Investigations at the Fort St. Joseph Archeological Project Unit N25 W9

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Investigations at Fort St. Joseph (20BE23): Unit N25 W9

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Lee Honors Thesis
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Statement of Purpose

The Western Michigan University Archaeological Field School is a program that allows students with an interest in Anthropology or History an opportunity to participate in a learning community devoted to the practice of archaeology. Since 2002 the field school has been held regularly at the site of historic Fort St. Joseph (20BE23). During the summer field season of 2011 I was a student archeologist at Fort St. Joseph. For my honor's thesis I am presenting a summary of my field experience and a discussion of my findings.

The purpose of this thesis is twofold. First, I aim to provide future student archaeologists of the Fort St. Joseph Archaeological Project (FSJAP) with an example of how their findings can be used as evidence to create a historical picture of life at the fort. It is the goal of archaeology to create an image of the daily life of a people based on material remains found in the archaeological record.¹ For most students joining the Project, it is their first experience conducting archaeology. There are many tools in place to help these students master the physical aspects of archaeology and to understand the history of the project. However, the interpretation of artifacts and features is often the hardest skill to grasp. It is my hope that this thesis will illustrate how cultural and structural materials can be interpreted to create an image of daily life.

The second goal is to determine if further excavations on the western edge of the existing excavation area of 20BE23 are justified. The goals of the Project are to

examine the colonial fur trade and to discern how interactions between Europeans and Native Americans in the area influenced the lifestyles of both groups. Investigations in excavation unit N25 W9 and in the immediate vicinity have revealed a high concentration of materials that could provide answers to these questions.

In the following section I will discuss the historical significance of Fort St. Joseph and give a brief synopsis of activities that have taken place there since its establishment in the late seventeenth century when the French first settled the area. Following that I will briefly discuss Western Michigan University’s involvement with the Project and the previous excavations that have been conducted there. I will also give an overview of how my excavations in Unit N25 W9 unfolded, followed by a discussion of the feature and artifacts recovered there. I will conclude with recommendations for further excavation.
Fort St. Joseph stood alongside the St. Joseph River near present day Niles, Michigan. The French first explored this area during the 1673 Marquette and the 1679 LaSalle expeditions. Shortly thereafter, in 1684, Jesuit priest Pere Claude Jean Allouez came to the area and established a mission among the Miami.

The French government established Fort St. Joseph (FSJ) near the mission in 1691. Both commercial and diplomatic interests played a role in the decision to establish a fort near this particular mission. The mission was located at the crossroads of the Sauk Trail and had ample river access, making it an ideal location for commercial interests. Here, the French would be able to exercise control over the fur trade in the southern Lake Michigan region. Furthermore, the decision to establish a fort in the region was partly in response to the Iroquois Wars of the late 17th century. Governor of New France, Marquis de Denonville, hoped to protect French posts in the area by strengthening ties with Miami natives. As a result Ensign Augustin Legardeur de Courtemache, with a small group of soldiers, began to build a military post near the mission.

The structure of the fort in the 1690s consisted of a small commander's house, a building that could garrison twenty men, and various small buildings that were dedicated to trade goods. There was also a palisade that was constructed of upright posts. Over the next fifty years the fort's structure and population would

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experience growth. People living at the fort during this time period included slaves, traders, soldiers, some Natives, and the families of all excluding slaves. By 1750 reportedly 40 families lived in the immediate area of the fort and had homes of poteaux sur sole construction. Poteaux sur sole construction is a type of French colonial architecture common throughout the region during this time. With this type of construction the frame of a building was built with posts set on a wooden sill or stone foundation rather than directly into the ground. In 1750 a jail of stone construction was also added to the site.

In 1760, during the French and Indian War, the French lost control of the fort to the British and in October of 1761 Ensign Francis Schlosser and the 60th Royal American regiment arrived to command the fort. Their control of FSJ was not long lived. In 1763 the Potawatomi overthrew Schlosser and his men during Pontiac’s Rebellion. The British chose not to re-garrison the fort after this episode.

Soon after the fort also played a key role in the American Revolution. Louis Chevalier, a French trader at FSJ, was a British agent, otherwise known as a “Kings Man” during the Revolution. He mainly provided British intelligence to Fort

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Michilimackinac. He is credited with providing Major Arent Schuyler DePeyster, commander at Michilimackinac, with the information necessary to prevent an attack on Fort Detroit by George Rogers Clark. Clark sent his second-in-command, Lt. Thomas Bennett, to Fort St. Joseph to intercept the French troops. However, no physical conflict ever arose between the two parties.

In 1780 the French gained very brief control of the fort. Jean Baptiste Hamelin led a small force of Cahokian Indians to the fort in December. The fort’s current commander, Lt. Dagneau De Quindre, along with almost all of the native inhabitants, were absent at this time so Hamelin had an easy job of rounding up the few traders and goods present. De Quindre quickly learned of the attack, however, and caught up with Hamelin on December 6, 1780. After Hamelin refused to surrender, De Quindre took his men by force and regained control.

Two months later the fort changed hands once again. On February 12, 1781 Captain Eugene Poure joined his forces with that of Jean Baptiste Maillient and led a surprise attack on the fort. With De Quindre absent for the attack, most of the fort’s inhabitants were taken prisoner. A Spanish flag was raised and the king of Spain officially claimed Fort St. Joseph. Spanish occupation was short lived. Poure and Maillient remained at Fort St. Joseph for only one day. It is after this event that the

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9 Robert Myers
fort was largely abandoned. Those who had been living in its vicinity probably remained and trade likely resumed in the area into the 19th century.\textsuperscript{13}

The first American to settle near FSJ during the 19th century was a man named Esquire Thompson. Thompson settled on the site of the fort with the intention of planting a farm. Frequently through the process of plowing, Thompson would recover artifacts left over from French and British occupation of the previous century. These findings were occasionally documented but the presence historical relics did not prevent Thompson from plowing and growing crops of corn in the area. Following Thompson, settlement in this area increased throughout the 1820s and in 1829 the village of Niles was established.\textsuperscript{14}

Between 1691 and 1781 many visitors came to Fort St. Joseph and wrote descriptions of their travels. These primary documents tell us a lot about important events occurring at the fort and give descriptions of fort construction, but fail to provide an adequate description of daily life. Information regarding women, children, and Natives are often left out, as are mundane daily activities. Archaeological pursuits at Fort St. Joseph can bring light to these issues. By interpreting the artifacts and structures excavated at the site we can create an interpretation of daily life, specifically related to French-Native interactions. My aim is to make some inferences about daily life based on my discoveries in N25 W9. However, my chief motive is to make a case that both features and artifacts similar

\textsuperscript{13} Department of Anthropology
to what was recovered in N25 W9 exist in the immediate area, and that their excavation is key to creating an accurate interpretation of life at the fort.
History of Investigations at Fort St. Joseph

Descriptions of the location of Fort St. Joseph during the period from 1691 to 1781 are vague and inconsistent. There are many occasions when visitors to the fort reference its location but their directions are unspecific and, when combined with inaccurate French mapping, the exact location of the fort was difficult to ascertain. In 1721 French missionary Pierre-Joseph Charlevoix visited the fort and cited its location to be 20 leagues from the mouth of the river, but he fails to mention on which bank. In 1754 visitor Father Jacques-Francois Forget Duverger placed the fort on the right side of the river but did not say which way he was facing.15 These are just a few examples of the ambiguities that made it difficult to locate the fort on the ground. Many more individuals came to the fort during this period and gave conflicting descriptions of the fort location.16

In 1900 a local historian of Niles, Michigan, Lewis H. Beeson, thought that he had found the precise location of the fort. He thought the fort to be in a specific location on the east bank of the St. Joseph River because of a high concentration of artifacts that he had found there. Despite his hypotheses nothing was done in the way of excavation at that point in time.17 Searches in the vicinity of the commemorative boulder by University of Notre Dame and Michigan State University

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16 Brandao and Nassaney, (2006): 61-71
archaeologists in the 1960s and 1970s respectively were unsuccessful in locating the fort (Michael Nassaney, personal communication, 2013).

