

d.c.  
a circumvallate town  
+ Phoenix district  
A 61  
+ matter of fact

Emory and Johnston evidently understood that the houses of this ~~Pueblo Viejo~~ Pueblo Viejo Valley were made of earth, with stone foundations, the walls, <sup>in many instances</sup> reinforced at intervals with upright cedar posts; that the form of many of the houses was rectangular; ~~and~~ that the length of these houses varied ~~from~~ from 20 to 100 feet; <sup>and</sup> that the dimensions of the rooms were usually 12 to 15 or 20 feet, although in some instances

~~larger than the usual size of 12 to 15 feet; and in some instances the rooms were as large as 20 by 30 feet.~~

larger.  
Johnston's description of one group of ruins as "a circle of stones 90 paces in diameter [nearly 850 feet in circumference], with an opening to the east, with the remains of a house near the centre, and some foundations outside," <sup>characteristic of a circumvallate</sup> ~~is an interesting picture~~

Footnote \*Journal, page 585.

~~type of village, consisting of separate houses clustered about or scattered near a~~ <sup>larger</sup> building which in later parlance has been called a "central house" or "citadel"; a type now recognized as having prevailed (though not ~~exclusive~~ <sup>and in most of the lower-middle region</sup> to the exclusion of all others) ~~both~~ in the Pueblo Viejo Valley <sup>of the Gila.</sup> ~~of the Gila.~~ <sup>Supplies</sup> ~~For the Pueblo Valley, later observations have shown that the~~ <sup>may be round, or</sup> ~~circumvallation~~ <sup>sub-rectangular, or</sup> ~~is~~ <sup>many-sided.</sup>

~~lar~~ <sup>usually</sup> In the Casa Grande districts ~~the~~ <sup>principal</sup> main groups have rectangular boundaries ~~as~~ <sup>to this type, in his</sup> ~~the term,~~ "Compound." In some of the ~~largest~~ Gila River ruins no circumvallation of any sort is known. But in the course of several centuries of total neglect, a small wall of earth or adobe, ~~which~~ <sup>if preserved at all,</sup> would have been reduced to the line or portions of the line of stones on which it was founded; and if made without the stone foundation, it would in most instances have disappeared altogether.

The "circular wall of 270 feet in circumference," of which Lieutenant Emory found "traces" at or near present Solomonville, seems, except in its smaller size, to have been like the 850-foot wall-foundation, or "circle of stones", that a little farther up the valley Captain Johnston found surrounding "the remains of a house." The <sup>Solomonville</sup> ~~remains~~ "rampart", which Captain Johnston describes as "raised in a circle of over 300 yards", and which Lieutenant Emory calls "a circular enclosure of 400 yards" (1200 feet) that "must have been for defence", may ~~it~~ <sup>the great central feature of an</sup> have been ~~for~~ <sup>the important water in the</sup> ~~for~~ <sup>the</sup> ~~purpose.~~

<sup>settlement</sup> ~~extensive~~ Pueblo Viejo, whose name has become a geographical term in this quarter, and <sup>was borrowed by the first modern village established on this segment of the Gila.</sup> ~~San José del Pueblo Viejo~~ of two or three miles above the <sup>central</sup> Pueblo Viejo. In its

Printer: Type and line of writing elsewhere

2 narrow by  
+ new matter at bottom

Footnote

~~"In a subsequent footnote we shall show that the~~ hollow mound ~~(near Casa Grande), which Johnston called "a circle a hundred yards around," was decidedly elongate. It was indeed, according to the ground plan which he himself sketched, ~~ovate-elliptical,~~ <sup>ovate-elliptical</sup> although the more careful relief map by Mindeleff <sup>shows it</sup> a somewhat less narrow and regular outline. It ~~is~~, therefore, <sup>clearly</sup> seems that Johnston sometimes used the term "circle" in a generic sense, to indicate ~~any~~ rounded outline; and it suggests that Emory may have done the same, and therefore that, in Pueblo Viejo Valley, some of the ancient works described by these observers as "a circle" may have been <sup>more or less</sup> oval or elliptical.~~

great circumference it is like and even exceeds the 850-foot house-circumvallation above mentioned; but otherwise, it reminds one of the <sup>bank-like</sup> "hollow mounds" associated with the ruins of the Casa Grande group, of which an example is described by Captain Johnston in his Journal\*, and which are discussed more at length by Mr. Cosmos

Footnote

\*His description we quote elsewhere herein. <sup>In connection with it</sup> ~~we quote elsewhere herein~~ he mentions another example, at "Mount Dallas"; i.e., at the west end of Saddle Mountain, near the junction of San Pedro River with the Gila.

