

# THE STONE “FORT” AT LOCHMERE, NH: A HISTORY

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## INTRODUCTION

There is a view common among many archaeologists in the Northeast that the American Indians of the region didn't learn how to build with stone until they were taught by the colonial settlers in the seventeenth century, implying that they were somehow deficient in constructing with stone until then. Many of the articles I have written for the *NEARA Journal* and other publications address this misconception and set the record straight by providing examples of documented American Indian stonework. A list of documented stone features constructed by the prehistoric Indians in the Northeast, if made known to the academic community, might help to change the mindset of regional archaeologists and perhaps lead to a more open attitude about the thousands of aboriginal stone features found throughout the eastern half of the U.S. This article focuses on an unusual stone enclosure, called a “fort” in the nineteenth century,<sup>1</sup> which was found in an area of Tilton, New Hampshire, called Lochmere, and is simply another piece of evidence supporting the view that the Indians did construct with stone long before Europeans set foot on this continent.

## THE “FORT” AT LOCHMERE

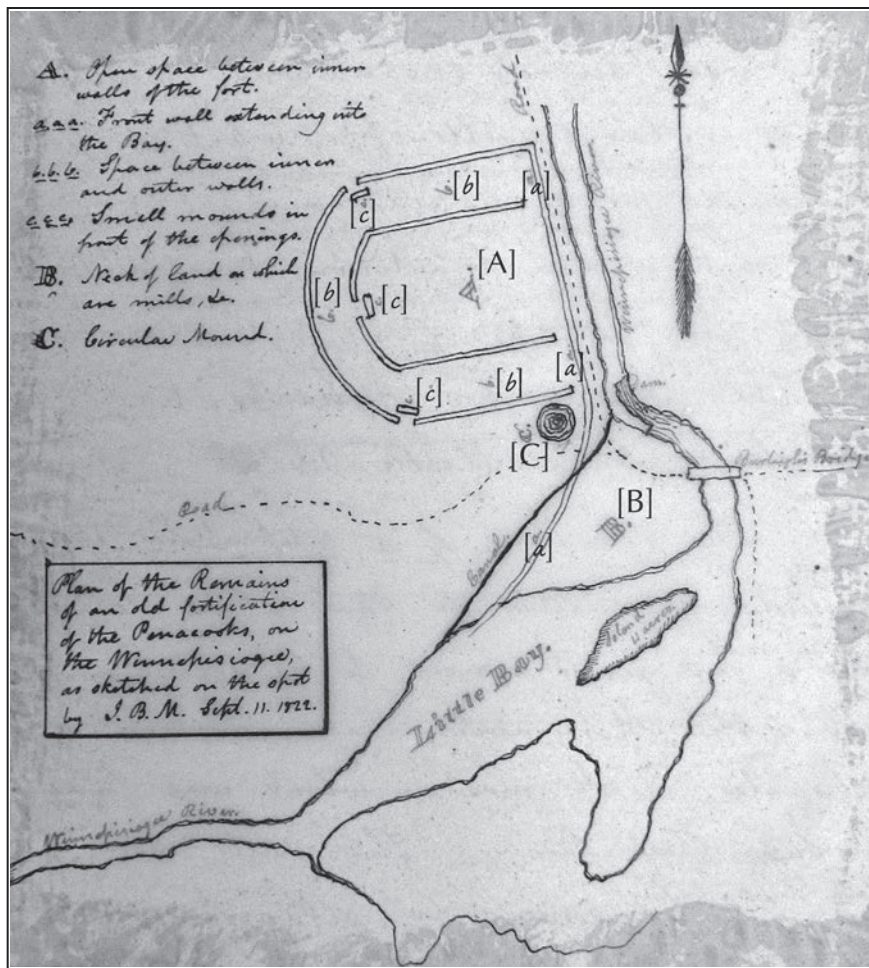
The story of the “fort” at Lochmere, New Hampshire, begins in the late eighteenth century, but the most important aspects of the story take place around 1818, when John Farmer, a New Hampshire genealogist and historian, met with Jacob Bailey Moore, a Concord publisher and historian, to plan a gazetteer for New Hampshire. It was published in 1823. The book comprised every aspect of the state, from a description of the terrain and climate, to a listing of each town's distinctive attributes. Farmer, the senior of the two and a recognized historian, must have known about an unusual stone enclosure in Sanbornton (as Lochmere was then called), a town 20 miles east of Concord on the Winnepesaukee River, which Jeremy Belknap had briefly described in the third volume of his *History of New Hampshire*. Unfortunately, Belknap's few words failed to convey an accurate picture of what it looked like. Out of curiosity, Farmer probably asked Moore to check it out.

Early in September 1822, Moore traveled to Sanbornton to study and map the unusual stone structure on the west bank of the Winnepesaukee River. On September 11 he was met in Sanbornton by James Clark, a prominent resident and surveyor of the town—one well-versed in the Indian history of the Winnepesaukee Valley—and by James Gibson, son of one of the town's first residents, and owner of the land where the “fort” was located. The structure Moore saw that September day had been known for approximately sixty years, shortly after the town was founded.

After examining traces of the wall on the ground, Moore then proceeded to make a careful drawing of the structure and surrounding features in pencil, which he later reinforced with black and red ink, using a ruler to make a careful delineation of the fort's U-shaped walls (FIGURE 1). This drawing was later cut out and pasted in a journal he kept. He also composed a short essay on what he had seen that day.<sup>2</sup> One long wall, paralleling the river, curved slightly to the southwest before ending and entering Little Bay. This wall was joined at right angles with shorter segments, each of which was separated by a gap or gateway, in back of which were small rectangular stone mounds. There were three such gateways and an equal number of mounds. Outside this walled enclosure in the southeast corner was a large round mound. In the top corner of the drawing we find the following notations:

- A. Open space between inner walls of the fort.
  - a, a, a. Front wall extending into the bay.
  - b, b, b. Space between inner and outer walls.
  - c, c, c. Small mounds in front of the openings.
- B. Neck of land on which are mills, etc.
- C. Circular mound.

Below, in a small box, is the following: “Plan of the Remains of an old fortification of the Penacooks, on the Winnepisiogee, as sketched on the spot by J.B.M. Sept. 11. 1822.”



**FIGURE 1.** JACOB B. MOORE'S ORIGINAL 1822 MAP OF THE LOCHMERE "FORT."  
 JACOB B MOORE ARCHIVE, HOUGHTON LIBRARY, HARVARD UNIVERSITY (ED. NOTE: LETTERS IN BRACKETS HAVE BEEN ADDED TO THE DRAWING FOR CLARITY)

The short essay that Moore composed to accompany the drawing was titled "Note respecting Fortified Defense of the Penacooks," and consisted of the following:

"In the afternoon, we visited the site of an ancient fortification on the Winnepisiogee at the head of Little Bay. The traces of the walls are easily discerned, although most of the stones have been removed to the mill-dam erected in the river a few years since. On approaching the fort, we called upon an old gentleman (Mr. James Gibson) who had lived for many years near the ground, and of whom we learnt the following particulars. He had been in town 52 years, and had known the fort sometime previous to settling in the town. When he came the walls were between 2 and 3 feet in height, though in some places they had begun to fall down, and all had evidently much diminished

in height since their erection. They were about six feet in thickness, constructed of stone outwardly, and filled with clay, shells, gravel, etc. from the bed of the river. The stones of which the walls were constructed are of no great size, and such only as men unused to the advantages of civilized life, could manage with care. They were filled up with much order, and strength, and when of their primitive height, the walls must have been very strong—at least sufficiently so, from all the purposes of a savage, who knew not the use of fire-arms, or battering cannon. There have been found within and near the fort great numbers of Indian ornaments, such as rock crystals cut into diamonds, hearts, squares, pyramids, etc. ornamented pipes of stone and clay—coarse pottery, ornamented with various figures—arrowheads, hatchets, and all things common implements for peace or war. The following is an imperfect plan of this ancient fortification.

