

**EXCAVATIONS AT VALSHNI VILLAGE
PAPAGO INDIAN RESERVATION, ARIZONA**

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EXCAVATIONS AT VALSHNI VILLAGE
PAPAGO INDIAN RESERVATION, ARIZONA

by

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FOREWORD

This paper constitutes a report of the work accomplished during the winter of 1939-40 by the second in a series of projects concerned with archaeological investigations on the Papago Indian Reservation. These projects are under the joint supervision of the Arizona State Museum and the CCC-ID and have the approval of the U. S. Department of the Interior and the Papago Tribal Council. The excavations were carried on from November 7, 1939 to April 20, 1940, under the direction of Dr. Emil W. Haury and under the field supervision of the writer.

The working force was made up entirely of Papago men and varied from twelve to twenty-three. Juan Harvey was especially helpful in selecting the crew and as an interpreter. I wish also to express my appreciation for the cooperation and assistance given me by the personnel of the shop and the Agency office, especially that of Mr. Minton J. Nolan, head of the CCC-ID for the Papago Indian Reservation.

I am indebted to Mr. and Mrs. Alden W. Jones of Sells, Arizona, for courtesies extended to me during the course of the work.

I am sincerely grateful to Dr. Emil W. Haury, head of the Department of Anthropology at the University of Arizona,

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Dr. W. H. Burt, Curator of Mammals at the University of Michigan, Ann Arbor, Michigan, was kind enough to identify the animal bones.

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CHAPTER I

INTRODUCTION

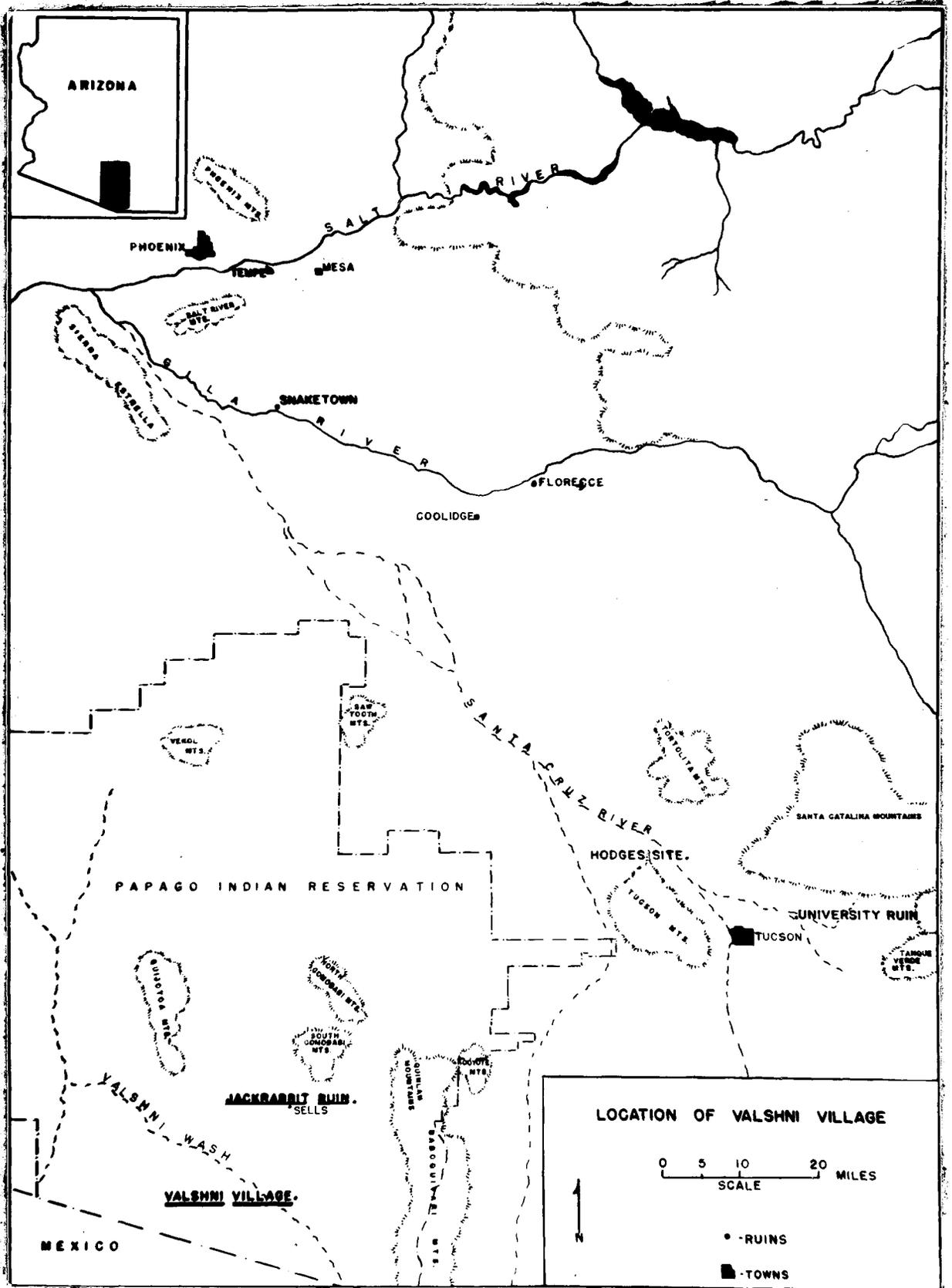
This report is concerned with the excavation of Valshni Village,¹ a surface ruin fourteen miles southwest of Sells, Arizona, in the Sells District of the Papago Indian Reservation (Fig. 1). The site is located in the Baboquivari² Valley on the adobe flats near the confluence of the Valshni and Fresnal Washes about one-half mile east of the Papago Village of Burro Pond. It is distinguished by five trash mounds rising above the desert level and by many sherd concentrations. The excavation of the site was in progress from November 7, 1939 to April 20, 1940.

Prior to 1938 no archaeological investigation had been carried on in Papagueria other than surveys conducted by Gila Pueblo³ and the Arizona State Museum. During the winter of 1938-39 the first excavation in the area was completed at the Jackrabbit Ruin under the field supervision of Frederick H. Scantling. This excavation served to define what was called the Sells Phase.⁴ However, this phase was found to

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1. Arizona State Museum survey number - Arizona DD:1:11.
 2. Sometimes referred to as the Vamori Wash.
 3. Gladwin, W. and Gladwin, H. S., 1929.
 4. Scantling, F. H., 1940.

Map showing the location
of Valshni Village and other
sites.

FIGURE 1



occupy a relatively late position in the local archaeological picture, and left unanswered what had occurred in the region prior to that time. Sherd collections from the surface at Valshni Village indicated that this site had had a long occupation prior to that at the Jackrabbit Ruin and would serve to establish a pre-Sells Phase horizon. Work was begun here in March, 1939, when Frederick H. Scantling, directing the Arizona State Museum CCC-ID project for that year, spent two weeks on the site conducting stratigraphic and general testing in order to determine whether or not it warranted further investigation. At this time stratitests were put through two trash mounds and some architectural evidence was picked up during the general testing. The following winter the entire season was devoted to the excavation of the site. Two phases prior to the Sells Phase were established. The older of these phases has been named the Vamori Phase and the younger the Topawa Phase,⁵ and it is with the diagnostics of these phases that this report is concerned.

5. These phases were named after the nearby Papago villages of Vamori and Topawa.

CHAPTER II

HABITAT

Valshni Village is situated in the middle of a broad flat covered with mesquite and creosote bushes (Plate Ia) and is approximately 2300 feet above sea level. None of the other typical flora of this desert region was found on the site as most of these plants are found closer to the hills. No vegetal matter was found during the excavations, but many plants were undoubtedly important in the economy of the prehistoric occupants of the village.¹

That these people relied to a great extent upon hunting is shown by the quantity of animal bones found throughout the rubbish. Following is a list of the species represented and the number of occurrences for each in a collection of 286 pieces of bone from the general rubbish scattered over the site.²

Arizona Whitetail Deer (<u>Odocoileus couesi</u>)	---	1
Mule or Blacktail Deer (<u>Odocoileus hemionus</u>)	---	2
<u>Odocoileus</u> , unidentified as to species	---	140
Antelope Jackrabbit (<u>Lepus alleni</u>)	---	52
California Jackrabbit (<u>Lepus californicus</u>)	---	6

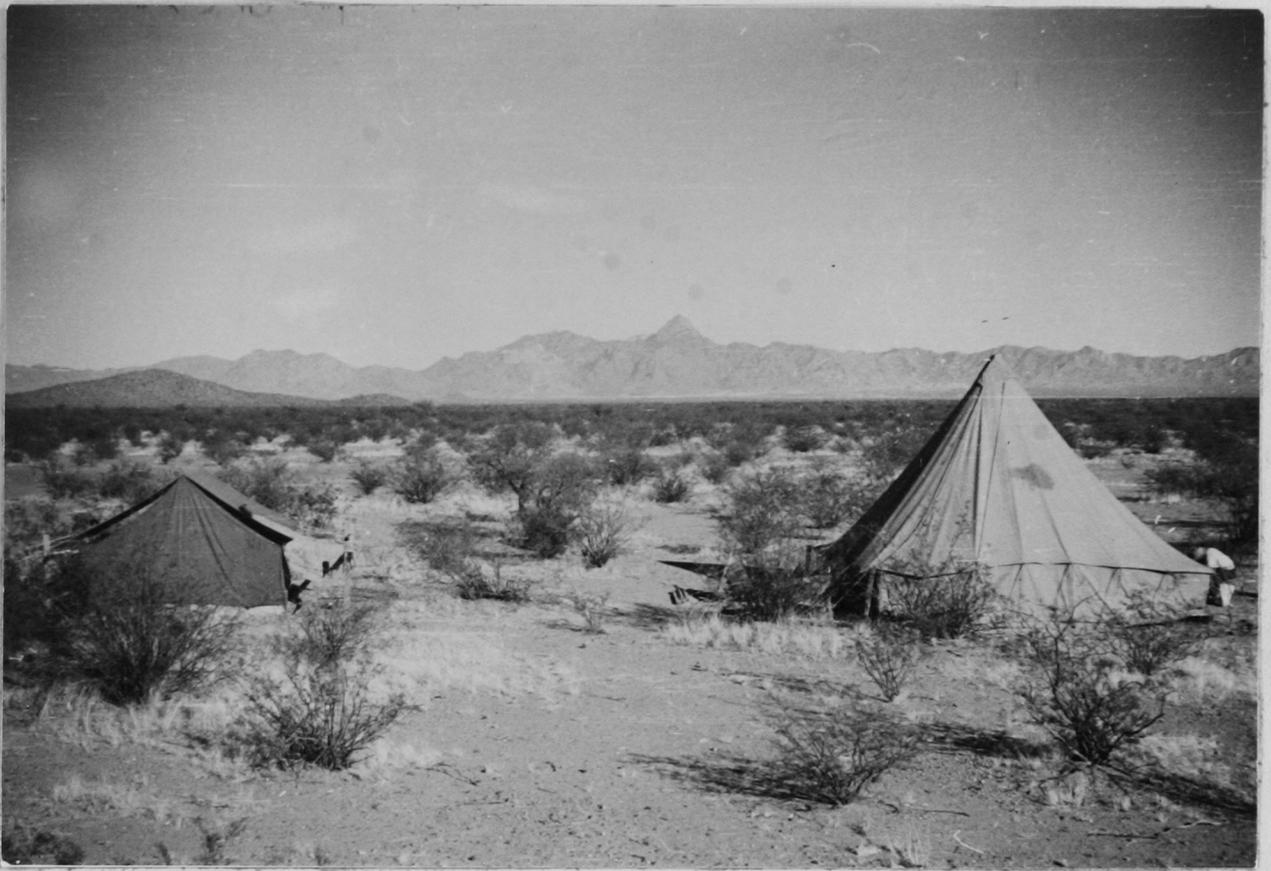
1. Scantling, F. H., 1940, p. 56

2. Identified by Dr. W. H. Burt, Curator of Mammals, University of Michigan, Ann Arbor, Michigan.

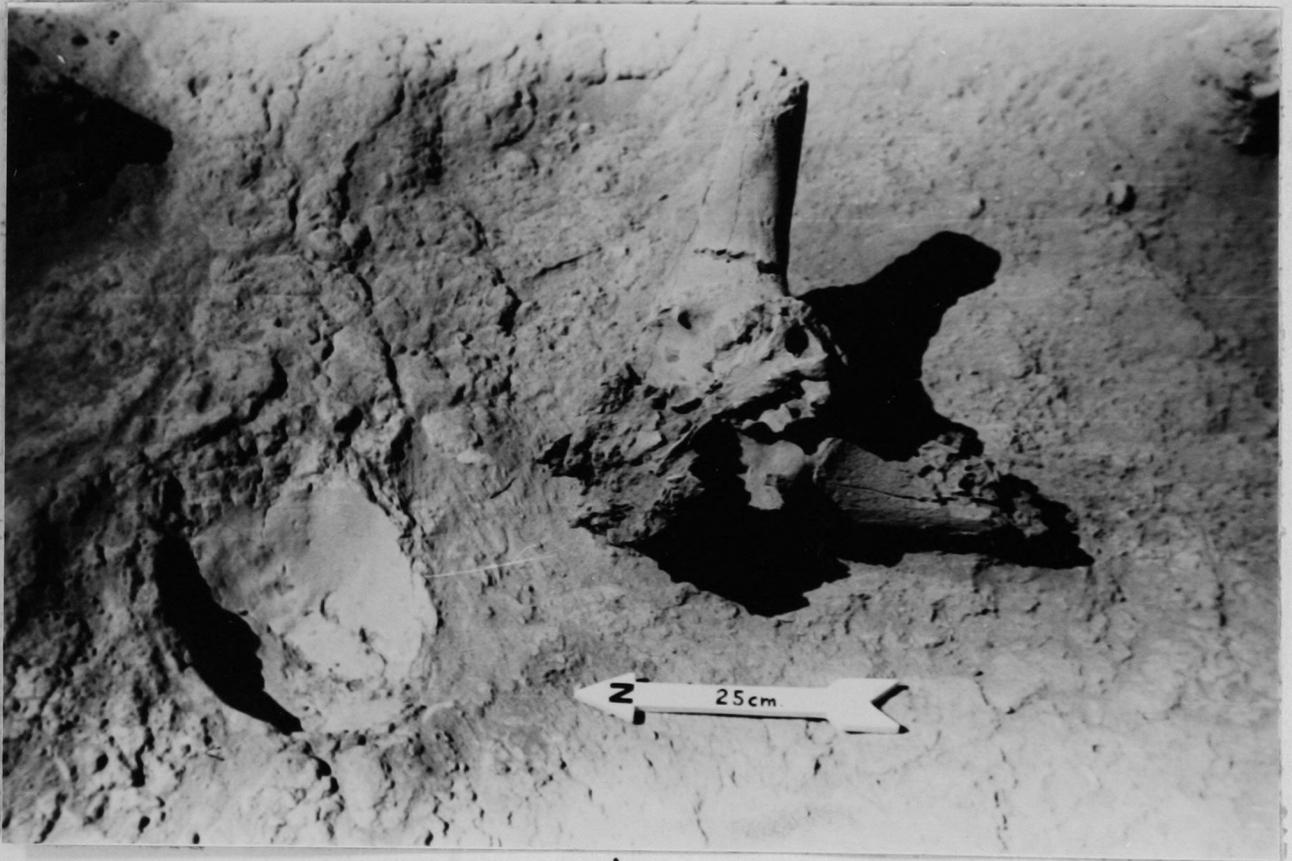
PLATE I

a. Looking east across the
Baboquivari Valley from
Walshni Village.

b. Mountain sheep horn on the
floor of House 22.



a



b

<u>Lepus</u> , unidentified as to species	---	80
Cottontail rabbit (<u>Sylvilagus</u>)	---	1
Coyote (<u>Canis latrans</u>)	---	2
Wildcat (<u>Lynx</u>)	---	1

An unexplained point is why there are no mountain sheep bones among these. During the excavations there were seventeen good specimens of mountain sheep horns (Ovis canadensis) recovered, and fragments of horns were found throughout the site. (Plate Ib). It is probable that bones of these animals were found but were broken beyond identification. Another point of interest is that no evidence of mountain sheep was found at the Jackrabbit Ruin. Mountain sheep have been in the region during historic times³ and were certainly there during the occupation of Valshni Village. So either there was a shift in the range of these animals during the Sells Phase or else they were just ignored by the people as a source of food. The latter seems more likely as there seems to have been no change which would have caused these animals to temporarily leave the country. The Sells Phase saw many changes in the local culture, among them an apparent intensification of agriculture over the findings in the Valshni Village. Probably this kept the people so occupied that they gave up using the animals which were the hardest and required the most time to hunt.

3. Lumholtz, K. S., 1912, p. 22.

Papagueria⁴ is an extremely arid and inhospitable land. "A warm climate, almost constant sunshine, and very little rain set the area apart as a land of small population, both animal and human."⁵ About 80% of the area is made up of valleys with an average elevation of about 2300 feet.⁶ The remainder of the area is composed of isolated mountain ranges and their pediments ranging from 3000 to 7,441 feet above sea level, the average elevation being about 4000 feet. Winter temperatures are mild, favoring a long growing season. The average rainfall for the region is from five to ten inches.⁷

The location, at least, of Valshni Village in the broad flats of the Baboquivari Valley was ideal for an agricultural community. Bryan says of this valley,

The streams on passing from the pediment to the alluvial slope lose their dissecting habit and form extensive adobe flats, which, with the resulting flood water fields, are characteristic of the floor of the valley.⁸

One of the chief problems of the residents of Valshni Village must have been their water supply. There is no evidence that any of the washes in the Baboquivari Valley have carried a permanent flow of water in recent times. This

-
4. That area bounded on the north by the Gila River, on the east by the Baboquivari Mountains, on the south by the Altar River, and on the west by the Growler Mountains. Lumholtz, 1912, p. 16.
 5. Bryan, 1925, p. 1.
 6. Ibid., p. 101.
 7. Ibid., p. 79.
 8. Ibid., p. 249.

may be an erroneous conclusion. However, if there was no permanent water at the time of occupation, it is probable that the people stored water in reservoirs for use during the dry season. They also may have moved to permanent springs and streams in the mountains when water in the valley was not available.

CHAPTER III

AGRICULTURE

It is said in the succeeding chapter on stone work that the evidence for an agricultural economy is not abundant. No one can say yet to what extent these people depended upon annual domestic crops. However, the location of the village was ideal for the practice of agriculture. At the present time there are many fields in the vicinity cultivated by the Papago. The closest of these fields are concentrated near the village of Burro Pond and are less than half a mile west of Valshni Village. Flood water farming is practiced by the Papago. During the summer, rainy season, the water is carried from the washes to the fields in irrigation ditches. Such a system could easily have been employed at Valshni Village in the same area that is now under cultivation.

No evidence was found to indicate that the occupants of Valshni Village did have any irrigation system, but during the course of the excavations a short canal was discovered one-half mile north of the site which showed that such methods were employed during the Sells Phase. Only one canal has been previously reported from Papageria.¹

-
1. A canal seventeen miles in length was discovered by the Arizona State Museum survey which runs in a straight line from the Fresno Canyon on the west side of the Baboquivari Mountains to a point a short distance southeast of the village of Vamori.

PLATE II

- a. Mound built up by dredging
on south side of canal.



a

b. Test I through the canal and
the mounds on each side.



b

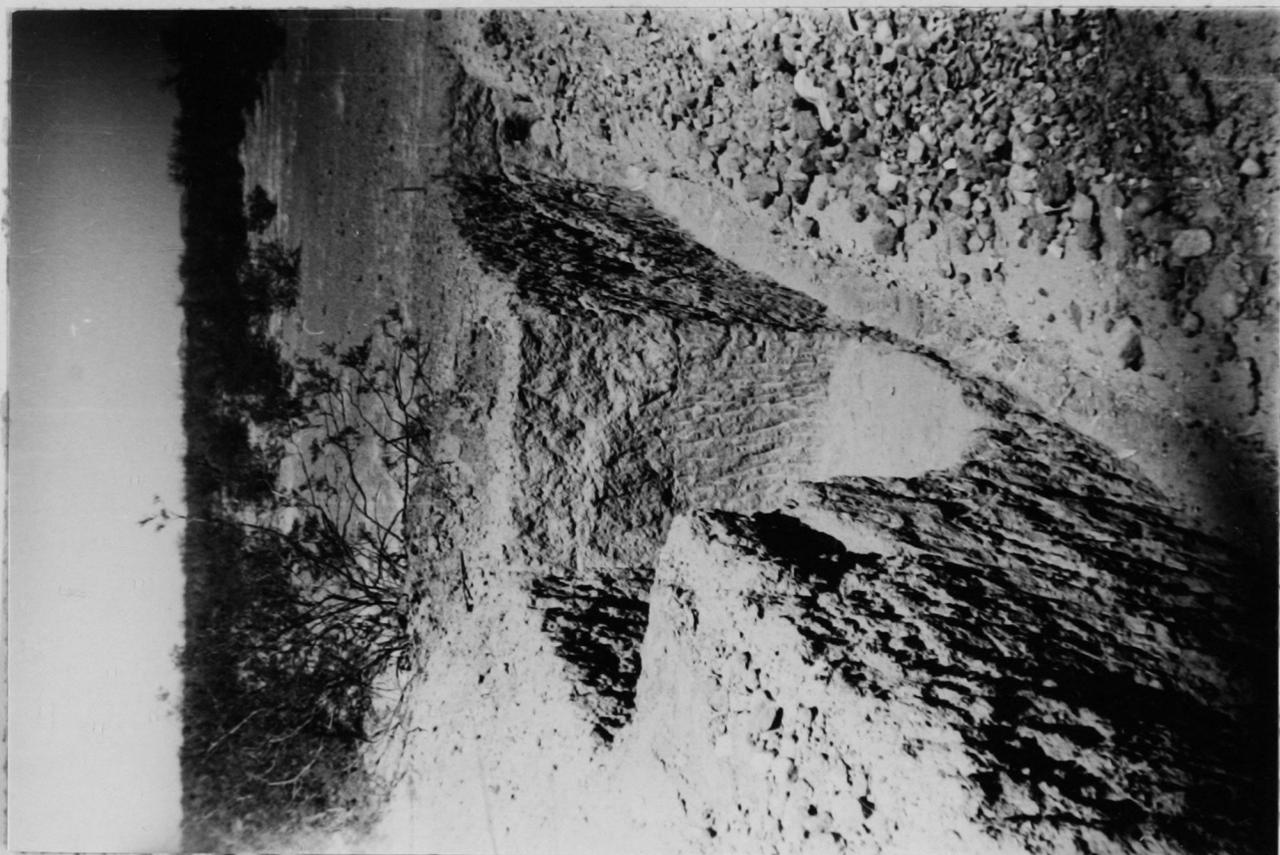
PLATE III

a. Digging Test II through
the canal.

b. Channel of canal in cross
section at Test II.



b



d

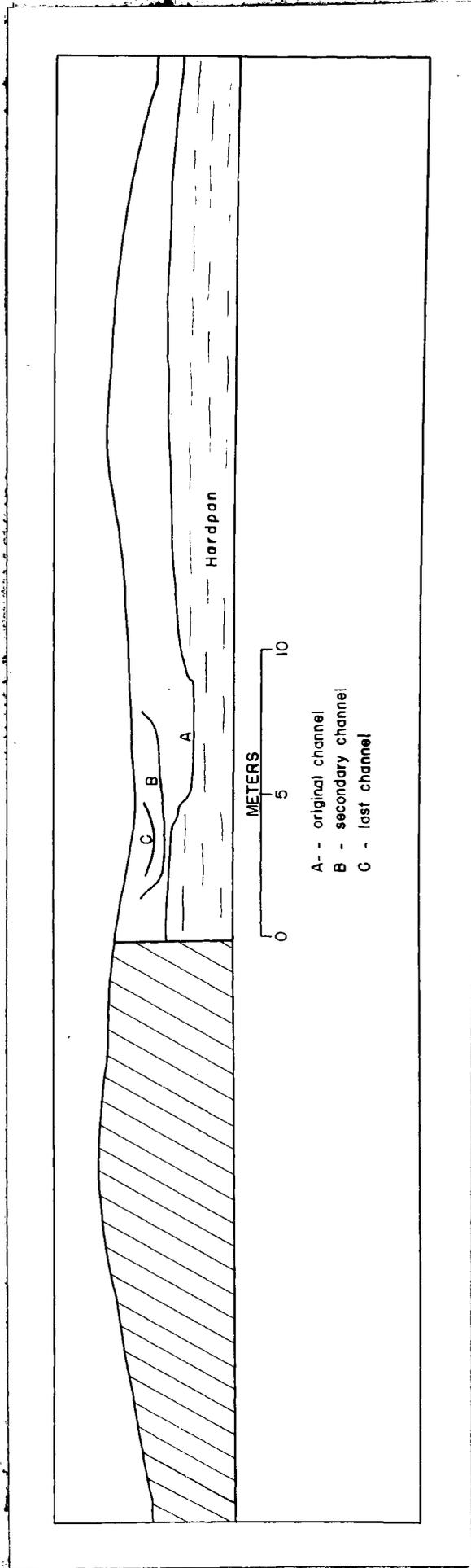
The canal was approximately one-half mile long and ran from east to west. On the surface the canal appeared only as two low gravel ridges with a depression between them, all being slightly above desert level. Attention was first called to it by two large mounds, devoid of pottery, obviously man-made, and rising from 1.30m. to 1.95m. above the desert (Plate IIa). It was found that the canal ran between these two mounds. Two trenches were dug across the canal, one at the point where the two mounds occurred (Plate IIb), and one which would provide a normal cross section (Plate IIIa, b). The former was designated Test I and the latter Test II.

