

the plain between the left bank of the Gila and the Graham or Pinaleno mountains. These dwellings were high up on the neighboring foothills as well as in the level plain, adjoining the river. In places houses were clustered together, forming a village, but the majority were isolated, dotting the whole valley. A compact, communal ~~ruin~~ town of the pueblo type, such as is met north of the Apache reservation, was not found, and even when the population was concentrated the villages were composed of many clusters of small houses, separated from each other. As a rule, however, in such a cluster one central structure was much larger than the remainder. This centrally placed building, which is shown in the plan of the Buena Vista ruin, ^{see} resembles a type common in the Gila, Salado, and Verde valleys, where we find a central house surrounded by many mounds, indicating that a suburban population was settled about it.

"The majority of the clusters of mounds which were examined were situated in the plain, not far from the river. This choice was evidently advantageous for an agricultural life, and the want of compactness in the houses would seem to indicate that the farmers had not yet been harried and driven to seek shelter from marauding nomad tribes, in walled pueblos."

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A 73a

Doctor Hough, who, as we have seen, was associated with Doctor Fewkes in the archaeological exploration of the Pueblo Viejo Valley in 1897, has published a brief discussion of the distribution of the ~~ruins~~ ruins on Gila River, from which we quote the following:

"The ancient remains found along the Gila river from its head, north-east of Silver City, to below its junction with the Salt are practically uniform, and the explorations which have been carried on near Phoenix, above the mouth of Salt river, by F.H.Cushing, and on the Gila, at Solomonsville, by Dr. J. Walter Fewkes and the writer, ^{conclusively} prove that the inhabitants of this westward flowing river were alike in arts.

"The Gila, the Little Colorado, the San Juan, and the Rio Grande are examples of rivers along whose main valleys the movement and settlement of peoples ~~were but little restricted,~~ ^{were but little restricted,} a condition tending to produce similarity of culture activities. On the upper waters of the rivers, however, or on the affluents, there is more likely to have been mingling of peoples of different regions or the valley of a contributing stream may have contained only the remains of a single tribe.

"The upper reaches of the Gila lie close to the head of the Mimbres, on which river some of the peoples were evidently related to those who built the great pueblos at Casas Grandes, as was shown by Bandelier in the account of his reconnaissance of 1883-4.

"There has been no systematic effort to locate the ruins on the upper Gila and the country southward to the Mexican border. While it is probable that no large or important ruins are situated at any considerable distance from the river, the region is interesting, through the relations of its tribes to the former sedentary tribes of northern Mexico."

*Antiquities of the Upper Gila and Salt River Valleys in Arizona and New Mexico, Bulletin 35 of Bureau of American Ethnology, pp. 28 and 29. (1907.) On pages 11 to 29 of the same, Doctor Hough gives a ~~most interesting and instructive~~ summary of the ancient pueblo culture of the Gila-Salado Basin. ^{See also his "Culture of the Ancient Pueblo of the Upper Gila River Region, New Mexico"} It is quite comprehensive, and too long for presentation within the limits of this chapter; yet it is too succinct ~~for~~ for very satisfactory condensation; but its perusal will well repay those who can consult it, and will answer many of the questions that one might naturally ask concerning the culture of the Chichilticallians. He considers the ^{Gila-Salado} culture ~~under~~ under the following headings and subheadings: The "Distribution", he considers "as affected by mineral environment", "as affected by vegetal environment", and "as affected by animal environment". The "Buildings", he considers under the headings, "grading of sites", "pueblos", "cliff-dwellings", and "other constructions". "Shrines", is a separate heading. "Domestic Life", he considers under the headings, "dress and adornment" and "household furnishings". The "Industries", he ~~handles~~ treats under "shellwork", "bonework", "woodwork", "textiles", "basketry", and "pottery." He discusses briefly also the "Amusements—Language—Religion."

Houghton

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Handwritten note: "See also his 'Culture of the Ancient Pueblo of the Upper Gila River Region, New Mexico' which is Bulletin 35 of the U.S. National Museum, 1907."

