INTRODUCTION
The following is an overview of the archaeology performed in the summers of 2004, 2005, and 2006. A large proportion of the archaeological data comes from the plow zone and is descriptive in nature, although we did discover several sub–plow zone features that reveal evidence about the town’s growth and development from the 1840s through the 1930s. These features provide an opportunity to create a more detailed picture of nineteenth– and early twentieth–century lifeways in New Philadelphia. This information helped us to move forward in successfully nominating the town site to be listed on the National Register of Historic Places in 2005.

METHOD
Likes Land Surveyors, Inc. of Barry, Illinois assisted greatly in the exploration of New Philadelphia. They located the original plat and imposed the town plan over the existing topography, marking the boundaries of the town, blocks, and lots. Likes Land Surveyors, Inc. then produced a map, which was overlain on an existing aerial photograph (similar to Figure 3A.1), which then guided our initial archaeological survey in the fall of 2002 and the spring of 2003 (Gwaltney 2004).

Figure 3A.1. 1998 Aerial photograph of New Philadelphia site with an overlay of the block, lot and street boundaries. The large numbers are the blocks and the smaller numbers are the lots. (Image overlay by Christopher Fennell.)
In order to create an excavation and research strategy, the archaeology team decided that a pedestrian survey should be the initial phase of work. The survey helped locate and identify artifacts on the surface and allowed the archaeologists to determine which areas were settled within the town proper. New Philadelphia is approximately 42 acres, and prior to this survey, the archaeology team asked the New Philadelphia Association to plow the fields that had already been disturbed by prior agricultural activities. They plowed on the average of 0.25 ft. to 0.5 ft. deep and covered about 26½ acres. This plowing allowed for greater than 75% ground visibility in the fields. The archaeologists did not survey about 2¼ acres of protective prairie grasses that surrounded the several remnant foundations. About 3¾ acres of privately owned land were not surveyed. An additional 9½ acres was not surveyed because of terracing for soil conservation, existing historic roads, tree cover, or coverage by part of an artificial pond. The walkover survey was conducted over the newly plowed fields (Gwaltney 2004).

The walkover survey under the field supervision of Joy Beasley and Tom Gwaltney (see Gwaltney 2004) provides important information that furnishes artifact distributions over the site. The clustering of artifacts shows distinct patterns that are highly informative for understanding the town’s settlement (Figure 3A.2). The analysis of the plow zone data indicates that there are large concentrations of artifacts found within the lots bordering Broad and Main Sts. in Blocks 3 (Lots 3–6), 4 (Lots 1, 2, and 8), 7 (Lot 1), 8 (Lots 1–8), 9 (Lot 5), and 13 (Lots 3–4). Blocks 4 (1856), 8 (1844), and 7 (1854) have the earliest mean ceramic dates and Block 9 has a mean ceramic date of 1858. Very little work-related materials, such as tools associated with blacksmithing, are present in this assemblage (Gwaltney 2004).

*Figure 3A.2. Distribution of historic artifacts found at New Philadelphia (from Gwaltney 2004).*
Kitchen wares tend to comprise the higher proportion of artifacts in each of these blocks and indicate that each of these blocks included domestic structures. A 1939 aerial photograph shows a domestic structure on Block 7, although the relatively larger proportion of architectural versus kitchen artifacts may indicate that the structure was occupied for a relatively shorter time than the other houses. An oral history by one of the town’s neighbors suggests that the house was abandoned in the early twentieth century (Burdick 1992: n.p.), and it was dismantled in the 1930s because of its derelict condition and the desire to transform the land into agricultural use.

While the archaeological data from the walk over survey are from a plowed context, the artifacts provide some very important information that guided our excavation strategies. This information indicates that there is a high probability of locating domestic occupations of the town, especially along Broad and Main Streets.

