

own special weakness or sin or bad spirit with us into that Temple, there will be quite a crowd of peculiar spirits there seeking admission, won't there?

THE RUINS OF SOUTHERN UTAH.

The following article written by Warren K. Moorehead appeared in *The Popular Science News* for March:

The first of March an expedition consisting of eleven men left Durango, Colorado, for the purpose of examining the ruins in southern Utah. The members of the party were aware that the more important ruins upon the San Juan River and its tributaries had been explored by Messrs. Jackson, Holmes, and others. Hence we desired to cover such territory as had not been entered by the government surveys, and to examine such ruins as private individuals had hastily viewed. In this paper particular attention will be called to the work done along the Colorado River and side canons.

In taking a general review of the San Juan country, one observes two classes of ruins—the boulder dwellings and houses of hewn stone. One might subdivide the hewn stone structures according to location and say that they occupied caves in the canon side, prominent points upon the edge of canons, or, when located in fertile mesas, took the form of large compartment houses—commonly known as pueblos. The boulder ruins invariably occupy the mesa and are not found upon the canon bluffs or in the canons themselves. If we mistake not, these facts were noted by Messrs. Jackson and Holmes. One might go still further and say that all the hewn stone ruins represented the same architecture, whether located in the caves or upon the mesa, whether comprising one or two rooms or several hundred rooms.

Upon reaching southern Utah a survey finds very rich material for exploration. Few individuals have ever visited the ruins of Epsom Creek, Cottonwood Creek, or the McCombs Wash. Among the ruins in the main canon of the Colorado, Mr. Chas. McLoyd is the only person who has done considerable work. He has spent two winters in collecting photographs, drawings, and such objects and buried bodies as occurred in the houses. Although he was accompanied by a number of men, he found the ruins so extensive that he was unable to visit but one-third of them. Many small canons extending back from the Colorado two or three miles, ended in a semi-circular amphitheater, with sides ranging from two to five hundred feet in height. Such gorges are called box canons. A small trail barely wide enough to allow a person to descend on foot leads from the mesa into the canon. Upon descending, one finds the caves literally filled with buildings of various sizes. In caverns having a dirt floor, there are seldom stone buildings, but instead, a most singular and unusual type of dwelling. Upon inspecting some of the caves, stone slabs four or five feet across were seen upon the surface. Perhaps the sands and dust which the winds had swept within half covered these stones. Upon removing them, openings two or more feet in diameter were disclosed, leading into a dome-shaped cavity. It is not without difficulty that a person is able to lower his body into the dark uninviting depths of

the cave. The chamber had the appearance of a bell, small at the top and large at the bottom. The rooms averaged six feet in depth and seven in width at the bottom. There are as many as twenty of these rooms in one cavern. Many of them penetrated through the clay and were excavated into the soft sandstone beneath. Small doors at the sides frequently led from one to another, so that a whole series of ten or fifteen rooms would be connected. Some of the smaller underground rooms were used as granaries, and several were discovered filled with seeds and corn. Skeletons were frequently found in the rooms, accompanied by textile fabrics, deer-skin garments, flint implements, etc. In no instance was pottery found in the underground rooms. The canons are so dry that everything used by the inhabitants of both cave and cliff buildings was preserved almost as perfectly as the day it was buried. For instance, the following were obtained: Beautiful feather-cloth robes and head dresses of the smallest feathers, rendered mouse-colored by age, pieces of spindles and cotton fabric in various processes of weaving, cotton seeds and cotton cloth garments, many of which were painted in fanciful designs, buckskin robes, on the inner side of which were picture writings similar in character to the winter counts of the Sioux, bone, obsidian, and flint cutting implements, mounted in original handles, stone spears, with the shafts six or eight feet in length, basket work, blankets, pottery, and hosts of other objects and implements such as were used in the every day life of the savage. The most interesting and valuable part of the collection was the mummies. They comprised some twenty men, women, and children, wrapped in feather-cloth, buckskin garments, and linen cloths, many of them with sandals still upon their feet.

