



Dr. Edward Palmer

Doctor Edward Palmer gave an address at the Davenport (Iowa) Academy of Natural Sciences in 1893. The purpose of his address was to clarify the extent and nature of his work excavating mounds in Payson, Utah near Utah Lake.

**A Review of the Published Statements regarding the Mounds at Payson,  
Utah, with an Account of their Structure and Origin.\***

BY DR. EDWARD PALMER.

In Vol. II, Part I, of the Proceedings of the Davenport Academy of Natural Sciences, on page 28, it is stated that Dr. C. C. Parry read some interesting extracts from a letter by a correspondent in Utah, Miss Julia J. Wirt, describing the recent exploration of a mound near Utah Lake, situated on the farm of Mr. Amasa Potter, adjoining Payson, Utah. As the substance of this communication has created much unfavorable comment, and as I have recently made a systematic examination of the mounds at Payson, I beg leave to review what has been published.

The first thing commanding our attention is the remains of a skeleton, said to have been found therein, measuring six feet seven inches in length. Mr. Potter, in answer to questions about this, stated to me that the people carried it away, piece by piece, until nothing but the skull was left, which latter his wife gave to an Indian. This appears unusual for an Indian, as they do not like to look upon, much less to handle, the bones of the dead, and, according to my knowledge, they will not do so willingly. The correspondence further states that between the teeth of the skeleton was inserted the stem of a pipe, the bowl weighing five ounces. How it happened that several feet of earth and rubbish could fall upon that skeleton without breaking or displacing the pipe is somewhat surprising! Mr. Potter informed me that he did not have the pipe, that it was borrowed by one of his neighbors, who, on being questioned, declared she never saw it. The pipes found by me in the ruins of Utah are very small and made of clay, the bowl and stem being straight and continuous. There was no necessity for large pipes with the ancient people of Utah. The native plants used as tobacco by them was so strong that a small quantity sufficed, and hence the pipes were small.

The following, if true, would have been a most wonderful discovery: "An air-tight stone box, encased in mortar or potter's clay, containing another stone box of about two quarts capacity, was found at the head of the above mentioned skeleton. The second box contained, on opening, about a quart of light mouldy wheat, of which a few of the best grains were planted and grew." On making inquiry of the residents of Payson

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\*Ante, pages 28 and 82.

in regard to the finding of this wheat as above stated, one and all declared they did not believe any stone box containing wheat was found, for in other mounds that had been leveled near by, wheat was also found, but it was carried there by rats. In the mounds opened by me in the same locality, I found several holes, three to five feet below the surface, filled with wheat, and while leveling the mound, three rats were killed. The same kind of wheat shown to me as having grown from the grains purporting to come from the stone box, I saw ripe in a field near the spot in which the box was claimed to have been found. Why so much pains was taken to conceal wheat in a double stone box is more than I can reasonably account for. I have never found anything deposited with the remains in ancient ruins or in modern Indian graves, that was specially prepared for preservation. If seeds of native plants instead of wheat had been found in an *earth* vessel, it would not have been unreasonable, for I have seen with skeletons several kinds of seeds in such receptacles while exploring in Utah. Besides, no tools have been found in the ruins or mounds of Utah that would serve the purpose of hewing or cutting stone with the edges to fit, so that mortar or cement would render them air tight. The most conclusive evidence against the matter is that the Indians who left these ruins behind, like the present races, did not work for the sake of work, but only did what labor the collecting, preparing and preservation of native animal and vegetable substances required to convert them into articles of food and clothing.

I was shown some of the cement said to have come from around the box. In my opinion it is not cement, but grooved pieces of clay, that once formed part of the roof covering of a house whose ruins helped to make the pile of earth in which the box of wheat was claimed to have been found. In constructing a roof, small poles and sticks were used, over which wet mud was thickly plastered. When by natural decay or by fire the wood was destroyed, the clay was broken in pieces, and left with the grooves formed by the sticks. Mr. Potter had taken one of these pieces, and asserted for a fact that it did come from around his box!

It is said that with the above mentioned skeleton were numerous articles of pottery, some of them beautifully ornamented with pictures of flowers and animals, and also one piece "having painted upon it a quite recognizable sketch of a range of mountains visible from the locality of the mounds." If this is true, it is unlike anything I have ever found in Utah. Mr. Potter could show me only parts of dishes which were either plain or ornamented with parallel lines. I made special inquiry for the piece having the said mountains painted on, but was told it had been borrowed by a neighbor. Through a friend acquainted with this person, I made inquiry, and learned that the said piece of pottery was not in possession of nor had ever been seen by the person said to have borrowed it.