"The site of the fort is nearly level, descending however a little from the wall situated on the bank of the river. Back on west for the distance of half a mile, the surface is quite even. In front or east, on the opposite side of the river, there are many high banks, upon which is a thick growth of wood. When the first settlers of Sanbornton discovered this fortification, there were several oak trees within its walls of very large size. These might have grown after the erection of the works.

"On the islands in Little Bay have been found numerous hatchets, arrow-heads, etc. This seems to have been a great resort for the Indians of the vicinity, and from the great numbers of bones dug up in cultivating the land, it is conjectured this was a burial place for their dead. Within the recollection of many

persons before this island was cultivated, there were several excavations resembling cellars or large wells—for what purpose originally made, is unknown.

“There is a tradition here that the Penacooks, at their destruction by the Maquas or Mohawks, had 300 birch bark canoes in Little Bay.

“The remains of a fortification, apparently of similar construction to that above described, were a few years since to be seen on the bluffs east of the Merrimack River, overlooking the intervals. It was what was formerly known as Sugar Ball Plain. The walls were plainly traceable for some rods, although crumbled to the ground, and overgrown with trees.”

Moore’s visit occurred after at least two previous ones to investigate and describe the stone structure. When the town of Sanbornton was first settled around 1762, settlers discovered the ruinous, double-walled structure beside the Winnepesaukee River. Word of this curiosity gradually spread, and eventually reached Jeremy Belknap, the eighteenth century clergyman and historian, who wrote the following in the third volume of his 1792 *History of New Hampshire*: “At Sanborn-town there is the appearance of a fortress consisting of five distinct walls, one within the other.”<sup>3</sup> To this he added that it and a similar fort in Hinsdale, NH, were “mostly inferior, both in design and execution to the military works found in the country of the Senekas and in the neighborhood of the Ohio.”<sup>4</sup> There is no trace of the structure he alluded to in Hinsdale, which is on the Connecticut River just southeast of Brattleboro, Vermont. By mentioning military works in Ohio, Belknap implied that the Sanbornton structure contained certain design elements that were similar to Ohio earthworks. Undoubtedly he must have seen a sketch of it, since there is no evidence in his diaries that on his extensive trips to the interior of the state, he ever visited Sanbornton.<sup>5</sup>

How Belknap came upon his description of the Sanbornton “fort” has remained elusive. There is no indication in his diary that he ever visited Sanbornton. He did not go there in 1774 on his way to Dartmouth College, and his trip to the White Mountains in 1784 in the company of Manasseh Cutler—the minister and botanist—followed a route that was too far east of Sanbornton for it to have been one of the stops.<sup>6</sup> In 1790, Belknap published a broadside requesting informa-

tion to complete the final volume of his *History*. Next to item 6 was the request for: “A particular account of any monuments or relics of the ancient Indians.”<sup>7</sup> This offered a tantalizing hint that at this time one of his contacts provided him with a description and perhaps a drawing of the enclosure. Perhaps the most significant clue to answering this minor mystery lies in Belknap’s 1774 trip through Concord, New Hampshire, where he met Timothy Walker, Peter Gilman, George Jaffrey and John Sherburne. The latter three were Dartmouth College trustees. Walker, a Concord minister, shared with Belknap an interest in “ancient matters” of Penacook Indian history.<sup>8</sup> Three years earlier, in 1771, Walker had presented a sermon on the ordination of the Reverend Joseph Woodman in Sanbornton,<sup>9</sup> and because of his interest in the prehistory of the region, it is reasonable to conclude that at the time of his visit he might have heard from those attending the service about the unusual stone structure in Sanbornton, and decided to visit it, later conveying to Belknap what he had seen. This might have occurred when Belknap and Walker met during the 1774 trip, and would help explain how Belknap initially heard of the “fort”.

Belknap’s vague description of the “fort” allowed for different design interpretations, and it could be that it was this cryptic description and perhaps others that Farmer and Moore had heard, that prompted them to see it for themselves. Even after Moore’s visit in 1822, the “fort” and its appearance were known only to a small group of prominent individuals; it would not be until the 1840s, when an engraving of the “fort” was published in the Smithsonian Institution’s second volume of *Contributions to Knowledge*,<sup>10</sup> that it became known to a much larger audience.

Belknap’s position vis-à-vis the Sanbornton structure is important for our understanding of it. Born in Boston and educated at Harvard College, he was a clergyman, historian, and one of the leading intellectuals of his day. In 1767 he moved to Dover, New Hampshire, and began an inquiry into the history of his newly adopted state, notes of which would later be incorporated into his *History*. At this point in time he also began a long correspondence with Ebenezer Hazard of Philadelphia, a fellow clergyman and scholar, who suggested that Belknap contact certain other educated elite in his state, such as George Jaffrey, who could help him with his planned book on the state’s history.<sup>11</sup>



Belknap was certainly familiar with early descriptions and engravings of the Ohio earthworks that began to be published in the early 1770s, before the territory became part of the United States and after cessation of hostilities between England and the American colonies in 1783. The Reverend David Jones's excursion to Ohio territory in 1772 and 1773 appeared in his *Journal of a Tour into the Territory Northwest of the Allegheny Mountains*, published in 1774, and this was followed a year later by additional information on his trips published in the journal *Royal American Magazine*, which included a woodblock engraving of the Marietta earthworks (FIGURE 2).<sup>12</sup> When Revolutionary War veterans were given land in Ohio in return for their service to the nation, the more curious among them began to inquire and write about

the earthworks. Belknap might have seen Jones's map in the *Royal American Magazine*, but he certainly was aware of Jonathan Heart's map of the Marietta earthworks that appeared in the *Columbian Magazine* in 1787 (FIGURE 3),<sup>13</sup> since he had invested in the magazine and had contributed information to it. Heart, a graduate of Yale College, had been a soldier in the Revolution, and later commanded a fort in Marietta. In addition to the map of the earthworks, Heart also wrote about the structures, emphasizing the age of the earthworks based on the size and age of trees found within its walls. Two years later, Manasseh Cutler, a close friend of Belknap, visited Marietta as one of the founders of the Ohio Company of Associates, and wrote about the earthworks in two letters to Belknap, one dated March 6, 1789, emphasizing the size of trees within the structures and their age, which he determined by counting tree rings.<sup>14</sup> By the late 1780s, Belknap must have had a fair idea of what the Ohio earthworks looked like, and their significance; when he heard about the structure in Sanbornton, and saw a drawing of it, he immediately recognized that mention of it should be included in his *History*.