Test II provided a good outline of the original canal (Plate IV). It had been dug into the hardpan, and the old channel was now filled with gravel and rock. The bottom of the channel was 1.60m. below the present surface and originally had been about 1.25m. deep. The original width at the top of the channel is estimated to have been about 3.0m. (Fig. 2).

Test I showed at least three different levels which had served as the bottom of the channel. Apparently Test I was dug almost at the end of the canal. At this point, either because of an increase in the gradient or because of the brush diversion dams, the flow of water had been slowed causing it to drop its load. In order to keep the channel clear constant dredging had to be employed. The

Figure 2

Gross section of canal
showing the two mounds
built up by dredging.



Channel of canal as exposed
by Test II.

Figure 3

Cross section of canal
showing the normal channel

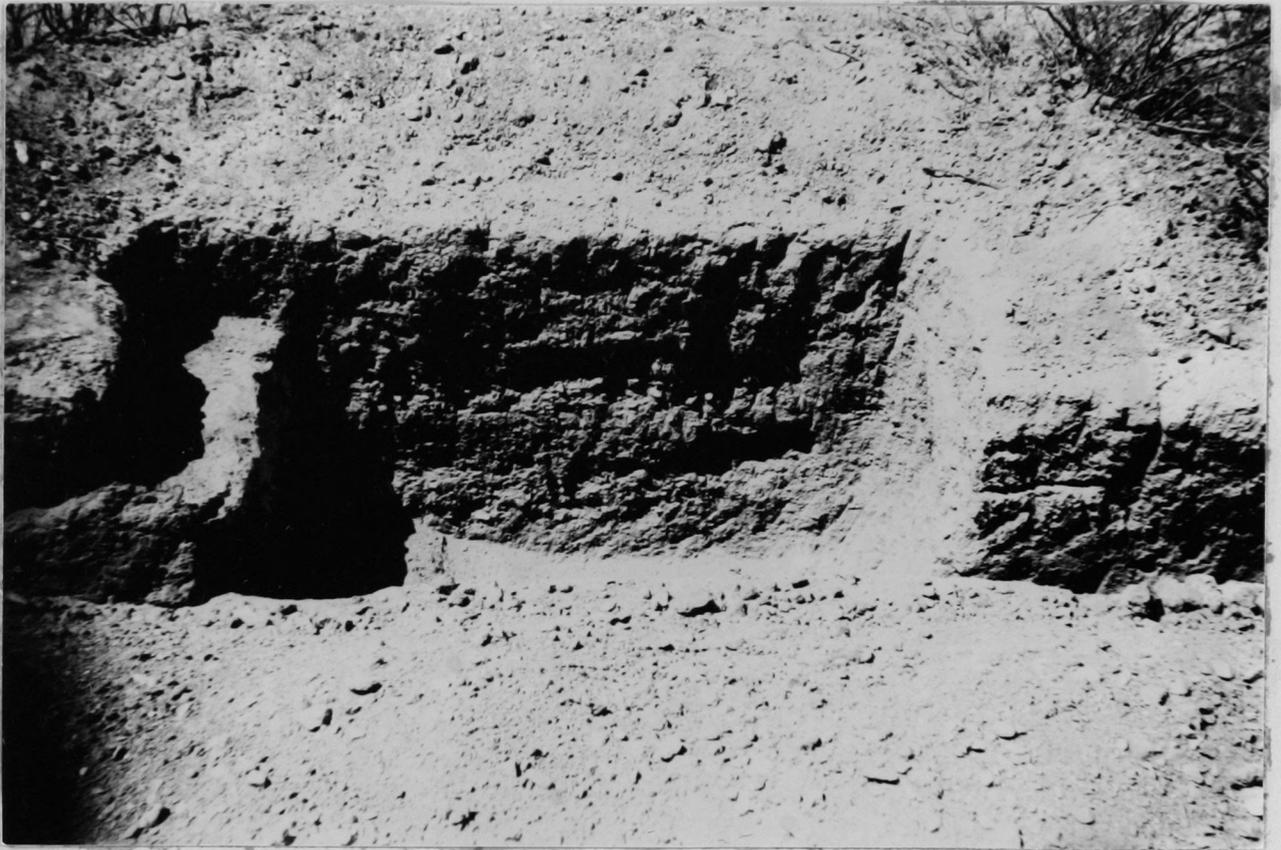
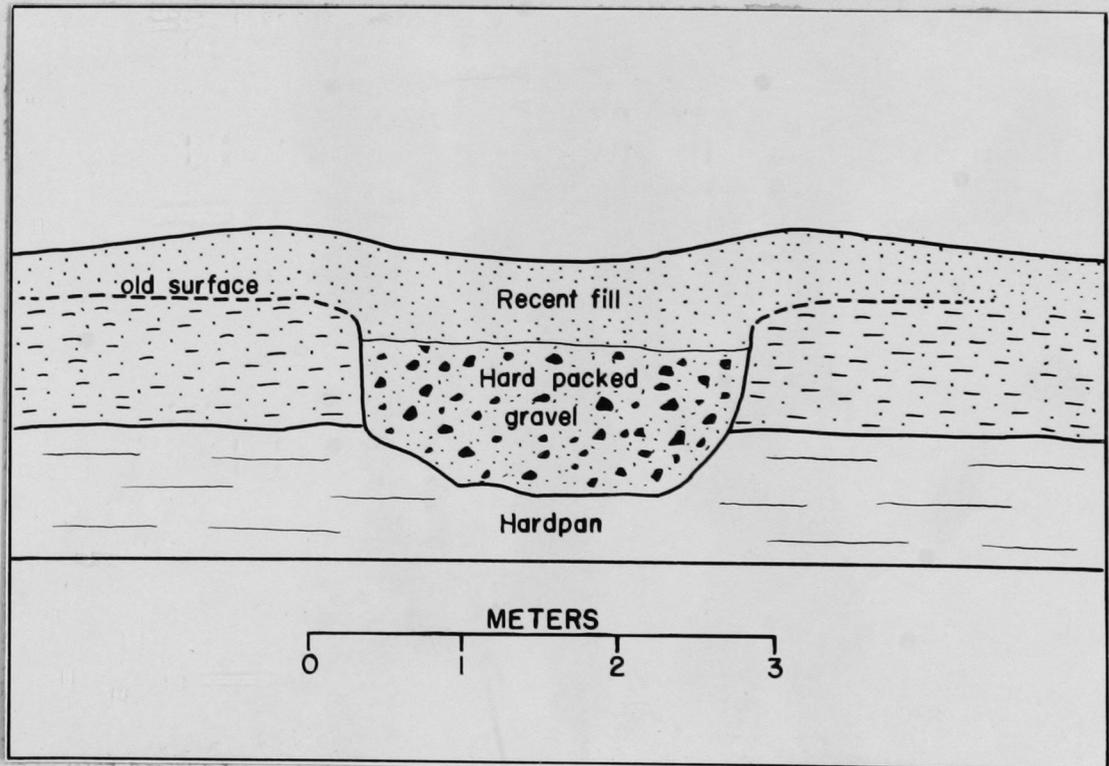


FIGURE 3



mud and gravel dredged out of the canal formed the two mounds on each side of it (Fig. 3). Just west of this point are several large Papago fields, so probably brush dams built to divert the water out to prehistoric fields in the same place slowed the flow here.

It is suggested that the canal was used only during flood season as an irrigation project. Its source is in the Fresno Wash from one-half to three-quarters of a mile east of the probable location of the fields then in use. This point is quite a distance from the source of the wash in the Baboquivari Mountains and today carries water only after an exceedingly heavy rainstorm, so it is doubtful that the canal ever had a permanent source of water.

The pottery associated with this canal would place it in the Sells Phase. It was undoubtedly utilized by the occupants of a large Sells Phase site² located one-half mile east of Valshni Village and therefore within easy distance of the arable land. This canal has only an indirect bearing on the problem dealt with in this report, inasmuch as it shows the use of canal irrigation in the Sells Phase. It is included only as a matter of general interest to the archaeological picture in the area and to record a minor part of the archaeological work of the 1939-40 season.

2. Arizona State Museum survey number - Arizona DD:1:8.

CHAPTER IV

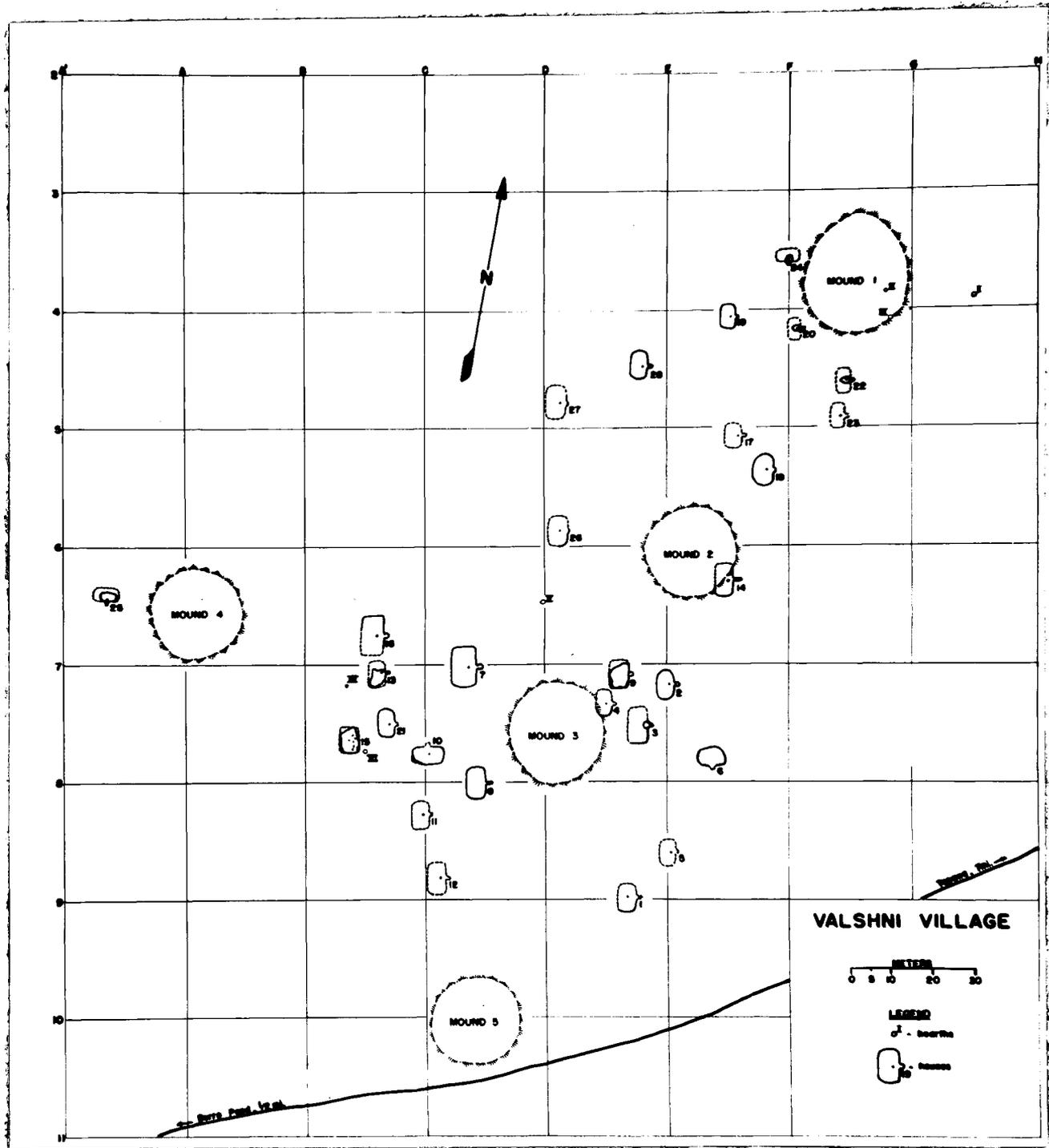
METHODS AND APPROACH

Before any excavation was begun, a grid measuring 300m. on a side was laid out on the site (Fig. 4). Within this area were included the five trash mounds and all major sherd concentrations. This grid was divided into squares measuring 30m. on each side to facilitate the designation and handling of features and material. The north-south grid lines were given letters and the east-west lines numbers, thus each block was designated by the combination of coordinates occurring at the northwest corner.

With no hint as to where to dig, general, systematized trenching had to be done throughout the area of probable occupation. Six trenches 1m. wide were dug in each of the thirty meter blocks thought to be worth testing (Plate Va). A string was run the entire length of each trench to serve as a guide while digging. These trenches were dug on a north-south axis and were carried into sterile soil. The trenches were systematically numbered in all blocks from I to VI and were given their designations from the block in which they occurred, thus Block D:7:Trench III. The pottery and artifacts from each trench were analyzed separately so that any differences which occurred between the various sections of the site could be detected. Aside from giving

Map showing the location of
trash mounds, houses, and hearths
at Valshni Village.

FIGURE 4



a fairly well controlled sample of the pottery, these trenches brought to light the many features of the site itself.

When necessary these trenches were widened in order to expose all features for observation, mapping and photography. Each house as it was encountered was opened up by digging a trench around the limits of the floor area (Plate Vb). The central fill above the floor was then removed to within 10cm. of the floor. The material from this last level was then sacked separately and assigned approximately to the period during which the dwelling was occupied. Detailed floor plans and cross sections were made of all houses which showed anything at all of their original form. Cooking pits, when found, were exposed and left in place to show their original depth and shape.

Stratigraphy and Cross Dating

From a study of surface collections of pottery, it was apparent that the occupation at Valshni Village covered a long period of time. With the knowledge that no tree ring data would be available on the site it could be seen that any data pertaining to chronology must necessarily be derived from stratigraphy. The only stratigraphy occurred in the rubbish. This rubbish took two forms, (a) sheet rubbish, and (b) mounded rubbish (Plate VIa). (No rubbish pits were found.) The sheet rubbish was deposited over the entire site but was too thinly spread and too mixed to be of much aid.

PLATE V

a. Excavation in the central part
of the site showing test trenches.

b. Widening a test trench to
expose a floor.



a



b

PLATE VI

a. Mound 2 from the west.

b. Preliminary Trench, Mound 2.



a



b

The mounds offered the best prospects for the desired stratigraphy. The average height of the four main mounds was 1.5m. and the average width was 22m. The terrain was almost flat so that these mounds were not complicated. Erosion had had little effect upon them, but, due to the soft nature of the mound material, all had been heavily burrowed by rodents.

All four of the large mounds on the site were tested stratigraphically, and a good sample of pottery was taken from the smaller fifth mound by cutting a broad trench through its center. The first step was to dig a trench across the mound thereby obtaining a profile (Plate VIb). This clearly showed the edges and the bottom of the mounds. These preliminary trenches were dug to an average width of 1.5m to provide ample room for the removal of the stratitest. One face of the trench was cut clean and perpendicular. Stakes were then set at 1m. intervals along the top of the mound and .75m. back from the trench. These were lettered alphabetically. A string was run parallel with the face and .5m. from it to serve as a guide in removing the test. Next an arbitrary datum line was established with a spirit level on the clean face and other lines run horizontally to it, both above and below, at .5m. to .25m., depending on the size of the mound. These lines were called levels and were numbered from top to bottom. Weighted strings were dropped from each stake and lines drawn on the face so that they cut the horizontal lines at right angles. Thus, the face of the trench

PLATE VII

a. Grid on profile of Mound 2.

b. Stratitest, Mound 2, showing
section blocks.



a



b

PLATE VIII

a. Digging stratitest, Mound 2.

b. Mound 4, after completion of
stratitest.



a



b

was divided into a grid of uniform, rectangular blocks, each block taking its designation from the lines meeting at the top left hand corner, as A:1, A:2, etc. (Plate VII, a, b).

The actual testing was then begun. The material was shoveled into hand screens of half-inch mesh, insuring against the loss of all but the smallest sherds (Plate VIIIa). The pottery was then sacked, washed, and analyzed block by block giving the history of the mound and the changes therein.

As has been said, the proper wood for tree ring dating was lacking at Valshni Village. A local chronology could have been made to embrace local developments in the material culture from evidence occurring on the site. However, some means had to be used to give the developments here a time relationship with other prehistoric Southwestern cultures as well as with other local phases. This was done chiefly by the use of previously dated pottery from other regions which was found to be intrusive at Valshni Village. The intrusive pottery which was most useful and upon which the dating of the site is based is the red-on-buff ware which was made locally in the Gila Basin by the Hohokam. The chronology for this ware was worked out in detail by Gila Pueblo of Globe, Arizona.¹ The dates for this Hohokam ware were established by its associations with intrusive Mogollon and Anasazi types which had been positively dated by tree rings. The dates

1. Gladwin, Haury, Sayles, Gladwin, 1937.

assigned to the various phases in Hohokam chronology are being strengthened at every excavation where material from this culture is found intrusive and associated with positive tree ring dates.

The general scarcity of local diagnostic traits and the lack of any stratigraphy in house remains made this intrusive pottery a great aid in determining the local horizons.

The results obtained from the stratitests in the four main mounds were in themselves disappointing. However, they did bring to light an important fact--that the chief chronological and developmental differences in the trash occurred between the mounds rather than within them. From their associations with the Gila Basin pottery a time meaning could be assigned to these developments.

The homogeneous nature of the material from each of the mounds showed that each mound represented a relatively short span of the total period of occupation. Mounds 1 and 2 on the east side of the site show the earliest period of habitation, Mound 3 a middle period, and Mound 4, to the west, the latest. The Gila Basin intrusive pottery as it is associated with the four mounds is as follows:

- Mound 1: Late Santa Cruz Red-on-buff and early Sacaton.
- Mound 2: Late Santa Cruz Red-on-buff and early Sacaton.
- Mound 3: Sacaton Red-on-buff.
- Mound 4: Late Sacaton Red-on-buff and Casa Grande Red-on-buff.

From Mounds 1 through 3 a gradual increase can be traced in the local red ware (Valshni Red). This coincides with a development and increase in the local decorated type (Vamori-Red-on-buff). It is between Mounds 3 and 4 that the most noticeable break occurs. In Mound 4 there is a marked increase in the red ware and a decided decrease in both local and intrusive decorated types. What little decorated pottery was found here was of an entirely different nature from that of Mounds 1, 2, and 3. Mounds 1, 2, and 3 encompassed the development from early to late of the Vamori Phase, placed at 800-1100 A.D. The Topawa Phase, placed at 1100-1250, is represented by Mound 4.

There are certain things, such as a small amount of local red and decorated wares, a greater amount of intrusive Sonoran polychrome types, and the presence of Santa Cruz Red-on-buff, which might indicate that Mounds 1 and 2 represent the very end of an earlier phase. However, the evidence gathered at Valshni Village was insufficient to establish such a phase and differentiate between it and the Vamori Phase. Even so, the establishment of such a phase would not greatly alter the character of this report as the period from 800 to 1100 represents a period of continuous occupation and development on the site.

Following the Topawa Phase occurs the last defined phase in the prehistory of Papagueria. This is the

¹
Sells Phase, placed at 1250-1400 A.D. It was during this period that the local culture reached its peak. The Sells Phase saw the red ware reach its full development in the distinctive Sell Red type. The other chief traits which distinguish the Sells Phase are: rectangular surface houses with no entrance passage, burial by inhumation, Tanque-Verde Red-on-buff pottery (Sells variety), an abundance of grinding stones overhanging end manos, grooved pestles, and loaf-shaped arrow shaft polishers.

Following the Sells Phase, from 1400 to 1700, almost nothing is known about the archaeology of the region, although at the present time work is being carried on which, it is hoped, will throw some light on the culture of this period. This is known as the Recent Period. The Modern Period, from 1700 to the present, covers the known occupation of this area by the Papagos.

1. Scantling, F. H., 1940.

CHAPTER V

HOUSES

Many difficulties were encountered when an attempt was made to define an architectural sequence at Valshni Village. In every instance but one the houses had been constructed on the old surface level or excavated down only a few centimeters. Their average depth from the present surface was 40cm. With the village located as it was on the flood plain of the Valshni Wash, there was considerable erosion after the houses were abandoned. In all, twenty-eight houses were uncovered on the site. Of these only twelve had enough of the floor preserved to indicate the original outline. The only floors which could be traced with any degree of accuracy were those which had been heavily burned, and most of these were considerably broken up around the edges.

