APPLIED ARCHAEOLOGICAL SERVICES

Phase I Cultural Resources Management Investigations for a Proposed 36.9 ha (91.1 a.) Industrial Park in Fairfield Township, Highland County, Ohio

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by

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i. Abstract

In February of 2001, Phase I Cultural Resources Management investigations were conducted for a proposed 36.9 ha (91.1 a.) industrial park in Fairfield Township, Highland County, Ohio. The project area is located in a rural setting that is southeast of the community of Leesburg. There are no farmsteads within or immediately adjacent to this parcel. The setting involves rolling upland landscape that is within the Illinoisan glaication region. The investigations involved surface collection procedures that were conducted throughout disked and weathered transects as well as fallow crop stubble areas. Approximately 50 percent of the project area was disked prior to the completion of the field work. These investigations identified three previously unrecorded archaeological sites (33HI277-279; Appendix B) and one pre-1951 architectural property (HIG-296-1; Appendix A). These resources are not considered to be eligible for the National Register of Historic Places. No furhter work is recommended.

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1. Introduction

In January of 2001, a Phase I cultural resources management (CRM) survey was conducted for a proposed 36.9 ha (91.1 a.) industrial park in Fairfield Township, Highland County, Ohio (Figures 1 and 2). These investigations were conducted by APPLIED Archaeological Services, Inc. (APPLIED) for the Highland County Economic Development. The lead agency for this project is the Economic Development Administration (EDA). There are no previously recorded cultural resources within or adjacent to the project area.

The project area involves a basically rectangular-shaped parcel that is on the east side of State Route (SR) 771. The northern boundary is established at Lovers Lane. The eastern and southern boundaries are defined by property lines. The project area is situated south of the Village of Leesburg.

This area is situated within the ground moraine of the Late Wisconsinan glaciation (Pavey et al. 1999). This includes level to nearly level terrain that might be gently rolling at times. The project area is rolling and gradually slopes eastward from SR 771. The entire area is contained within a farm field that was soybean stubble at the time of survey. Strips were plowed into the field to facilitate surface collection procedures.

Initial investigations and reconnaissance of the project identified the basic former location of the Guthrie residence and reviewed the surface conditions. It was determined that surface visibility was inadequate to permit surface collection strategies (i.e., <50 percent). Elevations within the project area offered better visibility but this was limited to these locations. It was determined that plowing or disking of the surface would be necessary to complete the field work of this project in a cost-effective and efficient manner. In February, the field was disked and allowed to weather. Surface collection methodologies were conducted throughout the project area.

2. Literature Review

2.1. Literature Review Methodology

The literature review study area is defined as a 3.5 km (2.2 mi.) radius surrounding the project area. The 3.5 km (2.2 mi.) radius is located within the United States Geological Survey (USGS) *1960 (Photorevised 1974; Photoinspected 1979) Leesburg Quadrangle, Ohio, 7.5 Minute Series (Topographic)* map. In conducting the literature review, the following resources will be consulted:

1) Mills' *An Archeological Atlas of Ohio* (1914)
2) Ohio Historic Preservation Office (OHPO) United States Geological Survey (USGS) 7.5' series topographic maps and the Ohio Archaeological Inventory (OAI) files
3) Ohio Historic Preservation Office (OHPO) Cultural Resources Management (CRM) / contract archaeology files
4) Ohio Historic Inventory (OHI) files
5) National Register of Historic Places (NRHP) files
6) Highland County atlases, histories, historic United States Geological Survey (USGS) 15' series topographic map(s), and current United States Geological Survey (USGS) 7.5' series topographic map(s)

2.2. Literature Review Results

2.2.1. Mills' *An Archeological Atlas of Ohio* (1914)

Mills' (1914) atlas indicates that there is one mound located north of the railroad tracks and northeast of the project area. This location will not be affected by the development.

2.2.2. Ohio Historic Preservation Office (OHPO) United States Geological Survey (USGS) 7.5' series topographic maps and the Ohio Archaeological Inventory (OAI) files

Review of the pertinent topographic maps identified a single previously recorded archaeological site within the study radius. This site, 33HI26, is a lithic scatter that produced celts and several unknown point types. This site is not within or adjacent to the project area.

2.2.3. Ohio Historic Preservation Office (OHPO) Cultural Resources Management (CRM)/contract archaeology files

Review of the Ohio Historic Preservation Office Cultural Resources Management (CRM)/contract archaeology files indicated that no previous CRM surveys had been conducted within the project area or the study radius.

2.2.4. Ohio Historic Inventory (OHI) files

The OHI files were consulted to determine if any previously recorded sites, structures, buildings, or objects were located within or adjacent to the project area. No such resources were identified.

2.2.5. National Register of Historic Places (NRHP) files

The NRHP files were consulted to determine if any registered buildings, structures, sites, objects, or properties exist within or adjacent to the project area. There are no NRHP resources within or adjacent to the project area.

2.2.6. Highland County atlases, histories, historic United States Geological Survey (USGS) 15′ series topographic map(s) and current United States Geological Survey (USGS) 7.5′ series topographic map(s)

According to the *Atlas of Highland County, Ohio* (Lake 1871), the project area was owned by L. C. Guthrie (Figure 3). At this time, Guthrie owned 153 acres which encompasses the project area. A residence is located within the southwestern corner of the property and project area.

The *Atlas of Highland County, Ohio* (Lathrop 1887) notes that the project area was owned by Jonathon H. Guthrie (Figure 4). This property includes a 100 acre parcel with a residence located in the southwestern corner. This is within the project area.

Review of the USGS *1917 Sabina Quadrangle, 15 Minute Series (Topographic)* map depicts a single residence within the project area (Figure 5). This is similarly located to that of the Guthrie residences from previous atlas resources. The residence is not apparent on modern topographic references.

3. Cultural Setting

3.1. Introduction

The following is a brief discussion of what is known about the prehistoric cultural setting of the portion of North America which is currently known as Ohio. This cultural setting is in no way complete or finalized, because of the possibility of new findings. It should also be realized that this is a relatively brief summary of the past 12,000 years. This section is merely meant as a general overview of what is currently understood of Ohio's prehistoric period in this portion of Ohio as it relates to cultural remains which may be encountered during field work.

3.2. The Paleoindian Period (10050? B.C.-8050 B.C.)

The first inhabitants probably began to exploit this area between 10,000 and 12,000 years ago (Chapman et al. 1985). Glacial movements created plugged valleys, which later became lakes and reservoirs of the glacial meltwaters. Plugged valleys in the unglaciated plateau are somewhat broader and sometimes contain elevated benches. These areas exhibited environmental diversity which allowed for broad spectrum resource exploitation. This type of environment and locale was preferred in Paleoindian subsistence patterns.

Tankersley and others (Tankersley et al. 1990) have suggested some Paleoindian land use patterns in the glaciated areas of Indiana. Ohio's land use patterns can be extrapolated from these due to the similar glaciated environments which were found during this period. Based on Tankersley's current research (1990), the majority of Paleoindian sites found in Indiana are located in the unglaciated portions of the state with a low amount located in the glaciated till plains. These findings are very reflective of similar period sites recorded for Ohio. In the glaciated region of Ohio, as in Indiana, Paleoindian sites are typically located on topographic locations which provide a vantage point for hunting related activities. These locations include overviews such as rises on end moraines, kames, terraces, and eskers which have views of kettle ponds, stream valleys, or marshy areas where game would frequent (Tankersley et al. 1990). These types of sites usually contain artifact assemblages comprised of a projectile point and occasionally other items associated with the Paleoindian tool kit such as gravers, scrapers, and

utilized flakes, among other tools (Gramly 1991). The majority of these sites located in the glaciated areas, however, consist of single projectile points and are considered isolated "find spots" (Tankersley et al. 1990).

Tankersley also notes that Clovis projectile points of the early Paleoindian period are often made of high quality cherts, usually from distant locales, which gives testimony to the nomadic nature of these early people. However, post-Clovis fluted point styles are often made of non-exotic chert types and suggest a more regional focus of lifeways as opposed to the more nomadic lifestyles of the Clovis culture (Tankersley et al. 1990). Ohio shows similar traits of this decreased nomadism from the Clovis cultures to the post-Clovis cultures .

Paleoindian subsistence patterns were based on hunting and foraging activities. During this period they are considered to have been nomadic. High mobility or nomadism was a favored land use pattern to optimize the hunting of large Pleistocene megafauna resources such as mastodon and bison. Such animals became extinct between 10,000 and 12,000 years ago. However, the Paleoindian were by no means restricted to the megafauna; they most assuredly took advantage of smaller game such as elk, deer, rabbit, and other game animals which were available throughout the state and country (Dr. Michael Gramly, personal communication 1998). Paleoindian subsistence also included plant resources, taking advantage of the numerous nut, seed, and berry resources which were prevalent across the Ohio till plains (Dr. Richard Yerkes, personal communication 1998).

Certain artifacts indicate Paleoindian activity. These artifact assemblages are characteristic of transient hunter-gatherer foraging activity and subsistence patterns. The most common artifacts from the Paleoindian period are lanceolate-shaped projectile points. These may be fluted (flake removed from the base to facilitate hafting) and have some evidence of grinding on the hafting element (base and lower portion of the biface). Other artifacts that may be part of a Paleoindian assemblage include: pitted stones, burins, bipolar flakes, backed knives, and unifacial endscrapers with graver spurs. Paleoindian sites in the glaciated portions of Ohio are encountered infrequently and are usually represented by isolated finds.

3.3. The Early Archaic Period (8050 B.C.-4550 B.C.)

During the Early Archaic Period, the environment was becoming increasingly arid. This period of dryness allowed for the exploitation of areas

that were previously inaccessible or undesirable. In most of Ohio, this may have opened areas that were previously too wet for habitation.

Subsistence during the Early Archaic Period focused primarily on herd animals. The Pleistocene megafauna, characteristic of the Paleoindian Period, had become extinct by this time. Such animals as elk, barren-ground caribou, deer, and possibly bison or forest buffalo may have become a major focus of their subsistence (Cleland 1965).

The Early Archaic Period represents a time of environmental adaptations different from those of the earlier Paleoindian Period. Although people were still primarily nomadic, there was a reduction in the amount of land used during seasonal foraging activities. Artifacts and assemblages from this period are more diverse in style and function, which may indicate a greater diversity in resource exploitation. Early Archaic artifacts are recovered more frequently and with regularity over more geologically diverse environmental areas. During this period there was an increase in populations whose members probably followed a foraging pattern that was more regionally focused than in the Paleoindian Period.

There was a marked change in tool styles, and possibly in tool use, during the Early Archaic Period. It was during this period that artifacts made of groundstone and slate first appeared. Tool assemblages often contain such artifacts as: beveled and/or serrated notched knives, unifaces, gravers, endscrapers, side-notched, corner-notched and bifurcated projectile points. Beveled hafted bifaces (i.e., Thebes, Lost Lake, or St. Charles varieties [Justice 1987]) were probably specialized deer-processing knives produced from 7500 B.C. through 4500 B.C. (Stothers and Abel 1991). Local chert sources seem to have been used regularly, but there was still some reliance on exotic cherts.

3.4. The Middle Archaic Period (4550 B.C.?-3050 B.C.?)

Very little is known or understood of the Middle Archaic Period in Ohio. Artifacts that are temporally diagnostic of this period are generally limited to hafted bifaces (knives and projectile points). Many of these point and knife varieties have been recorded from more southerly states, such as the Carolinas and Tennessee, where distinct Middle Archaic proliferations are better defined (Coe 1959).

In Ohio, little difference occurs in artifacts and assemblages to distinguish the Middle Archaic from the Early Archaic or even the Late Archaic Period. One description of this period includes specific artifact types that are diagnostic of the Middle Archaic Period, but most of the cited sources

are from more southern locations like Tennessee and the Piedmont of the Carolinas (Vickery and Litfin 1992). In fact, the Middle Archaic in Ohio may be little more than a Late Early Archaic or Early Late Archaic continuation. There appears to be little evidence for a noteworthy change in the environment during this period. Such changes would be reflected in the tool assemblages, which might make associated artifacts more discernible from other chronological periods.

3.5. The Late Archaic Period (3050 B.C.-300 B.C.)

In the Late Archaic Period there is evidence for the transference of various raw materials from distant areas. Regional population expressions became more apparent, and their range of environmental exploitation was more regionally focused than in the preceding periods. Plants became more important in the diet, and a wide variety of faunal remains is testimony to peoples' skill in hunting, fishing, fowling, and trapping. Sites from the Late Archaic Period are often larger in size and represent recurrent habitation, sometimes over long periods of time. It is at this time that there is good archaeological evidence for at least semi-permanent housing or settlement in the form of house structures and large middens.

Various artifacts are diagnostic of the Late Archaic Period. Lithic materials used in utilitarian assemblages are often from a local chert outcrop. Often, burial goods provide evidence that there was some long-distance movement of goods. There is increased variation in projectile point styles. Small side-notched and corner-notched points became quite common and took a wide variety of forms. Side and end scrapers are often present in assemblages. There appears to have been a reduced occurrence of graver spurs present on scrapers. Slate was often used in the production of ornamental artifacts. Ground and polished stone artifacts reached a high in development. This is evidenced by such artifacts as grooved axes, celts, bannerstones and other slate artifacts. Pottery first appeared in the Terminal Late Archaic.

