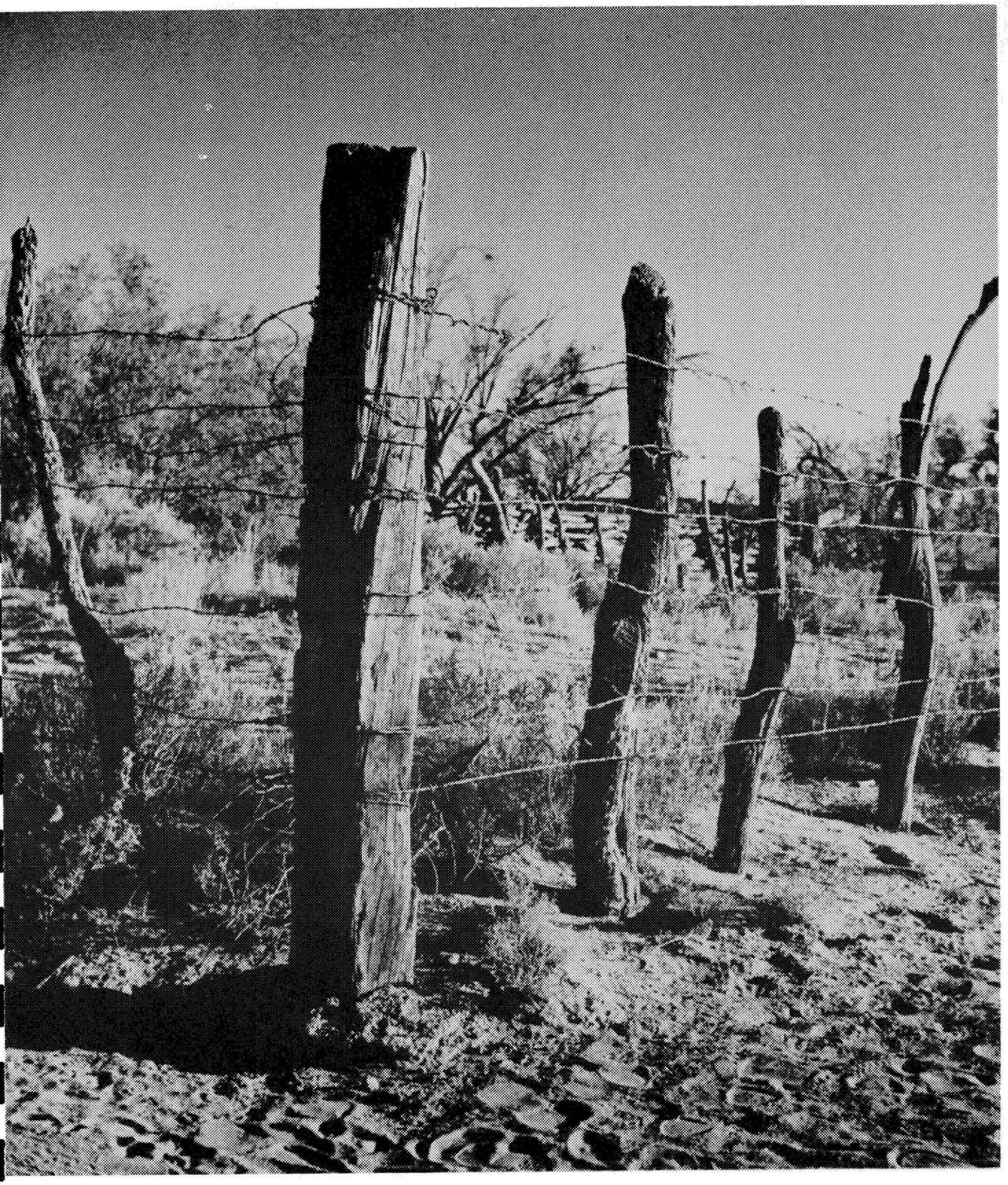


PLATE XXII

The Pozo Nuevo Jacal Will Require Extensive Repair and Re-Plumbing.

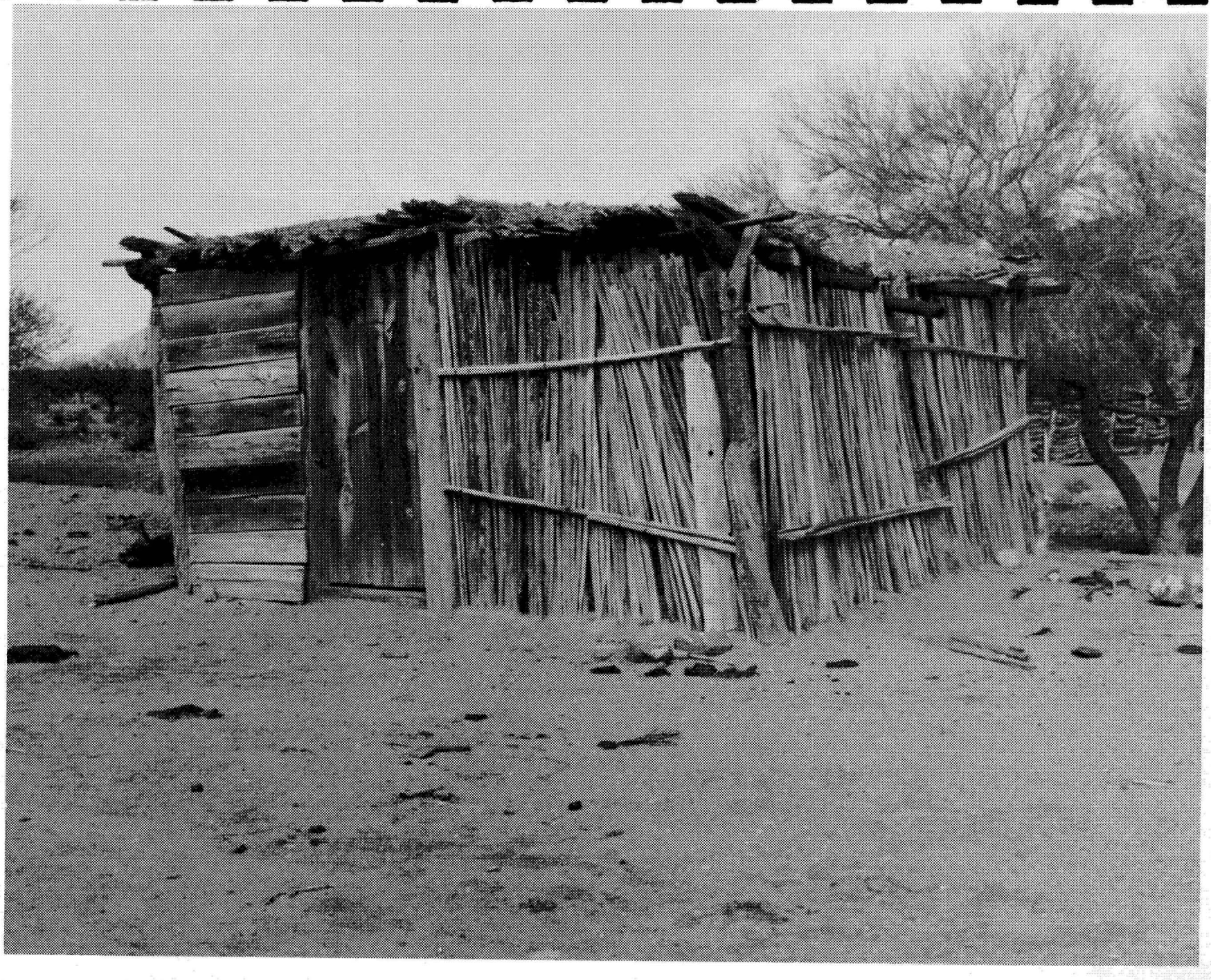


PLATE XXIII

Rear Wall of the Pozo Nuevo Jacal is in Very Poor Condition.



PLATE XXIV

This End View of the Pozo Nuevo Out Building Shows the General Condition of the Structure.

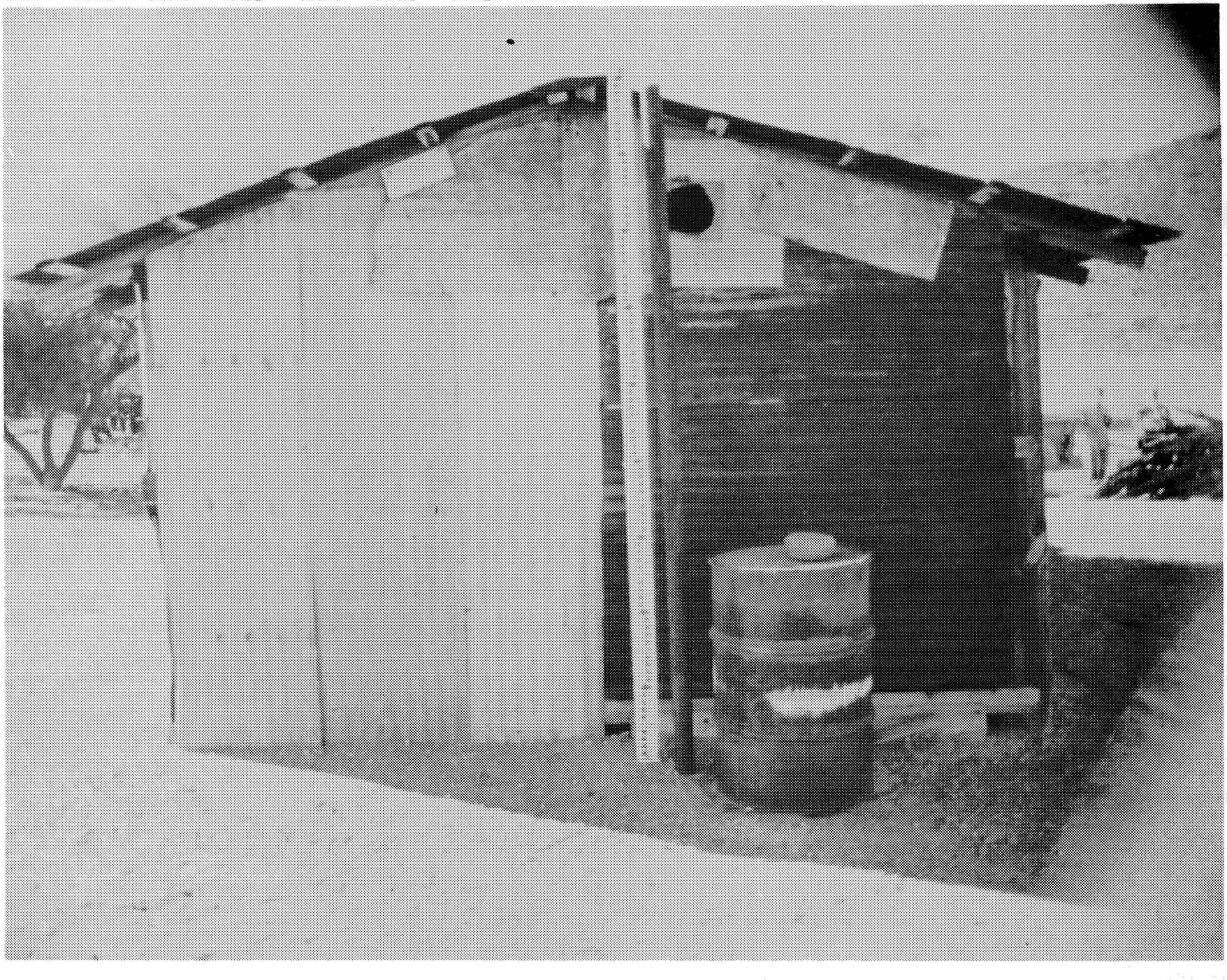


PLATE XXV

The Pozo Nuevo Corral is Constructed of a Variety of Materials. The Windmill and Pump Appears to be in Good Condition.



PLATE XXVI

In Addition to Repositioning the Mesquite Rails, Some Replacement is Needed. It will also be Necessary to Replace Some of the Posts Because of Rot in the Buried Ends.

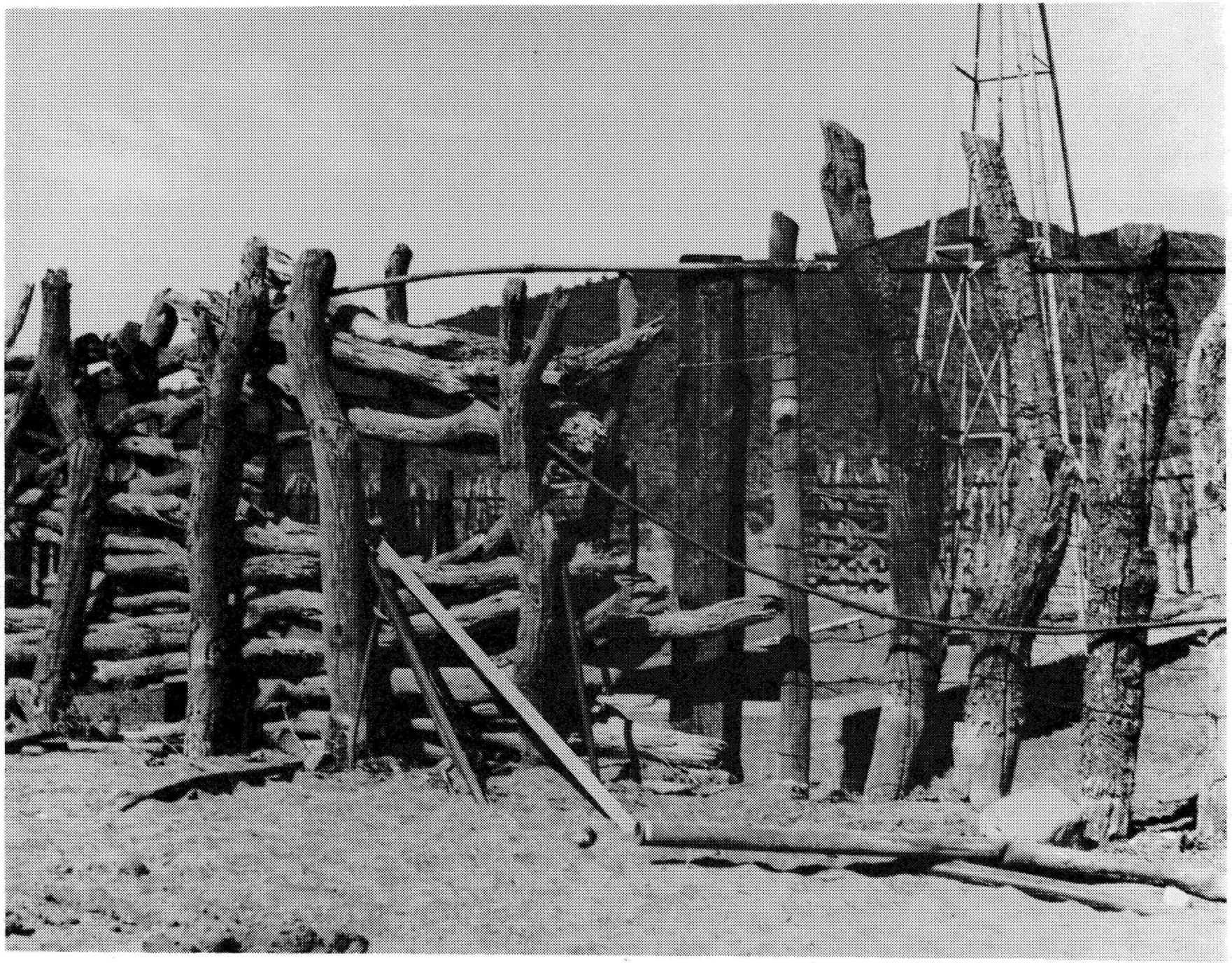
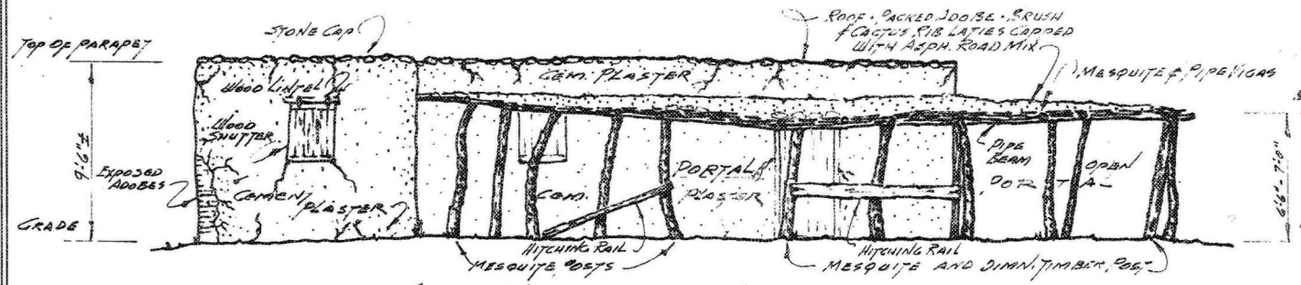


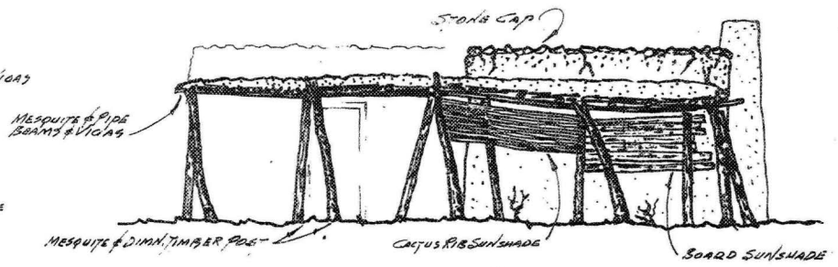
PLATE XXVII

The Ramada Located in the Southwest Corner of the Pozo Nuevo Corral Need Some Repair.