Each house was identified as to phase by the pottery which occurred within 10cm. of the floor and by the pottery from the fill above that. However, the sherds were scarce and the allocation of each house to the proper phase was often doubtful. No aid was found in other material left in the houses as a characteristic of them all was their almost complete barrenness. Either the majority of the household objects were of a perishable nature or else the houses were

cleaned out before abandonment.

No good stratigraphy was encountered in the houses, but Houses 4 and 14 could be assigned to the Vamori Phase or earlier as Vamori Phase trash mounds had grown over them.

Vamori Phase

Eighteen houses were identified with the Vamori Phase. These indicate that there was no definite type for the phase as is now defined. In plan they ranged from oval (Fig. 5a, b; Plate IXa, b) to rectangular with rounded corners (Fig. 5c, d; Plate Xa, b) with front and back walls nearly parallel with both. The range in length was from 6.20m. to 8.40m. and in width from 3.60m. to 5.40m. (excluding the entrance). The entrances were typically oval and resemble those of the Sacaton Phase at Snaketown.¹ House 19 (Fig. 5d; Plate Xb) was rectangular with rounded corners and had a short, straight-sided entrance passage reminiscent of the Santa Cruz Phase in the Gila Basin area.² Two Vamori Phase houses had stepped entrance passages (Fig. 6a, b; Plates XI, XII). House 14 had a high step (28cm.). This house had been excavated to a depth of 36cm. below the old surface so the step had some utility. In House 28 the step was only 13cm. high and the house had been built almost on the surface so it could not

1. Gladwin, Haury, Sayles, Gladwin, 1937, pp. 61-67.

2. Ibid., pp. 68-71.

PLATE IX

a. House 18.

b. House 2.



a



b

- a. Plan and cross section of House 18 showing remnant of later house (18 b) over an older house (18 a).
- b. Plan of House 2 which resembles the Sacaton Phase houses at Snaketown.

c, d. Plan and sections of rectangular type Vamori Phase houses. Note rectangular entrance in House 19. Evidence of remada-like structure seen on south side of House 19. The pottery jars were probably on the roof.

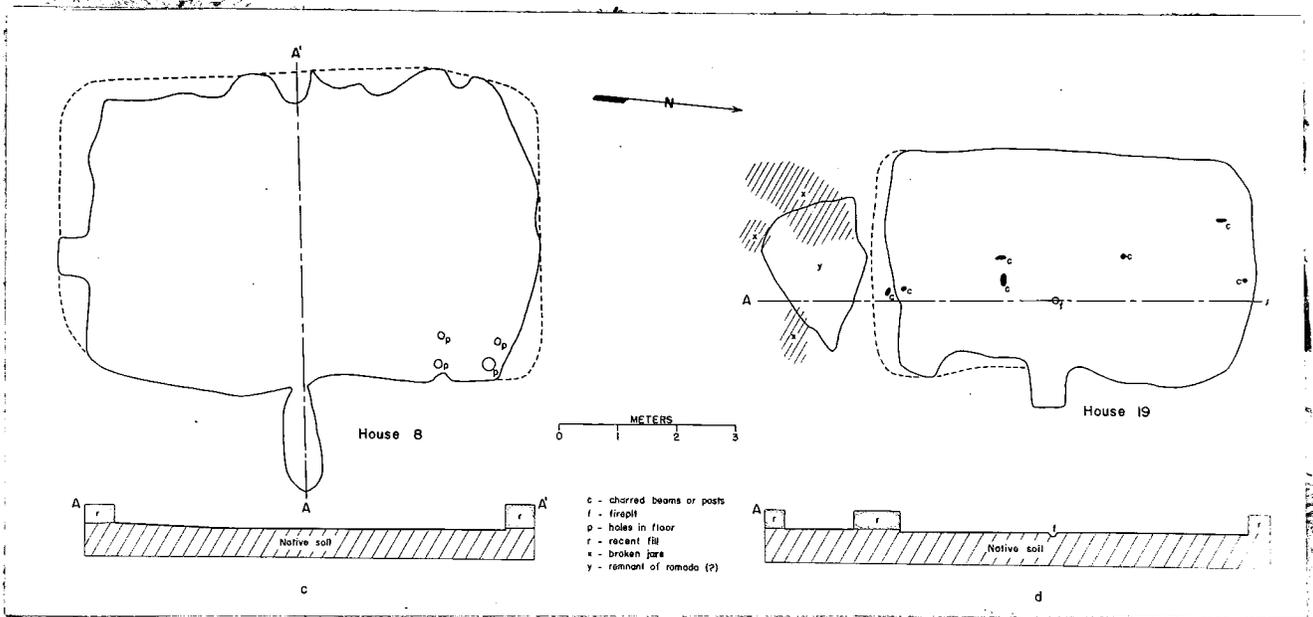
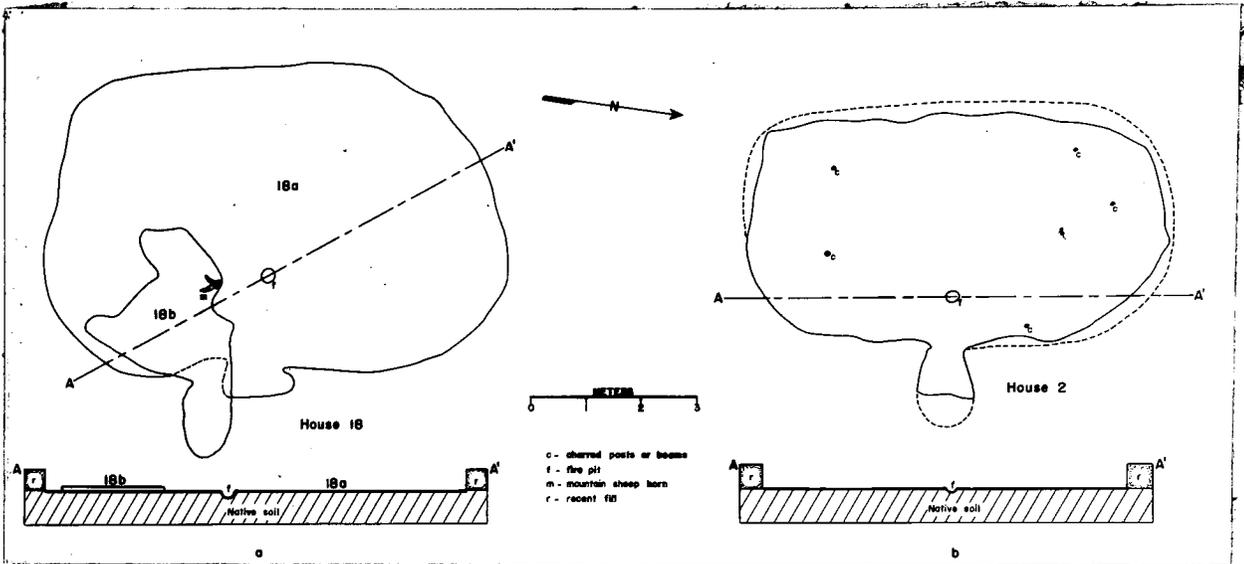


PLATE X

a. House 8.

b. House 19.



a

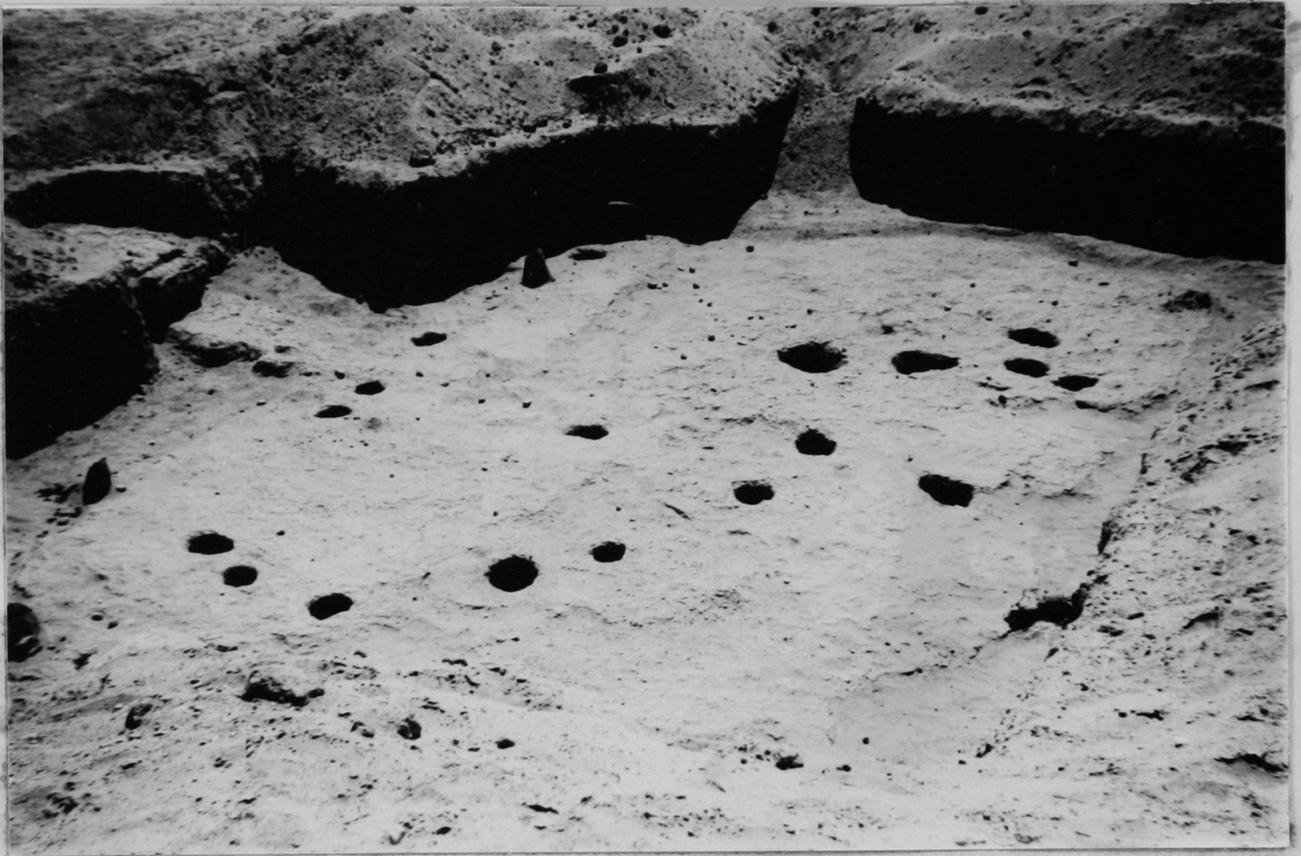


b

PLATE XI

a. House 14.

b. House 14, detail of
entrance.



a



b

PLATE XII

a. House 28



a

b. House 28, detail of entrance.



b

have had a great utility. Both steps had a log sill, and in House 14 there was a groove which ran the width of the entrance just outside the step. Both of these features are common in the Sacaton Phase at Snaketown.³

Well preserved firepits were found in the majority of the houses but a few had only a fire area. The firepit was invariably in the center of the long axis of the house and offset toward the entrance. These firepits were usually deep and irregular in outline. They were either clay lined or fashioned from a whole plug of clay set in the floor of the house. The lip was usually well rounded and raised up to 1.5cm. above the floor level (Plate XIV). These varied from 16.5cm. to 28cm. in width and from 5cm. to 13cm. in depth.

Topawa Phase

Seven houses were assigned to the Topawa Phase, but only three of these showed the outline of the floor to any extent. The rectangular house with rounded corners (Fig. 5c, d) persisted into this phase, but no examples of the more oval type with rounded ends were found. All of those found did show the oval type of covered entrance passage.

One type of house peculiar to the Topawa Phase is represented by Houses 7 and 16 (Fig. 6c, d; Plate XIII).

3. Gladwin, Haury, Sayles, Gladwin, 1937, p. 61.

a, b. Only two houses found
with stepped entrances.

c, d. Large rectangular structures
of the Topawa Phase.

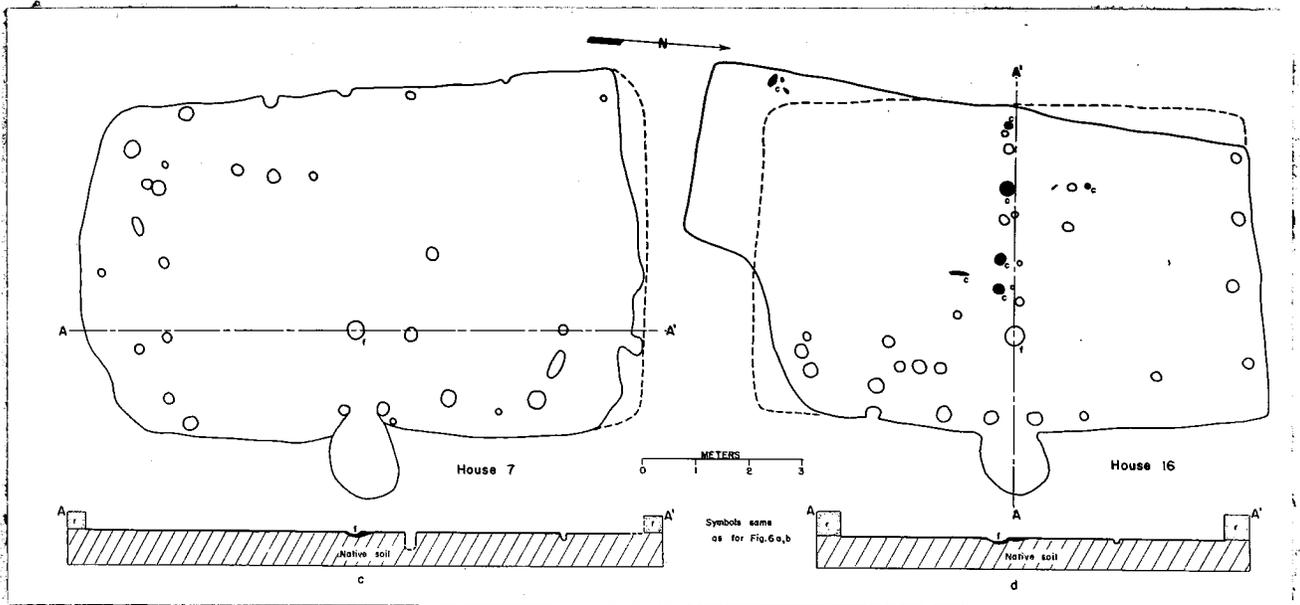
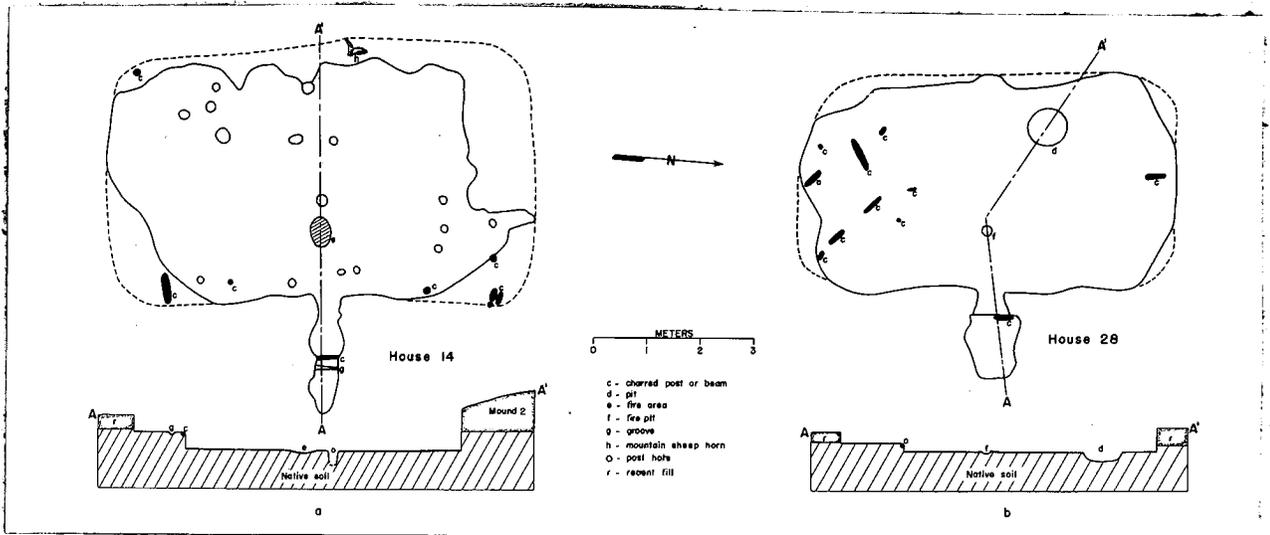


PLATE XIII

a. House 7.

b. House 16.



a

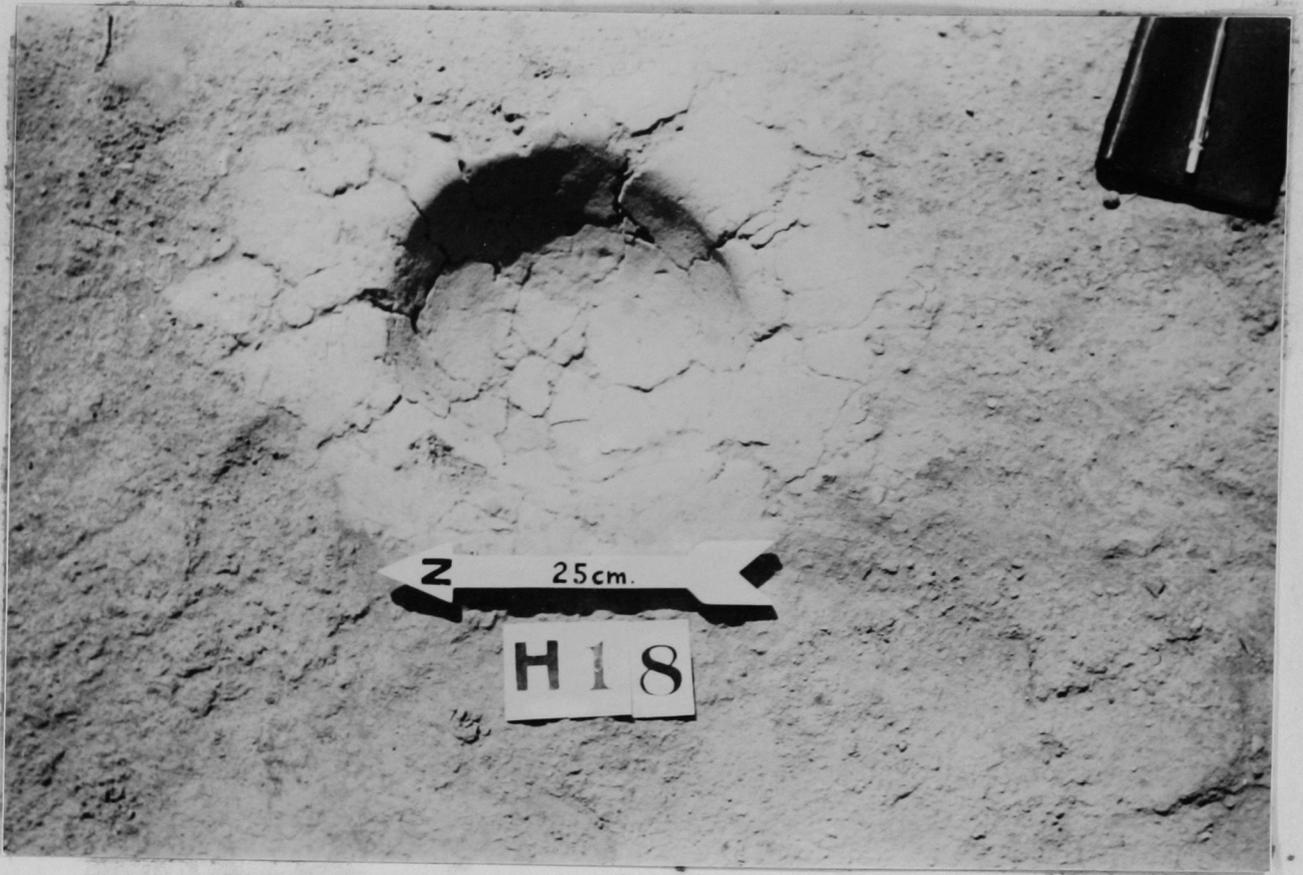


b

PLATE XIV

a. Firepit, House 18, Vamori Phase.

b. Firepit, House 18, in cross section.



a

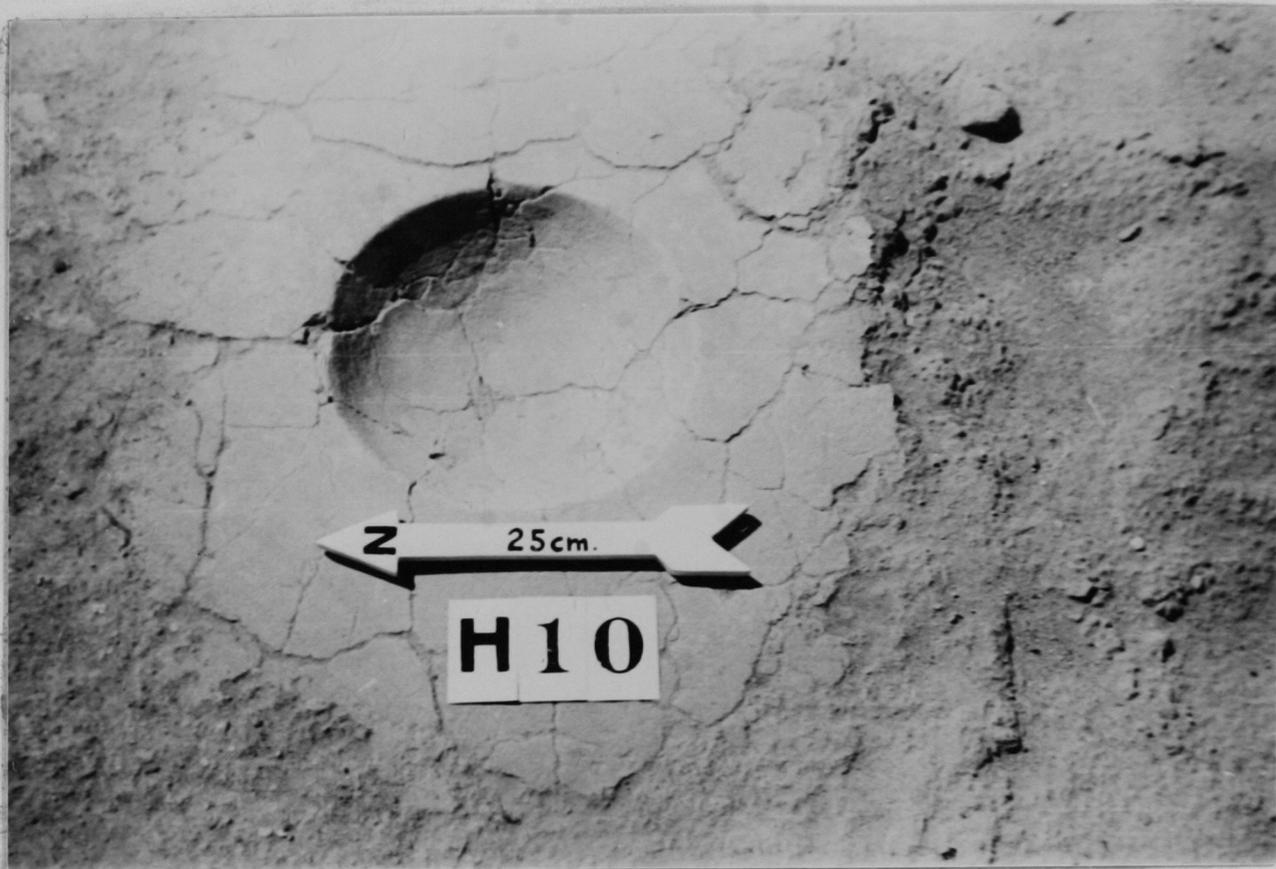


b

PLATE XV

a. Firepit, House 10, Topawa Phase.

b. Firepit, House 10, in cross section.



a



b

This is a rectangular house with bulbous entrance like the others but larger. In length they range from 9.20m. to 10.5m. and in width from 5.85m. to 6.10m.

