



# Fort Clatsop Revisited

The Hunt for the Elusive Pickets

By Glen Kirkpatrick

*The re-creation of Fort Clatsop. Image courtesy of Knowles Gallery.*

*The Lewis and Clark* Expedition abandoned the original Fort Clatsop on March 23, 1806, but history did not. Beginning with the arrival of the Astorians in 1811, the site of the fort was an object of interest to travelers, and remnants of the fort were still visible as late as the 1850s, when farming obliterated these last traces.<sup>1</sup> The Oregon Historical Society acquired the fort's site in 1901, its location based on the memories of early settlers. But in spite of at least thirteen archeological investigations, beginning in 1948, no physical evidence of the fort has been found.<sup>2</sup> It is possible that farming and other land uses have destroyed all traces of the fort. If any evidence still exists, it would be the remnants of the buried pickets.

The hunt for the pickets is another great mystery of the Lewis and Clark Expedition yet to be solved. This article very briefly summarizes past archeological attempts to find physical evidence of the fort and possible explanations as to

why they may have failed. Using a different model for the shape of the fort based on journal entries, combined with statements from early settlers, the author identifies an area for further archeological investigation.

## Why they failed to find the fort

Figure 1 shows the location of the fort reconstruction and excavated areas.<sup>3</sup> In addition to the four periods of excavation at the fort shown in Figure 1, there were two magnetic surveys and two ground-penetrating radar (GPR) surveys conducted to seek physical evidence of the fort's location. In addition, the site of the replica was excavated shortly after a catastrophic fire just before the Bicentennial of the expedition. None of these efforts found evidence of the fort's location.

However, the archeological work did provide some very beneficial information. First of all, the work verified the location of the Shane and Smith homesteads (the early

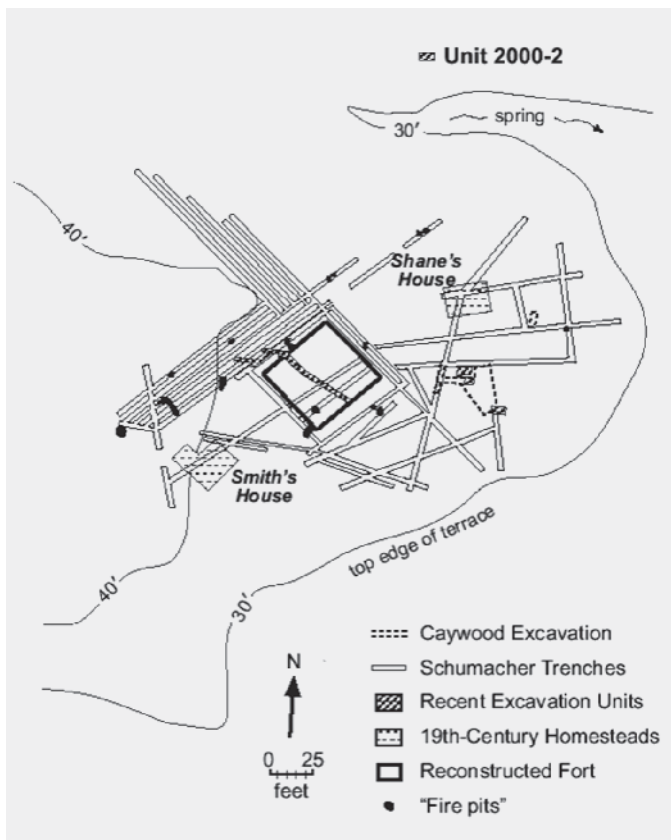


Figure 1. Stein's map of the area around Fort Clatsop, including excavations and early settlers' homes.

settlers of the site). These house locations are important when combining the information with early eyewitness accounts of the fort. Also, the archeology established data about soil horizons, the depth of the plow zone, and how farming and other natural forces have disturbed the ground. Lastly, the work turned up two artifacts from the Federalist period that may be linked to Lewis and Clark: a cast-brass bead typically associated with the period after 1793 and before 1820, and a flattened musket ball.<sup>4</sup>