After determining the areas of highest artifact concentrations, a geophysical survey was performed by Michael Hargrave (U.S. Army Engineer Research and Development Center, Construction Engineering Research Laboratory [CERL]) for three days at the beginning of each field season. This work indicated the presence of subsurface anomalies (Hargrave 2006). Prior to excavations the archaeology team used a 1 in. diameter core to test many of the anomalies. Resistance from stone or artifacts, or finding cultural material in the core samples, such as plaster and mortar, is an indication of a subsurface feature. This combined work allowed the archaeologists to concentrate excavation units on more specific areas of the town site.

In general we have a very good sense of land ownership (based on deed research), the general population of the town (based on census data), and the development of the lots (based on tax records). Based on the historical documentary evidence, archeological survey, and geophysical survey, the archaeology team chose to work in several areas of the town site, including: Block 3, Lots 1, 3–7; Block 4, Lot 1; Block 7, Lot 1; Block 8, Lots 2 and 4; Block 9, Lots 4–5; and Block 13, Lots 3–4.

The archaeology team used an engineer’s scale since it is the most commonly used form of measurement in historical archaeology. The archaeology work then proceeded in two steps. First, a form of sampling using 5 x 5 ft. excavation units retrieved data from the town lot and gave us a sense of the plow zone, subsurface features, and artifact concentrations. Second, the archaeology team selected anomalies identified in the geophysical survey and systematically sampled them using a one inch core. If feature material, such as mortar, stone, artifacts, or unusually deep subsoils were encountered, we tested these areas through controlled excavations. Once features were identified students proceeded with a larger block excavation using 5 x 5 ft. excavation units. Generally, the archaeologists removed plow zone materials in 0.5 ft. arbitrary levels until they encountered features or subsoil. Since most of the area was plowed these excavations proceeded quickly until the archaeology team encountered subsurface features and/or undisturbed stratigraphy below the plow zone. Features, such as subfloor cellar pits, foundation walls, cisterns and wells, were bisected and excavated according to
stratigraphy, and the team systematically collected soil samples for flotation in order to retrieve archaeobiological data.

The artifacts were analyzed and grouped into several megastrata. Megastratum I is a mixed context that includes the plowzone and late 20th–century materials. Megastratum II is an undisturbed late nineteenth century context (in Block 3, Lot 7 it is divided into megatrum IIA [early 20th century] and IIB [late 19th century]), and megastratum III is a mid–nineteenth century context. The subsoil, where no cultural activities occurred is designated megastratum B.

LAB WORK AND ANALYSIS
During each season, five weeks of fieldwork at New Philadelphia were followed by five weeks of laboratory work and analysis at the Illinois State Museum (ISM) with museum staff members serving as additional mentors. Students cleaned, labeled, and identified archaeologically retrieved data. The data were entered into a computer database. Students then performed a minimum vessel analysis for the archaeological materials found in undisturbed contexts. Students also learned stabilization procedures for archaeobiological specimens. Marjorie Schroeder (ISM) mentored students during the macrofloral analysis. The students processed soil samples through a flotation device in order to recover archaeobotanical remains, small–scale animal remains, and very small artifacts, such as glass beads (Figure 3A.3).

Figure 3A.3. Filedschool student, Megan Bailey, processes soil samples through a flotation device to recover archaeobotanical remains (Photograph by Gary Andrasko, ISM).
Terrance Martin mentored the field school students with the identification of animal remains and demonstrated various ways of categorizing anatomical elements as cultural entities (skeletal portions and butchering units), recognizing natural modifications (e.g., carnivore and rodent gnawing) and cultural modifications (burning, sawed or chopped margins, and knife cuts), and quantifying faunal assemblages in terms of specimen counts, minimum numbers of individuals, and biomass (Figure 3A.4).

The development of collegial relationships and interactions is an important part of this NSF–REU project. For 10 weeks students worked together in a collaborative fashion, using scientific methods to collect data and analyze it. While we encouraged a sense of team work, mentors were always present to show students how to develop and change methods when necessary, analyze data, and think about the results of their work. This relationship ensured the development of student–faculty interaction and student–student communication.