The firepits in the houses of the Topawa Phase were somewhat different from the earlier ones. In cross-section they show a smoother, more symmetrical outline. The lip is sharp and not raised above floor level. They are also more shallow in relation to their width (Plate XV). In width they range from 15cm. to 33cm. and in depth from 4.3cm. to 8cm.

Discussion

In general the houses at Vālsḥni Village conform to the pattern for the Hohokam in the desert regions of Southern Arizona. They are single unit structures built on or near the surface, having covered entrance passages extending out from the center of the long side, a basin-shaped firepit located near the entrance, a roof supported by timbers and covered with smaller timbers and earth, and walls probably of small timbers and earth.

Evidence for the roof construction could be learned only from the arrangement of post holes and from occasional pieces of burned roof material lying on the floors. The post holes were, on the whole, unsatisfactory. In no house was the complete post hole arrangement evident. There seems to have been no definite plan which was followed in every

house. Major supports were usually set near each corner, and others might be set near the ends of the house if its width required them. Other supports were found near the centers of the larger houses. One support was placed on each side of the entrance where it joined the main floor area. The roof was probably flat, and the large rafters were covered with smaller sticks and brush. These were covered with about 10cm. of earth.

No secondary post holes were found outside the actual floor areas, but they probably were there originally, traces of them having since been lost. In a few cases post holes were found in the extreme edges of the floor, indicating that some use was made of roof supports incorporated in the walls. No evidence was found to indicate the method of wall construction. Probably upright slats of ocotillo or sahuaro ribs were used, these being covered with a mud plaster.

Floors were usually made of a clay mixture. Occasionally pits were found sunken below the floors. The trend in the firepits was from a deep basin with steep sides and a raised and rounded edge to a shallower one with gently sloping sides and a sharp, unraised edge.

Several places were found which suggested areas used outside of the houses. One of these, on the south side of House 19 (Fig. 5d), was covered with broken plain ware jars. Another was designated as House 15 (Plate XVIA) and had on

PLATE XVI

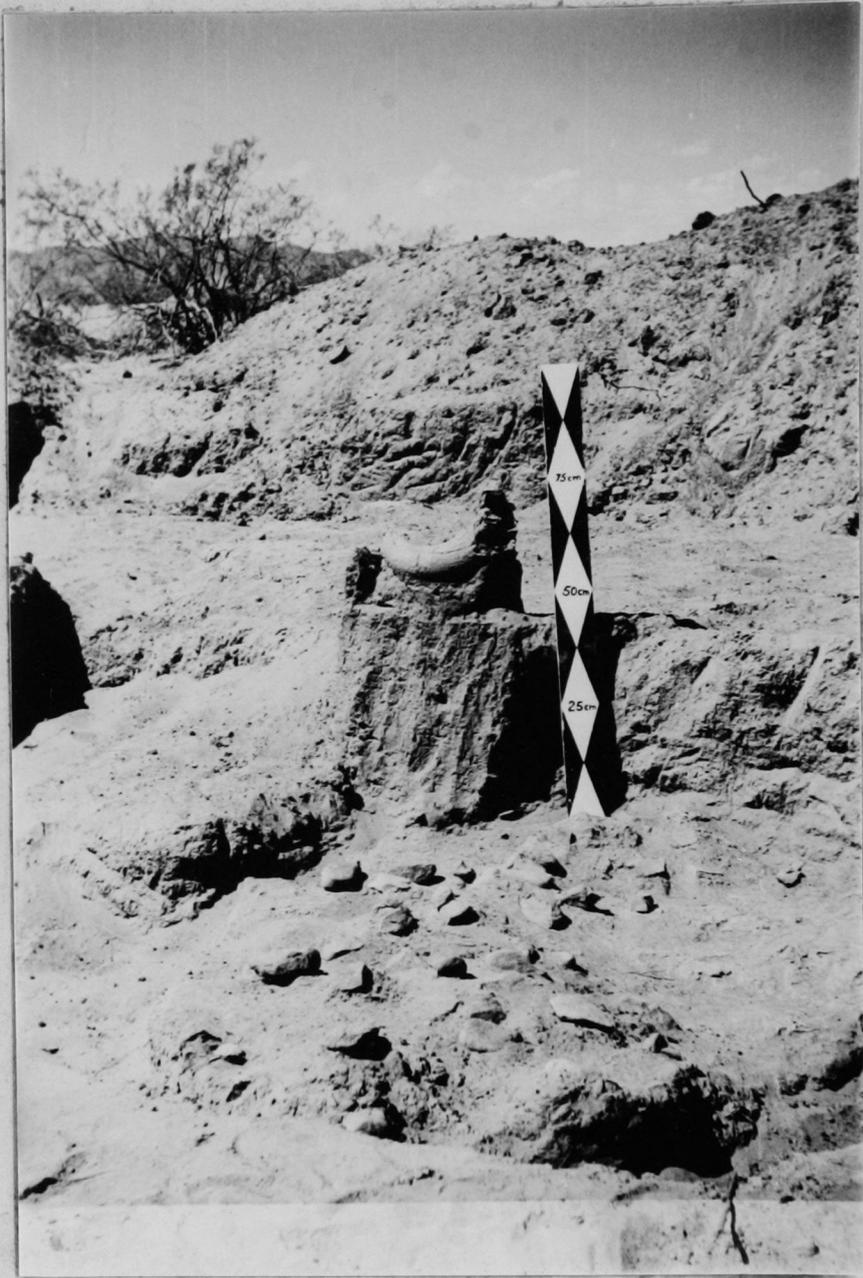
a. House 15, showing mountain
sheep horn.



d

PLATE XVI

b. Hearth 3, with associated (?)
mountain sheep horn.



b

it three pairs and seven single mountain sheep horns representing at least seven animals. No evidence of any superstructure was found. Other than these small areas there was no evidence that any of the structures were ever used for anything other than dwellings. There is a possibility that the two larger structures assigned to the Topawa Phase may have served as meeting houses.

Every house but two on the site was oriented with the entrance toward the east. Of the two exceptions one faced the north, the other south. There was nothing to indicate any preconceived plan for defense or any other purpose in the location of any of the houses.

In general the houses are similar to those of the Hohokam. Many houses of the Vamori Phase are suggestive of the Sacaton Phase houses found at Snaketown. However, they differ in having no groove or sill around the periphery; they are surface structures; the firepits are similar but not alike. These houses have closer analogies with Woodward's Type A house found at the Grewe Site⁴ in that this was a surface structure and only occasionally had the sill. The floor plan of this type is similar to many of the Vamori houses.

The development seems to have been toward a more

4. Woodward, A., 1931, p. 10.

rectangular house in the Topawa Phase with some of the houses becoming larger. The Topawa Phase, except for the two larger structures, actually shows little in the way of development and represents a continuation of the Vamori Phase type. However, the architecture of this phase does not foretell that of the later Sells Phase. In general, the houses of the Sells Phase⁵ are more like those of the Vamori Phase with parallel sides, rounded corners, and partially rounded ends. The fire-pits, too, are more similar to those of the Vamori houses. The only difference is that the Sells Phase houses have lost the covered entrance passage. However, as only two defined houses were found at the Jackrabbit Ruin and as only three were defined for the Topawa Phase, it is entirely possible that many houses which would tie the two phases more closely together have been missed in the excavation of the two sites. Further work should be done on the house types of these two phases before a final architectural sequence is worked out for Papagueria.

5. Scantling, F. H., 1940, p. 12.

CHAPTER VI

HEARTHS

Several outdoor hearths were found during the course of the excavations. These ranged in diameter from .70m. to 1.50m. and were oval to round in outline (Plate XVIIIa). In every case these hearths were filled with burned rocks and charcoal, and in a few instances held profuse quantities of charred animal bones. Very few fragments of broken grinding tools were found in these. These fragments occur in great numbers in similar hearths of the Sells Phase and in other regions of the Southwest, and their scarcity here is undoubtedly due to the general scarcity of stone grinding tools on the site.

The hearths were constructed by scooping out a large, basin-shaped pit in the ground. The depth of the burned deposits in the hearths ranged from 10cm. to 25cm., and in most cases this probably represents the approximate depth to which the pits were excavated below the old surface. However, some were deeper, and the charred fill is lying only in the bottom portion of the pit. An example of this is Hearth 3. Plate XVII show Hearth 2 as it was outlined and in cross section.

An interesting feature was seen in Hearth 3. Resting

PLATE XVII

a. Hearth 2 outlined.

b. Hearth 2 in cross section.



a



b

PLATE XVIII

a. Hearth 5.

b. Burial beneath Mound 2.



a



b

on the old surface level and on the approximate edge of the hearth was a partially burned mountain sheep horn (Plate XVIb). This might indicate that the carcass of the animal was cooked here, but this may be taken for what it is worth. Most of the cooking probably was done in these outside hearths, as the firepits within the houses were too small to accommodate much culinary activity. The fires in these interior firepits probably consisted of nothing more than a few coals brought in from outside fires to heat the houses and were useful in cooking only to a minor degree.

CHAPTER VII

BURIAL CUSTOM

Only one burial was found during the entire period of excavation at Valshni Village (Plate XVIIIb). It was located beneath the center of Mound 3. The skeleton was three-quarters flexed and lying on the right side facing west with the head to the north. The bones were in very poor condition and beyond saving. The whole body had been wrapped for burial in a reed mat, then overlaid with a covering of small branches and twigs before it was covered with earth. After the burial had been made there was a washing in of sand, river gravel, and mud which filled the skull and rib cage. Vines and roots were growing through some of the bones, and the jaw had disintegrated except for a small fragment of the maxilla. The teeth were in good condition and were found under the rib cage.

The burial took place before the rubbish in Mound 3 had begun to accumulate, as it was below the mound-desert contact and there was no evidence of any disturbance above. As Mound 3 has been assigned to the later portion of the Vamori Phase, the burial may be said to belong to the earlier years of the phase.

It is difficult to explain the recovery of only one

burial in view of the extensive nature of the digging on the site, but burial was fairly definitely by inhumation as no evidence of cremation was discovered. Inhumation was practiced at the Jackrabbit Ruin some two hundred and fifty years later where only three burials were found.¹ There is quite a gap between the Vamori burial and those of the Sells Phase, but they indicate that burial in Papagueria has been by inhumation from the earliest times to the present. The modern Papago bury their dead among rocks in the hills and in isolated cemeteries, often some distance from the villages. In view of the few burials uncovered by archaeological investigation it seems probable that this was also the practice among the prehistoric inhabitants of the area.

At the time Valshni Village was occupied the peoples in the areas to the north and east were practicing cremation. The people in the Trincheras area to the south, as seen in the large eroded site at La Playa, Sonora, were practicing both cremation and inhumation. The burial custom of any group is a strong and deeply-rooted trait, and it will probably not be changed by any normal contact between the two groups. It would seem that such a change could take place only by the political domination of one group over another or by the merging of two groups practicing different methods of burial, in which case one would soon come to predominate

1. Scantling, F. H., 1940, p. 25.

and the other would die out. No such change has ever occurred in this region. This would serve to indicate that the occupants of Papaguera were not ethnogenically related to any of these other groups.

CHAPTER VIII

POTTERY

Due to the total lack of knowledge of the earlier phases in Papaguera, most of the pottery types have never been recognized and none has ever been described. On the following pages are the technological analyses of these types as they occur in the Vamori and Topawa Phases at Valshni Village. These include the two local red-on-brown types and the one red-ware type.

The intrusive types from Sonora have been included here because, while they have been recognized and defined to a certain extent, no adequate descriptions have ever been set forth. The only new type in this series is Altar Polychrome.

The numbers and plate references used to describe the range of colors are according to Ridgeway's color standards.¹ The numbers used to record hardness refer to Moh's Scale.

All percentages were marked out from a sample of 81,344 sherds recovered from the stratitests in the four mounds.

1. Ridgeway, R., 1912.

Figure 7

PERIOD	PHASE	POTTERY	TYPES
1400 A.D.			
Classic	Sells 1250-1400	Indigenous	{ Sells Plain Sells Red Tanque Verde Red-on-brown
		Intrusive	{ Casa Grande Red-on-buff Gila Polychrome
	Topawa 1100-1250	Indigenous	{ Sells Plain Valshni Red Topawa Red-on-brown
		Intrusive	{ Casa Grande Red-on-buff Sacaton Red-on-buff Trincheras Black-on-red
1100 A.D.			
Sedentary	Vamori 800-1100	Indigenous	{ Sells Plain Valshni Red Vamori Red-on-brown
		Intrusive	{ Santa Cruz Red-on-buff Sacaton Red-on-buff Trincheras Black-on-red Trincheras Polychrome Altar Polychrome
800 A.D.			

Figure 7 shows the local and intrusive pottery types which are associated with the three phases in Papagueria.

Local Painted Ware

Vamori Red-on-brown

Method of manufacture: paddle and anvil. 2

Paste: Same as described by Scantling for Sells Plain, which is as follows:

"Color: Varies from buff to bright brick-red to black; average color a light orange-red, 5"i. Carbon core generally present.

Inclusions: Angular fragments of white quartz, rounded sand particles. Occasional fortuitous inclusion of small particles of mica.

Texture: Heavily tempered, coarse to very coarse, granular and friable.

Fracture: Irregular, slightly oblique to surface of the vessel, rough and irregular.

Hardness: 3.5--4.5".

Surface features:

Color: Cinnamon to light brown. Range:
15"--h (Plate XXIX)
9"--h (Plate XXVIII)

Hardness: 4--4.5.

Evenness: Uneven. Anvil marks usually noticeable on interior.

Texture: Rough.

Luster: Dull. Usually unpolished.

Slip: None.

Defects: Occasional spalling.

Paint:

Composition: Inorganic, probably iron.

Properties:

Color: Dull red to purple; range:
5'''' (Plate XLV)
9'''' (Plate XLV)
1'''' (Plate XLV)

Luster: Dull.

Hardness: 2.5

Evenness: Uneven.

Defects: Abrasion. Paint thinly applied and tends to be fugitive.

3

Form:

Bowls:

Typical form is a hemispherical bowl with a slightly recurved rim.

Diameter: 20cm. to 38cm.; average 32cm.

Wall thickness: 0.3cm.--0.8cm.

Rim form: (Fig. 8 a--f).

Jars:

Rare. Straight short neck on globular body.

Diameter at lip: 14cm.

Wall thickness: 0.4cm.--0.7cm.

Rim form: (Fig. 8g).

Design: (Fig. 10)

Layout:

Usually in a broad band around the interior of the bowls. Top of band limited by rim line; bottom by a line painted around the vessel interior near the bottom. Large solid triangles often pendant from the rim and from the bottom line. Interlocking scrolls often made by extending apex of triangles. Triangles often bounded by squiggly or straight lines or these lines may be arranged in parallel groups. Small elements were occasionally employed. A ribbon of paint is typically applied along the rim.

Exteriors of bowls are rarely decorated. When they are it is with one or two elements near the rim placed intermittently around the vessel.

Jars are decorated in a panel around the body. A narrow band of design is applied usually around the interior of the rim.

Motifs:

Straight broad lines.

Zig zag or squiggly lines.

Solid triangles.

Interlocking scrolls.

Lines with small pendant triangles.

Type Site: Valshni Village (Arizona DD: ;).

Range: So far found only at Valshni Village. Probable range is the southern portion of the Papago Indian Reservation.

Remarks:

Vamori Red-on-brown is a new type. It marks the beginning of decorated pottery made locally in

-
3. Owing to a complete lack of whole vessels form could be judged only from miscellaneous body and rim sherds.

Papaguera with the application of a poor paint to Sells Plain Ware. This type is a diagnostic for the Vamori Phase. During the early stages of the phase only a small amount of Vamori Red-on-brown was made, constituting only about 8% of all decorated ware found. Towards the end of the phase Vamori Red-on-brown, while still not plentiful, reached its production peak. Here it had risen to 33% of all the decorated ware found. However, decorated ware made up only 1.7% of all the pottery at this time. This rise is correlated with a decline in intrusive red-on-buff ware from the Gila Basin area. This type was not made after the Vamori Phase, being replaced by the type which grew out of it, Topawa Red-on-brown.

Vamori Red-on-brown shows a poor handling of the technique of decorated pottery. The paint was poorly mixed and applied, and there is a marked unsureness in the layout and application of the design.

Topawa Red-on-brown

Method of manufacture: Paddle and anvil. 4

Paste: Same as Tanque Verde Red-on-brown. More apt to have carbon streak.

Surface features:

Color: Usually a light, cinnamon brown; the range is:

14''-a (Plate XXIX)

15''-b (Plate XL)

17''-f (Plate XL)

Interior of bowls sometimes burned black.

Hardness: 4.0--4.5.

Texture: Smooth to slightly rough.

Luster: Dull to lustrous. Polishing marks usually over the decoration. Not highly polished.

Slip: Sometimes a thin wash applied. Usually none.

Defects: Occasional crazing and spalling.

Paint:

Composition: Inorganic, probably iron.

Properties:

Color: Usually a reddish brown. Range:

3'-m (Plate XIII)

5''-j (Plate XXVII)

5''-k (Plate XXVII)

Luster: Dull to lustrous (depending on whether or not the polishing is done over the decoration).

Relief: None.
Hardness: 2.0--2.5.
Defects: Paint tends to be fugitive.

Form⁵

Bowls:

Hemispherical with straight or outcurved rims.
Diameter: 24cm.--32cm.; average 28cm.
Wall thickness: 0.4cm.--0.7cm.
Rim form: (Fig. 8 h,k).

Jars:

Usually large globular bodies with constricted straight necks.
Diameter at mouth: 18cm.--22cm.
Wall thickness: 0.4cm.--0.8cm.
Rim form: (Fig. 8 l, m).

Design:

Layout: In band patterns.

Wide encircling band on interior, sometimes almost to bottom of vessel.

Relatively narrower band encircling rim on exterior, usually in some variation of a chevron pattern. Varies from 40 to 60 mm. in width.

Banded patterns encircle both the necks and bodies of jars.

A ribbon of paint is applied along rims of both bowls and jars.

Bowls not always decorated on exterior.

Designs almost always rectilinear.

Motifs:

Squiggly lines.

Lines with pendant triangles or dots.

Triangular scroll.

Parallel lines.

Cross-hatched triangles (rare).

Chevrons.

Remarks:

6

Topawa Red-on-brown is a direct outgrowth from Vamori Red-on-brown and is a diagnostic for

-
5. No whole vessels were found so sherds were the only guide as to form.
 6. The sherds of Topawa Red-on-brown found at Valshni Village were too few to establish a new type. As an aid to the establishment of this type a collection of painted sherds was used from a Topawa Phase site (Arizona DD;5:8) which was excavated by Wm. Bailey in February, 1941, under the sponsorship of the Arizona State Museum and the CCC-ID.

the Topawa Phase. It was formed by a fusion of Vamori Red-on-brown and red-on-brown wares from the Tucson region. Influence from the Tucson area is marked and appears for the first time with the entrance of this type.

Polishing, used previously on the red ware, is now applied to decorated pottery. The pottery makers now had better control of the paint. Designs were better thought out and more surely executed. Topawa Red-on-brown attained a certain sophistication in design never achieved by Vamori Red-on-brown.

This type is a diagnostic for the Topawa Phase. The local decorated ware, while still low numerically (0.5% of all pottery) continued to replace intrusives from the outside. In the Topawa Phase, as represented at Valshni Village, Topawa Red-on-brown made up 73.9% of all decorated pottery found. Intrusives from the Gila Basin area had dropped to 19.5%.

Differences of Topawa Red-on-brown and Tanque Verde Red-on-brown:

- 1: Main field of decoration transferred from interiors to exteriors of bowls in Tanque Verde Red-on-brown.
- 2: Higher polish and smoother finish on Tanque Verde Red-on-brown.
3. Differences in design:
 - a. General lack of broad line treatment in Topawa Red-on-brown.
 - b. Lack of basket weave and checkerboard designs in Topawa Red-on-brown.
 - c. Lack of interlocking scrolls in Topawa Red-on-brown.
 - d. Lack of hooked triangles in Topawa Red-on-brown.
4. Greater sophistication in design and execution in Tanque Verde Red-on-brown.
5. Tanque Verde Red-on-brown later.

Type Site: Valshni Village (Arizona DD:1:11).

Range: Found only in immediate area of Valshni Village. Probably extends over southern portion of the Papago Indian Reservation and perhaps to the east.

Red Ware

Valshni Red:

Method of manufacture: Paddle and anvil.

Paste:

Color: Red-orange to a brick red. No carbon streak.

Range:

5'-j (Plate XIII)

7'-i (Plate XIV)

7'-h (Plate XIV)

5'-j (Plate XIV)

Inclusions: Numerous, angular pieces of white quartzite.

Texture: Granular and friable.

Fracture: Straight but rough and granular.

Hardness: 4.5.

Surface features:

Color: Same as paste.

Hardness: 4.5.

Evenness: Usually even.

Texture: Smooth.

Luster: Uniformly lustrous. Polishing marks easily discernible and almost always at right angles to the rim and extend to the rim.

Slip: Inorganic and of medium thickness.

Defects: Crazeing.

Form:

Bowls:

Percentage: 89.4%.

Types: Predominant type is a large hemispherical bowl. A few were made with flat bottoms, and a few others had a shoulder near the base. The shoulder type had a recurved rim.

Wall thickness: 0.4cm.--1.0cm.

Diameter: 20cm.--44cm; average 34cm.

Rim form: (Fig. 9 a-h).

Jars:

Percentage: 10%. Seed jars: 0.6%.

Types: Globular body with incurved neck and straight rim.

Wall thickness: Same as for bowls.

Diameter at mouth: 14cm.--22cm.

Rim form: (Fig. 9 j, k).

Platters: One occurrence; diameter 34cm. (Fig. 9 i).

Type Site: Valshni Village (Arizona DD:l:11).

Range: So far this type is known to exist only in the southern part of the Papago Indian Reservation, although further investigation may show it to extend into other regions.