So why did those efforts fail? First of all, finding evidence of the fort is a difficult task. The area was greatly disturbed by farming and logging in the nineteenth and twentieth centuries. Any trace of the fort that still exists would have to be below the plow zone. All efforts to date have been centered in areas immediately surrounding the fort replica. Early efforts all found what were thought to be “fire pits” which were initially interpreted to be evidence of the fort. This misled the investigators. However, a comprehensive study conducted by Julie Stein and others indicated that the supposed “fire pits” were actually burnt-out stumps from early farmers’ clearing their fields or from natural causes such as forest fires.<sup>5</sup>

Another reason the early investigations failed to find

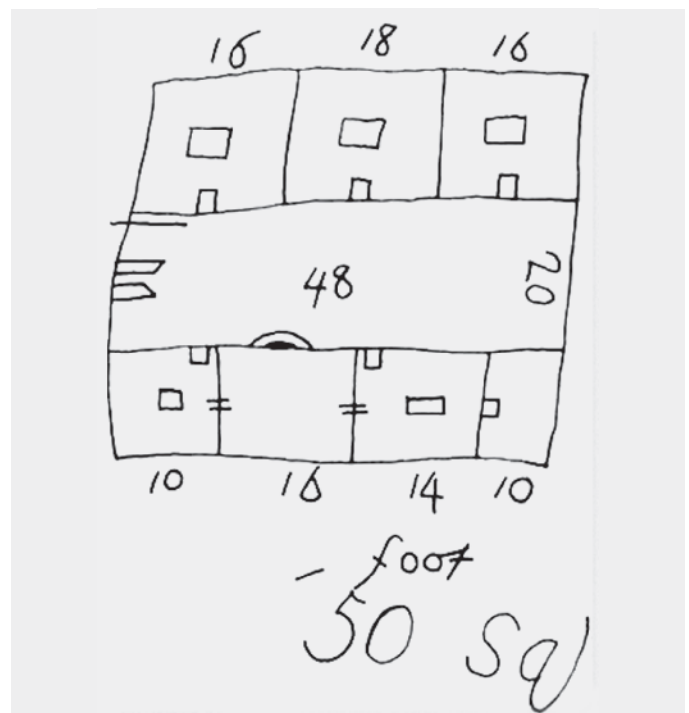


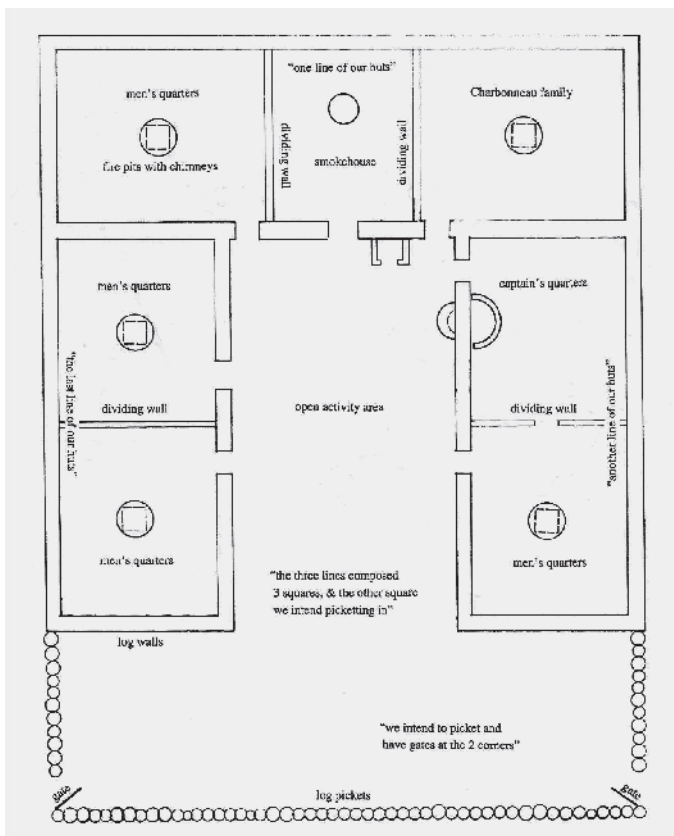
Figure 2. William Clark's pre-construction sketch of Fort Clatsop.

