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### PRELIMINARY REPORT OF EXPLORATION AT OLD STONE FORT, MANCHESTER, TENNESSEE<sup>1</sup>

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By authority of the Smithsonian Institution and the Division of History of the State Department of Education, in early September, 1928, I spent two weeks in exploring, with four helpers, the Old Stone Fort, located one mile north of Manchester, Tennessee. Prior to that time a survey was made of this site by Dr. Carl E. Guthe of the National Academy of Science and myself, and suggestions were made by Dr. Guthe as to the proper method of exploration to be used in the effort to solve this historical mystery. The problems are those of when, by whom and for what purpose the walls were constructed. No written record appears of any actual excavation having heretofore been made.

#### NATURAL CONDITIONS

The structure is located on a high, narrow ridge, on each side of which flows a prong or branch of Duck River. These unite at the lower end of the structure, thus affording water courses on the east and west sides.

#### ENTRANCE

The entrance is at the north end, at the narrowest point between the rivers, which is a distance across the ridge of 1,050 feet. On the summit of the ridge, on both the east and west side, there was constructed two conical structures, made of fragments of shale and broken flint, with a base resting on native white clay. Each was about one hundred and fifteen feet in circumference, with an altitude of six feet, nine inches. The open space between these two conical monuments was about eighteen feet. Leading up and connecting with these two monuments were the outside walls on both the east and west side of the structure.

Immediately south of the two above described conical structures there was an open space, with average width of twenty feet. On both the east

<sup>1</sup>Read before the Tennessee Academy of Science at its Nashville meeting, November 30, 1928.

and west side of this open space and inside the east and west walls, were walls constructed of the same material, resting on white clay base. These walls are practically parallel and extend a distance of over two hundred feet southwardly, at which point, both inside walls turn abruptly to the left [east], extend a distance of about eighty feet and terminate in two small conical structures, of the same material, on the extreme eastern end of the last described wall. The construction creates a passageway inside of the extreme outside wall for a distance of about two hundred and eighty feet, with an average width between the inside walls of twelve feet.

The greater portion of the inside wall, last above described, which is on the east side, has been removed, as I am informed, for the purpose of procuring road material.

Growing on both the inside walls are very large trees that bear evidence of being from three to five hundred years old.

At the south end, a wall, extends from one river to the other, above stream from the junction of the rivers. The structure extends on the east side from the entrance to a distance of about 1,100 feet, where a perpendicular and inaccessible rock bluff, at an average height of eighty feet from the river bed, begins and extends to the junction point of the east end of the south wall. About half way down this bluff is a natural opening or crevice that has the appearance of having been used for passageway from the inside of the fort to the river. On the west side, the structure extends from the entrance a distance of about 1,000 feet, where a perpendicular and inaccessible rock bluff, at an average height of 100 feet from the river bed, begins and extends a distance of about 980 feet, at which point the structure begins and extends to the west end of the South wall.

The area inside the walls is practically fifty acres.

At about the same distance from the entrance on both the east and west sides there is a waterfall, the largest being on the west side, where by erosion, is exhibited the geological structure, consisting of a limestone river bed, beneath which is a deposit of shale approximately thirty-five to forty feet thick. At the foot of the pools formed by these falls, are thousands of tons of flint fragments and shale slabs, accumulated and deposited by high waters.

South of, and at the foot of the hill on which the south wall is constructed, there is a ditch or canal extending from the river on the west side to the river on the east side, of an average depth of four feet, an average width of twelve feet, and about 1,100 feet long.

#### THE STRUCTURE

The walls are constructed entirely of fragments of flint and slabs of shale heaped together—the same material as is now deposited at the foot of the pools below the waterfalls on each side. No evidence of masonry or the “breaking” of joints occurs, the material being piled in the structure. The average width at the base is sixteen to eighteen feet,

the base varying to some extent, which variation is indicated to have been caused by erosion. The average height of the wall is five feet—the walls from the inside to top is at an angle of about 45 degrees, the outside is at an angle of about 25 degrees. There are no indications of earth being used in construction as a filler, or otherwise.

A very careful search was made of the entire area in the effort to ascertain the source of supply of material with which the walls were constructed but no evidence of excavation for this material was found. None of the stones used in the walls exceeded forty pounds in weight and there was no cleaving of stone in any particular shape or form.