THE REGIONAL ARCHAEOLOGICAL RECORD
While we know a tremendous amount about the McWorters and their association with the development of New Philadelphia, the archaeology provides a voice to the many other community residents about whom we know very little. The archaeology helps contribute to the social history of the town and provides clues related to health, diet, social interaction, and consumer behavior. (For a more detailed description of the archaeology, see the Unit Summaries in Appendix A.) The following section provides an overview for some of the features and artifacts found on the lots in which excavations were conducted.
over the past three summers. This section is then followed by subchapters which provide an overview of the archaeology in each lot along with a list of deed, tax, and census data. This description helps us form a preliminary understanding of the use and development of those portions of the New Philadelphia town site investigated thus far.

Robert Mazrim’s (2002:161–172) synthesis of historic sites found on the Illinois frontier provides a comparison for understanding the archaeology in New Philadelphia. His work focuses on the identification of features and artifacts found on Illinois frontier sites. While his work is helpful for understanding the earliest settlement of New Philadelphia, it also serves as a baseline for the later archeological materials found at the site. Useful for this project is Mazrim’s (2002) identification of three types of feature pits that could be found in a rural frontier site. This information is used here as a guideline for the New Philadelphia site.

In frontier Illinois there may have been little need for refuse pits, but refuse disposal became more prominent as towns developed. Hogs and other wild animals, like dogs, raccoons and small rodents, may have roamed the grounds of New Philadelphia, devouring food remains. A preliminary review of the recovered faunal assemblages from several features shows a considerable amount of rodent gnawing. Other materials, such as ceramics, bottles, and architectural remains were probably disposed in areas farthest from the house and probably close to property boundaries (as in the case of Feature 19 in Block 4, Lot 1). Whether a frontier, a developing rural community, or an urban area, pits such as cellars, storage areas, privy vaults, abandoned wells and cisterns would eventually be filled with refuse after their primary functional uses were no longer needed. This fill would also consist of surrounding soils and debris. Sometimes this filling occurred before abandonment of the original function, although it probably occurred more often after abandonment. For instance, a cellar pit may function as a place to store goods under the floor of a cabin, but after the building is abandoned and the cabin torn down or salvaged for materials, the cellar would be filled with either the remaining architectural debris, or with household trash from nearby households. The identification of artifacts and their known manufacturing dates provides a good indication of the feature’s secondary use. In the case of New Philadelphia, the townspeople filled many of these features with fieldstone and household debris and the domestic lots eventually became part of the agricultural landscape.

Houses
The log cabin is part of the wood oriented practice of an Upland South cultural tradition. Houses built of horizontally laid logs originated with the Germans in Pennsylvania, Delaware, Maryland, and New Jersey, and later the Scotch/Irish adapted the tradition (McAlester and McAlester 1984:82). This building tradition spread with the migration of settlers to the Upland South, and eventually to Illinois. One major type of cabin design is the single pen 1 ½ story cabin with side-facing gables and an extensive gable-ended chimney. The size of the pens, or room, changed little from the eighteenth through the early twentieth centuries with an average size of about 18 x 22 ft.. The cabins usually had hand hewn logs that measured 10 to 26 inches in diameter and rested 12–15 inches above
the ground on either a stone foundation or stone piers. Chimneys were either stone or a type of wattle and daub often called cat and clay. They could be a combination of both, with a limestone base and wattle and daub flue, although stone was much preferred because of its lower maintenance. The wattle and daub versions are often found among the earliest cabins in the frontier (McCorvie 1987:266; Morgan and Medford 1980:140). The double pen log cabin had two rooms that shared a central chimney. The dog trot house is a double pen structure with space between the two pens to form a breezeway. Many of the spaces were eventually enclosed to form a third room.

The early settlement houses on the Illinois frontier tended to be log houses. For instance, John Woods, an English immigrant who settled the area after the War of 1812, described in detail the 16 x 18 ft. log structure built by one of his neighbors. These early houses were generally one story. Two doors were placed on opposite sides of the house and the chimney placed at the end. The chimney was constructed of wood and plastered on the inside with either clay or loam. Stone or clay lined the hearth. Another cabin built in 1817 in the Wabash Valley was described as being 12 x 14 ft. with an earthen floor. A chimney did not exist, but rather there was a space between the clapboards so that the smoke could escape. Some cabins also had a loft or attic space for storage (from Mazrim 2002:18–19).