The Glacial Kame culture (2950-2450 B.C.), situated to the north and west of an imaginary line drawn from Cincinnati to Cleveland, is best interpreted as part of a burial cult which developed in the Late Archaic period. Glacial Kame can best be considered the earliest of three Late Archaic cultural expressions in Ohio. The Williams Site, located in Wood County, Ohio, yielded radiocarbon dates ranging from 1000-500 B.C. (Stothers 1977). This site contains artifacts and shows burial traits which are considered to be diagnostic of this burial cult. The Glacial Kame culture did engage in some form of trade. They imported conch shells (*Busycon perversum*) from the

Gulf or Atlantic coasts, copper from Michigan, cannal coal from southern Ohio, and ivory which may or may not have been imported. The most diagnostic artifact of the Glacial Kame culture is the three hole sandal-sole gorget. Other artifacts diagnostic of this cultural group include circular shell gorgets, bar gorgets, shell disk beads, copper nugget beads, copper disk beads, constricted center gorgets, eagle talons, copper celts, copper awls, tubular pipes, antler harpoons, birdstones, copper panpipes, humped gorgets, and coffin-shaped gorgets made of cannal coal. The Zimmerman Site of Ohio has yielded two small ceramic vessels. These vessels are very small, have no decoration, are grit tempered, poorly fired, and poorly fashioned (Converse 1979). Burials of dogs occasionally accompanied human burials at sites belonging to this culture. This culture used several methods of interment of the dead. The most common method was the flexed burial, followed by bundle burial, and extended burial.

The Meadowood culture (1100-300 B.C.) is considered as a sister culture to Glacial Kame. It has been radiocarbon dated to 1100-300 B.C. Meadowood cultural traits are found mainly in the northeastern portions of Ohio, however, sporadic isolated finds of diagnostic artifacts are found throughout Ohio. This culture is suggested as having a more stable pattern of living as evidenced by actual cemeteries, and possible storage pits (Ritchie 1965). These people probably pursued a fishing, hunting, and gathering way of life as is evidenced by the habitation debris and grave offerings which have been recovered. The tool kit associated with this culture includes: Meadowood projectile points, some corner-notched points, Turkey Tail ceremonial points, leaf shaped mortuary blades, bone flakers, antler knapping tools, copper flaking tools, fishing nets, stone net sinkers, drills, scrapers, two-hole and three-hole gorgets, tubular pipes, beads, bone awls, copper awls, and birdstones (Ritchie 1965). There are some ceramics associated with Meadowood sites in New York which exhibit cordmarking decoration. Mortuary practices were primarily cremation, however, they also practiced other forms of interment including bundle and flexed burials, as well as combinations such as flexed cremation and bundle cremation (Ritchie 1965). The burials of this culture were often covered with red ocher powder, a practice which probably held ceremonial overtones.

The Red Ocher culture (1100-500 B.C.) is also considered a sister culture to the Glacial Kame. This cultural manifestation has been dated as existing about 700 years after Glacial Kame and lasting slightly after the end of Meadowood. Red Ochre cultures are centered in Minnesota, however, sites of this period have been identified in the northern portions of Ohio. The Red Ocher culture is very similar in traits to the previously mentioned Meadowood culture. The artifactual trappings of the two groups are very

similar. The Red Ocher culture sites show cremation burials of both the flexed and bundled varieties. The burials were often covered with large amounts of red ocher. Artifacts often associated with Red Ocher burial sites include birdstones, copper beads, copper awls, copper celts, large ceremonial Turkey Tail blades, tubular cigar style pipes of stone, and occasionally pottery.

3.6. The Early Woodland Period; Adena Culture (500 B.C.-100 A.D.)

The Early Woodland Period entailed changes in subsistence and cultural characteristics, with increased focus on local environments. A stable and productive hunting-gathering (with a greater emphasis on gathering) and perhaps a horticultural subsistence base may have played some role in the development of the Adena ceremonial fluorescence (Tuck 1978). Houses which were constructed during this period were circular, having a diameter of up to 18.3 m (60') (Webb and Baby 1966 [1957]). Excavation of these houses indicate that they were constructed with paired posts. Some houses show evidence of a secondary circle of posts located in the central portion of the house. The advent of more permanent houses as well as ceramics seem to indicate a decrease in regional nomadism, however, there appears to be strong evidence for at least seasonal mobility from campsites and/or rockshelters.

There are many different artifacts indicative of Early Woodland or Adena occupation or land use. James Tuck (1978) identifies characteristic non-mortuary Adena artifacts such as: weak-shouldered lobate-stemmed spear or dart points, possibly propelled by an atlatl weighted with bar- or keel-shaped gorgets; flat-bottomed ceramics of several varieties, often with lug handles, cordmarked on both interior and exterior surfaces (later with incised or stamped decorations); end and side scrapers; drills; splinter awls; cigar-shaped and blocked-end-tube smoking pipes; and a variety of ornamental and ceremonial paraphernalia (Webb and Snow 1945; Webb and Baby 1966[1957]; Dragoo 1963).

The Adena complex was the first to construct earthworks and burial mounds for mortuary purposes. The Adena generally buried their dead in one of three formats; extended, flexed, or bundled (Webb and Baby 1966 [1957]). Occasionally, log tombs were constructed in mounds for the placement of the dead. Often grave goods were placed with the burials. Some of these items include: mica cutout ornaments; copper bracelets, beads, gorgets, crescents, and celts; tubular and effigy pipes; and in some rare instances, engraved tablets and marine shell. The earthworks which were constructed are referred to as sacred circles, and appear to have enclosed

circular structures as indicated by the locations of post molds. This cultural trait was identified at the Dominion Land Company Site in Franklin County, Ohio, where excavation revealed a circular pattern of post molds underneath a burial mound which was surrounded by a sacred circle. Traits of Adena mound building include the intentional burning of the house structure prior to the deposition of the body in a subfloor tomb in the floor of the structure, as is indicated by the excavations of the Cowan Creek Mound in Clinton County, Ohio and the Clough Mound in Pike County, Ohio. The Adena also occasionally placed limestone slabs or other stones on top of their burial mounds and other burials as demonstrated at the Toephner Mound in Franklin County, Ohio, the Cowan Creek mound, the Orators Mound in Green County, Ohio and at the Dominion Land Company Site.

3.7. The Middle Woodland Period: Hopewell Culture (A.D. 0-450)

The Middle Woodland Period in Ohio is often thought of as the period of the Hopewell culture. There seems to have been a marked increase in the population as well as increased levels of social organization. Middle Woodland sites seem to reflect a seasonal exploitation of the environment. This seasonal exploitation may have followed a scheduled resource extraction year in which the populations moved camp several times per year, stopping at known resource extraction loci. This scheduled year may have ended during seasons of plenty, when all of the smaller groups congregated at the large earthwork ceremonial centers.

It has been suggested that the Middle Woodland people practiced horticulture, having small garden plots located near their habitation sites where they grew indigenous domesticates (Wymer 1987). Wymer has speculated that the gardens were placed in a swidden cycle which contained both active and fallow plots. It is believed that this cycle may have increased the diversity of various plants such as fruits and berries.

"Hopewell" is a concept that, like "Adena", applies more to a pattern of mortuary practices and a system for exchanging exotic materials rather than a group of people (Muller 1986). The Hopewell, like the Adena, constructed mounds for burying their dead and seemed to have intricate mortuary practices for preparing the bodies for cremation. The Hopewell also constructed large geometric earthworks which may have served as ceremonial centers. Their earthworks generally took the shape of geometric figures such as circles, squares, or octagons, however, they also constructed more symbolic mounds which took on such shapes as a bear paw, a "menorah-like" form, and a horseshoe-like form, among others (Atwater 1820; Squire and Davis 1848a). They also constructed earthen walls which

1820; Squire and Davis 1848a). They also constructed earthen walls which surrounded a given location such as those seen at Fort Ancient, in Warren County, Ohio and Fort Hill in Highland County, Ohio (Squire and Davis 1848a; 1848b).

Prufer (1964, 1966) and Griffin (1964a, 1964b) have both suggested the concept of the "interaction sphere" for the purpose of trying to interpret the phenomenon often referred to as "Hopewell". Caldwell elaborated upon this concept by coining the term "Hopewell Interaction Sphere" which was described as being "...various separate societies [which] were interacting within and beyond the boundaries of their respective regional traditions...The shared items, which indicate the interactions are principally mortuary, ceremonial, or religious." (Caldwell 1964:138). Streuver and Houart (1972) has expanded upon this idea by adding that the interactions involved "status specific objects" which are the physical representation of this interaction sphere. These objects function in the various rituals and social contexts of community life and are considered as representing this exchange. It has been suggested that this "interaction sphere" may be directed by the mechanisms through which the exotic objects enter the society (Greber 1979). This is to say that it may not be a trade system consisting of entire societies trading as whole entities, but rather instances of specific groups or members retrieving specific items dependent on the rituals which they perform or the societies to which they belong. Not much is currently understood about Hopewellian social hierarchy, however, recent investigations of copper objects through high-tech photography and digital enhancements conducted by Christopher Carr of the Arizona State University has begun to shed light on such hierarchical social arrangements (Lore 2000).

Materials imported into Ohio during this period include: copper (Lake Superior, North Carolina, and Tennessee), silver (Ontario), specular hematite (Lake Superior, Illinois, and Missouri), galena (Illinois, Missouri, Oklahoma, and Kansas), Ohio pipestone (Scioto County, Ohio), cannal coal (Ohio, Indiana, and West Virginia), mica (North Carolina), steatite and graphite (Appalachian Piedmont), quartz crystal (Catskill Mountains, Arkansas), marine shell, barracuda jaws, fossilized shark teeth, alligator teeth (Gulf or Atlantic coasts), obsidian (Obsidian Cliff, Montana), Knife River chalcedony (North and South Dakota), Vanport chert (Licking County, Ohio), Harrison County chert (Indiana), bear canine teeth, freshwater pearls and meteoric iron (from various sources in the Midwest and Great Plains of North America). Many of these exotic materials are found in burial mounds, such as those located at the Mound City Site (Mills 1922) and the Hopewell Mound Group (Moorehead 1897, 1922) in Ross County, Ohio. At this site, items such as finely made duck effigy vessels, copper effigy turtles, copper breast plates,

copper celts, copper earspools (some of which had been covered with silver), a copper relief image of a flying eagle, obsidian points, pipestone effigy pipes (Squire and Davis 1848a; 1848b), conch shell dipper, and mica cut outs were recovered (Mills 1922). Based on the presence of exotic objects such as these associated with burials, it is believed that these populations may have had an extensive and very elaborate mortuary cult.

Pottery during this period is finer and thinner-walled except the utilitarian examples which are more like that of the Early Woodland Period (Muller 1986) although not quite as thick. Ceramic remains from habitation sites are rarely found due to poor preservation factors (Licking County Archaeological and Landmarks Society [LCALS] circa 1985). However, some fine examples of Middle Woodland utilitarian pottery have been recovered from 33LI212, the Murphy Site in Licking County, Ohio (Dancey 1991) and 33FR1521, the Osage Orange Bluff site in Franklin County, Ohio (Weller et al. 1999). Numerous ceramic vessels have been recovered from mound contexts which exhibit an incised duck image (Mills 1922; Squire and Davis 1848a). Features such as this point to the similarities between "Hopewellian" expressions in various parts of North America.

3.8. The Late Woodland and Mississippian Periods (A.D. 450-contact)

The Late Woodland/Mississippian Period is distinctive from former periods. At this time regions were a major focus of specific groups. The long distance trafficking of exotic goods is no longer in evidence (Braun 1988). Maize or corn agriculture as well as other cultigens made up a significant portion of the prehistoric diet. During this period large and sometimes palisaded villages were usually tied to a regional focus such as Fort Ancient or Monongahela. There appears to be an increase in domestic pottery production. There is a marked increase of evidence supporting residential sedentism. Population density rose sharply with new and more effective means of resource and land exploitation. Common artifacts from the Late Woodland period include small dart sized triangular points, unifacial and bifacial knives and scrapers, celts, mortars and pestles, pottery, and occasionally hoes. The bow and arrow was also introduced during this period. Large Late Woodland and Mississippian sites in southern Ohio are normally restricted to major river and stream valleys. Social organization is presumed to have become more complex and possibly moved towards a chiefdom during the Mississippian Period.

The Cole Cultural Complex (A.D. 450-1000) has been identified in central and south central Ohio. It has been suggested that this cultural

manifestation developed out of the local Middle Woodland cultures and may have lasted to be contemporaneous with the Mississippian phenomenon (Baby and Potter 1965; Potter 1966). There are only a handful of sites which have been tied to the Cole cultural complex, and some of these have been suggested as possibly being Fort Ancient (Pratt and Bush 1981). From these sites it has been established that there are two ceramic types associated with this culture: Cole cordmarked and Cole plain. These ceramic types exhibit grit tempering and show a wide variety of lip and rim treatments. Based on the very limited data available, it appears that these people inhabited small villages which are often located on second terraces. These small villages often exhibit small ditches which surround the village (Dr. William S. Dancey, personal communication 1998) Housing structures have been described as being small and having a circular form (Pratt and Bush 1981). Artifacts which have been associated with this cultural complex often include projectile points, chipped slate disks, thin rectangular gorgets and chipped stone celts.

The Intrusive Mound Culture (A.D. 700-1000) inhabited much of southcentral Ohio. This cultural manifestation gets its name from the types of burials which are diagnostic of it. The burial practices include the excavation of shallow pits placed in already existing mounds, usually of Hopewellian affiliation, or occasionally in low mounds, in which the dead were interned (either extended or flexed), often with burial offerings (Seeman 1992). Diagnostic artifacts of this cultural group include Jacks Reef Corner Notched, Jacks Reef Pentagonal, and Levanna projectile points. Other artifacts commonly associated with this cultural group include keeled base platform steatite pipes, ceremonial hardstone picks, antler and beaver incisor engraving tools, flint celts, Marginella shell and Anculosa shell beads, antler tine projectile points, bone harpoons, bone needles, deer bone beamers, and numerous other items (Morgan 1952). There does appear to be some kind of demand for exotic materials during this period, however it is extremely different than the preceding Hopewellian system (Seeman 1992). The ceramics of this culture are thick-walled and tempered with coarse grit, limestone, and occasionally chert. These ceramics often exhibit collard rims, and are decorated with cordmarking. Settlements of this cultural group are often much smaller than Newtown villages (mentioned below). To date, this culture is based to a large extent upon their mortuary aspects. Habitation sites are rarely encountered. The best documented site of this culture is the Parkline site (46PU99) which was identified by C. Niquette (1990) .