In 1812, Timothy Dwight, future president of Yale College, made a circuitous trip through New England, which eventually became the source for a four volume account of his experiences traveling through New York and New England.<sup>15</sup> Prior to his trip, he may have contacted Belknap about the structure in Sanbornton, perhaps having read about it in the latter's *History*, or through correspondence with the author. He made a special journey to the town to see the walled structure in October 1812. His reticence in describing it paralleled Belknap's, when he wrote: "Sanbornton contains the ruins of an Indian fortification, which is remarkable for being formed of five enclosures. In the neighboring fields the plough has turned up many specimens of Indian pottery."

The accounts of Belknap and Dwight formed a backdrop to the visit by Jacob Moore, but even more significant was an article that appeared two years before Moore's trip. In 1820, a long, book-length article by Caleb Atwater on the Ohio mounds was published in the first issue of *Archaeologia Americana*, the official publication of the American Antiquarian Society in Worcester, Massachusetts.<sup>16</sup> The Society had been established by Isaiah Thomas, the printer and patriot, in 1813 for the purpose of promoting the "collection and preservation of the Antiquities of our country, and of curious and valuable productions in Art and Nature [that] have a tendency

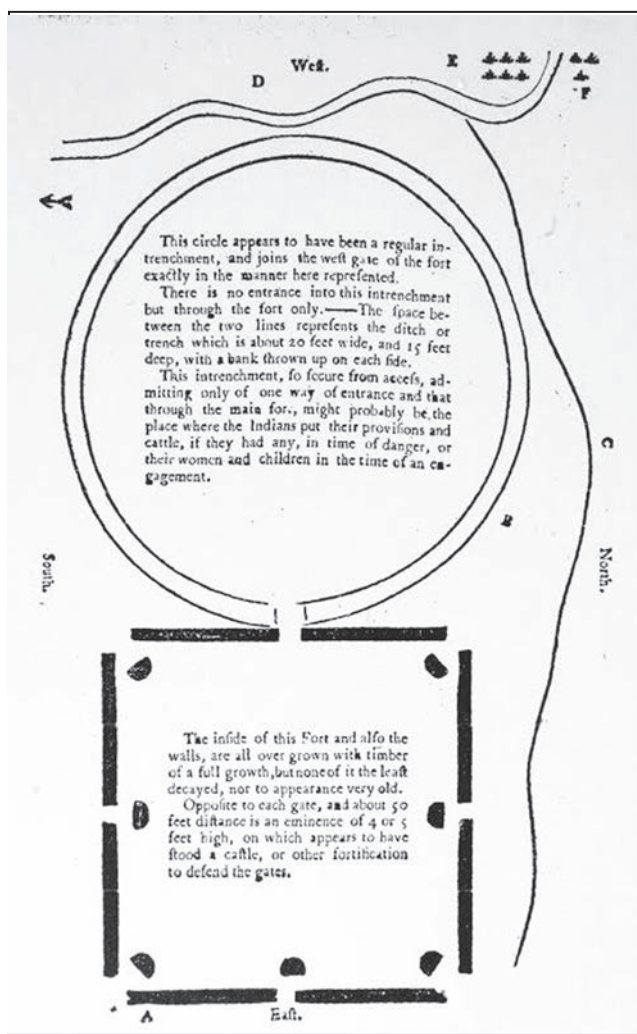


FIGURE 2. MARIETTA EARTHWORKS, ROYAL AMERICAN MAGAZINE, 1774

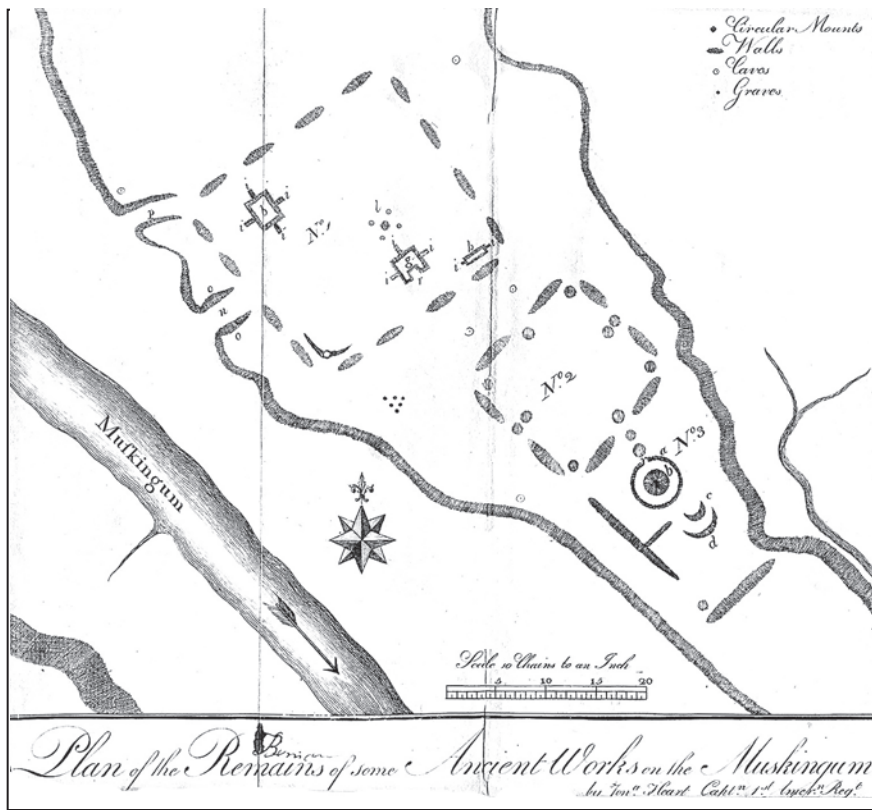


FIGURE 3. JONATHAN HEART, MAP OF MARIETTA EARTHWORKS, COLUMBIAN MAGAZINE, 1787

to enlarge the sphere of human knowledge.” Atwater, a member of the Society, was then living in Circleville, Ohio, and he was encouraged by Thomas to undertake a study of the earthen mounds and publish his results in the Society’s forthcoming journal. Atwater’s 150+ page article contained beautiful copper engravings of the Ohio mounds that were vastly superior to anything that had been published previously, and they impressed those who had access to the publication.

One of those who undoubtedly saw the article and the engravings was John Farmer, who was already a member of the American Antiquarian Society and would have received a copy of the first issue of the Society’s journal. He also might have seen a sketch of the Sanbornton structure, one that Belknap presumably had. Having carefully studied the fine engravings in Atwater’s article, Farmer immediately recognized the “fort’s” resemblance to the earthen geometric mounds in Ohio, and sought to record the Sanbornton “fort’s” design and bring it to the attention of the American Antiquarian Society.

After Moore’s visit to the “fort” in September 1822, he made a copy of the original map (FIGURE 4) and re-

worked his accompanying report, which were then forwarded to the American Antiquarian Society that December. The map copy was somewhat more detailed than the original, and included the following “References”:

“A. Open space between inner walls, of about an acre of ground.

a a a Space between the inner and outer walls.

b b Wall extending into the bay of equal height with the others.

c Canal, on which are situated mills, and the finished wall.