By the Civil War the log cabin was perceived as a primitive house type. Many were torn down and the lumber reused. Others were sided with clapboard, while still others were added to create larger structures (McCorvie 1987:266). Feature 7 represents the remains of a cellar for a log cabin. After that structure was vacated, parts of the building materials were deposited into a nearby abandoned well by the mid 1850s.

Subfloor Pit Cellars
Cellar pits tend to be geometric in plan and usually excavated to a depth of one to three feet below the plow zone. Phillippee and Walters (1986) note that some mid-nineteenth century subfloor features measured 5 x 7 ft., and most measured 8 x 12 ft. Charles Faulkner (1986) observed pit cellars measuring 6.5 x 5 ft., 8 x 8 ft., and 10 x 15 ft. Mazrim (2000:163) notes that several frontier-era pit cellars in Illinois measured from 3 ft. to 9 ft. wide by 6 ft. to 11.5 ft. long. These features tend to have flat bases and straight walls; although the sides may have slumped and, when excavated, they appear to be concave in shape. The pit cellars tend to fall into two categories. The first type is wide and shallow and could have been used for crawl space. The second type tends to be smaller and more regular in dimension, but deeper. Remains of such pits tend to extend from 1.0 to 2.0 ft. below the base of the plow zone.

In the 2004 excavations at New Philadelphia, archaeologists located one subfloor feature in Block 9, Lot 5. Feature 1 measures about 5.0 x 5.0 ft. and its remains extended about 1.0 ft. below the plow one. This cellar pit may be shallower than the ones identified by Mazrim since the plow zone may be a bit deeper than most sites (see below for more detail). The feature materials date to approximately the 1850s/1860s. According to the tax records the building was dismantled before 1870. It also appears that another building was constructed over the filled cellar. It stood until the 1940s. The feature fill is associated with Kasiah Clark’s ownership of the lot.
In the 2005 field season the archaeology team identified one subfloor pit cellar that was later excavated in the 2006 season. Located in southwest corner of Block 4, Lot 1, Feature 7 measures about 3.5 x 10 ft. and it is 1.5 ft. deep below the plow zone. Few artifacts came from this feature, although the small sample size indicates that the feature was filled during the 1840s and maybe as late as the early 1850s. It contains the earliest dated fill material recovered at New Philadelphia thus far.

The archaeology team identified another subfloor pit cellar in the northwest corner of Block 8, Lot 2. Feature 14 measures about 18.6 x 16.0 ft., and it measures 2.7 ft. in depth below the plow zone. The north eastern section has a 2.0 ft. wide clay (subsoil) ramp that descends into the bottom of the cellar. The lower levels of the cellar fill dates to the 1860s and the rubble toward the top of the feature dates to the early 1870s.

Other Subsurface Features: Cisterns and Wells
Cisterns and wells would have served as a good source of water for households. The cistern would have been located close to the house catching rain runoff and storing it for later use. Mansberger (2003) suggests that most cisterns that date to New Philadelphia’s early settlement would have been above–ground barrels. If the barrel was placed below the ground, the subsurface cavity would be relatively narrow and not be any deeper than the height of a barrel. Later cisterns could be lined with stone, brick and/or mortar. Wells tapped into the ground water would be deeper. They could be close to the house and they would have a much larger circumference.

Two features (Features 4 and 13) at New Philadelphia are currently being described as cistern/wells. Because of safety concerns we ceased excavations at about 4.0 ft below the surface. Finding the depth of the feature will help determine their original function. For this report we are identifying them as cistern/wells.

Feature 4 in Block 8, Lot 4 measures about 12.5 x 12.0 ft. at the surface and is at least 2.5 ft. below the plow zone (and 4.0 ft. below the surface). As the excavation got deeper the feature narrowed and became more circular. No brick or stone lining was found and excavations ceased at the end of the 2005 field season at this depth in order to follow proper safety precautions. Few artifacts, faunal, or botanical remains, came from this feature, and the filling episode dates to the 1850s.