the location of the fort—they were looking for a fifty-foot-square configuration with pickets at opposite ends. This was based on sketches by William Clark in his elk skin journal and his drawing on his journal entry for December 7, 1805.<sup>6</sup> Martin Plamondon’s monumental study of *Lewis and Clark Trail Maps* makes a very compelling argument for a different configuration for the fort.<sup>7</sup> Plamondon argues that Clark’s drawings were pre-construction plans, not as-built drawings. Figure 2 shows Clark’s sketch of the fort, which compares to Figure 3, which shows the probable configuration of the fort based on three enlisted men’s journal entries.

Pickets were a critical part of eighteenth and nineteenth-century frontier forts. They created the first line of defense against an attack. Typically a line of adjacent upright logs, sharpened at the top, were sunk deep into the ground around or attached to the fort. They would create an extended “fenced-in” area around a fort, like an enclosed yard, called a “stockade.”

Considerable evidence suggests that the fort was rectangular with pickets enclosing one end, as shown on Figure 3. Quotations from the enlisted men tell the story:

We raised another line of our huts and began the last line of our huts forming three [sides of a] Square and 7 rooms 16 by 18 feet large. the other Square we intend to picket and have gates at the 2



**Figure 3.** Conjectural plan of Fort Clatsop, derived from the enlisted men's journals. Image courtesy of Washington State University Press.

corners, So as to have it a defensive fort.—Ordway, December 13, 1805.<sup>8</sup>

...the three lines composed 3 Squares, & the other square we intend picketing in, & to have two Gates at the two Corners.—Whitehouse, December 13, 1805.<sup>9</sup>

The fort was built in the form of an oblong Square, & the front of it facing the River, was picketed in, & had a Gate on the North & one on the South side of it.—Whitehouse, March 23, 1806.<sup>10</sup>



**Figure 4.** Detail from Clark's map showing location of Fort Clatsop.

The rectangular shape is corroborated by an enlargement of Clark's map, in Figure 4.<sup>11</sup> Note that the short end of the rectangle faces the river just as Whitehouse describes.

### Historical accounts of the fort and its location

Numerous accounts describing the fort or the location of the fort were recorded by early settlers throughout the nineteenth century. Lieutenant Charles Wilkes, leading the United States Exploring Expedition, visited the site in 1841; the U.S. Coast Survey marked it on an 1852 map.<sup>12</sup> In 1899 and 1900, the Oregon Historical Society identified the fort's site and erected a monument. As a part of this effort, settlers gave sworn depositions.<sup>13</sup> One of the most compelling was given by Carlos Shane, who testified:

I came to Oregon in 1846, and in 1850 I located a donation land claim on a tract of land which included the site of Fort Clatsop; I built a house on the land in 1851 and occupied it until 1853. A few feet from where I built my house there were at that time the remains of two of the Lewis and Clark cabins. They lay east and west, parallel with each other; and ten or fifteen feet apart. Each cabin was sixteen by thirty feet. Three rounds of the south cabin and two rounds of the north cabin were then standing. Inside the south cabin stood the remains of a large stump. The location of the old stockade was indicated by second growth timber, while all around it was the original growth, or the stumps of trees which had been cut. In clearing away for my house I set fire to the remains of the old cabins and endeavored to burn them.

My house has long since disappeared but I identify its site from the topography of the ground, from the sloping bank to the river toward the east, and especially from the circumstance of my having cut a large tree at the top of the bank which narrowly missed falling on the house and just reached its rear. I remember approximately the height of this tree and the spot on which it stood.

The ruins of the cabins, their size, construction in two parallel rows, and the stump are all features that have been derived from Shane's direct observation. At the time of the deposition, he would not have had any access to Clark's crude sketch or other details that are available to us today.