In advance of the American bicentennial in the 1970s there was a renewed interest in American history throughout the country. At this time the fort was given renewed attention and in 1972 the site was nominated to the National Register of Historic Places. In 1978 historian Joseph Peyser was hired by the city of Niles to translate documents relating to the fort and Lyle Stone was hired to assess artifacts found in the community that were believed to be from the fort. Peyser translated a great number of documents that detailed the fur trade and daily life in the area related to Fort St. Joseph. His findings also supported Beeson’s, claim that the fort was on the east side of the St. Joseph River. Despite these early efforts, however, no organized excavation took place.

In 1992 the community organization Support the Fort was established. Members of this organization wanted to locate the fort through research and archeological investigation. In 1998 the organization approached Dr. Michael Nassaney, an archaeologist at Western Michigan University, in hopes of moving forward with an archaeological survey to locate the fort. In the fall of 1998 faculty, staff, and volunteers conducted a survey under the direction of Dr. Nassaney to locate remains of the fort. Over three weeks volunteers dug 400 shovel test pits that located evidence of a colonial occupation.18

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Immediately following this discovery Dr. Nassaney, in collaboration with Niles officials and Support the Fort members, proposed more intensive excavation to determine if the site had integrity, meaning that the historical deposits there had not been disturbed. After funding was secured excavations took place in 2002, 2004, and then annually after 2006. During the 2002 excavations, need for a pump system to drain the waterlogged site was recognized and DeWind Dewatering was hired to install it. Funding for the dewatering came from Support the Fort. The diesel pump was located atop the landfill just east of the site itself. It connected to 65 well points arranged in a horseshoe pattern that opened in the downstream direction (Figure 1).

Also in 2002 the first of several geophysical surveys was conducted at the fort site under the direction of Professor William Sauck, of the Western Michigan University Department of Geoscience. The survey included ground penetrating radar, electromagnetic induction, electrical resistivity, and magnetic gradiometry or magnetometry. What these surveys hoped to identify were subsurface anomalies that could represent structural remains or high concentrations of material remains once associated with the fort.

Subsequently, excavation units are placed near detected anomalies in hopes of exposing structural remains that could provide information to assist in site

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22 Lynch, 2008
reconstruction. N25 W9 was chosen as the location for an excavation unit because of its proximity to a magnetic anomaly identified during the survey.

Excavations at the Fort have identified a number of features since 2002. In addition to hearths, foundational walls, and pits, four other fireplace features have been excavated at Fort St. Joseph. Figure 2 is a summary of features excavated at the Fort from 2002-2009. In 2011 a large concentration of stones associated with oxidized soil was identified in N25 W9 and designated Feature 20. As I argue below, this feature bears striking similarities to other features that have been interpreted as fireplaces associated with domestic structures. For the purpose of my analysis I will focus on the two most recently excavated fireplace features, Feature 10 and Feature 14. Feature 10 was excavated in three separate units during the 2006 and 2007 field seasons. Two of these units were excavated during 2006. The first was a 1 x 1 m unit N32 E13, and the second a north south oriented 1 x 2 m unit N 31 E14. The unit excavated in 2007 1 x 1 meter unit N33 E13. Feature 14 was excavated through 2 units in 2007 and 2008. In 2007 east west oriented unit N27 E0 was excavated and in 2008 it was east west oriented N28 E0 (Figure 2).

The north half of N25 W9 was excavated twice previously, in 2009 and in 2010. The unit excavated was a 1 x 1 m unit N26 W9. This unit was located outside the DeWind de-watering system and both attempts to excavate failed due to flooding. The lowest depth reached was 35 cm below datum (BD), meaning the depth bellow the surface datum point. No evidence of feature 20 was recovered at that time. In 2011 N25 W9 was excavated to 55 cm BD and a summary of that investigation is detailed in a following section.
A Description of the Fort St. Joseph Archaeological Project (FSJAP)

Research Design

The Western Michigan University Archaeological Field School was founded in 1976 to give students the opportunity to practice archaeology (Michael Nassaney, personal communication, 2013). Since then students have investigated a number of sites in southwest Michigan, elsewhere in the United States, and as far away as Barbados. Beginning in 2002 the field school has been conducted under the auspices of the FSJAP.

The goal of excavations at Fort St. Joseph is to gain a better understanding of the fur trade and colonialism in the region. Specific interest is focused on the recovery of materials that can tell us more about the cultural identities of those living at the fort and the mutual influences of the French and Native peoples.23 A goal of the 2011 field school research design specifically looked to identify ways in which we can see this influence in the archaeological record. Towards this end, excavations were oriented towards locating buildings associated with the fort in order to determine their size, method of construction, age, and contents from which we can infer the identities of their occupants.24 The building contents can also inform on daily practices suggesting the activities that members of fur trade society conducted at Fort St. Joseph.

Overview of Excavations in Unit N25 W9

As a student working on the FSJAP, I was charged with the excavation of Unit N25 W9, located on the west end of the 2011 excavation area. During our excavations, my pit partner Lance and I uncovered a number of large stones, many showing signs of dressing and mortar residue. Additionally the soil in immediate proximity to these stones showed signs of heavy oxidation or burning throughout the excavations. The combination of these elements was identified as Feature 20. Furthermore, artifacts recovered from Unit N25 W9 indicate both Native and colonial influences. The following is a summary of excavations and a description of how this feature and artifacts were uncovered.

Unit N25 W9 is a north south oriented, 1x2 meter unit located on the far west edge of the 2011 fort excavation area (Figure 3). The unit lies approximately one meter south of the edge of the river and is surrounded by river vegetation and a few trees. The unit was one of two units located outside the pump system in 2011. The north half of Unit N25 W9 was excavated in 2009 as a 1x1 meter unit (N26 W9). Excavations in 2009 were abandoned because the unit filled with water at 20 cm BD. In 2010 excavations continued to a depth of 35 cm BD before flooding became an issue once more.

I began excavation of this unit with my pit partner Lance Meister on July 18, 2011. Excavation began with shovel skimming. At 10 cm BD we began to encounter the edge of the tarp that lay along the floor of previously excavated N26 W9. At this point we proceeded to confine excavations to the north half of our 1 x 2 m unit, the
former N26 W9, until we reached the point where previous excavation stopped. We were able to remove the tarp from the previous excavation at 28 cm BD. We can attribute the difference in depth from our removal of the tarp from where excavations in 2010 stopped at 35 cm BD to natural surface changes. We ended our first level at 28 cm BD. After this point we chose to begin excavation on the southern half of our unit until it was even with the north. We chose to continue this pattern of excavating the northern and southern halves of N25 W9 separately up through level III, which went to 35cmBD (Appendix A).

Soil stratigraphy at Fort St. Joseph consists of three main layers: the alluvium, the plow zone, and the occupation zone. The alluvium consists of the uppermost 20-25 cm of sediment. This sediment is highly organic, consisting of river deposits, and is a product of the past 70 years. The plow zone is representative of previously tilled soil from the late 19th to early 20th centuries. The plow zone often yields 18th century artifacts that have been kicked up by previous plowing. The soil below this is the occupational soil. This soil has been undisturbed by the plow and contains in situ features and cultural deposits.25

It is during the first 35 cm BD of excavation that we progressed into the plow zone and began to notice our first signs of colonial presence. Our first clue that we could be coming down on a feature of some kind was the heavy oxidation that appeared in the soil confined to an area of the unit. At first this oxidation appeared in patches with no distinct pattern. By the end of level III at 35 cm BD in the plow zone the oxidization was taking on vibrant reds (2.5YR4/6 dark red) in the soil and

25 Lynch 2008
was concentrated in a circular shape along the west wall (Appendix A). Also the artifacts that we were encountering definitely pointed towards a colonial occupation. Notable artifacts recovered in these levels were a honey-colored French gunflint, lead shot, glass from containers that were likely hand-blown, and hand-wrought nails.