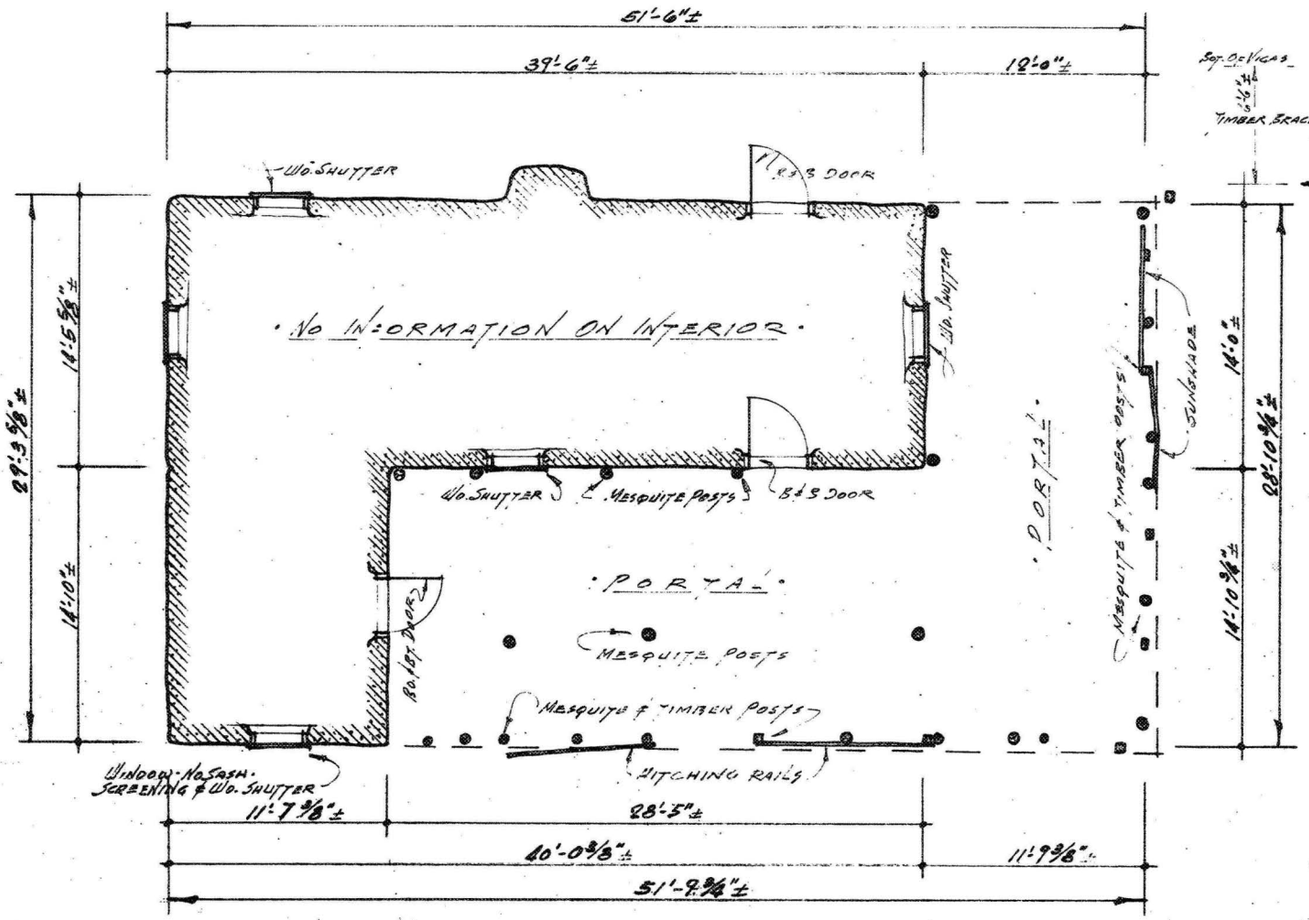




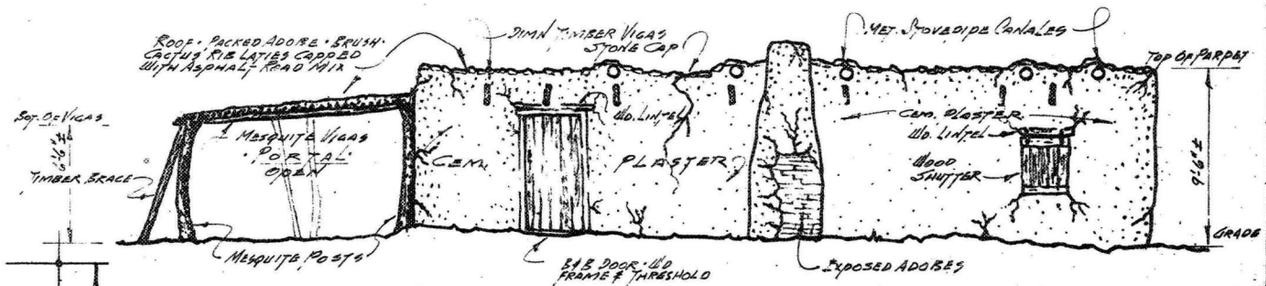
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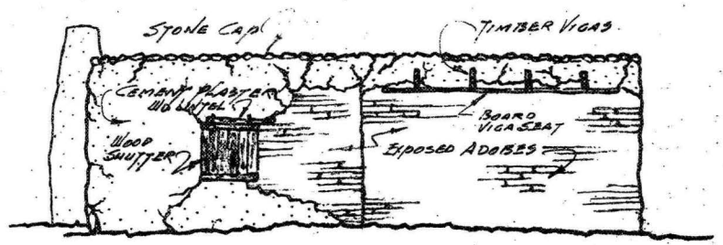
• EAST • ELEVATION •



• FLOOR • PLAN •



• NORTH • ELEVATION •



• WEST • ELEVATION •

1 0 5 10 15

• SCALE • ¼" = 1'-0" •

BASIC DATA • FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES • 10 • 68 •

ORIENTA

PREPAR

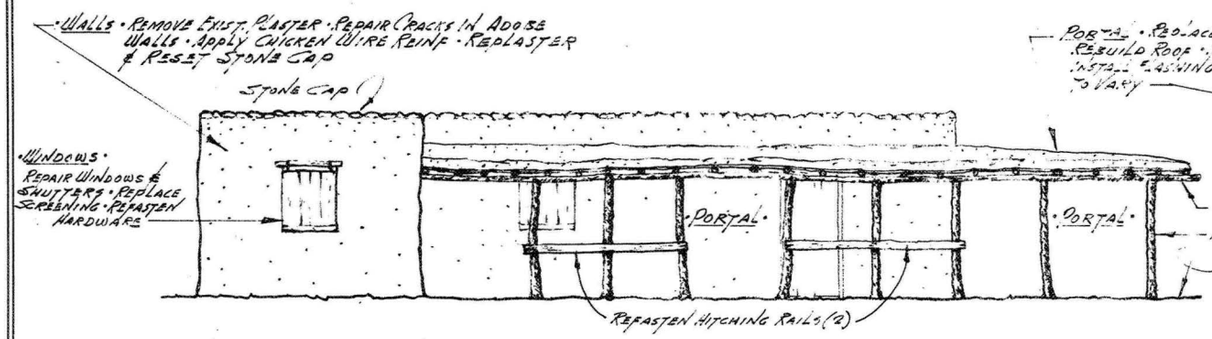
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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

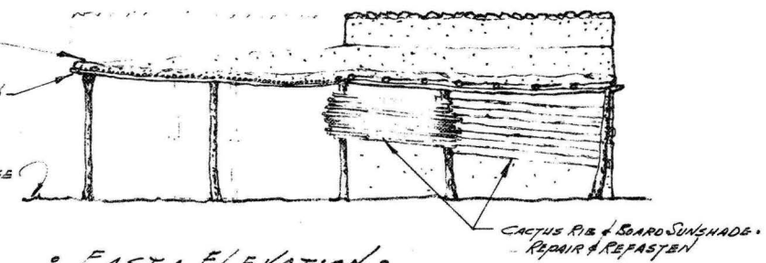
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• ORGAN PIPE CACTUS Nat. Mon. •

SHEET TITLE Ranch House • Exterior Elevations

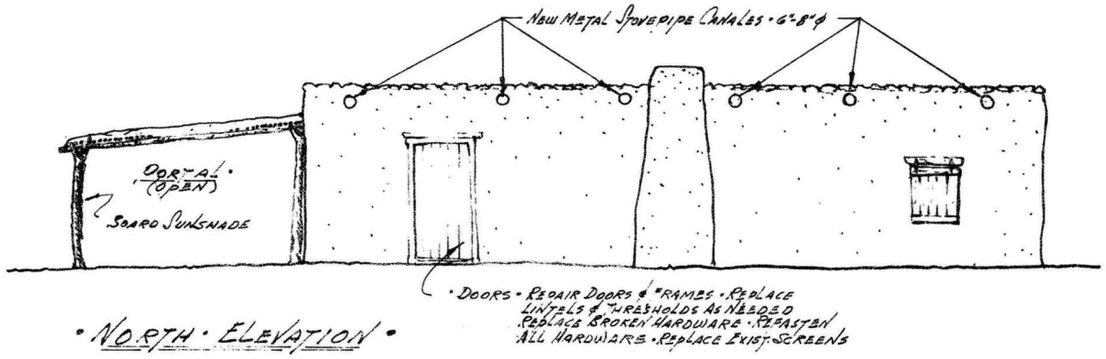


· SOUTH · (FRONT) · ELEVATION ·

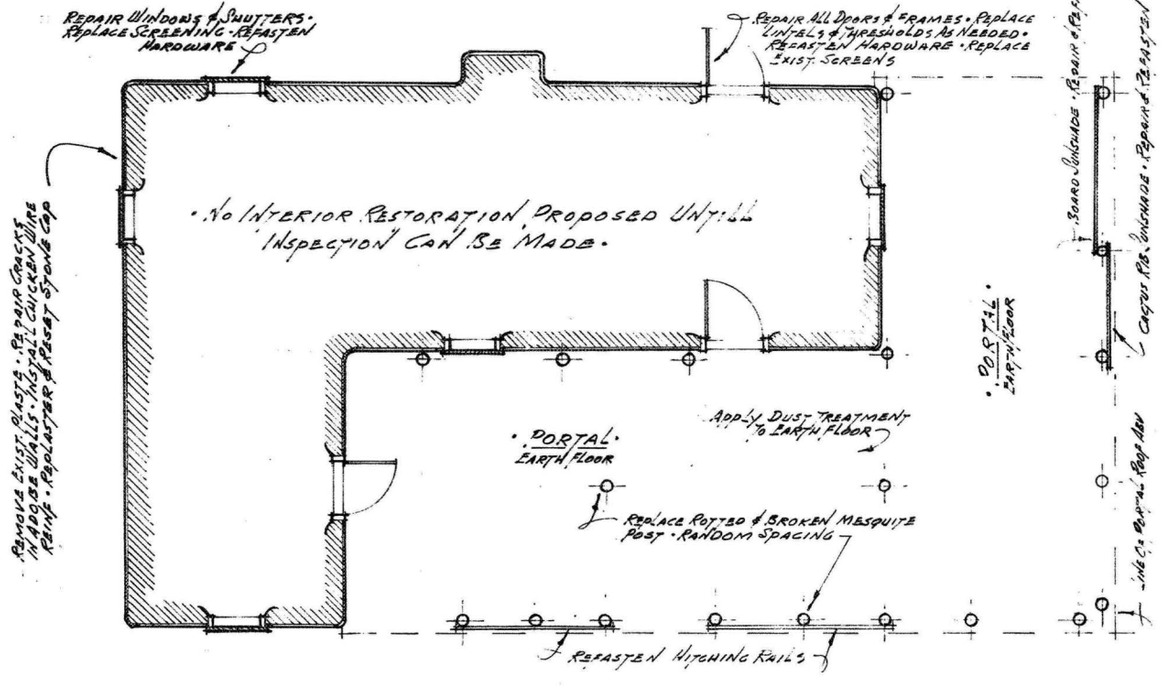


· EAST · ELEVATION ·

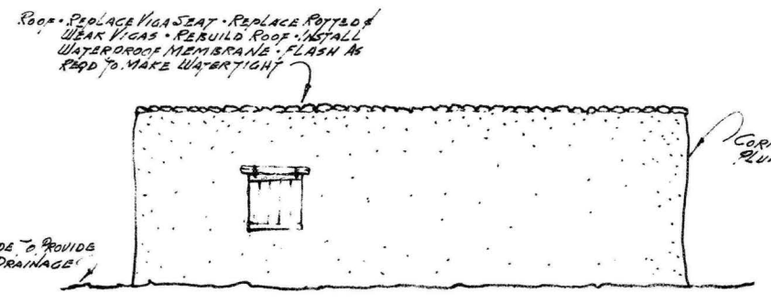
· NOTE ·
ALL EXISTING AND NEW WOOD SHALL RECEIVE FIREPROOFING & PRESERVATIVE TREATMENT



· NORTH · ELEVATION ·



· FLOOR · PLAN ·



· WEST · ELEVATION ·

ORIENTATION

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· SCALE · 1/4" = 1'-0" ·

BASIC DATA · FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES · 10·68 ·

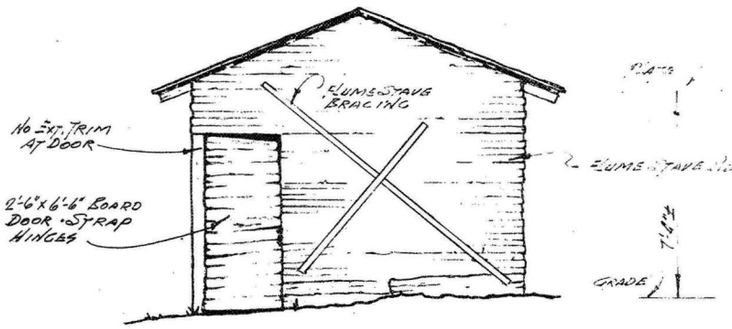
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DESIGNED	R. Jones
DRAWN	
CHECKED	

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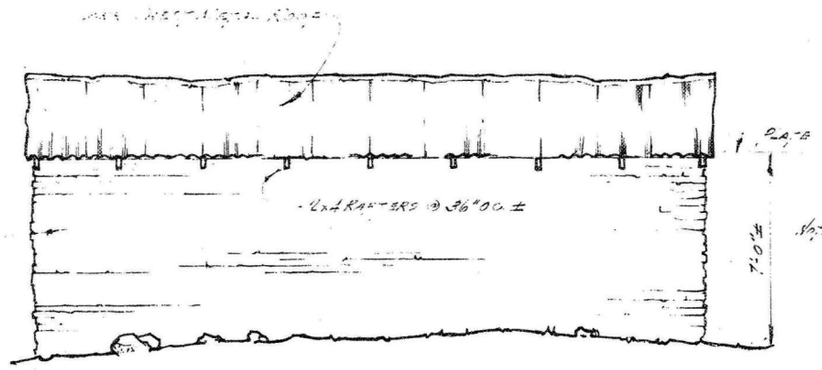
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION: SOUTHWEST
PCP: M-41
DRAWING NO.: 157 / 74004
DATE: JAN '70
SHEET 2 OF

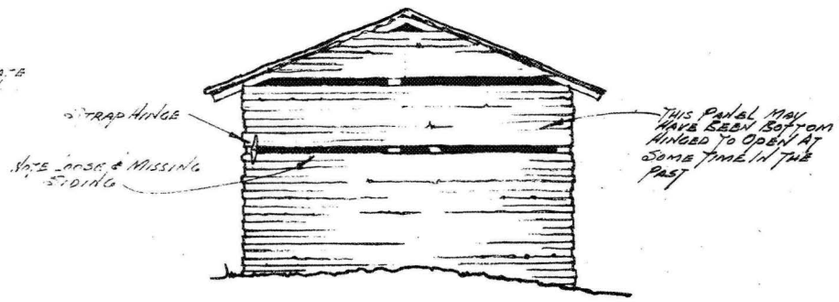
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NAME OF PARK: · ORGAN PIPE CACTUS NAT'L MON ·
SHEET TITLE: · RANCH HOUSE · RESTORATION ·



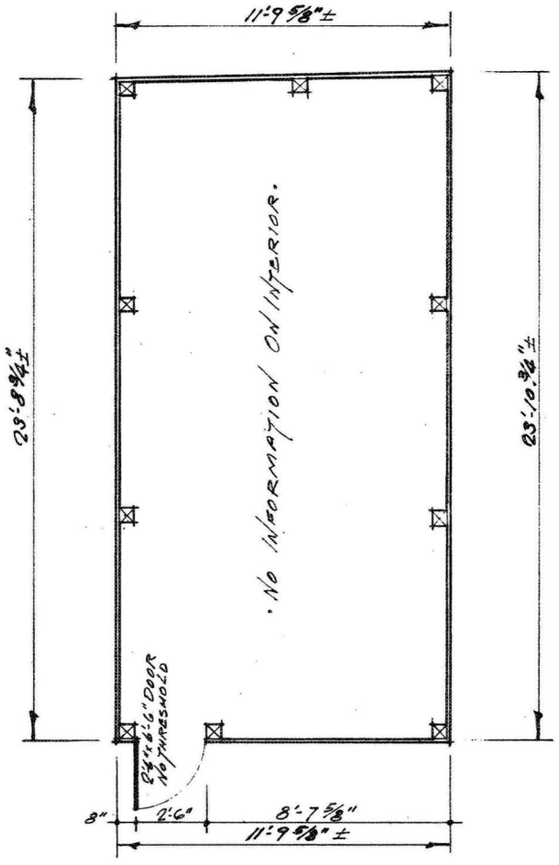
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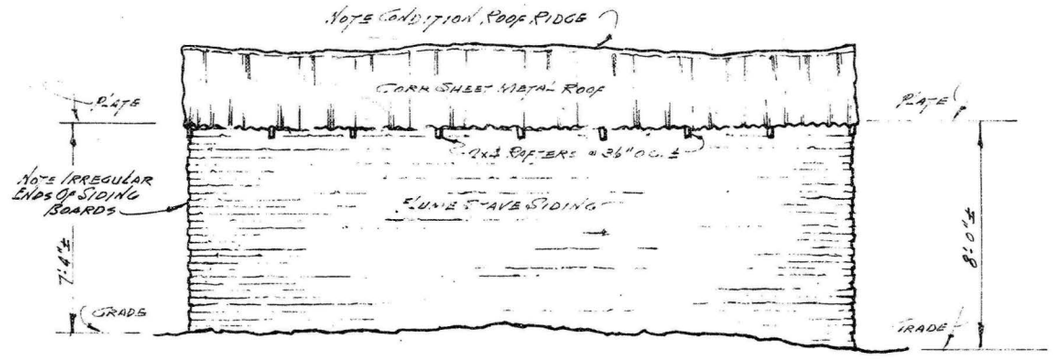
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• SOUTH • ELEVATION •



