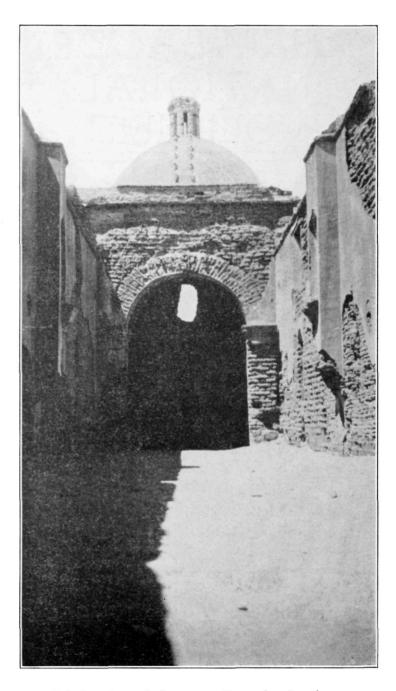


TUMACACORI NATIONAL MONUMENT

By Frank Pinkley

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Interior of nave before excavation and restoration. (Three feet of material laid on the floor in this picture.)

Tumacacori National Monument

By

FRANK PINKLEY

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The Tumacacori National Monument was first created by a proclamation dated September 15, 1908 (35 Stat., 2205), to protect the ruins of the Tumacacori Mission. The Monument contains an area of 10 acres. The ruins of this mission are well worth preserving as they are more than of local or state interest in that they represent one of the units of the first line of settlements pushed into the United States west of the Rio Grande.

The Tumacacori Mission should not be studied alone but should be considered as one unit in a chain of missions, in which chain the other Arizona missions were San Gabriel de Guevavi, San Cayetano de Calabasas, St. Gertrude de Tubac, and San Xavier del Bac.

Tumacacori Mission, in earlier times called San Cayetano de Tumacacori and later re-named San Jose de Tumacacori, is located 49 miles south of Tucson and a little more than 18 miles north of Nogales, in southern Arizona.

This site was first visited by Padre Kino in 1691. Leaving his headquarters at Dolores late in the year, accompanied by the Father Visitor, Juan Maria Salvatierra, he traveled by way of Santa Maria Magdalena Pueblo and a land calleed El Tupo, to the Mission of San Pedro San Pablo de Tubutama on the Altar River. Thence they went to Saric and Tucubavi, in the same vicinity. Here they were met by a delegation of Sobaipuris who had come from the region about the present Tumacacori Mission. The Indians asked the Fathers to visit them and they did so, probably going by way of the site of the present town of Nogales to Guevavi and thence onward to Tumacacori. After the visit they returned to Dolores by way of Santa Maria de Suamca and Cocospera.

There is, as yet, no evidence that missions were founded at either Guevavi or Tumacacori on this first visit, but



Sacristy doors taken from the Sacristy side.

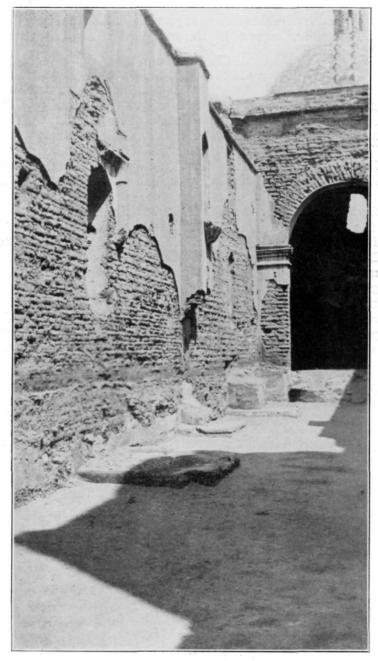
Padre Kino passed this way again in 1692, 1694, 1697, and 1699, and it is reasonable to suppose he talked and preached to the Indians, preparing the way for the resident priests who came later.