Level IV, excavated from 35-40cmBD yielded our first signs of structural material and a definite indication that we could be close to a 17th or 18th century structure. The area of oxidation along the west wall continued to grow in size and vibrancy, also taking on a much more distinct shape with clearly defined boundaries. Along the east wall of the northern half of the unit we encountered a stone of considerable size. The stone showed signs of mortar residue (Appendix A). The presence of mortar—a mixture of sand, water, and probably lime used to hold bricks or stone in place—indicates human construction. In addition to stones that indicate colonial structure, some very interesting artifacts that point towards French occupation were uncovered in this level. The first was a shard of faience pottery, which is a refined earthenware produced in France. The second was a well-preserved lead cloth seal. The seal itself was a unique find, and had clearly legible French embossing on its surface (Figure 4). The seal is a definite indicator of colonial trade practices and will be discussed in more detail below.

Level V was dug from 40-45cmBD and encompassed the entire 1x2m area of N25 W9. Through trowelling we uncovered a copper earbob. The earbob consisted of two triangular sheets of copper with holes punched on one corner. A thin copper or iron wire was looped through these holes connecting the two pieces. Each piece
was also etched with a line-filled triangle (Figure 5). Similar decorative objects have been found at Fort Michilimackinac and have been identified as common trade goods among Native Americans and Colonials. The southwest corner of N25 W9 yielded a white clay pipe stem at 43cmBD. Also found through trowelling were copper wire, bone, calcined bone, seed beads, lead shot, glass fragments, a hand wrought nail, and a wampum bead. These represent a mix of both imported European goods and artifacts traditionally used by Native peoples. Along the east wall a large 50x40cm flat surfaced rock was uncovered (Appendix A). Another similarly sized rock along the west wall was also uncovered. The soil between these rocks was vibrant yellow and red, which suggests to us past burning. The northern half of N25 W9 continued to yield large stones, many of them with evidence of mortar residue. Through wet screening at this level we uncovered calcined bone, unburned bone, glass, seed beads, lead shot, nails, and teeth. Only the soil in the southern half of the unit had signs of oxidization at this point during excavations. This means that burning only took place in the specific location of oxidization. The northern half of the unit still contained dark, heavy, and moist soil.

Level VI was dug from 45-50cmBD. In this level we took a float sample in hopes of finding carbonized materials in the soil. These carbonized materials could show the remnants of artifacts like grain or seed that will help us to further understand the people who lived here. While trowelling for the sample we uncovered a rock with heavy caking of mortar surrounding it. We also uncovered

three fire-cracked rocks (FCR) in the area of the float sample. The rocks were extremely fragile as a result of their intense burning. The three pieces of FCR were all found to have a slight magnetic quality. Notable artifacts uncovered in this level were a glass inset ring and faience pottery.

When excavating the north half of level VI, the dark and moist quality of the soil persisted. We experienced occupational soil 10 cm to the north of the Feature 20 stones before the soil becomes dark and moist. We began to screen the dark alluvial-like soil separately from the occupational soil. In hope of better understanding what is causing the darker soil in N25 W9 we took three probe samples at this level.

Probe sample 1 was taken at N26.27 W8.75, 47cmBD. The first part of the probe went down to 77cmBD. At 58cmBD we hit a root then some lighter soil that looked similar to occupation soil. In this lighter soil we recovered a bit of mortar and calcined bone. The second portion of the probe went to 107cmBD. This probe did not yield occupation soil but did have a small bit of what might have been B-horizon at the end of the probe, along with a large bone.

Probe sample 2 was N26.75 W8.5, 47cmBD. In this probe dark soil extended to 52cmBD before it was filled the remainder of the way with vertical wood. The next probe extended to 107cmBD, still yielding wood in the top 10cm. No occupation soil was recovered.

Probe sample 3 was at N26.75 W8.25, 47cmBD. 47-68cmBD continued to yield this darker unknown soil deposit. At 69cmBD a chunk of extremely compact
sand was recovered and occupational soil followed immediately after. Occupation continued to 107cmBD. A bone fragment was found at 103cmBD.

We took these probe samples to see if occupational soil existed beneath these layers. We wanted to know how far down it was, and hoped that by discovering the depth we could figure out what might be causing it. We did encounter some occupation soil, but in Probe 1 we only encountered B-horizon. This led us to believe that this darker soil may be fill in a pit of posthole or organic material such as a post or post mold.

After taking these probe samples we continued to excavate until we finished the level. In the dark soil we found clinker, bone, calcined bone, and a single seed bead. Out of the small occupation area only bone and calcined bone were found. After evaluating all that we found here in the north half we hypothesized that the darker soil is from a small 18th century pit that slightly pre-dates the stone that we had excavated to this point. This cannot be proven, however, without further excavation.

Our last level, level VII, was dug from 50-55cmBD. The soil in this level maintained its vibrant oxidization and there was a heavy presence of baked clay in the area of burning. When excavating the northern half of Level VII we continued to wet screen occupational soil and the unknown soil deposit in the north separately. We continued to find a low artifact concentration in the darker soil, though unburned and calcined bone were recovered through wet screening. Through trowelling however, we uncovered fragments of turtle shell, a tooth, more bone, calcined bone, a small portion of daub, and iron. Some grey mottling of the soil
began to occur in this level but not in any consistent pattern. From the occupational soil we uncovered a single hand-wrought nail. The wet screen yielded a straight pin, bone, calcined bone, seed beads, and lead shot.

In summary, we began excavations of this unit having known that excavations in the north half had failed twice before. At 28 cm BD we removed the tarp from previous excavation and began to progress deeper than those who had come before us. At 35 cm BD in our third level we came across our first signs of oxidization and by the end of level four at 40 cm BD we knew that we were possibly coming down on a feature because the oxidized soil took on a distinct circular pattern in the soil and grew in vibrancy. At 40 cm BD we also experienced our first signs of structural material: a stone that was approximately 11 cm in length with mortar residue on it. By the end of level V at 45 cm BD more stones had been uncovered and were identified as feature 20. At the end of level VI at 55 cm BD we identified feature 20 as a fireplace feature. Artifacts found during this excavation are indicative of materials associated with French and Native interaction. Native wampum, and adornment were recovered. Furthermore, many French artifacts were recovered, including hand blown glass, a cloth seal, faience pottery, and lead shot. In an attempt to understand what the soil in the north half of the unit represented several probe and float samples were taken throughout the excavation. These were set aside to be analyzed at a later date in the Western Michigan anthropology lab.
Feature 20

Feature 20, located at N25 W9, was initially identified as a colonial fireplace during the summer 2011 field season. The fireplace is similar in shape, size, and artifact distribution to fireplaces found at contemporaneous sites like Fort Michilimackinac, Fort de Chartres, and Fort Massac. I have chosen Fort Massac and Fort de Chartres as points of comparison for my excavations because both French-constructed sites were occupied mainly during the 18th century, are of similar total size to Fort St. Joseph, and are located on river bodies in the Illinois Country and Great Lakes Region.27 Fort Michilimackinac was selected for the same reasons, in addition to its trade relationship with FSJ.

This is not the first fireplace to have been identified at Fort St. Joseph; a total of five have been identified since excavations began in 2002. The most recently and heavily excavated have been feature 10 (Figure 6), a fireplace first excavated in 2006 in Unit N31 E14, and feature 14 (Figure 7), first excavated in 2006 in Unit N25 E0.28

The process of identifying fireplace features at Fort St. Joseph began with geophysical surveys taken in 2002. The geophysical survey initiative was conducted to determine the integrity of colonial deposits at Fort St. Joseph. A number of techniques were used, including ground penetrating radar (GPR), electrometric

induction (EM), magnetic gradiometer (magnetometer), and electrical resistivity (ER), which have proven to be effective in identifying *in situ* colonial deposits. These surveys recognize undisturbed colonial deposits by identifying anomalies in the soil matrix that represent structural or cultural material. These surveys were successful in identifying two fireplace features during that year. Both features 5 and 6 were identified by GPR anomalies.29

Anomalies representing structural or cultural deposit during the 2002 survey fell in a very distinct line along the river’s edge. This suggests that the occupants of Fort St. Joseph were orienting their buildings along the river. Furthermore, features 10 and 14, when excavated, were also oriented along this line of occupational deposit that the survey had identified. All fireplace features excavated at FSJ lie on a 45-degree angle to the excavation grid. This shows that not only were the French building their structures along the river, but they were orienting the angle of the structures foundation to the river’s edge as well (Figure 8).