Feature 13 in the southeast corner of Block 4, Lot 1, was identified in the 2005 field season and excavated in the 2006 season. On the surface, it had a circular shape, measuring about 8.0 x 9.0 ft. The feature was excavated to a depth of 4.0 ft. below the plow zone, and it retained its circular shape. The feature is related to a nearby 1840s cabin since the bottom was filled with architectural debris with large pieces of mortar that would have served as chinking. The materials from this cistern/well date to the late 1840s and very early 1850s.
Other subterranean storage features

In Block 4, Lot 1 archaeologists identified a rectangular subterranean storage feature or a privy. Feature 19 appeared circular in shape with a 7 ft. diameter and a scattering of stones that tended to be about 1.0 ft. square or a bit larger. Below the plow zone the feature has square–like corners with relatively straight walls. It has five courses of stone and exists to a depth of about 3.0 ft. below the plow zone. Documentary evidence suggests that a merchant from Ohio constructed this feature. It was slowly filled with debris after the merchant sold his property. Raspberry and choke cherry seeds form a narrow lens at the bottom of the feature. It is most likely that the merchant needed a cold storage area for perishable goods and after he left town the area became a receptacle for trash and chamber pot refuse.

Exterior Crop–Storage Pits

Exterior crop–storage pits served to store fruits and vegetables during the winter months. A shallow hole would be excavated, then stacked with crops, and finally covered with straw, branches, and soil to insulate them from frost. When the family needed food, the covering would be pulled back in one section and vegetables could be retrieved. These pits are often found near wells or near fence lines, and they tend to be more oval and/or oblong in shape when compared to pit cellars and can be up to 1.0 ft. deeper than the base of the plow zone (Mazrim 202:163–165). The archaeology team did not identify any exterior crop–storage pits thus far in New Philadelphia.

Privy Vaults

Mazrim (2002:168) has identified several features that he describes as privy vaults. While these features are difficult to identify it appears that many located in a rural setting may have been shallow and periodically shoveled out through a rear trap door. While they tend to be geometric in shape, they are also smaller in size when compared to pit cellars and they are no more that 1.0 ft. deeper than the base of the plow zone. While expecting to find fecally–deposited seeds such as blackberry and raspberry, Mazrim suggests that these seeds are non–staple foods and are not a significant part of the frontier diet of the 1830s and 1840s. However, raspberry seeds have been found in an 1850s context in New Philadelphia (Features 13 and 19), perhaps related to chamber pot dumping.

Material Goods

St. Louis served as a major port of entry for consumer goods for the region. Refined earthenware ceramics from Great Britain and redware and stoneware vessels from places like Louisville, Cincinnati, and Pittsburgh found their way to the inland regions via St. Louis (Davis 1998). Scroll flasks from the Ohio Valley region appear in New Philadelphia in the 1850s.

By the 1830s the markets expanded considerably. In 1832 steamboats connected Chicago and the Midwest to eastern ports via the Erie Canal and the city of Buffalo. Work on the Erie Canal in New York State eventually spurred canal projects in Illinois and eventually bound Illinois to northeastern markets (Davis 1998).
By the 1850s, the increased transportation and communications development effectively transformed the Illinois frontier into a fully settled region and connected to national markets. For instance, in 1834 about 230 steamboats traveled through the Mississippi and its tributaries and by 1848 about 1,300 navigated through the waters (Davis 1998).

In 1851, for example, Chicago shipped nearly 40 percent of the corn entering Buffalo, over 42 percent of the oat, over half the wheat, nearly 54 percent of the bacon and hams, nearly 57 percent of the beef, nearly two-thirds of the corn. Chicago, moreover, shipped over 22 percent of the furs, nearly half the hides, and over 99 percent of the buffalo robes (Davis 1998:358).

By the end of the decade, Chicago shipped over 18 million bushels of grain. The Midwest became a major player in developing the American capitalist economy. Illinois and the Midwest region were no longer isolated and other regions depended on their products (Davis 1998).