Mindeleff in the Thirteenth Annual Report of the Bureau of Ethnology.\*

Footnote

\*For description and illustrations by Mindeleff, of another interesting example of these, with boulder-~~stone~~ guarded entryways, or rim-depressions, at north and south, on a branch of the Rio Verde, see same Report, pp. 244 - 6 and Plates XLI, XLII.

and of the analogous structures described in Mr. Frank H. Cushing's "Preliminary Notes" concerning similar and not very distant ruin groups, explored by the Hemenway Southwestern Archeological Expedition, which the latter investigator regarded as large council-chambers, or "sun-temples", and believed to have been covered with roof of coiled grass-strands made after the fashion of pueblo basket-work. By excavation, Mr. Cushing found these structures to have hard, mud-plastered, dish-shaped floors, with "fire-hole" in the center.

The "slight elevations on the eastern and western sides" and "little knoll or swell in the southwestern corner" upon the "crest" of the "hollow mound" that Mindeleff maps in his figure 329, may be nearly-vanished vestiges of such elevations as perhaps remained in 1846 upon the Solomonsville "rampart" and which indicated to Johnston that "on parts of it, houses had been made." If there had been houses on the "rampart," as Johnston seems to say, <sup>so-called rampart itself</sup> ~~they~~ <sup>they</sup> ~~have been~~ <sup>have been</sup> ~~the~~ <sup>the</sup> ~~only small ones, like watch-towers or guard-houses.~~

~~would hardly seem to be the natural construction of his period, if he meant that the Captain's meaning is that these were made of debris of a ~~small~~ circle of one-story houses or rooms, on which <sup>here</sup> there, a second story was superimposed, somewhat after the fashion of the more or less ruinous ~~half of old Rancho de Leon, as seen by the writer in 1908.~~ <sup>These are originally a section of another house of Indiguna type of structure. In fact, it is the ruin of a ~~single~~ <sup>single</sup> ~~house~~ <sup>house</sup> ~~with~~ <sup>with</sup> ~~its~~ <sup>its</sup> ~~own~~ <sup>own</sup> ~~roof~~ <sup>roof</sup> ~~still~~ <sup>still</sup> ~~standing.~~</sup>~~

Footnote  
The ~~small~~ circle of one-story houses or rooms, on which there, a second story was superimposed, somewhat after the fashion of the more or less ruinous half of old Rancho de Leon, as seen by the writer in 1908.

involving

It is noted that the line of  
the circle, or circular area within the rampart. In the latter  
case, this "rampart" may have ~~been~~ surrounded the ruins of a citadel  
and some smaller houses, other small houses being scattered outside of  
the ~~circle~~; and if so, the "rampart" ~~may~~ have supplemented the citadel  
as a defence against enemies.

2. You at left  
of possibly  
more probably 63 ch. Led to caused

~~the circle, or circular area within the rampart. In the latter  
case, this "rampart" may have been surrounded the ruins of a citadel  
and some smaller houses, other small houses being scattered outside of  
the circle; and if so, the "rampart" may have supplemented the citadel  
as a defence against enemies.~~

Round or oval depressions, simple or with raised border, and often  
considerably smaller than either of those above <sup>cited</sup> referred to, are  
frequently associated with pueblo ruins in the Southwest, and for  
lack of a term better descriptive of their form, they are sometimes  
called "tanks" or "reservoirs"; but <sup>usually</sup> such terms are objectionable,  
as implying an original purpose that is by no <sup>yet</sup> means proven. Indeed,  
with regard to those of the Casa Grande group, Mindeleff remarks,  
"With a single exception none of these depressions are so situated  
that they could be used as reservoirs for the storage of water col-  
lected from the surface, and the catchment area of the depressions is  
so small and the rate of evaporation in this area so great that their  
use as reservoirs is out of the question. It is probable that all  
of the smaller depressions represent simply sites where building  
material was obtained."\* But the latter explanation is ~~not~~ <sup>certainly</sup>

Footnote

\*For descriptions and plans of some of these reservoir-like ~~basins~~  
basins, ~~now~~ in the Upper Gila region, see Hough's "Antiquities", in  
Bulletin 35 of the Bureau of American Ethnology.

not

applicable to the larger, round or oval, depressions with raised  
borders, <sup>or to the larger</sup> hollow mounds, or rampart-like enclosures, <sup>with ruins of houses thereon.</sup>\*

The supposed "well" which Emory and Johnston described as "in one  
segment" or "in the middle" of the Solomonsville ~~enclosure~~,  
may ~~possibly~~ have been a well, if the purpose <sup>surrounding it at a distance,</sup> of the rampart, <sup>caused</sup> was  
defensive; but if we regard that purpose as ~~more probably~~ ceremonial,  
the so-called "well" would seem likely to have been for ceremonial use  
also, and thus to have had at least one important function of a kiva.  
The three ramps, or inclines, which Johnston describes as leading  
"down to the bottom of it" (and which ~~possibly~~ doubtless <sup>caused</sup> Emory to  
call it "triangular"), remind one again of the principal hollow mound  
near Casa Grande, of which his Journal\* gives the following descrip-

