FRANK RUSSELL was an early and dedicated member of the anthropological profession whose detailed work on the material culture of the Piman people was accomplished in Arizona virtually on the eve of his death from tuberculosis. A member of the Harvard Faculty of Arts and Sciences, in 1900 Russell was given leave of absence for field work on the Gila River Reservation for the Bureau of American Ethnology. By contrast, his previous investigations had been among the tribes around Great Slave Lake and Herschel Island in the Arctic Sea. Russell's distinction as researcher and author is relatively little known to modern students of anthropology because his career was cut short at age 35. By that time he had completed this standard reference work on the Gila River Pimas, originally published as part of the Twenty-sixth Annual Report of the Bureau of American Ethnology, 1904-1905.

This re-edition of The Pima Indians is dedicated to the memory of José Lewis O'odham scholar and author, and to the modern descendants of the Akimel O'odham.
was the prevailing mode of disposing of the dead, as it was also on the lower Gila and the Salt river. Nothing was learned to indicate that the Sobalpuris of the San Pedro practised incineration. If some of the clans of the Hopis or Zuñis are to be identified with the Hohokam of the Gila, as is maintained by some of the most able authorities upon Southwestern archeology, how is the total disappearance of this primal custom to be explained?

There is a strong belief among the Pimas that they came from the east. It is in that quarter that the abodes of their dead is located. Their gods dwell there. Their beliefs do not seem to have been influenced in this respect or least through contact with the tribes of Yuman stock who have an oracle to the opposite direction. There are vestiges of a tradition that the Pimas were once overwhelmed by a large force of warriors who came from the east and destroyed nearly all the people and devastated the entire Gila valley. This does not appear to be another version of the account of the invasion by the underworld clans. While the majority of the Pimas declare that their people have always lived where they now are, or that they came from the east, there are some who say that the Hohokam were killed by an invasion from the east before the Pimas came.

The Pimas formerly regarded the ruins with the same reverence or aversion which they felt toward their own burial places. After the excavations made by the Hemenway Expedition on the Salt river, as no disasters followed the disturbance of the dead, they grew less scrupulous and can now readily be hired as workmen to excavate the ruins or ancient cemeteries.

Contact with Spaniards

From the meager records of the Coronado Expedition of 1540–1542 it has been surmised that Chichilicati was the Casa Grande, but this statement lacks verification. After traversing the entire southern and eastern part of Arizona the writer cannot but believe that it is extremely improbable that Coronado saw the Casa Grande and the neighboring Pima villages. For a century and a half after that invasion no white man is known to have reached the territory of the Pimas Gilenos.

The earliest as well as the most important explorer in the history of Pimeria Alta was Father Eusebio Francisco Kino, who, between the years 1687 and 1710, journeyed many a dusty, thirsty league in the eager search for souls. In 1694 he reached the Casa Grande in company with native guides who had informed him of the existence of the ruin. Absolutely nothing is known about this expedition except that a mass was said within the walls of Casa Grande. However, it may be safely inferred that Kino visited the near-by Pima villages. As the Papagos were at that time also called Pimas it is sometimes difficult to determine what part the true Pimas played in the events chronicled by the padre. Yet it is probable that they are referred to in the account of the religious festival which was observed in 1698 at Remedios, in Pimeria Baja. Among the visitors were "native chieftains from as far north as the Gila valley." Then as now the Pimas and Papagos were on a friendly footing, and the character and movements of the Spaniards must have been made known to the Pimas before the latter saw Kino or any other white man.

Kino diligently strove to establish missions among the many tribes that he visited, but was much hampered by lack of funds. He succeeded in interesting the authorities sufficiently to induce them to send a military expedition to the Gila in 1697 for the purpose of ascertaining the disposition of the Pimas. The party included 20 soldiers, with 3 officers. Juan Mateo Mange was sent with Kino to write the official reports of the expedition. On the upper San Pedro river 20 Sobalpuris joined the party, which followed that stream to the Gila. They reached the Pima villages on the 21st of November, visiting and for the first time describing the Casa Grande. The return was by the more direct route of the Santa Cruz valley. It was by this route also that Kino in September, 1698, again descended to the Pimas with a small party of native guides. He returned by way of Quijotos (1) and the Gulf.

Early in 1699 Kino, in company with Mange, made his fourth journey to the Pimas by way of Sonoita and the lower Gila. The return was by way of the Santa Cruz.

A year later Kino again reached the Gila by a new route. From a point above the Bend, and hence doubtless among the Pimas, he ascended to the mouth and returned to Sonora by way of Sonoita.

In 1702 he made his sixth and last journey to the Pimas, going by way of Sonoita and the lower Gila. Among the "40,000 gentiles" he is said to have baptized there were quite a number of Pimas, as his sojourn among them was never of more than a few days' duration. His influence could not have been very great. Nevertheless,
he gave away great quantities of beads, and as the people already valued highly those of their own manufacture it is probable that they readily accepted Kino’s statement that magic power resided in the new beads of glass. At any rate, the writer has found very old glass beads on all Pima shrines and has no doubt that some of them were brought by Kino. The first horses, also, to reach Pimeria were brought by these expeditions. There is no record of any cattle being brought so far north, though they were generally distributed to the Papago rancherías in Kino’s time.