It must be remembered that the Fathers did not found the missions in the valley of the Rio Santa Cruz and then persuade the Indians to settle nearby. They discovered the Indian villages already long established and located the missions in settlements which dated back into remote times. This explains the locative name which we find added to the Saint's name of these missions. Mission San Jose de Tumacacori is, literally translated, the Mission of St. Joseph at (the Indian locative name) the place of many small fenced fields, or the place of many fields having small, low fences. The Guevavi of San Gabriel de Guevavi, means, in the Indian tongue, "large water." The Bac of San Xavier del Bac, refers to a species of grass which grows in the low. marshy ground, or to the marsh itself which produces this grass. The same "bac" occurs in "Tubac," the prefix in this case being the word for black and the word probably refers to the dark or black soil found in the low, marshy places near the river. Calabasas was founded in later times and was given the Spanish name which means pumpkins.

So far as we now know, the year 1701 marks the date when the village at Tumacacori was put under the charge of a visiting priest. In that year Padre Juan de San Martin was given charge of the three new pueblos of San Gabriel de Guevavi (the present Guevavi), San Cayetano (now Tumacacori), and San Luys (afterward abandoned and the site now lost). After mentioning this event, Padre Kino, in his diary, continues:

"In all places buildings were constructed, and very good beginnings were made in spiritual and temporal matters. In Cubavi in a few months we finished a house and a church, small but neat, and we laid the foundations of a church and a large house."

Padre Juan seems to have lived at Guevavi and visited the other pueblos when services were to be held there. The ruins of the Guevavi mission are still to be seen about 12 miles up the Santa Cruz River from Tumacacori, but they can never be restored. Parts of the church walls are standing, and the walls of the outer buildings can still be traced on the ground.

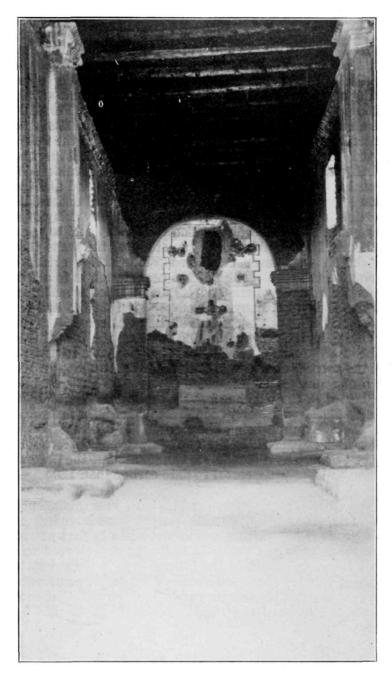


Interior of Nave After Excavation.

A small room or house in which services were held at Tumacacori, had been in use for several years before and probably served for several years after the appointment of Padre Juan. Another building was probably erected about 1730, when Padre Juan Baptista Grasshofer came to administer the affairs of the church. It was this second building which was attacked by the Apaches in 1769 and was almost in ruins in 1772. It was repaired in 1784 and Bancroft says it had become the headquarters of the Padre by that time. This building was re-roofed in 1791 and probably suffered badly in one of the Indian raids subsequent to 1800. A new church was then planned and the construction was started. This church was still under construction in 1822 but work was being held up by delay over the payment for some cattle which were being sold to raise funds and I am convinced by my study of the walls that the church was never completed. Manuscript evidence bearing on the construction of the new church is found in the burial record, where Padre Ramon Liberos made an entry to the effect that on December 13, 1822, he had removed the bodies of Padres Carrillo and Gutierrez from the old church to the new and buried them on the Gospel side of the altar. From this evidence it is reasonable to assume that the present church was still under construction at the death of Padre Gutierrez, which occurred in 1820, and he was buried in the old church. By the latter part of 1822 the new church was nearly enough completed to be dedicated and, the old church being abandoned, the bodies of these fathers were removed to the new, to prevent desecration. On the evidence as it stands, we cannot assume the present mission walls at Tumacacori to date earlier than 1800.

The Tumacacori Mission must have been abandoned soon after 1824. Prof. Thomas Davies, superintendent of the Aztec Syndicate Mines, wrote that when he first passed down the Santa Cruz Valley in 1849, the church roof was nearly intact and much of the interior was in a good state of preservation. There were many fruit trees, pomegranates, peaches, etc., bearing profusely, and the wall that once inclosed the orchard and garden could still be traced by the eye.