• FLOOR • PLAN •



• EAST • ELEVATION •

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0 2 4 6 8 10

• SCALE • 3/8" = 1'-0"

ORIENTATION

PREPARED 3-69 R. Jones
DESIGNED
DRAWN
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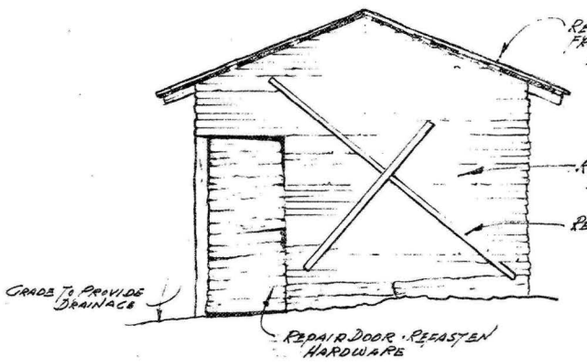
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DIVISION OF HISTORIC ARCHITECTURE

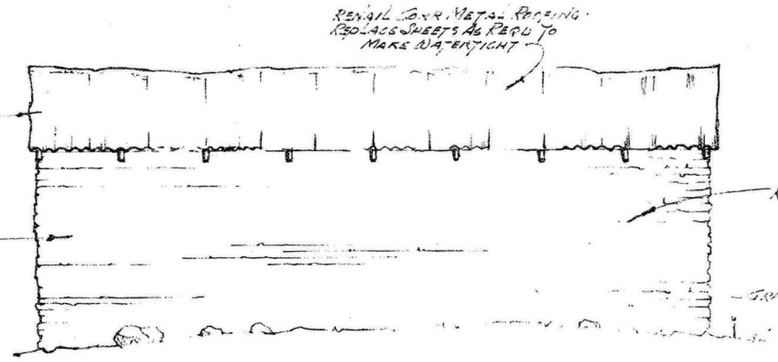
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PCP M-41
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9400B
DATE Jan '70
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• BLANKENSHIP • RANCH •
LOCATION WITHIN PARK
• ORGAN PIPE CACTUS NAT'L MON. •
NAME OF PARK

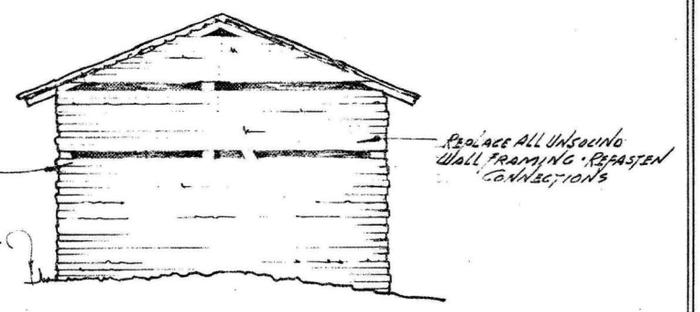
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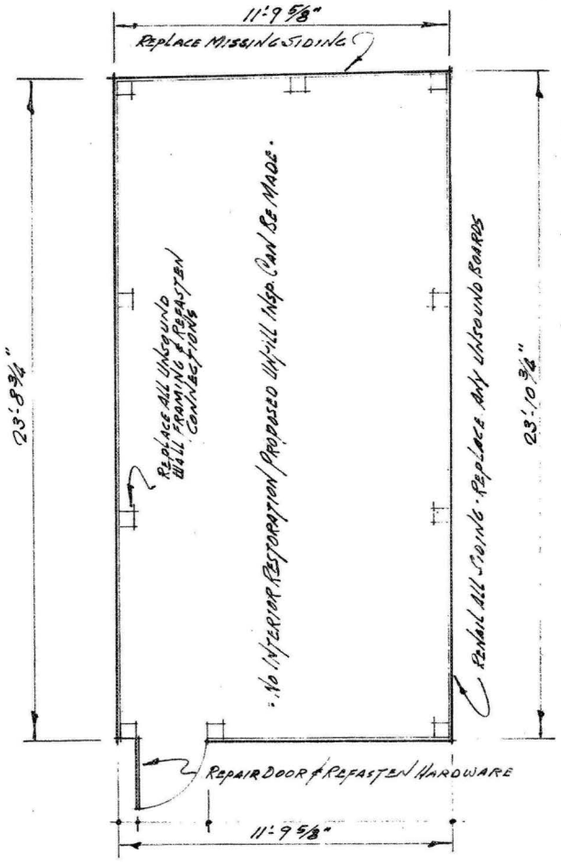


· WEST · ELEVATION ·

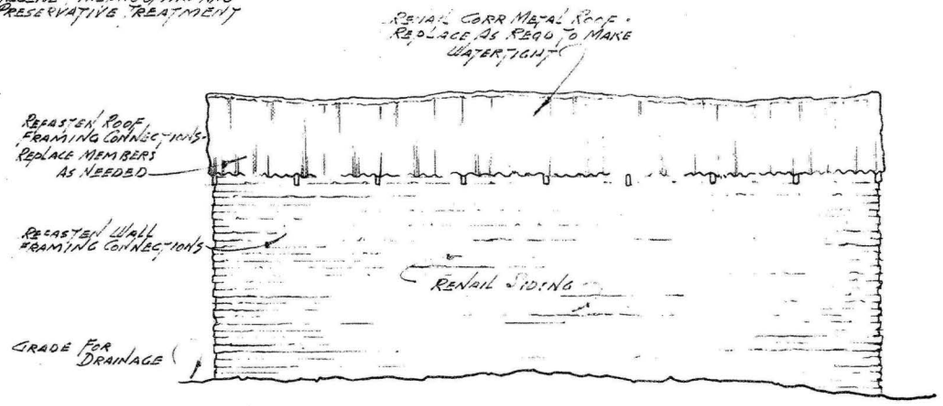


· SOUTH · ELEVATION ·

· NOTE ·
ALL EXIST & NEW WOOD TO RECEIVE FIREPROOFING AND PRESERVATIVE TREATMENT



· FLOOR · PLAN ·



· EAST · ELEVATION ·

1 0 2 4 6 8 10
6

· SCALE · 3/8" = 1'-0" ·

BASIC DATA: · FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES · 10·68 ·

ORIENTATION

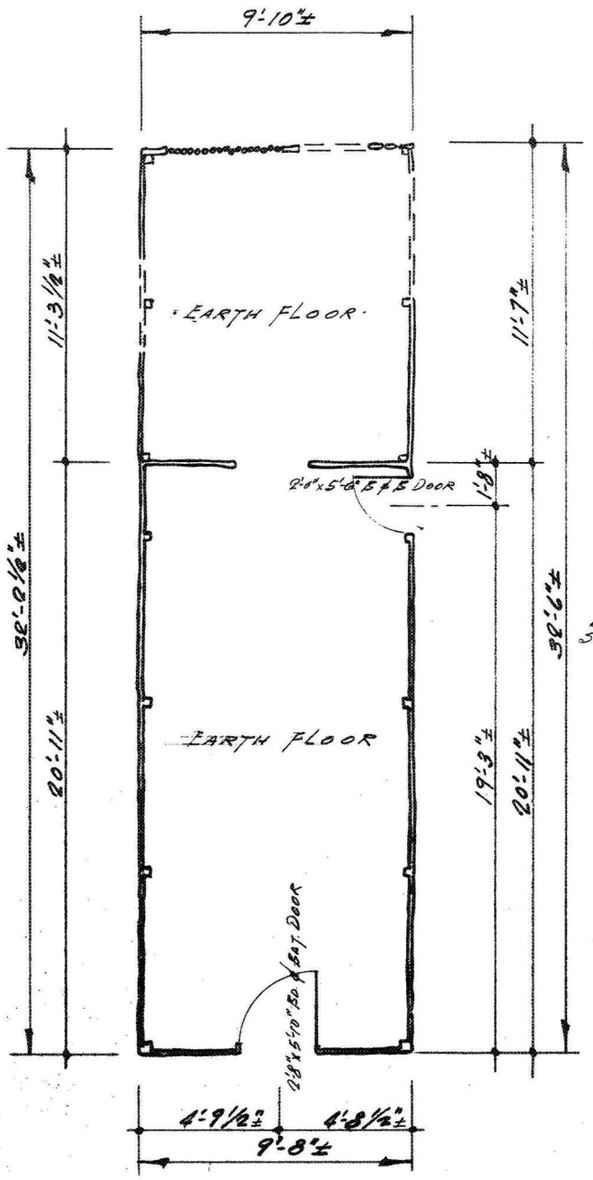
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DESIGNED	R. Jones
DRAWN	
CHECKED	

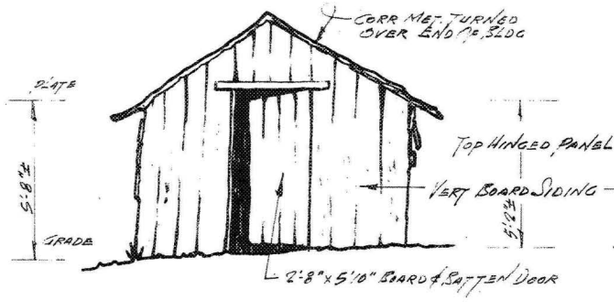
SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
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NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

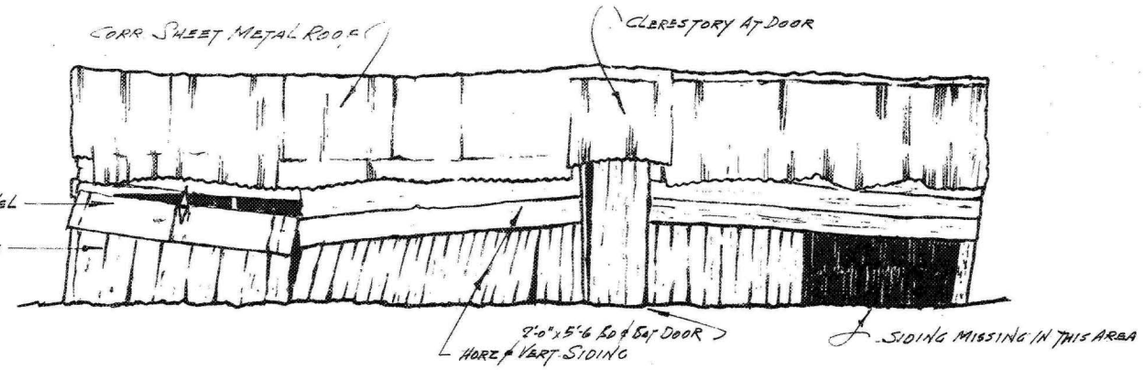
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DATE: Jan '70
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NAME OF PARK: · ORGAN PIPE CACTUS NAT'L MON ·
SHEET TITLE: OUTBUILDING #1 · RESTORATION ·



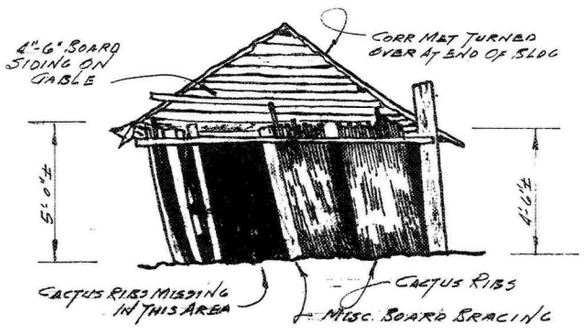


·NORTH·(FRONT)·ELEVATION·

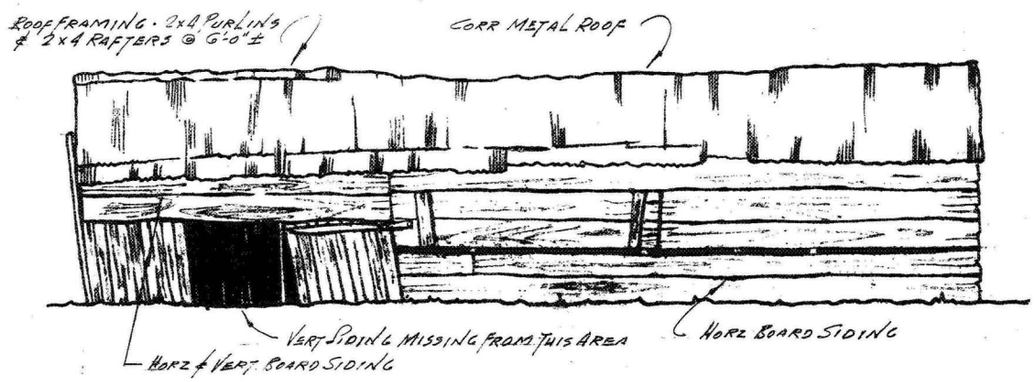


·WEST·ELEVATION·

·NOTE·
ENTIRE BUILDING RACKED AND OUT OF PLUMB



·SOUTH·ELEVATION·



·EAST·ELEVATION·



1 0 2 4 6 8 10

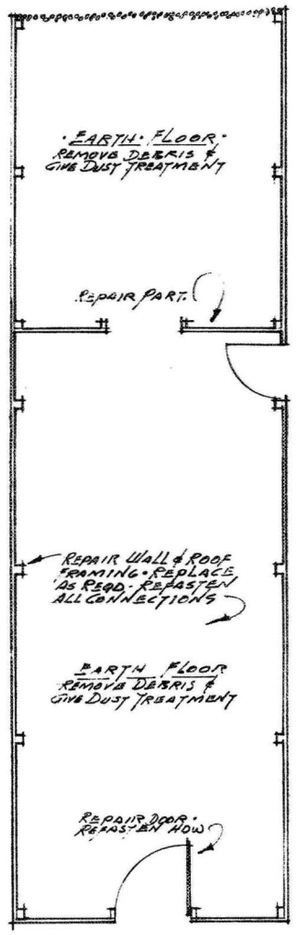
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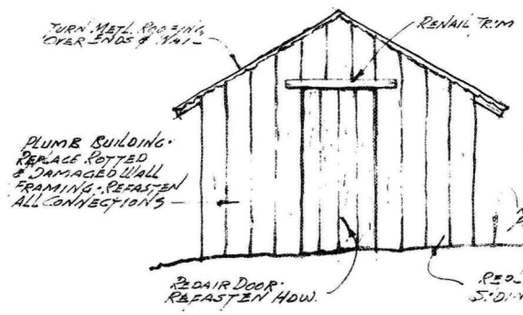
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UNITED STATES
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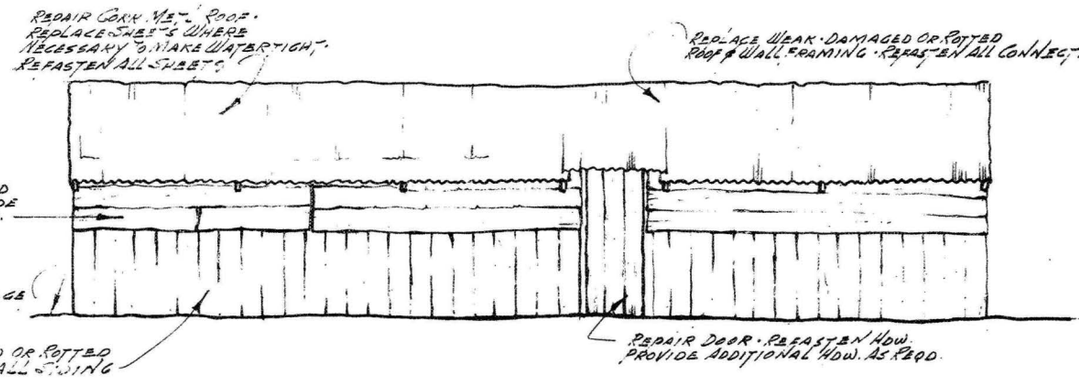
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REGION
AREA
DRAWING NO.
SCALE
DATE