**Ceramics**

Stoneware and redware vessels are rare on Illinois sites that predate 1835 and their presence does not increase until steamboats commerce increases. “Food storage vessels consist of small to medium-capacity pots and jugs. Food preparation vessels consist primarily of multipurpose, deep kitchen bowls” (Mazrim 2002:217). Milk pans can also be found at sites, although their quantities are low. The lack of regional potters in the first quarter of the nineteenth century meant that crockery vessels are almost non-existent on these early sites. Many of these vessels do not appear in the archaeological record until about the 1830s (Smith and Bonath 1982:937). Illinois redware potters primarily made utilitarian kitchenwares, such as pots, bowls, and jugs, prior to the 1840s. Local potters in the German communities of Quincy’s post-frontier era provided the area with an array of objects for cooking such as pipkins, mush mugs, porringer, herb pots, or bean pots (Mazrim 2002:245, 265). The available redware assemblages became much more elaborate. Stoneware was not made in any quantity in Illinois until the mid–1830s (Mounce 1989). Food service vessels, such as table plates and bowls are prevalent on early nineteenth–century domestic sites. Chamber pots and apothecary vessels are also common, while yellowware vessels tend to be rare (Mazrim 2002).

Yellowware is a simple hollowware form that was first manufactured in England in the late eighteenth century and by the 1830s potters in New Jersey and Vermont manufactured this type of ceramic. By the 1840s potters in Ohio and Indiana produced it, and by the 1850s potters manufactured it in Illinois (Ramsey 1939). By the mid– late–nineteenth century, yellowware (1830–1900) became a popular ceramic used as a container in the area of New Philadelphia. Several of these vessel types have a banded design. The largest quantity of utilitarian wares (used for food storage) found is buff pasted stonewares (1840–1900). Most of the refined earthenware ceramics (used for dining and serving) found at New Philadelphia tended to be undecorated whitewares (1820–1900) and date to the mid–nineteenth century. Transfer prints have been identified throughout the site and the most common print designs are blue, while pieces of brown, black, cranberry and green transfer prints are also present, most dating to the 1840s and
1850s. A few hand painted pieces and spatter and sponge designs have been recovered. Most of the shell edge pieces are painted with molding.

Generally, at New Philadelphia the proportion of refined earthenware ceramics (mostly whitewares, although there are some pearlwares) are much higher than course earthenwares (redwares and stonewares). In the frontier sites examined by Mazrim (2002:248), he finds that the ratio of refined earthenwares to utilitarian wares is no less than 5:1. While this ratio might be surprising for sites established in a frontier context and counter our expectations about life on the frontier, it actually represents the norm because these places were well connected to eastern ports. On the other hand, several sites in western Pennsylvania, dating to about 1790–1840 and closer to the eastern ports, have a much higher proportion of course earthenwares (Mazrim 2002). This phenomenon may be attributed to members of the German communities relying more heavily on established local redware potters for their tableware ceramics (Fennell 2003: 334-47).

**Glass**

Container glass is rare on pre–1835 rural sites in Illinois. The archaeological assemblages tend to be small, unidentifiable, and often include aqua shards. Glass fragments most probably represent medicine bottles or vessels used for household chemical products (Mazrim 2002:219). Olive green glass containers tended to hold wine and other spirits.