The Late Woodland Newton (A.D. 450-1000) people were the precursors of the Fort Ancient groups. The Newton groups lived in small circular villages which contained a central plaza. These villages were often

located on river terraces or in upland situations which overlooked the river valleys (Cowan 1987). There is no evidence that these villages were surrounded by stockades, however, none of these period villages have been completely excavated. These villages signify important changes in population distribution in the Ohio Valley. The villages were probably only seasonally occupied (Cowan 1987), however, they are important due to the shift towards increased sedentism. This increased sedentism was due in part to their increased reliance on horticultural garden plots, much more so than in the preceding Middle Woodland Period. The Newton people were growing a wide variety of crop plants which are collectively referred to as the "Eastern Agricultural Complex." These crops include maygrass, sunflower, and domesticated forms of goosefoot and sumpweed. This starch and protein diet was supplemented with wild plants and animals. Around A.D. 800-1000, the Newton populations adopted maize agriculture. Around this same time, shell tempered ceramics replaced grit tempered ceramics. Other technological innovations and changes during this time period include the adoption of the bow and arrow and changes in ceramic vessel forms.

The Fort Ancient culture (A.D. 1000-1250) was the descendant of the Newton people. Radiocarbon dating as well as artifact assemblages have established three broad periods of Fort Ancient culture (Cowan 1987). The earliest of the Fort Ancient cultures is referred to as the Turpin Phase (A.D. 1000-1250). This phase takes its name from the Turpin Site which is located on the Little Miami River in Hamilton County, Ohio. The ceramic vessels of this phase are shell tempered and often plain with the exception of a pattern of interlocking lines called guilloche which are incised on the neck of the vessel. The vessels during this period also have strap handles. Trade-wares and imitated designs on locally made wares are often found at these sites, indicating a Mississippian influence from the west. Other Mississippian influences include spatula shaped celts, stone discoidals, triangular shaped arrowheads, the falconid motif, and wall-trench style architecture. Turpin Phase settlements were larger in size than earlier Newton villages. They often still have central plazas as well as a new feature, stockades, which encircled the villages (Cowan 1987). The Turpin Phase shows evidence of two distinct ways of burying their dead. Mounds were still built for the disposal of some of the bodies while others were buried in shallow stone box graves placed within the village. Storage pits for food were often shallow, having irregular shapes.

The second phase of the Fort Ancient culture is referred to as the Shomaker Phase (A.D. 1250-1400). This phase is defined primarily on the basis of a distinctive ceramic industry (Cowan 1987). Shomaker Phase vessels are highly decorated. The curvilinear guilloche was the most common neck

design, but triangle designs which are filled in with lines as well as punctations were very frequently seen as alternative vessel neck decorations. The handles were also very decorated, showing punctations and incised lines. There appears to have been a decline in population during this phase due to the lower number of village sites which have been identified. During this phase, the villages were located atop high, defendable, bluffs. Based on current data, there is only one Shomaker Phase village located in all of the lower Great Miami Valley. The Shomaker Site, the type site for this Phase, originally covered an area of approximately 1.6 ha (4 a.), and was probably occupied by several hundred people (Cowan 1987). The villages were very similar in layout to the earlier villages except that the houses of this phase were semi-subterranian pit houses which provided cooler temperatures during the warmer months of the year, and warmer temperatures during the colder months of the year. Storage pits were different in construction than those of the earlier Turpin Phase. The Shomaker Phase storage pits were cylindrical shafts which were carefully constructed and had straight walls and flat bottoms. These storage pits averaged approximately 1 m (3.42') in diameter and 2 m (6.56') in depth, allowing storage for up to 45 to 50 bushels of shelled corn (Cowan 1987). The burials of the Shomaker Phase are either found in belts which ring the village or scattered throughout the village. The practice of burying the dead in mounds ceases after A.D. 1250.

The third phase of the Fort Ancient culture, the Mariemont Phase (A.D. 1450-1670), is marked by the disappearance of the highly decorated pottery styles of the Shomaker Phase. By A.D. 1450 only one or two sites in the entire Lower Miami Valley was still occupied (Cowan 1987). This last Phase lasted until around A.D. 1670 when many of the native populations of Ohio were struck down by European diseases. However, the spread of these new infectious diseases appears to have only accentuated a decline in population which had begun much earlier. The mortuary practices of this Phase included the deposition of one or more pots with each burial. These pots were often placed near the head or waist of the deceased and may have contained special foods, possibly for the purpose of sustaining the dead in the afterlife (Cowan 1987). These vessels were most likely made exclusively for burial purposes. The general ceramics of this Phase are quite plain in comparison to earlier vessels. The Mariemont ceramics often are of globular shaped jars which exhibit extremely flared rims and undecorated necks. The rims are often notched to give the vessel a "pie crust" effect. These pots often have four thin strap handles. Other forms of ceramic vessels include flat pans and small bowls. Some examples of ceramic vessels from the Madisonville Site contain decorations which appear to be a salamander hanging from its two front legs from the lip of the vessel. Other variations of the vessels include small mammals perched on the rim, human head effigy

pots, and even a pot perched atop a pedestal. Artifacts common to sites dating to this Phase include arrowshaft wrenches, armbands, harpoon heads made of antler, spades and cutting tools made of elk antler, scrapers made of the bony projection of the hump vertebrae of the American bison, hafted scrapers, and bipointed flint knives (Cowan 1987). Other artifacts which are found on Mariemont Phase sites include European trade goods of brass, copper, iron, and glass. The villages of this phase seem to be unstructured arrangements of houses, unlike the earlier phases, and the houses are much larger than the houses of the earlier phases. It is believed that the Mariemont Phase of Fort Ancient people were in fact the ancestors of the historic Shawnee, however, as of yet, this cannot be accurately established.

The Whittlesey cultural groups (A.D. 900-1650) inhabited most of northern Ohio in an area described as being south of Lake Erie from the Pennsylvania boundary to the western end of Lake Erie, as well as on some of the islands. Similar sites have been identified in northern Indiana and southern Michigan.

These groups inhabited villages which encompassed an area of approximately 1.6 ha (4 a.). These villages were often situated on top of high bluffs on stream bends, or high inaccessible areas of land which are located at stream junctions. These villages were usually fortified with wooden stockades or earthen embankments with ditches on the outer side.

The pottery made by these groups are molded out of local clays and are tempered with grit, shell or a combination of both. These globular jar form ceramics are often decorated with vertical cordmarking, and occasionally exhibit impressed or incised designs in the collar portions. The most common ceramic decoration consists of notches formed into the lip or in an added rim strip. The ceramic assemblages also includes ceramic elbow-type pipes which exhibit tapered stems. These pipes often exhibit incised lines which follow the circumference of the bowl.

This culture presumably had an extensive music culture as indicated by the presence of bird bone flutes, elk rib rasps, and turtle shell rattles. This group smoked tobacco in stone and ceramic pipes. The stone pipes came in several basic shapes: conoidal, rectanguloid, vase shaped, keel shaped plain and effigy forms. The effigy pipes were often birds which face away from the smoker.

They practiced a mixed subsistence base consisting of the Eastern Agricultural Complex (EAC), wild game, forest plants, shellfish and fish. Their social structure was probably most like that of the Iroquois.

Burial practices of the Whittlesey groups included flexed burials, which were the most common, followed by extended burials, and bundle burials deposited in ossuaries. Burials were often placed in simple pits .61-.91 m (2-3') deep in cemeteries which were usually placed near or within the villages.

Artifact assemblages associated with sites of this cultural affiliation often include such items as triangular arrow points for use with the bow and arrow, antler knapping tools, celts, adzes, chisels of stone, elk antler, and beaver incisors, flint knives, scrapers, drills; mussel shell spoons, knives, scrapers, and hoes; splinter and metatarsal awls, bone fishhooks, stone net sinkers, antler hairpins, bone beads, elk antler combs, and bone and stone pendants.

3.9. Protohistoric to Settlement

By the mid-1600s, French explorers traveled through the Ohio country as trappers, traders, and missionaries. They kept journals about their encounters and details of their travels. These journals are often the only resource historians have regarding the early occupants of seventeenth century Ohio. The earliest village encountered by the explorers in 1652 was a Tionontati village located along the banks of Lake Erie and the Maumee River. Around 1670, it is known that three Shawnee villages were located along the confluence of the Ohio River and the Little Miami River (Tanner 1987). Because of the Iroquois Wars which continued from 1641-1701, explorers did not spend much time in the Ohio region and little else is known about the natives of Ohio during the 1600s. Although the Native American tribes of Ohio may have been affected by the outcome of the Iroquois Wars, no battles occurred in Ohio (Tanner 1987).

French explorers extensively traveled through the Ohio region from 1720-1761. During these expeditions, the locations of many Native American villages were documented. The French also documented the locations of trading posts and forts which were typically established along the banks of Lake Erie or the Ohio River. There were no villages or forts located in Fayette County at this time (Tanner 1987).

While the French were establishing a claim to the Ohio country, many Native Americans were also entering new claims to the region. The Shawnee were being forced out of Pennsylvania because of English settlement along the eastern coast. The Shawnee created a new headquarters at Shawnee Town, which was located at the mouth of the Scioto River. This headquarters

served as a way to pull together many of the tribes which had been dispersed because of the Iroquois Wars (Tanner 1987).

Warfare was bound to break out as the British also began to stake claims in the Ohio region by the mid-1700s. The French and Indian War (1754-60) affected many Ohio Native Americans, however, no battles were recorded in Ohio (Tanner 1987). Although the French and Indian War ended in 1760, the Native Americans continued to fight against the British explorers. Native American villages were scattered throughout Ohio. During Pontiac's War of 1763, the Ottawa and allied tribes (Shawnee, Delaware, Seneca, Miami, Ojibwa, and Missisauga) attacked British forts at Sandusky and Miami. In 1764, Colonel Henry Bouquet led a British troop from Fort Pitt, Pennsylvania to near Zanesville, Ohio. General Bradstreet led another British force along the Lake Erie shoreline, camping in Sandusky.

In 1763, the Seven Years' War, which was being fought between France and Britain, had finally ended. The Treaty of Paris in 1763 granted all of the Ohio region to the British. After the American Revolution, the Treaty of Paris in 1783 granted all of the Ohio region to the Americans, however Ohio was specifically described as Native American territory. Native Americans were not to move south of the Ohio River (Tanner 1987).

By 1783, Native Americans had established fairly distinct boundaries throughout Ohio. The Shawnee tribes generally occupied southwest Ohio, while the Delaware tribes stayed in the eastern half of the state. Wyandot tribes were located in north-central Ohio, and Ottawa tribes were restricted to northeast Ohio. There was also a small band of Mingo tribes in eastern Ohio along the Ohio River, and there was a band of Missisauga tribes in northeastern Ohio along Lake Erie (Tanner 1987). Although warfare between tribes continued, it was not as intense as it had been in previous years. Conflicts were contained because boundaries and provisions had been created by the earlier treaties. Circa 1768, a Shawnee village existed southwest of the project area, at the confluence of the Scioto and Olentangy Rivers. Between 1772 and 1781, this village became a Mingo village which was called Salt Licks (Tanner 1987).

By 1790, the frequency of British expeditions into the Ohio region had greatly increased. Lord Dunmore traveled through Franklin County in 1774 on his way to attack a Mingo village (Tanner 1987). This caused further conflict with the Native Americans. As a result of British victories south of the Ohio River, Ohio Native Americans were faced with the Treaty of Greenville in 1795. Although most of the battles which led up to this treaty did not occur in Ohio, the outcome resulted in dramatic fluctuations in the

Ohio region. The Greenville Treaty line was established, confining all Ohio Native Americans to the region north of the 42nd parallel and west of the Tuscarawas River (Tanner 1987).

Ohio Native Americans were again involved with the Americans and the British in the War of 1812. Unlike the previous wars, many battles were fought in the Ohio country during the War of 1812, although no battles were fought in Franklin County. By 1815, peace treaties began to be established between the Americans, British, and Native Americans. The Native Americans lost more and more of their territory in Ohio. By 1830, the Shawnee, Ottawa, Wyandot, and Seneca were the only tribes remaining in Ohio. These tribes were contained on reservations in northwest Ohio. Between 1831 and 1833, the last of the Ohio Native Americans signed treaties and were removed from the Ohio region.

3.9.1. Highland County History

One of the first settlers of Highland County was John Wilcoxon and his family who settled near Sinking Springs in 1795. Highland County was part of the Virginia Military District. Most of the early settlers came from Virginia, Pennsylvania, and North Carolina and were of Irish, German and French descent. On February 18, 1805, Highland County was organized. In 1807 Hillsboro was platted and made the county seat (Rickey & Co. 1983; William Bros. 1880).

Agriculture and manufacturing developed in Highland county at around the same time. Agriculture was practiced by many of the early settlers and became an important economy for the county in the nineteenth century. The most significant products sold by farmers included wheat, corn, oats, tobacco, molasses, butter and horses. Fruit orchards also became common throughout the county. Agriculture declined between 1930-1960. Presently, the major source of farm income is hog and cattle production and the dairy industry (Klise 1980; Rickey & Co. 1983)

The earliest commercial activity occurred in 1799 with the establishment of the town of New Market. By 1800, a tavern and hotel had been built and was soon followed by several mercantile stores and a tannery. By 1806 pottery manufacture was begun in the county. The first grist and saw mills were established in 1802 and were built throughout the county along creeks and streams. Hillsboro emerged as the primary trading center for the county by 1830. Road and rail development increased the industrial development of the county. The first railroad, the Marietta and Cincinnati,

was built in 1854 and went through Greenfield. In 1878 a second line, the Springfield, Jackson and Pomeroy was opened (Rickey & Co. 1983; William Bros. 1880).