In the last report, dated 1860, made to the mining organization of which he was the general agent, Prof. W. Wrightson thus describes the Tumacacori Mission.



Interior of nave after restoration of roof.

"The church is an adobe building plastered with cement and coped with burnt brick. The front is of the Moorish style, and had on the southeast corner a tower, the top of which was burnt brick. The roof of the church was flat and was covered with cement and tiles. The timbers have now fallen and decayed. The chancel was surmounted with a dome, which is still in good preservation. Adjacent to the church, in the form of a hollow square, were the residences of the priests, containing spacious and airy rooms, with every evidence of comfort and refinement, while surrounding these in the interior, was an arched colonnade, forming a shady walk around the whole inclosure. To the east of this square of sumptious residences was an oblong building, where the metallurgical operations were carried on. Here are still the remains of furnaces and quantities of slag, attesting the purpose for which this was formerly used; and further still to the east was the garden, including about five acres and surrounded by a cahone wall. The acequia passed through this, and here are the remains of a bathing place and washing vat. There are also fruit trees and vines still growing; while in the rear of the church is the campus santi, a burial ground surrounded by a strong adobe wall, well covered with cement, and even now the best inclosure in Arizona. To the south of the mission building, and fronting the church, was laid out a large plaza, which was surrounded by peon houses, thus forming a respectable village."

The following description of the Tumacacori Mission is divided into an explanation of the church; the cemetery and mortuary chamber; outer buildings and enclosures; and miscellaneous structures.

THE CHURCH

The church building is built for the greater part of sun-dried adobe bricks laid in mud mortar. The walls are between five and six feet thick at the base and are offset about half way up on the outside so they are about 39 inches thick at the top. In places where great weight was to be carried, as in the tower, the walls are nearly 10 feet thick. Where they were exposed to the weather and erosion was liable to occur, burned bricks were substituted for the softer sun-dried adobes. The facing walls of the bell tower were of burned bricks, backed or filled with a rubble construction of rocks and mud.

The church lies northerly and southerly with a width in front, including the tower, of about 52 feet and a length on the west side of about 104 feet. The plan has three essential divisions; the church room proper, the sacristy, attached on the east side at the north end of the church;



Sacristy doorway from the Sanctuary side.

and the tower, attached on the east side at the south end of the church.

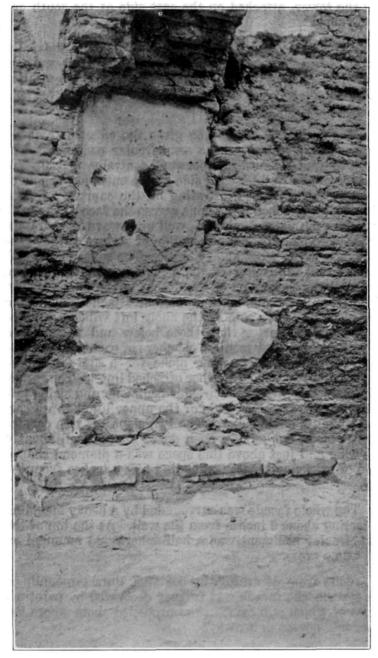
Approaching from the south, the visitor finds the facade of the church in bad condition. The tower was considered as a separate unit in the design and the decoration of the facade was not carried across its base, but was confined to the front of the church.

The design of the facade gives the effect of a lower story, an upper story, and a semicircular pediment. The entrance was an arched doorway, centrally placed. the face of the wall on each side of the entrance, a pair of columns were attached. Resting on the capitals of these columns, an attached lintel runs across the face of the wall. Between each pair of columns, well up toward the capitals. niches were placed for the reception of statues. Above the lintel, comes the second story effect. The square choir loft window was the center of the design here as the arched entrance was the center of the design in the lower section. Mounted on the lintel, were four other attached columns, a pair placed on each side of the choir loft window. These columns were shorter than those below and were placed closer together. Between the members of each pair of these upper columns, was another niche for a statue. columns in turn carried another attached lintel. The facade was completed with a semicircular pediment, and rising into this pediment from the ends of the upper lintel ran a cornice, giving a gable effect. The two slopes of this cornice did not meet, but left an open space on the wall about 4 feet wide and just above this space was a diamond shaped plate of bricks and motar extending a few inches from the wall.

