A Description and Quantitative Analysis of Artifacts Recovered from Fort Meigs (1813-1815) Wood County, Ohio

John P. Nass

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A DESCRIPTION AND QUANTITATIVE ANALYSIS OF ARTIFACTS
RECOVERED FROM FORT MEIGS (1813-1815)
WOOD COUNTY, OHIO

by

John P. Nass, Jr.

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment
of the
Degree of Master of Arts
Department of Anthropology

Western Michigan University
Kalamazoo, Michigan
April 1980
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John P. Nass, Jr.
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WESTERN MICHIGAN UNIVERSITY, M.A., 1980

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CHAPTER I

INTRODUCTION

Objectives

This report is an archaeological study of Fort Meigs, an early nineteenth century historic site located on the south bank of the Maumee River outside the town of Perrysburg, in Wood County, Ohio. The site has been under archaeological investigation since 1966 by field parties from the Ohio Historical Society (1966-1968) and The Defiance College (1972-1977, 1979). Archaeological data gathered between 1968-1974 have allowed the reconstruction of the present stockade, blockhouses, and artillery emplacements.

The author directed research for The Defiance College in 1977 and 1979. In 1978 the author directed archaeological salvage of a historic midden outside the fort that was being destroyed by slope erosion. Funding for this excavation was provided by the author. The basis of this study consists of the data collected between 1972 and 1978.

Several objectives are realized with the writing of this monograph, the most important being (1) a description of the artifacts, and (2) a quantitative analysis of the artifacts. Other objectives of this research are compilation of the data gathered since 1972 in a format useful for comparative research, and providing information for the interpretive program at the Fort.
Quantification of archaeological data has been argued for by South (1977a) as a necessary prelude for recognition and analysis of artifact patterning. The analytical methods employed by South are used to ascertain the degree of fit between artifact pattern defined by South (i.e., the Frontier, Carolina, and Brunswick patterns) and the data from Fort Meigs. Statistical analysis of the covariation of specific artifact types within the Fort has not been attempted in this report. Part of the reasoning for this decision is the limited usefulness of the data for statistical manipulation since much of it has been recovered through nonrandom sampling techniques (i.e., most of the data has been collected through the use of strategies designed for locating structural remains).

Historical ceramics from the site are selected out for attention. These are applied to South's (1972) "Mean Ceramic Date Formula" to ascertain the degree of temporal association between the historically known median occupation date for the site and the mean ceramic date derived for the ceramic sample from the formula. Analysis of vessel form is also considered in the ceramic study.
CHAPTER II

CONCEPTUAL BASE FOR HISTORICAL ARCHAEOLOGY

Both archaeology and anthropology are experiencing a period of rapid expansion in the areas of theory and methodological approach. Historical archaeology represents one such research area and examines the material remains collected from sites occupied during recorded history. While the qualifier "historical" suggests an entirely new perspective, historical refers to the nature of the subject matter or data base under study and not the methodological or theoretical base upon which research is carried out (South 1977a). Historical archaeology also retains the same research goals prehistoric archaeologists strive to achieve: reconstruction of culture history in the form of time-space frameworks, reconstructing past lifeways or behavior, and understanding how and why culture changes.

While sharing a common theoretical base with prehistoric studies, historical archaeology maintains a unique advantage over prehistoric archaeology by its ability to control one or more variables (either temporal, spatial, or physical) through the use of historical data in the form of documentation (Lewis 1977:151; Schuyler 1970:84; South 1977a). It has recently been demonstrated that oral tradition also holds important implications for organizing research on historical sites (Schmidt 1978; Schuyler 1977).
Written records are an important research source and hold immense potential for expanding anthropological knowledge by facilitating the archaeologists' ability to control the formal dimensions of information necessary for testing hypotheses about past behavior. South (1977a) properly defines those studies employing both archaeological and historical data for elucidating processes governing past cultural behavior as historical archaeology.

Historical archaeology's contribution to anthropology and archaeology stems from its ability to manipulate the formal dimensions of material culture with documentation. Methodological strategies stemming from theoretical considerations and research objectives are not dramatically different from those characterizing prehistoric studies, for data sets collected from both orientations contain temporal, spatial, and cultural boundaries. Since an objective of archaeological research is the elucidation of the relationship between culture and those aspects of the physical environment which man manipulates (Deetz 1968), the combining of archaeological and historical data sets through a conceptual framework founded on anthropological theory allows a more precise understanding of the manner in which behavior is reflected or patterned within material culture. Hence, historical archaeology can contribute information to the general social sciences (Deetz 1970) as well as "holding promise for the refinement and advancement of archaeology and anthropology" (1968:130).

Besides its affiliation with anthropology, historical archaeology has been conceptually and historically connected with the
humanities. Consequently, schools of thought (archaeology in the humanities, particularistic archaeology, and scientific archaeology) have developed over what the conceptual base underlying the application of archaeological strategies to historical sites should be (South 1977a), and what the end products of such endeavor should be in terms of scholarly research (Griffith 1958). During the 1960's, observations noted earlier by Taylor (1948) during his evaluation of archaeological research and its relationship to history and anthropology, culminated in the polemical debate between "new archaeology," which strives to tackle the problem of explaining cultural dynamics and change; and "old archaeology," which emphasized formation of time-space culture history charts, reconstructing past life ways, and the interpretation of events at archaeological sites. The new archaeologists were correct in their assessment of the field, however they failed to realize that the evolutionary paradigm underlying their banner was remarkably different from that employed by the larger body of practicing archaeologists; their paradigm still emphasized a Boasian fact gathering orientation and did not embrace evolutionary theory (South 1977a). In capsule form, the debate developed over the theoretical base governing archaeological research and the final products of those resulting strategies (Flannery 1967).

The dilemma facing historical archaeology pertains to the background of its practicing contingency. Those archaeologists trained in the humanities, for instance, perceive archaeology as a tool for extending the parameters of history, and not as an integrative discipline for analyzing cultural dynamics and behavior.
Synthesizing of cultural data should, therefore, properly be reserved for history (historiography) and anthropology (ethnography), and is not the task of archaeology which is perceived as only a set of techniques for acquiring data (see Taylor 1948 for full discussion).

A survey of the literature covering the legitimacy of historical archaeology would disclose a number of perplexities stemming from opposing paradigms. South (1977a) and Schuyler (1978) have in different ways traced the development of the discipline out of a traditionally historical orientation towards a position of scientific endeavor aimed at deriving a fuller reconstruction of behavior and cultural subsystems. This new approach, however, has met with animosity from historians and history-trained archaeologists (see Noel Hume 1969; Walker 1967, 1972) because of their persistent argument that (1) archaeology is only a technique for collecting historical data and could never be a science, (2) the nature of the artifacts from historic sites stresses familiarity with the material recovered and an understanding of the processes responsible for the formation of a site (Russell 1967), and (3) anthropological archaeologists are not qualified to pursue research on historic sites beyond the point of site excavation (see Harrington 1955) because their products are not useful to either historiography or ethnography.

An important hallmark associated with the reorientation of research emphasis has been the perception that formal properties of material culture hold potential for studying behavior and cultural subsystems. For instance, the observation that quantitatively established regularities or patterns exist within the material
record, has led to the establishment of refuse disposal patterns and the recognition of site function (see South 1977a). Ferguson (1975) and Otto (1975) have used a single set of measurable material data (ceramics) and its formal dimensions for demonstrating a relationship between ceramic variability and socioeconomic status. The establishment of such connections holds potential for investigating other forms of material culture as indicators of status (i.e., buttons, glass ware, and bottles). Deetz (1963) and Fitting (1976) have examined the parameters of native acculturation processes as they are reflected within material culture. The assumption that material culture reflects the behavior which produced it, has led to relating intersite variations of material items in colonial settlements to differences in social composition (Deetz 1968).

Analysis of cultural subsystems for deriving explanatory models for cultural change has been facilitated with the approach emphasized above. Analysis of a single set of quantifiable colonial data in the form of tombstones has resulted in (1) the measurement of rates of diffusion in tombstone motif styles with social differences (Deetz and Dethlefsen 1965), (2) the ability to relate stylistic changes in tombstone motif styles with social differences (Dethlefsen and Deetz 1971), and (3) the measurement of religious change in time and space (Deetz and Dethlefsen 1966). Leone (1973) has approached the analysis of the ideological subsystem in a structural analysis by showing how technical items and settlement patterns of Mormon society are reflections of their religion.
CHAPTER III
DESCRIPTION, HISTORY AND EXCAVATION OF FORT MEIGS

Description

Fort Meigs is located about one half mile west of Perrysburg, in Perrysburg Township, Township 1, U.S. Reserve, on River tracts 64, 65, and 66 in Wood County, Ohio (Map 1). The site is situated onto a high bluff on the south bank of the Maumee River. The Maumee is the major river traversing the area, entering Ohio from the west and exiting the state at Toledo. The other large river is the Portage, which drains the central portion of the area (Soil Survey of Wood County:1-2).

At Grand Rapids, about 15 miles upriver from Fort Meigs, the Maumee River flows across an outcrop of resistant Silurian dolomite (Stout 1941), creating a series of distinct rapids which terminate at Perrysburg. The site overlooks the last set of rapids before the river deepens and finally drains into Maumee Bay of Lake Erie. The river gradient is not very great, averaging about 4 feet per mile (Soil Survey of Wood County:2).

The area is characterized by the Toledo Soil Association. Soils characterizing this association are poorly drained, highly sorted lake deposited clay sediments (Soil Survey of Wood County: 20-22). In many areas these clays are overlain by glacial drift.
Location of Fort Meigs in Ohio

Map 1
Collectively, this entire area lies within a geological feature known as the Glacial Lake Plain.

The original vegetation associated with these soils is referred to as Deciduous Swamp Formation (see Map 2). Three types of forest communities characterize this formation: Beech-Maple, Beech-Ash-Elm-Maple, and Oak-Hickory (Sears 1941; Sampson 1930). There are no accounts of conifers being found within the area (Kaatz 1955).

The native fauna consisted of beaver, river otter, white tailed deer, black bear, porcupine, gray squirrel, wild turkey, sandhill crane, migratory water fowl, ruffed grouse, prairie chicken, and passenger pigeon (Mayfield 1962).

History

The first military venture in the Old Northwest in 1812 ended with the surrender of Detroit and General William Hull's army. With British Canada effectively in control of the upper Great Lakes region--Fort Mackinac was captured during the opening of hostilities--the reestablishment of another army for the protection of the region and the recapture of Detroit was imperative.

In the fall of 1812, General William H. Harrison succeeded General James Winchester as commander of the Second Army of the Old Northwest. During the remaining months of 1812, Harrison was engaged in assembling an army, weapons, and provisions for his anticipated winter campaign against Fort Malden at various depots and forts in
northern Ohio. Once sufficient stores and ordnance were accumulated, Harrison planned to forward the supplies to the Maumee Rapids:

"My plan of operations has been and now is, to occupy the Maumee Rapids and to deposit there as much provisions as possible" (Knopf 1957:66-67).

Harrison's scheme consisted of first capturing Fort Malden and then recapturing Detroit. Harrison makes this point explicit in a letter to the Secretary of War dated January 4th, 1813:

"In the letter from Delaware. . . I explained my objection to the occupancy of Detroit until Malden should fall. The latter in the hands of the enemy . . . would place us completely in a cul de sac" (Knopf 1957:66).

The successful capture of Malden would also help mitigate the effects of hostile Indians within the lakes region by eliminating a primary source of their supplies.

Harrison further mentions the idea of raising a fortified post at the rapids:

"In the event of the occurrence of circumstances which may induce a suspension of operations beyond the Rapids, Measures will be taken to make and secure at that place a deposit of provisions equal to the support of the Troops in any enterprise that may be undertaken in the spring" (Knopf 1957:67-68).

McAfee (1916:244) also suggests that Fort Meigs held important value beyond the Malden-Detroit campaign, by serving as a forward supply base for other operations within the area.

Harrison's strategy for moving troops and supplies to the Maumee Rapids from the dispersed frontier posts consisted of dividing his command into three wings or columns, which would link-up at the
rapids (Lossing 1896:350). General James Winchester commanded the left wing of the army, consisting of one thousand Kentucky militia and U.S. regulars; the central wing, consisting of about five hundred Ohio militia, was under the command of General Tupper; and the troops located at Upper Sandusky, totaling about fifteen hundred men, were designated the right wing of the army (Boehm and Buchman 1975:4). About five hundred other Ohio militia under the command of General Perkins were stationed at Lower Sandusky.

In January, 1813, General Winchester, advancing north from his transit camp at Defiance (Fort Winchester), arrived at the rapids before the other wings. While awaiting their arrival, Winchester received messages from the residents of Frenchtown requesting protection from nearby British and Indian forces (Lossing 1896; McAfee 1919:223-224). Holding a council with his staff, it was elected to advance a detachment to Frenchtown ahead of the other wings. On the 17th of January, Colonel Lewis and five hundred men, followed later by Colonel Allen with one hundred and ten men, were dispatched to Frenchtown (McAfee 1919:224). Arriving on the 18th, this combined group engaged a smaller party of British and Indians, and drove them from the village (Lossing 1896:353). On the 21st, Winchester arrived at Frenchtown with an additional three hundred troops, leaving the rest of his command with the supplies at the Maumee Rapids (McAfee 1919:208).

Believing that the British would not attempt a counterattack, Winchester allowed his men to camp where they pleased on the west side of the river (the same side as Frenchtown), while he choose
quarters at a farm house on the east side. However, on the morning of January 22nd, Colonel Proctor and a force of British and Indians from Fort Malden approached Frenchtown and assaulted the American positions, catching the troops by surprise. In the ensuing battle, Winchester was captured while attempting to rejoin his scattered forces who were temporarily holding the British at bay. Proctor then forced Winchester to have his troops surrender (McAfee 1919:214-215). The British victory had been costly but complete, with only a handful of Winchester's shattered force managing to escape. The defeat was even more costly to Harrison for he had lost the left wing of his command.

Upon receiving Winchester's message that he was advancing to Frenchtown, Harrison immediately set out after him in the hope of saving the troops from the consequences of his rash decision (Boehm and Buchman 1975:5-7). Harrison, however, got no further than Winchester's base at the rapids before receiving word of Winchester's defeat from the fugitives fleeing the tragical scene at Frenchtown. Fearing a possible attack on this forward position, Harrison retired south to the Portage River, a distance of about 15 miles, to await the arrival of reinforcements and to protect the central wing which was then in the black swamp with the artillery (ibid). This position was maintained until the first of February when the army again returned to the Maumee and prepared an encampment:

"...the army...was encamped on a beautiful ridge near the foot of the Rapids, on the right bank of the river, and about 150 yards distance..."
from it. . .being covered by a considerable ravine in front, which extended round, com­ municated with another very deep and wide one, which passed the left, and entirely secured it. . .the selection of the location was jointly chosen by Harrison and Captain Gratiot of the Engineers" (Boehm and Buchman 1975:5-7).

Construction of Fort Meigs commenced on February 1st, and the Fort was completed on April 30th, 1813. The fortification (see Figure 1) was described by Captain Wood of the Engineers as:

"...about 2500 yards in circumference, which distance, with the exception of several intervals left for blockhouses and batteries, was to be picketed with timbers, 15 feet long, from 10 to 12 inches in diameter, and set three feet in the ground. . .to complete this picketing to put up eight blockhouses. . .to elevate four large batteries, to build all the store houses and maga­ zines required for the supplies of the army, together with the ordinary fatigues of the camp . . .excavating ditches, making abatis, and clearing away the wood about the camp . . ." (Boehm and Buchman 1975:8).

However, just prior to the first seige, blockhouse 5 was converted to an additional artillery battery (Lindley 1975:14).

Harrison's workforce at Meigs amounted to about 2000 men, consisting of elements from the 17th and 19th Infantry Regiments; the 2nd Artillery Regiment; the 2nd Rifle Regiment; militia from Virginia, Pennsylvania and Ohio; dragoons; and volunteer units from Kentucky and Pennsylvania. The militia from Virginia were under the command of General William Crooks, and the troops from Ohio were under the command of Generals Tupper and Perkins.

In March, Harrison traveled to Chillicothe, Ohio, for the purpose of recruiting militia from Ohio and Kentucky to replace the
Virginia and Pennsylvania troops, whose term of service ended in early April (McAfee 1919:245-250). Reduction of the garrison to about 800 men would place the camp in serious jeopardy should Proctor decide to attack the post. Troops were also needed to garrison the other posts in northern Ohio and Indiana (McAfee 1919:250).

Between April 27th and May 9th, the fort was besieged by a force of British regulars and Canadian militia under the command of General Proctor, and a large force of Indians under the command of
Tecumseh (Schermer 1975). Harrison had been expecting Proctor's attack for some time. Earlier in March Harrison had been notified of Proctor's preparations and his intended plan of attack by an individual from Detroit (Boehm and Buchman 1975:14-15). Proctor's plan consisted of surrounding the fort on the south side with Indians, while his troops constructed artillery batteries (see Figure 2) on the north side of the river opposite the fort. Proctor believed that a heavy cannon fire would drive the troops out of the fort at a point where Tecumseh and his forces could engage them (McAfee 1919: 256).

Figure 2
Location of British Artillery Batteries during First Siege

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In the advent the British would assault the fort with artillery, Captain Wood had recommended earlier to Harrison that the only effective means of mitigating artillery fire was a system of internal earthworks (Boehm and Buchman 1975:18). Wood writes:

". . .the first they commenced, to shield the troops against the annoyance of cannon, was a traverse, of about twenty feet base, laid parallel with the river, upon the most elevated ground, which was near the middle and running the whole length of the camp; it was from 10 to 15 feet high, and completed early on the morning of May 1st" (Boehm and Buchman 1975:19).

Additional earthworks were built on the 2nd and 3rd in anticipation of the British locating new artillery implacements on the south side of the river:

"It had been apprehended that the enemy. . . might take it into his head to establish batteries somewhere along our front, or on one of the flanks. . .another traverse, parallel to the first, and distant about one hundred yards had been finished, and the two connected by several short ones"(Boehm and Buchman 1975:21).

This expectation was realized when on May 3rd, a British battery was discovered about 300 yards to the east of the fort on the south side of the river (McAfee 1919:263).

On May 4th, Harrison was notified that General Green Clay, commander of the Kentucky militia raised to relieve Fort Meigs, was only a few miles from the fort with about 1200 militia. With the arrival of Clay's force, a plan was elected to send part of this force across the river to siege and spike (the driving of nails into the cannon touch hole) the enemy cannon (Boehm and Buchman 1975:22-23). A detachment of 800 men under the command of Colonel Dudley was
selected for the task. With the onset of Dudley's assault, General Clay was to advance by boat and land beneath the fort. While these movements were in progress, Harrison also planned to send a detachment to capture the cannon to the east of the fort.