Hillsboro continued to grow during the 1840s and 1850s because of industrial developments. Woolen mills were developed in 1835, a buggy and carriage factory in 1840, in 1855 an iron foundry was established and also because of the railroad, lumbering, brickmaking and limestone quarrying became important. During the 1870s flouring mills and a planing mill were added. Between 1880 to 1929, lumbering, distilling, textile production, wood products and iron foundries still remained prominent. Today, several major manufacturing firms are located in Hillsboro which remains the commercial center of the county. Road and highway development has led to the development of shopping centers along highway strips away from the downtown area (Rickey & Co. 1983; William Bros. 1880).

3.9.2. Fairfield Township History

Leesburg is located in Fairfield Township, which is one of the original Townships in Highland County. Fairfield was created in 1805, however there were a few Quakers in the area before its creation. In 1804, Phineas Hunt built the first mill in the township which was located on Hardins Creek. Then in 1805 William Lupton had built the first saw mill, and by 1809 the first grist mill was built by Joseph Grice. The first tannery was created one and one half miles south of where Leesburg currently is located. It was made by Joseph Horsman, and was in use until 1830. The governor of Highland County created the town of Leesburg in 1814, however, the boundaries of the town caused uncertainty regarding land ownership. This caused the population to grow very slowly. In 1811, Daniel Huff started building a wooden factory, which he completed in 1815. His factory was very important in the country and was well known to the people of Highland County (Williams Bros. 1880).

4. Environmental Setting

4.1. Climate

Fayette County, located in southwestern Ohio, has cold winters and is quite warm in the summer. Winters are cloudy with an average of four days with subzero temperatures. Summers are humid and have an average of 21 days with temperatures equal to or higher than 32° C (90° F). Valley locations generally have the latest spring and earliest fall freezes because on nights having clear skies and calm winds, cool air drains down the slopes into the valleys. Precipitation is normally abundant and well distributed throughout the year. Fall is the driest season. Thunderstorms occur an about 40 days each year and are most frequent from April through August. Most precipitation during winter comes in the form of rain, as is typical for much of Ohio. Soil moisture goes through a seasonal cycle each year. It reaches its lowest point in October and is replenished during winter and spring when precipitation exceeds water loss by evaporation. The prevailing wind is from the southwest and averages about 8 mph (United States Department of Agriculture, Soil Conservation Service [USDA, SCS] 1977).

4.2. Physiography, Relief and Drainage

Highland County has a high range of elevation that ranges from 720 feet above sea level along Middle Fork of the Ohio Brush Creek to 1,343 feet above sea level at Washburn Hill. Washburn Hill is part of the Allegheny Plateau. The county contains two major watersheds. In the northwest is the Miami River watershed which is drained by the East Fork of the Little Miami and its tributaries. The Scioto River watershed, part of western, southern-central, and eastern portion of the county, is drained by the Rocky Fork, Clear, Paint, and Rattlesnake Creeks and their tributaries. All of the above mention watersheds are part of the Ohio River drainage system (USDA, SCS 1977; Sherman 1925).

4.3. Glacial Geology

The physiography of Highland County has been modified several times by two glaciations, the Illinoian and Wisconsinan. The southern portion of Brush Creek and Jackson Townships are the only part of the county that has not been glaciated. In general, this extends from south and southwest of Hillsboro near Rocky Fork Lake and Rainsboro east to the Ross County line.

The Illinoian deposits are the oldest followed by the younger early and late stages of the Wisconsin glaciation.

The unglaciated area in the southern portion of Brush Creek and Jackson Townships are in the Central Lowlands physiographic province. The rest of the unglaciated portion of the Highland County, central and northern Brush Creek Township near Pike County, is in the dissected Allegheny Plateau.

The Illinoian deposits, having two highly contrasting regions, are the most extensive in the county. The "Clayfish Flat" located in the western portion of Highland County is a nearly level area. The other portion has dissected nearly level to moderately steep areas, located in the north-central and southern portions of the county. This area can also contain glacial outwash, kames, and moraines.

The Wisconsin deposits are represented by the Cuba (early) and Reesville (late) end moraines. The Cuba end moraine extents near New Vienna east through Samantha to north of Boston and Rainsboro and then to Rattlesnake Creek and the Ross County line. The Reesville end moraine, the most northern, extends from the northwest part north of Leesburg and east through East Monroe and Greenfield to the Ross County line (Goldthwait et al. 1961; USDA, SCS 1977).

4.4. Soils

The project area lies within the Miamian-Russell-Celina soil association. These soils are typically formed in thin loess overlying glacial till. There are several soil series types within the project area with slope percentages ranging from nearly level to 12 percent. The soil types within the project area include Miamian-Russell silt loam, Crosby-Fincastle silt loam, Celina-Xenia silt loam, and Brookston silt loam.

4.5. Flora

The environment during prehistoric times in Ohio was very diverse. Within the general deciduous environmental scheme, different vegetational zones existed. These variations existed due to climatic fluctuations and changes in local physiography. Climate changes contributed to vegetational dynamics. For example, during the Pleistocene the localized climate was cooler and moister, causing floral variation. Local communities were displaced southward and thus, in turn, were replaced by northern dislocated communities from higher latitudes (Core 1966). Bradley Lepper (1986)

suggests that these compressed vegetational zones would have paralleled the glacial fronts. From the glacial areas south, there was tundra followed by middle latitude deciduous forests that progressed further south than their present configuration. The substantial warming and glacial retreat started succession and reorganization of the species into their present locations.

The environment of southwestern Ohio is a combination of uplands and bottomland river valleys. This region extends from the Indiana border to the middle of Pickaway, Ross, Pike, and Scioto Counties. The three major waterways, the Great Miami, Little Miami, and Ohio Rivers, create many ecotones and riparian zones which support very diverse faunal populations. During prehistoric and historic times, these area would have been highly sought for their resources. The vegetation of this region is characterized as a combination of Beech Forests, Mixed Oak Forests, Mixed Mesophytic Forests, Elm-Ash Swamp Forests, Prairie Grasslands, and Bottomland Hardwood Forests (Melvin 1970). Trees typically in this vegetative zone included: white ash (*Fraxinus americana*), red ash (*Fraxinus Pennsylvania*), honey locust (*Gleditsia triacanthos*), black willow (*Salix nigra*), cottonwood (*Populus deltoides*), box elder (*Acer negundo*), shell-bark hickory (*Carya laciniosa*), shagbark hickory (*Carya ovata*), black walnut (*Fuglans nigra*), red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), sugar maple (*Acer saccharum*), beech (*Fagus sp.*), swamp hickory (*Carya cordiformis*), river birch (*Betula nigra*), paper birch (*Betula papyrifera*), white birch (*Betula populifolia*), American hornbeam (*Carpinus caroliniana*), white oak (*Quercus bicolor*), pin oak (*Quercus palustris*), red oak (*Quercus rubra*) Ohio buckeye (*Aesculus glabra*), catalpa (*Catalpa speciosa*), tulip tree (*Liriodendron tulipifera*), and stage horn sumac (*Rhus typhina*). Persimmon (*Diospyros virginiana*), dogwood (*Cornus flordia*), servicebay (*Amelanchier canadensis*), and sassafras (*Sassafras albidum*) were smaller understory trees. Economically significant wild plants would have included: skunk cabbage (*Symplocarpus foetidus*), indian turnip (*Arisaema dracontium*), Jack-In-The-Pulpit (*Triphyllum*), Ginsing (*Panax sp.*), nut-grass (*Cyperus* sp.), bulrushes (*Eriophorum sp.*), cattail (*Typha angustifolla*), water lilly (*Nuphar sp.*), sunflower (*Helianthus sp.*), goosefoot (*chenopodium sp.*), and blueberry (*Vaccinium sp.*) (Core 1966; Newcomb and Morrison 1977; Phillips 1978; Starna and Funk1993).

4.6. Fauna

In the southwestern corner of Ohio, economically significant faunal species included: bison (*bison bison*), white tailed deer (*Odocoileus virginianus*), wolf (*Canis lupus*), gray fox (*Urocyon cinereoargenteus*), red fox (*Vulpes vulpes*), bobcat (*Felix rufus*), cougar (*Felis concolor*), beaver (*Castor canadensis*), muskrat (*Ondatra zibethicus*), groundhog (*Marmota monax*),

opossum (*Didelphis virginiana*),rabbit (*Sylvilagus floridanus*), gray squirrel (*Sciurus carolinensis*),red squirrel (*Tamiasciurus hundsonicus*), fox squirrel (*Sciurus niger*), weasels (*Mustela sp.*), and skunk (*Mephitis mephitis*) (Knopf 1980). Some of the economically important birds included: wild turkey (*Meleagris galloparo*), prairie chicken (*Tympanuchus cupido*), quail (*Colinus virginianus*), ruffed grouse (*Bonasa umbellus*), passenger pigeon (*Ectopistes migratorius*), great blue heron (*Ardea herodias*), various hawks (*Buteo sp.*), canadian goose (*Branta canadensis*), and trumpeter swan (*Cygnus buccinator*) (Terres 1991) Important fish and reptiles would have included the box turtle (*Cestudo virginea*) walleye (*Sitzostedion vitreum*), sauger (*Stizostedion canadense*), channel catfish (*Icatalurus punctatus*), flathead catfish (*Pylodictus olivaris*), blue catfish (*Ictalurus furcatus*), northern pike (*Esox lucius*), muskellunge (*Esox masquinongy*), sturgeon (*Acipenser fulvescens*) (Trautman 1981; Sternberg 1998). Shell fish that were common included: Ohio naiad mollusc, butterfly's shell, long solid, common bullhead, knob rockshell, and cod shell. Aquatic reptiles included: water snake (*Natrix sipedon*), soft shelled turtle (*Trionyx muticus* and*Trionyx spinifer*), painted turtle (*Chrysemys picta*), and snapping turtle (*Chelydra serpentina*) (Mahr 1949; King 1979).

5. Research Design/Methodology

The primary goal of these investigations is to identify and evaluate cultural resources that will be impacted by the proposed industrial park in Fairfield Township, Highland County, Ohio. This is accomplished through a research design containing goal-oriented research questions which are testable through selected field methodologies. These research questions utilize information obtained from the literature review and the author's experience. Research questions will attempt to address patterns in site type, landform occupation, and other patterns relative to the environmental and cultural history of the region.

5.1. Background Information

The literature review conducted for the project area identified one previously recorded archaeological site in the study radius. The low amount of sites in the study radius is common in rural areas where CRM surveys or active amateur groups are not present. This site, 33HI26, is located along a bluff margin of Lees Creek. Artifacts recovered from the site include celts and untyped points. A temporal designation was not assigned.

The project area is situated in a rolling upland setting. This undulating terrain gradually slopes from the west to the east. The highest point within the project area is in the northwestern corner. Landforms include linear rises that extend in a north-south direction. This area is contained within the Wisconsinan ground moraine (Pavey et al. 1999). The area is drained by upland tributaries of the Lees Creek/Rattlesnake Creek drainage.

The surrounding area is dominated by rural landscape. There are no reported architectural remains contained within the project area. A cemetery is located on the opposite side (west) of SR 771 as well as a brick meeting house. A residence is situated on the north side of Lovers Lane. Otherwise, there are no structures or buildings that are immediately adjacent to the project.

The terrain within the project area is rolling. The northwest corner of the project area near the intersection of Lovers Lane and the highway is the highest point. From this point, the elevation slopes to the east and south. Shallow drainages can be found in the eastern portion as well as the western portion nearly paralleling the highway. Typically, the most frequently occupied and presumed desirable locations line drainages or natural corridors

such as end moraines. At least in these areas there is increased environmental diversity. The project area does not have any sizable drainages. It is completely situated in the upland. Prehistorically, the area would be most desirable for usage as a hunting or foraging area and would expectedly be occupied on a short-term basis.

A review of the atlas information identified a single residence or farmstead that is located in the southwestern corner of the project area. The atlases indicate that a residence was located here from the late nineteenth century into the early twentieth century. Modern topographic atlases depict this location as being vacant of any such residences. It would be expected that historic period remains would be reflective of the occupancy indicated in the atlas and topographic maps.

5.2. Research Question Formation

Some of the research questions that can be formulated before the initiation of field work are meant to address the evidence of human behaviors, land pattern usage, and resource exploitation that might be encountered during the course of these investigations. These research questions are generated from the environmental conditions, literature review results, expected results, and familiarity with the survey area and geological landforms. The following research questions are designed to assist in addressing issues of eligibility pertaining to the NRHP.

1) What sorts of behaviors are represented by the prehistoric cultural remains? What sorts of resources were available for utilization? How did they act to shape human behavior and settlement patterns? How do the prehistoric cultural remains compare to the regional view of land use patterns? How do the prehistoric cultural remains relate to other archaeological sites in the area? What temporal affiliations are present, and is there a temporal deviation among land use patterns?

2) What types of historic period cultural remains are present in the project area? Are these remains related to current or former locations of residences which are indicated on early cartographic resources?

5.3. Fieldwork Methodology

The fieldwork portion of the CRM survey will consist exclusively of surface collection methodologies. Obviously disturbed areas will be visually inspected to insure the absence of any cultural manifestations. All portions

of the project area will be visually inspected, and testable areas will be subjected to the pertinent testing methodologies.