·PLAN·

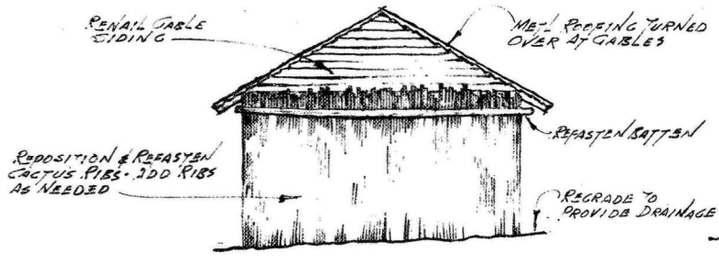


·NORTH·(FRONT)·ELEVATION·

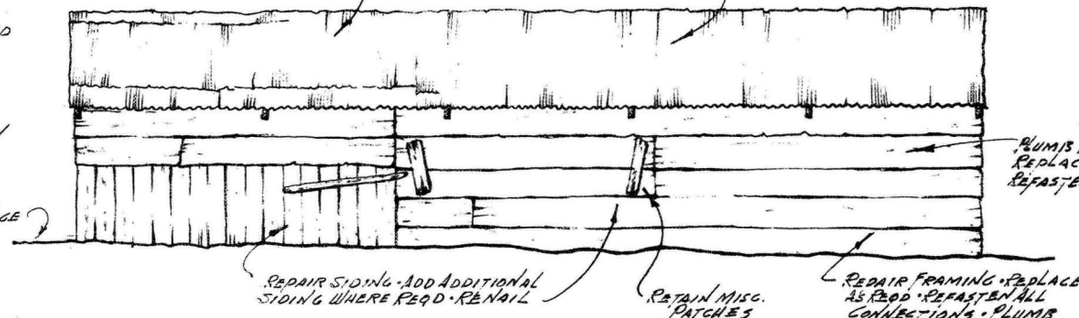


·WEST·ELEVATION·

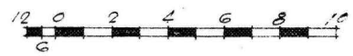
·NOTE·
ALL EXISTING & NEW WOOD TO BE GIVEN A PRESERVATIVE AND FIREPROOFING TREATMENT



·SOUTH·ELEVATION·



·EAST·ELEVATION·



·SCALE· 3/8" = 1'-0"

BASIC DATA· FIELD MEASUREMENTS BY R BEGEMAN & R JONES · 10·65 ·

ORIENTATION

PREPARED	3·69 R Jones
DESIGNED	3 69 R Jones
DRAWN	
CHECKED	

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

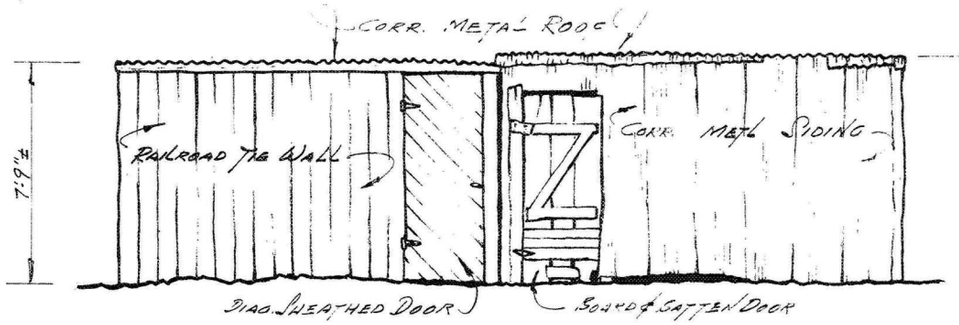
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION: SOUTHWEST
PCP: M·A1
DRAWING NO.: 157 / 94006
DATE: Jan '70

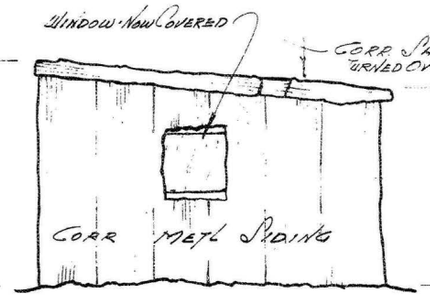
RESTORATION · BLANKENSHIP · CACHADO · STRUCTURES ·
TITLE OF DRAWING: · BLANKENSHIP RANCH ·
LOCATION WITHIN PARK: · ORGAN PIPE CACTUS NAT'L. MON ·
NAME OF PARK:

SHEET TITLE · OUTBUILDING #2 · RESTORATION ·

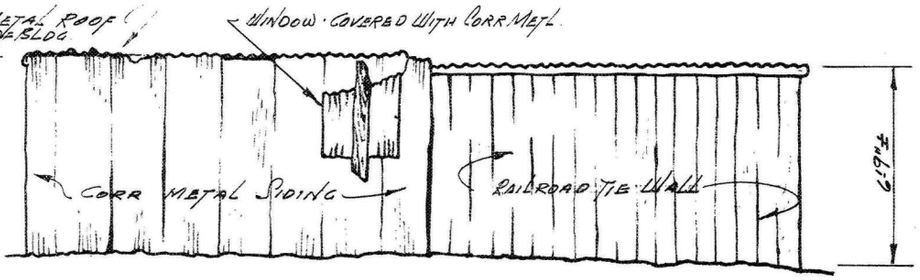
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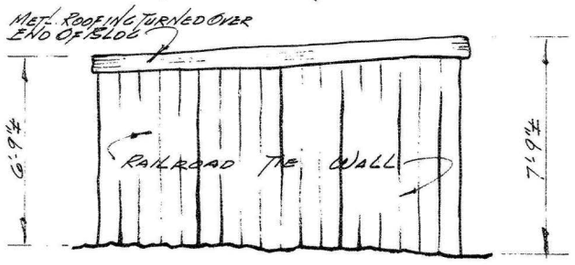
• EAST • (FRONT) • ELEVATION •

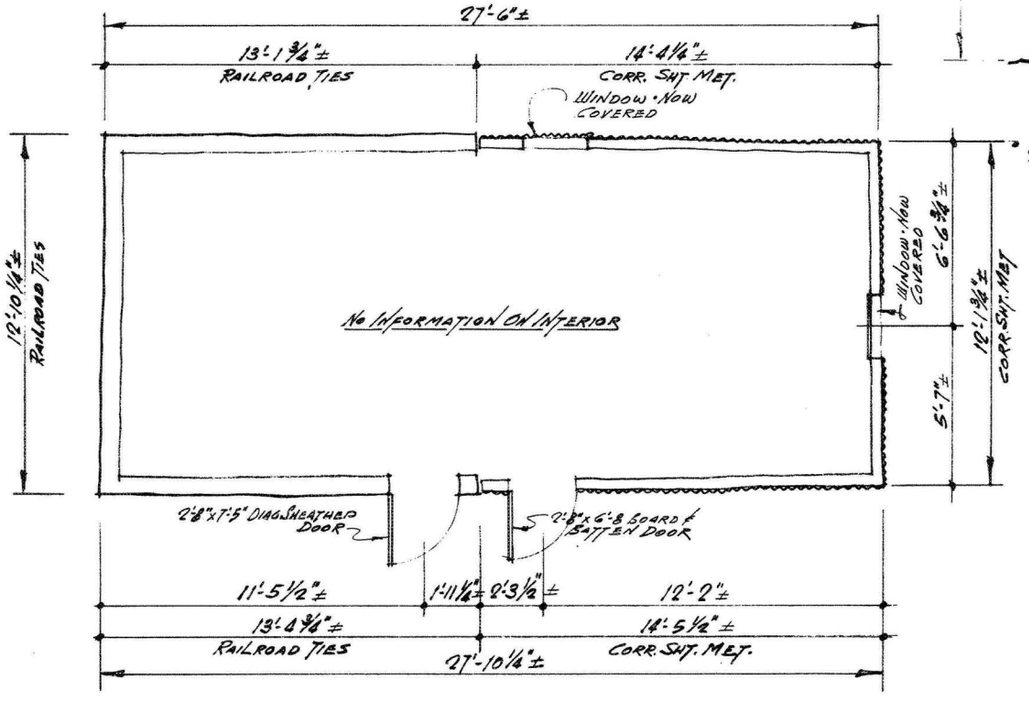


• NORTH • ELEVATION •



• WEST • (REAR) • ELEVATION •





• FLOOR • PLAN •

• SOUTH • ELEVATION •

1 0 2 4 6 8 10
6

• SCALE • 3/8" = 1'-0"

ORIENTATION

BASIC DATA • FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES • 10 • 68 •

PREPARED R. Begeman & R. Jones
DESIGNED
DRAWN
CHECKED

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

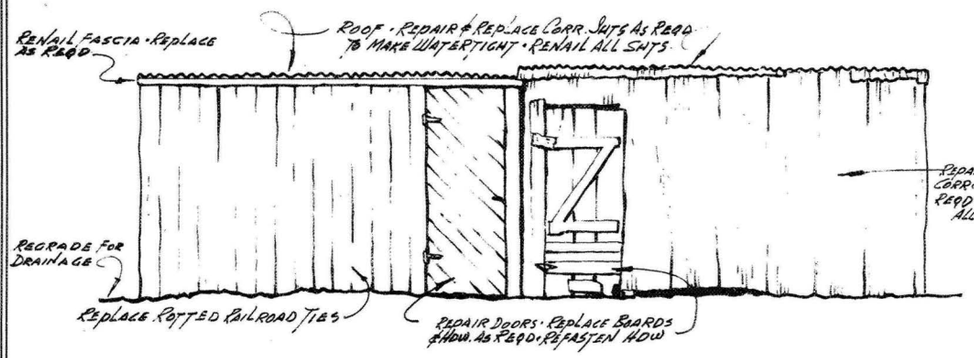
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION Southwest
PCF M-21
DRAWING NO. HS-1 3400-1
DATE Jan '70

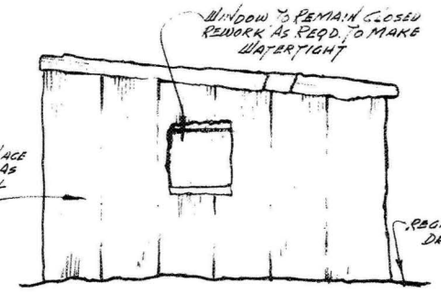
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TITLE OF DRAWING
• BLANKENSHIP • RANCH •
LOCATION WITHIN PARK
• ORGAN PIPE CACTUS NAT'L. MON •
NAME OF PARK

SHEET TITLE • OUTBUILDING • #3 • EXISTING CONDITIONS •

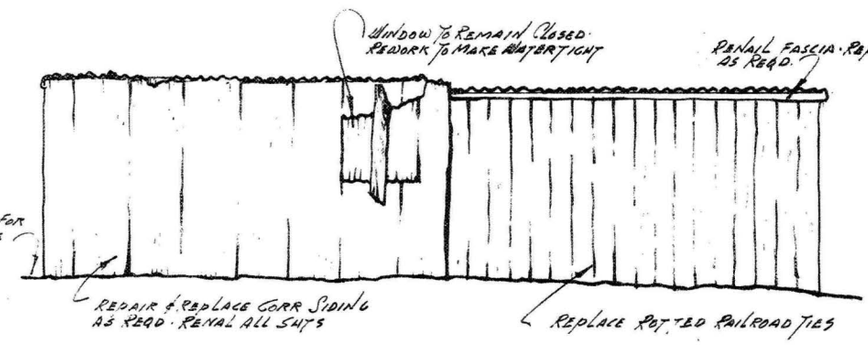
SHEET | OF



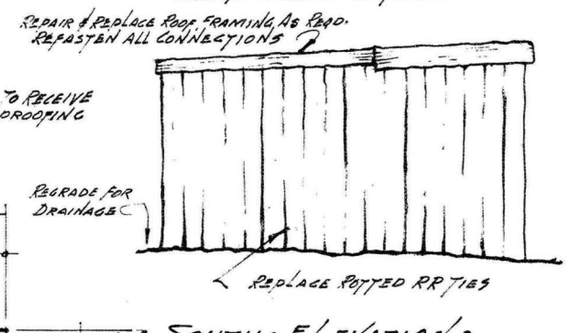
· EAST · (FRONT) · ELEVATION ·



· NORTH · ELEVATION ·

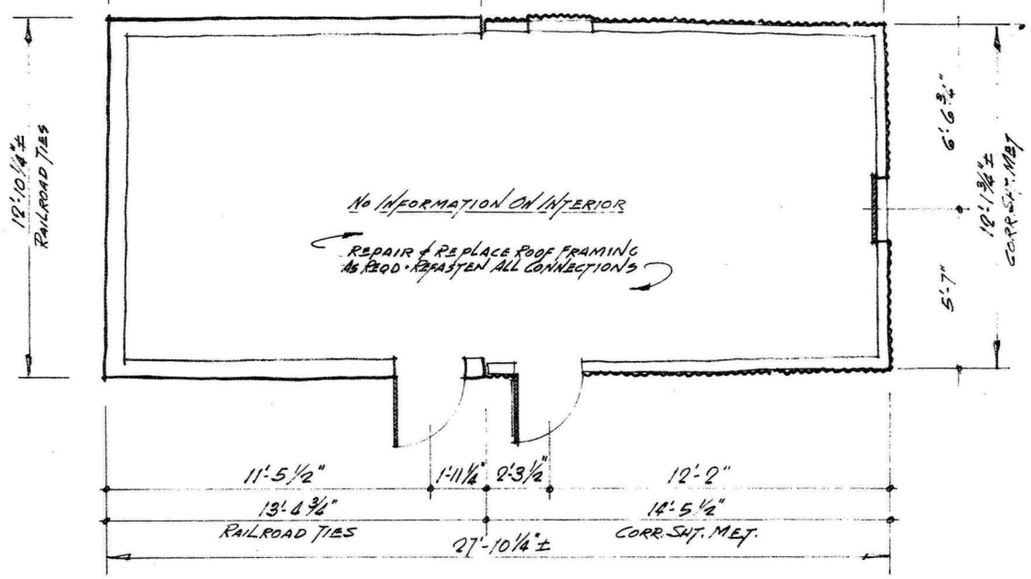


· WEST · (REAR) · ELEVATION ·



· SOUTH · ELEVATION ·

NOTE ·
ALL EXIST & NEW WOOD TO RECEIVE PRESERVATIVE & FIREPROOFING TREATMENT



· FLOOR · PLAN ·

· SCALE · 3/8" = 1'-0"

ORIENTATION

BASIC DATA · FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES · 10·68 ·

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

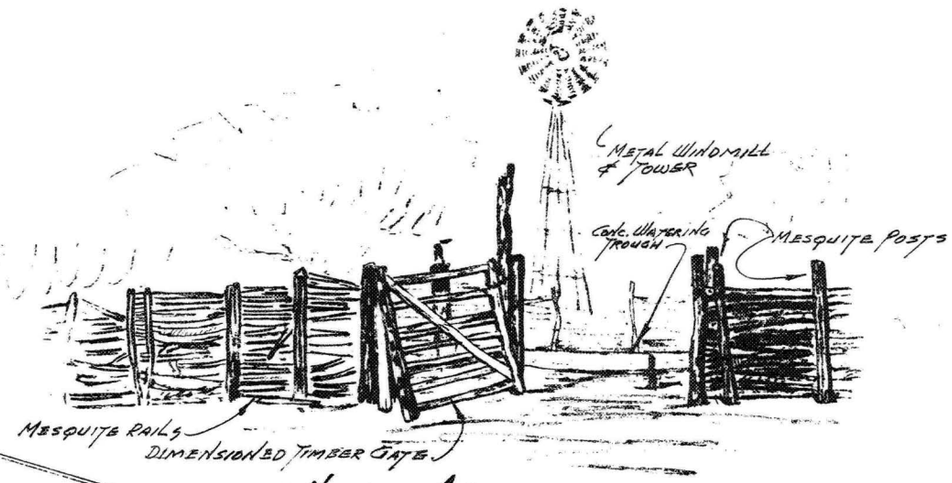
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

PREPARED R.B & R.J. JONES
DESIGNED R.B & R.J. JONES
DRAWN
CHECKED

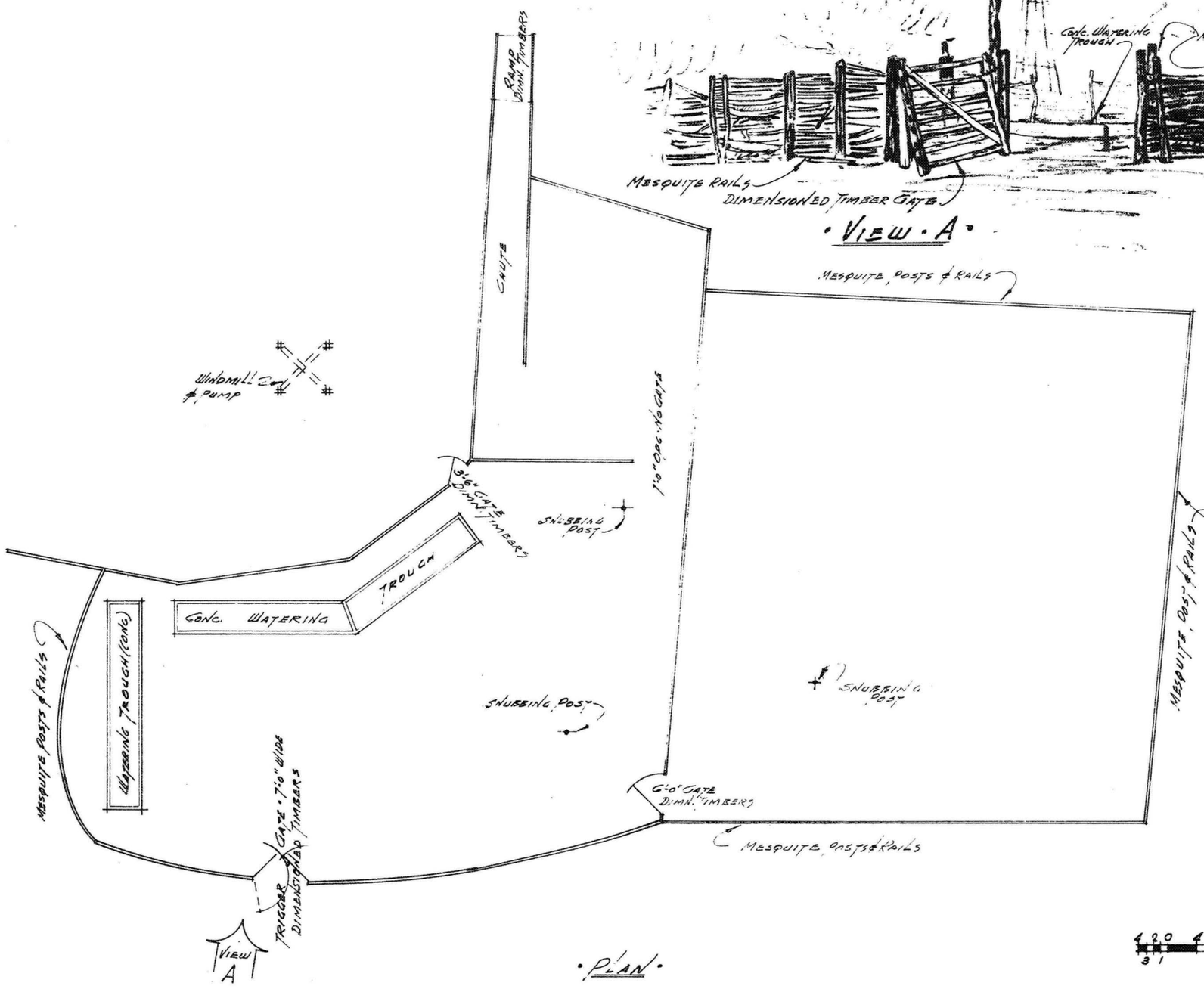
REGION SOUTHWEST
PCP M-61
DRAWING NO. 1.57 9400T
DATE JAN '70
SHEET 2 OF