While Clay's landing and the capture of the cannon to the east of the fort were successful, Dudley's men were to experience a stunning defeat. Upon landing on the north side of the river, Dudley advanced upon the British artillery and successfully captured the guns; however, rather than spiking the cannon and returning to their boats, the militia pursued the fleeing British and Indians inland away from the river. As Dudley's pursuit drew his forces further inland, Proctor positioned his troops between Dudley and the river. While Proctor attacked from the rear, the Indians assaulted his front and flanks, with the result being that Dudley's men were completely routed, with upwards of 700 being killed, wounded and captured. Less than 100 men were successful in escaping the fate of their comrades (McAfee 1919; Boehm and Buchman 1975).

For the next five days the British seemed content with shelling the fort. On May 9th, it was observed that the British were evacuating their positions and embarking in their boats (Lindley 1975:119). Harrison's casualties were estimated at 151 killed and 189 wounded (McAfee 1919:274). This figure does not include casualties sustained during Dudley's defeat.

The British returned to attack Fort Meigs for the last time between July 21st and July 28th, 1813. During this siege additional traverses were constructed within the fort and the magazines were
covered with earth (ibid. 134). In addition, it appears that two new artillery batteries were in operation during the siege. The second siege was lifted on July 28th, after attempts to reduce the fort or force its defenders to surrender failed.

In September, Commander Perry engaged the British fleet on Lake Erie and defeated them in a sharp engagement. Anticipating Perry's victory, Harrison had ordered Colonel Duncan McArthur to Fort Meigs around August 5th, with instructions to reduce the size of that fortification (McAfee 1919:347). McAfee mentions that by September 16th, McArthur had already reduced Meigs to a smaller size:

"He (McArthur) had already reduced fort Meigs to a small post, in the upper corner of the old works..." (p. 362).

Prior to its destruction in the early 1970's, this smaller fort (Figure 3) was represented by an earthwork consisting of a four bastioned square, measuring about 110 feet between bastions. Blockhouse one of the larger fort was incorporated within its configuration. Some information about the status of the fort and its construction are found in the John Gano Papers. In a letter written to Major Charles Fye, commander of Fort Meigs, Gano recommends the following improvements to the fort:

"...placing the old works on your present fort in the best possible state of Defense, remove those Buildings that are near the Magazine and see that there is no danger of fire communicating, see that the pickets are well lined and in good order" (Gano Papers, Part VI, p. 36).

Following the removal of regular troops in September-October, a small garrison was maintained at the smaller Fort during the
Figure 3

Aerial Photograph of Earthworks from the Second Fort Looking South
remaining period of the war, serving basically a defensive function and as a relay station for the movement and/or storage of supplies. Data collected from diaries, published papers, and books pertaining to the war in the Old Northwest indicate that the principal component of this garrison were Ohio militia. Table 1 contains information about the militia groups serving at Fort Meigs between October 1813 and Spring 1816.

In March 1814, the militia garrisons at posts in Ohio were ordered to proceed to Franklinton and Urbana where they were to deposit their arms and be discharged (Gano Papers, Part VII, p. 44-45). Because Fort Meigs still held military importance, the garrison was replaced by Lieutenant Alamn Gibbs and 40 men, who finally abandoned the fort in the spring of 1815 after sending the stores and guns to Detroit.

In 1816-1817 Dr. J. B. Stewart of Albany, New York, and J. J. Lovetl bought river tracts 65 and 66, which included part of the old fort and formally platted the settlement that had developed on the floodplain below the fort (Van Tassel 1929). It was given the official name of Orleans-of-the-North.

In 1840 Fort Meigs was the scene of a political rally for Harrison, who was the Whig candidate for the presidential election against Van Buren, the Democratic candidate. Typical of all Harrison rallies was the building of a log cabin and free hard cider. However, on the night prior to the June 11-12 rally, democrats cut-up the logs gathered for the cabin and threw the largest one down the
<table>
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<th>Date</th>
<th>Event Description</th>
<th>Commanders/Strength</th>
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<td>Gano Papers, Part 5, Page 87</td>
<td>October 6, 1813</td>
<td>2 companies of Ohio Militia sent to Fort Meigs</td>
<td>120-180 men</td>
</tr>
<tr>
<td>Gano Papers, Part 5, Page 98</td>
<td>November 10, 1813</td>
<td>3 companies of militia sent to Fort Meigs under command of Colonel John Delong, 1st Regiment 4th Detachment of Ohio militia</td>
<td>200 men</td>
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<tr>
<td>Letter to the Secretary of War; Knopf Vol. 7, Page 133-134</td>
<td>December 28, 1813</td>
<td>3 companies under command of Colonel Delong</td>
<td>200 men</td>
</tr>
<tr>
<td>Gano Papers, Part 6, Page 28</td>
<td>January 24, 1814</td>
<td>6 companies of Ohio militia sent to Fort Meigs under command of Major Alexander Lanie</td>
<td>---</td>
</tr>
</tbody>
</table>
| Gano Papers, Part 6, Page 35-36       | February 2, 1814   | 6 companies of Ohio militia under command of Major Lanie; 5 infantry and one rifle companies | Capt. J. Hawkins, Infantry, company strength 64 men  
   --Capt. T. Titus, Infantry, company strength 72 men |
| Gano Papers, Part 7 Page 44-45        | March, 1814        | 2 companies of Ohio Militia                                                         | 120-180 men               |
| Gano Papers, Part 7 Page 44-45        | March, 1814        | Lieut. Alman Gibbs and 40 Ohio militia sent to Fort Meigs                           | 40 men                    |
| Slocum, History of Maumee River Basin | May, 1815          | Garrison under command of Lieut. Gibbs abandons fort                                |                           |
old Fort well (Lossing 1869:484). This log was found during the excavation of the well in 1975 (Figure 4).

Figure 4

Photograph of the Well Interior (Feature 11) showing the Outline of the Wooden Cribbing, the Flagpole in the Upper Left, and the Log in the Lower Left.

In 1848 the federal government sold the remaining portion of the reserve (containing the small Fort) to Timothy, Tom and
Michael Hayes, who preserved their portion of the site. When the land was bought by the Hayes, the only existing remains of either fort were earthworks.

Between 1907 and 1967 the State of Ohio acquired the site through gifts and land purchases. Initial archaeological exploration of the site occurred in 1966, under the direction of Mr. Raymond Baby of the Ohio Historical Society. Additional excavation in 1967 and 1968 by Joseph Thatcher of the Ohio Historical Society contributed enough architectural data to reconstruct the north battlement section, comprising blockhouses 1, 2, and 3; three artillery batteries; and the connecting palisade line between them (Schermer 1977:4).

In 1972 Randall Buchman of The Defiance College was invited to take charge of the archaeological program at Fort Meigs for the Ohio Historical Society, and Defiance has been conducting field work at the site since that date. Between 1972 and 1973 enough architectural data were accumulated to complete the reconstruction of the remaining outer fortifications. Grading operations were also employed during the final activities in the western part of the fort, which erased the existing earthworks of the second fort. Parts of the fort were also damaged by a state road which ran through the site.
Excavation

The field methodology implemented at Fort Meigs is structured around a grid system known as the Chicago Grid (Schermer 1977:1-4). This system is based on a framework of two major axes (north-south, east-west) which intersect at the principal site datum. The standard excavation unit within the grid used for horizontal control consists of a ten foot square. Subdivisions of this unit, if necessary, consist of either a five by ten or a five foot square. Coordinates of each excavation unit are designated by its southwest stake. One foot baulks are kept between contiguous excavation units for stratigraphic control. Site datum has been established on top a segment of the Grand Traverse to insure its remaining undisturbed during maintenance activities.

Vertical control for each excavation unit was originally maintained by a line-level extended from the surface at the southwest stake. This procedure was maintained but modified in 1977 by establishing alternate elevation datums to facilitate control of artifact recovery and to maintain surface control across the site; this step was especially necessary since site datum is located on top the Grand Traverse. Measurements were originally recorded in feet and inches, but this was changed to tenths-of-feet in 1978.

In past years excavation was based on delineation of soil types or soil strata. These were determined by using a Munsell color chart to identify color differences. While correct in approach, Munsell recordings were given to the slightest change in color,
which often confused stratigraphic interpretation. The only change in this procedure was the use of Munsell coding after soil strata were identified by distinct color and texture contrast.

All fill from the excavation of units and test trenches is passed through one-quarter inch hardware screen, while all feature fill is passed through one-eighth inch screen. Prehistoric features and all post holes are sectioned, and if no stratigraphy is evident, the remaining portion is removed. Historic features are handled in the same fashion.

Prior to 1977 it was procedure to distinguish feature and subfeature designations if there appeared to be a relationship between features. This system was changed to a sequential system in which all features are assigned numbers. Test trenches and test pits are also given sequential numbers in order to bring consistency to the confusion generated through the random placement and usage of such excavation strategies. Prior to 1977 it was customary for each crew to have their own sequence of test trenches which has resulted in confusion in interpreting these data.

A number of permanent records are maintained during each field season: field notes are kept by the field assistant and supervisor, a field log maintained by each crew member, and data recording forms. Each season the available labor force is divided into field crews. One individual from each crew is chosen to serve as crew chief, and it is this person who is responsible for seeing that all records pertaining to that group are kept in order and the necessary information recorded.
It has been customary to record all artifacts in situ, however, this method was dropped in favor of the present system in which artifacts are plotted in situ when they appear in concentrations or alignments, or otherwise pose important data for interpretative purposes. Features encountered are graphed at their point of delineation, photographed and excavated, with other relevant data being recorded during his process.

Artifacts recovered from each level are bagged together and kept separate from other material. Significant artifacts found in situ are bagged separately and the necessary provenience data recorded. Records are kept for each arbitrary level within a feature. Maps of the excavation area(s) are maintained for each season. While methodological procedures have changed through time to facilitate proper data collecting, the quality and types of information recorded also varied from year to year prior to 1977. This creates obvious problems when attempting to analyze these data.

To date, nineteen features (see Map 3) have been recorded; this number would be greater if nineteenth and twentieth century features not relating to the Fort were included.
CHAPTER IV

ARTIFACT DESCRIPTIONS

Artifacts recovered from Fort Meigs will be described using the mechanics of formal classification (actually taxonomic classification) described by Stone (1974:21-22). Stone defines formal classification as "the hierarchial ranking of formal properties on the basis of their relative importance" (1974:19). This decision is based on (1) Stone's argument that rigorous attribute description is essential for studying artifact context and distribution, and (2) a formal classification system allows a detailed description of physical attributes of an artifact category for comparison.

The criterion of "important" is basic for the construction of any taxonomic classification system, but importance contains a ring of subjectivity, since the classifier decides "which" formal or physical attributes are to be ranked, and how many taxonomic levels of distinction are to be recognized.

Formal classification differs from prehistoric taxonomies in that the formation of artifact types (cultural types or historical types) or the measurement of cultural change are not objectives. Consequently, attributes selected for description at the various levels within a taxonomic system need not correspond with attributes
recognized by the artifact makers or users (Stone 1974:20). The result is a "mechanically and conceptually" more rigorous classification system free of built-in interpretative bias (1974:20-21). Such a system then becomes an aid to interpretation rather than a result of it.

The ranking of "important" attributes allows diversity and flexibility in taxonomic classification, and the system is easily modified to accommodate additions of new data (Stone 1974:21). While the features of diversity and flexibility are important qualities for typological analysis, description of similar artifact categories from other historic sites should contain some degree of uniformity to facilitate comparative research.

The artifacts from Fort Meigs are grouped into 36 categories for descriptive purposes. Each category is subsequently described in either a formal or nonformal format. This decision is based on (1) the complexity of the artifact category, (2) the size of the artifact sample, and (3) the physical condition of the artifacts.

The terms class, series, group, type and variety are used to describe the levels of taxonomic ranking when a formal classification system is used. Except for the "group" ranking, these are the same terms used by Stone (1974), but all levels of taxonomic distinction described for an artifact category by Stone may not be recognized for the same category in this study.

The description of each artifact category is preceded by an introductory paragraph describing sample size, the descriptive
terminology used, and the levels of taxonomic distinction identified. Photographic illustrations are provided for most artifact categories. Drawings have been substituted for artifacts that were unavailable for photographing.

Because of the diversity of artifact categories in a generalized fashion by grouping them into contexts of utilization (i.e., personal, structural, household, and craft or activity contexts). Hulse (1977:41-42), while noting that this approach is not without merit, argues against it inasmuch as artifacts within each category are not mutually exclusive of each context of utilization. This point may be illustrated by reference to ram rods from flintlock guns and bayonets. Each has a specified function and is necessary in combat, yet both have been found altered: bayonets are split to facilitate use as fish spears, bent into kettle hooks, and sharpened down to serve, perhaps, as knives; ramrods have been found bent into kettle kandles and kettle hooks. Consequently, this study keeps functional groupings to a minimum. For the most part, artifact categories described in this report in alphabetical order and discussed accordingly.

Beads

Only a single glass bead (not illustrated) has been recovered at Fort Meigs. The specimen is blue in color, doughnut like in shape, with air bubbles present throughout the core or body. The surface has numerous striations and small pits. Bead dimensions are .8 cm in diameter by .4 cm thick, with a central hole .25 cm wide.
The specimen resembles Class 1, Series A, Types 10 and 11 necklace beads described by Stone (1974) from Fort Michilimackinac.

Buckles and Leather/Cloth Hooks

Buckles have often been classified into functional categories on the basis of size, shape and material of manufacture. Types resulting from these categories are generally referred to as shoe, knee, belt, garter, hat or harness buckles (Stone 1974). Distinctions of size, shape, and material of manufacture allow some buckles to be easily classified as harness or belt buckles, but others are rather difficult to define due to lack of comparative information. Quite often buckles were used for functions other than their intended use.

Attributes used for grouping the 12 buckles and buckle fragments are raw material, method of construction, shape, and hook attachment. A brass leather hook/fastener and a large brass bayonet chest buckle will be described at the end of the buckle discussion in Series C. Three levels of taxonomic distinction are made: Series, refers to hook attachment; Type, refers to material and method of construction; and Variety, refers to buckle shape.

Series A Central bar attachment
Type 1 Cast brass frame and bar
Plate 1a
1 Specimen
Frame length 5 cm
Frame width 4.5 cm

Buckle consists of an oval frame with a movable iron hook attached to a central bar or pin. The outer edge of the frame is rounded. The hook is a single piece of iron with one end crimped around the central bar and the joint carefully welded. A leather fragment still adhering to the bar measures 3.6 cm wide and .2 cm in thickness. Probable use: waist belt or shoulder belt.
Series B Frame attachment
Type 1 Forged iron frame
Plate 1b-g
Variety a Square to rectangular frames
Specimen 1
Frame length 3.95 cm
Frame width 3.2 cm
Consists of only an iron frame. A small stamped indentation is present on the frame for receiving the end of the hook. Probable use: Harness or saddlebag.

Specimen 2
Frame length 2.4 cm
Frame width 1.9 cm
Consists of a frame and a one piece iron hook with one end bent around one side of the frame. Probable use: Harness or saddlebag.

Specimen 3
Frame length 1.7 cm
Frame width 1.6 cm
Consists of an irregular frame with one end of the iron hook bent around the frame. Probable use: saddlebag or another type of leather bag.

Specimen 4
Frame length 2.35 cm
Frame width 1.55 cm
Consists of a well made frame with a one piece iron hook. A very small indentation is present on one side of the frame for the end of the hook. Probable use: saddlebag or small trunk.

Specimen 5
Frame length 3.35 cm
Frame width 2.4 cm
Consists of a frame and a one piece iron eye. Three sides of the frame are round in cross-section and the fourth has been intentionally flattened to accommodate the indentation for the end of the hook. Probable use: harness.

Specimen 6
Not illustrated
Frame fragment (length 4 cm)

Specimen 7
Not illustrated
Frame length 3 cm
Frame width 2 cm
PLATE 1. BUCKLES

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<td>SB, T1, Va</td>
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<td>G</td>
<td>Vb</td>
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<td>H</td>
<td>SC, T1, Specimen #1</td>
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Consists of a frame with a one piece iron hook. Probable use: harness or saddlebag.

**Specimen 8**
Not illustrated
Frame length 2.2 cm
Frame width 2.1 cm

Except for a difference in size, same as specimen 7. Probable use: harness or saddlebag.

**Specimen 9**
Not illustrated
Frame length 4 cm
Frame width 3 cm

Similar to specimens 7 and 8. Probable use: harness.

**Specimen 10**
Not illustrated
Frame length 7.3 cm
Frame width 7 cm

Consists of only a frame. Probable use: harness or trunk/chest.

**Specimen 11**
Not illustrated
Frame length 6 cm
Frame width 3.5 cm

Consists of a frame and a one piece iron eye attached to the frame by bending one end of the hook around it. Probable use: harness or trunk/chest.

**Variety b Oval shaped frame**

**Specimen 1**
Frame length 4.9 cm
Frame width 3.1 cm

Consists of a crudely fashioned frame with a one piece iron hook. The frame is made of round stock and brazed together at one end. Probable use: harness.

**Discussion.** The largest number of buckles from Fort Meigs have iron frames and hooks and were probably used as harness, saddlebag, and chest/trunk buckles. Only a single brass buckle is represented in the sample. This buckle may have been used on a waist belt or a
leather shoulder belt for a sword. The homogeneous nature of the sample may reflect the inexpensive nature of forged iron buckles, and their use in a utilitarian context rather than a personal one.

Series C Hook cast as part of the body

The two specimens representing this series differ from the above buckles in shape, technique of manufacture, method of hook attachment to the body and their method of attachment.

Type 1 Solid cast brass body/three hooks
1 Specimen
Plate lh
Body length 1.8 cm
Body width 1.6 cm

This small artifact was cast as a single unit. Two small hooks at the end probably served to secure the fastener to a belt, and the longer hook with a spoon shaped head served as the adjustment and connector.

Type 2 Solid cast brass disc/hook and rivet
1 Specimen
Body length 8.9 cm
Body width 6.1 cm

This specimen is classified as a bayonet cross-belt buckle. It served to keep the cloth shoulder belts for the bayonet scabbard and the cartridge box together in the center of the chest. Two rivets held the buckle to one of the cloth belts and the small brass hook below the rivets served to hold the other belt.

Buttons

A total of 73 buttons have been recovered from Fort Meigs, representing militia, civilian, and military contexts. This number is quite low considering that 55 buttons (75% of the sample) were recovered from feature 19. Some of the buttons are easily distinguished
as military because of distinct decorative motifs such as the presence of a script "I." Plain pewter and brass buttons are difficult to relate to usage by the army or the militia due to sparse comparative data.