B. Point of land.

C. Island in the bay.

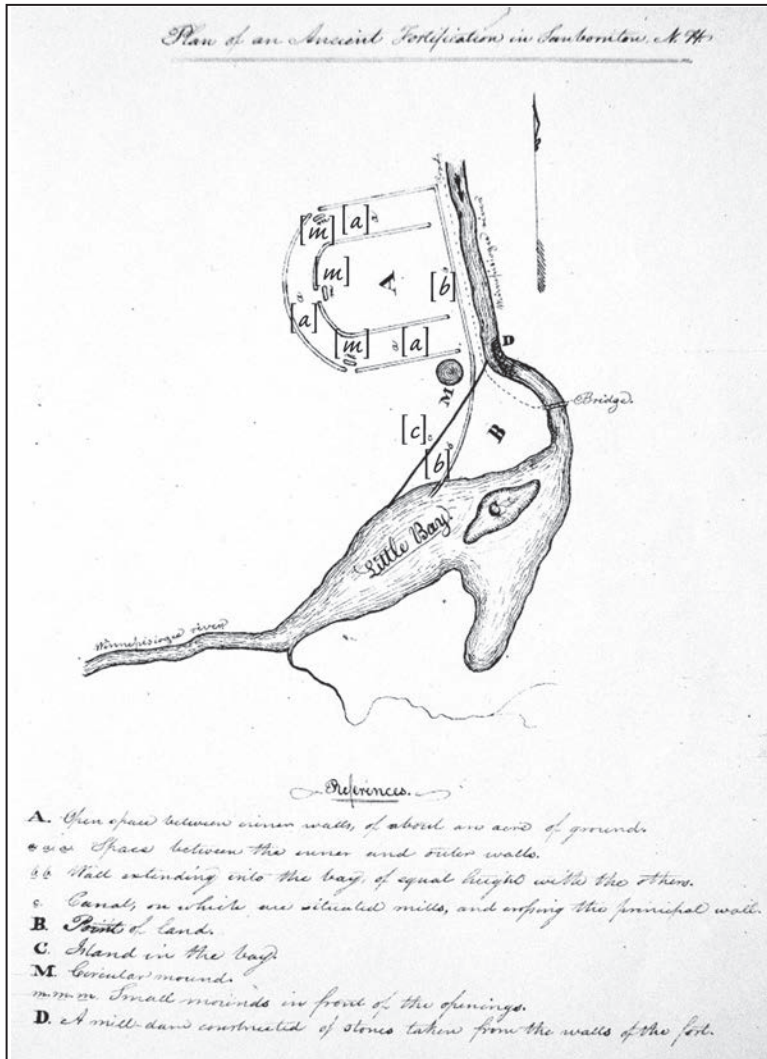
M. Circular mound.

m m m Small mounds in front of the openings.

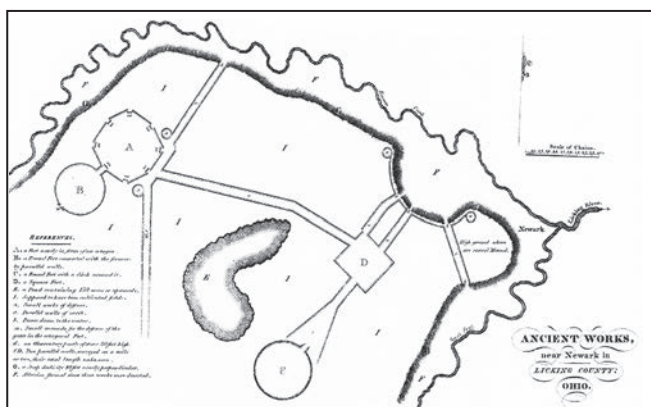
D. A mill-dam constructed of stones taken from the walls of the fort.”

The partially reworked essay was retitled “Fortification at Sanbornton” before it was forwarded to Thomas. It contained all the points described in the first version. The essay on the “fort” was prefaced by brief remarks on other Indian structures in New Hampshire, which he said were not as magnificent as those found out west, meaning Ohio, owing to the fact that the Indian tribes of New England had more “domestick pursuits.” Then, referring to Belknap’s *History of New Hampshire* and his brief comments on the forts found at Sanbornton and Hinsdale, he concluded with a careful description of what he saw in Sanbornton. The essay ended with the following: “It may, perhaps, be thought by some that minute descriptions of works so small in comparison with those of the west are of no great value, but it should be remembered that history is composed of items; and that, as we possess no great and splendid memorials of the past, those which can be collected, though humble, should be preserved.”

Moore’s duplicate drawing, with the annotation and stylized arrow pointing north, were inspired by the beautiful engravings of the Ohio mounds that ac-



**FIGURE 4.** JACOB B. MOORE, DUPLICATE 1822 MAP OF THE LOCHMERE “FORT,” AMERICAN ANTIQUARIAN SOCIETY, WORCESTER, MA (ED. NOTE: LETTERS IN BRACKETS HAVE BEEN ADDED TO THE DRAWING FOR CLARITY)



**FIGURE 5.** NEWARK EARTHWORKS, PLATE II OF CLEMENT ATWATER’S “DESCRIPTION OF THE ANTIQUITIES DISCOVERED IN THE STATE OF OHIO...”, *ARCHAEOLOGIA AMERICANA*, I, 1820.

accompanied Atwater’s article, particularly Plate II depicting the Newark earthworks (FIGURE 5). Moore observed the similarity of design between the Sanbornton “fort” and the enclosures in Ohio, but he did not comment directly on the gateways and mounds, which are diagnostic features of the Hopewell earthworks, instead concluding that the Sanbornton example was a poor cousin to the ones in Ohio.

Moore and Farmer wasted no time making the “fort” known to some prominent people in the Boston area before the report and map were forwarded to Isaiah Thomas, president of the American Antiquarian Society. Their purpose was not only to disseminate knowledge of this important discovery, but also to promote their New Hampshire gazetteer, which was then nearing completion and would be published in 1823.

One of those Moore sent the report and map to was William Plumer, former U.S. senator from New Hampshire. In a letter Moore sent to Plumer, dated September 30, 1822, he wrote: “I recently visited the remains of an ancient fortification of the Indians in Sanbornton; and succeeded in drawing a plan of it, and obtaining some facts in relation to its proportions—which I shall do myself the pleasure to forward to you, when I have leisure to copy my original.”<sup>17</sup> This copy was to be the one he eventually sent to Isaiah Thomas (SEE FIGURE 4). Somewhat later, on October 11, 1822, John Farmer wrote to Rev. Dr. Abiel Holmes in Cambridge, MA, grandfather of Oliver Wendell Holmes, the famous Supreme Court jurist, and included Moore’s report. He also included the following: “The one he [referring to Moore] has

described, though one of the most important of our Indian relics, which has been discovered in this state, has been but barely noticed by our worthy historian. Mr. Moore having visited it himself, his description is the result of his own examination and investigation of the facts connected with it.”<sup>18</sup> By referring to “our worthy historian,” he meant Belknap. Holmes, after reading Moore’s account, forwarded the letter and map to Isaiah Thomas, and the latter, in a letter to John Farmer, dated December 9, 1822, acknowledged receipt of Moore’s article from Holmes, and commented that he hoped that Moore’s report and map would be reproduced in the next volume of the Society’s journal.<sup>19</sup> Moore was already a



member of the American Antiquarian Society, having been proposed for membership in December 1821, which he accepted in February 1822. His report on the Sanbornton "fort" solidified his standing within the Society.