After the death of Kino, in 1711, no Spaniard is known to have reached the Gila or even to have entered Arizona for a period of more than twenty years. In 1731 two missionaries, Father Felipe Segresser and Juan Bautista Grasshofer, took charge of the missions of San Xavier del Bac and San Miguel de Guevevi and became the first permanent Spanish residents of Arizona. In 1736-37 Padre Ignacio Javier Keller, of Suamco, made two trips to the Pima villages on the Gila, where he found “that many of the rancherías of Kino’s time had been broken up.” Again in 1743 Keller went up to the Pimas and endeavored to penetrate the Apache country to the northward. Communications by means of native messengers indicated a desire on the part of the Hopi to have Jesuit missionaries come to them from Sonora. The point of greatest interest to us is that any communication should have existed at all. Keller failed in his attempt on account of the hostility of the Apaches, and Sedelmaier, who tried to make the journey in the following year, was unable to induce the Pimas or Maricopas to accompany him. In 1748 Sedelmaier reached the Gila near the mouth of the Salt river and journeyed westward. Of his trip to the Gila in 1750 little is known.

Accounts of these earliest missionaries of course preceded them by means of Papago messengers, who doubtless made clear the distinction between the slave-hunting Spanish adventurers and the Jesuits and Franciscans. Fortunately for the Pimas they were quite beyond the reach of the former and were so remote from the Sonoran settlements that only the most devout and energetic friars ever reached them.

The first military force to be stationed in Arizona was a garrison of 50 men at Tubac, on the Santa Cruz. This presidio was moved to Tucson about 1776, and in 1780 the garrison was increased to 75 men. Even when at Tucson the influence of this small force on the Pimas could not have been very great. Between 1768 and 1776 Padre Francisco Garcés made five trips from San Xavier del Bac to the Pimas and beyond. The fifth entrada was well described in Garcés’s Diary (admirably translated and edited by Elliott Coues under the title “On the Trail of a Spanish Pioneer”), though he exhibited a pitiful waste of opportunities for ethnological observation among the Pimas.

From this time forward until the American occupancy of the Gadsden Purchase in 1853 the Spanish and Mexican population of Tucson varied from 500 to 2,000, and there was more or less trade with the Pimas either at the post or through small trading parties that went from Tucson to the Gila villages.
daylight. The Apaches ran confusedly about without their weapons; fifteen were killed and many guns, bows, and quivers were captured. Blackwater. At the hill, Kā'matūk, somewhat detached from the Sacaton on the northeast, a man was bitten by a rattlesnake and died.

At about the same time the Pimas killed an Apache who was known as Vakoa, Canteen, near the Superstition mountains.

1872-73

_Gila Crossing, Salt River_. For several years the Pimas had had little water to irrigate their fields and were beginning to suffer from actual want when the settlers on Salt river invited them to come to that valley. During this year a large party of Reotūk Pimas accepted the invitation and cleared fields along the river bottom south of their present location. Water was plentiful in the Salt and the first year's crop was the best that they had ever known. The motive of the Mormons on the Salt was not wholly disinterested, as they desired the Pimas to act as a buffer against the assaults of the Apaches, who were masters of the country to the north and east.

Salt River. It was during this winter that the United States soldiers and the Pima, Maricopa, and Apache scouts surrounded the Superstition Mountain Apaches at the "Tanks" and rained bullets into their ranks until not a single man remained alive. "It was a sight long to be remembered," said Owl Ear, in narrating the circumstances.

1873-74

_Gila Crossing_. Ku-ukamūkam, the Apache chief, and his band were killed by the soldiers and Pima scouts.

Kamūk Wutcā Ā-ātam, People-under-Kā'matūk, or the village at Gila Crossing, was settled during this year.

_Gila Crossing, Salt River_. The telegraph line was run through from west to east during the winter.

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*a* By Executive order of June 14, 1879, the land occupied by the Pimas on Salt river was set apart as the Salt River reservation. It embraces about three townships on the north side of the river about 30 miles north of the original Pima villages. There are several large ruins and at least one large canal upon the reservation that were built by the Hohokam. By an arrangement with the canal companies the Pimas have insured for themselves a constant supply of water, and the Salt River community is regarded as the most prosperous among the Pimas.

*b* This sharp engagement took place on the 26th of December, 1872, in the canyon of the Salt river, south of the Mazatzal mountains. It has been graphically described by Capt. John G. Bourke in On the Border with Crook, 191-200. He states that 76 Apaches were killed and 18 captured, 10 wounded men was overlooked and made his escape. "Lead poured in by the bucketful" and avalanche of bowlders was hurled down hundreds of feet from above upon the enemy.

*c* There is an unyielding supply of water at this place; the Gila, after flowing 75 miles beneath the surface, rises to form a stream large enough to irrigate several hundred acres.