The button sample from Fort Meigs is organized into five levels of taxonomic distinction: Class, number of parts; Series, method of construction; Group, attachment of the eye; Type, button shape; Variety, decoration or tooling marks. Discussion of specific button types includes comparative data from Campbell (1965), Dunnigan (1975), Smith (1976), and South (1964).

Class I One element construction
   Series A Cast metal
      Group 1 Cast eye
      Type 1 Flat disc
      Plate 2 a-h
   Variety a US in relief
      4 Specimens

2 sizes are represented (3) are 1.4 cm and (1) is 1.95 cm. Both specimens are cast pewter and carry a plain US in relief. Such buttons were made for the United States Army as "general service" buttons and used mainly on fatigue clothing from 1808 until the 1840's when it was replaced by a brass button (Dunnigan 1975:7; Campbell 1965). Campbell (1965) indicates a large number of these buttons were purchased by the government between 1812-1815. The 1.35 cm button size probably represents a vest button and the larger one a coat button. Similar buttons have been reported from a lightkeeper's house (1837-1865) located on the site of Fort Fisher, a Civil War fort (South 1964).

Variety b Script "I" in relief
   10 Specimens
   Diameter range 1.4-2 cm

These buttons are cast pewter with a raised script "I" (I for infantry) with a raised oval beneath it. Earlier versions of this button contained a raised regimental number within the oval (Campbell 1965). Script "I" buttons were issued
Plate 2. Buttons

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PLATE 2. BUTTONS
between 1812 and 1815 (Dunnigan 1975). Later versions of this button variety contained a raised five or six pointed star within the oval instead of the regimental number. South (1964) reports script "I" buttons at Fort Fisher in North Carolina. Seven of the small buttons have ovals with 8 pointed stars, while the larger buttons have empty ovals. Five of the smaller buttons do not have mold seams. The eye is set on a rectangular foot. It seems the backs have been tooled since the eye has a mold seam.

**Variety c Relief decorated**

**Specimen 1**
Diameter 1.65 cm

The face of the button is decorated with a 6 petal flower. On the back a letter I is located on one-side of the mold seam and a B on the other side.

**Specimen 2**
Not illustrated
No diameter

The face of this button is decorated with an eagle standing on an oval containing letters. The letters are difficult to discern due to deterioration of the surface.

**Variety d Plain surface**

11 Specimens
Diameter (9 specimens) 1.4-1.5 cm

The mold seam has been removed on two of the buttons and are similar to Variety a buttons which lack mold seams.

**Discussion.** All Cl, SA, Gl buttons are made of cast pewter. These may be divided into tooled and untooled buttons. South (1964) suggests that one piece cast pewter and white metal buttons have a temporal range of 1726-1865.

The relief decorated buttons are associated with the military occupation. While the plain pewter buttons cannot be assigned a temporal context as restricted as the relief decorated ones, they are associated with the military phase of the site. The plain buttons were probably worn on the clothing of militia. However Calver and
Bolton (1950:148) indicate that US and script "I" buttons were also worn by militia. It is very probable that the militia wore any type of buttons on their clothing that they could acquire if buttons were not provided by the respective states.

Series B Bone
  Group 1 Drilled single hole
    Type 1 Flat disc
    Plate 2 i-k
    Specimen 4
    Diameter 1.3 cm

    Specimens 1, 2, 3
    Not illustrated (broken halves)
    Diameter range 1.7-1.8 cm

    Specimens 5 & 6
    Diameter range 1.1-1.25 cm

    Consists of a polished black colored bone with turning marks on both sides.

    Specimen 7
    No illustrated
    Diameter 2.25 cm

Series C Shell
  Group 1 Two drilled holes
    Type 1 Flat disc
    4 Specimens
    Not illustrated
    Diameter range 1-1.9 cm

  Discussion. C1, SB and SC buttons are all flat discs with no rim treatment for attaching a crimped-over metal face. South (1964) gives a temporal range of 1726-1865 for bone and shell buttons. No bone or shell button blanks have been found during excavation, suggesting that the manufacture of these buttons was not an activity at Fort Meigs.
Class II Two element construction
Series A Metal
Group I Wire eye cast in place
Type I Flat disc
Plate 2 1-9
Variety a Silver plated core
  Specimens 1 and 2
  Diameter 1.65 cm

  Specimen 3
  Not illustrated
  Diameter 1.7 cm

Variety b Plain brass
  Specimen 1
  Diameter 1.4 cm

Variety c Stamped brass
  Specimen 1
  Diameter 3.25 cm
  Obverse: rope design along edge
  Reverse: plain

  Specimen 2
  Diameter 1.5 cm
  Obverse: plain
  Reverse: wreath pattern

Variety d Plain white metal
  Specimen 1
  Diameter 1.5 cm

  Specimens 2 and 3
  Not illustrated
  Diameter 1.5 cm

  Specimens 4 and 5
  Not illustrated
  Diameter 1.4 cm

These buttons have iron eyes rather than brass or copper eyes.

Variety e Decorated white metal

  Specimen 1
  Diameter (not measurable)

  The face of this button is decorated in relief by an eagle with open wings standing on top of a raised oval. Letters within the oval are in poor condition and not identifiable.
Dunnigan (1975:8) illustrates a very similar button (Figure 40) from Fort Mackinac, with an eagle, surrounded by 12 stars, standing on an oval with the letters US. Dunnigan indicates that these buttons were used chiefly between 1812-1815, and were worn by infantry officers. No stars were observable on the button from Fort Meigs, but this may be due to the eroded edge of the button.

Specimen 2
Not illustrated
Diameter (not measurable)
Obverse: raised letters within a circle
Reverse: plain

The edges of the button are badly eroded and the letters could not be read.

Type 2 Convex face
Plate 2 r-t
Variety a Silver plated core
Specimens 1 and 2
Diameter 1.8 cm

Specimen 3
Not illustrated
Diameter 2 cm

Variety b Plain brass
Specimen 1
Diameter 1.5 cm

Group 2 Brazed or soldered eye
Type 1 Flat disc
Plate 2 u-aa
Variety a Plain brass
Specimen 1
Not illustrated

Specimen 2
Diameter 1.25 cm

Specimen 3
Diameter 1.65 cm

Variety b Stamped and decorated brass
Specimen 1
Diameter 2.1 cm
Obverse: plain
Reverse: stamped letters NC PLAT_D F_T_
Specimens 2-6
Diameter range 2.1-2.3 cm
Obverse: raised script RR letters
Reverse: plain

Specimen 7
Diameter 2.3 cm
Obverse: raised script RR letters
Reverse: stamped wreath pattern around letters LO

Specimen 8
Not illustrated
Diameter 1.3 cm
Obverse: plain
Reverse: words Best Quality surrounded by a wreath pattern

Specimen 9
Not illustrated
Diameter 2 cm
Obverse: plain
Reverse: a wreath motif below an eagle surrounded by 7 stars

Discussion. CII, SA, G2, T1, Vb buttons (specimens 2 and 3) are military buttons. The RR refers to the Regiment of Riflemen, an army branch established in 1808 (Campbell 1965). In 1812 this plain style was replaced by a new style which included an eagle, wings reversed, with a shield upon its chest bearing a raised and foliated script "R" (Campbell 1965; Dunnigan 1975:8). Dunnigan associates the RR buttons at Fort Mackinac with the 2nd regiment of riflemen who were at the fort in 1815. Elements of this same group were also at Fort Meigs in 1813.

Variety c Copper disc
Specimen 1
Not illustrated
Diameter 2 cm

Variety d Plated brass
Specimen 1
Diameter 1.75 cm
Obverse: plain
Reverse: words DOUBLE GILT

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Type 2 Flat face with a low cylinder back; brass
Plate 2 bb
Specimen 1
Diameter 1.9 cm

This is an unusual cast brass button. The eye is well soldered to the back (see Figure 5e). Whether this specimen was used specifically as a button is uncertain.

Type 3 Convex face; brass
Plate 2 cc
Specimen 1
Diameter 1.3 cm

Specimen 2
Diameter 1.5 cm

Specimen 3
Not illustrated
Diameter 2.2 cm

Discussion. The cast pewter buttons most readily assigned to the military phase of the site are the US (n=4) and script "I" buttons (n=10). Of these, eleven buttons were recovered from feature 19. Two different types of stars are represented on script "I" buttons. Four buttons have 8-pointed stars and two buttons have 6-pointed stars. Eight pointed stars have not been found on script "I" buttons from Fort Mackinac. The occurrence of blank ovals on script "I" buttons (n=2) also have their counterparts at Fort Mackinac (Dunnigan 1975:7). The casting process also indicates variation in the manufacture of script "I" buttons, since five small buttons have eyes which are cast on top of a rectangular foot which is part of the button back.

Two one piece white metal buttons are also related to the military occupation. One has a six petal flower motif in relief with the letters I and B in relief on the back. The other is decorated with an eagle standing on an oval. Deterioration of the surface made it difficult to determine the type of lettering within the oval.
Figure 5. Detail of Selected Buttons

<table>
<thead>
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<th>Figure Designation</th>
<th>Taxonomic Designation</th>
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</tr>
<tr>
<td>F</td>
<td>G2, T2, Specimen #1</td>
</tr>
<tr>
<td></td>
<td>T1, Vb</td>
</tr>
</tbody>
</table>
Two Class II, Series A, Group 1, Type 1 buttons are associated with the military occupation of the site. One is decorated with an eagle having open wings standing on top of a raised oval. Lettering within the oval is badly deteriorated, rendering identification impossible. The other button contains two undiscernible raised letters within a circle.

The final group of buttons (n=6) reflecting the military occupation of the site are the brass script "RR" buttons. Dunnigan (1976:8) assigns these buttons to the first button pattern (1808-1812) of the Regiment of Riflemen. One of these has a stamped design on the back. The apparent absence of the second pattern RR buttons at Fort Meigs may be due to logistical factors or to supply shortages.

The remaining button sample (n=50), while being recovered from a military-related midden, may not represent government issue buttons. If we subtract the bone and shell buttons, since these are found on a variety of site types in addition to military sites, the number is reduced to 40 buttons. The heterogeneity of this sample suggests there was latitude in the selection of buttons by militia and state governments. Of the remaining buttons, 11 are plain cast pewter, 6 are plain 2-piece white metal, 5 are 2-piece silver plated, 6 are plain 2-piece brass, 1 is copper, and 11 are stamped brass.

Calver and Bolton (1950:148) indicate US and script "I" buttons were worn by militia during the war. Whether the issuing of these buttons or clothing containing either script "I" or US buttons to state militia units was a common occurrence is uncertain. It was
common practice for each state to prescribe the equipment militia were to have, with muskets and bayonets being supplied from the state arsenal. It is possible that the type of buttons to be worn on clothing was also determined by the state. If there were no requirements for clothing and equipment, anything deemed suitable by the individual was probably worn and taken into the field.

Candle Lantern

Fragments of a tin candle lantern were recovered from feature 19 (Plate 3). Most of the fragments have perforations which were used for decoration.

PLATE 3. CANDLE LANTERN
Candlestick

A complete but broken candlestick holder and base (Plate 4) were found in the borrow ditch along the south side of the Grand Traverse. The candle holder has a slid tray allowing control of the candle's length. The base measures 9.5 cm in diameter. The holder measures 16.5 cm in length and is 2.3 cm in diameter.

Ceramics

Excavations between 1972-1978 yielded 229 ceramic sherds. Seventy percent of these sherds (n=159) were unavailable for analysis and were eliminated from the study. The remaining 70 sherds consist of ceramics recovered in 1977 and 1978 and a creamware tea cup found in 1972. Of this total, 97% of the sherds (n=68) were recovered from feature 19.

The remaining sample is divided into two basic classes: earthenware and stoneware; no porcelain has been found to date. Three groups of earthenware are recognized, each sharing a similar set of physical and decorative attributes. Each group is subdivided into types on the basis of decorative technique. No groups were recognized for stoneware. Types are designated on the basis of paste color and the type of surface glazing (i.e., salt glazing, lead glazing, slipping and alkaline glazing).

Class I Earthenware
Group A Creamware

By 1760 Josiah Wedgwood had perfected a cream colored ceramic body covered with a clear lead glaze. The glaze has a yellowish or
greenish tint. This color is more apparent in vessel crevices and handle junctions where the glaze tends to pool or puddle (Noel Hume 1970:124-128). This new ceramic ware rapidly replaced English tin glazed delftware and white salt glazed stoneware in England and became the major ceramic export to America (Miller and Stone 1970: 42; Noel Hume 1970). By 1820 creamware was still available but limited in its distribution (Noel Hume 1969).

Type 1 Transfer print decoration
Figure 6

A single creamware tea or coffee cup was found during the excavation of feature 1. This cup is part of a creamware tea or coffee set owned by General William Harrison which is on display at the state museum in Indianapolis, Indiana.

Figure 6. Reconstructed Creamware Cup from Feature 1
Group B Pearlware

Josiah Wedgewood is credited with the development of pearlware in the 1770's. Pearlware is a refined white colored ceramic body with a clear lead glaze to which a small amount of cobalt blue was added (Noel Hume 1969:39; 170:128-129). As a result of adding the cobalt coloring, pearlware glaze exhibits an overall bluish cast and frequently a much deeper color along vessel rims, handle junctions and vessel crevices where the glaze puddles or pools. Pearlware slowly replaced creamware, becoming the dominant English ceramic export to America between 1810-1820. By the 1820's pearlware was loosing popularity in America and was not being manufactured in abundant quantities (Noel Hume 1970:130-131), but South (1972:85; 1974a:333) lists some pearlware decorative types as late as the 1840's and 1850's. Pearlware vessels have also been found in a post 1840 context at the Berrian Springs Jail site in Michigan (Demeter and Lowery 1977:64). Hence, there is some disagreement over the decline of pearlware as a ceramic ware in America.

Type 1 Underglaze hand painting
Plate 5 a-d

Variety a Polychrome

The single sherd is exterior decorated with an underglaze floral pattern consisting of deep brown leaves, a brownish green stem, and a blue and green flower head. Curvature of the sherd suggests that it represents either a cup or bowl.

Variety b Banded interior rim

Three vessels are represented by the different size interior bands. The bands are greenish-brown in color and vary in width. A single body sherd with a partial foot ring supports two thin interior greenish-brown rings.
Plate 5. Ceramics

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<th>Taxonomic Designation</th>
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<td>T4</td>
</tr>
<tr>
<td>O</td>
<td>T5</td>
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Variety c Blue rim with exterior floral pattern

The reconstructed sherd represents a tea cup. The design consists of a thin brown stem with green leaves. Three other undecorated sherds may belong to the cup.

Class I, Category A
Plate 5 e

This category consists of two burned sherds from a shallow bowl or plate. It is impossible to determine a group association. The design consists of an underglaze geometric motif with brown or green lines with yellow filling parts of the motif. A small plate on display in Alexandria, Virginia, has a very similar design except for the addition of blue dots. A ca. 1810 date is suggested for the plate from Alexandria.

Group C Coarse earthenware

This group consists of a variety of low fired ceramic bodies needing an interior lead glaze to render them impermeable to liquids. Often both sides of coarse earthenware vessels are glazed or covered by a clay slip which can be decorated by hand painting. Vessel thickness and glaze color vary within this group.

Type 1 Interior yellow glaze with green splashes
Plate 5 f

The single sherd has a red body with fine striations on the exterior surface created during its manufacture.

Type 2 Interior/exterior cinnamon colored glaze
Plate 5 g

All eight sherds have a red body. The glaze has a tendency to split away from the body.

Type 3 Interior/exterior deep brown with a luster appearance
Plate 5 h

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The five sherds representing a single vessel have an orange-red body. All sherds have a luster-like appearance on both surfaces.

Type 4 Interior/exterior deep brown
Plate 5 i

Both sherds have a buff colored body. Part of a heel is present on one sherd indicating its is from the base of the vessel. Interior curvature of the sherds suggests the vessel was a bowl.

Type 5 Slipped interior
Plate 5 j

Two earthenware containers are represented. Both have a red body and a deep brown band of slip around the rim. The interior of each has also been covered with the same colored slip. The taller container measures 5.3 cm and the other 4.2 cm. The bodies of both vessels have been fired to almost stoneware hardness. While varying in shape and capacity, shared characteristics suggest both vessels had similar functions.

Class II Stoneware

Stoneware is a hard, high fired ceramic body midway between earthenware and porcelain, and is impermeable to liquids. It often has a pitted surface resembling the surface of an orange peel, resulting from the adding of salt to the kiln during firing; hence the name salt glazed. Body color varies in response to the clay(s) used and the firing temperature of the kiln.

Type 1 Green
Plate 5 k

The eighteen sherds represent a single vessel. The vessel has an unglazed grey interior with striations resulting from its manufacture. Partial reconstruction of the sherds indicates the vessel is a bottle.

Type 2 Brown exterior
Plate 5 l

Both sherds have an unglazed red interior with marked striations and ridges caused during its manufacture.
Type 3 White exterior/brown glazed interior  
Plate 5 m

The five sherds represent a single vessel. The body is buff in color. A white lead glaze was applied to the exterior and a dark brown lead glaze to the interior, and salt added to the kiln during the firing process. The size and curvature of the sherds suggest the vessel was a storage jar.

Type 4 Alkaline glazed exterior/brown slipped interior  
Plate 5 n

The three sherds are from a single vessel. Both surfaces of the grey bodied vessel have an orange-peel appearance. Size and curvature of the sherds suggest the vessel was a storage jar.

Type 5 Slipped interior/exterior  
Plate 5 o

The single sherd has a buff colored body. Both surfaces have a salt glazed appearance. The interior has striations produced during manufacture.

Miscellaneous Stoneware Sherds (3 charred sherds)

Discussion. The ceramic sample recovered from Fort Meigs in 1977 and 1978, and the creamware cup from 1972, are assignable to the military phase of the site, 1813-1815, on the basis of artifact context. Only one feature, feature 19, produced enough ceramics from a controlled context to allow a temporal analysis.

The different classes of ceramics described above are amenable to analysis of behavioral and socioeconomic aspects of the military phase. To facilitate this analysis, the ceramic sample is classified into three functional categories: fine earthenware, which includes the single creamware cup and the pearlware vessels; utility earthenware, which includes the coarse earthenware; and storage vessels, which includes the stoneware vessels. The earthenwares represented
consist of two groups: those vessels used for food preparation and those used for actual food consumption. Vessels within these groups include cups, bowls, soup bowls, plates and platters.