TITLE OF DRAWING · RESTORATION · BLANKENSHIP · CACHADO · STRUCTURES · · BLANKENSHIP · RANCH · LOCATION WITHIN PARK · ORGAN PIPE CACTUS NAT'L MON. NAME OF PARK

SHEET TITLE OUTBUILDING · 3 · RESTORATION ·



• VIEW • A •



• PLAN •

4 2 0 4 8 12 16 20 24
3 1

• SCALE • 1/8" = 1'-0"

BASIC DATA • FIELD MEASUREMENTS By R. BEGEMAN & R. JONES • 10 • 68 •

ORIENTATION

PREPARED R. Jones
DESIGNED R. Jones
DRAWN
CHECKED

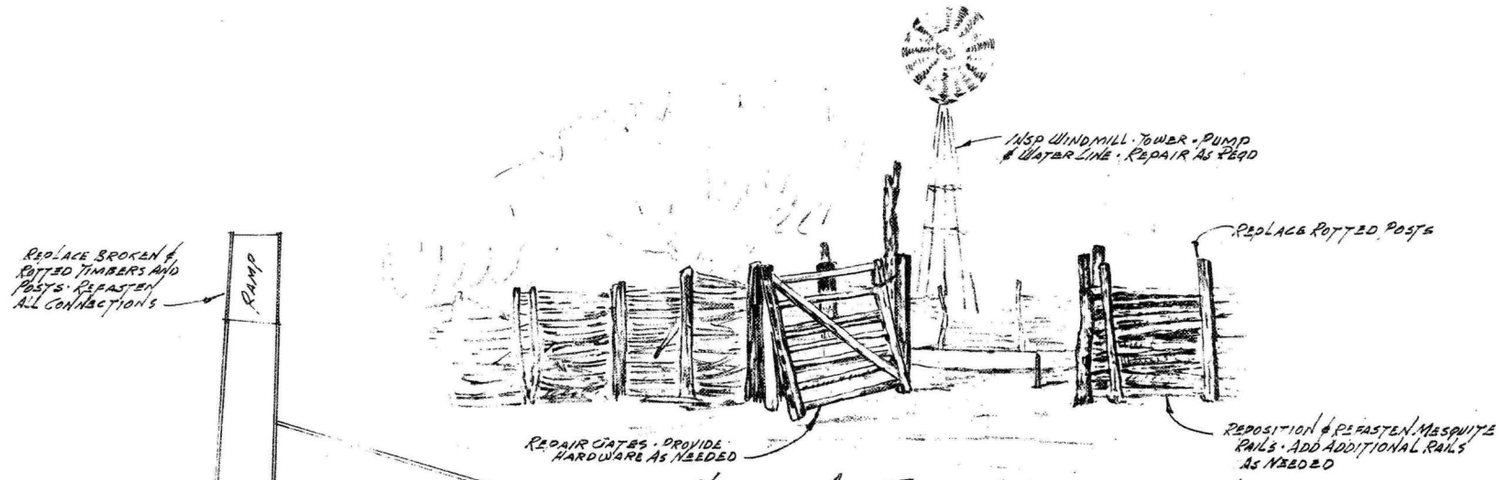
SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

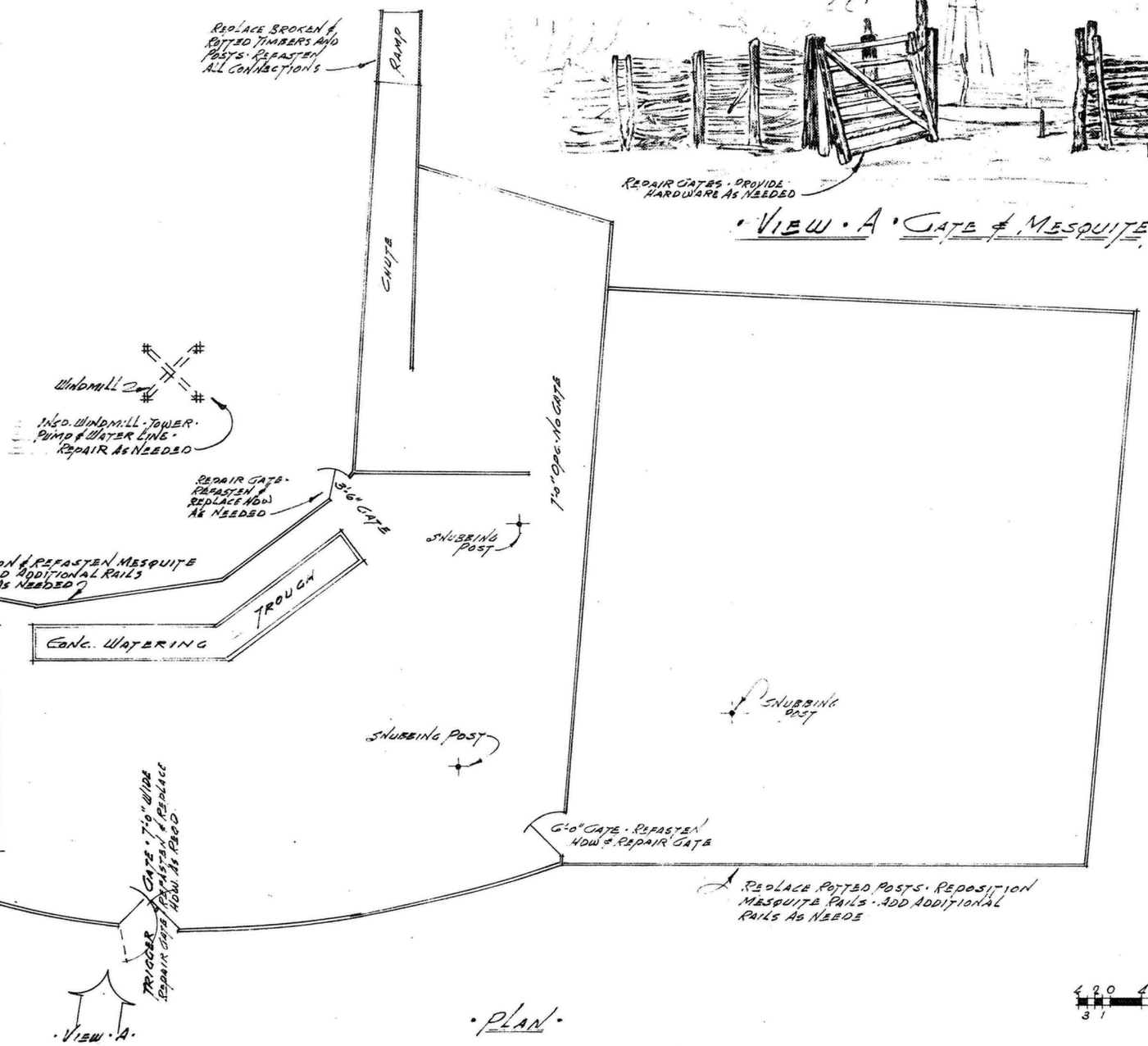
REGION Southwest
PCP M-41
DRAWING NO. 1 of 7
DATE Jan. 70

TITLE OF DRAWING • RESTORATION • BLANKENSHIP • RANCH • STRUCTURES •
LOCATION WITHIN PARK • BLANKENSHIP RANCH •
NAME OF PARK • ORGAN PIPE CACTUS Nat'l Mon •

SHEET TITLE • CORRAL • EXISTING CONDITIONS



· VIEW · A · GATE & MESQUITE FENCE ·



· VIEW · A ·

· PLAN ·

· SCALE · 1/8" = 1'-0"

BASIC DATA · FIELD MEASUREMENTS BY R. BEGEMAN & R JONES · 10 · 68 ·

ORIENTATION

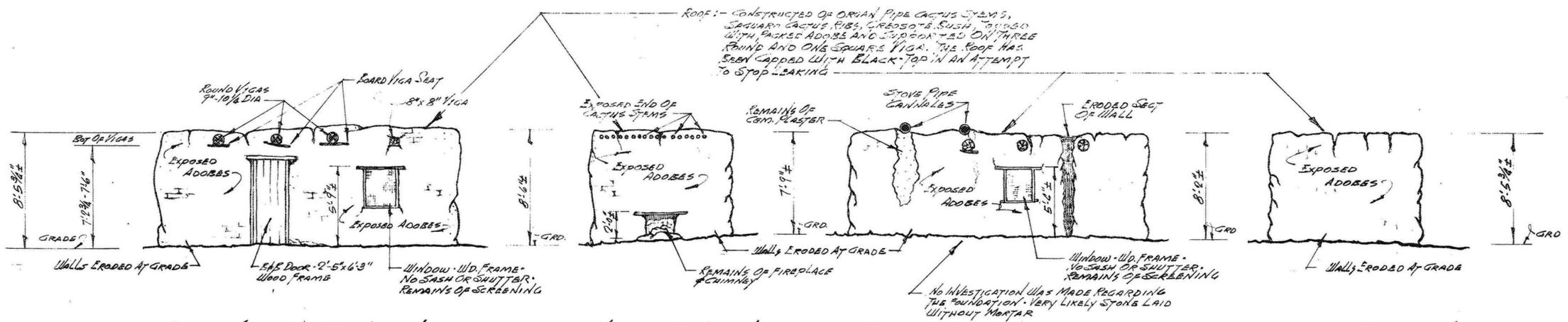
PREPARED	R. Jones
DESIGNED	R. Jones
DRAWN	
CHECKED	

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION: SOUTHWEST
PCP: M-41
DRAWING NO.: 157 / 92008
DATE: JAN '70
SHEET 2 OF

TITLE OF DRAWING: · RESTORATION · S. BLANKENSHIP · GACHADO · STRUCTURES ·
LOCATION WITHIN PARK: · BLANKENSHIP RANCH ·
NAME OF PARK: · ORGAN PIPE CACTUS NAT'L MON ·
SHEET TITLE: · CORRAL · RESTORATION ·

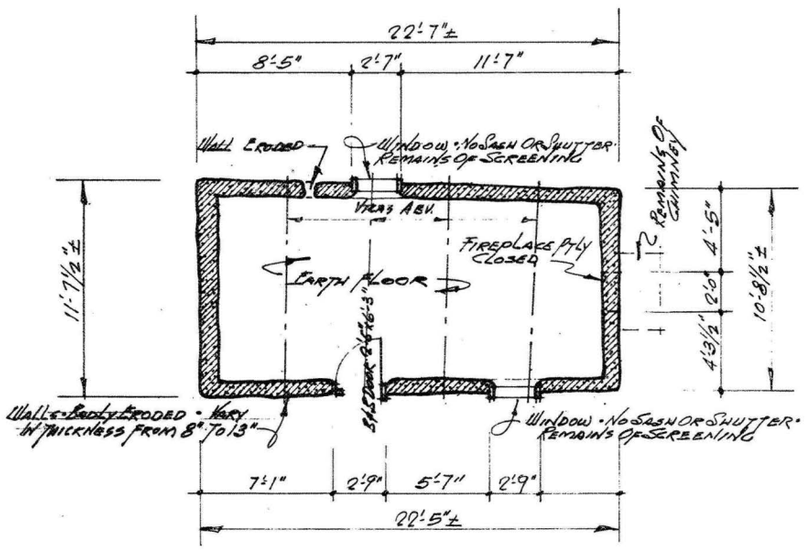


• EAST • (FRONT) • ELEVATION •

• NORTH • ELEVATION •

• WEST • ELEVATION •

• SOUTH • ELEVATION •



• FLOOR • PLAN •

BASIC DATA Field Measurements By R. Bateman & R. Jones - 10-68 -

1 0 5 10 15

• SCALE • 1/4" = 1'-0" •

ORIENTATION

PREPARED 3-11-69 R. Jones
DESIGNED 3-11-69 R. Jones
DRAWN
CHECKED

SYMBOL	DESCRIPTION OF REVISION	DATE SURNAME

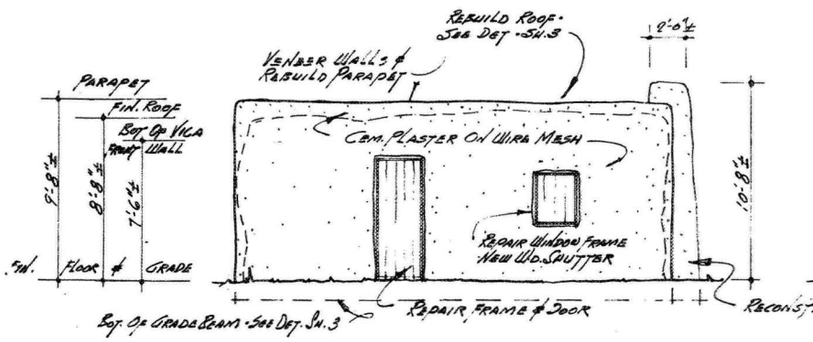
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION Southwest
PCP M-41
DRAWING NO. 1ST 74009
DATE

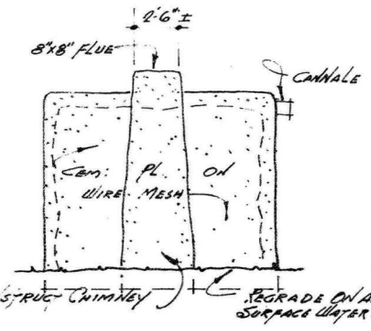
• Restoration • Gachado Wall • Structures •
TITLE OF DRAWING
• Gachado Wall •
LOCATION WITHIN PARK
• Organ Pipe Cactus Nat'l. Mon. •
NAME OF PARK

SHEET TITLE • House • Existing Conditions

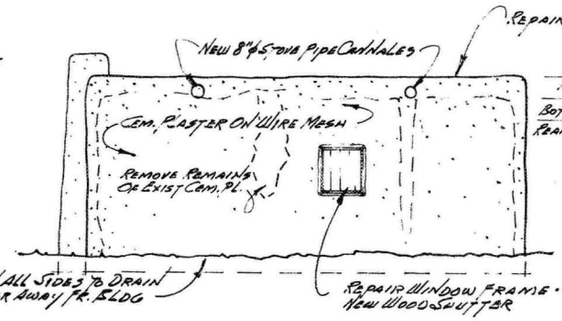
SHEET 1 OF



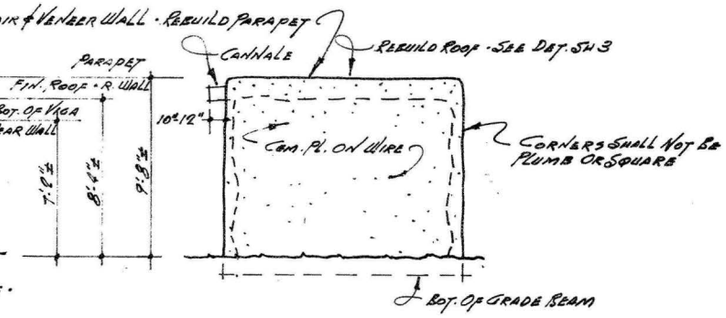
· EAST · (FRONT) · ELEVATION ·



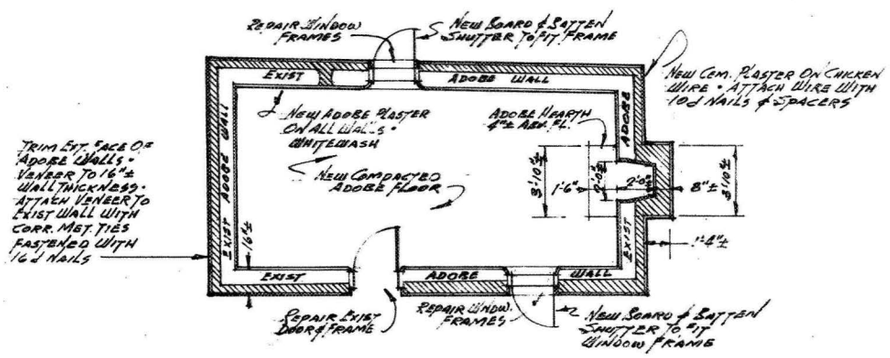
· NORTH · ELEVATION ·



· WEST · (REAR) · ELEVATION ·



· SOUTH · ELEVATION ·



· FLOOR · PLAN ·

BASIC DATA · FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES · 10/68 ·

RESTORATION NOTES & SPECIFICATIONS

1. FOUNDATION - Trench along the exterior face of the four walls and determine if the building is on any type of foundation. Also investigate for chimney foundation. If foundations exist, they shall determine the restored wall thickness. If there are no foundations, and in many cases structures of this type were so constructed, form and pour a grade beam as detailed to support the wall veneer.