The whole facade was surrounded by a heavy moulding projecting about 6 inches from the wall. At the top of the semi-circular pediment was a half-sphere and mounted on this was a cross.

Aside from decoration by columns, lintels, mouldings, and statues, the facade was further decorated by painting, traces of which still exist in the protected spots where the rain could not wash it away.

One enters the church by way of the arched doorway which is 6 feet wide and 9 feet 6 inches high. This doorway is now closed by a pair of doors made to represent the



Remains of one of the altars in the base of a pilaster.

original ones, each about 10 feet high and 4 feet wide, pivoted at top and bottom instead of swinging by metal hinges.

The church room is 17 feet wide and nearly 90 feet long in its inside measurements. It has three well marked sections; the vestibule; the nave; and the sanctuary.

Upon passing through the entrance the visitor is in the vestibule or space which was covered by the choir loft. This choir loft occupied about 13 feet of this end of the church, being supported on three sides by the walls of the church and in the front by the choir loft arch. This arch has fallen, but the pilasters remain attachede to the walls, the one on the west being complete up to the spring line of the arch. It is to be hoped that we will sometime be able to restore this choir loft as sufficient traces remain to determine its original construction.

To the right of the doorway as one comes into the vestibule is a tunnel-like passage which leads through the 9 feet of solid wall to the baptistery which is located in the base of the tower.

The comparative lowness of the vestibule, the height to the under side of the choir loft being about 10 feet, must have emphasized the height of the nave, the roof of which was about 24 feet above the floor, and, by contrast, have made the nave and sanctuary seem higher than they really were.

Traces of the holy water fonts still show, one being on each side of the nave a little distance in front of the choir loft arch.

The nave of the church was long and narrow and was lighted by two rather small windows on each side placed high up in the walls. Brilliant lighting was not wanted, as the decorations of the interior were rather crude and would show to a better advantage in a subdued light. No seating arrangements were provided. Persons attending services could walk from place to place in the nave and could kneel before the altars.

There were three altars on each side in the nave of the church. The front and rear altars were nearly indentical in plan and elevation. They had floor bases 8 inches high and about 5 by 7 feet square, upon which the Padre could stand when he officiated at the altar. Rising from this floor base was the altar base, 6 feet long, 2 feet high



and 2 feet wide, which was surmounted by a flaring moulding or top 14 inches high, making the top or table of the altar about 4 feet above the floor of the church. Here stood the furniture of the service. Above the altar, in the wall of the church, was a large niche for a statue and this niche was surrounded with a double frame worked out of plaster. The inner frame consisted of a column on each side of the niche bearing a lintel across the top, and the outer frame was a simple moulding running up in straight lines from the edges of the altar and forming a gable at the top in two of the altars and a semi-circle at the top in the other two.

A pier occurs attached to the wall on each side of the nave about the center of the church. I think the intention when designing this church was, to roof the nave with a barrel vaulted brick roof, and these piers were built with the idea of later springing an arch from them which would strengthen the vaulted roof. The church was abandoned before this vaulted roof was attempted. This theory will account for the great thickness of the walls of the Tumacacori as compared with all the other walls of the churches of this chain. The walls of the church of San Ignacio, built during Jesuit times prior to 1769, originally carried a flat roof and they were made only 41 inches thick all the way up. Later, the Franciscans being placed in charge, the flat roof was removed and a barrel vaulted brick one built. They thought the walls of the nave were too light to carry the thrust of the new roof, so they built great rock buttresses 17 and 18 feet square, tapering upward against the outer walls to carry the thrust of the new roof. I think, with this example in mind, the designers of the Tumacacori looked forward to the vaulted roof and took care of its future strains in the six foot walls.

A smaller altar was built in the base of each of the piers. The pier had a niche near the base for a statue and another about half way up the wall.