Building patterns at both Fort Massac and Fort de Chartres further support our assumption that Fort St. Joseph’s building construction was oriented to the river. Fort Massac, established by the French in 1757, is located along the Ohio River. Archaeological investigations here discovered that the French were orienting their structures to the river’s edge. Furthermore, the same patterns have been noted through excavations at Fort de Chartres a site established in 1720 and located on

29 Lynch 2008
the Mississippi River in Illinois. This tells us that it was common French practice to use a body of water as a natural guide for construction.

Unit N25 W9 did not fall within the parameters of the 2002 geophysical survey. The survey was expanded in 2004 however, to encompass the western edge of the previous excavation area. As a result of the survey, magnetic anomalies were identified in close proximity to N25 W9. Anomalies identified continued to fall along the line of deposit identified in the initial 2002 survey. N25 W9 was chosen due to its close proximity to one such magnetic anomaly. (Michael Nassaney, personal communication, 2013).

By the end of our excavation at N25 W9, we had reached a depth of 55 cm BD and a considerable amount of feature 20 was exposed. We were able to identify feature 20 as a colonial fireplace by similarity of oxidized soil, rock formation, artifact distribution, and size to other fireplace features at 20BE23 and contemporaneous sites (Table 1).

Fireplace features consistently show signs of soil oxidation in the archaeological record. Munsel descriptions of all fireplace features excavated at Fort St. Joseph are similar (Table 1). Furthermore, all soil oxidation found in association with fireplaces at Fort St. Joseph have similar patterns. All first appeared in the soil between approximately 30-40 cm BD and all were confined in a distinct circular pattern in close proximity to feature stones. Fireplace features recovered from Fort Michilimackinac also note soil oxidation in a small circular pattern surrounded

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30 Walthall (1991), 272-298
by feature stones. Fireplaces recovered at Fort Massac and Fort de Chartres note the presence of soil oxidation in proximity to feature stones as well.

A second indication that feature 20 is a fireplace is the orientation, size, and shape of the foundational stones recovered. The stones recovered from N25 W9 were of considerable size, ranging from 20cm-80cm in length. I have identified stones A and B as the main building blocks of this feature (Figure 9). Stone A is 60 cm long and 50 cm wide. Stone B is even larger, being 80 cm long with an unknown width. The numerous smaller stones recovered seem to be oriented around these larger ones. Both features 10 and 14 recovered at 20BE23 have stones of this size present as a part of their features. It is likely that these stones provided the base for the structure of the fireplaces. In all three features, smaller foundational stones ranging from 10-40cm in length are oriented around, in between, and in some cases on top of these larger ones. This demonstrates a consistent building pattern among the features. The structural stones recovered in all fireplace features at FSJ are oriented around oxidized soil patterns discussed previously.

Rock formations similar to those seen in fireplace features at Fort St. Joseph have been discovered in association with fireplace features at both Fort Michilimackinac and Fort Massac. Excavations at both sites note the presence of dressed stones surrounding soil oxidation in a similar pattern to that seen in N25 W9. Notes on fireplace features from Fort Michilimackinac also note that stones

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33 Walthall 1991
34 Walthall 1991
found in fireplace features were oriented in a circular pattern around an area of oxidization.\textsuperscript{35}

The area of feature 20 as it appears in N25 W9 is roughly 1 x 1 meters in size. However only part of feature 20 was excavated in 2011. The average sizes of fireplace features excavated at FSJ are roughly 1 x 2 meters in size. The fireplace excavated in association with House C at Fort Michilimackinac under French occupation was the same exact size.\textsuperscript{36}

Domestic structures at Fort Michilimackinac note distinct artifact concentrations, near fireplace features during both French and British occupation. The artifact concentrations found in association with these features are very similar to that found in association with fireplaces at Fort. St. Joseph. Most commonly, lead shot and kitchen artifacts are found within the vicinity of fireplaces at Michilimackinac. Kitchen artifacts are seeds, unburned bone, calcined bone, ceramic, and anything else associated with the process of eating or cooking. These artifacts are found at FSJ in similar concentrations to that of house fireplaces at Michilimackinac.\textsuperscript{37}

This evidence supports the theory that feature 20 does in fact represent a fireplace associated with Fort St. Joseph. The soil oxidation patterns and stone structures are consistent not only with previous excavations at 20BE23 and are also parallel to excavations of contemporaneous sites. Furthermore, the similar artifact

\textsuperscript{35} Halchin 1985
\textsuperscript{36} Halchin 1985
\textsuperscript{37} Halchin 1985
distribution associated with fireplaces at Michilimackinac and St. Joseph further supports this conclusion.

While numerous fireplaces have been identified and excavated at FSJ, no full structures have undergone excavation. However, many structures with almost identical fireplace features at Fort Michilimackinac and at Fort Massac have been excavated. Feature 20 is similar in structure and artifact distribution to fireplaces associated with houses at these contemporaneous sites. That being said, I believe the structure associated with feature 20 is a colonial house. French-constructed houses at both Fort Michilimackinac and Massac are approximately 6 meters long and 5 meters wide. Knowing that fireplace features recovered at FSJ are similar in size to those at Michilimackinac and Massac, it is fair to hypothesize that the structures are similarly sized as well. Taking this into consideration, while also considering the findings of the 2002 geophysical survey and that the French were orienting their structures to the river, I have created a sketch showing what I project the structure associated with feature 20 to look like (Figure 10). I strongly believe that the fireplace wall of the structure faces northwest towards the river’s edge.

The discovery of this feature on the west edge of the FSJ excavation site led us to believe in 2011 that more cultural and structural materials associated with the fort were located in this area. In 2012 the FSJAP conducted another geophysical survey in the area where feature 20 was discovered and farther west to determine if this was the case. The survey found that several anomalies, identical to those identified by the 2002, survey exist west of the current excavation area.
Discussion of Artifacts found in Unit N25 W9

As mentioned previously, the Fort St. Joseph Archaeological Project hopes to identify buildings associated with the fort and to determine the identities of people who occupied or used these structures. In analyzing the material remains within these structures, the Project also hopes to explore how the identities of colonial or Native individuals at the fort of mutual influence. Additionally, the materials recovered from these structures will yield information regarding the fur trade in southwest Michigan. Artifacts found in Unit N25 W9, which are in turn associated with whatever structure Feature 20 is a part of, suggest both French and Native American influences.

Many artifacts found at the fort over the past decade suggest that the inhabitants of the fort were well off and that they had a significant native influence in their lives.\textsuperscript{38} In particular, ceramic and adornment pieces may have been a way of distinguishing rank on the frontier.\textsuperscript{39} Faience pottery is a refined earthenware ceramic used by the French. It is identifiable by its thick white outer glaze and a reddish clay interior. John C. Walthall suggested that faience pottery is an indicator of higher social status.\textsuperscript{40} Many examples of faience pottery have been found at Fort St. Joseph in association with fireplace features including that of N25 W9.

\textsuperscript{38} Brandoa, and Nassaney (2006): 67
\textsuperscript{39} Michael Nassaney, Jose Brandao, William Cremin, and Brock Giordano, "Archaeological Evidence of Economic Activities at an Eighteenth-Century Frontier Outpost in the Western Great Lakes," \textit{Historical Arcaheology}, 41, no. 4 (2007): 3-19,
\textsuperscript{40} John C. Walthall, "Faience in French Colonial Illinois," \textit{Historical Archaeology}, 25: 80-105,
Other artifacts that can indicate status are ring insets, green glassware, and pipes. All of these artifacts were found in association with Feature 20. This suggests that the inhabitants of this structure were well off.