#### METHODS OF EXPLORATION

A careful investigation of all records pertaining to the Fort was made, as well as interviews with the oldest persons in the vicinity, but nothing could be ascertained as to use of the area for burial purposes. Eighty per cent of the area inside the walls has been in cultivation for more than seventy years, the remainder is in timber. There is no evidence of the finding of such artifacts as are usual about the sites of Mound Builders, except a few flint arrow points found scattered in this vicinity. No pottery fragments were found in spite of diligent and careful search for such evidences.

The first work was the use of steel test rods on the area inside the walls. Four to six men for two days carefully tested designated areas to ascertain evidences of habitation, structures, floors, fires, plazas or stone graves, by probing to an average depth of two and one-half feet. This resulted in no evidence bearing on this question. The field was covered with weeds and grass, except about ten acres in corn. The area, except the cornfield, was mowed, the hay removed and burned. Then more than sixty pits were dug to an average depth of three feet, and numbers of trenches, to an average depth of two feet, were dug both in the cornfield and in the remainder of the area. Test rods were then used in these pits and trenches. Six of these pits were opened to an average depth of five feet, displaying ancient river beds immediately under blue clay.

Near the north end of the enclosure, the topography is ideal for a plaza site, both as to elevation, smoothness of surface and drainage. I felt confident that this area was so used, but the openings did not disclose any evidence of such use.

As to the area inside the walls there is a total absence of any evidence of habitation or temporary occupancy as is usually indicated by fire, ashes, burned floors, fragments, building material, animal bones, pottery or other implements or utensils, for defense, offense, or domestic purposes. There was a total absence of any evidence of burial in this area, usually indicated by stone graves and human bones, although within easy reach were tons of shale slabs of the kind used as material for constructing stone graves.

I used all possible effort to employ a tractor-propelled plow, planning to plough up the area by two or three ploughings, but was unable to obtain the plow.

#### EXCAVATIONS THROUGH THE WALLS

*No. 1. On East wall two hundred fifteen feet from entrance. Height—5 feet, 8 inches; base—21 feet; opening—5 feet wide.*

The base from the inside to the center was on native white clay. From the center to the east edge, the base was made of river gravel, average thickness eight inches. This difference in the base construction was plainly shown. The base here is made of the same material that has been used as a base for all the mounds which I have heretofore explored. At the center, and resting on the base, I found an ancient hearth and fire box, constructed of shale slabs set on edge, practically filled with ashes, few animal and bird bones and two pieces of burnt corn cob; two small pieces of human bones, charred, and what seemed to be parts of the small bone of the arm. The depth of this fire box was twelve inches, with a width and length of twelve to fourteen inches. The base was comprised of burnt clay placed on a base of river gravel. The inside walls bore evidence of extreme heat, most plainly discernible at the bottom.

*No. 2. At the extreme Southeast corner of the wall. Height—5 feet, 4 inches; base—18 feet; opening—4 feet wide.*

The entire structure was formed of the same material of flint and shale piled in on a base of native white clay.

*No. 3. At the center of the South wall. Height—5 feet, 10 inches; base—19 feet; opening—6 feet wide.*

The material used was the same as No. 2, except the greater part was shale, and also three limestone rocks were found.

At a point two feet north of the center and resting on the base, an ancient hearth or fire box was found, constructed of shale slabs, set in circular form, with a radius of about thirteen inches; depth eighteen inches. A line of ashes three inches thick and four inches broad led from the center of the wall to the fire box. Burned limestone rocks were found in this hearth, and for about half the distance, on the sides and nearest the bottom, baked clay, two inches thick, adhered to the side walls; eight inches of ashes were in the bottom, which was made of burned clay resting on the natural clay base. A few charred bird and animal bones were found in the ashes.

*No. 4. Through the inside or alley wall, extending from the entrance southwardly and being the west alley wall, which is located approximately one hundred feet east of the outside west wall, one hundred and eighty feet south from entrance. Height—6 feet, 4 inches; base—22 feet; opening—5 feet wide.*

Ninety per cent of this material was shale, balance broken flint. Base, native white clay. Same method of construction.

No. 5. *In west outside wall, two hundred feet from entrance. Height—4 feet; base—12 feet; opening—4 feet wide. Same material and same manner of construction.*

All of the earth in these openings was caused by decaying vegetation, as distinguished from earth mixed with stone during construction.