(Continued on page 74)

And concerning the building materials and house construction of the ancient pueblos of the Solomonsville-to-Phoenix region, he wrote as follows:

"The pueblos of earth construction, which in this region are confined to the Gila and the lower courses of some of its tributaries, show at present, in their extremely degraded state, walls of rammed earth provided with cores of smooth river boulders. These walls held at intervals posts rising above them into the superstructure. Most of the ruins show their extent and plans by the lines of these boulders protruding from the ~~dry~~ soil. There is sufficient basis, however, for the belief that the boulder-earth wall belonged to a lower story and that above it were a structure of earth and sticks of lighter character and a flat roof resting upon the posts."

Footnote

~~of the Upper Gila and Salt River Valleys in Arizona and New Mexico~~ *Op. cit., pages 15 and 16.

The writer could offer no comments ^{that} ~~which~~ would ^{so well} ~~not so~~ elucidate ^{influences as an element in} ~~the~~ Gila Valley architecture, ^{and} do the following paragraphs, quoted from the concluding portion of the "Final Report" of Bandelier:

"Although the communal houses of the north seem to be different from the structures on the Gila and at Casas Grandes, they still show the same leading characteristics of being intended for abodes and at the same time for defence. In the northern villages, however, both features are intimately connected, whereas farther south the military purpose is represented by a separate edifice, the central house or stronghold, of which Casa Grande is a good specimen. In this the ancient village of the Southwest approaches the ancient settlements of Yucatan and of central Mexico, which consisted of at least three different kinds of edifices, each distinct from the others in the purposes to which it was destined. It seems, therefore, that between

Footnote

"The Calli, or dwelling; Tecplan-calli, or official house; and Teo-calli, or house of worship. These terms are from the Nahuatl of Mexico. There were other buildings temporarily devoted to special purposes, but these three were the leading forms."

the thirty-fourth and the twenty-ninth parallels of latitude the aboriginal architecture of the Southwest had begun to change in a manner that brought some of its elements that were of northern origin into disuse, and substituted others derived from southern influences; in other words, that there was a gradual transformation going on in ancient aboriginal architecture in the direction from north to south.

"I have alluded only to the most striking examples of Southwestern

(Continued on page 74a)

aboriginal architecture, the large houses. In regard to another kind, the small detached buildings, it must be observed that the small house is probably the germ from which the larger structures were ~~now~~ evolved, and that the small houses also undergo modifications, especially from north to south, in the size of the rooms. I repeat here what I said in my preliminary report to the Institute of August 11th, 1883: "There is a gradual increase in the size of the rooms in detached buildings in a direction from north to south, which increase is most distinctly marked over the area where the detached house alone prevails."¹

Footnote

¹ Fifth Annual Report, p. 62."

"There are regions, like Central Sonora, where the small house is the only architectural type now remaining from ancient times. It will be noticed that the square or rectangular dwellings of the Opatas of the Sonora River confirm the impressions above recorded. If we compare them with the dimensions of the huts now inhabited by tribes living still farther south, we find their size increase as we advance from a colder climate to a warmer one."²

Footnote

² Compare notices of the houses of the central plateau of Mexico, of the coast of Vera Cruz, and of the State of Oaxaca, in my Archaeological Tour, pp. 20, 124, 128, and 265."

"Large halls are not found in the ruins of the north. They appear to be almost the rule at Mitla and in Yucatan; and they are met with on the Gila, under a climate which is semi-tropical.

"Equally noteworthy is the increase in dimensions of the doorways and windows. In the lofty structures of Arizona and Chihuahua there is considerable resemblance to the doorways of ancient edifices in Yucatan and other southern States of Mexico.