The significance of ceramics as indicators of cultural and behavioral phenomenon have been demonstrated by Ferguson (1977), Miller and Stone (1970), Otto (1975, 1977), South (1974a, 1977a), and South and Widmer (1977) among others. The occurrence of ceramics at Fort Meigs agrees with conclusions drawn by the above authors: ceramics recovered from frontier/military sites were the property of high status individuals such as officers. The recovery of bone handle cutlery and fragments of a glass decanter, tumbler, and a stemware vessel, and General Harrison's creamware service, support this interpretation.

Clothing Fasteners

Pairs of hooks and eyes (Plate 6 a-e) were used as fasteners to secure unjoined pieces of clothing. All hooks (n=5) and eyes (n=6) are made of iron. Three sizes of hooks and eyes are represented in the sample and their dimensions are given in decreasing order of size: (3) 3.4-3.5 cm long by 1.8-1.9 cm wide; (1) 2.5 cm long by 1.5 cm wide; and the other is only a fragment. Three sizes of eyes are also represented: (3) 2.2 cm long by 1.9 cm wide; (1) 1.8 cm long by 1.7 cm wide; and (2) 1.1 cm long by 1 cm wide.
Clothing Clips

Two rectangular brass clips, interpreted to represent suspender clips, have been found to date (Plate 6f). The complete specimen (not illustrated) measures 3.2 cm long and .6 cm wide.

Door Latches

Two types of iron door latches have been recovered.

Type 1 Iron thumb lift
Not illustrated
1 Specimen

Stone (1974:242) illustrates two similar latches from Fort Michilimackinac. Thumb lift latches were hinged at the center and extended through a door to permit lifting the latch from inside the structure (Stone 1974:235). The specimen from Fort Meigs is minus the pivot bar. Latch length is 13 cm.

Type 2 Iron latch bar catch
Plate 7, a, b
2 Specimens

Latch bar catches were driven horizontally into the door frame and served to hold or catch door latches.

Ferrules

Iron ferrules were used to reinforce pieces of wood at joints and at the ends to prevent splitting (Hanson and Hsu 1975:150). Ferrules were made by taking a strip of metal, cutting it to the desired length, bending it into shape and then welding the ends together. Two different shapes are represented.

Type 1 Round
Plate 8 a-c
3 Specimens

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PLATE 6. CLOTHING FASTENERS AND CLIPS
A-B Hooks
C-E Eyes
F Clip

PLATE 7. DOOR LATCHES
The ends on type 1 ferrules are overlapped and welded. Two specimens have drilled holes probably for nails or screws. The diameters of two specimens are measurable: one is 3.8 cm in diameter and the other is 4.4 cm. Strip widths vary from 2.2-3.1 cm. These were probably used on tent and markee poles.

Type 2 Rounded arch
Not illustrated
1 Specimen

The ends of the ferrule are overlapped and welded. There is a single drilled hole on either side for nails or screws. In cross-section the ferrule looks like a rounded door arch. The specimen is 4.7 cm tall and the strap width is 2.7 cm.

Fishhook

A single eyeless iron fish hook was found. The hook measures 3.7 cm in length and .3 cm in thickness.

Forks

One complete fork (Plate 9 and Figure 7b) and a fork fragment have been recovered. The complete specimen consists of four primary parts: a two tined iron fork element; the shaft, that area between the tines and the bolster; the handle stem; and the riveted bone handle plates. The bone plates are covered with carved ridges oblique to the vertical. The complete fork measures 17.7 cm in length. This resembles Stone's (1974:175-176) Class I, Series A, Type 2 forks from Fort Michilimackinac. The fragment consists of two partial tines and part of the shaft. It measures 3.8 cm in length.
PLATE 8. FERRULES
PLATE 9. FORK
Glass

One reconstructable medicine bottle and 454 fragments from bottle and other glass containers were found between 1972-1978. Most of the sample consists of small fragments, making identification of specific vessel types and determination of the minimum number of vessels difficult at best.

Only glass recovered in 1977 and 1978 (n=137) will be considered in this analysis; glass remains excavated between 1972-1976 have been misplaced at the Ohio Historical Center and were not available for analysis. Ninety six percent of the analyzed sample (n=134) was recovered from feature 19. A few bottle neck and base sections and the reconstructed medicine bottle recovered between 1972-1976 are on display at Fort Meigs, but are not considered.

Because of the fragmentary condition of much of the glass, analysis entailed separating the sample into groups based on color. These were classified into one of five classes: bottles, decanters, tumblers, stemware, and medicine containers (Table 2). Further distinctions such as vessel shape, rims, bases, charred glass, etc., are presented in Table 3. Identification of the manufacturing technique is given when possible for some fragments (i.e., free blown, mold blown, and pressed or cut glass). A representative cross-section of the analyzed sample is provided in plate 10.

The largest amount of glass (n=119) represents bottles. This was expected since historical records indicate consumption of alcoholic beverages occurred daily. Four percent of the sample (n=5)
Table 2*
Frequency of Glass Color for Each Artifact Class**

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<tr>
<td>Amber</td>
<td>5</td>
<td></td>
<td></td>
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</tbody>
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*Counts given represent the number of fragments per artifact class
**Table does not include 4 pieces of chimney glass

Table 3
Frequency of Colored Glass Fragments per Descriptive Category*

<table>
<thead>
<tr>
<th>Bottles</th>
<th>Clear</th>
<th>Olive</th>
<th>Green</th>
<th>German</th>
<th>Blue</th>
<th>Yellow</th>
<th>Amber</th>
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<tr>
<td>Square</td>
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<tr>
<td>Round</td>
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<td>11</td>
<td>15</td>
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<td>5</td>
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<tr>
<td>Decanter</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Tumbler</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Stemware</td>
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<td>Medicine</td>
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<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rims/necks</td>
<td>3**</td>
<td>1**</td>
<td>1**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bases</td>
<td>1**</td>
<td>1**</td>
<td>1**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burned</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Chimney glass</td>
<td>4</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

*Glass sherds are not category specific, but are represented in more than one category simultaneously.
**Each sherd represents the number of actual vessel rims and bases in the sample.
PLATE 10. SELECTED GLASS FRAGMENTS

A  Yellow green colored glass (square bottle)
B  Olive green colored glass (square bottle)
C  Olive green colored glass (square bottle)
D  Amber colored glass (modern beer bottle)
E  Green colored glass (square bottle)
F  Cut glass decanter
G  Blue green colored glass (round bottle)
H  Blonde green colored rim fragment (medicine bottle)
I  Clear colored rim fragment (medicine bottle)
J  Yellow colored glass (square bottle)
K  Off-white bottle base fragment with pontil scar
L  Clear colored rim/neck fragment (medicine bottle)
M  Dark olive green base/pushup fragment (rum or wine bottle)
consists of amber glass representing a modern beer bottle. Four sherds of chimney glass post-date the abandonment of the fort in 1815.

Eight sherds (6% of the sample) represent status related items: a decanter, a tumbler, and a single stemware vessel. Stemware consists of either goblets or wine glasses. Glassware of this type would not be the property of the common soldier or militiamen who had few personal luxuries during their enlistment. Rather, these vessels were probably owned by officers either in the militia or the regular army.

Only 4.5% of the sample (n=6) represents actual bottle rims (n=4) and bases (n=2). Round bottle glass (n=112) outnumbers square bottle glass (n=6), suggesting more liquids were consumed from round containers. Gin, however, was often sold in square glass containers. Whether gin was bottled in dark or light colored glass is uncertain. Wine and rum were usually sold in round, dark colored glass containers much like the base pushup or kickup illustrated in Figure 8. This specimen still retains part of its pontil mark, indicating that it was free blown. The base fragment is a dark olive green in color. Only four containers believed to be medicine bottles are represented. These consist of three rims/necks and a single base fragment.

The absence of any complete bottles from feature 19 may be due to post-abandonment scavenging to recycle old bottles, particularly by people living at Port Orleans, a small town located on the floodplain below the fort. Other objects besides bottles were probably also collected and recycled; especially tools and useful household items.
A total of 27 complete and broken gunflints were recovered from Fort Meigs between 1972-1978. Eighty one percent of the sample (n=23) was recovered from feature 19. The sample has been classified into three descriptive groups based on form or technique of manufacture. The sample consists of (3) spall or wedge-shaped gunflints (Hamilton 1964; Witthoft 1966:25), (12) blade gunflints (Witthoft 1966:28-29), and (12) prismatic gunflints (Witthoft 1966:34-36).

The following terminology will be used in describing the different characteristics of gunflints: face, the tope of the gunflint; edge, that part of the gunflint which strikes the frizzen; back or heel,
that part of the gunflint which is clamped in the vice of the cock; and the bed, or bottom of the gunflint.

Four levels of taxonomic distinction are recognized on the basis of the above attributes: Class, distinguished by differences in technique of manufacture; Series, distinguished by the number of flake scars on the face; Type, distinguished by differences in shape; and Variety, distinguished by differences in color. Since each manufacturing technique creates different physical attributes, not every taxonomic level listed above will be used for describing each class of gunflints. A drawing of each gunflint variety is given in Figure 9.

Class I Spall gunflints

Spall gunflints were created by detaching individual flakes or spalls from a prepared flint nodule. The face of a spall flint has a slightly convex cross-section which was formed by the separation of the spall from the core. The face on spall flints tapers sharply to the striking edge. Witthoft (1966:26) described this manufacturing process as the Clactonian technique. Some flints carry traces of a striking platform. This technique represents an advance over the earlier bifacially shaped "Nordic flints," in that there was not the extensive bifacial chipping needed to shape spall gunflints (Witthoft 1966:26). Spall flints replaced Nordic flints sometime between 1650-1700 (Hamilton 1964; Witthoft 1966:25).

Type 1 Square block

These specimens exhibit a steep bevelled back edge and sides which impart a square or rectangular shape to the flint.
<table>
<thead>
<tr>
<th>Figure Designation</th>
<th>Taxonomic Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>CI, T1, Va</td>
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<td>B</td>
<td>Vb</td>
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<tr>
<td>C</td>
<td>T2, Va</td>
</tr>
<tr>
<td>D</td>
<td>CII, SA, T1, Va</td>
</tr>
<tr>
<td>E</td>
<td>T2, Va</td>
</tr>
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<td>G</td>
<td>SB, T1, Va</td>
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<td>I</td>
<td>T2, Va</td>
</tr>
<tr>
<td>J</td>
<td>Vb</td>
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<tr>
<td>K</td>
<td>CIII, SA, T1, Va</td>
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<tr>
<td>L</td>
<td>Va</td>
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<td>M</td>
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<td>O</td>
<td>Vd</td>
</tr>
<tr>
<td>P</td>
<td>SB, T1, Va</td>
</tr>
<tr>
<td>Q</td>
<td>Vb</td>
</tr>
</tbody>
</table>

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Figure 9. Detail of Gunflints
Variety a Smoky grey
1 specimen
Length --
Width 3 cm
Thickness 1.1 cm

Specimen has a concave base from a heavy blow which detached it from the core. The flint exhibits an even wear along the striking edge.

Variety b Dark grey
1 specimen
Length --
Width est. 2.6 cm
Thickness .75 cm

The striking edge of this flint has been snapped off rendering it unusable as a gunflint. One side exhibits heavy wear along its entire length suggesting it may have been recycled for other uses. The bed of this flint is nearly level or flat.

Type 2 Rounded back and edges
Figure 9 c

Extensive retouch along the back and sides give this flint a rounded or U shaped appearance.

Variety a Grey
1 Specimen
Length
Width 2.4 cm
Thickness .85 cm

This specimen exhibits extensive wear along the striking edge. One large flake was driven off the face. Other flakes detached from the heel do not seem to be the result of retouch.

Class II Blade gunflints

Blade gunflints were produced by detaching long individual blades from a prepared core and then dividing each blade into segments (flints). The bed of a blade gunflint is nearly parallel to the face. Segments were retouched on all sides except the striking edge. The face of blade gunflints bears transverse flake scars caused from the prior removal of a blade from the core (Stone 1974:247). Witthoft
1966:28-34) describes the emergence of the French blade technique, and also its persistence and decline. His data indicate that by 1775 French blade gunflints had replaced the older spall flints completely (1966:28). French flints are yellow in color, have a waxy feel and are rather translucent when held up to a light.

Series A Single flake scar
Type 1 Rounded edge
Figure 9 d

Variety a Honey colored
1 Specimen
Length --
Width 2.2 cm
Thickness .4 cm

Type 2 Squared back
Figure 9 e,f

Variety a Honey colored
1 Specimen
Length --
Width 1.4 cm
Thickness .4 cm

2 Specimens
Length est. 2.6 cm
Width 3 cm
Thickness .5 cm

This specimen has two small flake scars on the face next to the beveled striking edge. The flakes seem to represent thinning flakes.

Series B Three flake scars, dual striking edge

This specimen has three flake scars on the face. Two scars, one on either end, angle down from the face to form a dual beveled striking edge. One bevel consists of two separate flakes. The dual striking edge gives the flint a rectangular appearance.
Type 1 Square back
Figure 9 g

Variety a Honey colored
1 Specimen
Length 2.25 cm
Width 2.1 cm
Thickness .7 cm

Series C Two flake scars and a single striking edge

Series C gunflints have two flake scars on the face. One flake scar created from the making of the blade extends from the back to approximately the center of the flint. The second flake angles to form the striking edge.

Type 1 Rounded back
Figure 9 h

Variety a Honey colored
1 Specimen
Length est. 2.9 cm
Width 3.3 cm
Thickness .9 cm

Type 2 Squared back
Figure 9 i, j

Variety a Smokey grey
2 Specimens
Length range 2-2.2 cm
Width range 2.2-2.5 cm
Thickness range .65-.7 cm

One of these flints was found with a lead jacket still wrapped around it.

Variety b Honey colored
3 Specimens
Length range 2.5-2.6 cm
Width range 2.1-2.15 cm
Thickness range .6-.1 cm

Class II, Category 1

This group consists of two blade fragments which could not be assigned to a specific group or type. Both specimens are honey yellow in color.
Class III Prismatic blade gunflints

Prismatic gunflints are associated with the British gunflint industry. Flints were produced by striking a long blade off a prepared flint core. Their final preparation differs from French blade gunflints in that a micro-burin technique was used to separate blades into segments (flints). This process eliminated the necessary retouch for shaping the flint (Witthoft 1966:36). Characteristic of prismatic flints are the two demi-cones caused from the micro burin separation blows (1966:36).

This technique is a technological advance for it allows the manufacture of dual edge gunflints without the necessity of secondary flaking and retouch. Witthoft (1966:32) indicates that during the War of 1812 both British and French flints were used by British and American forces.

Series A Two flake scars and a single striking edge

Type 1 Squared back and heel
Figure 9 k-o

 Variety a Black colored
2 Specimens
Length (one specimen) 2.8 cm
Width range 2.2-2.6 cm
Thickness range .8-1 cm

Both specimens have chalky cortex on their heels.

 Variety b Blue-black colored
1 Specimen
Length 2.35 cm
Width 2.2 cm
Thickness 1.05 cm

This specimen has been burned. Extensive uneven wear in the shape of a "V" along the striking edge suggests it was used against a fire steel.
Variety c Dark grey
1 Specimen
Length --
Width 2.4 cm
Thickness 1.2 cm

Extensive uneven wear along the striking edge suggests it was used against a fire steel.

Variety d Smokey grey
1 Specimen
Length 2.75 cm
Width 2.45 cm
Thickness .6 cm

This gunflint resembles a French blade in appearance, but has dual demi-cones of percussion. The flint bears the negative scar of a prior detached blade. Witthoft (1966:32, 36) mentions that prior to the Napoleonic wars England purchased large quantities of blades from France and made flints using the micro-burin technique. Hence, French flints are found finished in the British technique of gunflint manufacture.

Series B Three flake scars and a dual striking edge

These gunflints have three flake scars on the face: one in the center parallel to the bed and two which angle from the center flake to each edge.

Type 1 Square back
Figure 9 p, q

Variety a Black colored
1 Specimen
Length --
Width 2.1 cm
Thickness .9 cm

This flint has snapped in the center suggesting a structural fault within the flint or its use against an object other than a gun frizzen.

Variety b Dark grey
3 Specimens
Length (one specimen) 2.5 cm
Width range 2.1-2.3 cm
Thickness range .7-.9 cm
Miscellaneous Category

This group consists of three broken and burned gunflints; heat has changed the interior color to an off-white. All specimens appear to be made from locally available chert rather than from yellow, grey or black colored European flint.

Discussion. Witthoft (1966:32) indicates that during the War of 1812 both French and British gunflint styles were being used. The ratio of French to British style flints at Fort Meigs is 1:1.

The occurrence of three spall gunflints is interesting since this flint style was not manufactured for trade since the late 1700's. All three were recovered from feature 19 along with nine French and eleven British flints. Since feature 19 is associated primarily with the second Fort, it is possible the flints were used by someone in the militia. Militia often supplied their own weapons.

Gun Parts

Sling Rings

Three iron sling or swivel rings have been found (Plate 11 a and Figure 10, a,b). These were used in securing a leather shoulder strap and were attached to a gun by means of a screw and a pin. Each gun would have a set of two sling rings: one ring would be attached to a barrel band and another to the stock or to the trigger guard. The example illustrated has a square nail inserted through the end openings where the connecting pin would normally be. Specimen lengths range from 3.3-4 cm and widths from 2-4.2 cm.
PLATE 11. GUN PARTS

A  Sling Ring
B  Barrel-stock Band
C  Gun Wrench
D  Gun Worm
E  Trigger Guard Fragment
Lock Plate

A single iron lock plate (Figure 10a) has been found. The frizzen and frizzen spring are still attached. Total length of the lock is 16.5 cm. Width of the lock is 3.3 cm. The lock has been identified as a French Model 1763, with a US surcharge stamped on it. The model 1763 was made at the royal armory in Charleville, France and is often term "Charleville" (Peterson 1964:86).

Barrel-Stock Band

A single security band was recovered in 1978 (Plate 11 b and Figure 10d). It consists of a single piece of iron with a nipple. A hole has been drilled through the nipple for holding the sling swivel pin. Three bands were used on muskets to secure the barrel to the stock. The presence of the drilled nipple indicates this was the middle barrel band.

Gun Wrench

This single specimen (Plate 11 c) is made of iron and consists of two functional parts: a metal shaft thinned at the end to form a screwdriver, and a looped circle (interior diameter of 1.6 cm) at the opposite end which is forged onto the shaft. The wrench measures 9.4 cm in length.