In 1823, the *Gazetteer of the State of New-Hampshire* was published, in which the Sanbornton "fort" was described as follows: "On the Winnepisiogee, at the head of Little Bay, are found the remains of an ancient fortification. It consisted of six walls one extending along the river, and across a point of land into the bay, and the others in right angles, connected by a circular wall in the rear. Traces of these walls are yet to be seen, though most of the stones, &c. of which they were composed have been removed to the dam thrown across the river at this place. Within the fort have been found numbers of Indian relics, implements, &c., and also on an island in the bay. When the first settlers of Sanbornton arrived, these walls were breast high, and large oaks were growing within their enclosure." This would remain the fullest and most accurate description of the "fort" in print. As for the report and map that Moore submitted to the American Antiquarian Society (AAS), they were never published in the society's journal for reasons that are unknown, and from 1823 until the mid-1840s, the story of the "fort" simply faded from view.

#### LOCHMERE "FORT" IN THE LATER 1800S

The story began to change in 1846, when E.G. Squier visited the AAS in Worcester to seek funding for his and E.H. Davis's monumental study, *Ancient Monuments of the Mississippi Valley*. The Society had funded the marvelous copper engravings in Atwater's article, and perhaps he hoped that they would respond favorably to his request. This would be a major undertaking for the Society because of the large number of engravings required for the book. The Society requested that their librarian, Samuel Foster Haven, travel to Ohio to judge the importance of Squier and Davis's research first-hand. Haven visited Ohio in summer 1847 and met with Davis, taking notes on what he saw. He reported back to the council of the AAS in August 1847, marveling at the quality of work Squier and Davis had done and how superior it was to Atwater's. Still, the council balked at the cost of reproducing the many engravings that were required, and in the end the manuscript was picked up by the Smithsonian Institution.

At the time of Squier's visit to the AAS in 1846, Haven must have mentioned the structure Moore had seen, and Squier must have been shown the report and map that Moore drew of the Sanbornton enclosure. By that year, Squier had already planned to expand his research of the mounds into New York. Having heard about the Sanbornton "fort" from Haven, he wrote to Moore for updated information on it. Because 25 years had elapsed since Moore last visited the structure, in fall 1847 he wrote to James Clark requesting him to revisit the "fort" and determine its present state. In a letter Clark sent to Moore, dated November 8, 1847, he wrote:

"I found the remains of the walls, in part, plainly to be traced; but the ground, since our former examination (in company, at this time, with Mr. Bamford, son of the first settler on the spot), has been several years plowed and cultivated, so as now to give a very indistinct view of what they were at our previous visit, when the foundations of the whole could be very distinctly traced. No mounds or passageways can now be traced. A canal to carry a saw and grist mill occupies the place of the mound marked M. The stone used in the walls [referring evidently to their appearance at first] were such as a man could easily lift, and were laid as well as our common walls for fence in the North are laid and very regular. They were about three feet in thickness and breast high when first discovered (1765 - ?). There were no embankments in the interior. The width between the outer and inner wall was about sixty feet, and the distance south from the north to the south wall was about 250 feet, and from the outer wall on the west to the river about two hundred and twenty feet. There were two other walls, extending south to Little Bay which I have marked on your sketch. The general elevation of the works was about ten feet above, and gently sloping to the river bank five feet above the water. The distance between Great Bay and Little Bay is about one hundred and sixty rods, with a gradual fall of fifteen feet. Here was a great fishing place for the Indians, where they caught great quantities of eels in their pots, and in the spring and fall vast numbers of shad."<sup>20</sup>

An abbreviated version of the letter appeared in Volume II of the Smithsonian Institution's *Con-*

tributions to Knowledge series, and later in Squier's *Antiquities of the State of New York*.<sup>21</sup> Accompanying the updated information was an engraved map of the structure (FIGURE 6), to which Clark had added new data, such as the two walls that extend south from the "fortification," and the distance between the walls. In 1851, E.G. Squier published two accounts of the Sanbornton structure.

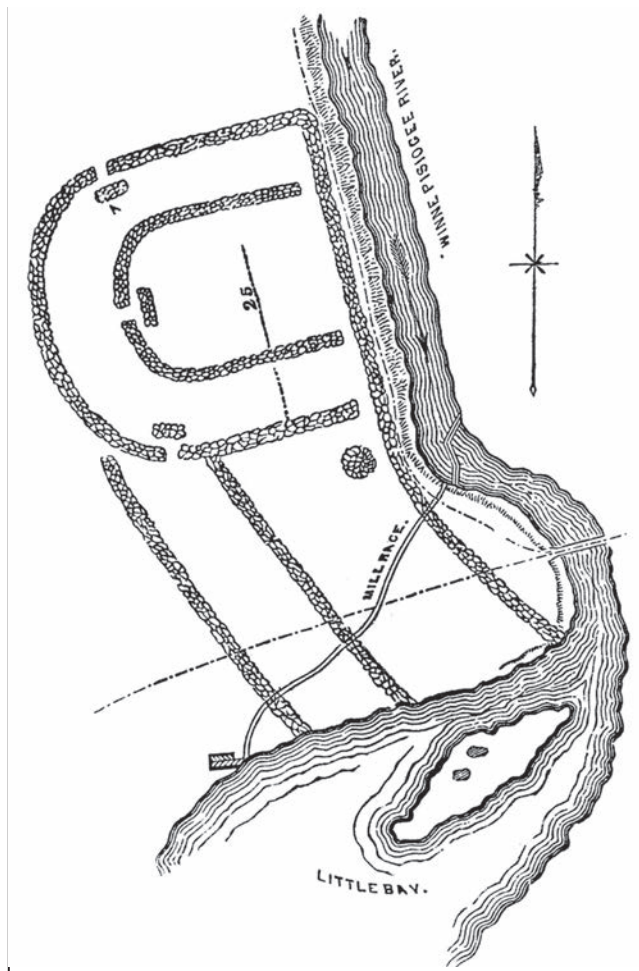


FIGURE 6. E.G. SQUIER, ENGRAVING OF THE LOCHMERE "FORT," SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE, II, 1851.

Although the Lochmere structure was not a carbon copy of any of the earthen geometric mounds found in Ohio, it did conform to a number of characteristics found among Hopewellian structures. First of all, its design was geometric, and the double walls bear some similarity to the earthworks at Portsmouth, Ohio (FIGURE 7). Secondly, the height of the walls and the use of large stones for the exterior and small stones and fill for the interior are found for some Hopewell earthworks, such

as those at Fort Hill and Spruce Hill.<sup>22</sup> The addition of small mounds set in back of gateways is a distinctive Hopewellian architectural feature and this must have been the main aspect of the design that caught the attention of Belknap and Cutler; they must have looked similar to those still found at the Octagon in Newark, Ohio (SEE FIGURE 5). Its proximity to a river is also a Hopewellian trait. Furthermore, the artifacts supposedly found within and near the "fort" suggest a possible Hopewellian connection, such as the quartz crystals of various geometric shapes and ornamented pipes made of clay and stone, all of which have been found at Hopewell archaeological sites in the Midwest.