*d* This was a military telegraph built from funds obtained by special appropriations from Congress. Arizona was fairly well provided with telegraph lines by the time the railroad reached Yuma, as there were more than 1,000 miles in operation in the Territory.
gravel and are mounted on a handle. Gourds are never used in forms over which to mold pottery.

At least five varieties of beans are now cultivated. The best known, the tatocarpus, "white bean," is said to have been brought some forgotten time from the valley of the great "Red river of Colorado. Considerable quantities are raised and the threshing done by horses driven in a circle on the same hard floor that is prepared for the wheat threshing.

Not with the withering drought alone has the Gileño planter to extend, but also with the myriads of crows that are extravagantly fond of a corn diet, and with the numerous squirrels and gophers that thrive where protected in a measure from the coyotes, which themselves a menace to the fields. From the birds and predator animals the fields are guarded during the day by the boys, who amuse themselves meanwhile by a dozen games that develop skill in running; and shooting with the bows and arrows which scarcely leave the hands during their waking hours. Scarecrows, "men artificial," are used, but a fluttering rag was never as effective as a feathered strip hurrying from a well-drawn bow. Night marauders were in old times kept at a distance by the rings of the terrible cholla cacti, Opuntia bigelowii Engelm., that were laid up around the individual plants. Plate xir illustrates this cactus as it grows on the hills above Sacaton. It is recognized as the most effectually armed of the many cacti and is the symbol in Pima lore of impenetrability.

TRADE

STANDARDS OF VALUE

For purposes of trade or in gambling the following values were recognized: A gourd was equivalent to a basket; a metate, a shell necklace, or the combination of a basket and a blanket; a strand of blue glass beads was equivalent to a horse; a string of blue glass beads four yards long was equivalent to a bag of paint; and a basket full of beans or corn to a cooking pot.

MEASURES

The principal linear measurement was the humakà os, "one stick, equal to the distance from the center of the breast to the finger tips."

The writer is inclined to regard this as a primitive Pima measurement notwithstanding its resemblance to the yard of the invading races. This corresponds with the Aztec ceyolloti, the Cakchiquel ru vivach, and the Maya betan. It was the basis of a sort of decimal system, as follows: Ten "sticks" made one "cut" of calico, equivalent to a "load" of wheat, or about 150 pounds. Ten cuts or loads were equivalent to one horse in value. Two units were employed in measurement of distances. One of these is an ancient measurement which it will be of interest to apply to the Hohekam ruins of the region. It is humakà kuirspa, "one step"—that is, one step with the same foot, equal to about 5 feet. Land is divided into plots 100 or 200 "steps" in width, according to the size of the family. Long distances were measured in terms of a day's journey on foot; thus it is said to be seven days to Zuni. The term "step" is also applied to the English mile, but they have had as yet little opportunity to acquire a definite knowledge of the meaning of the latter term.

BARTER

For a long period prior to 1833 the Maricopas lived at Gila Bend and came at harvest time to trade with the Pimas. Soon after that time they settled beside the Pimas, living upon such intimate terms with them that barter between the tribes was of no more consequence than between two Pima villages. With all other tribes they were perpetually at war, except with their Papago kinsfolk to the southward. These people live in a vast territory of cactus-covered plains, here and there interrupted by up-thrust barren peaks that, with striking outlines, form good landmarks and yet offer little to those that hunger and are athirst. The Papagos are a desert tribe, and yet so well had they mastered their all but hopeless environment that the trade which they carried on with the Pimas was by no means one-sided, as may be seen from the following list of products that were formerly brought to the Gila at the time of the June harvest. Of vegetable products there were saguaro seeds, the dried fruit and sirup; ce'aldí, a small hard cactus fruit; agave fruit in flat roasted cakes; agave sirup; rsat, an unidentified plant that grows at Santa Rosa; prickly pear sirup; wild gourd seeds; a small pepper, called tcol tipil; acorns of Quercus oblongifolia; baskets of agave leaf; sleeping mats; khías and fiber to make them; maguey fiber for picket lines. They brought the dried meat of the mountain sheep, deer meat, deer tallow in small ollas, buckskins, dried beef, tallow, cheese, and cords of human hair.

Cattle were formerly traded "sight unseen," but the modern "education" of the Papagos led them to exaggerate the good qualities of their stock and even to deal in "fictitious values," or cattle that the new Pima owner sought in vain to find, until finally the Pimas would consider no proposition to trade stock unless the animals were exhibited. Of mineral products they brought red and yellow ochers for face and body paint, and the buff beloved by Pima weavers. They

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1 The author of the Rudo Ensayo, who wrote in 1762, stated that "these very numerous nations [Papas and Maricopas] inhabit both sides for a distance of 36 leagues down the river, and at the far end of that territory there is a very abundant spring of hot water a short distance from the river to the north. This spring is now known as Ojo Caliente; it is at the southern end of the Eiighorn mountains." Later translations may be found in Records of the American Catholic Historical Society, vol. XX, 132.