Artifacts such as wampum beads, and native styled adornment are representative of a native influence on French colonial culture. These artifacts are also found frequently at the site of Fort St. Joseph. Numerous times the historical record references good relations between the inhabitants of Fort St. Joseph and the local native tribes. They provided assistance to each other in times of need and in some cases intermarriage took place. Fort St. Joseph was also a center for trade, and major trading partners of the French during this time period were Native peoples. Thus it is not surprising to find native artifacts in association with French dwellings. In N25 W9 a number of artifacts with native influence were recovered. Among these were a tinkling cone, a copper earbob, and seed beads. The presence of these artifacts do not necessarily suggest that a native person came to this particular structure or even that the inhabitant communicated with natives directly to acquire these objects. It does, however, suggest that a relationship between colonials and natives had to be present in order for these objects to become a part of the French colonial archaeological record. Furthermore, some artifacts like seed beads are products of colonial and native interaction. Seed beads are tiny glass beads made in

41 Brandoa and Nassaney (2006): 67
42 Quimby 1966
44 Brandoa and Nassaney (2006): 67
Europe, for the purpose of trade with Native Americans.\textsuperscript{45} The discovery of these kinds of artifacts at FSJ is consistent with documentation regarding the close alliances that existed between the French and Native peoples.

Finally, one item recovered at N25 W9 provides further insight into trade activities at the fort: a lead cloth seal. The cloth seal, recovered at approximately 38 cm BD, has French writing embossed on its surface. The French writing reads “B Foraine de Lille.” The Bureau Foraine De Lille was a French authority that inspected cloth before its sale. The cloth would have received this seal after the bureau had inspected it. The seal also has a fleur de lis embossed on the front side. A textile from Lille would likely have come into a major French port before being circulated by trade to other smaller outposts.\textsuperscript{46}

The artifacts and feature recovered in N25 W9 allow us to address the research questions associated with the Fort St. Joseph Archaeological Project. Excavations here have given us clues that can help to answer the questions regarding French and Native relations and the trade activities at the fort. Unfortunately, only limited conclusions can be drawn from the excavation of one 1 x 2 m unit. N25 W9 has proven this area of the excavation site to be valuable. Further excavation in this area will help us to more fully answer questions the Fort St. Joseph Archaeological Project hopes to understand.

\textsuperscript{45} Lisa Marie Malischke, "The Excavated Bead Collection at Fort St. Joseph (20BE23) and Its Implications for Understanding Adornment, Ideology, Cultural Exchange, and Identity." (Masters thesis, Western Michigan University, 2009).
Conclusion and Recommendations for further Excavation

Archaeological investigations at N25 W9 exposed a large concentration of stones associated with oxidized soil and artifacts similar to those made and used by members of fur trade societies in the western Great Lakes. In light of discoveries at N25 W9, it is clear that a fireplace, identified as feature 20, was discovered in 2011 on the west edge of the Fort St. Joseph excavation site. We were able to identify feature 20 as a fireplace by comparing it to other fireplaces excavated previously at the site. A comparison of these features can be found in figure 8. Furthermore, after comparing this feature to similar features at the contemporaneous sites Fort Michilimackinac, Fort Massac, and Fort de Chartres, we are able to conclude that the fireplace excavated at N25 W9 was probably associated with a colonial house at Fort St. Joseph. This suggested to us that important cultural and structural materials relating to the fort and to the FSJAP research design exist on the west edge of the current excavation area and can be used to address questions raised in the research design. In 2012 a second geophysical survey was conducted at the site and a number of anomalies that support this hypothesis were recognized.

Furthermore, artifacts recovered in unit N25 W9 are of both native and colonial significance. Since one of the aims of the Fort St. Joseph Archaelogical Project is to explore French and Native relations at the fort, these artifacts that point towards the presence and interaction of both groups warrants further excavation.

It is also clear that the structure associated with Unit N25 W9 has the potential to aid in the overall goals of the FSJAP. It is my recommendation that this
structure be investigated further by way of excavation. To determine the orientation of the structure, I recommend that a 1 x 2 m north south oriented unit be places at N20 W5, and a 1 x 2 m east west oriented unit be places at N25.5 W11 (Figure 11). If the proposed orientation matches up with that of the actual structure, evidence of a foundation is expected. If these excavation units yield structural material it is my recommendation that future excavators move to uncover the entire structure, which I believe to be 9 m wide and 7 m long. Recovery of an entire structure at FSJ will answer questions about the other structures in the area that have not been uncovered. Excavations at Forts Mackinac, Massac, and de Chartres have shown that French building patterns at fort sites are fairly consistent. If this pattern continues at Fort St. Joseph then an uncovered structure can be a representation of others in the area.

Furthermore, I recommend that excavations should continue to the west of the current excavation area where the most recent geophysical survey has identified anomalies in the soil matrix. This will help us to discover more structures related to the fort and will allow us to further explore the fur trade and relationships between Natives and French.
CHAPTER III
SITE GEOLOGY AND DRAINAGE METHODOLOGY

Site Geology
The project area is located in a low-lying, seasonally wet area on the south side of the St. Joseph River in Niles, Michigan (Figure 1). The project area is surrounded on the east and south by a 20th century landfill, and bounded on the north by the St. Joseph River.

Figure 1. Map of the 2002 De-Watering System at Fort St. Joseph. Taken from Lynch, 2008.
Figure 2. Map of Features and Excavations Units at 20BE23, 2002-2009. Map prepared by Susan Benston with the assistance of Michael Nassaney.
Feature 3. Map of the 2011 field school excavation area including units with coordinates.
Figure 4. Lead Cloth Seal Found in Unit N25 W9. Photo by Catherine Davis of the Fort St. Joseph Archaeological Project. Western Michigan University.

Figure 5. Lead Cloth Seal Found in Unit N25 W9. Photo by Catherine Davis of the Fort St. Joseph Archaeological Project. Western Michigan University.
Figure 6. Feature 10 at site 20BE23. Department of Anthropology, Western Michigan University.
Figure 7. Feature 14 at site 20BE23. Department of Anthropology, Western Michigan University.
Figure 8. Images of subsurface anomalies from the 2002 FSJ geophysical survey. Taken from Lynch 2008.
Figure 9. Map of stones from Feature 20.
Figure 10. Map of projected structure associated with Feature 20.
Table 1. Comparison of fireplace features excavated at Fort St. Joseph.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Years Excavated</th>
<th>Unit Coordinates and Orientation</th>
<th>First Signs of Oxidation BD</th>
<th>Color of Oxidation</th>
<th>First Appearance of Stone BD</th>
<th>Number of Large (&gt;20cm) Stones Recovered</th>
<th>Approximate Total Size of Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature 2</td>
<td>2002, 2004</td>
<td>N39 E20 EW; N38 E20 EW; N37 E20 EW</td>
<td>44 cm BD</td>
<td>2.5YR4/8 Red</td>
<td>44 cm BD</td>
<td>11</td>
<td>1 x 2 m</td>
</tr>
<tr>
<td>Feature 5</td>
<td>2002, 2004</td>
<td>N25 E8 EW; N26 E8 EW</td>
<td>35 cm BD</td>
<td>7.5YR4/4 Brown, 5YR4/4 Reddish Brown</td>
<td>44 cm BD</td>
<td>3</td>
<td>1 x 2 m</td>
</tr>
<tr>
<td>Feature 10</td>
<td>2006, 2007</td>
<td>N31 E14 NS;</td>
<td>40 cm BD</td>
<td>7.5YR4/6 Brown, 2.5YR4/8 Red</td>
<td>40 cm BD</td>
<td>4</td>
<td>1 x 2 m</td>
</tr>
<tr>
<td>Feature 14</td>
<td>2006, 2007, 2008</td>
<td>N25 E0 NS; N27 E0 EW; N28 E8 EW</td>
<td>40 cm BD</td>
<td>7.7YR4/4 Brown, 2.5YR4/6 Red</td>
<td>40 cm BD</td>
<td>3</td>
<td>1 x 2 m</td>
</tr>
<tr>
<td>Feature 20</td>
<td>2011</td>
<td>N25 W9 NS</td>
<td>28 cm BD</td>
<td>5YR5/8 Yellowish Red, 7.5YR5/4 Brown, 2.5YR4/6 Red</td>
<td>40 cm BD</td>
<td>12</td>
<td>Only 1 x 1 m excavated</td>
</tr>
</tbody>
</table>
Appendix A. N25 W9 Excavation Level Sheets and Maps