2. WALL REPAIR - If wall foundations are found, trim the eroded and weathered exterior face of the walls and veneer with new adobe units to produce a finished wall of the same thickness as the foundation. If no foundations exist trim as described above and veneer as required to produce a finish wall approximately 16 inches thick.

   Remove eroded adobe units from the top of the wall and rebuild to the height shown by the drawings.

   Veneer units shall be anchored to the existing wall by corrugated metal wall ties spaced approximately 24 inches o.c., every third course. Metal ties shall be attached to the original wall with 10 d nails.

   The adobe units used in the repair of the walls shall be hand made, of the same size as the original units, and laid with the same mortar joint.

3. FIREPLACE & CHIMNEY - The existing fireplace, now sealed, shall be reopened, repaired and the chimney reconstructed. Excavate as necessary to determine if the original chimney was supported by a foundation, which shall determine the size of the reconstructed chimney in lieu of the dimensions given on the drawing.

4. WATERPROOFING - A waterproof asphalt membrane shall be applied between the foundation and the adobe veneer as detailed.

   After all veneering is in place, the parapet and chimney rebuilt, spray the entire exterior surface of the walls, including the top and inside face of the parapet with liquid asphalt. The finish thickness shall be 1/32 inch plus or minus and built up in successive passes rather than in one application.

5. PLASTER LATH - After the asphalt coating has set, attach 1-inch mesh chicken wire to the exterior walls, over and down the inside surface of the parapet to the counter flashing, and to the interior walls. The mesh shall be attached by 10 d nails with spacers at 12 inch, plus or minus, o.c. each way.

6. METAL FLASHING & CANALES - Metal flashing and counter flashing shall be 26 gauge galvanized sheet metal. The two canales shall be standard stove pipe, approximately 8-inch diameter and cut to length.

7. PLASTER - Exterior and interior plaster shall be a two coat cement plaster job. The mix shall be one part white cement, two parts sand. Add hydrated lime to the mix at the rate of 10 lbs. to each sack of cement. Standard pre-packaged cement plaster may be substituted for the job mixed plaster. In either case, coloring shall be added to produce a plaster matching the local adobe in color.

8. CARPENTRY WORK - Replace all unsound vigas, Organ Pipe Stems and Saguaro ribs. Reseat vigas as necessary to pitch roof for drainage and to eliminate low pockets. Rebuild the roof in accordance with the drawings.

   Rough lumber shall be used in the repair of the door, windows and the construction of the wood shutters.

   All new wood shall be stained, colored or weathered to match the color of adjacent wood after fabrication.

   Common nails will be used in the repair and construction of the shutters.

9. ROOFING - Materials shall be manufactured by Johns-Manville or equal and may be either a hot or cold application.

   Cover plywood sheathing with one layer of Rosen Sized Sheathing Paper, lapped not less than 1 inch and nailed sufficiently to hold in place. Apply one layer of base felt lapping each felt 2 inches over the preceding one and nail laps at 6 inches o.c., and down the longitudinal center of each felt run two rows of nails with the rows spaced 11 inches apart and the nails staggered at 18 inches o.c.

   Over the base felt apply two layers of 15 lb. Asbestos Finsihing Felt or two layers of Cold Application Asbestos Felt (if cold application,) mopping full width under each felt with steep asphalt or Cold Application Cement. Finish the entire surface with a full flood coat of Regal Roof Coating (a high grade asphaltic roof coating applied cold as a surface coating).

10. PRESERVATIVE TREATMENT - A standard preservative and fireproofing treatment shall be applied to the door frame, door, window frames and shutters.

11. FLOOR- Compacted adobe treated with a standard commercial additive to prevent dusting. (Cattle or sheep blood was originally used for this purpose.)

12. GRADING - After all foundation backfill has settled, fill and compact all low areas to bring to grade. Fine grade to a uniform slope of 2 inches in 5 feet to direct surface water away from the building.

13. CLEAN-UP - After all work has been completed all trash, debris, construction materials and equipment shall be removed from the site.

0 5 10 15
6

· SCALE · 1½" = 1'-0"

ORIENTATION

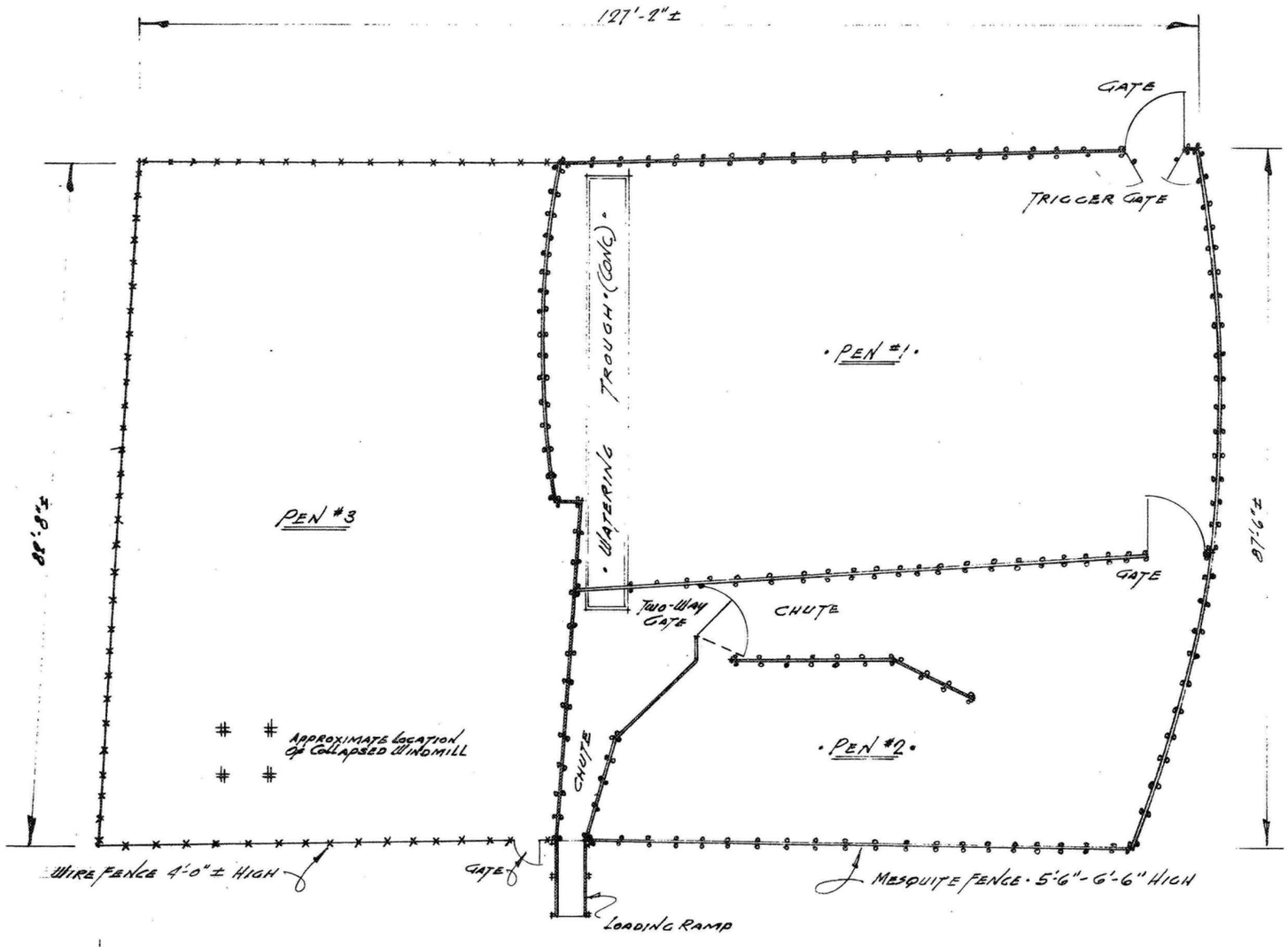
PREPARED R. Jones
DESIGNED
DRAWN
CHECKED

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

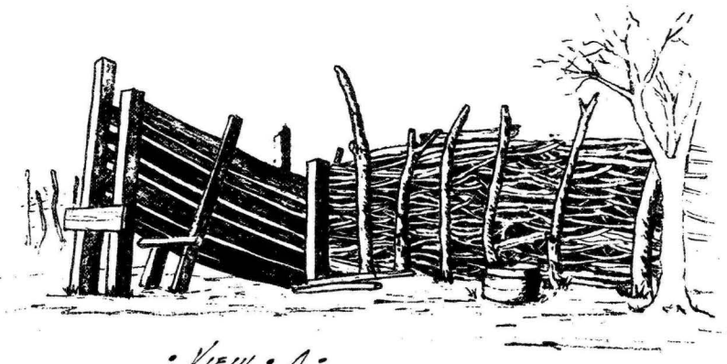
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION Southwest
PCP M-41
DRAWING NO. 157 / 74009
DATE
SHEET 2 OF

TITLE OF DRAWING · RESTORATION · CACHADO WALL · STRUCTURES ·
LOCATION WITHIN PARK · CACHADO WALL ·
NAME OF PARK · ORGAN PIPE CACTUS NATL. MON ·
SHEET TITLE · HOUSE · RESTORATION · PLAN · ELEVS & SPECS ·



• PLAN •



• VIEW • A •

• LEGEND •

RANDOM SPACED MASQUITE POST & WIRE

MESQUITE POST & BARS

SAWN TIMBER POST & PLANKS

4 0 4 8 12 16 20 24

• SCALE: 1/8" = 1'-0"

ORIENTATION

PREPARED	
7-9-69	R. Jones
DESIGNED	
7-9-69	R. Jones
DRAWN	
CHECKED	

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION: SOUTHWEST

PCP M-41

DRAWING NO.: 157 / 94010

DATE

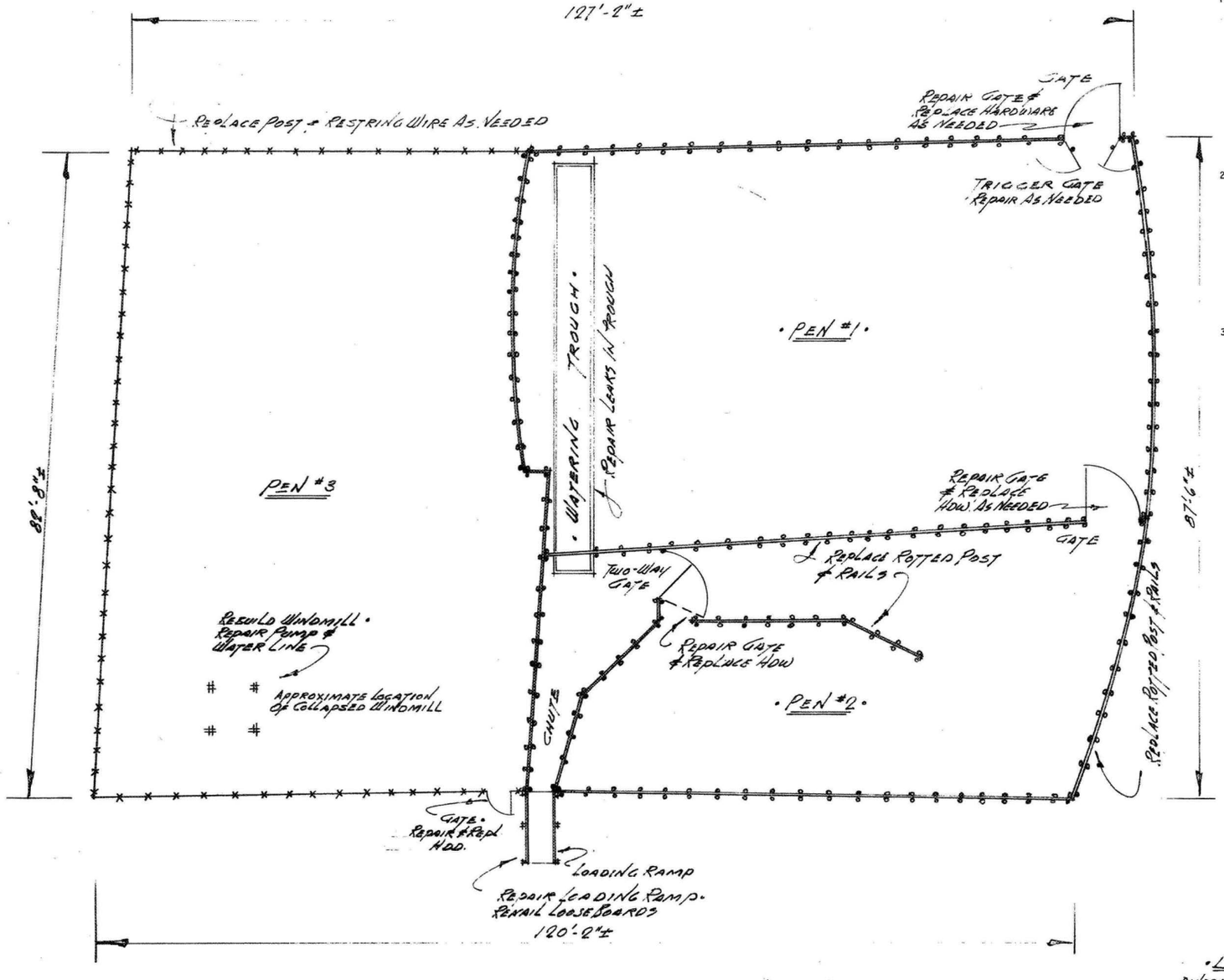
SHEET TITLE: • CORRAL • EXISTING CONDITIONS •

TITLE OF DRAWING: GACHADO WELL
LOCATION WITHIN PARK
• ORGAN PIPE CACTUS NAT'L MON. •
NAME OF PARK

• RESTORATION • GACHADO WELL • STRUCTURES •

SHEET 1 OF

BASIC DATA: • FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES • 10·68 •



•PLAN•

RESTORATION NOTES AND SPECIFICATIONS

1. MESQUITE POST & WOVEN RAIL FENCING

   Replace all rotted post. New post shall be given a preservative and waterproofing treatment and the buried portion coated with asphalt waterproofing before setting.

   Reposition woven mesquite rails, replace rails infested with rot and add additional rails as may be required to make fencing "stock tight." Replace broken or missing tie wires.

2. MESQUITE POST & WIRE FENCING

   Replace all rotted post. Apply preservative and waterproofing treatment and coat buried portion of all new post with asphalt before setting.

   Replace broken fencing wire and missing strands where necessary to make "stock tight."

3. LOADING RAMP

   Replace all rotted post, decking and side rails. All new timbers to be given preservative and waterproofing treatment. Buried portion of post in contact with ground to be coated with asphalt. All replacement timbers to be rough lumber.

4. GATES

   Replace all rotted and broken stiles, rails and miscellaneous components. Repair as required to make all gates operatable. Repair or replace broken or missing hardware.

5. WINDMILL AND WATERLINES

   Repair and replace missing components as required to place windmill and pump in operating condition. Check waterline from pump to watering trough and repair as needed.

6. WATERING TROUGH

   Inspect the concrete watering trough and repair as necessary to make water-tight and useable for its original purpose.

7. MISCELLANEOUS FEATURES

   Repair or replace any miscellaneous features (snubbing post, branding barrels, etc.) not covered by these specifications or shown on the drawings, as may be essential to the corral as a working exhibit of ranching in the Arizona-Mexico border area.

8. CLEAN-UP

   After all work has been completed remove all trash, debris, construction materials and equipment from the site.



•VIEW • A•

•LEGEND•

RANDOM SPACED MESQUITE POST & WIRE

MESQUITE POST & BARS

SAWN TIMBER POST & PLANKS

4 0 4 8 12 16 20 24

•SCALE• 1/8" = 1'-0"

ORIENTATION

PREPARED	
7.9.69	R. Jones
DESIGNED	
7.9.69	R. Jones
DRAWN	
CHECKED	

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION: SOUTHWEST

PCP M-41

DRAWING NO.: 157 90070

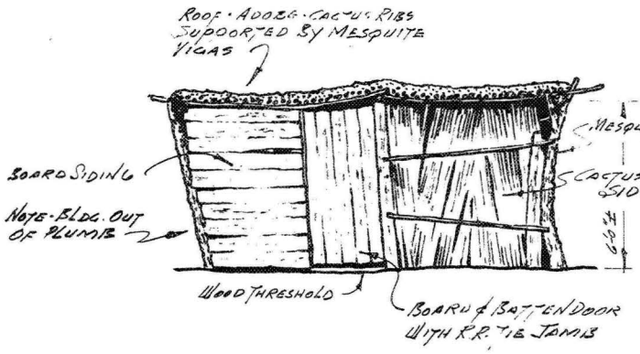
DATE

TITLE OF DRAWING: •RESTORATION•GACHADO WELL • STRUCTURES•
LOCATION WITHIN PARK: GACHADO WELL
NAME OF PARK: • ORGAN PIPE CACTUS NATL MON.