Every stone and all earth was carefully examined three times. There was no evidence of strokes on any rock, all cleavage indicated action of heat and water as the cause, and no stone was of such height or size that it could not be easily handled by an average man.

#### WRITTEN RECORDS

1539-40. The record of the De Soto expedition does not specifically describe any site exactly like this, nor is it generally believed that De Soto advanced this far north. It has been believed that De Soto landed near Tampa Bay, Florida. Supposing this to have been his landing place and following the general directions and distances given by the Gentleman of Elvas, De Soto could not have advanced this far north. I have never agreed that the original landing place was in or about Tampa Bay. Had De Soto landed on the East coast of Florida about the Central part of the State, the directions and distances given by the Gentleman of Elvas would probably have carried him as far north as the Old Stone Fort.

Biedma describes one town, called Pachaca, as being surrounded by a moat or ditch filled with water.

Rangel describes a town or site, called Chisca, around one portion of which was a wall.

The Gentleman of Elvas describes one large site that was fortified and the interior occupied by the natives, into which fortification De Soto and his followers entered, were attacked and almost annihilated by the natives. All of their baggage, food and equipment were carried to the inside of the fortification. This site was burned by De Soto together with all of his belongings that were deposited inside the fortifications. This site was called Mavila, and is usually believed to have been near the present site of Mobile, Ala. None of these writers describe any of these fortifications as being made of stone.

For the above reasons, exceedingly careful and diligent search was made over the entire area for any evidence of Spanish culture, but none was found.

1684. There is in the Library of Congress, at Washington, a map of LaSalle's Discoveries, published by Franquelin, in which reference is made to trails in this locality meeting at or about this site.

1795. There was published in London, a map or sketch of this territory by Daniel Smith, upon which is shown at the forks of Duck River a structure marked "Old Stone Fort." This map also discloses that at that time there was a trail leading northwardly from the Old Stone Fort to Salt Lick, present site of Nashville, thence north to the

Ohio River. From the Fort southwardly were two trails, one leading almost due south, and extending to the Gulf of Mexico near Mobile, Ala., the other leading southeastwardly, and striking the gulf coast at or near St. Augustine, Florida. This original map is in the Draper Collection, State Historical Society of Wisconsin, and a photostat copy thereof is on file in the State Library, Nashville, and also in my office.

1823. Haywood's *Natural and Aboriginal History of Tennessee* was published, and described the Old Stone Fort as follows:

"The Stone Fort lies in Bedford county, in the two most northern of the three forks of Duck River, in the State of Tennessee. The walls of this are composed of stone, whence the name of Stone Fort. Its antiquity is indubitable. At the first settlement of this country, the oldest Indians had heard their fathers speak of it. At its northern extremity, on the front of the wall, are two mounds of stone, about six feet in height, and circular. Directly in the rear is the north wall, which extends from the river, and is situated exactly at the foot of falls of about 15 feet. The wall has one gateway, and is about 10 feet in height on the inner side. In the rear of the gate is a stone building of about sixteen feet square, with a smaller one by its side. Running south with the wall, it still maintains the same height until you arrive again at the foot of the falls of about 20 feet, where this part of the wall terminates and is discontinued for some distance, in consequence of a bold rising bluff of solid limestone rock, at about midway of which there has been excavated a foot path to the river. The like also occurs at the foot of the falls on the opposite side of the fort. On passing this bluff, the stone wall is again continued from river to river, having but one gateway. On the west side the wall is continued, with the same interposition of falls, bluffs and foot path, as on the east, until it joins the western extremity of the north wall. On the south wall there appears to have been an excavation of the earth from 80 to 100 feet in breadth and about 40 feet in depth, at the bottom of which, and next to the stone wall, is a ditch of about 20 feet in width. Both the excavation and the ditch extend from river to river. The form of the fort is nearly triangular, the north wall being but a few yards in length. The whole ground contained within the wall of the fort is from 30 to 32 acres. It appears probable, that the earth taken from the cavity on the south, has been spread over the face of the fort, and over the narrow strip of land which is south and next to the river, as both the fort and this piece of land are higher than the neighborhood. These walls are about 16 to 20 feet in thickness at the base, and on top from four to five. The present appearance of the wall is, as might be expected, quite rough; the whole area, as well as the excavation, being covered with heavy forest trees, as large as any in the neighboring country. On the north of the fort and near the public road leading from Nashville to Georgia, there is a mound of considerable magnitude, being of an oval form from 20 to 25 feet in height, 100 in length, 40 in width, and covered with heavy timber. About half a mile west of this, is another of similar form. Captain Eastband attempted to cultivate a part of the ground within the fort,