Other plaster decorations in the form of 14 molded plaster medalions about 18 inches high by 12 inches wide were spaced about the walls of the nave. These must have been the Stations of the Cross used in the Catholic ritual. I was able to account for only 12 of these medallions until recently, I found an old photograph showing the missing two on the now fallen arch of the choir loft.

Near the front of the nave, on the east side, one can see the pulpit entrance. The pulpit itself has long since fallen, but enough evidence remains to show how it was constructed. It was located in the angle formed by the pier which supported the sanctuary arch and the east wall of the nave. A brick corbel built in this angle of the walls extended up and out far enough to form the floor of the pulpit. Entrance to the pulpit was gained, not from the floor of the nave or sanctuary, but by way of a series of steps leading up from the sacristy through the wall of the nave.

Dividing the sanctuary from the nave is a fine arch, still in good condition. This arch carries the front wall of the sanctuary which ran several feet higher than the walls of the nave.

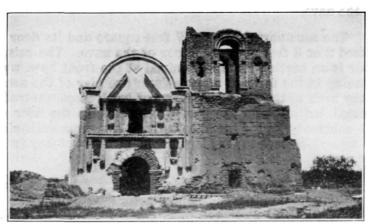
The sanctuary is about 17 feet square and its floor is raised 2 or 3 feet above the floor of the nave. The raised floor is an earth fill and is retained at the front by a wall running in the form of a circle from one pier of the sanctuary arch to the other. A series of brick steps, centrally located, led up from the floor of the nave to the floor of the sanctuary and a brick balustrade ran from each side of these steps back to the piers, dividing the sanctuary from the nave.

The whole back wall of the sanctuary was filled with the high altar and its subsidiary decorations and statues, now defaced and destroyed until parts of the original design are probably lost to us forever. The sanctuary is covered with a dome which is decorated on the inside with conventional designs painted in several colors. The four corbels which spring from the corners to carry the dome, bear symbolic paintings. Well up on the walls of the sanctuary one can see where 12 frames have been attached, surrounding paintings or medallions. These frames may have held portraits of the twelve apostles. A niche in the west wall of the sanctuary held a statue.

An arched doorway leads through the east wall of the sanctuary into the sacristy. The floor here is about a foot lower than the floor of the sanctuary. The sacristy is a large room, measuring about 17 by 20 feet, and is covered with a barrel vaulted brick roof. This roof springs from the east and west walls and is supported in the middle by an arch. Poor designing is shown here in that both ends of this supporting arch spring from the side walls directly over doorways. The walls of the sacristy were not decorated nor were cupboards or closets built in them as was often the case in the other churches in this country.

In addition to the door entering from the sanctuary, the sacristy had a window through the north wall which looked into the cemetery, a doorway in the east wall which led into the quadrangle of rooms on that side of the church, and the passage above mentioned in the west wall by means of which the priest entered the pulpit.

The tower of the church was three stories in height. The first story was used as a baptistery, the second story was to be a robing room for the choir and the third story



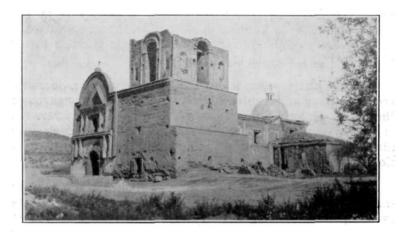
carried the bell arches. A stairway leads up from the ground floor, being built in the north, west and south walls of the tower. This stairway comes up into the bell tower at the foot of the south bell arch.

The baptistery was a small room, entered by a doorway from the nave and lighted by a tunnel-like window through the 9 feet of solid wall in the south side of the tower. It is roofed with a perfect little domed ceiling which was nicely plastered, but the walls and ceiling show no decorations.

At the east end of the north wall is a low doorway through which one enters the stairway. The stairs rise two steps to a landing within the wall and then turn west in the north wall. They turn again at the northwest corner of the tower and reach a landing on the second floor near the center of the west side. From this landing a door opens to the west through the church wall and another to the east into the robing room. This room is approximately the same size as the baptistery below it. Provision was made for lighting the robing room by a V shaped slit in the east wall, arranged with the apex of the V pointing outward. Local tales have it that this slit overlooks the mines in the mountains across the river where the Padres acquired their fabulous riches. No closets or cupboards occur in the walls of the robing room and I think the room was never finished. Beams were laid in the wall above to carry the ceiling of this room, but the actual ceiling, which would have been the floor of the bell tower above, seems never to have been laid.