Footnote

\*Page 598.

tion: "About two hundred yards ["northward", he later adds, but in fact  
somewhat east of north] from this building [Casa Grande] was a mound  
in a circle a hundred yards around; the centre was a hollow, 25 yards  
in diameter, with two ramps\* or slopes going down to its bottom; it

~~\*Misprinted "vamps" in the badly edited public document containing  
the journal.  
was probably a well, now partly filled up." The <sup>nude plan</sup> ~~figure~~ given~~

~~which/with/illustrates/the/plan/of/the/mound~~

in diameter, with two ramps\* or slopes going down to its bottom;

Footnote

\*Misprinted "vamps" in the public document containing the journal. The rude plan with which he illustrates this mound is decidedly elongate and subovate, agreeing roughly with Mindeleff's relief-map. It indicates that the two ramps, or inclines, are at one and the same end of the ovate ~~shaped~~ earthwork, and, while his description would seem to imply two interior ramps, his plan indicates, apparently, that one of the ramps leads from the outer base, or "bottom", of the rampart to a point on the top of it, and the other thence down to its inner base, — the floor or "bottom" of the hollow. A comparison of Johnston's plan with Mindeleff's relief-map shows that the narrowed end, at which Johnston indicates the ramps, is the northern end, so that this entrance-exit (if the ramps, ~~was~~ <sup>constituted</sup> such) occupies one of the cardinal points; and according to Mindeleff's map, the three small mounds which ~~the~~ <sup>text</sup> mentions, on the summit of the rampart, occupy respectively and substantially the other three cardinal points.

it was probably a well, now partly filled up." They also remind one of the "graded way" leading down into the square, hopper-walled "assembly kiva" described ~~by~~ and figured on pages 53 and 54 of Hough's "Antiquities of the Upper Gila and Salt River Valleys."\* That the

Footnote

\*Bulletin 35 of the Bureau of American Ethnology.

latter <sup>so-called</sup> kiva was faced with stone, while the 3-ramped indenture at Solomonsville was earth-walled, ~~with a ramp leading up to the top~~ is only in keeping with the use of stone on upper Blue river and of earth at Solomonsville, aboriginally, as the main building material. In this connection we recall also that, of the thirteen round estufas, or kivas, found at Pose Uingge (a ruined pueblo at Ojo Caliente, in northern New Mexico), Bandelier describes one as "remarkable in that it has an ascent to ~~the~~ top or roof in the shape of a solid inclined plane ..... 33 feet long horizontally and .... 5 1/2 feet high, so that the rim of the ~~estufa~~ estufa must originally have protruded two meters from the ground." And he adds, "This kind of ascent to the roof of an estufa, I have found elsewhere."\*

Footnote

\*Final Report, Part II, page 44.

Seemingly

No typical kivas ~~with square~~ <sup>Florida</sup> ~~ones~~ have yet been described <sup>found</sup> as occurring in the ~~Florida~~ <sup>Florida</sup> Valley or on lower parts of the Gila and ~~Salt~~ <sup>Salt</sup> Salt rivers. ~~In view of the extremely~~ ~~small size of these~~ ~~and the relatively~~ ~~small~~ ~~amount of excavation~~ ~~that has yet been done in connection with their excavation,~~ ~~it is not surprising that~~ ~~the work done in~~ ~~these~~ Their <sup>noteworthy</sup> absence from those parts is ~~noteworthy~~ <sup>noteworthy</sup>, in view of

de near present center  
add the bl. at bot of pg  
H above

their almost universal distribution elsewhere in the pueblo region.

Just over the crest of the watershed that separates the basin of the Little Colorado from that of the Gila-Salado, ~~about~~ 4 miles from Snowflake and 2 from Taylor, Arizona, a rectangular, stone-paved, stage-banquetted room, <sup>about</sup> bearing much resemblance to the <sup>square and kivas</sup> kivas of the Hopi villages and having points of similarity to <sup>the round</sup> kivas of the San Juan region and elsewhere, <sup>other north and east parts</sup> has been described by <sup>Doctor</sup> ~~Dr.~~ Fewkes in the "Four-mile Ruin", a rectangular ruin of an ancient pueblo consisting partly of conjoined and partly of scattered rooms, whose walls are of adobe reinforced at regular intervals with embedded upright posts, "thought to be comparable with similar logs used in the construction of the adobe walls of houses in the ~~Pueblo Viejo section of the~~ Gila valley", while "kivas," both square and round, have been described and

Footnote ~~XXXXXXXXXXXX~~ \*Bu. Eth. Ann. XXII, pp. 137-'8.

figured by <sup>Doctor</sup> Hough on two important sources — the Blue and the San

Footnote \*Bu. Eth. Bull. 35.