Gun Worm

A single gun worm (Plate 11 d) was recovered from feature 19. Worms were used to extract lead balls from a gun to unload it.
Figure 10. Drawings of gun parts and furniture. A - French Model 1763 Charleville lock plate, B-C - Sling swivels, D - Middle gun barrel band.
The specimen is made from a single piece of iron. The prongs were chisel cut and turned around a central stem which has been threaded. The base has been tapped to facilitate its connection with a rod for extracting the lead ball. Total length of the worm is 4.4 cm. Diameter of the tap hole is .5 cm.

**Trigger Guard**

A single iron guard fragment has been found (Plate 11e). The fragment retains part of the screw hole indicating that it broke at that point. Length of the fragment is 4.1 cm.

**Trigger**

A single iron trigger (not illustrated) has been recovered. The trigger is curved rather than straight like triggers from 18th century military and civilian guns. The specimen measures 3.5 cm in length.

**Sear Spring**

A single specimen or sear spring has been found (not illustrated). The spring measures 5.3 cm in length. Sear springs were used to place tension on the sear which operated a tumbler. The tumbler was connected with the cock or hammer.

**Discussion.** Rifle and musket parts either sold, lost or damaged were charged to the user and extracted from his pay. A list of costs for the different parts of weapons is given in the "Army
Ordnance Regulations, 1812, Military Laws and Rules and Regulations for the Army of The United States, section 23:

"For a firelock, sixteen dollars
a bayonet, 2 dollars
For a ramrod, 1 dollar
a cartridge-box, 4 dollars
a bayonet belt, 1 dollar
a scabbard, 2/3 of a dollar
a cartridge, 1/6 of a dollar
a flint, 1/20 of a dollar
a gun worm, 1/4 of a dollar
a screw driver, 1/12 of a dollar"

In 1815 another list outlining costs for lost or damaged parts or for selling musket parts was issued by the Inspector of the 5th Military District (taken from Orders, Brigade Inspector 5th Military Department, Vol. 492):

<table>
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<tr>
<th>Item</th>
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<tr>
<td>Bayonet</td>
<td>$1.25</td>
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<tr>
<td>Ramrod</td>
<td>.75</td>
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<tr>
<td>Lock Plate</td>
<td>3.25</td>
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<td>Barrell</td>
<td>4.00</td>
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<td>Mountings</td>
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<td>Stock</td>
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</table>

Katcher (1974:29-30) indicates a .69 caliber musket was the standard arm for American forces during the War of 1812. This musket was an American copy of the French Model 1777 musket. The American copy had all iron furniture. French muskets represent a change over older British arms, having three metal bands holding the barrel to the stock. Pressure bars in front of each band allowed easy removal of the bands and barrel from the stock. Peterson (1968) indicates that both French and American made guns were used during the war; an observation supported by the recovery of a 1763 French musket lock plate with a US surcharge stamped on it. American muskets represented
at Fort Meigs are the US Model 1795 and Springfield models 1807 and 1808.

Riflemen were issued a half stocked rifle with a .54 caliber bore. These guns were different from the smooth bore musket used by the infantry and artillery because the barrel has been rifled (grooves cut into the barrel interior). Rifled guns were far more accurate than smooth bore muskets and were used to support troop movements and for sniper fire. These guns have all brass furniture and a brass patch box (Lewis 1956).

Hinges

Three different hinge forms are represented in the artifact sample from Fort Meigs. The sample may be classified into two primary groups: (1) staple or pin hinges, which are used on furniture, and (2) structural hinges which are used on doors, shutters, gates, windows or cupboards (Stone 1974:217). These distinctions are based on the size, form, complexity and material of manufacture.

Identification of structural hinges is somewhat subjective since specimens may have been used on objects not considered structural. On the basis of form, method of attachment and material of manufacture, two categories of structural hinges are represented: leaf or self contained hinges, and pintle hinges.

Three levels of taxonomic distinction are recognized: Series, based on functional usage; Type, material of manufacture; and Variety, shape of the hinge elements.
Series A Staple Hinges
Type 1 Two staples
Plate 12 a,b
3 Specimens

Staple hinges are made of iron and consist of two joined elements: a staple and a pin with a looped end which attaches with the looped end of the staple. Each element is driven into the wooden objects needing joining. Two of the specimens from Fort Meigs differ from the above description in that each consists of two joined staples. The third specimen consists of only a single staple. Stone (1974:193) describes these as furniture hinges.

Series B Structural Hinges

Two different hinge forms are represented within this category from Fort Meigs.

Type 1 Leaf hinge
Plate 12 c,d

Leaf hinges consist of three elements: two iron elements and a pin which passes between and joins the two interlocking elements. One element is attached to a stationary object and the other to a movable object. Two varieties are distinguished within the sample.

Variety a Brass
1 Specimen
Not illustrated

The incomplete example consists of a single tapering brass element with its maximum width at the point of element junction. Four nail or screw holes have been punched into the element for attachment. The hinge is 10 cm in length with a maximum width of 3.3 cm.

Variety b Wrought iron
Specimens 1 and 2

These are represented by a single tapered hinge element. These resemble variety a except for the number of nail holes: variety b has only two attachment holes. Hinge length is 6 cm with a maximum width of 2.4 cm.
Specimen 3

The single example consists of one tapering element and one angled expanding element. The angle in the expanding element appears to allow for the offset for the joining of the wooden object to the hinge. The tapering element contains three attachment holes, two of which still contain screws.

Type 2 Pintle hinge
Plate 12 e

This hinge consists of two separate elements which work in conjunction with one another. One part is a long metal hinge element with a loop at one end; and the other is the pintle, a solid piece of iron bent into the shape of a "L." One end of the pintle consists of a tapered iron shank which is driven into a stationary wooden object or attached by means of screws or nails. The other part consists of a round iron post or pin which serves to mount the strap hinge, which is attached to a movable object. Only the hinge element is represented.

Specimen 1

The strap element has a rounded distal end (the end away from the loop) and a tapering proximal end. Three holes have been punched through the hinge for attachment. Hinge length is 23.7 cm with a maximum width of 3.1 cm.

Ice Chopper

This large, iron chisel-like tool (Plate 13) was used to chop holes through ice. A wooden handle was probably attached to the ratil stem. Stone (1974:306) illustrates a similar specimen found at Fort Michilimackinac. Total length of the chisel is 19.8 cm. Maximum blade widths is 1.9 cm.
Insignia

Two pewter cockade eagles were recovered from Fort Meigs. Both were retrieved from feature 19. Cockades were a piece of tooled leather resembling a sun burst. Small pewter eagles were placed in the center of the cockade and the leather ornament attached to the hat. Dunnigan (1975:10) illustrates (Figures 57 and 58) two types of cockage eagles found at Fort Mackinac which were worn by artillerymen.

Type 1
Plate 14 a
1 Specimen
Height 2.1 cm

This example is missing its head. It differs from type 1 because it has two wings. The right foot of the eagle is grasping a cluster of arrows and leaves.

Type 2
Plate 14 b
1 Specimen
Height 2.5 cm

This example has a tree or plant limb in the place of its left wing, with its right foot grasping a cluster of arrows.

Kettles

Body Fragments

Fourteen fragments of iron kettles (Plate 15 a,b) and the lug from a brass kettle have been found at Fort Meigs. One of the fragments is a kettle leg (not illustrated) with part of the vessel attached. The leg is 14 cm long, tapering from a diameter of 3 cm at its junction with the kettle to a diameter of 1.5 cm at the end of the leg.
PLATE 13. ICE CHOPPER

PLATE 14. INSIGNIA
Iron Handles

Besides the kettle fragments, three iron handles (one is a fragment) were recovered. The handles (Plate 15 c) are made from iron rod and have the ends bent up to insure attachment. Two sizes are represented by the complete specimens: one is 33 cm wide by 23 cm tall, and the smaller handle measures 22.5 cm wide by 17 cm tall.

Iron Hooks

Two S-shaped hooks (Plate 15 d) are also represented. Both hooks are made from round iron rod. One hook measures 24.5 cm in length and has the ends bent back, suggesting it may have been a kettle handle at one time. The other hook measures 11.5 cm in length.

Knives

Knives, one blade and two handles have been recovered at Fort Meigs between 1972-1978. These are divided into types on the basis of handle and blade form, and the presence/absence of a hinge between the blade and the handle. Variety is distinguished on the basis of handle attachment.

Type 1  No hinge between handle and blade
Plate 16 a,b

These knives consist of a single piece of iron which forms both the knife blade and handle.
PLATE 15. IRON KETTLE PARTS

A-B  Kettle Parts
C    Handle
D    Hook

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PLATE 16. KNIVES
Variety a Flat handle shaft; no rivets
1 Specimen

The metal handle is narrower than the blade and has been forced into an antler handle. The handle was prepared for the knife shaft by cutting a slot into one end. The opposite end carries traces of its connection with a deer skull (see Figure 11). The sawed end of the handle has been bevelled around the edge. The blade has been broken off about two inches (5.5 cm) from the handle. In its complete form, the blade would have a straight back to the tip of the point, with the cutting edge of the blade sloping up to meet it. The blade fragment measures 3.4 cm wide and .7 cm thick at the back. Cleland (1971) refers to these knives as sheath knives.

Variety b Flat handle; riveted shank
1 Specimen

The incomplete specimen consists of two polished bone plates, a metal shank, and a round bolster (see Figure 6b). The bone plates are attached to the handle by two rivets. Length of the handle is 9.3 cm. A small oval metal cap is on the end of the handle. The specimen resembles Stone's (1974:269-271) Class II, Series B, Type 5 and 6 variety knives. Stone refers to these as case knives.

Type 2 Hinge between blade and handle
Figure 12

These knives (one consists of only a blade) consist of a separate blade element, which is attached to a bone or metal plated handle by an iron pin. The handle consists of a spring, the handle plates, and the bolster. Blades are offset from the handle spring allowing the blade to close upon or clasp the handle.

Specimen 1
Not illustrated
Blade length 9.4 cm

Consists of only the blade. The blade has a straight cutting edge with the blade back sloping down to meet the point. Cleland (1971) refers to this blade shape as hawk-bill blades.
Figure 12. Clasp Knife

Specimen 2
Length 10.5 cm

Consists of a complete clasp knife. The bone handle plates have a slight roundness at one end. These are attached to the handle by 3 iron pins. The handle consists of the plates, spring and iron bolster. The hinge end of the blade is notched at its attachment with the handle.

Lead Shot

A total of 30 musket and rifle shot have been recovered from Fort Meigs (Plate 17 a-f). The frequency of shot by caliber is given in Table 4. The largest concentration of lead shot (n=20) was retrieved from feature 19. Some of these (n=5) still have the spur or remnants of it untrimmed. Others have been cut (n=5), fired from a gun (n=2), distorted from chewing (n=1), and intentionally flattened (n=1).

Over half of the lead shot (n=21) are .58 caliber (58 hundredths of an inch in diameter) or larger. These could have been
fired in a .69 caliber musket which was the standard arm issued for American infantry forces. The difference between the bore of the gun and the caliber of the shot is called windage. This was designed to allow easy and rapid loading of muskets and allows room for the residue left inside the barrel from the black powder. Rifle balls on the other hand were designed to fit somewhat tighter in order to take the rifling in the barrel (Peterson 1968:60).

Three lead shot vary between .49-.52 caliber. These were probably used in a .54 caliber gun. The standard arm of the riflemen in 1813 was a half stock rifle with a .54 caliber bore. Rifled guns were far more accurate than the larger muskets because of the rifled barrel.

Shot smaller than .48 caliber and between .54 to .57 caliber were probably used in personal rifles or fowling pieces. Shot of this size may also have been used in pistols.

A large number of buckshot (n=81) has been recovered (Plate 17 g,h). Over 98% of these (n=79) were recovered from feature 19. Lewis (1956:123) illustrates cartridges containing two or three musket balls. In a letter sent to Governor Meigs on February 14, 1813, General Gano informs the governor:

"... making of buckshot, some cartridges have 9 and some 12 buckshot each" (Gano Papers, Part 3, p. 50).

Some of the buckshot (n=34) still retain part of the casting spur, suggesting buckshot were also made at the fort. Many of the shot from feature 19 were found in association with concentrations of ash and charcoal. This suggests that the shot were either swept into
or dropped in a fireplace while making lead shot, the firebox cleaned, and the contents dumped. The buckshot vary in caliber from .268-.320, with two definable clusters: .287-.292 and .297-.306.

Table 4
Frequency of Lead Shot by Caliber

<table>
<thead>
<tr>
<th>Caliber</th>
<th>Quantity</th>
<th>Caliber</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
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<td>63</td>
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</tr>
<tr>
<td>49</td>
<td>1</td>
<td>33</td>
<td>1</td>
</tr>
</tbody>
</table>

Lead Wastes and Lead Artifacts

Sixteen pieces of lead waste and cut lead fragments represent evidence for the manufacturing of lead shot at Fort Meigs (Plate 17 i-k). Many of the musket, rifle and buckshot still retain parts of their casting spur. The largest amount (n=12) was found in feature 19, which is where the largest number of shot was also found. One
large piece of waste has a partial rifle ball attached to it. No evidence of lead spure from a gang mold has been found. In all probability, most of the waste was remelted after the shot was detached.

Seven other pieces of lead having evidence of either cut marks (n=6) or teeth marks (n=1) were found. The example with the teeth marks (Plate 17 l) is a large disc shaped piece of lead which is not a flatten musket shot. Rather, this artifact was intentionally made and possibly used during medical treatment of wounds or during surgery. The disc had anterior teeth marks around the edge suggesting it was placed entirely within the mouth.

Three lead gunflint pads (Plate 17 m) have also been found. These are scraps of lead which were folded over gunflints to hold them in the jaws of a musket or rifle cock. Hanson and Hsu (1975:76) illustrate similar lead pads recovered from Fort Stanwix.

The final lead artifact is a rolled strip of lead. Whether this served a specific function is uncertain at this time.

Mortar and Cannon Shot

This category consists of two groups of iron projectiles: those fired from a mortar and howitzer, and those fired from a cannon. Thirteen iron artifacts (not illustrated) identified as fragments of mortar shells have been found through excavation at Fort Meigs. All of these probably represent fragments of British mortar shot fired into the fort. Cushing mentions in his diary that the British were using 24, 12, and 6 pound cannon, 8 inch mortars, and a single 5 inch howitzer to shell the fort (Lindley 1975:116-117).
PLATE 17. LEAD SHOT, LEAD ARTIFACTS AND LEAD WASTE

<table>
<thead>
<tr>
<th>Artifact Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Musket Shot</td>
</tr>
<tr>
<td>B</td>
<td>Rifle Shot</td>
</tr>
<tr>
<td>C</td>
<td>Musket Shot</td>
</tr>
<tr>
<td>D</td>
<td>Spent Rifle Shot</td>
</tr>
<tr>
<td>E</td>
<td>Chewed Rifle Shot</td>
</tr>
<tr>
<td>F</td>
<td>Flattened Rifle Shot</td>
</tr>
<tr>
<td>G-H</td>
<td>Buckshot</td>
</tr>
<tr>
<td>I-K</td>
<td>Lead Waste</td>
</tr>
<tr>
<td>L</td>
<td>Lead Bite Plat</td>
</tr>
<tr>
<td>M</td>
<td>Lead Gunflint Pad</td>
</tr>
</tbody>
</table>

PLATE 18. CANNON BALL
The distribution of mortar fragments tends to cluster in three areas, but this pattern perhaps is more a product of selective excavation than an actual indicator of the distribution of mortar shot. This interpretation seems valid considering that excavation centered on recovering structural remains (i.e., the magazines and the well). The destruction of these targets would have been a primary objective for the British in addition to shelling the entire fort to demoralize Harrison's army. It seems that it was customary to pickup mortar and cannon shot fragments after a battle (Michael Morell, personal communication). Solid cannon shot, however, were collected and reused if they would fit the cannon being used.

Two types of cannon shot have been recovered: cannister shot and solid cannon shot. Cannister refers to the method in which the shot were fixed for loading into a cannon: a number of iron balls packed into a metal can. Three cannister shot have been found to date. These vary in diameter from 1.7-2.15 cm.

Only two cannon balls have been recovered archaeologically. The only complete specimen (Plate 23) is a solid shot found in feature 19. It measures 6.3 cm (2.48 inches) in diameter and is probably from a 3 pound cannon. The other specimen is also a solid shot measuring 9 cm (3.60 inches) in diameter and is possibly from a British 6 pound cannon. About half of this cannon ball is missing.

Nails

A total of 1657 complete and partial nails were recovered between 1972-1978. About 66.5% of these (n=1103) were recovered from
feature 19. Many of the nails were heavily corroded rendering identification difficult.

Using guidelines proposed by Nelson (1968), the nail sample was separated into types on the basis of nail morphology. When machine cut nails are too corroded to allow finer classification, these are placed in a miscellaneous category called cut nails.

The following nail types are represented in the sample from Fort Meigs, and are keyed to Plate 19. Nail description and temporal data are taken from Nelson (1968).

**Hand-Wrought Nails** (Plate 19 a,b). These nails are characterized by hand-made heads and hand cut shanks which taper on four sides. Hand-wrought nails were used extensively during the 17th and 18th centuries. Quantity: 141.

**Machine Cut-Hand Headed** (not represented). These nails have a machine cut shank and a hand applied head. Shanks of these nails taper on two sides only. These were first developed during the 1780's and used until the 1820's.

**Cut Brad Nails** (Plate 19 c). These are completely machine made and are often called L-headed nails. They were first made by machines in the 1790's and used through the 19th century. Quantity: 14

**Early Machine-Headed Nails** (Plate 19 d,e). These nails usually have irregular heads and a waisted shank beneath the head; produced from about 1815 to 1830's. Quantity: 407.

**Modern Machine Cut Nails** (Plate 19 f). Uniform machine cut nails. These have a flat rectangular head; perfected in the 1830's. Quantity: 91.

**Wire Nails** (not illustrated). Nails made from steel wire date from the 1850's, but became the dominant type made after the 1890's. Quantity: 23.

Additional nail categories recognized in this analysis are hand-wrought spikes (n=8; see Plate 19 g,h), horseshoe nails (n=22),
PLATE 19. NAILS

A-B  Hand Wrought
C  Cut Brad
D-E  Machine Cut-headed
F  Modern Machine Cut
G-H  Hand Wrought Spikes

PLATE 20. BRASS PENDANTS
T-headed nails (n=120), and cut shanks (n=144). The category of cut nails contains 615 specimens. An additional 74 nail fragments could not be identified due to excessive corrosion.

Pendants

A single brass pendant (Plate 20 a) was found in feature 19. The pendant has been cut from a thin sheet of brass. A .1 cm hole was drilled in one end, possibly for attachment. The pendant measures 4.3 cm in length.