N25 W9 Plan View
Level I:
0-28 cm BD

Key:
B - Baulk
I - 10YR3/1, very dark grey, clay loam/sandy loam, plow zone
IA - 10YR5/2, greyish brown and 10YR5/8, yellowish red, oxidized soil

PREVIOUSLY EXCAVATED AREA
Western Michigan University
Excavation Unit Level Sheet

Fort St. Joseph Project
Site 20BE23
Unit No. N25 W9 1x2m
Level I 7cmBD-28cmBD
July 19, 2011

Materials collected from this level:

Cat# 11-2-2 Contents: Glass, Clinker, Calcined Bone

Excavation techniques used:

Shovel skimming, trowelling, root clipping

Nature of soil matrix:

Soil of the emerging plow zone is 10YR3/1 very dark greyish brown and is a clay loam in texture. The oxidized area near the west wall in the south half is mottled 10YR5/2 greyish brown and 5YR5/8 yellowish red.

Remarks on features, postholes, artifact content, special samples, etc:

We began shovel skimming our first layer on July 18, 2011. So far the soil seems much dryer and lighter than the soil in units directly to the east and south of our unit. We’ve encountered some roots but none so think that we can’t cut through them with a sharp shovel. The SW corner and south wall are particularly dry and we predict having to take extra care with these walls. The corners of the tarp from the previous camper unit are becoming visible about 10cmBD. The northwest corner has some very light colored sandy dirt near the tarp edges. It’s probably back filled dirt from prior excavation. The northwest corner also has some rotted drift wood that must be carefully removed to avoid wall destruction. July 19 we removed the tarp from the north half of the unit. From this point on we will only excavate the south half until both areas are at equal levels. Along the west wall in the south half of the unit we found some oxidized soil. In this area we also discovered a large piece of clinker and small fragments of what we think may be calcined bone.
N25 W9 Plan View
Level II: 28-32cmBD

Key:

B- Baulk
R- Rock
II- 10YR2/2, very dark brown, sandy silt
IIA- mottled 10YR4/3 brown and 10YR2/2 very dark brown, sandy silt
IIB- mottled 10YR7/2, light grey and 10YR2/2 very dark brown, sandy silt
IIC- mottled 7.5YR5/4 brown, 10YR7/2 light grey, and 10YR2/2 very dark brown, sandy silt oxidized soil
C- Clinker

10cm N
Western Michigan University
Excavation Unit Level Sheet

Fort St. Joseph Project
Site 20BE23
Unit No. N25 W9 1x2m
Level II 28cmBD-32cmBD
July 20, 2011

Materials collected from this level:

Cat# 7 Contents: Calcined bone, Bone, Charcoal
Cat# 7w Contents: seed beads, bone, calcined bone, gunflint, harpoon head, lead shot

Excavation techniques used:
Shovel skimming, trowelling, root clipping, wet screening

Nature of soil matrix:

The majority of our unit floor is 10YR2/2 very dark brown sandy silt. Sections along the east wall and in the SE corner have evidence of oxidization. Small patches of this also appear throughout the unit these spots are mottled 10YR2/2 very dark brown, 10YR7/2 light grey, and 7.5YR5/4 brown sandy silt.

Remarks on features, postholes, artifact content, special samples etc.:

No real anomalies occurred during out excavation of this unit. We were able to spot some calcined bone through trowelling but most of our artifacts appeared through the wet screen. We chose to pedestal a piece of what we think may be charcoal or clinker because of its unusual size. It is about the size of a small fist. Patches of oxidization are appearing throughout the unit especially in the NW corner of the south half. Because of their random assortment we hypothesize that they are a result of bioturbation. Trowelling is difficult because of the thickness of the soil. Ribboning makes it difficult to clean our floors after each level. Root grown has mostly subsided. Through we screening we found calcined bone, one lead shots, and piece of gunflint, a point that may be a harpoon, seen beads, and a shell flake. There were also small roots, pebbles, and mudstone.
N25 W9 Plan
View
Level III:
32-35cmBD

Key:
B-Baulk
Bl-Bone
U-Unidentified Object
II-10YR3/1 very dark grey clay silt; 2.5YR4/6 dark red, 10YR7/1 light grey, 10YR4/4 dark yellowish brown, sandy silt, plow zone
IIA- mottled 10YR3/1 very dark grey, 2.5YR4/6 dark red oxidized soil, sandy silt
Western Michigan University
Excavation Unit Level Sheet

Fort St. Joseph Project
Site 20BE23
Unit No. N25 W9 1x2m
Level III 32cmBD-35cmBD
July 21, 2011

Material collected from this level:

Cat# 13 Contents: bone, glass, calcined bone
Cat# 13w Contents: calcined bone, bone, glass, lead shot, daub

Excavation techniques used:

Trowelling and duspan soil removal. Root clipping. All soil from this level was wet screened using 1/8” mesh.

Nature of the soil matrix:

Roots are decreasing in frequency and size. The soil composition is clay silt. Our soil is very mottles in the southern half of the unit. Mixing with our 10YR3/1 is a 2.5YR4/6 dark red. This is an indication of oxidization.

Remarks on features, postholes, artifacts, special samples etc.:

Out patches of oxidized soil are growing on the NW section of our southern unit along the wall. We are still pedestalling out unidentified object that is 58cm from the south wall and 23-28cm from the eastern wall. We previously felt that this object could be a large piece of dinker but we are not so sure now. There is also a piece of either metal or bone protruding through the floor of our unit at 26cm from the southern all and 28 cm from the eastern wall. The only objects found while trowelling include long pieces of bone, a tooth, and some small shards of greenish glass. The floor of our unit is interesting to hand trowel seeing as there are a lot of patches of oxidized soil. This makes the soil harder and less willing to allow the trowel to skim across the floor.
**N25 W9 Plan View**

**Level IV:**

35-40 cm BD

**Key:**

- B: Baulk
- R: Rock
- BI: Bone
- N: Nail
- RI: Root
- ★: Vertically oriented

**I:**

- 10YR2/1 black silty loam, river deposit, alluvium
- IA: 10YR5/4 yellowish brown sand with clay, backfill

**II:**

- 10YR3/1 very dark grey, sandy clay plow zone;
- 10YR6/2 light brownish grey sand, plow zone;
- 10YR4/6 dark yellowish brown, sandy clay, plow zone

**IIA:**

- Mottled
- 10YR3/2 very dark greyish brown, 10YR6/2 light brownish grey, and 10YR4/3 brown, sandy clay plow zone

**IIB:**

- Mottled
- 2.5YR4/8 dark red, 10YR6/2 light brownish grey, and 10YR3/2 very dark greyish brown, sandy clay oxidized patch in plow zone

10 cm N
Western Michigan University
Excavation Unit Level Sheet

Fort St. Joseph Project
Site 20BE23
Unit No. N25 W9 1x2m
Level IV 35cmBD-40cmBD
South Half
July 25, 2011

Material collected from this level:

Cat# 17 Contents: bone, nail, faience pottery, green glass
Cat# 17w Contents: bone, calcined bone, nail, seed beads, tooth, lead seal, tinkling cone.