5.3.1. Surface Collection/Visual Inspection

Surface collection will be utilized in any portions of the project area that offer sufficient bare ground visibility (>50 percent). If pertinent, surface collection procedures will involve transects paced at 5 m (16') intervals. The artifacts identified during surface collection will be piece-plotted to demonstrate spatial distribution if the Principal Investigator deems that the information contributes useful information or patterns. Otherwise, the artifacts will be grab sampled and plotted on a field work map. Visual inspection will be utilized throughout the project area as deemed necessary by the field supervisor. This will be performed as a supplementary investigative methodology intended to identify disturbed/saturated areas or former structural locations.

5.4. Artifact Analysis Methodologies

5.4.1. Prehistoric Artifact Analysis Methodology

An artifact inventory will be accomplished upon completion of the field work. Diagnostic artifacts will be classified as to type and given a temporal designation guided by projectile point and tool type source books written by Bell (1958, 1960), Bradford (1976), Converse (1973, 1974, 1978, 1994), Gramly (1991), Justice (1987), Perino (1968, 1971, 1997 [1985], 1991), Ritchie (1971), Tully (1986), and Waldorff and Waldorff (1987). Non-diagnostic artifacts will be identified based on the functional attributes of individual artifacts, as well as the cluster(s) or site assemblage collectively. Prehistoric chert artifact categories will include hafted biface, biface, uniface (includes endscrapers and utilized flakes), cores, primary decortication flakes, secondary decortication flakes, primary thinning flakes, blocky irregular fragments, secondary thinning flakes, sharpening flakes, broken flakes, shatter, and potlids. The following artifact category definitions are modeled after Flenniken and Garrison (1975).

Biface-A biface is defined as an artifact that has been culturally modified on two faces (ventral and dorsal). Complete and fragmentary preforms, manufacturing rejects, projectiles, or knives are included in this category.

Uniface-A uniface only has evidence of use-wear on one side of the artifact. Unifacial artifacts include utilized flakes, end and side scrapers, and

bladelets. However, bladelets are typically categorized as 'blades' or 'lamellar flakes' and are diagnostic of the Middle Woodland Period.

Core-A core represents the initial stage of chert procurement and reduction. A core has evidence of flake removal or checking present to delineate that the object has been culturally modified. Cores can be recovered from bedded outcrops or gathered from alluvial and glacial deposits.

Primary Decortication Flakes-This flake type represents the initial reduction of a core. Generally, these flakes have a natural patina or cortex over the vast majority of the dorsal side and are void of other flake scars. Artifact assemblages with chert resources obtained from bedded resources usually do not have decortication flakes of any kind because there is no patina/cortex formation.

Secondary Decortication Flakes-These flakes occur as a by-product of patina/cortex removal of a core. They are differentiated from the previous flake type by a lesser amount of cortex evident on the dorsal side and at least one or part of one previous flake scar. These flakes have steep flake platform angles (>75°).

Primary Thinning Flakes-This flake type represents a transitional mode of chert reduction. The intent of this reduction activity is to reduce a core to a crude and refinable biface. Usually, flakes are represented by a steep platform angle (i.e., >65°) and lack cortex. However, occasional small remnants of cortex are prevalent at this point, especially on the striking platform.

Blocky Irregular-These are chunks and amorphous chert fragments that are produced during core reduction. These frequently occur during the creation of a striking platform or by accident. They represent a transitional core reduction stage similar to that of primary thinning.

Secondary Thinning Flakes-These flake types represent a reduction mode that is a direct result of the previous reduction activities (i.e., primary thinning). Soft, antler billet percussion and pressure flaking persist through this mode of reduction. At this point, the chert artifact being reduced or thinned is a biface rather than a core. The striking platform for this flake type is commonly represented by the edge of the biface. The platform angle is typically acute but can range from 30-65°. Previously removed flake scars are common on the dorsal side.

Sharpening Flakes-This flake type is characteristic of bifacial tool rejuvenation or reduction. This artifact type is similar to secondary thinning flakes in that it involves reduction of a completed or nearly completed biface. However, these flake types are typically smaller and narrow in width which usually exhibit a singly ridge running along its axis.

Broken Flakes-This flake type is commonly encountered at any site. Flakes for this investigation are considered broken when diagnostic attributes (i.e., flake scarring or platform) are absent from the artifact. Therefore, a flake that is broken in half and retains the platform is considered complete because the function can be ascertained regardless of its obvious fragmentary nature.

Shatter or Angular Shatter-These artifacts occur during percussion flake reduction method of chert reduction. They can occur during nearly every mode of reduction but are most frequent during core reduction. These artifacts lack striking platforms, are thin, narrow, and trianguloid. They cannot be definitively affiliated with a specific functional category of chert reduction due to their ubiquity.

Potlids-These artifact types are reflective of accidental overheating of chert (Luedtke 1992). Small semi-circular fragments of chert pop off of a flake or artifact during firing or through fortuitous deposition in a hearth. Potlids lack a striking platform but are indicative of thermal activity at a site. One should use caution when using these artifacts to interpret or recreate site formation processes because they can occur during post-depositional activities.

5.5. Curation

Pending landowner permission and acceptance by the Ohio Historical Society's Collection Committee, artifacts, photographic negatives and/or prints, fieldnotes, and other project related materials will be curated at the Ohio Historical Society's Curation Facility. In the meantime, these materials will be stored at facilities owned by APPLIED.

6. Field Work

6.1. Field Investigations

The field investigations were conducted in late February of 2001. The project was initially contracted for work in January but the field work could not be completed until the weather and surface visibility improved. The weather was initially problematic due to snowfall, bitter cold, and soil saturation. Usually, soil saturation is will not delay surface collection methodologies. A reconnaissance review of the area indicated that the surface conditions were not adequate to permit viable surface collection.

The reconnaissance survey was conducted in early February to begin surface collection. At this time, about 98 percent of the project area delineated for survey was in soybean and corn stubble. An inspection of the field revealed that the surface visibility was between 10-20 percent (Plate 5). Such a low visibility does not typically permit for the confident identification of sites. Therefore, it was requested that plowed or disked strips be placed throughout the field. The disking of strips across the project area offered a surface visibility that was estimated at 80 percent (Plate 6).

The scheduling of the project did not bode well for agricultural activity. At the time of the initial inspection the surface was void of snow but was frozen solid. Farming was not possible. It was decided that the field investigations would be post-poned until strips could be tilled. It was not until late February that strips were disked and the ground surface was weathered sufficiently for surface collection.

The disked strips were atypical from that which is normally conducted for archaeological surface collection procedures. Typically, plowed or disked strips are placed every 7.5 m (25'). However, these strips were very wide with equally wide areas that were not tilled (Figure 6; Plates 1, 2, and 4). Overall, about 50 percent of the 36.9 ha (91.1 a.) field was tilled. Surface inspection was conducted within the tilled areas as well as the areas that were not tilled. There were nine tilled strips that were approximately 15 m (50') wide. Two of these strips were juxtapositioned and were along the northern boundary of the project area. The strips extend from east to west.

A small portion of the project area could not be farmed. This is a squarish area that is the former location of a house trailer and loop drive (Plate 3). The well and several in-ground cement footers are still prevalent in

this area implicating the house trailer. The grassy area is approximately 32 m (100') by 15 m (50'). The majority of this area has been graded and did not require testing. Surface collection was conducted on all sides of this area. The current landowner, Sonny Barrett, informed APPLIED that a brick house formerly stood in the area behind (east) of the house trailer location. This is within the field. He stated that the house had been razed and that the area had been bulldozed to fill in the basement. Cultural remains were recovered from the surface of the suspect area that confirmed the location of the former residence. These are scant and haphazard. The definitive location of any other buildings was not possible outside of the shed (HIG-296-1) that is still present.

The surface collection and visual inspection of the project area identified three previously unrecorded archaeological sites (33HI-296-1) and one pre-1951 architectural property (HIG-296-1). The following text describes these findings in greater detail.

6.2. Identified Cultural Resources

6.2.1. HIG-296-1

This is a small shed that is located in a remnant of a former yard (Plate 7; Appendix A). The shed has plank board siding and a cement foundation. It is likely that it dates to the late nineteenth to early twentieth century. It appears that this shed functioned for storage. The shed is six feet by eight feet and has a standing seam metal roof.

6.2.2. 33HI277

This site is a prehistoric lithic scatter that was identified during surface collection of a soybean/corn stubble field. Surface visibility at the time of survey was increased through disking and weathering. The site was identified in the untilled area (appx. 20 percent surface visibility) and found to extend into the tilled area (appx. 80 percent surface visibility). The remains were recovered from a slight oval-shaped rise that is to the east of a shallow farm drainage. The flint recovered from this site appears to represent Upper Mercer and Bisher variants. There were few artifacts recovered from the 400 m^2 (4,306'^{2}) site area. However, one of the artifacts is the proximal portion of a hafted biface (Figure 7). This artifact is side-notched and is considered to be affiliated with the Big Sandy Phase of the Middle Archaic period (Justice 1987; Waldorf and Waldorf 1987). A distal fragment of a biface could not be confidently assigned to a specific temporal period. The following is an inventory of the artifacts recovered from this site.

Artifact Inventory

hafted biface	1
unfinished biface	1
core	1
primary decortication flake	1
primary thinning flake	1
secondary thinning flake	1

6.2.3. 33HI278

This site is a prehistoric lithic scatter that was identified during surface collection of a soybean/corn stubble field. Surface visibility at the time of survey was increased through disking and weathering. The site was identified in the tilled area (appx. 80 percent surface visibility) and found to extend into the untilled area (appx. 20 percent surface visibility). The remains were recovered from a linear ridge that parallels the highway. The flint recovered from this site appears to exclusively represent Bisher variants. This debitage ranges in color from a gray to maroon. There were few artifacts recovered from the 360 m^2 (3,875'^{2}) site area. There were no temporally diagnostic remains recovered from this site. The following is an inventory of the artifacts recovered from this site.

Artifact Inventory

primary thinning flake	4
secondary thinning flake	12
broken flake	8

6.2.4. 33HI279

This site represents the historic period remains of a former residence or farmstead location. The majority of this site is located in a soybean/corn stubble field that was surface collected. Surface visibility at the time of survey was increased through disking and weathering. The site was identified in the tilled area (appx. 80 percent surface visibility) and found to extend into the untilled areas (appx. 20 percent surface visibility). The remains were recovered from a slight rise and slope that parallel the highway. The cultural remains recovered from this site include ironstone or whiteware sherds that date to the late nineteenth to middle twentieth century (Figure 7). This includes a sherd with a backstamp remnant indicating manufacture around the turn-of-the-century. Remains that were not collected include scattered brick and brick fragments. There was no visual evidence to support the precise location of the former residence or any possible outbuildings. The size

precise location of the former residence or any possible outbuildings. The size of this site is estimated to be 3,484 m^2 (37,500'^{2}). Atlas information supports the location of a residential building dating to the late nineteenth century. The lack of freeblown bottle glass and pearlwares suggest further elude to a post-1865 occupation. The following is an inventory of the artifacts recovered from the site.

Artifact Inventory

stainless steel spoon	1
blue-green electric insulator	1
misc. iron bracket	1
stoneware	2
brick fragment	1
ironstone	4
blue bottle glass	1
blue-green bottle glass	1
clear bottle glass	3
porcelain	2
cobalt blue glass	1
window pane glass	2
green bottle glass	1
ironstone w/backstamp	1

6.3. Field Work Summary

The field investigations were limited to surface collection and visual inspection of a rural area. Intensive surface collection strategies including tilled and weathered disk strips facilitated the identification of sites. The disking pattern, though somewhat unorthodox, created a survey realm that was considered to be sufficient for the documentation of cultural remains (OHPO 1994). Approximately 50 percent of the project area was tilled for the purpose of surface collection. It was visually obvious that the depth of the plowzone on the rises impeded upon the subsoil. Soil leaching and erosion would have also contributed to the shallow nature of the soil in these areas. Subsurface features at the prehistoric sites are not expected for several reasons including temporal nature of the occupancy as depicted by the remains and shallow plowzone. Bulldozing and farming have greatly diminished the integrity of the historic period site.

These investigations identified three previously unrecorded archaeological sites (33HI277-279) and one pre-1951 architectural property (HIG-296-1) (Figure 2). These include two prehistoric lithic scatters, an historic period residential scatter, and a shed. It is not expected that these

historic period residential scatter, and a shed. It is not expected that these remains constitute rare or important findings in this region. The cultural remains identified within this parcel are not considered to be eligible for inclusion into the NRHP.

7. Research Question Evaluation

The research questions presented in the research design can, in part, be addressed. There were two prehistoric archaeological sites and one historic period archaeological site identified in the project area. The research questions can be addressed with the information that was gathered from the artifact inventory categorization and chert type analysis.

There were two prehistoric sites identified in the project area that both equate to lithic scatters. Site 33HI277 is located on a rise that is otherwise in a low area. There were only six artifacts recovered from this site and none were functionally repetitive. These artifacts indicate core modification or reduction, biface reduction, and tool usage were apparent at this site. A single temporal diagnostic (Big Sandy side notched) implies that at least one artifact dates to the Middle Archaic period. The two bifaces recovered from the site are both manufactured from Upper Mercer flint. Three of the four remaining flakes or core are of Bisher flint. The last was of an unknown flint variety.

There is some debate as to the flint categorization. Converse (1994) describes the location of Brush Creek chert outcropping as being centrally located in Adams County. However, this very well could be a misnomer. Stout and Schoenlaub (1945) describe in more detail the locations of flint/chert outcrops in Highland and Adams County. The basic difference is in the color as well as the location. There are two primary chert types that are known to outcrop in this area. Bisher and Brassfield cherts are recorded in this area. Brassfield is described as being whitish to tan and mostly in the central Adams County area. Bisher is mentioned as being recovered from the Hillsboro area and near the Serpent Mound. Bisher chert is typically considered to be pinkish, gray, or maroon and can be of high quality. In all likelihood, the pinkish flint recovered from the prehistoric sites should be categorized as Bisher and not Brush Creek.