Three other pieces of cut sheet brass (Plate 20 b) may also have served as pendants. Each has a small hole drilled through it.

Pipes

Five clay pipe fragments have been found to date. Four of these consist of unmarked kaolin pipe stems. These range in diameter from .25-.6 cm. The largest stem fragment measures 3.5 cm in length.

The fifth fragment consists of a brown glazed earthenware pipe bowl. It is uncertain whether the pipe was fluted. The rim of the bowl has a slight flare.

Rivets

A total of five rivets have been found at Fort Meigs. These are divided into types on the basis of material of manufacture.

Type 1 Iron
Plate 21 a
4 Specimens
Length range 3.3-7 cm
Rod diameter .6 cm
These specimens are made from round rods and have a circular head welded to the shank. A rove or washer was fitted over the end and then the end blunted. Hanson and Hsu (1975:55) indicate roves were added to the end of a rivet when the objects to be joined were wood or another soft material. The roves are larger than the rivet heads on all examples. Rivets were generally made to order in many sizes rather than in set lengths and widths.

Type 2 Brass
Plate 21 b
1 Specimen

The rivet consists of a square head and a short shaft or stem. The shaft end has been flattened, suggesting that it was once secured to another object.

Screws and Washers

A total of six bolts or screws were found at Fort Meigs (Plate 21 e-f). All have flat heads and are round in cross-section but differ in length, width and the number of threads. The screws vary in length from 2-5.4 cm and range in diameter from .5-1.5 cm.

Two flat washers were also found (Plate 21 c,d). One consists of a circular brass fragment measuring 3.5 cm in diameter and .4 cm in thickness. The other is rectangular in shape and made from iron. This washer measures 2.8 cm by 2.5 cm in size and is .6 cm thick.

Staples

Four staples of various sizes have been found (Plate 21 g,h). All are made from square iron stock, possibly nail rod. All have a rounded outline rather than a square one. The staples vary in length from 1.7-4 cm.
PLATE 21. RIVETS, WASHERS, SCREWS, AND STAPLES

A-B Rivets
C-D Washers
E-F Screws
G-H Staples
Scabbard Clips

A total of seven brass scabbard clips were found at Fort Meigs. These hooks were used to attach bayonet scabbards to either a cloth or leather shoulder belt. The hooks were attached to the scabbard by two rivets and a small metal back plate. Corroded back plates were found on two specimens.

Scabbard clips resembling type 2 clips at Fort Meigs have been found at Fort Stanwix, 1758-1781 (Hanson and Hsu 1975:69) and at Fort Ligonier, 1758-1766 (Grimm 1970:127). This was the most common type of scabbard clip recovered at both forts.

The two types of clips are distinguished on the basis of rivet attachment to the clip.

Type 1 Rivets attached to the body
Plate 22 a-c
5 Specimens
Length range 4.4-5.1 cm

The body of type 1 specimens consists of angles which allows easier attachment to the scabbard belt. The body is straight and flat in cross-section. One example still retains part of the metal back plate. Metal salts have preserved the leather between the clip body and the back plate.

Type 2 Rivet attachment connected to clip by a waist
Plate 22 d,e
2 Specimens
Length 4.5 cm

Type 2 clips are more ornamental than type 1 clips. The rivets are part of an oval attachment which is connected to the body by means of a waist or neck. The body is lense shaped in cross-section and curved. One example also has part of the back plate still attached.
PLATE 22. SCABBARD CLIPS

Figure Designation  Taxonomic Designation
A-C  T1
D-E  T2

PLATE 23. SCABBARD TIPS

Artifact Designation  Taxonomic Designation
A  GA, T1
B-C  GB, T1, Va
D-E  Vb
F  T2
Scabbard Tips

Scabbard tips were secured to the end of the leather scabbard so the bayonet would ride against it when not mounted on the gun. Nine scabbard tips have been recovered archaeologically. Six of the specimens have a "V" cross-section to fit the end of a triangular shaped bayonet. All examples were cast in molds.

Two of the tips slightly resemble Type 2, Variety C scabbard tips from Fort Stanwick (Hanson and Hsu 1975:69, 71). The two main differences are (1) the distance between the post and the finial at the end, and (2) the length of the post element.

Three taxonomic levels are distinguished within the sample: Group, refers to the number of parts; Type, refers to the material of manufacture; and Variety, refers to treatment of the end of the post element.

Group A Two part construction
Type 1 Cast iron finial; brzed iron post
Plate 23 a
1 Specimen
Length 3.2 cm

This example is badly corroded and has been crushed. The top consists of two pieces: a short solid post with a finial at the end, and an iron body made from a piece of thin iron crimped around the post next to the finial. The length of the post is unknown.

Group B One piece construction
Type 1 Cast brass
Plate 23 b-e
Variety a Flat post end
2 Specimens
Length range 2.4-2.65 cm

Both tips are shorter in length than variety b tips. Each is identical in construction technique but the shape of the finial indicates each was made in a different mold. The ring between the finial and the post is triangular in shape.
Variety b Scooped post end
3 Specimens
Length range 3.2-3.7 cm

All specimens have a spatulated post end opposite the finial. What functional value this characteristic confers is uncertain. Variation in the shape of the finial suggests each tip was made in a different mold.

Spur

A single metal spur was recovered in 1972 (Figure 13). The spur still retains its buckle and rowl. This was probably discarded by either a draggon or a mounted rifleman. The spur measures 12.5 cm in length and 11.5 cm in width at its widest point.
Stock Clasps

Metal stock clasps were used to adjust and connect the ends of a still piece of leather which circled the neck beneath the collar. Two types of clasps are discernable on the basis of material of manufacture and the method of attachment.

Type 1 Brass
Plate 24 a,c
Variety a Cut sheet brass with drilled holes
1 Specimen
Not illustrated
Length 5.2 cm
Width 2 cm
Thickness .5 cm

The clasp is rectangular in shape with a series of six holes along the top edge and a flange on the bottom.

Specimen 2
Length
Width 3.2 cm
Thickness .5 cm

The fragment is rectangular in shape with holes for attachment.

Variety c Cut brass with rivets
1 Specimen
Length 5.65 cm
Width 1.6-2.2 cm
Thickness .5 cm

The clasp is trapozoidal in shape with three small slots cut into the body. Two rivets on the back are used for attachment.

Type 2 Cut iron
Plate 24 b
1 Specimen
Length 4 cm
Width 2.8 cm
Thickness .5 cm

The specimen has a cut slot and flange attachment.
PLATE 24. STOCK CLASPS

<table>
<thead>
<tr>
<th>Figure Designation</th>
<th>Taxonomic Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>T1, Va</td>
</tr>
<tr>
<td>B</td>
<td>T2</td>
</tr>
<tr>
<td>C</td>
<td>T1, Vc</td>
</tr>
</tbody>
</table>

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Type 2 Rolled brass sheath
Plate 23 f
3 Specimens
Length range 5.3-7.9 cm

These specimens are made from thin brass sheeting which has been folded into a triangular shaped tube. The end has been bent inward to form a flat surface. The seams have not been brazed shut. The other end has rounded edges.

Sword Blade

A single fragment of a sword blade (Plate 25) was found in feature 19. The length of the fragment is 5.9 cm. The width and thickness of the back of the blade are 2.7 and .4 cm, respectively.

Trunk Handle

A single one piece pewter trunk handle (Figure 14) has been recovered. Two iron pintles are still attached to the handle. Length of the handle is 10.3 cm.

Figure 14. Trunk Handle
PLATE 25. SWORD BLADE

PLATE 26. TACKS

A Brass
B Iron
Tacks

A number of tacks have been found which represent two types on the basis of material of manufacture.

Type 1: Cast brass
Plate 26 a,b
10 Specimens
Length range (four specimens) 1.6-1.9 cm
Head diameter range .9-1.15 cm; average diameter is 1.03 cm

These tacks have convex heads which are welded to square and rounded shanks. Tacks resembling these are used as upholstery tacks and for decorating tomahawks and trunks.

Miscellaneous Artifacts

Assigned to this category are an array of artifacts which were not described in the main text. They are included in this section as they warrant at least brief mention.

Bone Cube

A single unmarked bone cube was found in feature 19 (Plate 27 a). Dimensions of the cube are 1.1 cm by .8 cm.

Brass Band

A single oval brass band was recovered (Plate 27 b). The band was cast in one (?) piece. Dimensions for the band are 2.6 cm in length by .9 cm in height.

Gimlet

A fragment of a possible gimlet was found in feature 19.
Gimlets are small hand tools used for boring holes in wood (Stone 1974:298).

Grommet

A single iron grommet was found (Plate 27 d). This is probably an eyelet from a shoe. Diameter of the eyelet is 1.6 cm.

Lead Pencil

A single fragment of a lead pencil was found (Plate 27 e). The fragment measures 2.35 cm in length.

Unidentified Lead Artifact

This peculiar lead artifact was recovered from feature 19 (Plate 27 f). It measures 3.5 cm in height by 3.2 cm in width.

Pewter Handle

A metal handle representing either a fork or a spoon was recovered from feature 19 (Plate 27 g). The handle measures 7.3 cm in length and .1 cm in thickness.

Pick and Brush Chain (?)

This artifact may represent a pick and brush chain (Plate 27 h). A pick and brush were essential tools which were used to keep the vent hole and flash pan clean of gunpowder residue. These tools were normally connected together by a chain which was attached to a coat button.
PLATE 27. MISCELLANEOUS ARTIFACTS

A Bone Cube
B Oval Brass Band
C Gimlet (?)
D Iron Grimmet
E Lead Pencil
F Unidentified Lead Artifact
G Pewter Handle
H Pick and Brush Chain (?)
CHAPTER V

DATA QUANTIFICATION AND ANALYSIS

In this section the artifacts from Fort Meigs are analyzed using simple quantification techniques suggested by South (1977a). These techniques are applicable to both intrasite and intersite analysis of artifact variability in order to measure cultural variability or stability. The key to understanding and interpreting past human behavior and cultural dynamics is the quantitative recognition of artifact patterning (regularities) within the archaeological record (South 1977a:31-32).

The primary objectives addressed in this section are (1) calculating the mean temporal date for the ceramic sample from Fort Meigs using South's mean ceramic date formula, and comparing the computed date to the historically known median date for the military phase of the site's history; (2) testing the temporal stability of artifact patterns defined at 18th century Euro-American sites using the frequency percentage of artifact categories from Fort Meigs; and (3) an empirical analysis of refuse disposal at the fort. This last objective considers the types of cultural formation processes (Schiffer and Rathje 1973; Schiffer 1972, 1976; South 1974a, 1977b) in operation at Fort Meigs during the military phase of the site's history.
Ceramics

In a series of articles South (1972, 1974a, 1977a) has demonstrated the interpretative usefulness of the mean date ceramic formula for determining the mean date for an historic site, structural component, or a feature using historical European ceramics having known manufacturing dates. The formula date usually approximates the known median historic date for the site, component or feature within ± 4.56 years (South 1977a:218).

Analysis of intersite frequency of ceramic types from 18th century Euro-American sites led South to the realization that historic ceramics from a variety of site types from the same temporal period permitted the use of ceramic variability to determine periods of site occupation over broad spatial areas (South 1977a:202-203). This phenomenon may best be equated with the horizon concept (South 1977a:203). Characteristics of this phenomenon—a rapid spread of an artifact type, motif, etc., over broad spatial areas within a short period of time—have been discussed at length by Willey and Phillips (1958).

Expanding upon these observations, South proposed the mean ceramic date formula, which is based on the principles used in computing arithmetic means. Basic to the mean date statistic is the presence/absence of data sets (ceramic types) and their relative frequency.
The formula is expressed:

$$Y = \frac{\sum_{i=1}^{n} X_i \cdot F_i}{\sum_{i=1}^{n} F_i}$$

Where

- $X_i$ = the median manufacturing date for each ceramic type
- $F_i$ = the frequency of each ceramic type (sherd count rather than vessel count)
- $n$ = the number of ceramic types in the sample
- $Y$ = the mean ceramic date for a specific set of ceramic types

Sample size is a critical consideration in quantitative and statistical analysis. Since the ceramic sample from Fort Meigs is small, dates computed with the formula may not fall within the $\pm 4.56$ year deviation from the median occupation date. The ceramic data for computing the formula (the ceramic type description, the datable range for each ceramic type, the median date and the ceramic type identification number) are taken from South (1977a:210-212).

The ceramic types in Table 5 are associated with features 1 and 19 from the second Fort. The early date can be explained as the result of no ceramic type having a median manufacturing date later than 1805. A higher frequency of pearlware sherds would raise the date, but not beyond 1805. If just the pearlware sherds are used in the formula, the date is $Y = 1805$, which is still beyond the $\pm 4.56$ deviation.

A number of pearlware and creamware types listed for this temporal period by South (1979a; Noel Hume 1970) were not found in...
Table 5
South's Ceramic Formula Using Types from 1972 and 1978 Excavations

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Ceramic Type</th>
<th>Type Median (Xi)</th>
<th>Sherd Count (Fi)</th>
<th>Product uct</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Transfer Print Creamware</td>
<td>1790</td>
<td>12</td>
<td>21480</td>
</tr>
<tr>
<td>20</td>
<td>Undercoated Pearlware</td>
<td>1805</td>
<td>8</td>
<td>14440</td>
</tr>
<tr>
<td>12</td>
<td>Underglaze Polychrome</td>
<td>1805</td>
<td>8</td>
<td>14440</td>
</tr>
</tbody>
</table>

\[ Y = \frac{50360}{28} = 1798.57 \]

Cultural deposits of features resulting from the construction and occupation of the second Fort. These are: plain creamware (1762-1820), lighter yellow creamware (1775-1820), annular creamware (1780-1815), finger-painted creamware (1790-1820), molded relief edge decorated pearlware (188-1820), Willow transfer print pearlware (1795-1840), transfer print pearlware (1795-1840), annular pearlware (1790-1820), underglaze blue hand painted pearlware (1780-1820), and blue and green edged pearlware (1780-1830).

Table 6 lists the frequency of ceramic types found at Fort Meigs between 1972-1978. The ironstone and blue transfer print pearlware sherds were not described in the ceramic section of Chapter 3 because the remaining sherds from the 1973-1976 field seasons were not available for analysis. The transfer print pearlware sherds (n=10) were found in the borrow pit along the south side of the Grand Traverse. The ironstone sherds were recovered from a shallow feature while trenching for the location of the south palisade wall near the site of a once extant 19th century house.
Table 6

Formula Using Ceramic Types Found at Meigs

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Ceramic Type</th>
<th>Type Median (Xi)</th>
<th>Sherd Count (Fi)</th>
<th>Product</th>
</tr>
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<td>23</td>
<td>Transfer Print Creamware</td>
<td>1790</td>
<td>12</td>
<td>21,480</td>
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<td>20</td>
<td>Undercoated Pearlware</td>
<td>1805</td>
<td>9</td>
<td>16,245</td>
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<tr>
<td>12</td>
<td>Underglaze Polychrome</td>
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<td>9</td>
<td>16,245</td>
</tr>
<tr>
<td>11</td>
<td>Transfer Print Pearlware</td>
<td>1818</td>
<td>10</td>
<td>18,180</td>
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<tr>
<td>13</td>
<td>Ironstone</td>
<td>1857</td>
<td>60</td>
<td>111,420</td>
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</tbody>
</table>

\[ Y = \frac{183,570}{100} = 1835.7 \]

The formula in Table 6 computes a mean ceramic date of 1835.7. The lateness of the date is the result of including the ironstone sherds, which have a median manufacturing date of 1857. If the ironstone sherds (n=60) are subtracted from the frequency column, the resulting date is 1803.75. Subtracting both the creamware (n=12) and ironstone sherds computes a date of 1809.8. This date is still beyond the \( \pm 4.56 \) year deviation.

The absence of the ceramic types mentioned earlier (except for the transfer print pearlware) may reflect the selectiveness of excavation strategies undertaken between 1972-1977. The absence of these types may also be due to the preference or biases of one ceramic type over another by those individuals who bought ceramics at Fort Meigs. Ceramic preference would depend upon the availability of ceramic types at distribution centers along the Ohio River and settlements along its primary tributaries in Ohio.
Most of the creamware and pearlware types not represented at Fort Meigs have been found in a feature at the nearby Strzesynski site. Analysis of these ceramics by Tucker (1978) suggests a 1825-1847 bracketing date for the ceramic types found. No ironstone is reported by Tucker. This site is part of a larger early 19th century town site called Port Orleans-of-the-North, which was located on the flood plain beneath the fort ca. 1818-1833. The ceramic types described by Tucker indicate that these types were available to residents at Port Orleans, and were perhaps also available to the individuals having ceramics at Fort Meigs (1813-1815). The apparent difference in ceramic types between the sites may be due to functional differences, i.e., Fort Meigs was a short term military post, whereas Port Orleans was a river-oriented settlement.

South (1977a:219) has suggested that quantification by ceramic type and form may provide more sensitive indicators for dating, and may delineate cultural differences not readily apparent using only ceramic sherds, i.e., dietary differences and socioeconomic/status differences. The results of this suggestion are presented in Tables 7-9.

Table 7
The Formula Using Vessel Counts

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Ceramic Type</th>
<th>Type Median (X_i)</th>
<th>Vessel Count (F_i)</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Transfer Print Creamware</td>
<td>1790</td>
<td>1</td>
<td>1,790</td>
</tr>
<tr>
<td>11</td>
<td>Transfer Print Pearlware</td>
<td>1818</td>
<td>2</td>
<td>3,636</td>
</tr>
<tr>
<td>12</td>
<td>Underglaze Polychrome Pearlware</td>
<td>7</td>
<td>12,635</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>18,061</td>
</tr>
</tbody>
</table>

\[ Y = \frac{18,061}{10} = 1806.1 \]

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Table 8
The Formula Using Frequency of Vessel Form by Ceramic Type (Plates and Bowls)

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Ceramic Type</th>
<th>Type Median (Xi)</th>
<th>Vessel Count (Fi)</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Transfer Print Pearlware</td>
<td>1818</td>
<td>2</td>
<td>3,636</td>
</tr>
<tr>
<td>12</td>
<td>Underglaze Polychrome Pearlware</td>
<td>1805</td>
<td>5</td>
<td>9,025</td>
</tr>
</tbody>
</table>

\[ Y = \frac{12,661}{7} = 1808.7 \]

Table 9
The Formula Using Frequency of Vessel Form by Ceramic Type (Cups)

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Ceramic Type</th>
<th>Type Median (Xi)</th>
<th>Vessel Count (Fi)</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Transfer Print Creamware</td>
<td>1790</td>
<td>1</td>
<td>1,790</td>
</tr>
<tr>
<td>12</td>
<td>Underglaze Polychrome Pearlware</td>
<td>1805</td>
<td>2</td>
<td>3,610</td>
</tr>
</tbody>
</table>

\[ Y = \frac{5,400}{3} = 1800.0 \]

Breakage of ceramic vessels occurs on any historic or contemporary site. The frequency of use of ceramic categories probably accounts for the different percentages of ceramic categories, as inferred from broken vessels.