Excavation techniques used:

Hand trowelling, wet screening 1/8” mesh

Nature of soil matrix:

The main part of our soil is mottles 10YR3/2 very dark greyish brown, 10YR6/2 light greyish brown, and 10YR4/3 brown. The texture is sandy clay. Along the west wall there is an oxidized area that is mottles 2.5YR4/8 dark red, 10YR6/2 light greyish brown, and 10YR3/2 very dark greyish brown. The texture is still a sandy clay.

Remarks on features, postholes, artifact content, special samples etc.:

As we progress from 35-40cmBD the soil becomes more mottled with lighter shades of brown and gray. The oxidized section along the west wall has become slightly larger but no more defined and is still heavily mottled. We are finding a lot of fist-sized stones that show evidence of dressing. We are also finding a lot of bone through trowelling. Through trowelling we also found a 5cm piece of faience pottery and some olive green glass. Through wet screening we have found a lot of calcined bone ranging from pea to small seed sized. More small bone fragments are found in the wet screen as well. We also found about 6 seed beads, all white and one turquoise, more glass and a tooth. We are also noting a lot of daub and mortar in the wet screen but we chose not to keep any of it. We found 1 nail in the ground through trowelling and 2 in wet screen that we encased in oxidized soil that had hardened.
Western Michigan University
Excavation Unit Level Sheet

Fort St. Joseph Project
Site 20BE23
Unit No. N25 W9 1x2m
Level IV 35cmBD-40cmBD
North Half
July 27, 2011

Materials collected from this level:

Cat# 25 Contents: bone, calcined bone, coal, tooth, daub
Cat # 25w Contents: bone calcined bone, seed beads, daub, coal, FCR, foundation stone, lead shot

Excavation techniques used:

Hand trowelling, wet screening 1/8” mesh

Nature of soil matrix:
The northern soil in out unit is a solid 10YR2/1 black silty loam. Probably alluvium deposited from the river. In it there is a section of 10YR5/4 yellowish brown sand with a little clay. The southern plow zone area in out unit is mottled 10YR3/1 very dark grey sandy clay, 10YR6/7 light brownish grey sand and 10YR4/6 dark yellowish brown sandy clay.

Remarks on features, postholes, artifact content, special samples, etc.:

The north half was previously excavated to 35cmBD as a 1x1m camper unit N26W9. The soil in the north half of this section is crumbly because of high root concentrations, while the southern half is extremely compact. We found an 11cm rock along the south border that appears to be some sort of foundation stone because of its rectangular shape. We are still encountering backfill when we break for the day at 37cmBD. In the wet screen we are finding a lot of miniscule pieces of calcined bone. We’ve kept a sample of the tiny peeved but disposed of anything smaller than a pea. We are also finding quite a few seed beads, some of which we lost through the wet screen. Most however were recovered. At approximately 37cmBD a metal object is beginning to reveal itself slightly south of the center of our unit. The soil is mostly mottled with the exception of the dark alluvium like soil that is concentrated along the north wall. We found high concentrations of organic material caused by the alluvial material in the northern most part of out unit and the soil was particularly thick and hard to wet screen. We found seed beads, calcined bone, bone, lead shot, daub, FCR, foundation stone, and coal; similar to our findings in the southern half. the artifact concentration was notably lower in this section possibly because it was previously excavated to this point.
N25 W9 Plan View
Level V:
40-45cmBD

Key:
B-Baulk
BI-Bone
R-Rock
C-Earbob
FCR-Fire Cracked Rock
N-Nail
A-Copper Alloy
Rl-Roots
HCW-Hand Cut Wood

I- 10YR2/2 very dark brown
III-mottled 10YR3/1 very dark grey sandy clay occupation, 10YR4/3 brown sandy clay occupation, with flecks of 5YR5/8 yellowish red sand clay oxidization and 10YR7/2 light grey sand
Western Michigan University
Excavation Unit Level Sheet

Fort St. Joseph Project
Site 20BE23
Unit No. N25 W9 1x2m
Level V 40cmBD-45cmBD
August 2, 2011

Cat# 53 Contents: pipe stem, wampum, copper alloy, charcoal, wire, calcined bone, bone, seed beads, lead shot, glass, nail, pendant

Cat# 53w Contents: calcined bone, bone, glass beads, lead shot, nails, teeth

Cat# 63 Contents: bone, glass, calcined bone, seed beads, iron

Cat# 63w Contents: lead shot, charcoal, beads, metal, mandible with teeth intact, structural stone

Excavation techniques used:

Hand trowelling, wet screening 1/8” mesh, bamboo sticks, paint brushing

Nature of the soil matrix:

The majority of our soil is a 10YR3/1 very dark grey sandy clay occupation zone and 10YR4/3 brown sandy clay occupation with flacks of 5YR4/8 yellowish red sandy clay oxidation and 10YR7/2 sand. The oxidized area is a mottled 10YR 3/1 very dark gray sandy clay occupation, 2.5YR4/6 red oxidation silty loam and 10YR4/4 dark yellow brown silty loam oxidation.

Remarks on features, postholes, artifact content, special samples, etc.:

The triangular stone from the SE corner came out at 42cmBD. The fire-cracked rock in the NW corner of the southern half came out at 43cmBD. On the previous level sheet where this appeared it was labeled as a rock. We found a bit of copper alloy metal in the SE corner at 40.5cmBD. We pulled wampum from the floor of out unit and out wet screening has yielded lead shot of different sizes, calcined bone, large bone, and more beads. We also found an intact pipe stem in the SW corner at about 43cmBD. This level produced a triangular pendent with some etching on both pieces that were joined by copper wire. We feel that we have uncovered a feature. There are two in situ rocks that sandwich a heavily burned area of soil that butts up to the north half of out unit. In the SE corner of our north half we found bone in the oxidized soil right atop a large structural stone more large stones are appearing as
we bring down the north half of our unit. It appears that we definitely have an in situ wall. The south of the wall has oxidized soil and the north of it is mainly alluvial like material. We are speculating whether this is a result of the inside of a structure versus the outside. Artifact concentrations in the north half are far fewer than in the south half. We did find a small piece of red ware along the wall on the east. In the wet screen we have found more seed beads and faience potter. The large stone that we first discovered in the south half has been further revealed in the north. It measures 62cm in length and protrudes from the east wall 33cm at its widest point. It first appeared at 39cmBD. We found a long bone, 5cm, from the east wall and 40cm from the north. The wood that we are excavating around on the north end is square cut but we are still unsure if its drift wood or from a building.
N25 W9 Plan View
Level VI:
45-50cmBD

Key:
B-Baulk
BI-Bone
R-Rock
RI-Polarized Rock
P-Faience Pottery
RII-Roots
H-Hole/Air Pocket
FCR-Fire Cracked Rock
I-10YR2/1 black clay loam, unknown occupation deposit
IA- mottled 10YR2/1 black clay loam unknown occupation deposit, 10YR4/1 dark grey sandy loam possible ash debris, and 10YR3/2 dark greyish brown occupational soil
III-mottled 10YR2/2 very dark brown sandy clay occupational soil, 10YR4/4 dark yellowish brown sandy clay occupational soil with flecks of 2.5YR4/8 dark red sandy clay oxidized soil and 10YR4/4 yellowish brown oxidized soil
IIIA- mottled 10YR2/2 very dark brown sandy clay occupational soil, 2.5YR4/8 dark red sandy clay oxidized soil, 10YR6/6 brownish yellow sandy clay oxidized soil
Western Michigan University
Excavation Unit Level Sheet

Fort St. Joseph Project
Site 20BE23
Unit No. N25 W9 1x2m
Level VI 45cmBD-50cmBD

Material collected from this level:

Cat# 64 Contents: Floatation sample
Cat# 79 Contents: Bone, FCR, iron scrap, seed bead, lead shot, glass, glass inset
Cat# 79w Contents: bone, calcined bone, charcoal, daub, glass, tooth, lead shot, seed beads
Cat# 81 Contents: Clinker
Cat# 81w Contents: Bead, bone, calcined bone
Cat# 93 Contents: charcoal, bone
Cat# 94 Contents: calcined bone
Cat# 95 Contents: Bone
Cat# 96 Contents: Wood
Cat# 97 Contents: calcined bone
Cat# 98 Contents: floatation sample

Excavation techniques used:

Hand trowelling, bamboo picking, wet screening 1/8” mesh, float samples

Nature of soil matrix:

South Half: as we trowel down along the stones that are appearing we are coming across bright red and yellow mottled soil. These were 2.5YR4/8 dark red and 10YR6/6 brownish yellow. The texture of both of these is a sandy clay. The rest of the south half sees this coloration in flecks. The rest of the occupation soil is mottled 10YR2/2 very dark brown sandy clay and 10YR4/4 dark yellowish brown sandy clay.