There are few artifacts represented in either of the prehistoric assemblages. The low amount of artifacts can be considered as a reflection of short-termed occupation. The assemblage from 33HI278 is functionally limited to bifacial reduction. There were no tools or other items recovered from this site. The artifacts associated with 33HI277 have a broader range of functional use but are limited to a single occurrence of each. The prevalence of two chert types, one local and one exotic, may imply that it was reoccupied. The lack of hand-held tools, activity zones, or defined areas of discardment

would further suggest the transient nature of the prehistoric occupancy (Hayden 1986; Binford 1980).

There has not been a great deal of archaeological surveys conducted in Highland County. The fact that only 279 sites have been recorded in the county eludes to this. Comparison to other prehistoric or historic period archaeological deposits is not viable at this time.

The historic period artifacts at 33HI279 represent the scattering of artifacts where a former residence was located. This residence is indicated as existing in 1871 and 1887 (Lake 1871; Latrop 1887). It was owned by the Guthrie Family at both of these dates. The house is indicated in the early twentieth century. Sonny Barrett, the current landowner, noted that he had razed and filled in the house foundation in the 1980s due to deterioration and abandonment. The location of 33HI279 corroborates the location of this residence as indicated on the atlases. The artifact inventory does support a late nineteenth to early twentieth century occupation. Strangely, there were no artifacts that date prior to 1860. The lack of free-blown bottle glass and pearlware is not impossible but is somewhat unusual. Many historic period archaeological sites that date to the late nineteenth century often have some vestige or leftover artifacts from earlier time periods. Such was not the case at this site.

8. Recommendations

In February of 2001, Phase I archaeological investigations conducted for a proposed industrial park in Fairfield Township, Highland County, Ohio identified three previously unrecorded archaeological sites (33HI277-279) and one pre-1951 architectural property (HIG-296-1). The sites were identified during surface collection of a plow stripped field and in the areas that were not plowed.

Sites 33HI277 and 279 are prehistoric sites. Site 33HI277 is a low-density lithic scatter that dates to the Middle Archaic period. The few artifacts recovered from this site and lack of spatial integrity (widely scattered artifacts) suggest that this site is not eligible for inclusion into the National Register of Historic Places (NRHP) under Criterion D. It is unlikely that further work at this site would yield information that could be considered to be important in the understanding of the prehistory of the area/region.

Site 33HI278 is a lithic scatter that lacks both integrity and focus. The site was identified on the surface of a plowed field and lacks temporal diagnostics. It was visually apparent that erosion had depleted much of the topsoil that was on this rise. The lack of both integrity and focus indicate that this site is not eligible for inclusion into the NRHP under Criterion D.

Site 33HI279 is an historic period site that dates to the late nineteenth and twentieth century. There were very few artifacts evident on the surface of this site. The precise location of the residence could not be determined because the building had been razed and filled in. The few artifacts that were recovered are widely scattered and without pattern. Sites dating to this time period are not considered to be unusual in this area. The lack of integrity and post occupational disturbance suggests that this site is not eligible for the NRHP. There is no importance or history associated with the previous landowners. No further work is recommended at this site.

HIG-296-1 is a storage shed that remains from the residence that was razed (33HI279). The shed is out of context without any of the other affiliated buildings and is a common type. This small building is not considered to be eligible for the NRHP. None of the cultural resources identified within the project area are considered to be eligible for inclusion into the NRHP. No further CRM work is deemed necessary and it is recommended that the industrial park be allowed to proceed as planned.

9. References Cited

Atwater, C.
1820 Description of the Antiquities Discovered in the State of Ohio and Other Western States Communicated to the President of the American Antiquarian Society. In *Archaeologia Americana*, Vol. 1.

Baby, R.S. and M. A. Potter
1965 *The Cole Complex: A Preliminary Analysis of the Late Woodland Ceramics in Ohio and Their Relationship to the Ohio Hopewell Phase.* Papers in Archaeology of the Ohio Historical Society, February 1965, Number 2. Ohio Historical Society, Columbus.

Bell, R. E.
1958 *Guide to the Identification of Certain American Indian Projectile Points.* Special Bulletin No. 1, Oklahoma Anthropological Society, Norman.

1960 *Guide to the Identification of Certain American Indian Projectile Points.* Special Bulletin No. 2, Oklahoma Anthropological Society, Norman.

Binford, L. R.
1980 Willow Smoke and Dogs' Tails: Hunter-Gatherer Settlement Systems and Archaeological Site Formation. *American Antiquity* 45:4-20.

Bradford, G.
1976 *Paleo Points, and Illustrated Chronology of Projectile Points*, Vol. 1., Ontario.

Braun, D. P.
1988 The Social and Technological Roots of "Late Woodland." *Occasional Papers In Anthropolology III.* Department of Anthropology, The Ohio State University, Columbus.

Caldwell, J. R.
1964 Interaction Spheres in Prehistory. In *Hopewellian Studies*, edited by J. R. Caldwell and R. L. Hall. Illinois State Museum Scientific Papers No. 12. Springfield.

Chapman, J., P. A. Delcourt, P. A. Cridlebaugh, A. B. Shea, and H. R. Delcourt
1985 Man-Land Interaction: 10,000 Years of the American Indian Impact on the Native Ecosystems in the Lower Tennessee River Valley, Eastern Tennessee. *Southeastern Archaeology* 1(2):155-121.

Cleland, C. E.
1965 Barren Ground Caribou *Rangifer Articus* From an Early Man Site in Southeastern Michigan. *American Antiquity* 30(3):350-351.

Coe, J. L.
1959 *Prehistoric Cultural Changes and Stability in the Carolina Piedmont Area*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

Converse, R. N.
1973 *Ohio Flint Types*. The Archaeological Society of Ohio, Columbus.

1974 *Ohio Stone Tools*. The Archaeological Society of Ohio, Columbus.

1978 *Ohio Slate Types*. The Archaeological Society of Ohio, Columbus.

1979 *The Glacial Kame Indians*. The Archaeological Society of Ohio, Columbus.

1994 *Ohio Flint Types*. The Archaeological Society of Ohio, Columbus.

Core, E.
1966 *Vegetation of West Virginia*. McClain, Parsons, West Virginia.

Cowan, W. C.
1987 *First Farmers of the Middle Ohio Valley: Fort Ancient Societies, A.D. 1000-1670*. The Cincinnati Museum of Natural History, Cincinnati.

Cushion, J. P.
1980 *Handbook of Pottery and Porcelain Marks*. Faber & Faber, London.

Dalrymple, M. (editor)
1989 *Country Collections*. Time-Life Books, Alexandria.

Dancey, W.
1991 A Middle Woodland Settlement in Central Ohio: A Preliminary Report on the Murphy Site (33LI212). *Pennsylvania Archaeologist* Vol. 61, No. 2.

DeBolt, C. G.
1994 *DeBolt's Dictionary of American Pottery Marks-Whiteware & Porcelain*. Schroeder Publishing Co., Inc., Paducah.

Dragoo, D. W.
1963 *Mounds for the Dead: An Analysis of the Adena Culture*. Carnegie Museum, Pittsburgh.

Flenniken, J. J. and E. G. Garrison
1975 Thermally altered novaculite and stone tool manufacturing techniques. *Journal of Field Archaeology* 2:125-131.

Goldthwait, R. P. and R. G. Van Horn
1961 *Quaternary Geology of Ohio, Columbus Quadrangle, Open File Map 298*. Ohio Department of Natural Resources, Division of Geological Survey, Columbus.

Gramly, R. M.
1991 *Guide to the Paleo-Indian Artifacts of North America*. Persimmon Press, Buffalo.

Greber, N.
1979 Variations in Social Structure of Ohio Hopewell Peoples. *Midcontinental Journal of Archaeology*, Vol.4,No.1.

Griffin, J. B.
1964(a) Late Prehistory of the Ohio Valley. *Handbook of North American Indians* Vol. 15, Northeast. Edited by B. G. Trigger, pp. 547-559. Smithsonian Institution, Washington, D. C.

1964(b) The Northeast Woodlands Area. In *Prehistoric Man in the New World*. Edited by J. D. Jennings and E. Norbeck. The University of Chicago Press. Chicago.

Gurcke, K.
1987 *Bricks and Brickmaking; A Handbook for Historical Archaeology*. The University of Idaho Press, Moscow, Idaho.

Hayden, B.
1986 Resource Models of Inter-Assemblage Variability. In *Lithic Technology*, Vol. 15:3:82-89. Center for Archaeological Research, The University of Texas at San Antonio.

Hume I. N.
1969 *A Guide to Artifacts of Colonial America*. Vintage Books, New York.

Justice, N. D.
1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington and Indianapolis.

King, C.
1979 The Hill Country. In *Ohio's Natural Heritage*, edited by M. B. Lafferty. Ohio Academy of Science, Columbus.

Knopf, A.
1980 *The Audubon Society Field Guide to North American Mammals*. Random House Publishing, New York.

Kovel, R. and T. Kovel
1986a *Kovels' Dictionary of Marks*. Crown Publishers, Inc., New York.

1986b *Kovels' New Dictionary of Marks*. Crown Publishers, Inc., New York.

Lepper, B. T.
1986 *Early Paleo-Indian land use patterns in the Central Muskingum River Basin, Coshocton County, Ohio*. Unpublished Ph.D. dissertation. Department of Anthropology, The Ohio State University, Columbus.

Licking County Archaeological and Landmarks Society (LACALS)
ca.1985 *Discovering the Prehistoric Mound Builders of Licking County, Ohio*. Coyne Printining, Inc. Newark.

Luedtke, B. E.
1992 *An Archaeologist's Guide to Chert and Flint*. Archaeological Research Tools No. 7, Institute of Archaeology, University of California, Los Angeles.

Mahr, A. C.
1949 A Chapter of Early Ohio Natural History. *Ohio Journal of Science* 49(1).

Majewski, T. and M. J. O'Brien
1987 The Use and Misuse of Nineteenth Century English and American Ceramics in Archaeological Analysis. In *Advances in Archaeological Method and Theory*, edited by M. J. Schiffer, 11:97-209. Academic Press, New York.

Manson, J. L. and D. M. Snyder
1996 *Evaluating Sites with Late Nineteenth or Early Twentieth Century Components of Eligibility in The National Register of Historic Places: Using Turn-of-the-Century Whitewares as Economic Indicators in Assessing Collections and Developing Contexts.* NCPTT Grant Number: MT-0424-5-NC-019.

Melvin, R.
1970 *A Guide to Ohio Outdoor Education Areas.* The Ohio Department of Natural Resources and The Ohio Academy of Science, Columbus.

McConnell, K.
1990 *Spongeware and Spatterware.* Schiffer Publishing, Ltd. West Chester.

Mills, W. C.
1914 *An Archeological Atlas of Ohio.* Ohio State Archaeological and Historical Society, Columbus.

1922 Exploration of the Mound City Group. In Ohio *Archaeological and Historical Quarterly,* Vol. 25:423-584.

Moorehead, W. K.
1897 The Hopewell Group. In *The Antiquarian.* Vol. 1, Part 5-12. The Landon Printing and Publishing Company.

1922 *The Hopewell Mound Group of Ohio.* Field Museum of Natural History Publication 211. Anthropological Series, Volume VI, No. 5, Chicago.

Morgan, R. G.
1952 Outline of cultures in the Ohio region. In *Archaeology of Eastern North America,* edited by J. B. Griffin, pp. 83-98. University of Chicago Press, Chicago.

Muller, J.
1986 *Archaeology of the Lower Ohio River Valley.* Academic Press, Columbus.

Newman S. T.
1970 A Dating Key for Post-Eighteenth Century Bottles. *Historical Archaeology* 4:70-75.

Newcomb, L. and G. Morrison

Newcomb, L. and G. Morrison
1977 *Newcomb's Wildflower Guide.* Little, Brown and Company, Boston and Toronto.

Niquette, C. M.
1990 The Parkline Site (46PU99). In *Ohio Archaeological Council News Letter* 2(3):8-9.

Pavey, R. R., R. P. Goldthwait, C. S. Brockman, D. N. Hull, E. Mac Swinford, and R. G. Vanhorn
1999 *Quaternary Geology of Ohio.* Ohio Division of Geological Survey Map No. 2.

Perino, G.
1968 *Guide to the Identification of Certain American Indian Projectile Points.* Special Bulletin No. 3, Oklahoma Anthropological Society, Norman.

1971 *Guide to the Identification of Certain American Indian Projectile Points.* Special Bulletin No. 4, Oklahoma Anthropological Society, Norman.

1997 [1985] *Selected Preforms, Points, and Knives of the North American Indian,* Vol. 1. Hynek Printing, Richland Center.

1991 *Selected Preforms, Points, and Knives of the North American Indian,* Vol. 2. Points and Barbs Press, Idabel.

Phillips, R.
1978 *Trees of North America and Europe.* Random House Publishing, New York.

Potter, M. A.
1966 *Cole Ceramics: A study of Late Woodland Pottery.* Unpublished M.A. thesis on file at the Ohio Historical Society, Department of Archaeology, Columbus.

Pratt, G. M. and D. R. Bush
1981 *Archaeological Resource Management in Ohio A State Plan for Archaeology (Draft).* Copy available for review at the Ohio Historic Preservation Office, Columbus.

Prufer, O. H.
1964 The Hopewell Cult. *Scientific American,* Vol. 211:6:90-102.