Remarks:

Valshni Red is found in both the Vamori and

Vamori Red-on-brown rim forms.

- a-f. Bowls.
- g. Jar.

Topawa Red-on-brown rim forms.

- h-k. Bowls
- l,m. Jars.
- width of a. 6.5mm.

Valshni Red rim forms

- a-h. Bowls.
- i. Platter.
- j. Jar.
- k. Seed jar.
- l. Flat-bottomed bowl.
- width of a. 5mm.

FIGURE 8

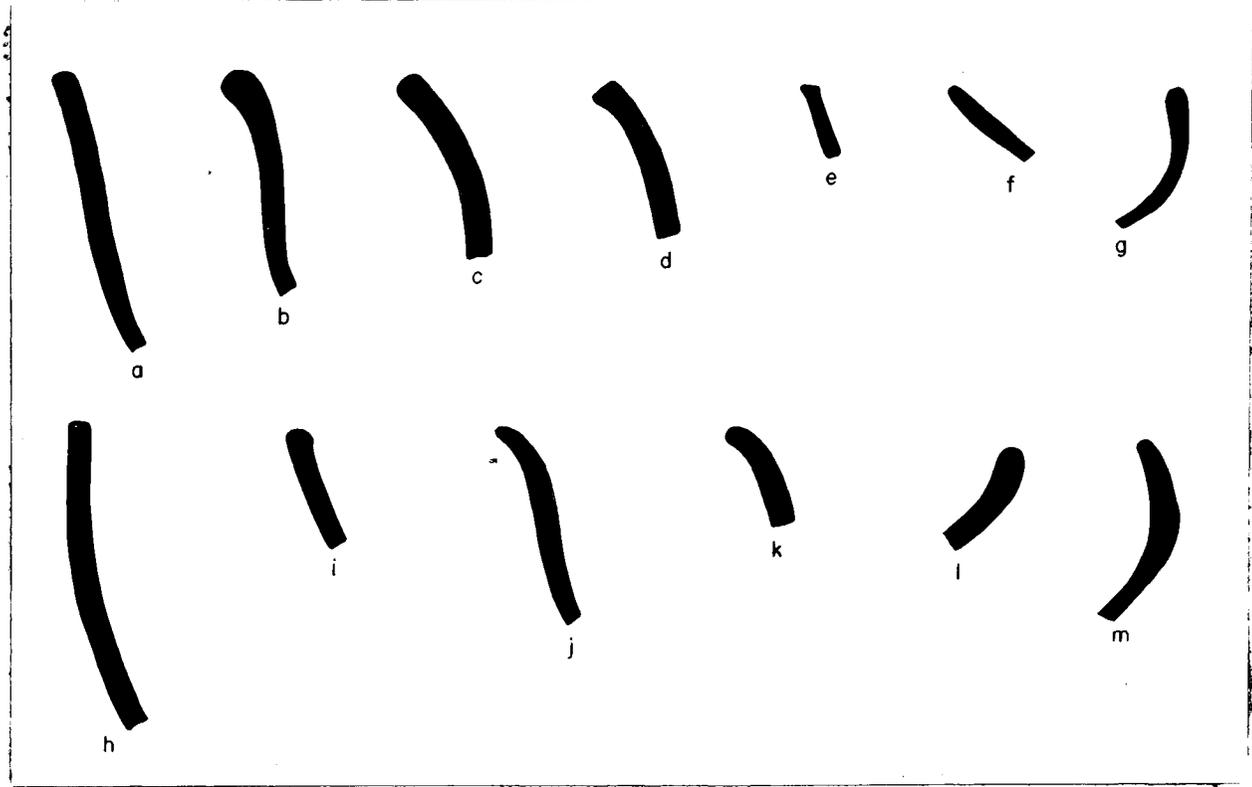
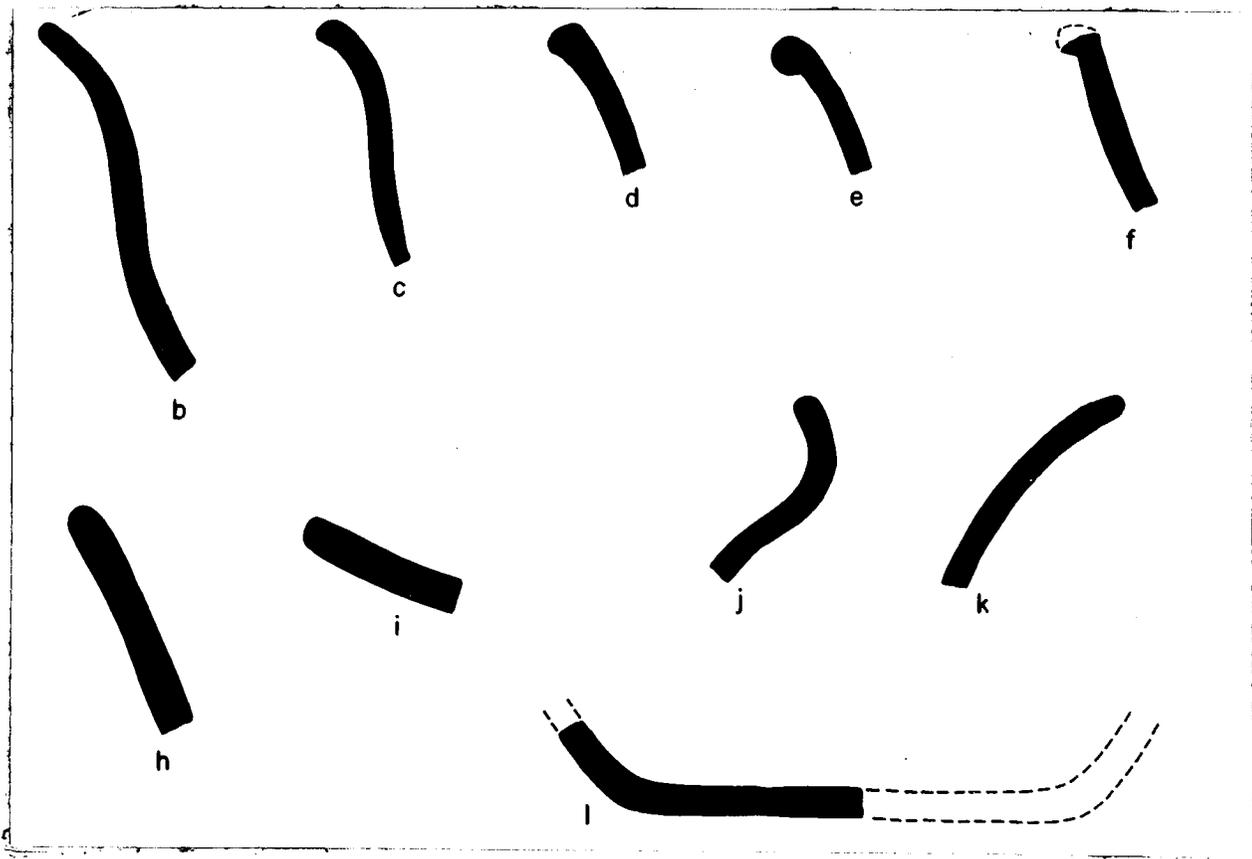


FIGURE 9



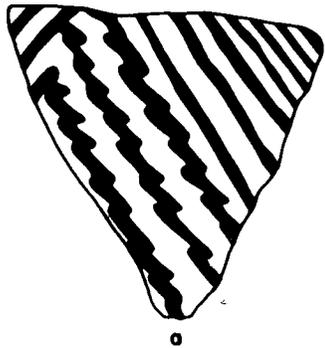
Vamori Red-on-brown designs.

a, c, d, e, f, k, l. Bowl interiors.

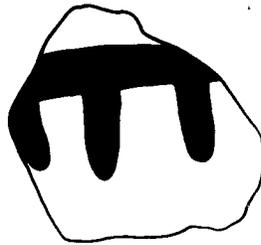
h. Bowl exterior.

b, g, i, j. Jar exteriors.

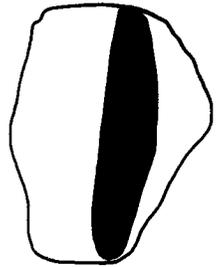
Width of k. 12.5cm.



a



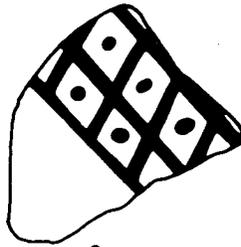
b



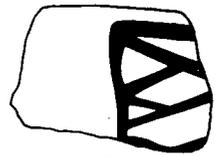
c



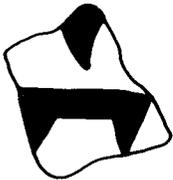
d



e



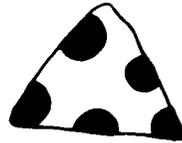
f



g



h



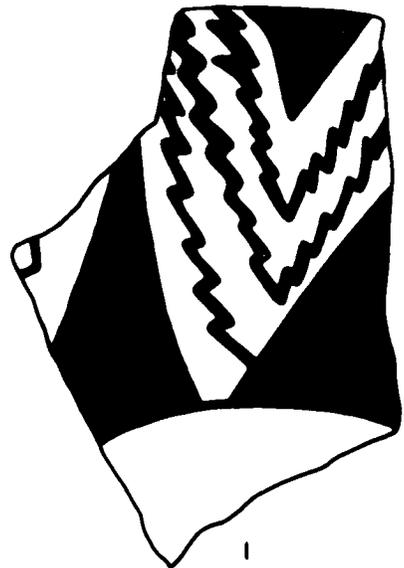
i



j



k



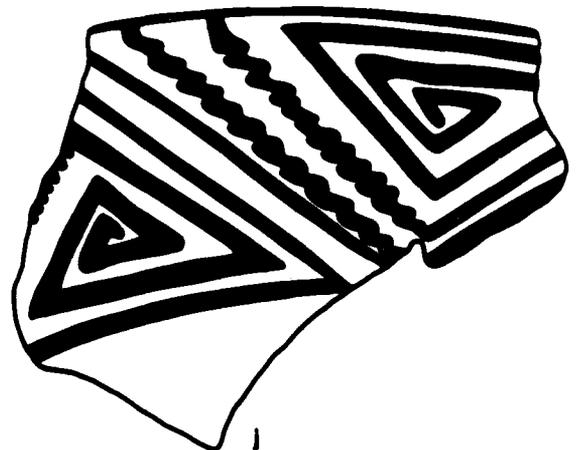
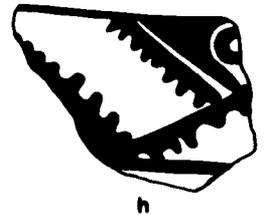
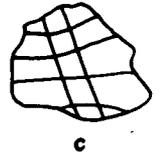
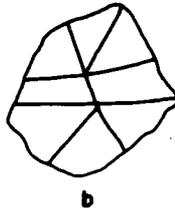
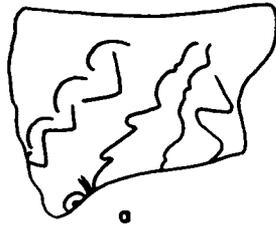
l

- a-c. Incised plain ware.
- a. Incised while wet.
- b,c. Incised when dry.

Topawa Red-on-brown designs.

- d. Bowl exterior.
- e, i, j. Bowl interiors.
- f-h. Jar exteriors.

Width of i. 13cm.



Topawa Phases, giving it a time range of approximately 800 to 1250 A.D. In the early portion of the Vamori Phase (Mounds 1 and 2) very little is found. It shows a marked increase about the middle of this phase and is abundant in the Topawa Phase (Fig. 2).

The diagnostics for Valshni Red are: the pattern of the polishing marks, the well-polished brick-red surface, white quartzite inclusions, and the brick-red paste without a carbon streak. The polishing marks may not show up well, and the surface often loses its luster due to exposure to the elements.

Valshni Red is the lineal predecessor of Sells Red, the distinctive red ware of the Sells Phase. The two forms show many overlapping characteristics, such as similarities of paste, finish, color. The red ware of the Topawa Phase forecasts Sells Red in its trend toward outflaring rims. The gradual increase from early to late by the red ware at Valshni Village, where in the Vamori Phase it makes up 1.6% of all the pottery and in the Topawa Phase 22.4%, is culminated by Sells Red which constitutes 55% of the pottery at the Jackrabbit Ruin.⁸

Valshni Red may be distinguished from Sells Red by the following traits: Absence of a thickened rim, absence of a carbon streak, pattern of the polishing marks, and, in a general way, by the shape.

Intrusive Pottery

Trincheras Purple-on-red (Specular iron paint variety)

Paste:

Color: Red-orange through buff. Dark grey to black in fire-clouded areas. Range:

9'-i (Plate XIV)

13'-k (Plate XV)

Carbon streak often present.

Temper: Water-worn and angular sand particles varying in size from small to large. Temper generally rather coarse and a large amount of it was used in proportion to the amount of clay.

Fracture: Fairly brittle.

Hardness: 3.5.

7. Scantling, F. H., 1940, pp. 30-33.

8. Ibid., p. 30.

Surface features:

Color: Dark red through light red to light red-brown. Range:

9'-h (Plate XIV)

7'-j (Plate XIV)

Firing clouds present.

Interiors of bowls generally a darker red than exteriors.

Evenness: Bowl interiors even. Exteriors tend toward unevenness. Jar exteriors not as even generally as bowls. Jar interiors uneven.

Texture: Interiors smooth on bowls. Bowl exteriors not as well polished. Jar exteriors generally not as well polished as bowls. Jar interiors rough and unpolished and usually show a deep scoring made with reeds or some similar object.

Luster: Dull to fairly high.

Slip: Usually fairly heavy to cover coarse paste. Heavier on interior of bowls than on exterior.

Hardness: 3.5.

Paint:

Composition: Inorganic. An iron paint containing a high percentage of specular iron crystals.

Properties:

Color: Black. Sometimes with a purplish cast.

Range:

59''''-m (Plate LII)

69''''-k (Plate L)

Luster: The luster is high as the specular iron reflects a great amount of light.

Relief: Paint often applied so thickly that it stands up in relief.

Hardness: 3.0.

Evenness: Paint often tends to cake, making it uneven.

Defects: Abrasion.

Forms:

Bowls:

Great majority of vessels are bowls. These are hemispherical, a bowl forming slightly more than one-third of a hemisphere.

Diameter: 18cm.-28cm; average 25cm.

Wall thickness: 0.3cm-0.7cm.

Rim types: (Fig. 12 a-d).

Jars:

Rather rare. Have short, straight necks or slightly recurved necks and wide mouths over a globular body.

Diameter at mouth: 24cm.

Wall thickness: 0.3cm-1.0cm.

Rim types: (Fig 12 e, f).

Design: (Fig. 12 j-p).

Layout:

Designs are both curvilinear and rectilinear. Curvilinear designs tend to occur in all-over patterns, while rectilinear designs occur often in bands which run around the bowl interiors and leave the bottom open. Rectilinear and curvilinear styles often occur in the same design. Small triangles are often pendant from the rim around the whole vessel. Sometimes the main design runs right to the rim. The rims are usually painted and often a broad line encircles the exterior of the bowl at the rim. This is the only occurrence of exterior decoration.

Motifs:

Large, solid triangles, often with scrolls attached.
Chevrons.
Solid and cross-hatched diamonds, large and small.
Repeated small elements.

Type Site: La Playa, Sonora (Sonora: F:10:3).

9

Range: From Gila River to region of lower Bacavachi and Sonora Rivers, and from San Miguel de Horacitas¹⁰ drainage basin west nearly to the Gulf of California.

Remarks:

The sample used in this study was too small to make this description wholly complete. The full description and history of this ware can only be told by the excavation of a site where it was made locally. All of the Trincheras Purple-on-red found at Valshni Village is known to be intrusive from the region to the south and across the International Boundary. As yet no site where this pottery occurs indigenously has been reported outside of Sonora, Mexico.

The flow of this ware into sites in Southern Arizona, as shown by the work at Valshni Village, was fairly constant over a long period of time. The best associations for this type occurred in the trash mounds, and these placed it as being strongest in the Vamori Phase. There were minor occurrences with Topawa associations. This would give it a known time range of approximately 800-1200 A.D. with a

9. Gladwin, Haury, Sayles, Gladwin, 1937, p. 218.

10. Brand, D., 1935, p. 299.

noticeable dwindling toward the end of this period. Evidence at Jackrabbit Ruin where no occurrence of this type was found would further point to a top date of 1200 A.D. for Trincheras Purple-on-red.

Trincheras Purple-on-red (Non-specular variant)

Paste:

Same. Carbon streak more likely to be absent.

Surface features:

Color: Red through yellow brown. Range:

9'-h (Plate XIV)

9'-j (Plate XIV)

11''-i (Plate XXVIII)

15''-h (Plate XXIX)

Average color browner than specular variety.

Hardness: 3.5.

Paint:

Composition: Inorganic. No specular iron.

Properties:

Color: Brown with red or purple cast. Range:

7''''-i (Plate XLV)

69''''-k (Plate 50)

69''''-m (Plate L)

Evenness: Evener than specular variety.

Hardness: 4.0.

Form:

Bowls:

Predominant. Shape same as other variety.

Jars:

More numerous than other variety.

Seed Jars:

Rare but occur.

Design: (Fig. 12 q-t).

Layout:

Less curvilinear designs.

Design goes to rim.

Exterior often decorated on upper part, sometimes just broad band around rim.

Motifs:

Broad parallel lines--parallel to rim.

Cross hatching, thin to medium to broad lines.

Solid triangles.

Chevrons.

Small to large cross-hatched diamonds.

Type Site: La Playa, Sonora.

Range: Same as specular iron variant.

Remarks:

This type occurs hand in hand with the specular iron variant except that none was found associated with Topawa Phase material. This would indicate that this variety died out somewhat sooner than the other. In northern Sonora sites have been found where this variety occurs without the specular iron type. This and the fact that its decorative style is cruder might point to an earlier origin for this type than for the other. However, little can be said without actual evidence from excavation in Sonora.

A numerical analysis of these two variants shows that their distribution in the three Vamori Phase mounds was about equal.

11

Trincheras Polychromes

Paste:

Color: Reddish-brown. Always a wide carbon streak in core.

Inclusions: Gravel particles.

Texture: Granular and friable.

Fracture: Irregular and generally oblique to vessel surface.

The fractured surface is rough and granular.

Hardness: 3.5.

Surface features:

Color: Orange red on exterior.

9'-j (Plate XIV)

17'''' (Plate XLVI)

Black and red on white interior, 19''-f (Plate XXX)

Hardness: 3.0.

Evenness: Uneven on exterior.

Texture: Smooth to rough.

Slip: Thick, creamy white slip applied to interior only.

Defects: Abrasion and peeling of slip.

Paint:

Composition: Inorganic. Black paint full of iron specularite.

Properties:

Color: Black 59''''-m (Plate LIII) and orange red, 9'-k (Plate XIV)

Luster: High in black paint due to specular iron. Dull in red.

Relief: Paint sometimes applied so thickly it gives low relief.

-
11. This type has also been referred to as Nogales Polychrome, Clarke, Eleanor P., 1935, Plate XXX.

Hardness: Red--2.5, black--3.0.
Evenness: Uneven.
Defects: Abrasion.

Forms:

Made only in bowl form. Bowls would make approximately one-third of a sphere.
Diameter: 22cm.-26cm.
Wall thickness: 0.4cm.-0.6cm.
Rim form: (Fig. 12 g-i).

Design: (Fig 12 u)

Layout:

Decorated only on interior. The design invariably occurs in variously alternating bands of black and red. Sometimes the bands are made up of repeated small elements, sometimes of continuous lines. Small triangles are usually pendant from the rim, occurring in black or in alternating black and red. A heavy black line often circles the vessel below the pendant triangles and above the banded motifs. Also, there is usually a band in black paint of varying width around the rim on the exterior.

Motifs:

Continuous lines made by joining small, solid or cross-hatched diamonds.
Individual diamonds, both solid and cross-hatched.
Small solid triangles.
Broad lines.

Type Site: La Playa, Sonora.

Range: Outlined by Boquillas, Altar, and Arroyo Seco tributaries of the Rio Magdalena from the north.¹²

Remarks:

On the basis of its associations at Valshmi Village and elsewhere in Southern Arizona, Trincheras Polychrome may be said to be contemporaneous with the Santa Cruz Phase of the Hohokam and the early portion of the Vamori Phase in Papagueria. The time range would be approximately 700 to 900 A.D., with the possibility that it may go earlier.

This type is closely related to the other Sonoran types intrusive here, especially to Purple-on-red (specular iron variety). It differs from the usual Trincheras ceramic style only in the addition of the white slip. It bears analogies to Santa Cruz Red-on-buff with its designs of bands of small repeated elements.

12. Brand, D., 1935, p. 300.

Trincheras Polychrome, as far as is known, was made locally only in the Altar Region of Sonora,¹³ although several whole vessels have been found in the vicinity of Nogales, Arizona, and several were recently discovered near the Calabasas School south of Tunacacori National Monument.

Altar Polychrome

Paste:

Color: Brown to red-brown. Range:
9'-k (Plate XIV)
9''''-k (Plate XLV)

Inclusions: Sometimes gravel.

Texture: Granular and friable.

Fracture: Slightly irregular, rough and granular.

Hardness: 4.0.

Surface features:

Color: Brown. Range:
13'-b (Plate XXIX)
15''-d (Plate XXIX)

Hardness: 3.5.

Evenness: Exterior even; interior uneven on jars and usually heavily scored.

Texture: Slick to rough.

Luster: Uniformly lustrous.

Slip: Thin brown slip present.

Defects: Abrasion

Paint:

Composition: Inorganic.

Properties:

Color: Light red, 8'-k (Plate XIV) and 11''-l (Plate XXVIII) and black.

9''''-i (Plate XLV)

14''-k (Plate XXIX)

67''''-m (Plate L)

Black contains no specular iron and often has a purplish cast.

Luster: Uniformly lustrous.

Hardness: Red--2.5, black--3.5.

Evenness: Even.

Defects: Red--abrasion, black--abrasion and peeling.

Form:

Bowls: Occur but are rare.

Jars: Heavily predominant.

Design: (Fig. 12 v-x).

Patterns and motifs:

Alternating broad lines of black and red with

Rim Forms for Trincheras Series.

- a-d. Trincheras Purple-on-red bowls.
- e,f. Trincheras Purple-on-red jars.
- f. Trincheras Purple-on-red seed jar.
- g-i. Trincheras Polychrome bowls.

Designs

- j, l, m, n, o. Bowls, Trincheras Purple-on-red (specular iron variety).
- k, p. Jars, Trincheras Purple-on-red (specular iron variety).
- q, s, t. Bowls, Trincheras, Purple-on-red (non-specular iron variety).
- r. Seed jar, Trincheras Purple-on-red (non-specular iron variety).
- u. Trincheras Polychrome bowl.
- v-x. Altar Polychrome jars.

Width of u. 20cm.



a space between.
Large, cross-hatched diamonds in black
bounded by red.
Designs usually bold and crudely executed.