After passing the two doors on the landing, the stairs rise again, turn in the southwest corner of the tower and come up and out at the foot of the south bell arch.

Burned brick was used for an outer shell in the construction of the bell tower and was backed or filled with a mixture of mud and large rocks. The bell arches are about 5 feet wide, 5 feet thick, and 10 feet high. The four faces of the bell tower were identical. Centrally located in each face was the great bell arch with its beam of wood near the top from which the bell was hung. The face of this arch, at the top, projected several inches in the form of a moulding made of specially cast bricks. Framing the arch at a distance of a foot or more ran another moulding made of a different type of special brick. At the corners of the



tower another decorative moulding was carried up. Between the frame of the arch and the moulding at the corner, in the outer face of each pier of the bell tower, was a niche for a statue. These niches had brick corbels built in at their bases and their tops are beautifully worked out in a shell design with a fine grade of plaster, the only finishing plaster on the whole bell tower.

Undoubtedly it was the intention to finish the bell tower with a moulded brick cornice, surmounted by a dome with a cross over all, but, for lack of funds, the work was never carried to completion.

The outside walls of the church were finished with a double coat of lime plaster. The lime was obtained by burning stone which can be found in the vicinity of the mission. Above the offset line, or on approximately the upper half of the walls, the plaster was floated smooth and left without decoration, but on the lower half of the walls a peculiar form of decoration was used. Fragments of brick and black slag were crushed until the pieces were about the size of grains of corn. Before the plastered surface of the wall had hardened, the workmen went over it, slapping half a handful of these red and black pebbles into the soft plaster at intervals of about a foot in regular lines which ran vertically, diagonally, and in a horizontal direction. The black and red mixture makes an interesting decoration in the white lime plaster.

Drainage from the roof was handled by means of 14 downspouts moulded against the walls. These were not

tubes, such as we use to care for roof drainage today, but were open, shallow valleys, moulded of lime against the wall, carrying the water from the cornice to the base of the wall, where it was probably taken away in open ditches.

CEMETERY AND MORTUARY CHAMBER

The cemetery lies just back of the church and is about 176 feet long and 61 feet wide. It was surrounded on the west, north, and part of the east sides by a wall 2 feet thick and about 8 feet high. Part of the east and the greater part of the south sides were taken up by buildings, the latter being the rear of the church.

The original cemetery wall is in a fair state of preservation except at stretch of about 50 feet on the west side and 30 feet on the east side which had fallen and which we have now rebuilt. The wall was made of unburned adobe bricks, capped with burned bricks and covered inside and out with two coats of lime plaster. The outside of the wall was decorated with fragments of slag and brick in the same manner as the lower wall of the church. The inside was finished with a smooth coat of lime plaster. Large niches occur at regular intervals on the inner side of the wall, probably the 14 Stations of the Cross.

There are a number of graves in the cemetery, but only one of them seems to be of any great age. The local population still considers the ground especially sacred and have made numerous burials there in the last few generations.

The main feature of the cemetery is the mortuary chamber. This building was circular form, measures about 16 feet in diameter inside and had a single doorway opening to the west. The evident intention was to roof it with a dome, but the work was never completed. The first coat of plaster was put on the inside of the wall, but no traces of the second, or the finishing coat, show and it was probably never applied. A single coat of plaster has been applied to the outside and fragments of crushed brick are bedded in it. It is a question wether this was for the purpose of binding the finishing coat to the first coat, or whether it was a decorative scheme, and, making a success of it here, they went further in the church wall, adding the black slag and putting the decoration on in lines.

The cemetery was entered opposite the mortuary chamber by means of a gateway in the west wall. Traces



of this gateway were discovered in some excavations and it is now restored.

OUTLYING BUILDINGS

There are numerous other buildings around the Tumacacori Mission, but the walls being thinner and probably not so well plastered as the church, they have suffered more from erosion and are now, for the greater part, down in mounds.