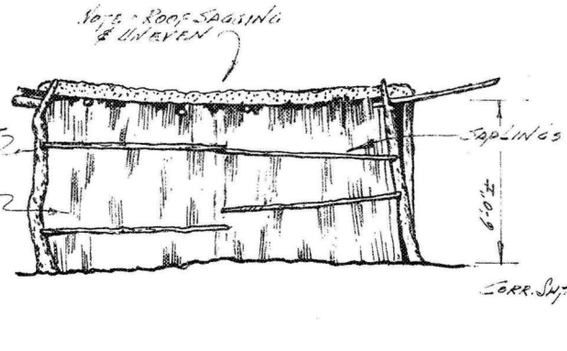
SHEET TITLE: •CORRAL • RESTORATION•

SHEET 2 OF

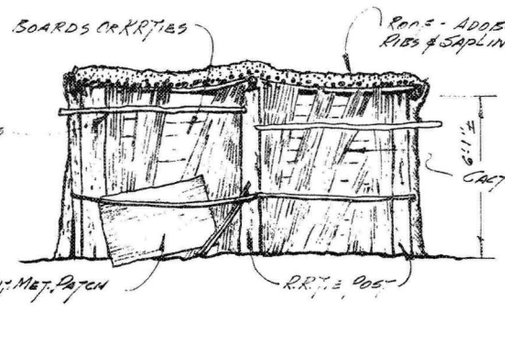
BASIC DATA • FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES • 10-68 •



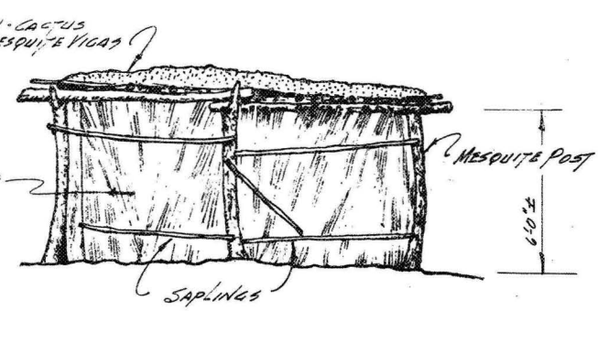
· EAST · (FRONT) · ELEVATION ·



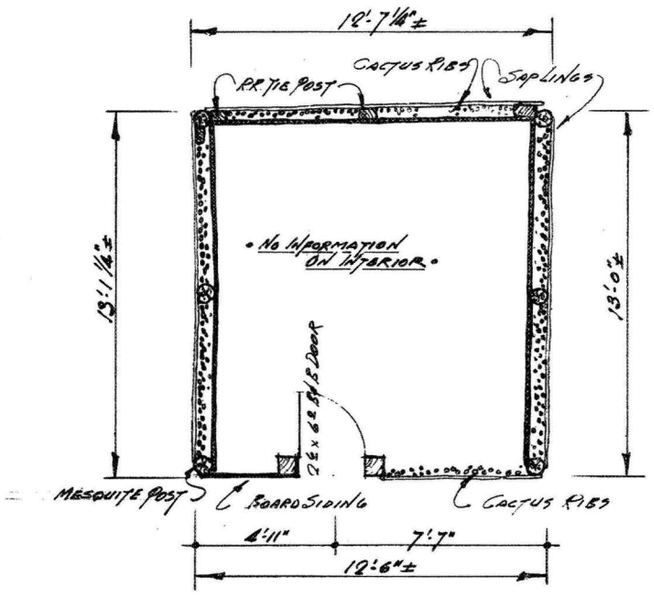
· NORTH · ELEVATION ·



· WEST · ELEVATION ·



· SOUTH · ELEVATION ·



· FLOOR · PLAN ·



SCALE · 3/8" = 1'-0"

ORIENTATION

BASIC DATA · FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES · 10·68 ·

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

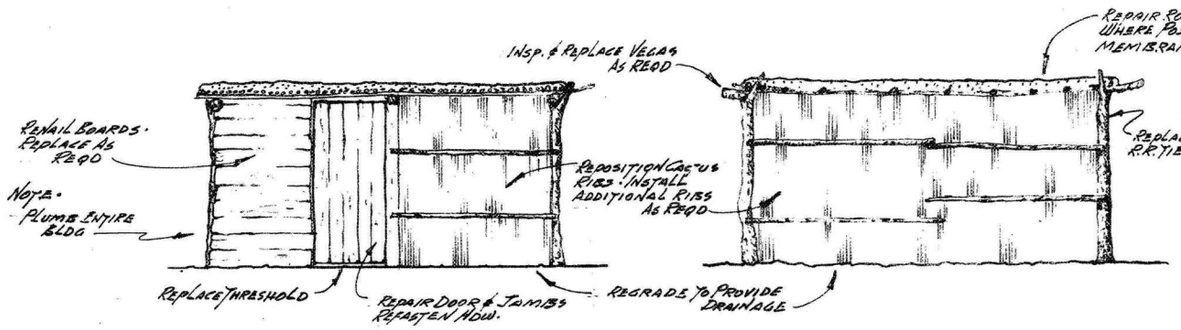
PREPARED by H.H. & R. Jones
DESIGNED by H.H. & R. Jones
DRAWN
CHECKED

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION: SOUTHWEST
PCP: M-41
DRAWING NO.: 157 / 34011
DATE: 12-69

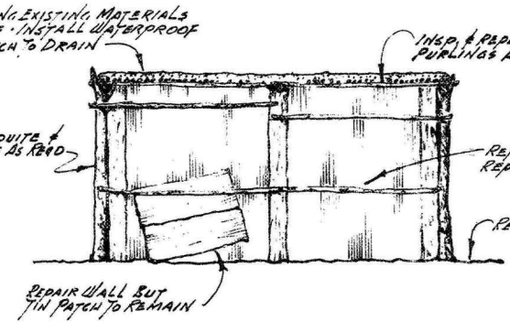
TITLE OF DRAWING: · RESTORATION OF · PAZO NUEVO · STRUCTURES ·
LOCATION WITHIN PARK: · PAZO NUEVO WELL ·
NAME OF PARK: · ORGAN PIPE CACTUS NATL. MON ·

SHEET TITLE: · JACAL · EXISTING CONDITIONS ·
SHEET 1 OF

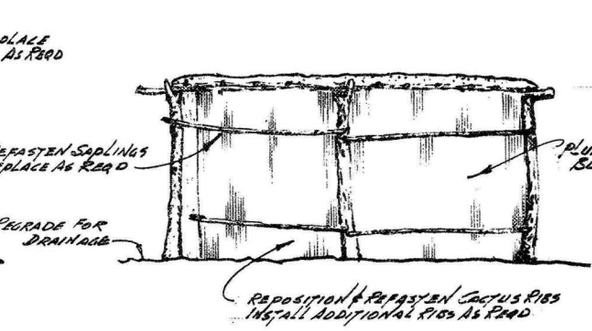


· EAST · (FRONT) · ELEVATION ·

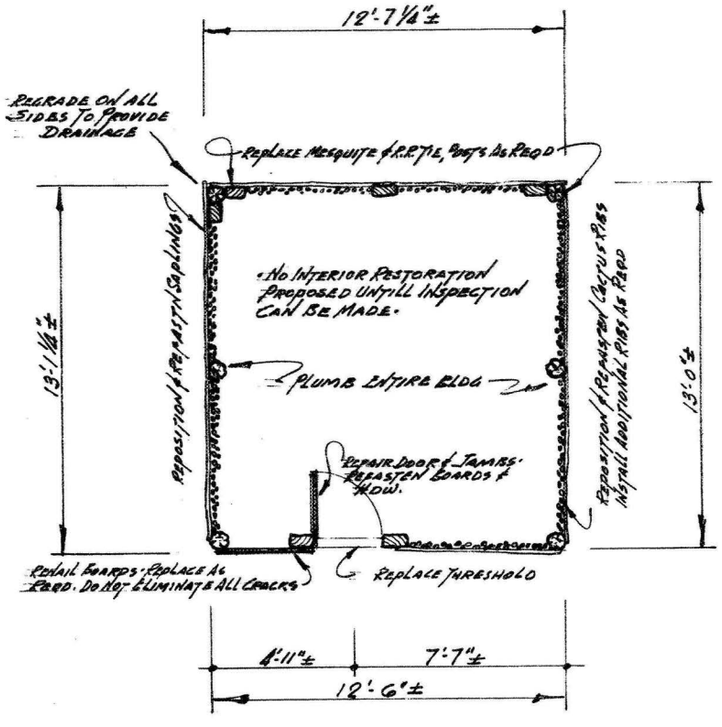
· NORTH · ELEVATION ·



· WEST · ELEVATION ·



· SOUTH · ELEVATION ·



· FLOOR · PLAN ·

BASIC DATA · FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES · 10·68

12 0 2 4 6 8 10

SCALE · 3/8" = 1'-0"

ORIENTATION

PREPARED 4.69 R. Jones
DESIGNED 4.69 R. Jones
DRAWN
CHECKED

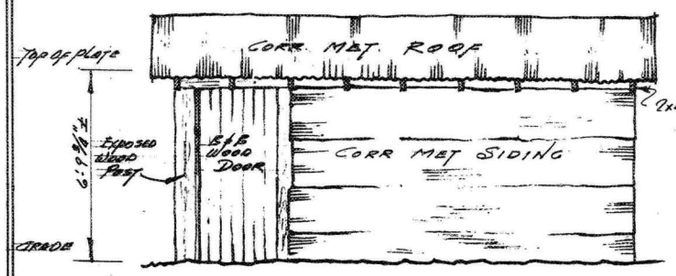
SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

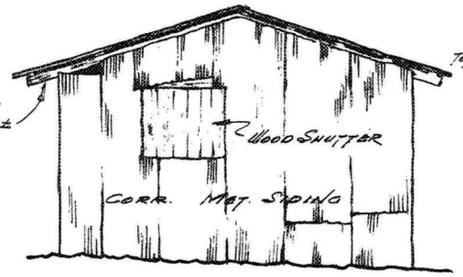
REGION SOUTHWEST
PCF M-11
DRAWING NO. 157 74011
DATE 12-69
SHEET 2 OF

· RESTORATION OF · POZO NUEVO · STRUCTURES ·
TITLE OF DRAWING
· POZO NUEVO WELL ·
LOCATION WITHIN PARK
· ORGAN PIPE CACTUS NAT'L. MON ·
NAME OF PARK

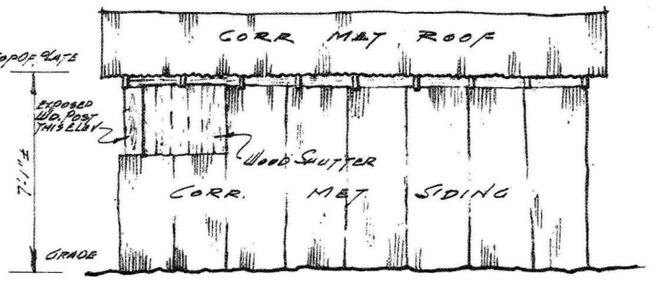
SHEET TITLE · JACAL · RESTORATION ·



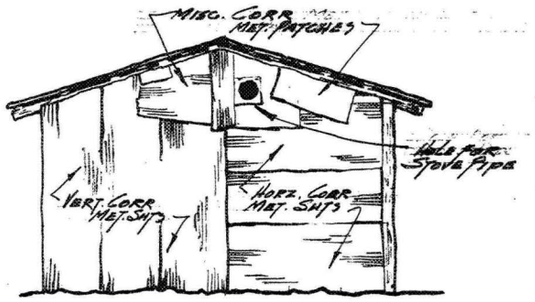
· NORTH · (FRONT) · ELEVATION ·



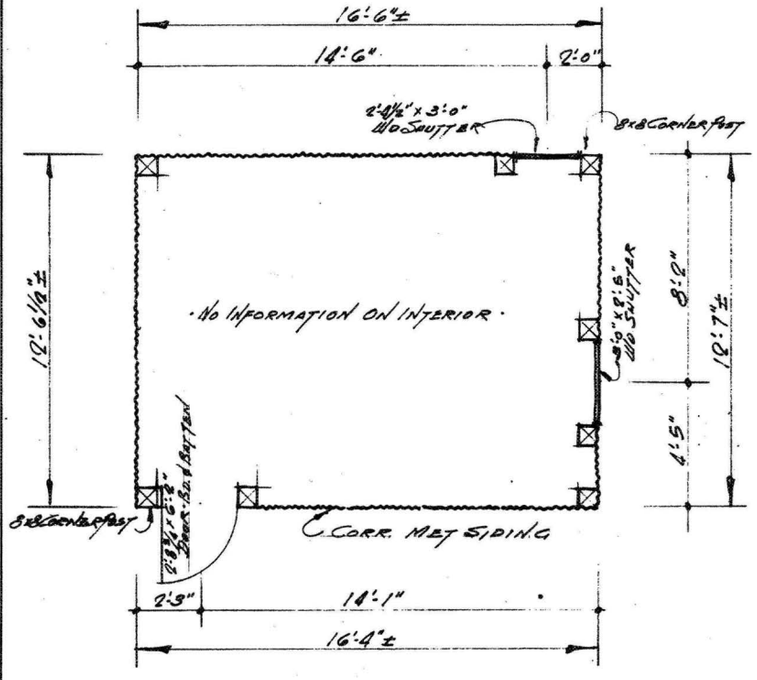
· WEST · ELEVATION ·



· SOUTH · ELEVATION ·



· EAST · ELEVATION ·



· FLOOR · PLAN ·

BASIC DATA: · FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES · 10·68 ·

1 0 2 4 6 8 10

SCALE · 3/8" = 1'-0"

ORIENTATION

PREPARED 1.8.69 R. Jones
DESIGNED
DRAWN
CHECKED

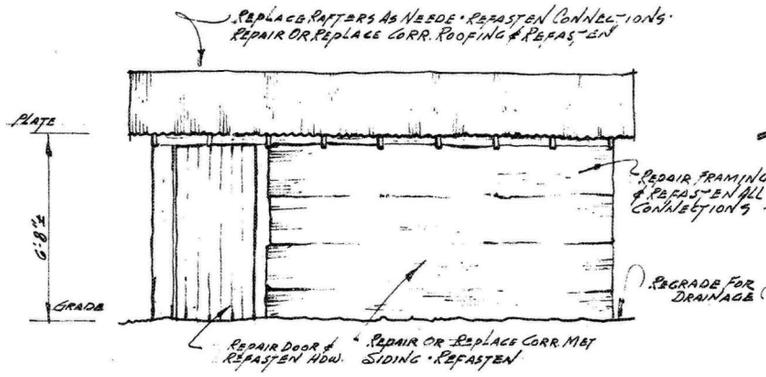
SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

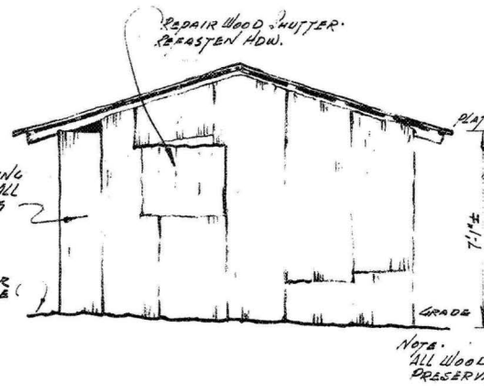
REGION: Southwest
FCP M-41
DRAWING NO. 157 / 90012
DATE 12.69
SHEET 1 OF

· RESTORATION · OF · PUEBO NUEVO STRUCTURES ·
TITLE OF DRAWING: PUEBO NUEVO WALL
LOCATION WITHIN PARK: ORGAN PIPE CACTUS Nat'l. Mon.
NAME OF PARK

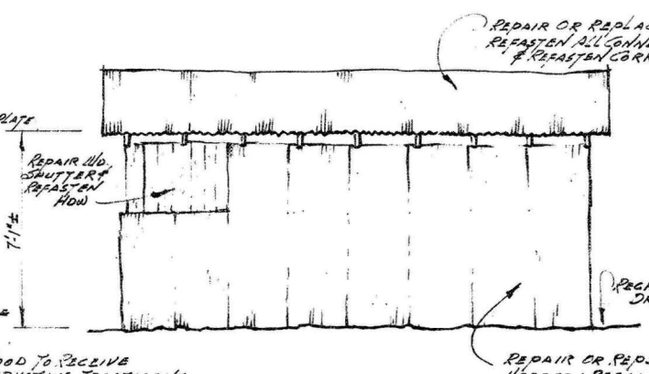
SHEET TITLE · OUT BUILDING · EXISTING CONDITIONS ·



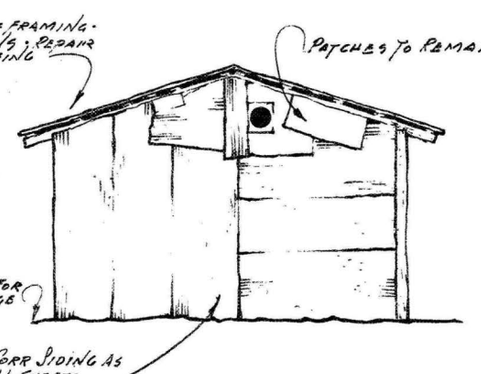
· NORTH · (FRONT) · ELEVATION ·



· WEST · ELEVATION ·

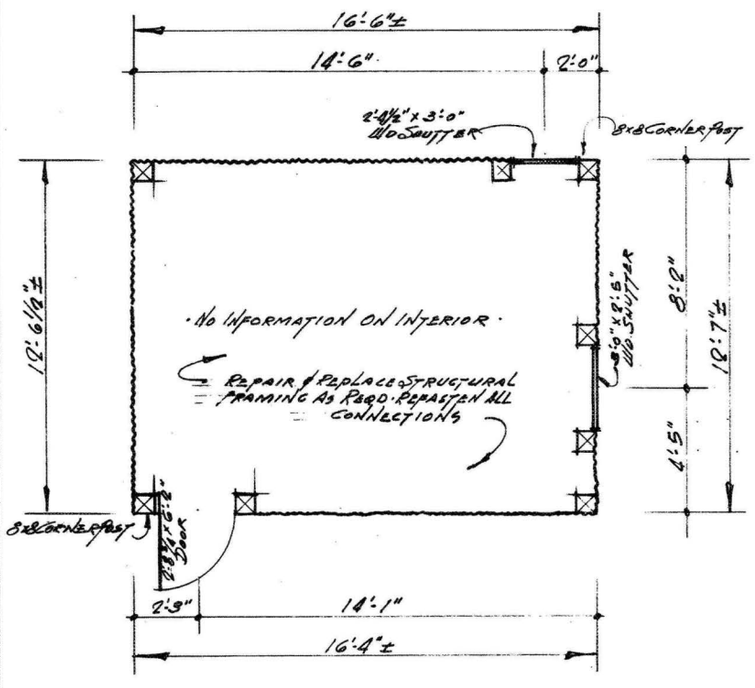


· SOUTH · ELEVATION ·



· EAST · ELEVATION ·

Note:
All Wood To Receive Preservative Treatment



· FLOOR · PLAN ·

BASIC DATA · FIELD MEASUREMENTS BY R. BEGEMAN & R. JONES · 10·68 ·

1 0 2 4 6 8 10

SCALE · 3/8" = 1'-0"