The atmospheric conditions for the preservation of these mummified bodies were exceedingly favorable. The skin remained dry upon the face and other parts of the body. The eyebrows remained intact, the lips seemed rather full, the hair was still attached to the scalp, the larger muscles of the body are all preserved, the nails remain upon the fingers and toes, and the weight of the entire body is about twenty pounds. The mummies as found in the wrappings were three and a half feet in length. The limbs were doubled and the knees drawn nearly to the chest. The friends of the deceased removed the heart, lungs, bowels, and other internal organs before burial. This is plainly shown by an incision in the abdomen of each subject. Children have been occasionally found in the arms of adults, presumably their mothers. Small squashes, gourds, beans, corn, and cotton seed occasionally accompanied the interment. Numbers of singular objects have also been found. For instance, bundles of feathers, small strands of linen rope, raw-hide thongs, crutches, medicine wands or sticks two or three feet in length, with the claws and teeth of animals, beaks of birds, pieces of obsidian, etc., tied to one end. Baskets usually covered the head of the mummy. Frequently the door of the room in which the mummy was buried had been walled up. Occasionally a burial occurred in an ash heap in the rear of a dwelling.

During our journey we covered some sixteen hundred miles of territory, and

in order to be more expeditious, split the party into two sections. Considerable excavating was done in the cemeteries in the valley and mesa ruins. The graves presented a uniform appearance. They could be divided into two classes—those skeletons found five or six feet deep occupying hollow stone vaults, those but two feet from the surface buried in the sand. Beautiful pottery, bone implements, minute arrow heads, bone spoons, beads, and shells accompanied the grave burials.

We found every river and creek literally lined with boulder ruins and small pueblos. The ruins did not exist, as in the Ohio Valley, every few miles, they actually were continuous. In our opinion no section of the country can be found where an institution could make larger collections in a short time than in southern Utah. For instance, up Cottonwood Creek, fifty miles north from the Mormon settlement, there is a section about twenty miles square, containing a great many caves and valley ruins, which were practically unknown at the time of the government surveys from 1876 to 1880. The larger of these caves contain good springs. Several large cemeteries and pueblos occupy the surrounding plain. Some very interesting conclusions are deduced from an inspection of the ruins. No copper or metal of any kind has been found in the cliff houses or in the caves. All cliff houses and dwellings upon the edge of the cliffs were built manifestly for defense. The cliff houses themselves, whether large or small, have but one main entrance. That entrance faces the canon. Each room contains a number of port-holes, pointing in every direction. The larger rooms frequently contain as many as twenty or thirty of these port-holes, all of which are neatly and smoothly plastered, so that an arrow may be conveniently discharged.

In some of the stone buildings and in the caves, turkey dung covers the floor to a depth of two or three feet. Upon the walls in the rear of houses are usually hundreds of sculptures and rude paintings. Many, many times the turkey and the goat are shown in series of pictographs. Hence, we conclude that aside from what was grown by means of irrigation, primitive man in the San Juan country lived largely upon the goat and the turkey.

No metal has been found in any of the ruins, and such caverns and pueblos as we saw bore no evidences that the builders were associated with the Spaniards. Our observations led to this conclusion. The region was inhabited by two and possibly three tribes more or less alike in manner of living, in agriculture, in pottery making, in weaving, and in other arts; they differed in unimportant matters; for instance, the Cliff and Cave Dweller made mummies of their dead, the Valley Dweller placed his in graves; one flattened the skull by artificial pressure, the other did not; one lived in inaccessible fortresses, the other dwelt upon the plain. It seems to us that these differences are not sufficient to warrant us in setting them apart from each other as distinct and separate peoples.

The Nineteenth Century (woman's) club of Memphis, Tenn., includes in its course for this year a lecture on "the laws of Tennessee as they relate to women," which has been promised by a distinguished jurist.