This assumption has been developed into a series of testable hypotheses using ceramic, historical and faunal data. Otto (1975, 1977) has statistically tested the socioeconomic and dietary contrasts.
between planters, overseers and slaves using ceramic (ceramic types and vessel forms) and faunal data from a 19th century coastal plantation site in Georgia, and concludes that ceramic type and vessel form reflect status and dietary habits. Similar conclusions have also been proposed for explaining the existence and distribution of ceramic categories at Revolutionary War Fort Watson (Ferguson 1977) and Civil War Fort Johnson (South and Widner 1977).

Interpretations resulting from these studies are based on sociocultural assumptions about economic status and behavior and historical data. Peterson (1968) for instance, has discussed the cheap utility cutlery and mess utensils of the common soldier and the expensive personal belongings of officers during the Revolutionary War.

Data from these studies hold potential for interpretation of the ceramic data from Fort Meigs. These data suggest that the differential usage and distribution of ceramic categories and vessel forms, if they exist, are culturally determined rather than functionally determined (Griffiths 1978). Hence, the existence of fine and coarse earthenware at a frontier military post would suggest that the fine earthenware was used in a social context other than as every day table ware. This hypothesis, however, is not supported by the apparent percentage difference between fine earthenware (62% of all vessels, where n=8) and utility ware vessels (38% of all vessels, where n=5) recovered in 1972, 1977-1978.

Two alternative hypotheses may account for the observed differences: (1) that the fine earthenware vessels were used as everyday
table service, and the coarse earthenware vessels were used for storage and food preparation, or (2) the fine earthenware plates were used for roasted foods, and the coarse earthenware vessels (which are all bowls) were used for the consumption of stews and soups.

A question which has not been adequately addressed is whether all officers (both regular army and militia) at American frontier forts owned their own ceramics. While not resolving this question, data from Fort Meigs may contribute towards its explication.

It is known that General Harrison owned a creamware coffee or tea set while at Fort Meigs, yet it is uncertain whether members of his staff or other senior army officers and militia officers owned ceramics. Further, it is uncertain whether junior officers owned their own earthenware plates, bowls, and cups. Sussman (1978) has demonstrated with historical data that British army officers attempted to keep pace with the changing ceramic types, and were often given an allowance to purchase ceramics for themselves. However, some junior officers settled for cheaper fine earthenwares than those purchased by their superiors. After 1794, table services were collectively purchased for the regimental mess (1978:94-95). Excavation at the Custer Road Dump Site by Brose (1967) has demonstrated that ceramics were collectively purchased by the U. S. Quartermaster’s Office for the regimental mess at Fort Mackinac and other military forts, but this was in a post-1820 context.

The relative absence of finely decorated pearlware and creamware types in feature 19 may be due to the fact that militia occupied the second Fort until its abandonment in 1815. Consequently, senior militia officers most likely owned the ceramic vessels represented in
midden at Fort Meigs. Junior officers and noncommissioned officers probably used cheap wooden, tin or pewter plates, cups and cutlery as did the enlisted man (Mike Morel!, personal communication).

Brian Dunnigan (personal communication) has collected transcripts listing the personal effects of officers and enlisted men who died during the War of 1812 in the field or at western posts. Mr. Dunnigan supplied three transcripts which are given below:

"Inventory of the effects of Captain Asahel Nearing deceased, of 19th Regiment Unites States Infantry, who died at Fort Meigs Sept 10th, 1813.--

1 silk sash 1 vest
1 pair pocket pistols 1 puuer velvet hat ribbon
1 coat 1 coat
6 shirts 2 oil cloths for a hat
1 full dress coat 1 pen knife
4 pair pantaloons 1 cravat
1 pair socks 1 comb
1 Epaulette 1 flannel coat
2 pair socks 1 bible
1 waistcoat 1 pen knife
1 towel 1 sword-silver hilt
1 shirt 2 umbrellas-cotton
1 handerchief, neck 1 pair shoe brushes
2 silk Ban handkerchiefs 1 pair shoes
1 velvet vest 1 small bag of black pepper
Smith's Infantry Rules and Articles of War 1 trunk
1 silver cord and tassel 1 riding whip
1 pair leather gloves 1 portable writing desk
1 silver watch 2 nut-megs
1 hat 1 dirk silver mounted
2 pair boots 1 razor strap and soap box
2 silk B an handkerchiefs 3 old pocket books

The inventory of Captain Nearing contains many items not mentioned in the inventories of the other deceased individuals. However, there is no mention of ceramics or eating utensils in Nearing's inventory. Since these inventories were rather thorough, the absence
of these items suggests Captain Nearing did not own them.

"An Inventory of the Effects of the late John King a private soldier of Captain Eli B. Clemsons Company of the first United States Regiment of Infantry Deceased at Fort Osage, 11th November 1810"

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hat complete</td>
<td>1 frocks</td>
</tr>
<tr>
<td>1 coat</td>
<td>2 trowsers</td>
</tr>
<tr>
<td>1 vest</td>
<td>2 gaiters</td>
</tr>
<tr>
<td>1 woolen overalls</td>
<td>1 linen jacket</td>
</tr>
<tr>
<td>2 linen overalls</td>
<td>1 knapsack</td>
</tr>
<tr>
<td>1 shirt</td>
<td>1 handerchief</td>
</tr>
<tr>
<td>1 stock and clasp</td>
<td>2 shoe brushes</td>
</tr>
<tr>
<td>1 pair shoes</td>
<td>1 cloth brush</td>
</tr>
<tr>
<td>1 half stockings</td>
<td>1 knife and fork</td>
</tr>
<tr>
<td>1 socks</td>
<td>2 books</td>
</tr>
<tr>
<td>1 blanket</td>
<td>2 pamphlets</td>
</tr>
</tbody>
</table>

"Inventory of the Clothing and effects of Johnston D. Hall, Deceased the 13th August 1810, 7 Infantry"

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 coat</td>
<td>1 pint bottle</td>
</tr>
<tr>
<td>1 knapsack</td>
<td>1 tin cup</td>
</tr>
<tr>
<td>2 woolen pantaloons</td>
<td>1 spoon</td>
</tr>
<tr>
<td>2 woolen vests</td>
<td>1 vest</td>
</tr>
<tr>
<td>3 pair of stockings</td>
<td>1 bag of sugar</td>
</tr>
<tr>
<td>1 pair of stockings</td>
<td>1 hat</td>
</tr>
<tr>
<td>1 pair gaithers</td>
<td>1 stock and clasp</td>
</tr>
<tr>
<td>2 shirts</td>
<td>1 pair linen pantaloons</td>
</tr>
<tr>
<td>1 blanket</td>
<td>1 pair socks and frock</td>
</tr>
<tr>
<td>1 trowsers</td>
<td></td>
</tr>
<tr>
<td>1 cockade and eagle</td>
<td></td>
</tr>
<tr>
<td>1 pair socks</td>
<td></td>
</tr>
<tr>
<td>1 pair socks</td>
<td></td>
</tr>
<tr>
<td>2 handkerchiefs</td>
<td></td>
</tr>
</tbody>
</table>

The recovery of glassware which are status items tends to support the interpretation that only the senior officers owned the glassware and ceramic items recovered from feature 19.
Artifact Pattern Analysis

The study of artifact frequency and intra-intersite variability holds potential for interpreting site function(s) and past lifeways. The ability to derive these interpretations is the result of recovering the by-products of human behavior. In aggregate form, such residues and the processes associated with their use and disposal, creates the archaeological record.

Basic to the synthesis of artifact patterns on historic sites, is the theoretical assumption that behavior is patterned in certain ways in response to the larger cultural system. The "patterning effect" as described by South (1977a:86), is responsible for regularities in artifact groups from sites representing a specific sociocultural Euro-American group, i.e., British, French, Spanish, and German speaking people. Adherence to the behavior repertoire of the parent cultural system results in a "patterning" of artifact class, and group frequencies which can be abstracted quantitatively (South 1977a:86-87).

The artifact data from Fort Meigs is aggregated into artifact groups for comparison with the Carolina and Frontier Artifact Patterns (South 1977a). Each artifact group consists of one or more classes. Before comparison can be made, a percentage is calculated for each artifact group, which is obtained by dividing the total artifact count into the artifact total for each group.

The Frontier and Carolina patterns were abstracted using data from site reports listing the quantity of artifacts recovered. Sites used in deriving the patterns (except for Signal Hill) were

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British colonial domestic and military sites. Group percentages were calculated for each site, added, and a mean percentage and percentage range computed. Empirical differences between the Kitchen and Architectural artifact groups lead to the distinguishing of a domestic Carolina pattern and a Frontier pattern. On domestic sites for instance, there is normally a larger amount of kitchen debris and few architectural items (i.e., nails). The reverse of this observation results in the Frontier pattern.

Appendix 1 gives the raw artifact counts per class for each artifact group for the Fort Meigs data. These data are quantified in Table 10 for comparison with South's patterns and for comparison by other individuals.

Table 10
Artifact Profiles from Fort Meigs (1813-1815)

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen</td>
<td>137</td>
<td>6.6</td>
</tr>
<tr>
<td>Architectural</td>
<td>1574</td>
<td>75.4</td>
</tr>
<tr>
<td>Furniture</td>
<td>66</td>
<td>3.2</td>
</tr>
<tr>
<td>Arms</td>
<td>140</td>
<td>6.7</td>
</tr>
<tr>
<td>Clothing</td>
<td>98</td>
<td>4.7</td>
</tr>
<tr>
<td>Personal</td>
<td>9</td>
<td>.4</td>
</tr>
<tr>
<td>Tobacco</td>
<td>5</td>
<td>.2</td>
</tr>
<tr>
<td>Activities</td>
<td>58</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>2087</td>
<td>100.0</td>
</tr>
</tbody>
</table>

When comparing intersite artifact group percentages at the pattern level, the entire artifact sample should be used (South 1977a: 88). This is not to say that features, structures, or activity areas
of a single or multicomponent site cannot be compared for isolating differential activity locations across the site. Specific proveniences have their usefulness for analyzing activity and cultural differences within the archaeological record (South 1977:88).

Table 11 shows the comparison of artifact group percentages between Fort Meigs and the Carolina Artifact Pattern (South 1977a: 83-125).

<table>
<thead>
<tr>
<th>Group</th>
<th>Fort Meigs Count</th>
<th>Percentage</th>
<th>Mean %</th>
<th>% Range</th>
<th>Predicted Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen</td>
<td>137</td>
<td>6.6</td>
<td>63.1</td>
<td>51.8-64.2</td>
<td>47.5-78.0</td>
</tr>
<tr>
<td>Architectural</td>
<td>1574</td>
<td>75.4</td>
<td>25.5</td>
<td>19.7-31.4</td>
<td>12.9-35.1</td>
</tr>
<tr>
<td>Furniture</td>
<td>66</td>
<td>3.2</td>
<td>.2</td>
<td>.1- .6</td>
<td>0.0- .7</td>
</tr>
<tr>
<td>Arms</td>
<td>140</td>
<td>6.7</td>
<td>.5</td>
<td>.1- 1.2</td>
<td>0.0- 1.5</td>
</tr>
<tr>
<td>Clothing</td>
<td>98</td>
<td>4.7</td>
<td>3.0</td>
<td>.1- 1.2</td>
<td>0.0- 8.5</td>
</tr>
<tr>
<td>Personal</td>
<td>9</td>
<td>.4</td>
<td>.2</td>
<td>.1- .5</td>
<td>0.0- .6</td>
</tr>
<tr>
<td>Tobacco</td>
<td>5</td>
<td>.2</td>
<td>5.8</td>
<td>1.8-13.5</td>
<td>0.0-20.8</td>
</tr>
<tr>
<td>Activities</td>
<td>58</td>
<td>2.8</td>
<td>1.7</td>
<td>.9- 2.7</td>
<td>.1- 3.7</td>
</tr>
</tbody>
</table>

The Carolina Pattern represents the quantification of artifact group profiles from seven sites (one 19th century and six 18th century sites), three of which are domestic and the others are military sites. Group percentages which are circled deviate from the expected and predicted percentage ranges.

Two possible explanations exist for the differences. First, the sites used by South are all British colonial (except for Signal
Hill) whereas Fort Meigs is an American 19th century military fort. Secondly, three of the seven sites are domestic, which would be expected to have different artifact group percentages. The primary differences result from different activities which can affect the classes of each artifact group and give a higher or lower percentage figure. Hence, variability in artifact frequency as a response to site function accounts for the existence of artifact patterns such as the Carolina and Frontier patterns.

Table 12 contrasts the Fort Meigs data with those of the Frontier Pattern (South 1977a:144-145). The Kitchen and Furniture groups represent deviations from the expected and predicted percentage ranges.

<table>
<thead>
<tr>
<th>Group</th>
<th>Fort Meigs Count</th>
<th>Percentage</th>
<th>Frontier Pattern (3 sites) Mean %</th>
<th>% Range</th>
<th>Predicted Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen</td>
<td>137</td>
<td>6.6</td>
<td>27.6</td>
<td>22.7-34.5</td>
<td>10.2-45.0</td>
</tr>
<tr>
<td>Architectural</td>
<td>1574</td>
<td>75.4</td>
<td>52.0</td>
<td>43.0-57.5</td>
<td>29.7-74.3</td>
</tr>
<tr>
<td>Furniture</td>
<td>66</td>
<td>3.2</td>
<td>.2</td>
<td>.1- .3</td>
<td>0 - .5</td>
</tr>
<tr>
<td>Arms</td>
<td>140</td>
<td>6.7</td>
<td>5.4</td>
<td>1.4- 8.4</td>
<td>0 -15.6</td>
</tr>
<tr>
<td>Clothing</td>
<td>98</td>
<td>4.7</td>
<td>1.7</td>
<td>.3- 3.8</td>
<td>0 - 6.9</td>
</tr>
<tr>
<td>Personal</td>
<td>9</td>
<td>.4</td>
<td>.2</td>
<td>.1- .4</td>
<td>0 - .7</td>
</tr>
<tr>
<td>Tobacco</td>
<td>5</td>
<td>.2</td>
<td>9.1</td>
<td>1.9-14.0</td>
<td>0 -27.1</td>
</tr>
<tr>
<td>Activities</td>
<td>58</td>
<td>2.8</td>
<td>3.7</td>
<td>.7- 6.4</td>
<td>0 -11.8</td>
</tr>
</tbody>
</table>

2087         | 100.0            |            |                                   |         |                |

Appendix 2 indicates the Kitchen group is low because of the small glass and ceramic sample. If all the glass (n=450) and

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ceramic (n=169) sherds were used (this does not include 60 ironstone sherds and 4 pieces of clear chimney glass) and the figures adjusted, the Kitchen group rises to 23.8%. This figure agrees with the expected range, however, it is uncertain how many of the ceramic and glass sherds represent post abandonment deposition other than those discussed in Chapter IV.

The high percentage figure for the Furniture group is due to the presence of a high iron tack count (n=49). Deleting the iron tacks lowers the figure to .8%, which is slightly above the expected and predicted percentage ranges, but acceptable. Given these adjustments, the Fort Meigs data clearly reflect the Frontier Pattern.

The comparison of intra-intersite distribution and frequency of artifact classes holds potential for revealing site function(s) and the existence of activity variation. South (1977a:171-177) has proposed the use of artifact class ratios for revealing variations not possible with the gross patterns which use all artifact groups and classes. Three class ratios or "indices" (South 1977a:176) were used for revealing site function using data from Fort Meigs: a ceramic ration, a military ratio, and a nail ratio. These data are given in Table 13.

Table 13
Determination of the Ceramic, Military and Nail Ratios for Fort Meigs

<table>
<thead>
<tr>
<th>Class</th>
<th>Total Artifact Count</th>
<th>Count ÷ Working Total</th>
<th>= Ratio %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics</td>
<td>2087</td>
<td>80</td>
<td>2007</td>
</tr>
<tr>
<td>Military</td>
<td>2087</td>
<td>29</td>
<td>2059</td>
</tr>
<tr>
<td>Nails</td>
<td>2087</td>
<td>1543</td>
<td>514</td>
</tr>
</tbody>
</table>

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Each ratio is calculated by subtracting the artifact class from the total artifact count for the site, and then dividing the class with the new artifact total. Table 14 gives the expected range percentage for each artifact class.

Table 14

Expected Range Percentage for the Ceramic, Military, and Nail Ratios (South 1977a)

<table>
<thead>
<tr>
<th>Class</th>
<th>Domestic (4 sites)</th>
<th>Frontier (4 sites)</th>
<th>Signal Hill (2 sites)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics</td>
<td>.44-.79</td>
<td>.11-.25</td>
<td>1.0</td>
</tr>
<tr>
<td>Military</td>
<td>0</td>
<td>.0008-.005</td>
<td>.0009-.01</td>
</tr>
<tr>
<td>Nails</td>
<td>.70-.95</td>
<td>1.10</td>
<td>-1.82</td>
</tr>
</tbody>
</table>

Signal Hill, a nineteenth century British military site (ca. 1800-1860) in Newfoundland, has an average ceramic ratio of 1.01. South (1977a:172) suspects this high figure may represent an index for nineteenth century military sites. The Fort Meigs data, however, do not support South's suggestion. Adding the total ceramic sample recovered from Fort Meigs (n=169) only serves to raise the ceramic ratio. A possible explanation for the high value is the small ceramic sample recovered from Fort Meigs.

The Fort Meigs military ratio of .014 agrees with the range distribution given by South (1977a:176), but falls close to the Signal Hill ratio. A nail ratio of 2.84 is well above the index range given by South (1977a:150), but supports his hypothesis that more nails will be found on military frontier sites than on domestic.
Disposal Behavior

The effects of cultural and natural transformation processes on site interpretation have been discussed by Ascher (1968), and Lange and Rydberg (1972). These authors indicate that in addition to post-abandonment modification (i.e., scavenging and refuse disposal), a site is subjected to alteration during its creation, use and at the time of abandonment.

Refuse dumping or disposal has been singled out as a specific form of behavior for analysis by Schiffer (1972). This like any other form of behavioral by-product, is modified by vectors described by Ascher and Lange and Rydberg which Schiffer labels cultural transforms and natural transforms (1972:163).