Type Site: La Playa, Sonora.

Range: So far as is known, Altar Polychrome has
the same range as Trincheras Polychrome.

Remarks:

This is a new pottery type and is known
only from sherds. It follows closely the
Trincheras ceramic tradition and, except for
the addition of red, is much like Trincheras
Purple-on-red (non-specular iron variety).

At Valshni Village this type occurred
only in Mounds 1 and 2, placing it in the
early Vamori Phase. An end date of approxi-
mately 900 A.D. may be assigned to it. Altar
Polychrome may extend well back into Trincheras
Chronology, but this can only be told from
actual work in that region. It occurs along
with Trincheras Polychrome but apparently
dies out slightly earlier. As this type is
found almost solely in the jar form and
Trincheras Polychrome exclusively in the bowl
form, it may be that the two types are closely
allied and that their differences are due to
form rather than anything else. Both were un-
doubtedly made by the same people at the same
time.

Discussion of Intrusive Pottery Types

The chief pottery types intrusive at Valshni Village
came from the Gila Basin branch of the Hohokam to the north
and from the Trincheras area in Sonora to the south. The
Gila Basin Red-on-buff ware was the yardstick used in dating
the local phases at Valshni Village. It occurred heaviest
in mounds 1 and 2 where it was respectively 76.0% and 74.5%
of all the decorated ware found (Fig. 3). The types found
here were late Santa Cruz Red-on-buff and early Sacaton

Red-on-buff. In both mounds the two types were so mixed and so many of the sherds could not be definitely assigned to one phase or the other that no effort was made to analyze them separately. The sample of these two types here shows a definite and gradual blending with no break in the development from Santa Cruz to Sacaton times. So Mounds 1 and 2 may be said to cover a period of occupation on the borderline between the two phases as they have been defined in the Gila Basin.

In Mound 3 the Red-on-buff ware was from an almost pure Sacaton Phase horizon with only a few sherds of Santa Cruz Red-on-buff creeping in. It is fully developed Sacaton Red-on-buff and makes up 38.1% of all the decorated ware found. This shows quite a decline from Mounds 1 and 2 and is correlated with an increase in the production of the local Vamori Red-on-brown. These three mounds represent the rubbish accumulated on the site during the Vamori Phase. It can be seen that, on the basis of these Red-on-buff associations, a date of 800-1100 A.D. may be assigned to the phase.

The Topawa Phase, represented on the site by Mound 4 shows Casa Grande Red-on-buff and some Sacaton Red-on-buff as the intrusive types from the Gila Basin area. There were only nine intrusive Red-on-buff sherds from the whole test, constituting 19.5% of all the decorated ware found. While there was a general decrease in intrusive Red-on-buff wares,

the increase in the local decorated ware continued. Casa Grande Red-on-buff is not found associated with Gila Polychrome in the Topawa Phase. When these two are found together it indicates that the site belongs to the 14th century Sells Phase.

Another type of red-on-buff was found intrusively at Valshni Village. This is a Hohokam ware but has a coarser paste than that of the Gila Basin area. It can be placed as intrusive from the northwest coming from somewhere between Tucson and Florence, Arizona. This type occurs only in the Vamori Phase and was found only in a minor quantity. It made up 7% of the decorated ware found. Little can be said of this ware as data is lacking from the area where it was made locally.

During the Vamori Phase there was a small but steady flow of Sonoran decorated wares into Valshni Village. These are all identifiable as belonging to the Trincheras Culture.¹⁴ The type which occurs most frequently is Trincheras Purple-on-red. This type has been given two varieties, the differentiation being based upon paint and design differences. Whether or not this breakdown is valid will depend upon the results of actual excavation in the Trincheras area, but in the light of present evidence it would seem to be.

Placing these Trincheras wares has been something of

14. Sauer and Brand, 1931.

a problem. Only on rare occasions have sherds been associated with dateable red-on-buff sites in Arizona, and equally as rare have been red-on-buff intrusives in Trincheras sites.

As Brand says:

This apparent non-interchange of pottery between two adjacent pottery-using cultures would be interpreted as representing a time difference, were it not for the marked mutual boundary which may indicate a long continued state of antagonism and absence of commerce.¹⁵

However, with the evidence gathered at Valshni Village and a few other sites in Southern Arizona approximate dates may now be assigned to the Trincheras series. It cannot be doubted that the Trincheras pottery types (Trincheras Purple-on-red, Trincheras Polychrome, and Altar Polychrome) were well established by the 10th century. Evidence at Valshni Village gives them a strong Vamori Phase association. A small amount of Trincheras pottery (0.1% of all decorated pottery) was found intrusive at the Gleeson Site¹⁶ in the divide between the Sulphur Springs and San Pedro Valleys, Arizona. This site dated from approximately 800 to 1000 A.D. The facts at hand seem to point toward an earlier development in the Trincheras area than is shown by these two sites. The two polychrome types show up only in the early part of the Vamori Phase and then only in a minor quantity, making up only 0.8% of the decorated pottery. These would

15. Brand, D., 1935, p. 300.

16. Fulton, W. S., and Tuthill, C., 1940, p. 48.

suggest that either the types were dying out or that they were never made in any quantity. The former would seem to be the more likely as they occur frequently in surface collections from Sonoran sites. If this is true it means that the peak of the development of Trincheras and Altar Polychrome occurred prior to 800 A.D. As these types always are associated with and outnumbered by Trincheras Purple-on-red where they are found locally, the same may be said for it, although it enjoyed a somewhat longer life. Placing the main development of Trincheras pottery at an early time is somewhat borne out by the fact that "Sonora Red-on-brown,"¹⁷ as it was called, was found associated with the phases of the Pioneer Period (prior to 500 A.D.) at Snaketown.

While the polychrome types had died out by 1000 A.D. the black-on-red ware continued on until perhaps 1250 A.D. as is shown by its association with the Topawa Phase. It is the minor association with this later period which has in the past led observers to believe that the Trincheras¹⁸ series occupied a relatively late position.

One black-on-white sherd from the Anasazi area was found and has been identified as either Mesa Verde Black-on-white or a hybrid of Sosi Black-on-white and Dogoszhi Black-on-white.¹⁹ Mesa Verde Black-on-white has been placed as

17. Gladwin, Haury, Sayles, Gladwin, 1937, p. 218.

18. Gladwin, H. S., 1929, p. 12.

19. Letter from Dr. H. S. Colton, Museum of Northern Arizona.

early as 1200 A.D., Sosi Black-on-white from about 1120-²⁰
1150 A.D.,²¹ and Dogoszhi Black-on-white continues up until
1150 A.D.²² The sherd was found on the western portion of the
site, associating it with the Topawa Phase which has been
dated from 1100 to 1250 A.D. In a general way then, this
black-on-white sherd provides something of a check on this
dating.

Discussion of Local Pottery Types

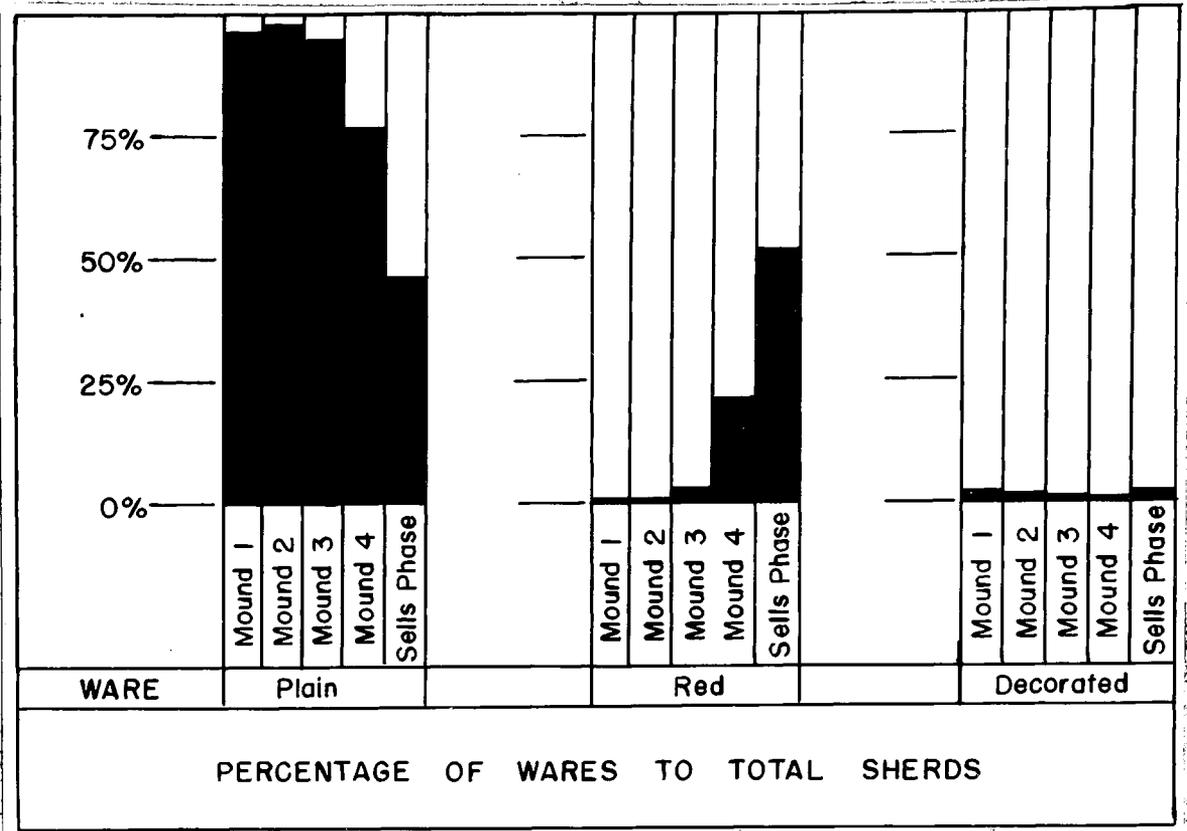
The plain ware which occurred in both phases at
Valshni Village was Sells Plain,²³ there being no difference
between this earlier ware and the later plain ware of the
Sells Phase. However, there was more of it made in the
earlier phases before red ware gained a hold. In the
Vamori Phase the plain ware constituted 96.0% of the total
pottery, in the Topawa Phase 77.1%, and in the Sells Phase
43.5%²⁴ (Fig. 13a). There was also a decrease in the number
of plain ware bowls from early to late. The figures on
these are as follows:

Vamori Phase:
Bowls: 25.4%
Jars: 74.4%
Topawa Phase:
Bowls: 29.7%
Jars: 70.3%
Sells Phase:²⁵
Bowls: 6.5%
Jars: 93.5%

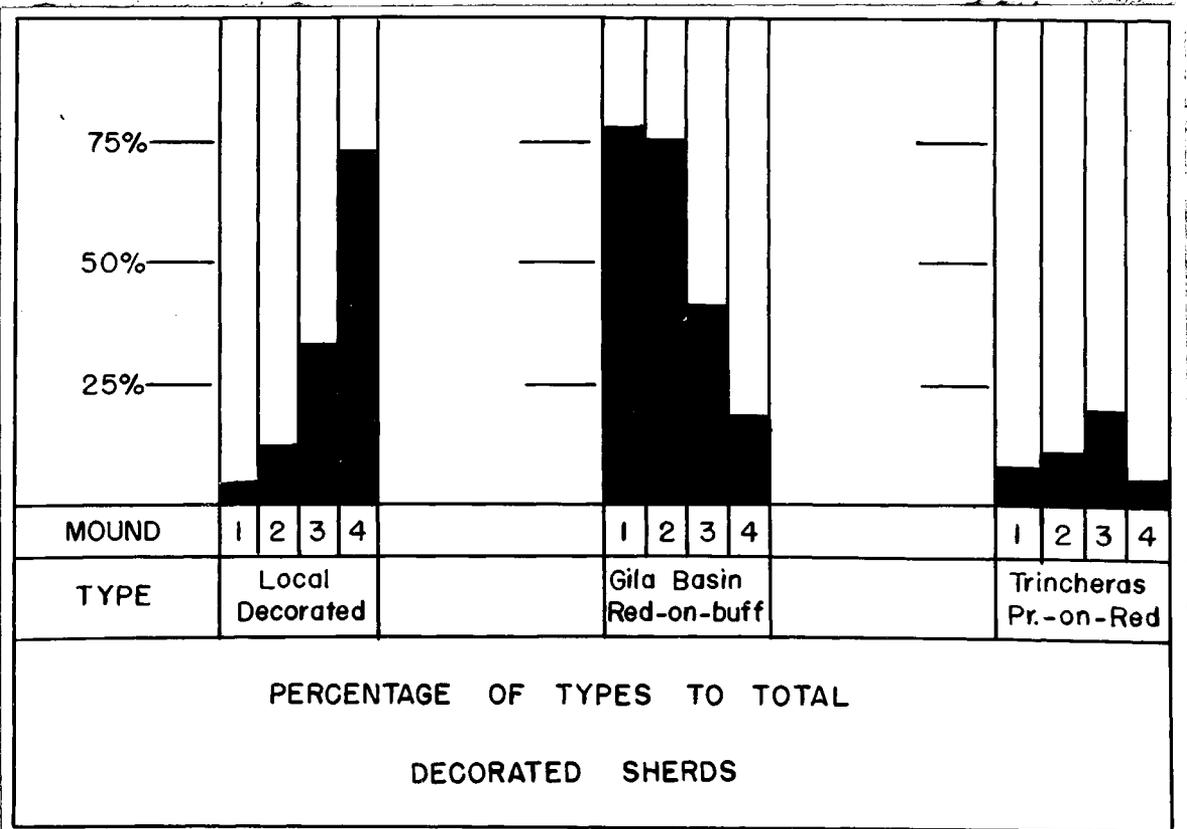
20. Colton and Hargrave, 1937, p. 231.
21. Ibid., p. 211.
22. Ibid., p. 209.
23. Scantling, F. H., 1940, p. 33.
24. Ibid., p. 33.
25. Ibid., p. 33.

a. Graph showing by mounds the percentages of plain, red, and decorated wares to total sherds. The figures for the Sells Phase have been included for comparison.

b. Graphs showing by mounds the trends of the decorated types found at Valshni Village.



a



b

Figure 14.

Chart illustrating the
development of pottery in
Papageria.

Figure 15.

Chart tracing the probable
development of the local
decorated pottery in Papageria.

FIGURE 14

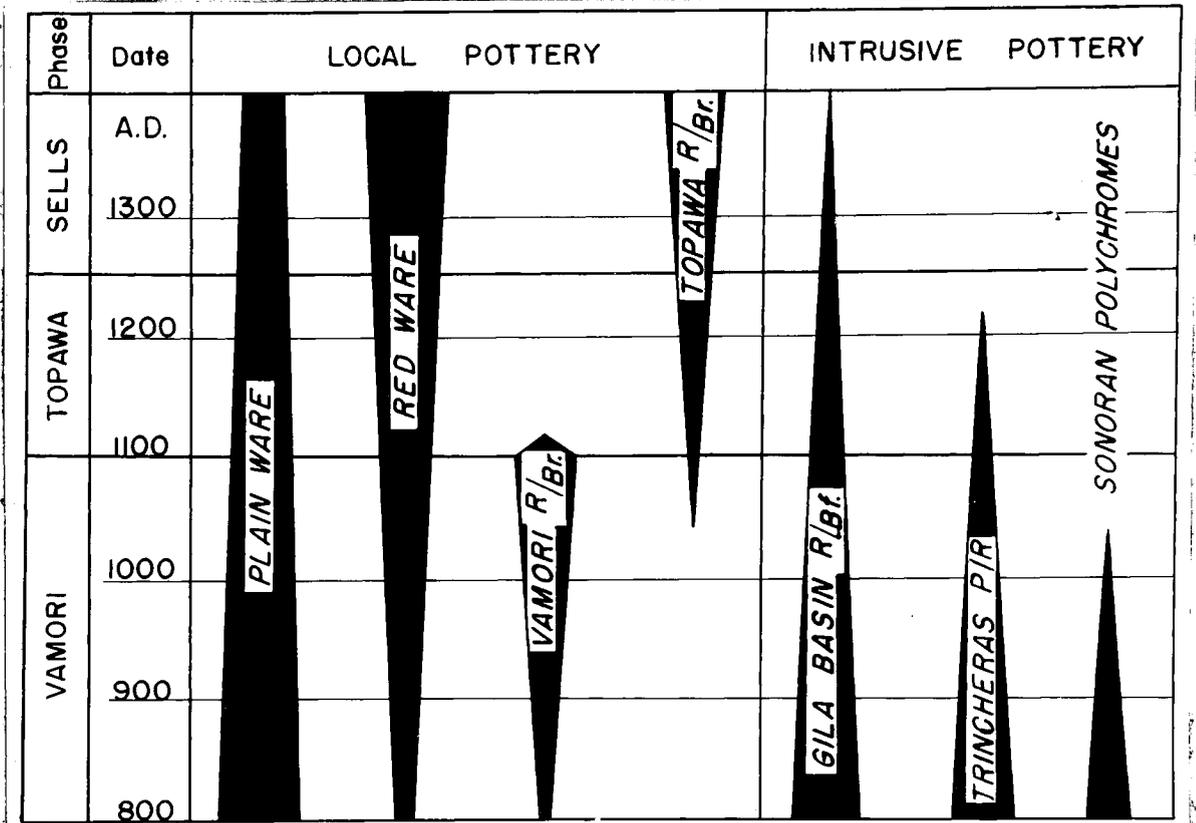
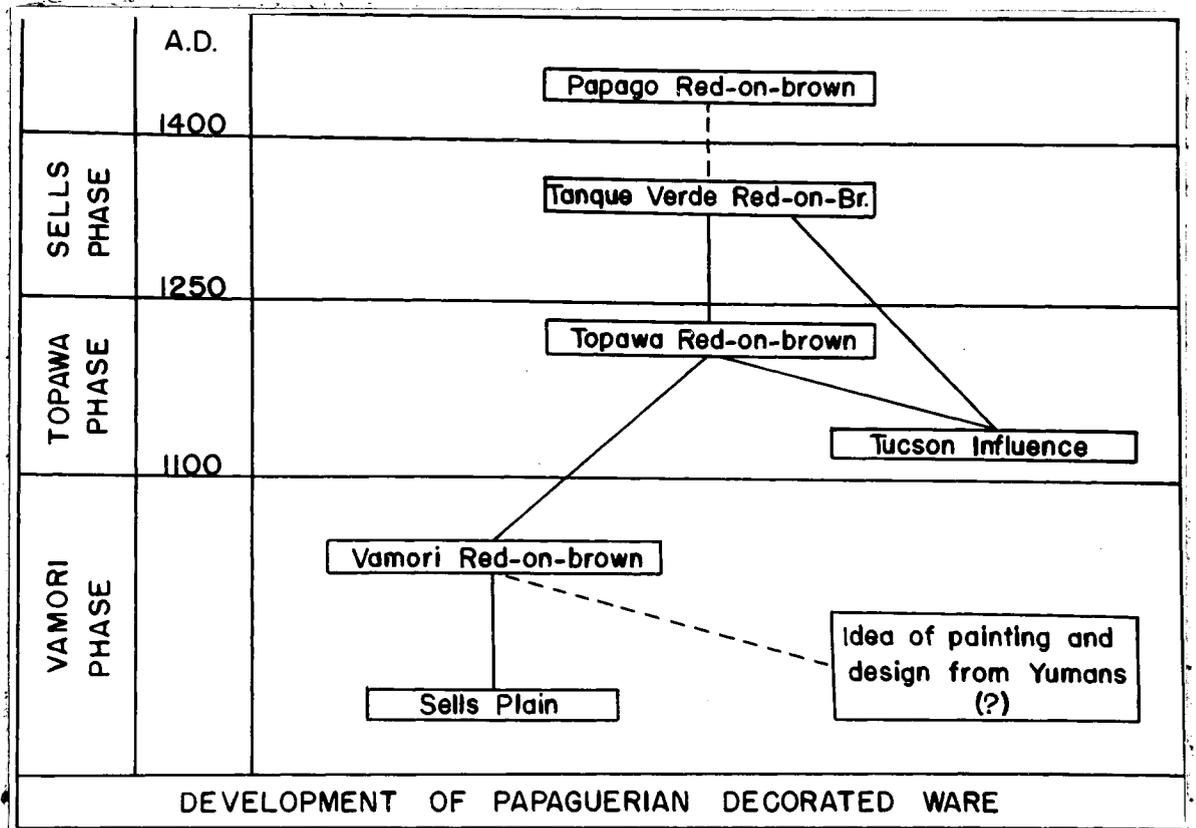


FIGURE 15



This can probably be explained by the fact that the new types which came in were made predominantly in the bowl form.

In the Vamori Phase it was not uncommon for the plain ware vessels to have incised lines along the rim. Also, some of the Vamori Phase plain ware was exceedingly thick. Sherds of one jar were found on which the wall thickness was 2.8cm. at a point just below the rim. Another variation in the plain ware was the occasional occurrence of incising on the jars. This was a fairly common practice in the Vamori Phase. In the majority of cases the incisions were made after the vessel had been fired (Fig. 11 a-c), but on a few vessels these had been made while the clay was still damp. Several sherds of plain ware were found which resemble the "stucco" wares of the Lower Colorado River region. This may be another indication of an early affiliation between the Yuman area and Papaguera.

Sells Plain was undoubtedly the oldest of the known types to be made in Papaguera, and it decreased as more attention was focused on the incoming newer types. At least there is a definite correlation between the decrease in plain ware and the increase in red ware.

The local pottery at Valshni Village shows a steady development from the Vamori Phase on up through the Sells Phase. This seems to show the gradual growth of a local ceramic complex, stimulated from time to time by the

infiltration of certain ideas from centers ceramically more productive.

One of the major problems on the site was the type which has been named Vamori-Red-on-brown. Even at its peak in Mound 3 there was very little of it made when compared to the red and plain wares. In Mounds 1 and 2 there was much less. Because of this scarcity (only 259 sherds were recovered from all three mounds) and because of the total dissimilarity of this type to any of the other decorated types in the region, it was at first thought that it was not of local origin. It could not have come from the north, east, or south because the pottery of these areas is known. An attempt was made to link it to the Yuman groups to the west, but this failed. Thus, by elimination, Vamori Red-on-brown had to be regarded as a local product. An analysis of the paste showed it to be local, dispelling all doubt that it was made anywhere but in Papaguera.

The origin of the idea for this type of decorated pottery is still unknown. The local pottery makers did not copy any of the intrusive types which were coming into Valshni Village at that time. That this idea came in and was being tried for the first time is shown by the poor handling of the technique, an unsureness in paint and design. In treatment and style of design Vamori Red-on-brown reminds one of certain Yuman types which occur in the desert region bordering the lower reaches of the Colorado River. Some of

the sherds look almost like copies made from original Yuman vessels. ²⁶ The designs are not like those of any of the groups immediately bordering Papaguera on the north, east or south. So it is possible that the idea for this decorative style was obtained from the peoples to the west and applied to the local plain ware. It can be seen that once painted pottery gained a foothold among the local potters it increased rapidly, although in all of its development it never achieved the place held by the red ware.