Shane apparently thought the buildings were surrounded by a stockade, confusing the area of second-growth timber as marking its location. The second-growth timber more likely



**Figure 5.** 1899 photograph of the Fort Clatsop site. Silas Smith, the grandson of Chief Coboway, points to a feature. Photograph courtesy of Oregon Historical Society.



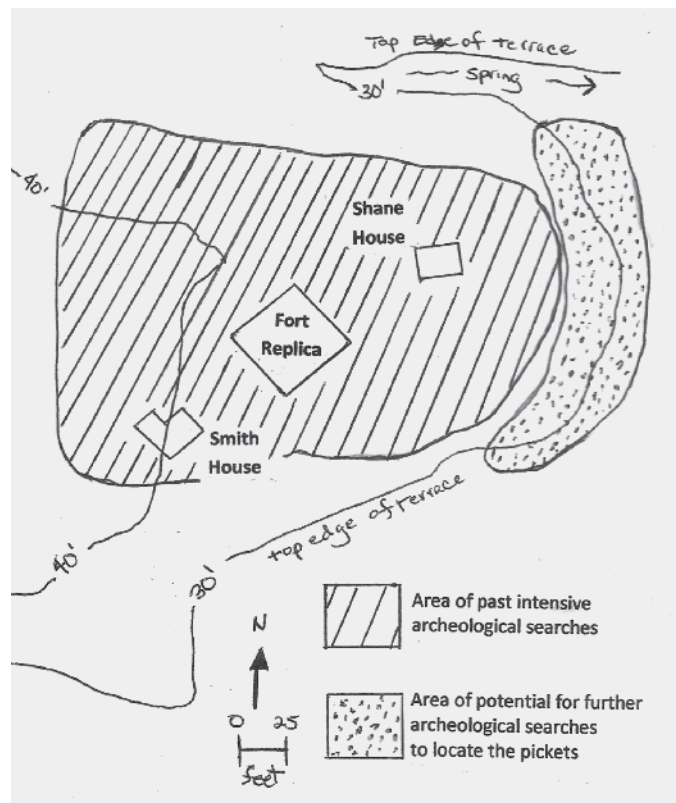
**Figure 6.** View of the site from the opposite point of view, 1899. Photograph courtesy of Oregon Historical Society.

marks the area cleared by the men of the expedition.

The Oregon Historical Society took photos when identifying the site during an 1899 expedition (Figures 5 and 6).<sup>14</sup>

Figure 5 shows men standing on a level terrace, which has been plowed. The trees and brush are on a slope toward the river and have not been plowed. Note the straight line at the edge of the flat terrace to the right of the tall dead tree (see arrow), which may well indicate the location of the buried pickets. Future investigations should focus on that area in search of the pickets. One possibility is to use GPR to explore this area. GPR is a non-invasive geophysical method

that uses radar to image the subsurface. It may be possible to use this method to detect the disturbances created by sinking the upright logs several feet into the ground. Evidence of a linear subsurface disturbance created by the buried pickets may have survived under the plow depth for 200 years. If GPR does locate a subsurface anomaly it would then be



**Figure 7.** Diagram showing the area meriting further research in looking for the pickets.

investigated by excavation. Conductivity of the soils will impact the depth of penetration of GPR. Previous GPR studies at the fort successfully located trenching done in 1956.<sup>15</sup>

The area near the edge of the flat terrace identified in Figure 7 has potential for finding the buried pickets for the following reasons:

1. While the area around the fort's replica and the Shane house has been extensively investigated with no evidence of the original fort, the area near the edge of the terrace, shown in Figure 7, has not significantly been trenched, excavated, or explored by magnetic surveys or GPR.