1966 The Hopewell Complex of Ohio. In *Hopewellian Studies.* Edited by J. R. Caldwell and R. L. Hall. Illinois State Museum Scientific Papers No. 12. Chicago.

Ramsay, J.
1976 *American Potters and Pottery.* Tudor, New York.

Ritchie, W. A.
1971 *Typology and Nomenclature for New York Projectile Points.* New York State Museum and Science Service, Bulletin No. 384, Albany.

1965 *The Archaeology of New York State.* Natural History Press, Garden City.

Seeman, M. F.
1992 Woodland Traditions in the Midcontinent: A Comparison of Three Regional Sequences. *Research in Economic Anthropology,* Supplement 6:3-46.

Shuman, J. A.
1998 *The Collector's Encyclopedia of Gaudy Dutch & Welsh.* Shroeder Publishing Co., Inc., Paducah.

South, S.
1977 *Method and Theory in Historical Archaeology.* Academic Press Inc., New York.

Starna and Funk
1993 *Archaeology Investigations in the Upper Susquehanna Valley,* New York State. Partners Press, Buffalo NewYork.

Stothers, D. M.
1977 Summary Report of Archaeological Investigations in N. W. Ohio, S. E. Michigan, September 1976-September 1977. In Newsletter *of the Toledo Area Aboriginal Research Society (News and Notes)* 77:6:5.

Stothers, D. M. and T. J. Abel
1991 Earliest Man in the Lake Erie Basin: A 1990 Perspective. *North American Archaeologist* 12(3):195-242.

Struever, S. And G. L. Houart
1972 An Analysis of the Hopewell Interaction Sphere. In *Social Exchange and Interaction,* edited by E. N. Wilmsen, pp. 47-49. *Anthropological Papers* No. 46, Museum of Anthropology, University of Michigan, Ann Arbor.

Squier, E. G. and E. H. Davis
1848a *Ancient Monuments of the Mississippi Valley* (Authors Edition). Bartlett and Welford, Cincinnati.

1848b *Ancient Monuments of the Mississippi Valley: Comprising the Results of Extensive Original Surveys and Explorations. Smithsonian Contributions to Knowledge Vol. 1.* Smithsonian Institution, Washington

Sussman, L.
1977 Changes in Pearlware Dinnerware, 1780-1830. In *Historical Archaeology* 11:105-111.

Tankersley, K. B., E. E. Smith, and D. R. Cochran
1990 Early Paleoindian Land Use, mobility, and Lithic Exploitation Patterns: An Updated Distribution of Fluted Points in Indiana. In *North American Archaeologist,* 11(4):301-319.

Tanner, H.
1987 *Atlas of Great Lakes Indian History.* University of Oklahoma Press, Norman and Loudan.

Terres J.
1991 *The Audubon Society Encyclopedia of North American Birds.* Outlet Book Company, Inc., New York.

Tuck, J. A.
1978 Regional Cultural Development, 3000-300 BC. *Handbook of North American Indians* (15) Smithsonian Institution Press, Washington, D.C.

Tully, L. N.
1986 *Flint Blades and Projectile Points of the North American Indian.* Collector Books, Div. Schroeder Publishing, Paducah.

United States Department of Agriculture, Soil Conservation Service (USDA,

United States Department of Agriculture, Soil Conservation Service (USDA, SCS)
1977 *Soil Survey of Highland County, Ohio*. The Ohio Department of Natural Resources, Division of Lands and Soil, Columbus, and the Ohio Agricultural Research and Development Center, Washington, D. C.

Vickery, K. D. and J. Litfin
1992 *A Proposed Revision of the Classification of Midwestern Paleo-Indian, Early Archaic, and Middle Archaic Projectile Points.* Department of Anthropology, University of Cincinnati, Cincinnati.

Waldorff, V. and D. C. Waldorff
1987 *Story in Stone: Flint Types of the Central and Southern U. S.* Mound Builder Books, Branson.

Webb, W. S. and R. S. Baby
1966 [1957] *The Adena People No. 2*. The Ohio Historical Society, The Ohio State University Press, Columbus.

Webb, W. S. and C. E. Snow
1945 *The Adena People*. Reports in Anthropology and Archaeology VI, Department of Anthropology, University of Kentucky, Lexington.

Weller Von Molsdorff, R. J, J. Burks, and J. B. Burcham
1999 *Phase II Cultural Resources Management Assessment of Sites 33FR1520 and 33FR1521 in Plain Township, Franklin County, Ohio*. Submitted to EMH&T, Inc. by APPLIED Archaeological Services, Inc. Copy available for review at the Ohio Historic Preservation Office, Columbus.

Wymer, D. M.
1987 The Paleoethnobotanical Record of Central Ohio: 100 B.C. to A.D. 800. Subsistence Continuity amid Cultural Change. Unpublished Ph.D. dissertation, Ohio State University, Columbus.

10. Figures

Figure 1. Map of Ohio showing the approximate location of the application area

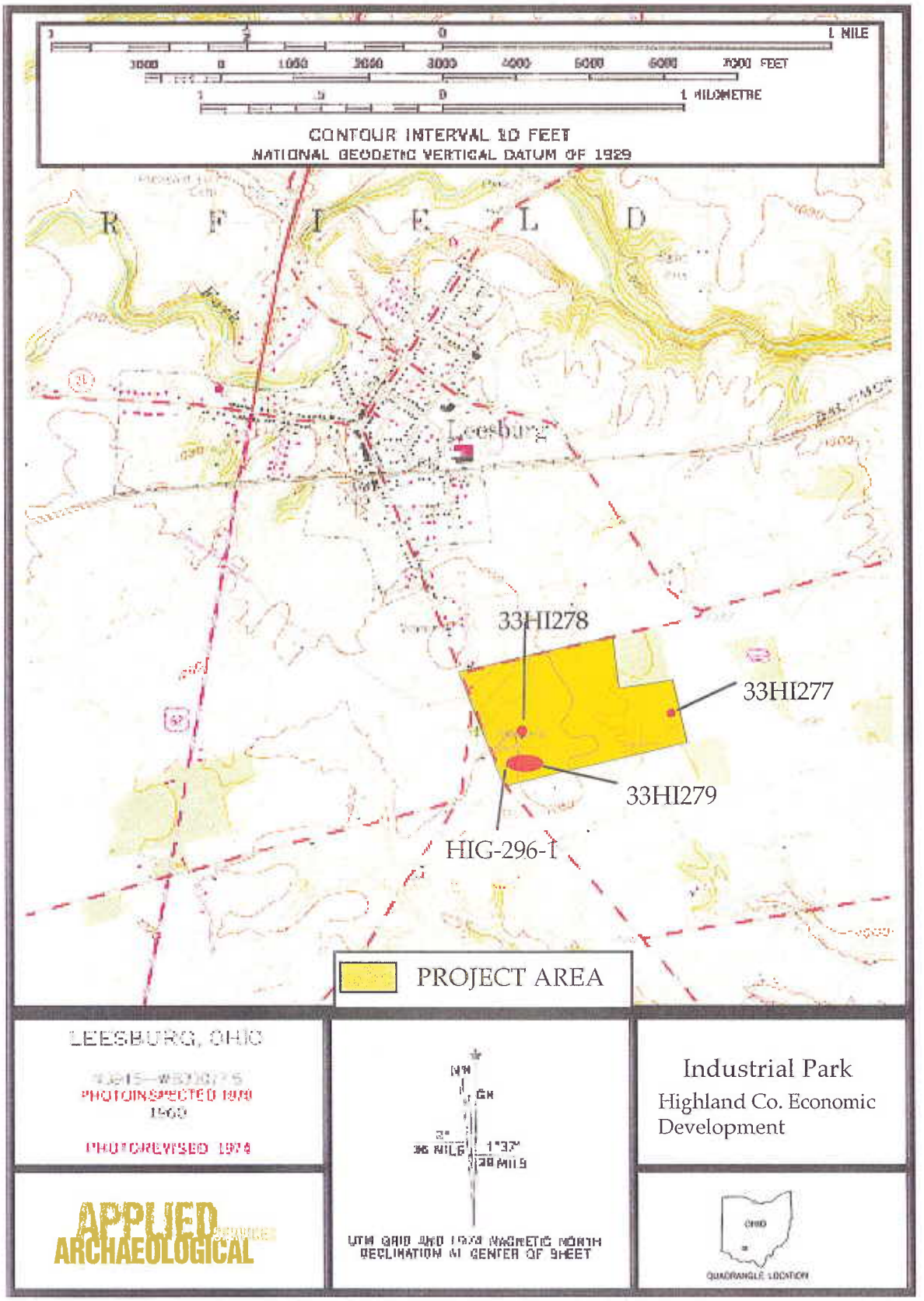


Figure 2. Portion of the USGS *1960 (Photorevised 1987, Photoinspected 19 Leesburg Quadrangle, Ohio, 7.5 Minute Series (Topographic)* map showing the locations of the project area and cultural resources.

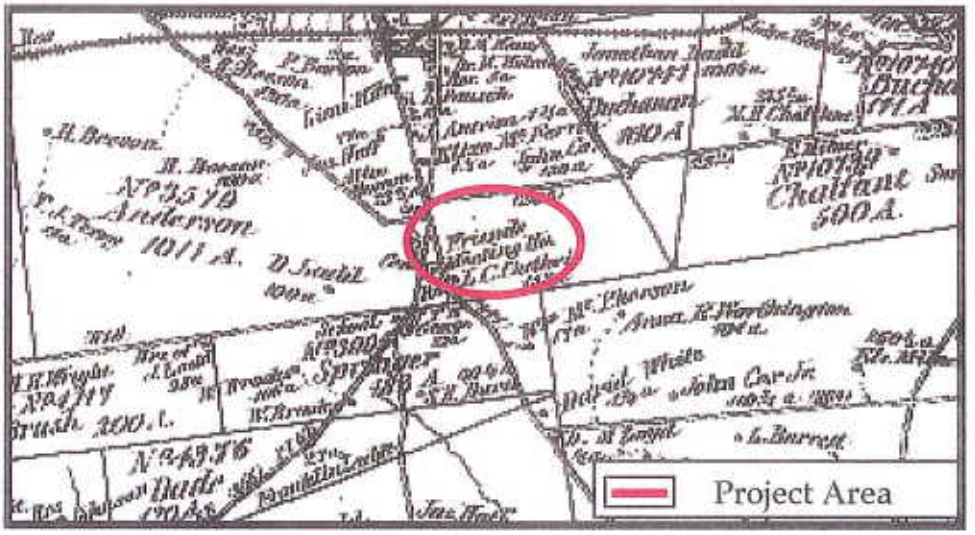


Figure 3. Portion of the Lake *Atlas of Highland County* (Lake 1871) showing the approximate location of the project area.

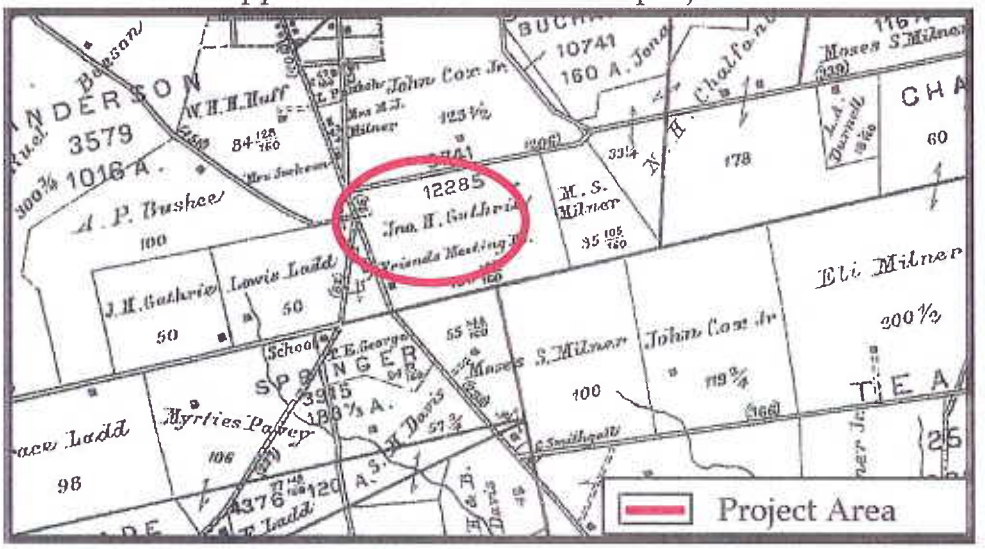


Figure 4. Portion of the Lathrop's *Atlas of Highland County* (Lathrop 1887) showing the approximate location of the project area.

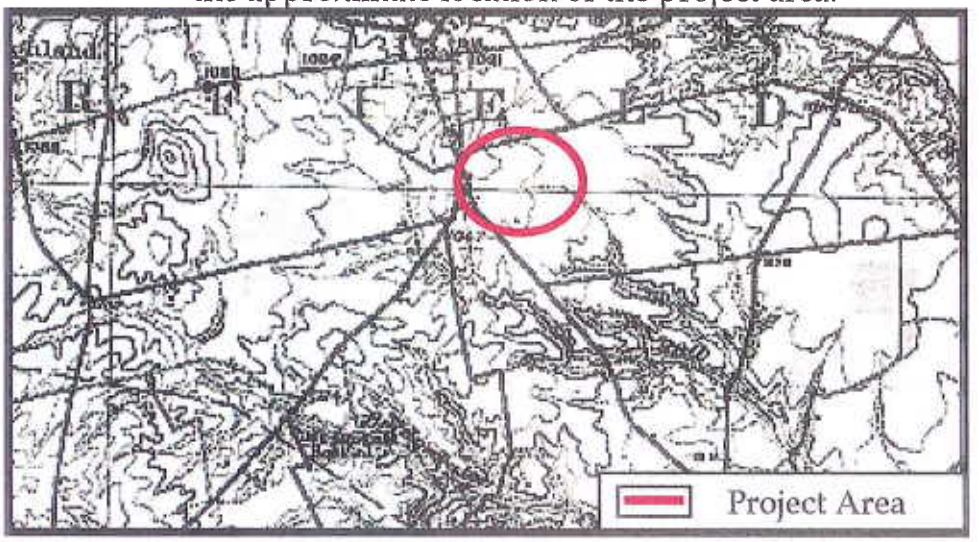


Figure 5. Portion of the USGS 1917 *Sabina Quadrangle, Ohio 15' Series^* (*Topographic*) map showing the approximate location of the project area.