The beginning of the Topawa Phase saw a change in the local decorated ware. Polishing is used on all of the local red-on-brown ware for the first time. A certain sureness and sophistication in design and a satisfactory mixture of paint appear for the first time. Topawa Red-on-brown also shows a great amount of influence from the Tucson area in technique, design, and vessel form. This is continued in the type which developed out of it, Tanque Verde Red-on-brown. In fact, from about 1200 to 1400 it is quite difficult to distinguish the pottery from the two regions. The Topawa Phase sees the beginning of a great influence on the ceramics. At this time the inhabitants of Papaguera were still a recipient group as no evidence has been found which would suggest reciprocal trade between the areas. However, during the Sells Phase the situation changed, and Sells Red and other articles are found being traded to surrounding groups.

The red ware also shows a steady development from the Valshni Red of the Vamori Phase (1.6% of all pottery) to Sells Red of the Sells Phase (55% of all pottery). The origin of Valshni Red, like that of the decorated ware, is as yet undetermined. No red wares were made at this time in any of the adjacent areas to the west, north in the Gila Basin area or east in the Tucson area. It is unlike the San Francisco Red of the Mimbres area. So again, by the use of elimination, we must look to the south. Here in southwestern Sonora is found a red ware that, though unplaced in time, most closely resembles Valshni Red. Ekholm suggests a Southwestern tie for this ware when he writes that,

A series of sites located near the town of Huatabampo on the lower Mayo River exhibits a culture which seems to have been in certain basic traits Southwestern in affiliation. The most characteristic pottery found at this site is a fine hard red ware, the forms of which include small jugs, jars, and simple open bowls....The location of these sites on old almost obliterated courses of the Mayo River makes it appear that the remains are of considerable age, and this favors our opinion that the red ware may possibly be affiliated with the early redwares of the Hohokam or Mogollon cultures of Southern Arizona and New Mexico which they somewhat resemble.²⁷

This red ware developed rapidly from approximately 1000 A.D. on (Fig. 13a) and reached its peak in the stylized form of Sells Red.

Pottery was the chief determinant in effecting the break between the Vamori and Topawa Phases. The break is

27. Ekholm, G. F., 1940.

clearly indicated by the intrusive pottery, and its validity is upheld by the local development. The sudden change from Vamori Red-on-brown to Topawa Red-on-brown and the resulting decrease in local decorated ware followed by the building up of the new type until it was stronger than the old had been (Fig. 13 b) is too marked to disregard. Also, the sudden rise of red-ware from 4.0% at the end of the Vamori Phase to 22.4% at the beginning of the Topawa Phase indicates a decided break.

CHAPTER IX

MISCELLANEOUS CLAY OBJECTS

Worked Potsherds

Discs:

Unperforated (Plate XXII f)-----15
Thirteen made from plain ware, one from red ware, and one from Trincheras Purple-on-red. Diameters range from 2.2cm. to 6.0 cm. Usually these were well finished. Occurrences were Vamori Phase 7, Topawa Phase 4, unplaced 4.

Perforated (Plate XXII e)-----10
All made from plain and red wares. Diameters range from 2.8cm. to 4.5cm. The edges were ground smooth on all but two. One had an incised groove around the edge and came from the Vamori Phase. All others belong in the Topawa Phase.

Partially perforated (Plate XXII g)-----5
These were just discs on which drilling had been begun; but the perforations were never completed. All were associated with the Topawa Phase.

Scrapers-----8
Five were rectangular, one oval, and one small, and triangular. One was broken beyond recognition. All were of plain ware except two which had been made from red-on-buff sherds intrusive from the Gila Basin area. Four belong in the Vamori Phase, two in the Topawa Phase, and two could be placed on the border line between the two phases.

Molded Objects

Spindle whorls-----2
Both of these spindle whorls are of the type which has been recognized as late and which occur frequently in the Sells Phase.¹ One

1. Scantling, F. H., 1940, p. 38.

of these is the conical type of slipped and polished red ware.² The other is flat on both sides and of plain ware.³ (Plate XXII h) The red ware whorl was associated with the Topawa Phase while the one of plain ware came either from the late Vamori or early Topawa Phase.

Unidentified object-----1
This was a molded cylinder of plain ware 0.8cm. in diameter from the Vamori Phase. It was broken and probably was the leg of an animal effigy.

Discussion

It is not known just what use the potsherd discs had. Some of the perforated ones may have been used as spindle whorls, but on many the perforation is some distance off center. On others the perforation has been drilled at such an angle that it destroyed the disc's usefulness as a spindle whorl. It has been suggested⁴ that these discs were used as counters in some game.

It is also possible that these discs had some ceremonial or religious significance. Many articles of unknown use have been relegated to this category but in this case⁵ the placement seems valid. From a cave in the Winchester Mountains west of Willcox, Arizona, a great number of these unperforated sherd discs were recovered. The cave had

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2. Scantling, F. H., 1940, Plate XII, j.
 3. Ibid., Plate XII, a.
 4. Gladwin, Haury, Sayles, Gladwin, 1937, p. 243.
 5. Excavated by the Amerind Foundation, Dragoon, Arizona.

served as a shrine, and the discs were associated almost altogether with objects of a ceremonial nature. Nine pairs of these discs were discovered tied together with cotton or fiber string. So it may be that these discs, found to be so widespread in the Southwest, had some ceremonial use.

Interesting is the fact that the perforated discs were associated with the Topawa Phase, while the unperforated ones were found chiefly in the Vamori Phase.

CHAPTER X

STONWORK

Stonework was not common at Valshni Village. The range in sizes, shapes, and styles was rather limited, and the individual occurrence of each type was in no case frequent. This scarcity of stonework was one of the chief characteristics of the site. The artifacts have been typed according to their finish, form, and function. The following summary includes all of the worked stone found on the site.

Ground or Polished Implements

Metates-----3

Style: Basin-shaped.

Material: Granite.

Shape: Roughly rectangular with rounded ends.

Size: Length 46cm. plus; width 37cm; thickness 8cm.

Grinding surface:

Shape: Both axes concave.

Depth below grinding surface: approximately 2.5cm.

Depth below rim: Same as for grinding surface.

Type of mano in association: None.

Stroke of mano: Unrestricted.

Remarks: All of the above data was obtained from only one metate, nearly complete. The basin is the wide shallow type. Data from similar horizons in this and nearby areas is almost completely lacking. So no comparisons can be made except to say that this is not the typical Hohokam type. The metate resembles one illustrated in Excavations at Snaketown, Vol. I,¹ but it is not as thick. The phase association for the metate is doubtful, but it probably belongs in the Topawa Phase.

1. Plate L, a.

Two other metate fragments were found, one being a small thick slab type and the other a basin type. These were too fragmentary to warrant any measurements. Both belong in the Vamori Phase.

No trough metates were found on the site.

Manos

Type I-----5

Material: Granite.

Shape: Roughly oval in outline; loaf-shaped but irregular in cross section. These were just water-worn stones, usually with no attention paid to shaping.

Size: Length 10.5cm.-14.0cm; width 9.0cm.-11.5cm; thickness 4.0cm.-6.5cm.

Grinding surface: Confined to one side; flat to slightly convex. The grinding surface was usually the only worked part of the mano and was achieved only by use on the metate.

Remarks: Type I is the same type of mano as was found by Scantling at Jackrabbit Ruin and designated as Type I.² No examples of this type of mano were found associated with the Topawa Phase, but in all probability they existed during that period.

Type Ia-----4

Material:

Shape: Oval to roughly rectangular in outline; rectangular to lenticular in cross section.

Size: Length 17.5cm; width 13.0cm-13.5cm.; thickness 3.0-4.5cm.

Grinding surface: Flat to convex. One was bifacial, being convex on one surface and flat on the other.

Remarks: This type is essentially the same as Type I except that they were often larger and showed a flat upper surface which was sometimes used as another grinding surface. These were found in both the Vamori and Topawa Phases and resemble Scantling's Type II.³

Type II-----14

Material: Chiefly lava, some granite.

Shape: Rectangular in outline; loaf-shaped in cross section. The edges were made nearly parallel and curved in towards the rounded ends.

Size: Length 18.0cm-25.5cm; width 8.4cm.-12.5cm; thickness 3.5cm.-5.3cm. One small specimen of this

2. Scantling, F. H., 1940, Plate XV, a, b, c.
3. Ibid., Plate XV, d, e.

type was found which measured 5.9cm. in width and 1.9cm. in thickness. It was broken so that its length could not be measured. Only three specimens of the fourteen were complete.

Grinding surface: Slightly convex across the long axis; flat across the short axis; confined to one side.

Remarks: Type II was the predominant mano type on the site and was made for a trough metate. Most of the manos were large and used with both hands. This type resembles Scantling's Type IV⁴ and a type common at Snaketown.⁵ It was associated chiefly with the Vamori Phase, although three specimens belong to the Topawa Phase.

Type IIA-----4

Material: Lava.

Shape: Rectangular to rectangular with rounded ends in outline; rectangular to lenticular in cross section.

Size: Length 14.5cm-17.0cm; width 9.5cm.-10.5cm.; thickness 2.8cm-3.3cm.

Grinding surface: Flat to slightly convex on long axis: Same for short axis. The upper surface had been used as a secondary grinding surface.

Remarks: These are the same as Type II except that they are thinner and the upper surface has been flattened and used as a grinding surface. This type was found to occur only in the Vamori Phase.

Rubbing Stones-----6

Material: Granite.

Shape: Round to roughly oval.

Size: Diameter 5.8cm-10.0cm.; thickness 3.0cm-4.5cm.

Grinding surface: Flat to slightly convex.

Remarks: These were usually water-worn pebbles roughly shaped to fit the hand. One was very well made. It was round with a slightly convex grinding surface, and the sides were beveled in towards the top. It resembled those found at Snaketown⁶ but lacked the groove. These stones were often bifacial, and one was found of the small, wedge-shaped type usually associated with earlier horizons.⁷ The others were like those illustrated by Scantling. Most of the specimens found belong in the Vamori Phase, but enough had later associations to indicate their presence in the Topawa Phase.

4. Scantling, F. H., 1940, Plate XV, h, 1.

5. Gladwin, Haury, Sayles, Gladwin, 1937, Plate XLVI.

6. Ibid., Plate XLV.

7. Scantling, F. H., 1940, Plate XVIII, d-f.

Hammerstones-----7

Material: Granite, diorite, basalt.
Shape: Oval to circular in cross section.
Size: Diameter 4.9cm-8.0cm.
Remarks: One slightly projecting area on each stone was used as a striking surface. One shows a pecked depression for the thumb. These are the same type as those illustrated by Scantling.⁸ They were equally frequent in both phases.

Pestles-----2

Material: Granite.
Shape: Blunt and roughly oval in cross section; rectangular to oval in outline. These underwent only rudimentary shaping and little attention was paid to anything but the grinding end.
Size: Length 14.7cm-17.0cm; diameter 6.0cm.-8.0cm.
Grinding surface: Convex; confined to large end.
Remarks: These are short pestles and were made for a shallow mortar. They are the same general type as Scantling's Type I,⁹ but lacked knobs and grooves which fitted the hand and were not as well worked. Both specimens belong in the Vamori Phase.

Axes-----3

All were fragmentary. By combining the characteristics shown by these fragments it can be said that the axe type was the single-bitted, three-quarter groove axe on which the head was used as a maul. The groove was bordered on each side by a ridge. This type of axe has been reported from many sites in Southern Arizona and is illustrated by Scantling.¹⁰ Two of the axe fragments were Vamori and one was unplaced.

Abrading tools (Plate XX a, b, c, g)-----8

This group is represented by five whetstones, two reamers, and one knife. These were made of schist, diorite, slate, and sandstone. All have been shaped to some degree. The whetstones are either broad and flat or long and rectangular. The reamers have been tapered to a dull point at one end. The knife is broad and flat with one edge ground down. As a rule they are well polished where they have been used for abrasion. These tools occurred only in the Vamori Phase and were not reported to occur at all in the Sells Phase.

8. Scantling, F. H., 1940, Plate XVIII, g-i.
9. Ibid., Plate XVIII, a,b.
10. Ibid., Plate XIX, a.

Ground blade-----1

One blade of schist was found of the same type as has been reported from the Sacaton Phase at Snaketown.¹¹ This blade belongs in either the late Vamori or Topawa Phase, probably the latter. It was found on the floor of House 15 (Plate XVI a.), and its association there with the mountain sheep horn may mean that it was in some way used in the preparation of the meat.

Stone vessels-----4

One stone vessel was found with a Vamori Phase association which is the same type as those reported for the Colonial and Sedentary Periods at Snaketown.¹² This is a sandstone bowl 9.0cm. in diameter and 5.0cm. in height. The wall thickness at the top is 0.5cm. and the interior depth is 3.5cm. The bottom is slightly convex and the sides are convex. (Plate XXI b).

Two other fragmentary pieces were found. One was from a shallow sandstone dish which was rectangular with rounded ends. This had a flat bottom, convex sides, and measured 2.0cm. in height. The other was from a round or oval dish of sandstone and was 2.2cm. high. This one had an incised groove running around the outside 0.6cm. from the top and other grooves at right angles to this one running to the bottom of the vessel.

The fourth was a small vessel of granite, possibly a mortar. It was roughly round, 5.0cm. in diameter, 3.7cm. in height, and the interior 1.2cm. in depth. This was roughly made and shows little use. All three of these belong in the Vamori Phase.

Effigy Palette (Plate XXI a)-----1

This was made of mica schist and had been worked into the form of a frog. It came from the floor of the same house as the sandstone bowl and is associated with the Vamori Phase. It measures 15.0cm. in length 10.3cm. in width, and 2.0cm. in thickness. On the top side a palette was outlined, but it was finished and apparently never used. The under side was polished smooth and has in the center a small basin 5.0cm. in diameter and 1.0cm. deep. This basin shows much use, probably as a mortar, and resembles those found in effigy vessels of the Sacaton Phase at Snaketown.¹³

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11. Gladwin, Haury, Sayles, Gladwin, 1937, Plate XL, b.
 12. Ibid., Plate LIII.
 13. Ibid., Plate LXI, a,b.

Stone ring-----1

One-half of a stone ring of lava was found. It belongs in the Vamori Phase. It measured 6.2cm. in diameter and 3.3cm. in thickness.

Perforated stone disc (Plate XX d)-----1

Only one such disc was recovered. This was of schist perforated through the center and was flat. It was 4.0cm. in diameter and 0.7cm. thick. It appears to be the same as one illustrated by Scantling¹⁴ for the Sells Phase. It differs from this one in having a medial groove around the entire edge and in having on each side four groups of equidistantly spaced incised grooves. These grooves occur on the edge, and each group contains four incisions. This disc was found in Mound 4 and may be placed in the Topawa Phase.

Beads-----9

Material: Steatite 7, turquoise 2.

The steatite beads were small and round, averaging 0.45cm. in diameter. One turquoise bead was round 0.8cm. in diameter, and the other was oblong with the perforation in the center. This measured 1.0cm. in length and 0.4cm. in width. All are from the Vamori Phase except the circular turquoise bead which belongs in the Topawa Phase.

Mosaic plaque-----1

One fragment of a mosaic plaque was recovered from House 3 which belongs to the Vamori Phase. The upper surface had a beveled edge at least 3.0cm. wide. This edge was covered with a pseudo-cloissone decoration. The bottom was flat and decorated in a similar manner. This disc is the same as the later type found at Snaketown.¹⁵

Unidentified objects-----3

Three stone objects were found which have not been identified as to use. One is a short, polished rod of schist, oval in cross section, 7.5cm. long, and 1.2cm. in diameter. Both ends are tapered to a point (Plate XX a)

Another is an object of granite. It is 8.5cm. long, 2.8cm. wide, and 0.9cm. thick. It is rectangular in cross section and in outline. A groove encircles the object 1.2cm. from one end. A notch has been cut on each side along this groove and extending

14. Scantling, F. H., 1940, Plate XXI, b.

15. Gladwin, Haury, Sayles, Gladwin, 1937, Plate CX.

down onto the body. The object is polished from much handling (Plate XX f).
The third is a small object of green stone, rectangular in outline and loaf-shaped in cross section. It is 2.3cm. long, 0.9cm. wide, and 0.7cm. thick.

Chipped Implements

Projectile points (Plate XIX d-g)

Type I-----4

Material: Obsidian (3) and quartzite (1).
Shape: Triangular with flat base and side notches. Two are serrated.
Size: Length 2.0cm.-2.8cm.; width 0.8cm.-1.2cm.
Phase: Vamori.

Type II-----3

Material: Obsidian (1), quartzite (1) jasper (1).
Shape: Triangular with stemmed base.
Size: Length 1.9cm.-3.0cm.; width 1.0cm.-1.2cm.
Phase: Vamori.

Type III-----2

Material: Quartzite and jasper.
Shape: Triangular with concave base.
Size: Length 2.1cm.-2.2cm.; width 1.2cm.-1.4cm.
Phase: Vamori.

Type IV-----1

Material: Quartzite.
Shape: Small, triangular point with flat bottom and ground serrations.
Size: Length 1.5cm.; width 1.1cm.
Phase: Late Vamori.

Remarks: All projectile points fit into the general pattern of the Hohokam.

Drill points (Plate XIX b,c)

Type I-----2

Material: Quartzite and chert.
Shape: Long, thick, and roughly triangular; base rounded or square.
Size: Length 3.9cm.-4.0cm.; width 1.3cm.
Phase: Vamori.

Type II-----2

Material: Quartzite and jasper.
Shape: Roughly triangular.
Size: Length 1.9cm.; width 0.7cm.
Phase: Late Vamori

PLATE XIX

a. Knife.

b,c. Drill Points.

d-g. Projectile Points.

h. Flake Scraper.

length of a 4.5cm.

PLATE XX

a. Reamer.

b. Abrading Knife.

c. Whetstone.

d. Perforated, incised stone disc.

e. Ground rod of schist.

f. Unidentified object.

g. Abrading tool.

length of a 9.3cm.

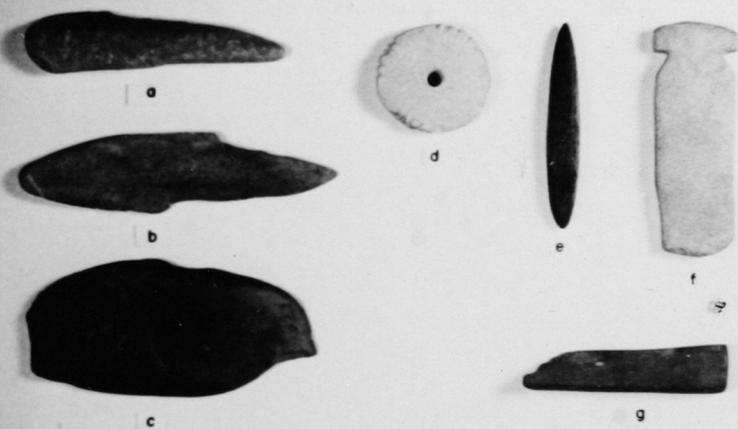


PLATE XXI

a. Effigy palette with small mortar on under side.

b. Sandstone bowl.

length of a 15cm.

PLATE XXII

a, b. Splinter type bone awls.

c, d. Split bone type bone awls.

e. Perforated pottery disc.

f. Unperforated pottery disc.

g. Partially perforated pottery disc.

h. Molded spindle whorl of plain ware.

Length of d. 16.5cm.



a



b



a



b



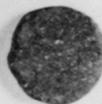
c



d



e



f



g



h

Remarks: Roughly worked; show some chipping and are the same as Type I except they are much smaller.

Knives (Plate XIX a)-----2

Material: Jasper and a crystalline volcanic rock.
Shape: Long, thick, and triangular. Only one shows the base and it has a thick stem.
Size: Length 5.0cm.-?; width 1.8cm.
Phase: Vamori.

Flake scraper (Plate XIX h)-----1

Only one scraper was found. This was a small flake scraper of chert. One edge was finely retouched to give the scraping surface. It is the same type of scraper as that reported from Snaketown.¹⁶ It came from the Vamori Phase.

Flake blades-----2

These were made of large flakes of porphoritic andesite. Neither specimen is complete but look as though they were roughly rectangular in outline. Retouching is shown on one or both edges. These are up to 14.0cm. long and average 8.0cm. wide. They appear similar to the type present in the Sells Phase.¹⁷ One came from each of the two phases on the site.

Discussion

The distinctive feature of the stone complex at Valshni Village is its general lack, especially in grinding stones. This may be seen by a glance at the frequencies of the objects listed in the foregoing summary. This deficiency in stonework is rather difficult to explain, but its negative quality may be listed as a characteristic of the Vamori and Topawa Phases. There are two possible explanations for this. Either the occupants of Valshni Village used stone grinding tools but did most of their work outside the village or else they depended largely

16. Gladwin, Haury, Sayles, Gladwin, 1937, Plate XCV, c.

17. Scantling, F. H., 1940, Plate XV.

18
on wood. In view of the knowledge of food-grinding activity both from archaeological and historical periods, the latter explanation would seem to be the most plausible. It would not be possible to explain the lack of worked stone by a lack of food gathering and agriculture. Agriculture, perhaps, was not greatly developed, but certainly food gathering was practiced as it would be very improbable that any group could exist in the environment of Papageria without utilizing to the fullest extent every source of food supply. Also, the permanent nature of the village indicated by the large trash mounds, the time of occupation, and the dwellings would suggest a sedentary group relying on a fairly permanent food supply. This would point to at least a partial reliance on agriculture. Modern Papago fields are plentiful in the area around Valshni Village. Meat, too, played an important part in the diet of these people, as is shown by the quantities of animal bones, chiefly deer, mountain sheep, and rabbit, found on all parts of the site.

What stone does occur agrees in general with that found in the later Sells Phase. The chief differences are in the change in mano types and the change in the chipped stone industry. The principal mano type on the site, Type II, was found only sparingly in the Topawa and Sells Phases, and bifacial manos were apparently unknown in the Sells Phase. These were replaced by the more crudely made Type I.

18. The Papago in recent times made extensive use of wood for such purposes.

A chipped stone industry never held a place of importance in the area. However, greater use was made of chipped stone in the Vamori Phase than in any of the later phases. At Valshni Village almost no chipped stone was found in the Topawa Phase, and the same situation held true in the Sells Phase. Probably wooden projectile points were the predominant type in these phases.¹⁹

Still unexplained is the great increase in ground and polished stone in the Sells Phase. This seems to be correlated to a minor degree with the decrease in chipped stone. An abundance of metates, manos, and other ground stone was recovered from the Jackrabbit Ruin.²⁰ This might indicate a great increase in the practice of agriculture. This would be born out by the facts that in the Sells Phase large irrigation canals were used for the first time, and the size of the villages increased to some extent. This, however, cannot be the whole story. It is improbable that a group of people showing a gradual and steady development in their culture should suddenly begin practicing intensive agricultural methods with no ostensible change in their culture other than an increase in grinding tools. So it must be that this increase was partially stimulated by some other force, perhaps by a movement of people, or at least ideas, into the region from the south.