Francisco — of Gila River; and one of our explorers of 1846, Captain Johnston, has described a ruin on Gila River not far above the mouth of the San Francisco, <sup>(near present Guthrie)</sup> having "one square room, with another house attached, with a hole in the ground within the foundation, about 20 feet square and now about 8 feet deep," which is a sort of <sup>excavation</sup> ~~hole~~, not usually

Footnote \*Journal, page 583.

occurring in pueblo architecture, ~~as far as known~~ except <sup>as a</sup> among kivas, and even in the upper part of the Pueblo Viejo valley itself, he saw ~~houses the rooms of which some of them appeared to have been round, which round rooms may have been kivas.~~

But if <sup>typical</sup> ~~these~~ kivas ~~would naturally be~~ wanting in the middle ~~and lower~~ Gila valleys, it ~~would~~ still remain an interesting question, to what extent their place there may have been taken by <sup>open-air theaters, or "sun-temples," such as some of</sup> the "hollow mounds," <sup>reservoirs, "wells," "hoppers,"</sup> and other basin-like structures that formed <sup>ordinary rooms, or by cellars, or</sup> conspicuous <sup>features</sup> a part of the ancient works in this region; ~~or by underground rooms, such as that seen by Johnston.~~

The Spaniards called the ~~XXXXXXXXXXXX~~ kivas of the northern pueblos estufas, ("ovens,") because one of their functions was as a winter warm place. In the Pueblo Viejo, Casa Grande, and lower Salt River valleys, underground rooms may have functioned sometimes in like manner; but oftener they would have been convenient as a cool retreat in summer, even if, as in the northland, their <sup>concomitant</sup> ~~uses~~ uses were religious.

In his Final Report, Bandelier refers to the two leading types of pueblo recognized by him, as "the large joint-tenement", which is the well-known northern pueblo type, and "the detached house villages."\*

*Foot-note* Final Report, Pt. II, p. 323; 1892. The latter, he has elsewhere called the "dispersed" type. This type, in 1884, he had discovered on both slopes of the Sierra Mimbres, and which, ~~in 1884, he had discovered on both slopes of the Sierra Mimbres, and~~ on the Mimbres and upper Gila rivers in New Mexico ~~upper Arroyo and the lower Gila~~, he described in <sup>that year</sup> a letter which he wrote to the Archaeological Institute of America, as "the detached family house type, with enclosures or courts, remains of round towers, and circular tanks."\* A "checker-board" type,

*Footnote* \*op. cit., page 355.

somewhat more advanced than the "detached house" type, and in reality connecting the latter with "the large joint-tenement" or consolidated pueblo type, was ~~described~~ <sup>recognized</sup> by him still earlier (1883) <sup>in southern Arizona,</sup> and described in the Fifth Annual Report of the Institute (page 63) as follows:

"Not only are the single buildings connected with enclosures, but these enclosures themselves so meet each other that the settlement forms a checker-board of irregularly alternating houses and courts. The houses are easily discernible from the fact of little rubbish mounds having accumulated on their site, around which the foundations of rubble still appear, or in which parts of the walls are yet to be found. The courts sometimes appear not only as much larger spaces, but they are free from rubbish, and thus seem flat, or even depressed. These pueblos are thus virtually closed on all sides, either by the walls of a house or by those of yards; and they are very defensible, as there are but one or two entrances, and these either through a narrow passage between two buildings, or through a still narrower one, with re-entrant angles, between two court walls. Each village contains one or more open spaces of large size; but they are irregularly located, the tendency being to cut up the whole plat into as many small squares as possible."

On page 356 of his Final Report, in describing the ruins of the river Mimbres, he differentially compares the "detached house" pueblos of that river with the "checker-board" pueblos ~~of the district~~ <sup>and thence</sup> around Globe, to Salt River, as follows:

"Similar in disposition, size of rooms, and material of construction to those ..... around Globe, Arizona, and in the Arroyo Pinal, ..... they are still distinguished from these Arizona ruins by the lack of connected courtyards, which there consolidate the different groups of buildings and enclosures. Consequently they seem to lack all defensive character, unless approximation into groups of small clusters might be regarded as such. In each cluster a little ~~cluster~~

*(to which Mr. Wm. Effinger pointed me in April, 1916) This is a deceptive feature. The seeming depth being due to the ruin's debris.*