Mid–nineteenth century archaeological contexts show that the number of glass containers increased significantly. At New Philadelphia archaeologists recover a significantly larger proportion of glass in contexts dating from the 1850s and later. For example, there is a portion of an aqua–green scroll flask container that would have come from a pear–shaped vessel with an oblong base. There is a wide range of scroll flasks manufactured in the middle of the nineteenth century, all with pear–shaped bodies and stylized designs. Some were made as early as the beginning of the 1830s and most were manufactured from 1840 to 1855 and were produced in the Midwest (Spillman 1883:38). At New Philadelphia the scroll flask shard was found in an 1850s–1860s context in Block 9, Lot 5, a cellar pit attributed to the occupation associated with Kasiah Clark (Figure 3A.5).
Mason jars become abundant in New Philadelphia starting in the 1860s. Glass lid liners are found throughout the entire town. Most are fragmented, although archeologists found complete liners in Block 9, Lot 5, Block 3, Lot 7 and in Feature 14 of Block 8, Lot 2 (Figure 3A.6). The lid liners are an indication of the wax seal technology that developed by the mid-nineteenth century. Glass jars were covered with matching glass or tin lids and a wax or grease element formed an airtight seal. Tin lids with liners are also part of the assemblage in Block 3, Lot 7. John Landis Mason, a New York tinsmith, developed a process of pressing zinc lids for threaded canning jars. By 1868 the first glass inserts were developed by Salmon B. Rowley. They tended to be opaque milk glass. The screw lids with lid liners decreased the chances of spoilage and facilitated the canning process (Munsey 1970:146).
Ink Bottle
In Block 8, Lot 4 archaeologists recovered fragments of a container glass immediately above a cistern/well feature (Feature 4) (Figure 3A.7). When mended, the container has an embossed makers’s mark – “J.J. Butler/Cin.” The J.J. Butler Company was a Cincinnati based manufacturer of inks. The square bottle was manufactured between 1854 and 1860.\textsuperscript{1}
Activity Related Artifacts

Personal activity related artifacts are found in relatively low frequencies during the frontier era, although the most common artifacts found are related to sewing, writing, grooming and leisure activities. Sewing related artifacts include straight pins, thimbles, small scissors, and spindle wheels. Straight pins often dominate the sewing assemblage and writing slate and slate pencils represent the primary form of writing instruments recovered archeologically. Grooming related artifacts found at sites include fine-toothed combs (Mazrim 2002:221).

Many of these activity–related artifacts are found throughout New Philadelphia. Feature 1, related to the 1850s occupation of Kasiah Clark’s household on Block 9, Lot 5, contains six thimbles, a scissor handle, and milk glass, bone, and shell buttons. There is one shell button platform that appears to have been broken during the manufacture of the button. A fine–tooth comb, also known as a lice comb, is in the assemblage. All of these artifacts are related to specific domestic and grooming activities (Figure 3A.8).

![Figure 3A.8. Lice comb found on Block 9, Lot 5 (Photograph by Christopher Valvano).](image)

A few thimbles and a large quantity of buttons came from the Feature 14 cellar pit in Block 8, Lot 2, an assemblage that dates to the 1860s and early 1870s. When observing this large button assemblage, many archaeologists will conclude that these buttons are a reflection of the domestic activities taking place at the site and maybe even associate it the presence of seamstress at the site. Some archaeologists have also made the connection between the relatively large proportion of buttons and African–American habitation. They claim that this pattern may be related to the occupants’ “membership in an ethnic group” (Cheek and Friedlander 1990:55). Kliggelhofer (1985:19) also noted that there is a higher frequency of buttons found on sites inhabited by African Americans. However,
there are other explanations for such an assemblage that add a different dimension to understanding the everyday activities in a mid-nineteenth-century rural community. Barbara Little and Nancy Kasner (2004) place these artifacts in a larger social and historical context. They suggest that these artifacts do not necessarily have an association with ethnic groups, but rather they are associated with economics. Using an example from a Jewish rag picker in Oakland California (Praezellis and Preatzellis 1990), they recognize that the high quantity of buttons (as well as bottle glass) found in a Washington, D.C. alley dwelling was a product of people supplementing their income through the production of rags as secondary textiles. Buttons were picked off clothing and the clothes were sold as rags to be recycled. The buttons remained at the site, although many of them could have also been reused (Little and Kasner 2004).

Leisure Activities
Leisure activity artifacts generally include smoking pipes, gaming pieces, and jaw harps. Smoking pipes are the most regionally diverse product. For instance, in the American Bottom, the redware Moravian–type forms were common. These tend to have anthropomorphic figures, much like those found in the South Carolina region (Bivan 1972). In the Sangamon region, the pipes tended to be undecorated redware elbow pipes. Mazrim (2002:221) believes that a local potter, John Elby, may have manufactured these. The English long stem white kaolin pipe was also present in the region. White kaolin pipes were also found in the Wabash Valley region (Mazrim 2002:221).