The publication of Squier and Davis's monograph did much to rekindle interest in the Ohio mounds. In 1849, Samuel Haven mentioned Moore's discovery in the *Proceedings of the Society*, pointing out that the Sanbornton structure was probably the only such enclosure of its kind "east of New York." He expanded his comments in his *Archaeology of the United States*, when he wrote:

"In 1822, Jacob B. Moore made known to the Antiquarian Society the very interesting and important fact of the former existence in that State of an extensive fortification in Sanbornton, near Lake Winnepiisogee [sic]. It was represented as a double inclosure, perfectly symmetrical in form, having mounds at the entrances, and a large one without the walls, in the manner so common at the West. The walls were of stone externally, filled in with clay, shells and gravel; and, when first discovered, almost eighty years before, were breast high, and six feet in thickness, and had evidently diminished considerably in height since their erection. Unless certain traces of regular embankments in the Merrimack, near Concord, also mentioned by Mr. Moore, are to be excepted, this is believed to be the only instance, east of New York, of an inclosure like those so common beyond the Alleghanies."<sup>23</sup>

Haven then passed on Moore's findings to Squier, who included them in Volume II of the *Smithsonian Contributions to Knowledge*, published in 1851.<sup>24</sup> This was the first time knowledge of this structure received wide dissemination. Accompanying the article was an engraving of it (SEE FIGURE 6), based on Moore's earlier pencil drawing and perhaps Clark's more recent observations.



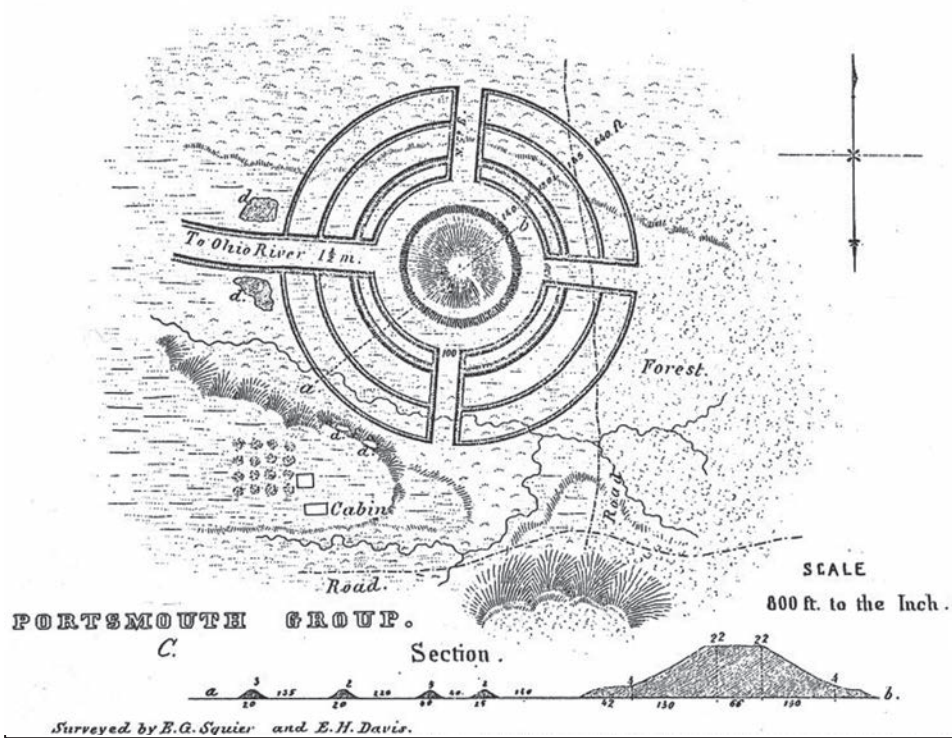


FIGURE 7. PORTSMOUTH EARTHWORKS, PLATE XX, E.G. SQUIER AND EDWIN H. DAVIS, ANCIENT MONUMENTS OF THE MISSISSIPPI VALLEY, REPRINT, WASHINGTON, D.C. 1998.

Moore claimed in a letter he sent to Squier, that “The accompanying sketch was taken in pencil, on a visit to the spot, in company with the Hon. James Clark and several friends in the month of September, 1822.” However, the engraving is not identical to the 1822 drawing, and in fact differs from it in several important respects. Unlike the original drawing, which shows only one wall curving west toward the bay, the engraving differs from the Moore drawing by showing the wall parallel to the river curving east to the bay, and also depicting two additional walls extending from the structure to the bay. It is doubtful Moore missed seeing these on his initial visit, since his description of the “fort” in the *Gazetteer of the State of New-Hampshire* of 1823 is an accurate summary of the map itself. These two walls could have been built between his 1822 visit and James Clark’s return to the ruin to determine its condition in the late 1840s.

That same year, Squier, in his *Antiquities of the State of New York*, republished the comments that Moore had made in *Contributions*, along with the same engraving.<sup>25</sup> Moore’s discovery was now being given wide circulation.

For the next one hundred years, interest in the Lochmere “fort” faded, flaring up intermittently. In 1860, The Squier engraving of the Sanbornton work was published

in *Harper’s New Monthly Magazine* (volume 20, issue 115: 740). And in Runnels’ *History of Sanbornton, New Hampshire*, published in 1881, the author devoted four pages to the “fort”, including the letter James Clark sent to Moore in 1847, which had previously been published by Squier in 1851.

### LOCHMERE “FORT” IN THE TWENTIETH CENTURY

Interest in the Lochmere “fort” would be resurrected in 1952. In that year Percy Brown wrote the most complete report on the “fort” to date, which was published in the *New Hampshire Archaeologist*.<sup>26</sup> Brown tracked down the Moore map in the American Antiquarian Society, and reproduced a hand-drawn copy for the article. He also ad-

ressed the problem of the Atkinson fort, which some had conflated with the stone “fort” that Belknap first mentioned, since many placed it in the area of the stone structure.<sup>27</sup> Brown concluded that the Atkinson colonial fort had nothing to do with the stone structure, and was probably built in the 1790s as a temporary defense for the area and lasted no more than a year. In the article, Brown did not mention the architectural similarities between the Lochmere “fort” and Hopewell period earthworks in Ohio. But he recommended that attempts be made to locate traces of the structure, and proposed that an area just north of the railroad viaduct be checked first. And if that did not pan out, then examine the area south of the viaduct.

Ten years later, Walter and Helenette Silver concluded that the Lochmere “fort” was a fish weir, basing much of their research on the proximity of the “fort” to the river and to the town of Weirs, where the river originates.<sup>28</sup> Unfortunately, they, too, failed to understand the sophisticated design of the structure and its similarity and connection to Hopewell mounds. The small mounds set back from the entranceways they interpreted by writing:

“The ‘inner mounds’—which were simply piles of earth near, but not closing, the openings in the walls— were three in number (M. M. M, **FIGURE 1**). The illogic of having three breaches in a wall designed to exclude an enemy, where one would have sufficed for the occupants’ own convenience, is at once apparent. It suggests that the openings were intended to entice something into the enclosure rather than to exclude something.”

They then concluded that the openings were used to entice fish.

The fort was on the Namaskik or Winnepesaukee Indian trail that extended from Franklin, NH, to the Weirs on Lake Winnepesaukee, passing by Lochmere and Winnesquam Lake.<sup>29</sup> Both Lochmere and the Weirs were major fishing localities. A metal sign beside the bridge over the river in Lochmere describes it as an “Archaeological District” where nine Indian sites dating back 9000 years have been found. Additionally, a pecked Indian pictograph of a pickerel or shad was found on a boulder on the shores of Silver Lake in Lochmere in 1975. It had been covered with soil, and was discovered during construction of a boat dock.<sup>30</sup>

Probably the last published description of the “fort” was that by James Mavor and Byron Dix in their book *Manitou* in 1989.<sup>31</sup> They noted that the architecture was similar to some of the earthen enclosures in Ohio, particularly the ones in Marietta, and also emphasized the gateways with the mounds set in back, a design characteristic of Hopewell architecture.