2. As Ordway states on December 13, 1805: "the other Square we intend to picket and have gates at the 2 corners, So as to have it a defensive fort."<sup>16</sup> To make a defensive fort the pickets would have to be at the

edge of the flat terrace so that an approaching enemy would be visible down the slope to the river. Also, a threat of an attack on the fort would likely come from the river. This is further corroborated by Whitehouse on March 23, 1806, stating that the fort “was built in the form of an oblong Square, & the front of it facing the River, was picketed in, & had a Gate on the North & on the south side of it.”<sup>17</sup> It may also have been practical to put the pickets on the downslope of the terrace for proper drainage.

3. In the 1899 picture of the men who are pointing to the fort’s location, they stand on the level terrace pointing to what is likely the edge of the terrace in the background, covered with trees and brush on the downward slope to the river. To make the fort defensive, it would have been logical to place the pickets on the edge of the terrace or slightly over the edge. The straight line in Figure 5 that is to the right of the tall dead tree may well be a geomorphic expression of the buried pickets.

4. The photographer (George M. Weister) of Figure 6 is at the river looking up a steep slope to the area of the tall dead tree (see arrow). He can also see the Smith house to the southwest from this location. Careful examination of the shape and topography of the terrace in Figure 7 places Mr. Weister some distance to the east of the rounded point of the terrace, allowing him to capture both the Smith house and the tall dead tree in the photograph in Figure 6. Putting it all together suggests the tall dead tree in Figures 5 and 6 is near the westward rounded nose of the terrace and within the area suggested for further exploration.

5. If the rooms formed a fifty-foot square, as Clark drew in his journal, then adding another twenty-five to thirty-foot area of pickets (as in the Plamondon design) would make the long side of the rectangle seventy-five to eighty feet long. In this case, the west end of the fort would be just a few feet from the identified location of the Shane house, just as Carlos Shane described.

While it is entirely possible that no physical evidence of the fort has survived, it is also possible that a series of west-to-east lines of GPR on the edge of the bench would locate the buried line of pickets and solve one of the great mysteries of Fort Clatsop. ■

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## Notes

1. John A. Hussey, *Suggested Historical Area Report*, National Park Service Region Four (April 10, 1957), 2.
2. Past investigations include: Caywood (1948), Schumacher (1957), Schumacher (1961), Bell (1990), Ek (1994), Garnet (1995), Karsmizki (1996), Bell (1996), Stein (1996), Weymouth (1997), Weymouth (1998), Kiers and Stein (1998), Kiers (1999), and O’Rourke (2005).
3. Julie K. Stein, *A Geoarcheological Analysis of Fort Clatsop, Lewis and Clark National Historical Park*, University of Washington Department of Anthropology (November 2006), 13.
4. *Overview of Archaeological Excavation 1957–1958*, National Park Service publication, updated 2015.
5. Stein, *Geoarcheological Analysis*, 55.
6. Gary E. Moulton, ed., *The Journals of Lewis and Clark Expedition* (Lincoln: University of Nebraska Press, 1983–2001), 6:110–111.
7. Martin Plamondon, II, *Lewis and Clark Trail Map: A Cartographical Reconstruction* (Pullman: Washington State University Press, 2004), 3:73.
8. Moulton, ed., *Journals*, 9:260.
9. Moulton, ed., *Journals*, 11:404–405.
10. Moulton, ed., *Journals*, 11:431.
11. Moulton, ed., *Journals*, Atlas, 1: Plate 84.
12. Kenneth W. Karsmizki, “Cartographic Representations: A Controversy in Mapping Lewis and Clark’s Fort Clatsop,” *Oregon Historical Quarterly*, Vol. 105, No. 4 (Winter, 2004): 568–587.
13. Shane, Carlos, *Proceedings of the Oregon Historical Society, 1900* (Salem: W. Leeds, State Printer), Affidavit sworn 1900, published 1901.
14. Hussey, *Suggested Historical Area Report*, 13.
15. James W. Bell, *1996 Fort Clatsop Ground Radar Survey Preliminary Field Report* (July 29, 1996), Pacific Geophysical Surveys Report submitted to Fort Clatsop National Memorial, National Park Service, Astoria, Oregon.
16. Moulton, ed., *Journals*, 9:260.
17. Moulton, ed., *Journals*, 11:431.



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