A two story dormitory building lies just east of the cemetery, the west wall of the building acting for its length as the east wall of the cemetery. There is quite an angle between the axes of the two structures and the explanation probably is that the dormitory was built first, and when the cemetery was laid out behind it, its wall was used for a closing wall regardless of its being slightly out of line. The walls of the dormitory stand nearly the two full stories high, but the roof and floors are gone. There were two large rooms on the ground floor and a rather pretentious flight of steps led up from a large door in the middle of the east wall to the floor above.

Running east from the north end of the dormitory, which dates as a later addition to them, is a row of rooms, now down in a long, low mound. They are presumed to have been living rooms when they were first built, but upon the erection of the dormitory, the rooms may have been used as shops, storage rooms, etc.

Another row of rooms runs east from the tower of the church. These rooms form the south, the church the west, the row of rooms east from the dormitory, the north, and a low mound of earth indicates a wall on the east side of a quadrangle. This quadrangle forms the "Residences of the priests, containing spacious and airy rooms, with every evidence of comfort and refinement," mentioned by Prof. Wrightson, though some doubt may reasonably be felt about the evidences of comfort and refinement which would be visible in rooms raided and destroyed by Apache Indians, and then exposed to 30 odd years of vandalism and erosion before he saw them.

The oblong room on the east side of this quadrangle, mentioned by Mr. Wrightson as the building where metal-lurgical operations were carried on, has not yet been identified. The mound of debris does not indicate more than a wall on this side of the quadrangle although excavation might possibly develop rooms.

The plaza mentioned as being south of the church is well marked on its west side by a mound of debris formed by the fallen walls of a row of rooms which joined the church at the southwest corner and ran southward. The south and east sides of this plaza are not so well marked, but may have been made up of houses of a more temporary character which have not left much evidence.

West of the church are a number of small heaps of debris, probably the remains of small, one room houses erected by the neophytes forming a clustered village like



that which still nestles around the foot of the San Xavier Mission to the north.

OUTLYING STRUCTURES

A pit, possibly used for the burning of lime or charcoal, has been found about 100 yards north of the church. It was a cylindrical pit some 7 or 8 feet in diameter and about 8 feet deep, lined with adobe bricks which have been burned quite hard. Excavations disclosed charcoal at the bottom of the pit with partially burned limestone above and quite a lot of rejected material lying about the pit.

Another large pit occurs inside the cemetery wall toward the north end of the cemetery. It is possible that this is another lime pit used before the site of the cemetery was chosen and abandoned when it was decided to enclose this ground with the cemetery wall, or it might have been used as a bell pit in casting the mission bells.

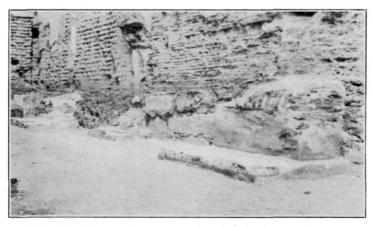
A low mound occurs about 200 yards south of the church and was thought, from its size, amount of material, etc., to be the site of the old church. Excavation however proved it to be the kiln where the bricks for the present church were burned. During the past year, further efforts were made to locate the older church, but all efforts so far have been unavailing.

The walls surrounding the orchard, garden and field can still be readily traced; stretches of them still stand and their location is shown at other places by the line of boulders which formed their foundations.

RESTORATION

Such was the condition of the Tumacacori when it came into the hands of the United States government as a National Monument in 1908. Since then, the National Park Service has carried on restoration work from year to year as funds became available. To summarize briefly, the grounds have been cleaned and fenced and some trees planted; the roof has been restored to its original state as nearly as might be, and a protective roof placed above it; the interior of the church has been cleaned out and the doors, steps and pulpit steps restored; the cemetery walls have

been rebuilt in the ruined places; the pilars located and restored. Many and interesting were the problems involved in this restoration and great was the labor in carrying it out. The work is not yet completed, but much more is planned until the point is reached when restoration becomes re-building.



East side of nave after excavation showing bases of altars.