and on the first time in running a deep furrow, he ploughed up a piece of flint glass, about one inch thick and remarkably transparent; appeared to be a piece of bowl, very neatly fluted on its sides. There was also found a stone very beautifully carved and ornamented, much superior to any known art of the Indians. On the outward appearance of the fort are the strongest evidences of the hammer. On the 7th of August, 1819, Col. Andrew Erwin, on whose land the Stone Fort is, caused to be cut down a white oak tree which grew on the top of the wall. Major Murray and himself counted 357 annulars. He observed that he could not say how long after the building of the wall the tree commenced growing; it may, said he, have been within 100, or within 1,000 years thereafter. The wall, said he, is mouldered down so as to be at present about 16 feet wide on the surface of the earth, about 5 feet high. The rocks are covered with earth, and appear like a hedge along an old ditch. One-half or more of the rock, he says, is a slate copperas ore, taken out of the bottom of the creek on each side of the fort. The fort contains 33 acres of land within its walls. The age of the tree was 78 years when De Soto landed in Florida, and 30 years when Columbus discovered America. By some, this description of the fort is said to be inaccurate, and that there is no sign of the hammer upon the stone, and that indeed there is no wall of stone at all, the rocks being only heaped up with it. Be this as it may, it is not together with the dirt and intermixed with it."

1878. Jones' *Aboriginal Remains*, page 100. A plan or plat of the Stone Fort is shown.

1897. Gates P. Thruston's *Antiquities of Tennessee* (2nd Edition). On page 41 there is a plan or map of old Stone Fort, with a description thereof.

#### CAVERNS

Bone Cave is located about two miles down the river from the Old Stone Fort. Excavation was made at the entrance, and at a depth of six feet a kitchen midden was reached, containing ashes, pottery and flint fragments, animal and bird bones. This is the usual kitchen midden found in or about numerous caverns in this section and is the usual cave dwellers' leavings. At the extreme end of the cavern, 62 feet from the entrance, lying on the loose rock, fragments of a human skull were found, appearing to be the ordinary and usual type of the cave dwellers. This is a burial cavern.

Exploration was also made of immense rock shelters on the east side of the East Branch of the river. Indications of Mound Builders' culture and occupancy were found.

Mr. Frank A. Pattie of the Psychological Laboratory of Harvard University spent one day with me and prepared some very interesting photographs which he kindly forwarded to me, and I desire to acknowledge appreciation not only for the photographs, but for the valuable information communicated to me by Mr. Pattie, whose home was originally Winchester, Tennessee.

## CONCLUSIONS

1. As every feature indicates construction by hand, as distinguished from animal or mechanical aid, either a very large number of people were used, or a smaller number requiring a great length of time. It is my judgment that a large force was used and the entire structure was made at the same time.

2. It was constructed for temporary protection and defensive purposes, as distinguished from permanent occupancy as a habitation site.

3. The strategy displayed in site selection, entrance construction, utilization of bluffs, ancient canal or moat at south side—which, excavation disclosed, had been an artificial water course—indicates a high culture. This tends to cast a shadow on very great antiquity; yet we have no evidence east of the Mississippi which would permit credit being given the Columbian Indian for the structure.

4. The fact that there was a Home of Refuge at Old Chota tends to give a clue to the purposes of this site, as being a House of Refuge which served practically the same purposes as the House of Refuge of the Hebrew People, yet the absence of any evidence of permanent occupancy tends to weaken this idea.

5. The Franquelin map of 1684 states that the trail was used by Shawnees and other tribes in trading with the Spaniards. This being a map of La Salle's Discoveries forces the conclusion that this trail, shown on the map of Gen. Daniel Smith in 1795, was known as early as 1684. Smith's map shows the Stone Fort as being at the junction point of the two trails.

6. There was human occupancy either before the walls were constructed or during construction, as evidenced by the ancient fire boxes or hearths found in the base.

7. Wrapped in its cloak of historical mystery, its presence, showing the handiwork of ancient man, but whets the desire to delve, dig and explore until the dawn of its origin is made known, and this can only be done by the spade of the true Archaeologist.