Schiffer and Rathje (1973:169) distinguish three forms of refuse disposal: primary, consisting of debris discarded at its place of use; secondary, consisting of debris discarded at a place away from its location of use; and de facto, consisting of refuse left on the floor of a structure at the time of its abandonment. Schiffer (1972) argues for a careful surveillance for these forms of deposits since they can influence the contextual interpretation of artifacts.

South (1977a:47-48) has suggested the existence of an eighteenth century British-American refuse disposal pattern using data collected from Brunswick, North Carolina. The pattern is defined through the spatial analysis of the location of secondary refuse around a structure. The ability to accurately predict the occurrence and location of adjacent secondary and peripheral secondary refuse
has led South to express the Brunswick Pattern as a law-like generalization:

On British-American sites of the eighteenth century a concentrated refuse deposit will be found at the point of entrance and exist in dwellings, shops, and military fortifications (1977a:48).

Archaeological investigation at Fort Meigs has failed to support the existence of the Brunswick Refuse Pattern. This observation may be correct considering the pattern was predicted for eighteenth century British-American sites. However, the selectiveness of the excavation strategies may account for the failure to identify midden deposits near the gates.

Historical records indicate that during the occupation of the larger Fort, debris in any form was collected daily and redeposited in pits dug outside the fort to the south. Consequently, extensive middens may not be present within the fort. Dumping over the fort wall along the hill slope was also discouraged and accumulations in this area if found should post date the abandonment of the larger Fort; the existence of feature 19, however, may suggest that at least sporadic dumping occurred. This assumption is based on the recovery of two cockade eagles and two RR buttons from feature 19.

The extensiveness of collecting debris for redisposal in secondary locations has been recently discussed by Binford (1978) and South (1979). Both authors present data suggesting that the "size and type" of refuse influences the location of its disposal and whether it is collected for redisposal.

Excavation within the borrow pit along the south side of the Grand Traverse has recovered both whole and broken artifacts.
According to historical data, these artifacts should not occur within the borrow pits unless the pits were not considered for collecting, or that the types of debris left within them were of no interest to the collectors or the supervising officer(s).

Historical data indicate that all cooking and wood cutting activities were restricted to the borrow pits, which may account for the recovery of iron kettle fragments, a tin cup, a canteen, and an iron kettle hook and handle. These artifacts could represent either primary or de facto refuse (Schiffer & Rathje 1973). Provided that there were no decaying animal or vegetable remains within the borrow pits, most objects would seem to have been left where they were discarded within the pits.

A variety of small artifacts (tacks, nails, buttons, lead shot, glass and ceramic sherds) have also been recovered from the borrow pits. Their presence is most probably the result of secondary refuse disposal since the borrow pits represent tempting locations for the discarding of such materials. It is possible that the complete buttons and musket shot were accidentally lost (primarily de facto refuse), but it has not been possible to distinguish between secondary and primary de facto refuse using small artifacts. Contamination due to disposal by occupants of the second Fort may account for some of the debris, but no concentrations of secondary midden have been located within the borrow pits. Post abandonment disposal must also be considered, but none has been identified to date.

Two definable midden accumulations have been located at Fort Meigs. The first was found while attempting to define the
dimensions of the upper powder magazine (feature 12) of the larger Fort. The midden consists of a thin lens and is located near the surface, suggesting that it post-dates the occupation of the larger fort. Most of the artifacts consist of nails, gun parts, and glass fragments, which argues for a connection with the smaller Fort. The fact that feature 12 is located within 100 feet of the second Fort distinguishes the midden as secondary disposal following Schiffer and Rathje (1973) and as peripheral secondary refuse using South's (1977a: 287) label.

The other midden accumulation (feature 19) is located on the hill slope just outside the wall of the present fort and what would have been the north wall of the small fort (see Map 3). Since historical records indicate refuse dumping over the wall was discouraged, it has been hypothesized that feature 19 represents midden accumulation primarily from the second Fort (Nass n.d.). The location of the midden meets the secondary refuse characteristics outlined by Schiffer and Rathje (1973).

South (1977a:47-48) mentions that old cellars, basements, natural depressions and abandoned wells are often used for secondary refuse (1977a:297). The apparent lack of secondary refuse in the well (feature 11) may be a result of the distance between the second Fort and the well, since these two features are at opposite ends of the larger Fort.

The excavation of feature 1 produced a number of whole artifacts in direct association with charred wooden boards. These items, which include the broken creamware cup and the bayonet belt buckle,
probably represent de factor artifacts since historical records indicate the smaller Fort was burned several years after its abandonment.
CHAPTER VI

SUMMARY AND CONCLUSIONS

The emphasis of this report has been the integration and synthesis of historical and archaeological data for producing a better interpretation of past cultural behavior at Fort Meigs. With this goal in mind, the primary objectives have been a detailed description of the artifacts and features, and a quantitative analysis of the artifacts.

Analysis of the Fort Meigs data provides a chance to test South's hypothesis that site function is revealed through quantification of the material record, and whether artifact patterns and behavior processes defined at eighteenth century British colonial sites (South 1977a) can be temporally extended into the nineteenth century. To a degree, South's hypothesis was confirmed, since the artifact profile from Fort Meigs is comparable with that given for the Frontier Artifact Pattern. Noticeable percentage differences in the Kitchen and Furniture Artifact groups, however, may indicate that the artifact percentage profile for the Frontier Pattern may require adjustment if it is to be extended into the nineteenth century.

The ceramic, military, and nail artifact ratios from Fort Meigs in certain respects both support and disagree with South's interpretation. The ceramic ratio is well above the expected range.
for frontier/military sites, but is somewhat consistent with the Signal Hill data which are nineteenth century. The military ratio for Fort Meigs falls closer to the Signal Hill data than the range suggested by South. This may indicate that nineteenth century frontier/military sites share in common more characteristics among themselves than with their eighteenth century counterparts. This interpretation is based on the high artifact ratios obtained from Fort Meigs and Signal Hill. The high nail ratio from Fort Meigs lends support to this hypothesis. It is suspected, therefore, that quantification of artifacts from other early nineteenth century frontier/military sites will also reveal higher ceramic, military, and nail ratios, and that the Kitchen and Furniture artifact groups will likewise not agree with the percentage range of these groups in the Frontier Pattern.

One interpretation of the data presented in this report is that while the Fort Meigs data seem to agree with the Frontier Artifact Pattern, the Brunswick Pattern of refuse disposal seems to lack a counterpart at this site. It was stated earlier that a possible explanation for the absence of the Brunswick Pattern is the selectiveness of the excavation strategies, but perhaps the absence of the refuse pattern implies that a different attitude about refuse disposal exists for the nineteenth century than was the case for the eighteenth century. If this latter speculation is proven correct, the predictability of the location of refuse disposal for eighteenth century British-American sites will not be useful in studying similar early nineteenth century sites.
Archaeological research at Fort Meigs has resulted in the recovery of data such as features and artifacts which indicate that there were behavioral differences pertaining to refuse disposal between the larger and smaller forts. The most obvious empirical difference between the forts relates to where refuse was discarded. Historical records suggest that refuse accumulations at locations other than those prescribed by the garrison commander were discouraged. The location of feature 19, a hillslope secondary refuse deposit, and the small refuse accumulation within the upper fill of feature 12, which is a peripheral secondary refuse deposit contradict the historical record. This observation has lead to the hypothesis that these refuse accumulations were associated with the second Fort. This hypothesis is supported by (1) historical references that militia behavior was quite different than that expected of the regular army, (2) the proximity of the refuse accumulations to the second Fort (Nass n.d.), and (3) the refuse found near the top of the fill in feature 12.

The absence of the ceramic horizon phenomenon at Fort Meigs seems to be a result of (1) the short military occupation at the site (1813-1815), in contrast to long term occupation sites; and (2) site function. Both variables can affect the presence/absence of ceramic types, the percentage difference between fine and coarse earthenware vessels, and the frequency of vessel form. It is hypothesized that the horizon phenomenon will also be absent at other short term early nineteenth century frontier/military sites.
The presence of ceramics, glassware, and bone plated cutlery at a frontier such as Fort Meigs provides evidence for the recognition of military status/behavior distinctions, and distinctions between the militia and the regular army. For example, it has already been hypothesized that differences between refuse disposal exists for the larger and smaller forts. And research at eighteenth century military sites indicates that the differential distribution of ceramic and glassware sherds reflect military status or rank, i.e., officers vs. enlisted men. Data from Fort Meigs support this conclusion and suggest that rank distinctions may also be evident in refuse from sites occupied by militia.

It is hoped that observations presented in this report and the explanatory hypotheses proposed, will be further investigated with data from other nineteenth century sites.
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Campbell, J. Duncan

Cleland, Charles E.

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Deetz, James and Edwin Dethlefsen

Demeter, C. Stephan and William L. Lowery

Dethlefsen, Edwin and James Deetz

Dunnigan, Brian Leigh

Ferguson, Leland G.
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Flannery, Kent V.

Griffin, John W.

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Willey, Gordon R. and Phillip Phillips

Witthoft, John
# APPENDIX 1*

## Artifact Classes and Groups

### Kitchen Artifact group

<table>
<thead>
<tr>
<th>No.</th>
<th>Artifact Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ceramics</td>
<td>(Over 100 types)</td>
</tr>
<tr>
<td>2</td>
<td>Wine Bottle</td>
<td>(Several types)</td>
</tr>
<tr>
<td>3</td>
<td>Case Bottle</td>
<td>(Several types)</td>
</tr>
<tr>
<td>4</td>
<td>Tumbler</td>
<td>(Plain, engraved, enameled)</td>
</tr>
<tr>
<td>5</td>
<td>Pharmaceutical Type Bottle</td>
<td>(stemmed, decanter, dishes, misc.)</td>
</tr>
<tr>
<td>6</td>
<td>Glassware</td>
<td>(cutlery, knives, forks, spoons)</td>
</tr>
<tr>
<td>7</td>
<td>Tableware</td>
<td>(pots, pans, pothooks, gridiron, trivets, metal teapots, water kettles, coffee pots, buckets, handles, kettles, etc.)</td>
</tr>
<tr>
<td>8</td>
<td>Kitchenware</td>
<td></td>
</tr>
</tbody>
</table>

### Bone group

<table>
<thead>
<tr>
<th>No.</th>
<th>Artifact Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Bone fragments</td>
</tr>
</tbody>
</table>

### Architecture Artifact group

<table>
<thead>
<tr>
<th>No.</th>
<th>Artifact Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Window Glass</td>
<td>(many types)</td>
</tr>
<tr>
<td>11</td>
<td>Nails</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Spikes</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Construction Hardware</td>
<td>(hinges, pintles, shutter hooks and dogs, staples, fireplace backing plates, lead window cames, etc.)</td>
</tr>
<tr>
<td>14</td>
<td>Door Lock Parts</td>
<td>(doorknobs, case lock parts, keyhole escutcheons, locking bolts and brackets)</td>
</tr>
</tbody>
</table>

### Furniture Hardware group

<table>
<thead>
<tr>
<th>No.</th>
<th>Artifact Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Furniture Hardware</td>
<td>(hinges, knobs, drawer pulls and locks, escutcheon plates, keyhole surrounds, handles, rollers, brass tacks, etc.)</td>
</tr>
</tbody>
</table>

### Arms group

<table>
<thead>
<tr>
<th>No.</th>
<th>Artifact Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Musket Balls, Shot, Sprue</td>
</tr>
<tr>
<td>17</td>
<td>Gunflints, Gunspalls</td>
</tr>
<tr>
<td>18</td>
<td>Gun Parts, Bullet Molds</td>
</tr>
</tbody>
</table>

---

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### Appendix 1 (Continued)

#### Clothing group

<table>
<thead>
<tr>
<th></th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Buckles</td>
<td>(many types, shoe pants, belt)</td>
</tr>
<tr>
<td>20</td>
<td>Thimbles</td>
<td>(several types)</td>
</tr>
<tr>
<td>21</td>
<td>Buttons</td>
<td>(several types)</td>
</tr>
<tr>
<td>22</td>
<td>Scissors</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Straight Pins</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Hook and Eye Fasteners</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Bale Seals</td>
<td>(from bales of cloths)</td>
</tr>
<tr>
<td>26</td>
<td>Glass Beads</td>
<td>(many types for wearing or sewing onto clothing)</td>
</tr>
</tbody>
</table>

#### Personal group

<table>
<thead>
<tr>
<th></th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Coins</td>
<td>(wig curlers, bone brushes, mirrors, rings, signet sets, watch fobs, compass, bone fan, slate pencils, spectacle lens, tweezers, watch key, and other &quot;personables&quot;)</td>
</tr>
<tr>
<td>28</td>
<td>Keys</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Personal</td>
<td></td>
</tr>
</tbody>
</table>

#### Tobacco Pipe group

<table>
<thead>
<tr>
<th></th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Tobacco Pipes</td>
<td>(ball clay pipes, many types)</td>
</tr>
</tbody>
</table>

#### Activities group

<table>
<thead>
<tr>
<th></th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>Construction Tools</td>
<td>(plane bit, files, augers, gimlets, axe head, saws, chisels, rives, punch, hammers, etc.)</td>
</tr>
<tr>
<td>32</td>
<td>Farm Tools</td>
<td>(hoes, rake, sickle, spade, etc.)</td>
</tr>
<tr>
<td>33</td>
<td>Toys</td>
<td>(marbles, jew's-harp, doll parts, etc.)</td>
</tr>
<tr>
<td>34</td>
<td>Fishing Gear</td>
<td>(fishhooks, sinkers, gigs, harpoons)</td>
</tr>
<tr>
<td>35</td>
<td>Stub-stemmed Pipes</td>
<td>(red clay, short stemmed tobacco pipes)</td>
</tr>
<tr>
<td>36</td>
<td>Colono-Indian Pottery</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Storage Items</td>
<td>(barrel bands, brass cock, etc.)</td>
</tr>
<tr>
<td>38</td>
<td>Ethnobotanical</td>
<td>(nuts, seeds, hulls, melon seeds)</td>
</tr>
<tr>
<td>39</td>
<td>Stable and Barn</td>
<td>(stirrup, bit, harness boss, horse-shoes, wagon and buggy parts, rein eyes, etc.)</td>
</tr>
<tr>
<td>40</td>
<td>Misc. Hardware</td>
<td>(rope eye thimble, bolts, nut, chain, andiron, tongs, case knife, flatiron, wick trimmer, washers, etc.)</td>
</tr>
</tbody>
</table>
Appendix 1 (Continued)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>41. Other</td>
<td>(button manufacturing blanks, kiln waster furniture, silversmithing debris, etc., reflecting specialized activities)</td>
</tr>
<tr>
<td>42. Military Objects</td>
<td>(swords, insigna, bayonets, artillery shot and shell, etc.)</td>
</tr>
</tbody>
</table>

*Taken from South 1977a, Table 4, pp. 95-96.*
APPENDIX 2

Frequency of Artifact Classes and Groups at Fort Meigs

<table>
<thead>
<tr>
<th>Class and Group Descriptions</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kitchen Artifact group</strong></td>
<td></td>
</tr>
<tr>
<td>1. Ceramics</td>
<td>80</td>
</tr>
<tr>
<td>2. Wine Bottles</td>
<td>12</td>
</tr>
<tr>
<td>3. Case Bottles</td>
<td>6</td>
</tr>
<tr>
<td>4. Tumbler</td>
<td>1</td>
</tr>
<tr>
<td>5. Pharmaceutical</td>
<td>6</td>
</tr>
<tr>
<td>6. Glassware</td>
<td>7</td>
</tr>
<tr>
<td>7. Tableware</td>
<td>4</td>
</tr>
<tr>
<td>8. Kitchenware</td>
<td>21</td>
</tr>
<tr>
<td><strong>Bone group</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Architecture Artifact group</strong></td>
<td></td>
</tr>
<tr>
<td>10. Window Glass</td>
<td></td>
</tr>
<tr>
<td>11. Nails</td>
<td>1543</td>
</tr>
<tr>
<td>12. Spikes</td>
<td>8</td>
</tr>
<tr>
<td>13. Construction</td>
<td>21</td>
</tr>
<tr>
<td>14. Door Lock Parts</td>
<td>2</td>
</tr>
<tr>
<td><strong>Furniture Hardware group</strong></td>
<td>66</td>
</tr>
<tr>
<td><strong>Arms group</strong></td>
<td></td>
</tr>
<tr>
<td>16. Shot</td>
<td>105</td>
</tr>
<tr>
<td>17. Gunflints</td>
<td>27</td>
</tr>
<tr>
<td>18. Gun Parts, etc.</td>
<td>8</td>
</tr>
<tr>
<td><strong>Clothing group</strong></td>
<td></td>
</tr>
<tr>
<td>19. Buckles</td>
<td>10</td>
</tr>
<tr>
<td>20. Thimbles</td>
<td>73</td>
</tr>
<tr>
<td>21. Buttons</td>
<td></td>
</tr>
<tr>
<td>22. Scissors</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Item(s)</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>23. Straight Pins</td>
<td></td>
</tr>
<tr>
<td>24. Hook and Eye Fasteners and other Clothing Fasteners</td>
<td>14</td>
</tr>
<tr>
<td>25. Bale Seals</td>
<td></td>
</tr>
<tr>
<td>26. Glass Beads</td>
<td></td>
</tr>
<tr>
<td><strong>Personal group</strong></td>
<td></td>
</tr>
<tr>
<td>27. Coins</td>
<td></td>
</tr>
<tr>
<td>28. Keys</td>
<td></td>
</tr>
<tr>
<td>29. Personal</td>
<td></td>
</tr>
<tr>
<td><strong>Tobacco Pipe group</strong></td>
<td></td>
</tr>
<tr>
<td>30. Tobacco Pipes</td>
<td></td>
</tr>
<tr>
<td><strong>Activities group</strong></td>
<td></td>
</tr>
<tr>
<td>31. Construction</td>
<td></td>
</tr>
<tr>
<td>32. Farm Tools</td>
<td></td>
</tr>
<tr>
<td>33. Toys</td>
<td></td>
</tr>
<tr>
<td>34. Fishing Gear</td>
<td></td>
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<tr>
<td>35. Stub-stemmed Pipes</td>
<td></td>
</tr>
<tr>
<td>36. Colono-Indian Pottery</td>
<td></td>
</tr>
<tr>
<td>37. Storage items</td>
<td></td>
</tr>
<tr>
<td>38. Ethnobotanical</td>
<td></td>
</tr>
<tr>
<td>39. Stable and Barn</td>
<td></td>
</tr>
<tr>
<td>40. Misc. Hardware</td>
<td></td>
</tr>
<tr>
<td>41. Other</td>
<td></td>
</tr>
<tr>
<td>42. Military</td>
<td></td>
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