North Half: the north half of the unit we found dark 10YR2/1 black soil that we originally though was a continuation of the alluvium. After further investigation we ruled that it is not because of the lack of organic material and the greasier texture of this soil. We hypothesize that this is either a dump or an area where they emptied their fire pit. We took a flotation sample from here.

Remarks on features, postholes, artifact content, special samples, etc.:

Beginning the level with a 50x30x5 float sample of out heavily burnt soil on the northwest corner of the south half of the unit. We pulled a rock up while skimming the float sample area and it had heavy caking of mortar on it. We could not gather
the needed 10 liters of soil from the original area of the float sample because we uncovered a number of rocks. We increased the float sample area to 50x50x5 cm. Large fire cracked rocks are extremely fragile. Large patch or mortar around rocks. We found a clear faceted glass inset through trowelling. We uncovered a large piece of bone that is 13 cm long. Laying right against this large bone is a piece of Faience pottery. In trowelling cultural artifacts beads, ceramic and a glass inset were found. The three rocks closest to our oxidized soil patch are slightly magnetized. We found a piece or iron. When trowelling from 48-50cmBD we found a 14cm stain of where wood had been. It decayed completely away leaving an air pocket in its impression that had a deep brown coloration. This proves that the root growth we were speculating might be from the 18th century is not because it would have decayed similarly in the same soil. They must have intruded later. On the fifth of august we took probe samples.
Probe 1: N26.5 W8.75 47cmBD. We encountered 10cm of soil debris then root debris at 11cm. then occupation zone soil we found a bit of charcoal and bone in the black soil. In the lighter soil we found a bit of mortar or decaying stone similar to debris found in occupational soil wet screen. Calcined bone at 25cm. next hole went down 63cm. We recovered a big piece of bone at 107cmBD. Next probe yielded hardly any occupation like soil but had what looked like B horizon. At the very end of this probe we had a large piece of bone.
Probe 2: N 26.75 W8.5. we sent the probe down to 30cm but only got 15cm worth of fill because a piece of upright wood clogged the probe. It appears that we have this dark fill material. The second probing went down to 64cm.
Probe 3: N26.75 W8.25 48-68cmBD darker sediment. A hunk of very compacted sand where the soil changes to occupation. Occupation continues to 108cmBD bone was found at 103cmBD.
At the beginning of this level we are noticing charcoal and burnt bone resting in between out foundational rocks(ft.20). a 4cm piece of burnt wood was excavated at 12cm from the west wall as well at 101 cm from the south wall of the excavation unit. A large piece of clinker was excavated near large roots. There was a mix up at the begging of the north half of our level. We split the north section into halves because part of it is occupation and part is alluvial like material. We accidently mixed the soil in the beginning of the level when wet screening. Our artifact bag contains a large piece of clinker and the wet screen yielded large bone fragments, calcined bone, charcoal, and a seed bead. The alluvial and occupational soil has a distinct line between in now. On the north half we are beginning to dispute where or not the dark soil in the north half is actual alluvium. It is greasy and clay like mixed with what appears to be ash. There is speculation as to whether this is the result of previous occupants taking debris from the fireplace and dumping them behind the structure. Rather than disturb the material now we are breaking for a picture.

Photographs:
Roll BW #1-Frames 17,18
Digital Color: 11-2-23p, 11-2-24p
N25 W9 Plan
View
Level VII:
50-55cmBD

Key:
B-Baulk
S-Turtle Shell
(53cmBD)
T-Teeth
B-Bone
W-Wood
R-Rock
III-mottled 10YR3/2
very dark greyish brown clay loam occupation soil and
10YR4/3 brown clay loam occupation
IIIA- 10YR2/1 black clay loam with flecks of
10YR3/3 clay loam;
both unknown occupation
IIIAa-mottled 10YR2/1
clay loam unknown occupational deposit,
10YR5/8 yellowish brown sandy loam oxidization and
10YR4/2 clay loam dark greyish brown occupation
IIIAb-10YR3/4 dark yellowish brown sandy loam bioturbation
IIIb-mottled 10YR3/2
very dark greyish brown clay loam occupation, 10YR4/2
dark greyish brown clay occupation and 5YR4/6
yellowish red silty loam oxidization
IIIC- 10YR2/2 very dark brown sandy clay occupation, 2.5YR4/8
dark red sandy clay oxidized soil, 10YR6/6
yellowish brown sandy clay oxidized soil

I------I ↑
10cm N
Western Michigan University
Excavation Unit Level Sheet

Fort St. Joseph Project
Site 20BE23
Unit No. N25 W9 1x2m
Level I 50cmBD-55cmBD
August 10, 2011

Materials collected from this level:

Cat# 103 Contents: turtle shell, tooth, bone, calcined bone, daub, iron
Cat# 103w Contents: seed beads, lead shot, turtle shell, none, calcined bone
Cat# 112 Contents: nail
Cat# 112w Contents: straight pin, bone, calcined bone, seed bead, lead shot
Cat# 113 Contents: Bone-piece plot
Cat # 114 Contents: faience pottery-piece plot
Cat # 117 Contents: Float Sample
Cat # 119 Contents: Float Sample
Cat # 129 Contents: Bones, nail, beads
Cat # 129w Contents: Bone, calcined bone, shot, lead, charcoal, daub, flint
Cat # 159w Contents: ceramic, bead, calcined bone, glass, iron, charcoal, chirt

Excavation techniques used:

Hand trowelling, probing, 1/8” mesh wet screen

Nature of soil matrix:

For the most part our soil is 10YR2/1 black clay loam with flecks of 10YR3/3 dark brown clay loam and 10YR6/2 light brownish grey sand loam; all of which is apart of the unknown occupational deposit. In the NW corner there is a bioturbation that is 10YR3/4 dark yellowish brown sandy laom. Near the center of the south edge of this level the soil is a mottles 10YR2/1 black clay loam occupational deposit, 10YR5/8 yellowish brown sandy loam oxidation and 10YR4/2 dark greyish brown clay loam occupation.

Remarks on features, postholes, artifact content, special samples etc:

We are taking the unknown dark soil in the north half down a level in hopes of better understanding what it is. We also plan to take a probe sample of the oxidized soil in the south half to see how far it extends bellow our datum point. In the NW corner at 53 cm BD we found four fragments of what we think is turtle shell. There
was some debate as to whether it was cranial fragments but after closer investigation we nixed that hypothesis. At around 53cmBD along the north wall we are experiencing some soil color change although the texture remains consistent. The soil becomes a lighter grey in this area. In the NW corner from the west we are finding a large concentration of bone. The bone 52cm from the west wall and 17cm from the north wall is large and vertically oriented. Its base has not been reached yet. Along the southern border of this level we have found what appears to be the surface of another large rack. The soil in this level is very hard to wet screen because of the high clay concentration. We found seed bead, and a piece of lead shot, lots of bone and fragments of turtle shell and small amounts of calcined bone. There was also an incredibly high concentration of wood. When we dug down zone III the occupational soil we found, no artifacts only small pebbles through hand trowelling.

Photographs:

Roll BW #2 Frames 9-10
Digital color 43p-44p

North Wall: Roll BW #3 Frame 22
Digital Color 90p-91p

South Wall: Roll BW #2 Frames 21-22

West Wall: Roll BW #2 Frames 23-24
Bibliography


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http://www.wmich.edu/fortstjoseph/project/history.html.