19. Scantling, F. H., 1940, p. 56.

20. Ibid., p. 44.

Most of the Sells Phase stonework is distinctive and seems ²¹ to hold more affinities in this direction than in any other.

At the time Valshni Village was occupied the Hohokam groups in the Gila Basin and Tucson areas were carrying on a prolific grinding stone industry. At the same time they were doing very little work with chipped stone. This, coupled with the scarcity of faunal remains, indicates that very little de-²²pendence was placed on hunting by the Hohokam. So it would seem that the people in Papagueria had a different economy than their neighbors during the earlier phases, relying chiefly on hunting and gathering. In the Sells Phase there was apparently a great increase in agricultural activity due, perhaps, to the introduction of irrigation methods. Coupled with this was an increase in grinding tools which represent, in the main, a continuation of the few types employed earlier plus the introduction of some new ones.

The type of axe found on the site conforms both to a type found in the Sells Phase and to a type found in the ²³ Santa Cruz Phase at Snaketown. It is not the same type as is reported from the Sacaton Phase there. The assumption would be that the Valshni Village type belongs either in the earlier portion of the Vamori Phase or in later Topawa Phase. However, the small amount of evidence for axes at the site does not

22. Gladwin, Haury, Sayles, Gladwin, 1937, p. 114.

23. Ibid., Plate LXXVII, e.

permit any discussion about the significance of this.

The type of mosaic plaque at Valshni Village is the same as the later of the two types found at Snaketown. This type occurred chiefly in the Sacaton Phase, but a few specimens were associated with the Santa Cruz Phase. While stonework is not usually a satisfactory means of dating, the occurrence of such a specialized object at Valshni Village would serve to strengthen the dating of the Vamori Phase.

CHAPTER XI

BONWORK

Bonework at Valshni Village was scarce. As was suggested by the scarcity of stonework, it is probable that these people depended largely upon wood for their implements. The worked bone was made up almost exclusively of awls. These fall into two general types.

Type I (Plate XXII a, b)-----8

The head of the bone was unaltered except by the original splitting.¹ The longest of these was 17 cm. in length. The others were too fragmentary for accurate measurement. The awls were made by splitting the leg bone of a deer in half and grinding the edges smooth. In general these were a heavy type of awl.

Type II (Plate XXII c, d)-----5

These were splinter awls² made simply by sharpening the jagged point of a fragment of bone. The longest of these measured 8.5cm. in length, the shortest 5.8cm.

Neither type was restricted to one phase at Valshni Village, and both types have been reported from the Sells Phase.³ The only other evidence of worked bone on the site was the leg bone of a deer from which bone rings 1.4cm. in width had been cut. Incisions had been marked on the bone preparatory to cutting more rings. This specimen was only fragmentary.

1. Kidder, A. V., 1932, p. 211.

2. *Ibid.*, p. 213.

3. Scantling, F. H., 1940, Plate XXIX.

CHAPTER XII

SHELLWORK

In proportion to the other objects in the material culture at Valshni Village worked shell appears to be rather abundant. The people in Papagueria had easy access to the Gulf of Lower California and made use of this fact to bring in many shells for ornamentation. Aside from the specimens listed in the following summary there were innumerable fragments of bracelets, pendants, and other bits of shell which are not taken into account here.

Beads

Disc-----3

Species: Pecten.

Size: 5.5mm-10mm.

Remarks: Similar to disc types found at Snaketown in the Santa Cruz and Sacaton Phases.¹

Tubular-----1

Species: Vermetus.

Size: 1.4cm. long; 0.6cm. in diameter.

Remarks: Similar to the cylindrical type which first appeared at Snaketown in the late Santa Cruz Phase.² except that on this bead the perforation is the same diameter throughout.

Pendants

Whole Shell (Plate XXIII a-c).

Type I-----16

Species: Pecten.

Phase: Vamori (10), Topawa (2), unplaced (2).

Remarks: Perforated at umbo.

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1. Gladwin, Haury, Sayles, Gladwin, 1937, Fig. 54 a, b.
 2. Ibid., Fig. 54 c.

Type II-----1

Species: Conus.

Phase: Vamori.

Remarks: Perforated through side. Spire end not ground off.

Type III-----1

Species: Cerithium.

Phase: Vamori

Type IV-----1

Species: Glycymeris (small).

Phase: Vamori.

Remarks: Made by grinding down the shell around the umbo; perforation through umbo.

Cut Shell (Plate XXIII j)-----6

Species: Pecten (3), Glycymeris (3).

Phase: Vamori (4), Topawa (2).

Remarks: At least two of these were cut into the form of animals (Fig. 16 c,d) in the Hohokam style. Three others were geometric figures, and one was too fragmentary to place.

Bracelets-----43

Species: Glycymeris (42), unidentified (1).

Types:

Modified umbo (20) (Plate XXIII f).

Phase: Vamori.

Unmodified umbo (19) (Plate XXIII g).

Phase: Vamori (8), Topawa (5), unplaced (6).

Remarks: Almost every specimen has a perforation at the umbo. Some of these may have been used as pendants. Every bracelet with a modified umbo occurred in the Vamori Phase. One fragment of a bracelet showed an incised pattern on the exterior.

Rings (Plate XXIII i)-----7

Species: Glycymeris.

Phase: Vamori.

Remarks: Three specimens showed a modified umbo, and one was further modified by having a groove around the middle of the exterior.

Discs (Plate XXIII h)-----2

Species: Pecten.

Size: 1.4cm. in diameter.

Phase: Vamori.

Remarks: One disc exhibits evidence of at least the beginning of a central perforation. The other was not perforated.

a. Carved shell bird.

b,c. Carved shell pendants.

Width of a. 7.3cm.

PLATE XXIII

a-e. Whole shell pendants.

f. Bracelet with modified umbo.

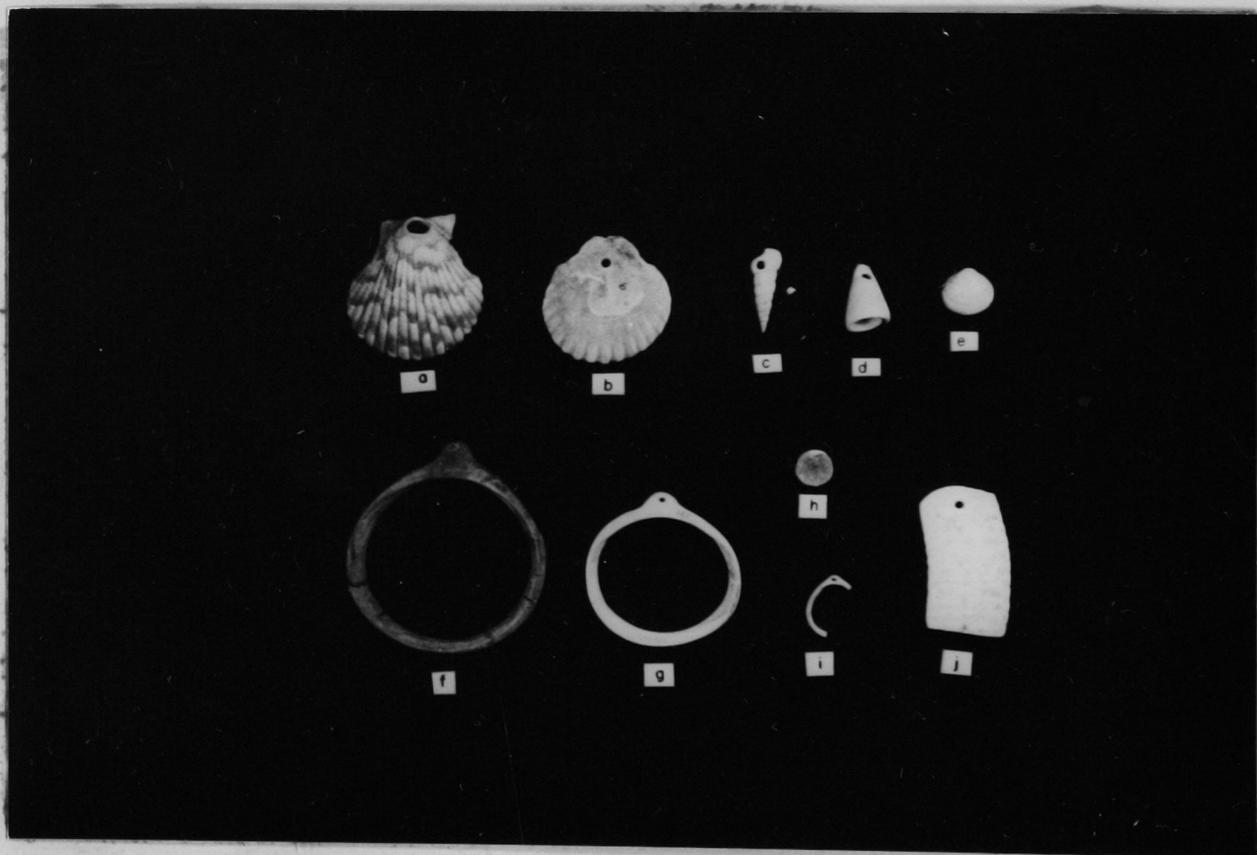
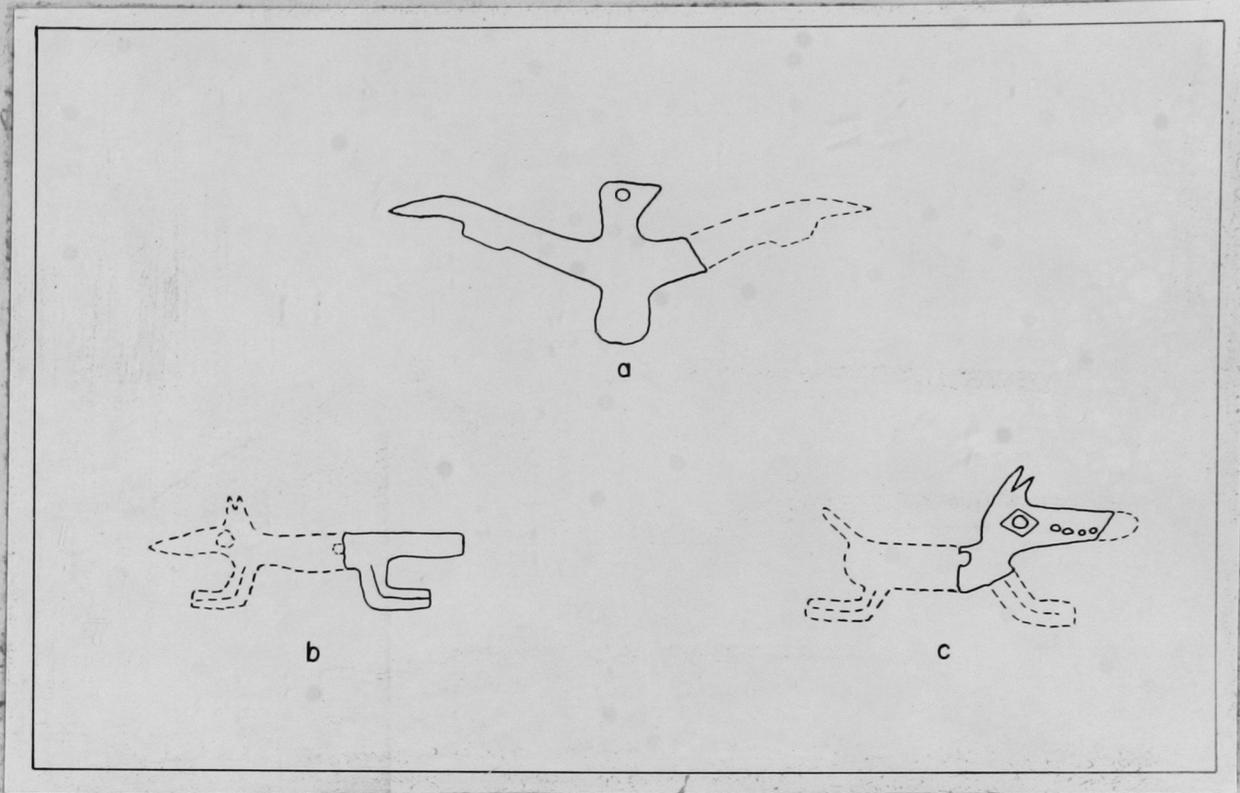
g. Bracelet without modified umbo.

h. Shell disc.

i. Ring

j. Carved shell pendant.

Width of f. 7cm.



Miscellaneous

Carved Bird (Fig. 16 a)-----1

Species: Pecten.

Phase: Vamori.

Size: Original width 7.0cm.; height 2.4cm.

Remarks: The workmanship shown on this bird is excellent. The edges and sides were smoothed down.

This was not a pendant as there is no perforation.

There were other fragments of carved and incised shell found which were too fragmentary to classify.

Discussion

The shellwork at Valshni Village appears in decided contrast to that at Jackrabbit Ruin,³ where shell occurred only rarely. Except for the bead types and the shell trumpet what few specimens did occur at Jackrabbit Ruin agreed with earlier types from Valshni Village.

The ornament types at Valshni Village fit in with those of the Hohokam to the north where worked shell occurred in abundance. Some of the carved specimens found show excellent workmanship, but it is not known whether these were local or intrusive. In view of the high artistic level reached by the Hohokam shell workers and the large quantity of carved shell there it seems probable that the few pieces found at Valshni Village were not made locally. However, the important thing is that these objects do occur here, showing that the inhabitants of Valshni Village prized shell for its ornamental value. Such was not the case with

3. Scantling, F. H., 1940, pp. 58-60.

the local people in the later Sells Phase.

CHAPTER XIII

SUMMARY AND CONCLUSIONS

The preceding chapters have presented the material culture of the Valshni Village representing the Vamori and Topawa Phases. The following summary will serve to list the components of these two phases.

Vamori Phase

House Type:

Surface structure; oval and rectangular with rounded corners; oval, covered entrance.

Burial Custom:

Semi-flexed inhumations in shallow graves (one instance).

Pottery:

Vamori Red-on-brown.

Valshni Red.

Sells Plain.

Miscellaneous:

Unperforated pottery discs.

Stonework:

Manos:

Well-made, rectangular type, sometimes bifacial.

Unshaped type.

Pestles:

Plain; made for shallow type mortar.

Rubbing stones:

Hammerstones.

Axes:

Short, single-bitted, three-quarter groove type with ridges.

Projectile points.

Drill points.

Scraper.

Miscellaneous:

Mosaic plaque.

Effigy palette.

Small stone vessels.
Beads.

Shell:

Whole shell pendants:
Pecten, Conus, Cerithium, Glycymeris.
Cut shell pendants of varied forms,
Ground shell pendant.
Rings.
Discs.
Discs and tubular beads.
Bracelets with modified umbo.

Bone:

Splinter awls.
Split bone awls.

Miscellaneous:

Outdoor hearths.

Topawa Phase

House Type:

Rectangular surface structure with oval covered entrance;
large rectangular structures with the same type of
entrance.

Burial Custom:

By inference, inhumation.

Pottery:

Topawa Red-on-brown.
Valshni Red.
Sells Plain.

Miscellaneous:

Molded spindle whorls.
Perforated pottery discs.

Stonework:

Metate:
Shallow basin type.

Manos:

Predominance of no type; about the same as for the
Vamori Phase.

Rubbing Stones.
Hammerstones.
Ground blade.
Flake blade.
Perforated and incised disc.
Disc beads.

Shell:

Whole shell pendants:

Pecten.

Cut shell pendants of varied forms.

Disc beads.

Bracelets.

Bone:

Splinter awls.

Split bone awls.

It has been shown that on the whole these traits represent an earlier development of the same culture which produced the Sells Phase. The dwellings were of the same general type, but the houses of the Sells Phase lacked the covered entrance characteristic of the earlier Vamori and Topawa Phases. The practice of cooking food in outdoor hearths and the burial custom by inhumation remained unchanged throughout the three phases. The pottery developed locally, and its gradual development may be traced from the Vamori Phase through the Sells Phase. The bonework remains the same throughout, and only minor differences occur in the shellwork. These facts serve to show that the three phases represent different time levels within a single culture. The occupants of Valshni Village and Jackrabbit Ruin may be separated chronologically but not culturally.

The only point which might not agree with this is the change in economy which is implied between the Topawa and Sells Phases. In the Sells Phase the sudden increase in milling stones correlated with a great increase in redware and the initial use of earth enclosures and canals

certainly shows a change. However, there is no direct evidence for the assumption that there was a change in economy. Such a change is only implied by the introduction of new techniques and the intensification of old ones. Just what these changes mean is difficult to say. Probably they mean that at the beginning of the Sells Phase there was an influx of new people, or at least new ideas, into the area which served to stimulate the local Papaguerian culture to reach its highest aboriginal development. Scantling credits the region to the south for the origin of most of the new traits in the stone complex of the Sells Phase.¹ The idea of canals was probably introduced from the Hohokam area to north and east.² The earth enclosures seem to be a local development, and the increase in the redware was simply the continuation of a trend begun in the Topawa Phase.

It has been shown that the aboriginal culture of the Papaguerian area represents a local development from early to late. The question now arises as to how this local development is related to the cultures of the surrounding areas.

The occupation of Valshni Village has been placed at 800-1250 A.D. This assignment of time has been made almost exclusively on the basis of intrusive pottery from the Gila

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1. Scantling, F. H., 1940, p. 68.
 2. Ibid., p. 66.

Basin area to the north, as this is the only area bordering Papagueria for which a chronology of a comparable period has been worked out. The other minor traits which could be compared with those of the Gila Basin area bear out the validity of these dates. The intrusive pottery types used to date the Vamori Phase, 800-1100 A.D., were Santa Cruz Red-on-buff, placed from 700-900 A.D., and Sacaton Red-on-buff, placed from 900-1100 A.D. In the earliest section of the site these two types were so mixed in the stratitests that they defied separation. This led to the conclusion that the first occupation at Valshni Village came during a period in which the Gila Basin area was experiencing the gradual change from the Santa Cruz Phase to the Sacaton Phase.

The Topawa Phase occupation at Valshni Village was of a much shorter duration than that of the Vamori Phase so is represented by much less material. However, the material which does occur, especially the pottery, indicates a definite change from the Vamori Phase. The Topawa Phase is dated at 1100-1250 A.D. The intrusive types used to date this phase were Sacaton Red-on-buff and Casa Grande Red-on-buff. The former is probably a late variety of the type and could be assigned to the Santan Phase, placed at 1100-1150 A.D.³ The latter type is the red-on-buff ware of the Soho Phase, placed at 1150-1325 A.D.⁴ The change between the Topawa

3. Schroeder, A. H., 1940, p. 145.

4. Ibid., p. 147.

Phase, and the Sells Phase was so gradual that no definite date may be assigned to it at this time, but it apparently occurred in the latter part of the 13th Century.

The placement of Valshni Village in regard to space is more difficult. The recognized culture of the area immediately touching Papagueria on the north and east is that of the Hohokam, occupying the drainages of the Salt, the middle Gila, and the Santa Cruz Rivers. The following are traits at the Valshni Village which fit into the general Hohokam pattern:

- Oval, covered house entrances.
- Stepped entrance.
- General deficiency in chipped stone.
- Three-quarter grooved axe.
- Rubbing stones.
- Abrading tools.
- Projectile point types.
- Stone vessels.
- Effigy palettes.
- Pottery discs.
- Shellwork.
- Bonework.

Traits at Valshni Village basically different from the Hohokam pattern are:

- Rectangular surface dwelling.
- Large type dwelling of the Topawa Phase.
- Inhumation.
- Pottery.
- General scarcity of stonework.

It is apparent that the traits agreeing with the Hohokam pattern are numerous, but it is also apparent that the majority of them are of minor importance. Some of them, such as the deficiency in chipped stone, the rubbing

stones, the hammerstones, the pottery discs, and the bonework, are of such a general nature that they might easily fit into the culture of groups other than the Hohokam. Still other traits like the stone vessels, the effigy palette, and some of the shellwork occurred so sparingly on the site that they may well have been intrusive from the Hohokam area. The remainder of the traits listed probably reflect definite influences of the Hohokam upon the local culture.

The group of traits which are listed as differing from the Hohokam pattern encompasses those traits which seem to be basically more important in defining a culture. The houses at Valshni Village are similar to those of the Hohokam but may not be classed as the same type. This similarity may mean nothing or it may mean that the Vamori Phase house types developed from earlier types copied from the Hohokam and adapted to the local region. The large rectangular house type of the Topawa Phase had no parallels in any of the surrounding areas at that time, so may be regarded as a short-lived local development. The custom of inhumation in Papagueria from the Vamori through the Sells Phases is a trait which sharply distinguishes these people from the cremation-practicing Hohokam. The pottery, usually reliable in establishing relationships, shows that during the Vamori Phase the ceramic complexes of the two areas were widely divergent. This was especially true of the painted ware. After the Vamori Phase the decorated pottery types came more and more

under the influence of the Tucson area. From the latter part of the Pioneer Period to the Classic Period the Hohokam are noted for their intensive pursuit of agriculture and the large and complete stone industry which complemented this economy. The scarcity of stonework at Valshni Village appears in great contrast to this.

It can be seen from this summary that the material culture of Papaguera does not conform to the recognized pattern of the Hohokam area. However, before any definite answers can be made to the question, "Who were these people?" further studies must be made to the south, and the traits of the prehistoric groups in Sonora must be compared with those of Papaguera. In the light of present evidence it seems that the culture in Papaguera had no more affiliations with the Trincheras area than it did with the Hohokam. Trade, especially in pottery, was carried on extensively with both areas, particularly in the Vamori Phase, but the developments at Valshni Village can be linked with neither. Of the two, they were probably more closely affiliated with the Hohokam. It has been suggested previously that the Trincheras people and the Hohokam were perhaps antagonistic toward one another. Yet both carried on extensive trade with the people of Valshni Village over a long period of time. This might be an indication that the residents of Valshni Village were neither one nor the other.

The relation with one other area must be considered. This is the desert region west of Papagueria bordering the lower reaches of the Colorado River. Contact with this area at an early time is shown by the Yuman-like designs on Vamori Red-on-brown and by the presence at Valshni Village of a few sherds of stucco ware which resemble Colorado River types. Unfortunately Yuman archaeological data, which might be compared with that of Papagueria and aid in tracing Papaguerial affiliations, is not at this time available.

Even though further evidence from the areas to the south and west might answer many of the problems still unsolved in Papagueria, it probably would still not serve to tell who these people were. It seems likely that the area of Papagueria formed a cultural cul-de-sac. Increasing pressure caused by the expansion of more prolific cultures probably pushed the pre-Vamori Phase people into this undesirable region where they continued the development of their own colorless culture in an area where most of their energies were directed toward eking a living from their environment. This development was helped from time to time by innovations from surrounding groups. Whence these people came cannot, at this stage, be answered.

Aside from the question of who these people were, the two chief problems toward which any further work in this region should be directed are: (1) the establishment

of a pre-Vamori Phase, the existence of which is only suggested at Valshni Village, and (2) the strengthening of the Topawa Phase by an increase and further definition of the traits which belong to it.

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