#### LOCATING THE SITE OF THE LOCHMERE “FORT”

That there was a stone structure in central New Hampshire in the shape depicted by Moore, and influenced by Hopewell earthen enclosures found in Ohio, there is little doubt, based on the many references we have about it and the number of individuals who saw or commented on it. Although no evidence of the “fort’s” walls now exists above ground, it is possible to pin down its location more precisely with the aid of the 1822 map (SEE **FIGURE 1**), an 1860 map of East Sanbornton (**FIGURE 8**),<sup>32</sup> and a Google Earth aerial view of the area under discussion (**FIGURE 9**). The 1860 map not only shows the millrace connecting the river with the bay, but it also

has a scale in rods at the top. The location of the millrace was felt crucial for plotting the original location of the stone “fort”, since Moore showed its northern entrance on the river directly opposite and west of the stone dam, and in line with the large stone mound adjacent to the wall of the “fort”. Furthermore, the site of the original dam was also important, since on Moore’s map it is shown directly east of the southernmost wall of the “fort”. Using the scale at the top of the 1860 map, the distance from the railroad trestle to the beginning of the millrace is approximately 770 feet. Since the circular stone mound was adjacent to the south wall of the “fort”, and since James Clark in 1847 measured the distance from the north wall to the south wall as 250 feet, the “fort” would have fit comfortably in the area south of the railroad. This location is also confirmed by examining the Google Earth aerial view. Although the old millrace has been obliterated by the excavation of the new overflow channel, the latter was judged to follow the original course of the millrace. In fact, if we align a straight edge along the south banking of the point of land and the new river channel, it bisects the east side of the river just below the present dam. And if we extend a line directly west from this location, it bisects the house on River Road. Even though nothing remains of the structure above ground, it was concluded that it might still be possible—using ground scanning techniques—to determine if the imprint it left behind conformed to the design recorded by Moore. Ground scan techniques, including use of magnetometers or ground penetrating radar, have been employed successfully to detect impressions of Hopewell earthworks.<sup>33</sup> One would not need to scan for the entire feature; a small area should be sufficient to conclude whether the feature as drawn by Moore actually existed. This, however, would need the cooperation of current landowners. If this technique did confirm its existence as represented in the drawing, then one has to wonder just what a Hopewellian enclosure was doing so far east.

The land on which the “fort” presumably lay is presently owned by the Sanborn family. In 2014, I contacted Grace Sanborn, the wife of the owner, requesting her permission to have the area surveyed. She gave her wholehearted support for a survey.

In late April 2015, the New England Antiquities Research Association (NEARA), assisted by a private contribution from Agnes Sherman, a friend of mine, funded a geophysical survey of the possible site of the Lochmere









FIGURE 9. GOOGLE AERIAL VIEW OF THE LOCHMERE "FORT."

"fort" by Daniel P. Lynch—a doctoral candidate in anthropology at the University of Massachusetts—who had considerable experience surveying archaeological projects throughout North America. Since magnetometers had been used successfully in locating the flattened earthen walls of Ohio Hopewell mounds, it was assumed that the technology might work on locating the site of the former stone walls of the Lochmere "fort", even though they were not as massive as those of the Ohio enclosures.

One of the first steps in this process was to determine the nature of the soil in the area. Dan Lynch wrote to Mrs. Sanborn and requested that she take several soil samples from her property, place them in plastic vials that he sent her, and return them to be analyzed. He found that the magnetic properties of the soil were encouraging, because the rock component exhibited lower magnetic properties than the soil samples. This persuaded him that surveying with a magnetometer would work. However, when he visited the site for the first time on May 2, 2015 to initiate the survey, he noticed wet areas, along with a profusion of old tin cans, automobile parts, nails and other metal items, particularly in a parking lot near the railroad embankment, which would preclude use of a magnetometer.

As an alternative, Dan conducted a 2D imaging survey using a Wenner- $\alpha$  Array, with electrodes spaced

along a north-south datum line every .5 meters. The line extended from the Sanborn garage to a parking lot used by local fishermen just south of the railroad embankment. It was determined early on that a north-south survey line bisecting the presumed east-west wall locations of the "fort" provided the best opportunity to detect some remaining evidence of one or more walls of the "fort". Assisting Dan in the survey were his wife, Barrie, and four members from NEARA: Peter Anick, Rob Carter, Walter van Roggen, and myself.

The survey continued all day, with everyone participating. The information gathered was stored for later analysis. Because the survey area was problematic—given the type of soil, wetness, and the distribution of metal objects—Lynch decided to try a variety of survey techniques, hoping that one would provide some answer to whether any traces of the walls existed. The next day he returned to scan the same area with ground-penetrating radar (GPR).

On June 21, 2015, Lynch submitted his final report on the survey, titled "Search for the Lochmere Earthworks Site: Report on the 2015 Geophysical Research," to the NEARA Research Committee. In the report, three areas of interest, designated Anomaly A, B and C, were detected by the 2D electrical resistivity method (FIGURE 10).<sup>34</sup> These locations were indicative of gravel or stone.

But because the soils in this area of New Hampshire are often rocky and well drained, these anomalies could very well be natural and not cultural.

Ground penetrating radar, which Lynch used on May 3, encountered a shallow buried layer about 15 meters from the Sanborn garage that was termed Anomaly D. As explained by Lynch, this anomaly consists of a bump in the ground, roughly elliptical in shape and oriented east-west. It also contains "intermittent areas of dense concentrations of small stones and rounded cobbles."<sup>35</sup> This location is roughly 250 feet south of the present dam on the Winnepesaukee River. It turns out that the original Burleigh Dam was located 15 rods south of the 1867 Lake Company dam,<sup>36</sup> where the present dam exists. Fifteen rods is 247 feet, which would place the Burleigh dam, and the south wall of the "fort" which was in line with it, just south of the Sanborn home on River Rd. Therefore, it is possible that Anomaly D represents remnants of the north wall of the "fort" and not the south wall.<sup>37</sup> Only further investigation of the stone anomaly on the ground to see if traces extend east and west, followed by surveying the site with GPR, can confirm if this is indeed the case.