ORIENTATION

PREPARED 1·8·69 R. Jones
DESIGNED 1·8·69 R. Jones
DRAWN
CHECKED

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

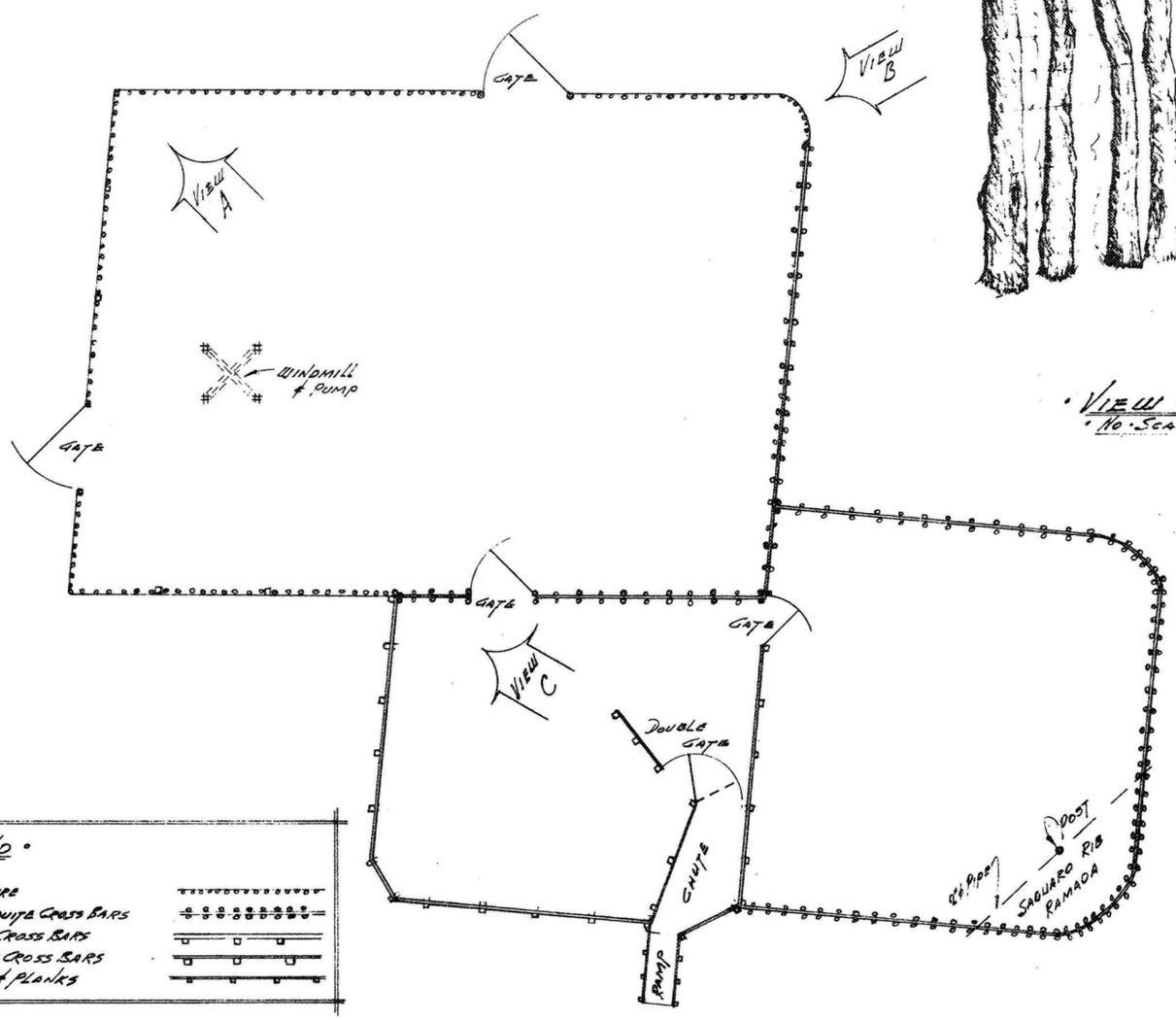
REGION SOUTHWEST
PCP M-41
DRAWING NO. 157 9200 12

· RESTORATION · OF · POZO NUEVO · STRUCTURES ·
TITLE OF DRAWING
POZO NUEVO WELL
LOCATION WITHIN PARK
ORGAN PIPE CACTUS NAT'L. MON
NAME OF PARK

DATE 12·69

SHEET TITLE · OUTBUILDING · RESTORATION ·

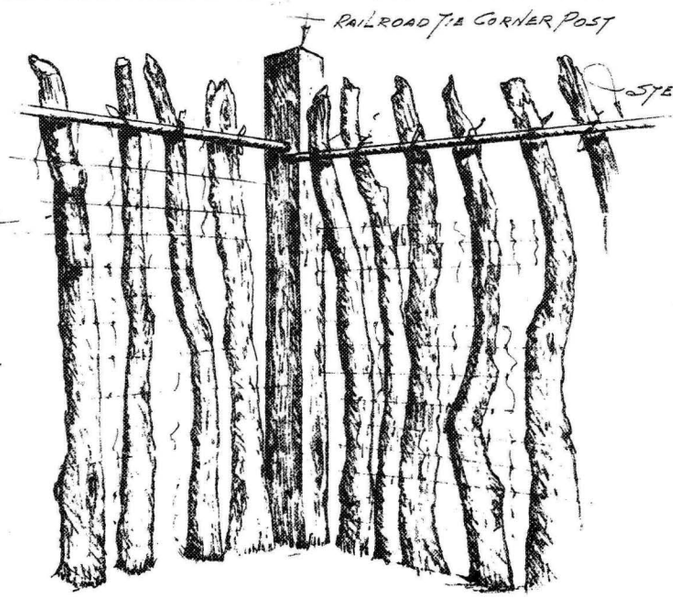
SHEET 2 OF



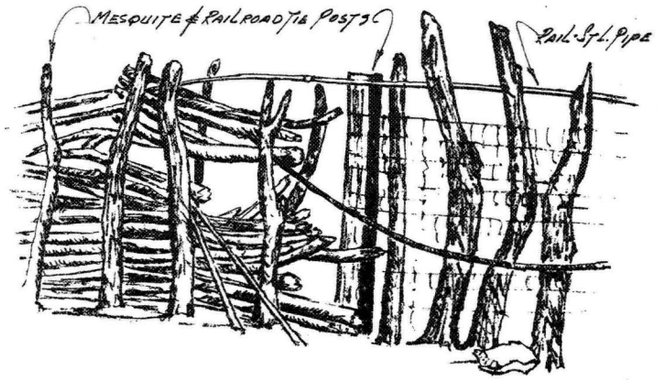
• PLAN •

• LEGEND •

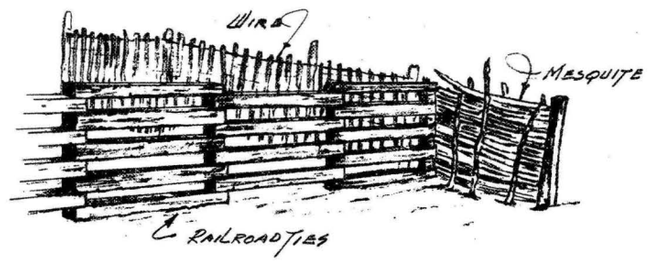
- MESQUITE POST & WIRE
- MESQUITE POST & MESQUITE CROSS BARS
- RR TIE POST & RR TIE CROSS BARS
- RR TIE POST & PLANK CROSS BARS
- SAWN TIMBER POST & PLANKS



• VIEW • A • DET WIRE FENCE •
• NO • SCALE •



• VIEW • B • DET MESQUITE FENCE •
• NO • SCALE •



• VIEW • C • THREE FENCE TYPES •
• NO • SCALE •

4 2 0 4 8 12 16 20 24
3 1

• SCALE • 1/8" = 1'-0" •

BASIC DATA • FIELD MEASUREMENTS & PHOTOS BY R. BEGEMAN • 10 • 68 •

ORIENTATION

PREPARED
DESIGNED
DRAWN
CHECKED

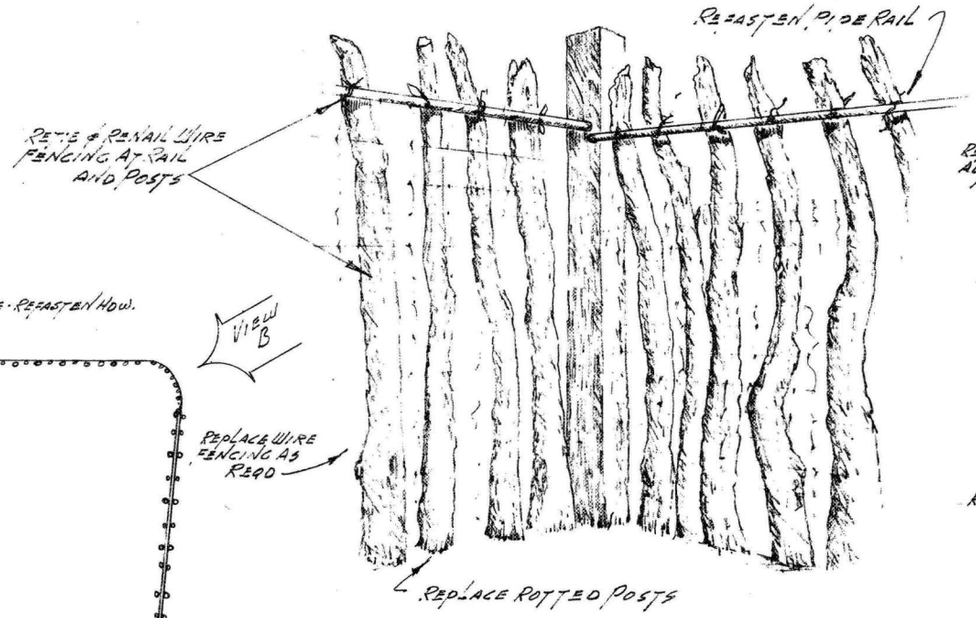
SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

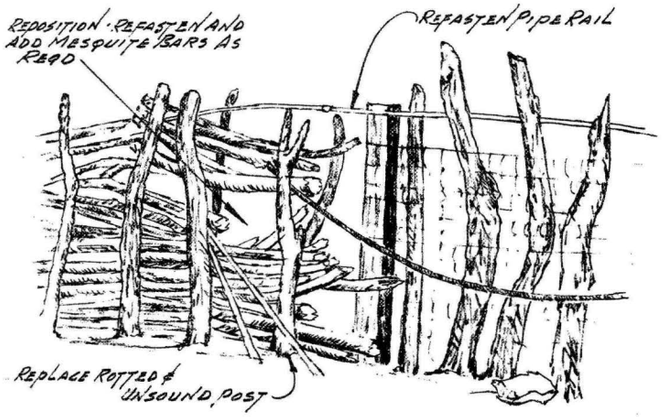
REGION SOUTHWEST
PCP M-41
DRAWING NO. 157 / 94013
DATE JAN '70
SHEET 1 OF

TITLE OF DRAWING: • RESTORATION • OF • POZO NUEVO • STRUCTURES • • POZO NUEVO WALL • • ORGAN PIPE CACTUS NATL MON •
LOCATION WITHIN PARK
NAME OF PARK

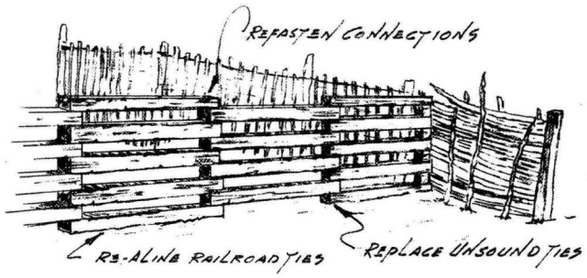
SHEET TITLE • CORRAL • EXISTING CONDITIONS •



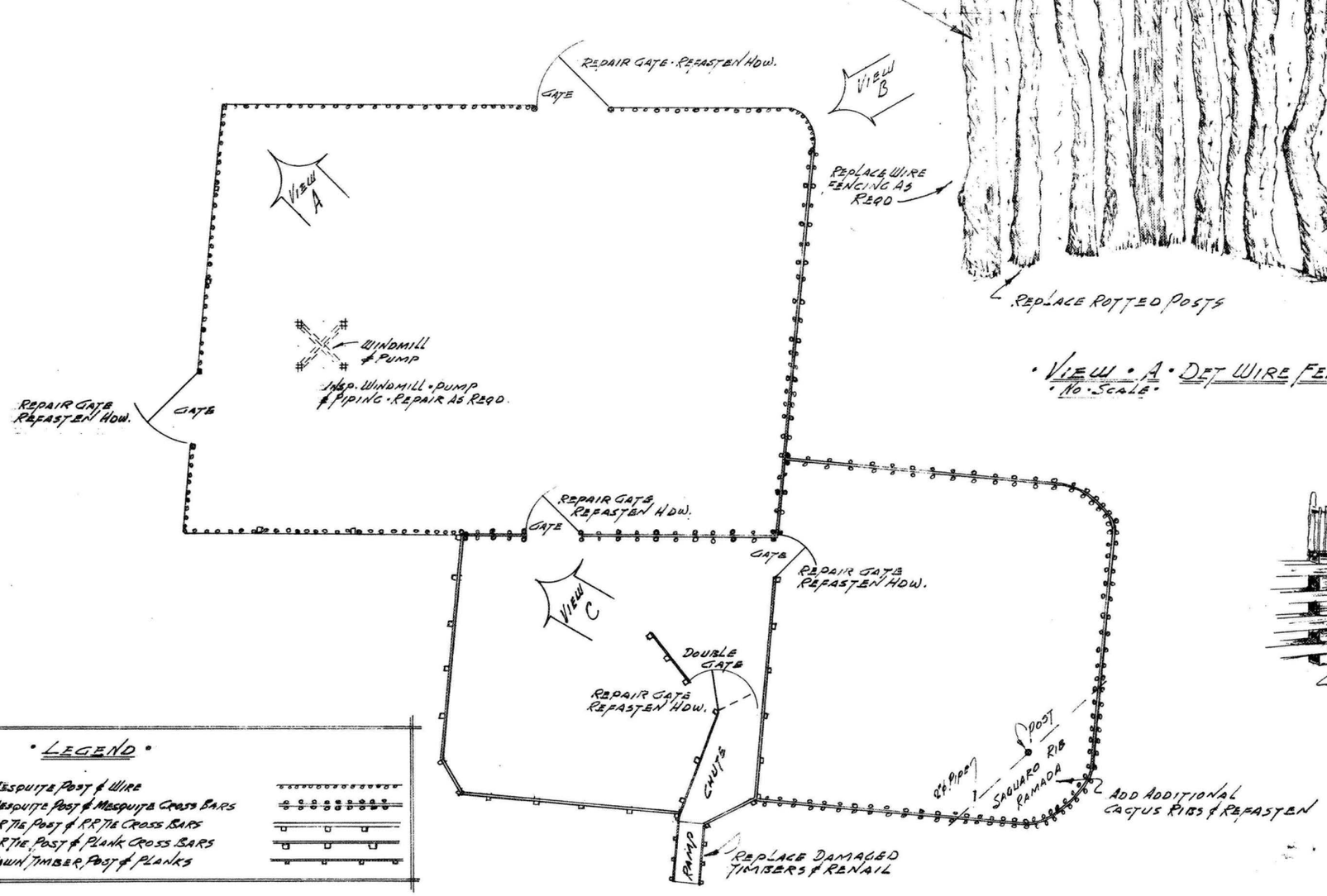
• VIEW • A • DET WIRE FENCE •
• NO • SCALE •



• VIEW • B • DET MESQUITE FENCE •
• NO • SCALE •



• VIEW • C • DET THREE FENCE TYPES •
• NO • SCALE •



• PLAN •

4 2 0 4 8 12 16 20 24
3 1

• SCALE • 1/8" = 1'-0" •

BASIC DATA • FIELD MEASUREMENTS & PHOTOS BY R. BEGEMAN • 10·68 •

ORIENTATION

PREPARED	A. Hoyt R. Jones
DESIGNED	A. Hoyt R. Jones
DRAWN	
CHECKED	

SYMBOL	DESCRIPTION OF REVISION	DATE	SURNAME

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
DIVISION OF HISTORIC ARCHITECTURE

REGION: SOUTHWEST
PCP: M-41
DRAWING NO.: 157 / 94013
DATE: JAN '70
SHEET: 2 OF

TITLE OF DRAWING: • RESTORATION · OF · POZO NUEVO · STRUCTURES · • POZO NUEVO WELL •
LOCATION WITHIN PARK
NAME OF PARK: • ORGAN PIPE CACTUS NATL MON •
SHEET TITLE: • CORRAL · RESTORATION •

GPO 883-880