The correspondence says the mounds of this locality "are connected by gravel walks." There does seem at first sight to be remains of gravel walks, which are readily traced, as vegetation grows very scantily thereon, but on a closer examination it is discovered that they are an-

cient water ditches, used by the former inhabitants of these ruins, not only to water their fields, but to bring the water to the dwellings for domestic purposes, and to be used in making the rude mud bricks or *adobes* of which the houses were built, and the ruins of which form the so-called mounds of Payson. The reason that the soil is so poor in the vicinity of the ditches is because the constant flow of water carried off the rich earth, leaving the sand and gravel in its place, and the modern cultivation of the surrounding land has only covered over these sufficient soil to hide them from view, so that grain and corn planted in this thin soil soon present a very decided contrast to that planted in the richer soil near by.

In a letter published in the Eureka (Nevada) *Scout*,\* Mr. Potter gives a somewhat different account from that by Miss Wirt. He says, "in the right hand" of the large skeleton "was a huge iron or steel weapon which had been buried with the body, but which crumbled to pieces on handling." Mr. Potter, it seems to me, must have mistaken a piece of juniper wood that had decayed to dust by the side of the skeleton for his supposed "iron or steel weapon." The color would be the same, and to one so ready to draw conclusions to suit his preconceived desire to have his explorations verify the book of Mormon, this would be sufficient. The Book of Mormon tells of a people called Nephites, who once inhabited Utah, and who were acquainted with the use of iron, so that metal must be found to prove the fact. A close examination would have convinced him of its being wood instead of iron or steel, or may-be even the wood was wanting; one cannot be blamed for being skeptical after so little truth is found in Mr. Potter's statements. A great many mounds have been leveled in other parts of Utah by other persons without finding iron or steel.

It is also stated that, "near the skeleton was also found pieces of cedar wood, cut in various fantastic shapes, and in a perfect state of preservation, the carving showing that the people of this unknown race were acquainted with the use of edged tools." As I could get no trace of these, I would state that many rotten pieces of wood, and only one sound piece, were found by me in Utah, and these were without form or ornamentation. Nor have I ever found tools in Utah ruins that either whites or Indians could use to cut or carve cedar wood into fantastic shapes. In this letter he also makes a different statement regarding the stone boxes containing wheat. He says: "Close by the floor was covered with a hard cement, to all appearances a part of the solid rock, which after patient labor and exhaustive work we succeeded in penetrating, and found that it was but the corner of a box similarly constructed, in which we found about three pints of wheat kernels." The letter further says: "We have found plenty of charred corn-cobs, with kernels not unlike what we know as yellow dent corn." Close examination would have shown that it was the same kind of corn now grown by the Pah Ute Indians and the Moquis of Arizona. The letter also speaks of finding "moulds made of clay for the casting of different implements." Many

\*Since republished in Popular Science Monthly for Nov., 1877, Vol. XII, p. 123.

of these so-called moulds, Mr. Potter showed me lying in his door-yard. They were evidently only pieces of clay which had formed part of the roof-covering, as above described when speaking of the "cement" around the "stone-box."

A "neatly carved tombstone" was said to have been found at the head of a second skeleton. This being shown me proved to be only a long narrow piece of rock, neither carved nor cut, and showing that it was broken accidentally into its present shape. It appeared to me like half of a slab of stone used for baking bread, which being broken was discarded. Besides a people who destroy with the dead everything they possess have no use for tombstones. They keep nothing to commemorate the dead, and even destroy the houses over them. In this letter the following statement differs from that by Miss Wirt: "Upon one large stone jug or vase can be traced a perfect delineation of the mountains near here for a distance of twenty miles." If this had really been found, an article of so much value would certainly have been cared for. Yet, while Mr. Potter has carefully preserved all sorts of things from the mounds of little or no value, the valuable ones were not on hand. "Stone lasts" were shown me by the correspondent of the *Eureka Sentinel*, but they proved to be only rudely shaped natural stones.