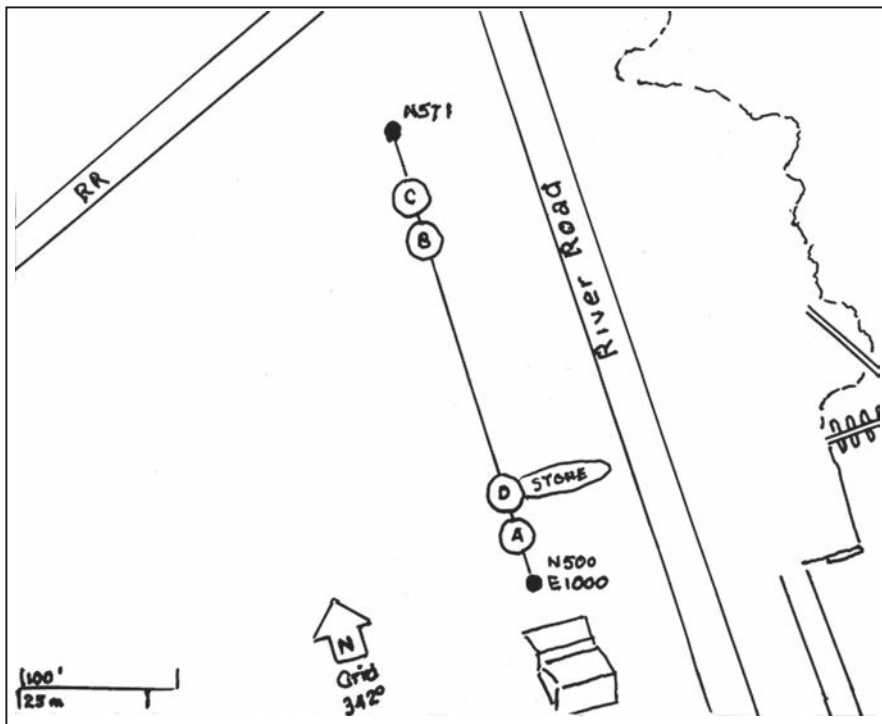


FIGURE 10. DRAWING OF THE LOCHMERE SURVEY SITE, SHOWING ANOMALY "D," AFTER DANIEL LYNCH'S FIG. 10, "SEARCH FOR THE LOCHMERE EARTHWORKS SITE.."

## ENDNOTES

- 1 The idea that the Lochmere structure and those in Ohio were associated with fortifications was based on the idea, prevalent in the nineteenth century, that these walled structures were defensive in nature, the high walls being used to protect the inhabitants behind them from attack. Careful research of the Ohio mounds in the twentieth century, however, gradually changed the view of the earthworks from defensive to ceremonial. But the fortification label still exists for earthworks in Ohio, such as Fort Ancient and Fort Hill.
- 2 Jacob B. Moore Archive, Houghton Library, Harvard University.
- 3 Belknap, Jeremy, *The History of New Hampshire*, III, Boston, 1792, 89.
- 4 Ibid.
- 5 Russell Lawson (see n.4, sopra) in an e-mail to the writer, confirmed that there is no biographical evidence that Belknap ever visited Lochmere.
- 6 Lawson, Russell M., *The American Plutarch: Jeremy Belknap and the Historian's Dialogue on the Past*, Westport and London, 1998, 69-71.
- 7 *Jeremy Belknap Papers 1758-1799*, microfilm P363, reel 22, 1-18, diaries 1758-1774, Massachusetts Historical Society, Boston, MA.

8 Concord was also called Penacook, but it was also the name of a local Indian tribe.

9 Moses Hale, "A sermon preached at the ordination of the Reverend Mr. Joseph Woodman, to the pastoral care of the church and congregation in Sanborntown, in New Hampshire, November 13, 1771," Salem, Massachusetts 1772.

10 Squier, E.G., *Smithsonian Contributions to Knowledge*, II, 1851, 87-88. The same map and information was also published in E.G. Squier's *Antiquities of the State of New York*, Buffalo, 1851, 144-149.

11 Lawson, loc cit., 13ff.

12 *Royal American Magazine*, January 1775, 29-30.

13 *Columbian Magazine*, 1/9 (1787), 425.

14 Cutler, William P., *Life, Journals, and correspondence of Rev. Manesseh Cutler, L.L.D.*, Athens (OH), 1987.

15 Dwight, Timothy, *Travels in New England and New York*, New Haven 1821 (volumes 1&2), 1822 (volumes 3&4).

- 16 Atwater, Caleb, "Description of the antiquities discovered in the state of Ohio and other western states," *Archaeologia Americana*, I, 110-267, 1820.
- 17 Houghton Library, Harvard University, Letter from J.B. Moore to W. Plumer, The Papers of Jacob B. Moore, Box 1, "Book of letters addressed to J.B. Moore 1812-1834."
- 18 New Hampshire Historical Society, letter from J. Farmer to A. Holmes, John Farmer Papers 1801-1839, Box 1, Folder 9.
- 19 Ibid, Box 1, Folder 8. Moore's report and map would languish in the files of the AAS until the early 1850s, when the story was picked up by E.G. Squier. See n.3, supra.
- 20 Runnels, M.T., *History of Sanbornton, New Hampshire*, Boston, 1882, 21. The original letter has not been located.
- 21 Squier, E.G., *Antiquities* (as in n.3 supra), 145.
- 22 Prufer, Olaf. H., "Fort Hill 1964. New Data and Reflections on Hopewell Hilltop Enclosures in Southern Ohio," Ohio Hopewell Community Organization, William S. Dancey and Paul J. Pacheco, eds., Kent and London 1997, 311-327. In 1996, personnel from the Hopewell Culture NHP, conducted a limited excavation at the south end of the Spruce Hill Earthwork, and uncovered a wall consisting of rubble-sized stones faced with large tabular blocks (*Hopewell Archaeology: The Newsletter of Hopewell Archaeology in the Ohio River Valley*, Vol. 2, No. 2, October 1997).
- 23 Haven, Samuel F., "Archaeology of the United States," *Smithsonian Contributions to Knowledge VIII*, 1856, 42.
- 24 Squier, E. G., *Smithsonian Contributions to Knowledge*, II, 1851, 87-89.
- 25 E.G. Squier, *Antiquities of the State of New York*, Buffalo 1851, 144-145.
- 26 Brown, Percy S., "The Indian Fort at Lochmere, N.H." *New Hampshire Archaeologist* 3 (1952), 1-8.
- 27 The Atkinson fort and the Lochmere "fort" were conflated by Chester B. Price in his article "Historic Indian Trails of New Hampshire" (*The New Hampshire Archaeologist*, Number Eight (March 1958), 4-5).
- 28 Silver, Walter T. and Helenette, "The Indian Fort at Lochmere," *Historical New Hampshire*, XVII, June 1962, 51.
- 29 Chester B. Price, loc.cit., 4-5.
- 30 Edward J. Lenik, *Picture Rocks: American Indian Rock Art in the Northeast Woodlands*, Hanover and London, 2002, 80-81.
- 31 James W. Mavor, Jr. and Byron E. Dix, *Manitou: The Sacred Landscape of New England's Native Civilization*, Rochester, VT, 1989, 99.
- 32 The millrace also appears in a small map of East Tilton from 1892.
- 33 Kvamme, Kenneth L., "Geophysical Survey as Landscape Archaeology," *American Antiquity* 68 (2003), 435-457. Schwarz, Kevin; Weinberger, Jeffrey; Burks, Jarrod, "Field Verification of Magnetic Surveys of Two Ohio Archaic and Woodland Sites," [www.ohioarchaeology.org](http://www.ohioarchaeology.org), 2005.
- 34 Daniel P. Lynch and Norman Muller, "Report on the 2015 Geophysical Research," 21-22.
- 35 Ibid, 22-23.
- 36 Runnels, loc.cit., I, 214. The Burleigh dam was improved by Daniel C. Atkinson after 1814, which included constructing the millrace or canal shown on the Moore map. Evidently stones from the "fort" were used to construct the dam at this time, National Register of Historic Places Inventory Nomination Form, Lochmere Archaeological District, 1982, 12.
- 37 Since the original walls of the "fort" consisted of an outside layer of large cobbles and an interior of "gravel from the bed of the river," the existing concentration of small stones could be remnants of this interior sand and stone mix.