New Philadelphia has a mix of both terracotta (described above as redware) and kaolin pipes. It appears that finding a mix of kaolin and terracotta pipes is common for this region of Illinois (Smith and Bonath 1982:954). In 2006, archaeologists found two nearly complete terracotta pipes in Feature 14 on Block 8, which dates to the 1860s and early 1870s. One bowl had an anthropomorphic figure (Figure 3A.9).

![Figure 3A.9. Redware pipe bowl fragments from the New Philadelphia site – Block 8, Lot 2, Feature 14 (Photograph by Christopher Valvano).](image)
Very few jewelry pieces are part of the New Philadelphia assemblage and they are mostly beads; several of these beads are black, two are blue, while another is milk glass. A crinoid (fossil) found in an historic context may have been used as a bead. The surface collection yielded two Job’s Tear beads.

Archeologists found several toy objects throughout the town site. In Feature 1 of Block 9, Lot 5, (which dates to the 1850s–1860s), archaeologists found a miniature pewter toy set that included a pitcher, spoon, and an urn. Porcelain doll parts dating to the Civil War era were found in Feature 14 in Block 8. Other doll pieces were found in much more recent contexts, as late as the 1930s. In Block 3, Lot 3, the team uncovered a glazed multi–colored large marble and one whole and one fragment of an unglazed kaolin marble. Generally, marbles were found throughout the site.

In Block 3, Lot 7, the archaeology team found several toys related to the early twentieth–century occupation and eventual abandonment of the town. In an early twentieth–century context archaeologists found a bone or ivory elephant charm with a compass (Figure 3A.10). There is an embedded post with a loop as well as a small working compass. It measures about 7/8 inch tall. They were sold in novelty catalogs, such as Johnson Smith Company, from the 1920s to the 1940s. They have been sold to use on pocket watch chains, as carnival prizes, or just novelty toys. Other toys found in this context are part of a metal toy train locomotive and parts of a porcelain doll.

Figure 3A.10. An elephant charm manufactured from the 1920s and 1940s and found in a 1930s context in Block 7, Lot 3 (Photograph by Christopher Valvano).

Gaming pieces have been found in almost every area excavated at New Philadelphia (Figure 3A.11). They may be associated with the game known as mancala, which refers
to a large family of games based on distributing seeds, pebbles, or shells into holes or cups. Mathematicians who study games often call the mancala family "sowing games." Mancala, derived from the Arabic word manqala meaning, "to move." Also called Adi, Adji, Awale, Awele, Awari, Ayo, Ayo–ayo, Gepeta, Ourin, Ourri, Oware, Wari, Warra, or Warri, the game is played by distributing gaming pieces into holes or cups. The game developed about 4000 years ago in the Middle East and is also played widely in Africa (Cullin 1894). African people often played with pebbles or cowry shells, using hollows scooped into the earth or pecked into stone. They brought their variations of mancala with them to the United States during the seventeenth and eighteenth centuries. Different versions of the game have been found in the Near East, Egypt, West Africa, and the Caribbean (NPS 2005a; Samford 1994; also see Galke 2000; Patten 1992).

Figure 3A.11. These gaming pieces are found throughout New Philadelphia and may be from a game known as mancala. Top row are stone pieces, middle row are glass pieces, and bottom row are ceramic pieces (Photograph by Christopher Valvano).

In 1919, Felix von Luschan mentioned warra as played in southern states and communities with large populations of African Americans (Luschan 1919). Mancala has been identified at a variety of eighteenth and nineteenth–century plantation sites as well as at a free African–American site. The mancala pieces are typically small, diamond–shaped objects fashioned out of broken ceramic and glass shards. These ceramic shards are smoothed and worn around the edges from years of play (NPS 2005b).

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1 Research on the J.J. Butler Company compiled by Jordan Bush.