In referring to the ancient people of Utah Mr. Potter says: "The inhabitants here say a race of people existed here fourteen hundred years ago, and belonged to a tribe known as the Nephites, who were often referred to in the Book of Mormon, which also speaks of terrible encounters these people had with their ancient enemy, the Lamanites. We find houses in all the mounds, the rooms of which are as perfect as the day they were built. All the apartments are nicely plastered, some in white, others in red color." This is correct only so far as the fact of there being ruined houses in the mounds, but an examination of the walls referred to in Mr. Potter's letter, showed no traces of either white or red plaster, nor could any be found in the debris thrown out of the interior of the room.

As Mr. Potter's letter does not explain the formation of these mounds, I will do so in order to give a better idea of the simple habitations of the people that once inhabited Payson. The mounds prove on examination to be debris of many dwellings successively built in the same location. Often walls were found most perfect at the base of the mound, the one above much broken, and often one side wall was found inside the ruins of the lower house, while the opposite wall was outside. As no walls were found of the original height that point must remain unknown, but it appears to me that about six feet was the most probable height. The walls were too thin to admit of an upper story, besides if two story houses were built they would require large timbers, which would necessitate implements to cut them with, none of which have as yet been found in Utah. The houses have generally two rooms with an alley or partition between. One room was usually smaller than the other, and the fact of its containing the debris of fires would suggest its use as a kitchen.

The size of the largest rooms may be said to be about twelve feet long

and ten feet wide, with the walls varying from ten to twelve inches in thickness. The smaller rooms are about ten feet long and eight feet wide, with the walls ten inches thick. The width of the passage between the rooms is two feet and ten inches. These measurements indicate the average size of the dwellings in the Payson group of mounds. The walls were constructed of what may be appropriately called sun-dried mud brick. Close by each mound, or pile of ruined houses, is a depression in which the bricks for building were made, and near it the ancient canal which supplied them with water. A close examination shows that while the clay was soft it was taken up by the hand and laid in the wall, and another similar lot laid over this, and the upper surface and sides smoothed with the hand. This is shown by finger marks still remaining on the interior but obliterated from the exterior surfaces. The joints between the various layers were very irregular. If the men, who inhabited Utah in early times, disliked work as much as the present Indians do, then the females were the house builders and their own architects.

That these people were destitute of cutting tools is shown, not only by the entire absence of such tools, but by the fact that the remains of wood, with few exceptions, have been found. The small, narrow rooms required only short poles to be laid across and covered with mud, to form a roof sufficient in the climate of Utah, where it rains so seldom.

It may be asked, "Who were the Ancient People of Utah?" From the evidence left behind in their ruined dwellings, they appear to belong to the same class of Indians as the Moquis of Arizona, a people simple in all their wants and habits, yet plain Indians. This is evident by the materials taken out of their ruined dwellings, consisting of stone mortars in which to grind their corn and the seeds of native plants. Large flat stones for baking bread, pottery, bone awls, arrow points, a few beads and square pieces of bone that were probably used for gambling, were the most important articles found, as all perishable substances had decayed. A highly enlightened people would have left a far different collection. Since this people were driven across the Colorado river to Arizona they have attained to their present advanced condition, having larger and better houses and an increase in everything required for domestic purposes. This change has been caused by the incessant wars that have been waged upon them by their numerous enemies, driving them across the Colorado river. Selecting elevations that afforded abundance of stone, they erected their present large three story houses, the roofs of which afford ample opportunity for defence against their enemies, being secure places of retreat when they had drawn up their ladders, which afforded the only means of entrance and intercourse between the numerous apartments in the different stories. After having been brought together in communities by force of circumstances, many changes of habits were made to suit their altered condition. Yet after the lapse of so many years we find them making pottery, as well as other articles, that are identical in their characteristics with those found in the ruins of their ancestral dwellings in Utah.

In reviewing Miss Wirt's letters to the Davenport Academy of Sciences

and Mr. Potter's letter in the *Eureka (Nevada) Sentinel*, I have done so, not with the view of showing their statements intentionally false, but to correct the errors arrived at by a minute examination of the mounds referred to by them. Mr. Potter is alone responsible for all the statements, which were evidently made with the idea of proving that these ruins belonged to the ancient race known to the Mormons as Nephites, who are said to have been a great people, cultivating wheat and acquainted with the use of iron. Miss Wirt derived her information wholly from Mr. Potter. Various persons in Utah, Latter Day Saints, spoke to me freely regarding these discoveries and regretted that the statements should have been made in the proceedings of the Academy, or that they should in any sense be regarded as gotten up in the interests of the Mormon church, inasmuch as none of them concur with Mr. Potter in his extravagant, and as we have shown, absurd views.