"I have alluded to the appearance of artificial mounds and artificial platforms or terraces on the Gila, and perhaps also in the Casas Grandes region. It is well known that both of these structures are conspicuous in the ruins of Southern and Central Mexico. The estufa, however, is a specifically northern feature, and therefore disappears as soon as the climate becomes more equable and finally tropical. But if we consider one of the objects for which the estufa was used, we find it represented in the south also. It is proved that the estufa was not so much a structure for religious purposes as it was the regular abode of the males, including the boys after they had attained a certain age. In this respect it finds its counterpart in the

Opatas
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~~Dr. Pawkes' excavations, 1906-7, indicated that the doorways of the main floors of Casa Grande opened on a terrace. (Smithson. Misc. Coll., Vol. 11.) Estufas (halls) and terraces, or graded area, have recently been found by ~~Hughes~~ on northern sources of the Gila. (See Hough's "Antiquities")~~

(Continued on page 74b)

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d.c. corrections in top of p. 74b

Telpuch-calli, or 'House of the Youth,' of the ancient Mexicans.¹

Footnote

¹For the Telpuch-calli, see my Social Organization and Mode of Government of the Ancient Mexicans (Twelfth Annual Report of Peabody Museum, p. 557)."

"Military constructions do not seem to play, in the Southwest, the conspicuous part which they assume farther south. In the ^{New} Mexican pueblo the defensive element is combined with that of shelter, and only in rare instances is there a defensive wall added to the already strong edifices. Watch-towers are additions, wherever the site is favorable, or wherever they were looked upon as necessary. Places of refuge seem to be peculiar to the Southwest." Southern Arizona,

*It should here be noted that ~~some~~ places of refuge include not only citadels of the "central house" type, but also ~~some~~ fortified hills, ~~and some~~ of which Bandelier describes one example, the "cerro de trincheras," or fortified hill of Bato-na-pa" "a short distance south of the village of Banámichi", ~~and~~ ^{and} ~~Sonora~~, ~~mentions another~~ and mentions another "near Huépaca." He ~~mentions another~~ was told ~~that~~ "that the Opatas of Sinoquipe and Banámichi had formerly confederated against their southern neighbors of Huépaca and Aconchi; that the Opatas of Opusura made war upon those of Banámichi and Huépaca; and that the people of Opodepe were hostile to those on the Sonora River"; and that "one of the consequences of these disturbances was the erection of defensive works, not around but outside of the villages, — places of refuge to which the whole population of several allied settlements could resort in case of danger." That of Batonapa, he describes as on "a promontory of considerable extent." "The parapets mostly extend along the southern brink of the mesa, and they consist of low and rude walls of volcanic rocks piled up, and not of regular masonry. Their height ~~varies~~ varies, much of it having been destroyed. The ~~highest~~ highest point of the mesa is occupied by an inclosure" (about "82 by 70 feet") "in the shape of a lozenge, the walls of which are about ~~3 feet~~ 3 feet high, and as thick in places as 5 feet. They are of dry work, consisting of boulders of the size of ~~a man's head~~ a man's head, and larger, piled up with considerable neatness, but without any mortar or mud. The fortifications form something like a spiral, following the sinuosities of the ground." ~~The~~ "The total height of the mesa of Batonapa above the valley is about ... 185 feet, and the first or lowest parapets begin at an elevation of ... 164 feet." "The really important part of the stronghold is its highest point, where the rise and contours induced the builders to construct a double line of bulwarks, with angles and salients, so that the outer parapets could be commanded from the inner. "On the whole, the Cerro de ~~Bato~~ Batonapa resembles the fortified hill of Jio near Mitla, in Oaxaca; and ~~even~~ the Sacsahuaman above Cuzco, in Peru, though on a much smaller and more primitive scale."

Footnote (beginning of)

(Final Report, II, pp. 491-493.) Similar fortified hills, ~~are~~ ^{apparently} are those "near the rancho of San Rafael de Alamito, on the principal wash known locally as Rio Altar", in northwestern Sonora, which were visited by a Bureau of American Ethnology party under Mr. W. J. McGee, by way of Sasabé, in 1895, and which, in the administrative part of the 17th Annual Report of that Bureau, are called "the most elaborate prehistoric works known to exist in northwestern Mexico", and are described as follows: "The works comprise terraces, stone walls, and enclosed fortifications,