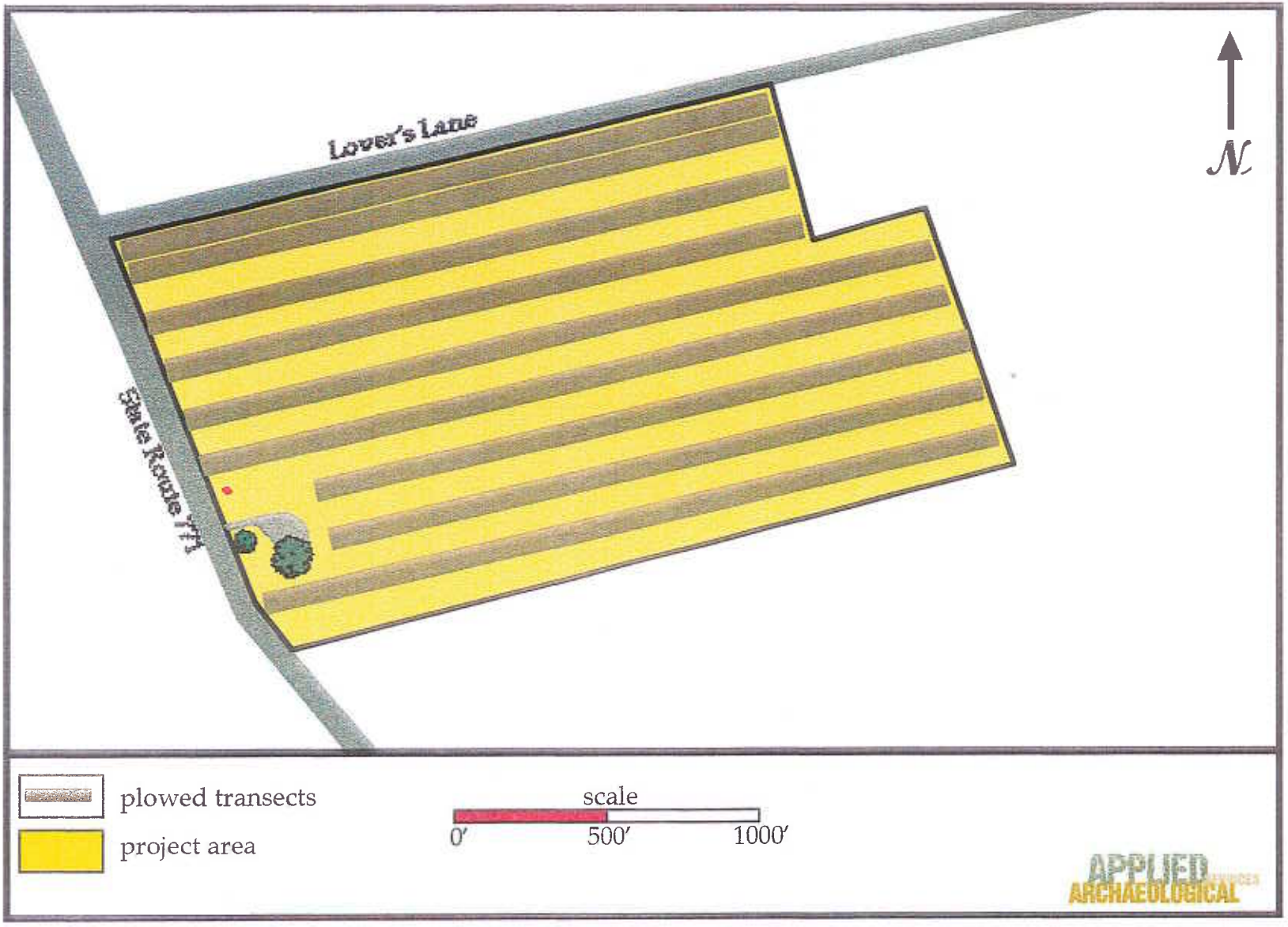


Figure 6. Schematic map showing the project area and the location of the plowed transects

33HI277

Type: Big Sandy
Material: Upper Mercer
Unit: Surface collected

Width: 30.9 mm
Thickness: 7.5 mm
Base: 28.9 mm
Notches: 11.9 mm

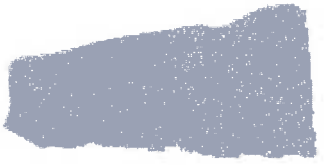
Type: Point tip
Material: Upper Mercer
Unit: Surface collected

33HI279

Type: Ironstone backstamp
Information: Chesapeake Pottery, Baltimore MD, 1881-1914
Unit: Surface collected

Type: Misc. metal
Unit: Surface collected

Type: Mason jar frag.
Unit: Surface collected



Type: Stoneware
Unit: Surface collected

Type: Cobalt blue glass
Unit: Surface collected

Type: Stainless steel spoon
Unit: Surface collected

Figure 7. Scanned diagnostic artifacts from sites 33HI277 and 33HI279.

11. Plates

Plate 1. View of the project area facing northeast with the candle factory in the background.

Plate 2. View of the southern portion of the project area from the southwestern corner

Plate 3. View of the northwestern corner and loop drive of the project area from the southeastern corner.

Plate 4. View of the northern portion of the project area along Lovers Lane.

Plate 5. Surface collection conditions in the area that was not tilled.

Plate 6. Surface collection conditions in the tilled area.

Plate 7. The shed (HIG-296-1) located in the southern corner of the project area.

Appendix A

Ohio Historical Inventory form for HIG-296-1

OHIO HISTORIC INVENTORY

Ohio Historic Preservation Office
1985 Velma Avenue
Columbus, Ohio 43211
614/297-2470

OHIO HISTORICAL SOCIETY SINCE 1885

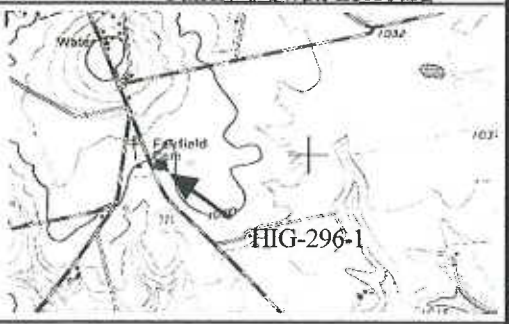
1. No. HIG-296-1 | 2. County Highland

Location of Negatives: APPLIED Archaeological Services, Inc.
Roll No. | Picture No.(s)

4. Present Name(s): Barrett Shed ☐ Coded
4. Historic or Other Name(s):

Specific Address or Location: State Route 771
5. Lot, Section, or VMD Number: 205
7. City or Village | If Rural, Township & Vicinity: Fairfield Twp., Leesburg

Site Plan



U.T.M Reference
Quadrangle Name: Leesburg 1960

Zone	Easting	Northing
17	280360	4356580

Site ☐ Structure ☐
Building ☒ Object ☐

11. On National Register?	Yes ☐ No ☒	12. N.R. Potential?	Yes ☐ No ☒
13. Part of Hist. Dist.?	Yes ☐ No ☒	14. District Potential?	Yes ☐ No ☒

15. Name of Established District (N.R. or Local)

16. Thematic Association(s): General mixed farming
17. Date(s) or Period: 1900-1920 | 17b. Alteration Date(s):
18. Style or Design: vernacular ☐ High Style ☐ Elements
18a. Style of Addition or Element(s):
19. Architect or Engineer: unknown
19a. Design Sources: unknown
20. Contractor of Builder: unknown
21. Building Type or Plan:
22. Original use, if apparent: storage shed
23. Present Use: storage
24. Ownership: Public ☐ Private ☒
25. Owner's Name & Address, if known: Sonny Barrett, 11434 Fairfield Road, Leesburg, OH 45135
26. Property Acreage: 91
27. Other Surveys in Which Included: none

28. No. of Stories:
29. Basement: Yes ☐ No ☒
30. Foundation Material: concrete
31. Wall Construction: wooden plank
32. Root Type & Material: standing seam metal
33. No. of Bays: Front | Side
34. Exterior Wall Material(s): plank board
35. Plan Shape: rectangle
36. Changes (Explain in #42): Addition ☐ Altered ☐ Moved ☐
37. Window Type(s): ☐ 6 over 6 ☐ 2 over 2 ☐ 4 over 4 ☐ Other
38. Building Dimensions: 6' by 8'
39. Endangered: Yes ☒ No ☐
By What? industrial park development
40. Chimney Placement:
41. Distance from and Frontage on Road: D=50' F=150'

42. Further Description of Important Interior and Exterior Features (Continue on reverse if necessary)
The shed measures 6 by 8 feet and is the remnant of a farmstead that formerly stood at this location. It has a standing seam metal roof, frame wall construction, and wooden plank board exterior. The foundation is of concrete.

43. History and Significance (Continue on reverse if necessary)
The shed is likely part of the Guthrie Family occupation dating to the turn-of-the-century (Lathrop 1887; Lake 1871). No particular importance could be associated with this family.

44. Description of Environment and Outbuildings (See #52)
The shed is the only remaining building at this former farmstead location.

45. Sources of Information
Lake, D. J. 1871 *An Atlas of Highland County, Ohio.*
Lathrop 1887 *An Atlas of Highland County, Ohio.*

46. Prepared by: Ryan J Weller
47. Organization: APPLIED Archaeological Services, Inc.
48. Date Recorded in Field: 2/28/01
49. Revised by | 50a. Date Revised

1. No. HIG-296-1
2. County Highland
4,5. Present or Historic Name Barrett Shed
6. Specific Address or Location State Route 771 south of Lowers Lane

51. Condition of Property

- ☐ Excellent
- ☒ Good/Fair
- ☐ Deteriorated
- ☐ Ruin
- ☐ Destroyed/Burned
  Date_____

52. Historic Outbuildings and Dependencies

Barn Type(s)

_____

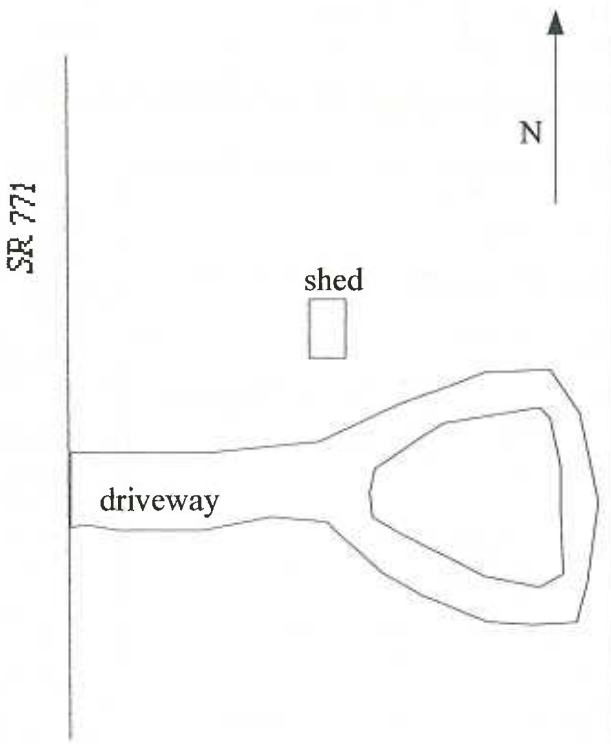
_____

Corn Crib or Shed ☒	Smoke House ☐	Privy ☐
Summer Kitchen ☐	Spring House ☐	Garage ☐
Silo ☐	Ice House ☐	
Designed Landscape Features ☐		

53. Affiliated OAI Site Number(s) 33HI279 one_____ multiple

Archaeological Feature:	Observed	Expected on Basis of Archival Research
Well	x	
Privy		
Cistern		
Foundation		
Structural Rubble		
Formal Trash Dump		
Other _____		

54. Farmstead Plan



42. (Cont'd)

43. (Cont'd)

Appendix B

Ohio Archaeological Inventory form for sites 33HI277-279

Ohio Historic Preservation Office

567 East Hudson Street
Columbus, Ohio 43211-1030
614/298-2000
Fax: 298-2037

OHIO HISTORICAL SOCIETY
SINCE 1885

*Site No. 33- HI - 278

OHIO ARCHAEOLOGICAL INVENTORY

*Response required for acceptance of form

for official use only

Coder ___ ___ ___

Date ___ ___ ___ ___

A. Identification

*1. Type of Form (select as many as appropriate):
X New Form ____ Revised Form ____ Transcribed Data

2. County Highland *3. Trinomial State Site Number 33- HI - 278

4. Site Name(s) Barrett #2

5. Project Site Number FS #2

6. Other State Site Number

7. Source (of Item A.5. and/or A.6.)

B. Location

*1. UTM Zone ____ 16 or X 17
Easting 2 8 0 4 5 0
Northing 4 3 5 6 6 9 0

2. Latitude ____ ° ____ ' ____ "
Longitude ____ ° ____ ' ____ "

*3. Township ____ Range ____ Not Applicable ____
Section ____ 1/4 Section: ____ SW ____ SE ____ NW ____ NE
Township Name Fairfield

*4. Quadrangle Name Leesburg

*5. Quadrangle Date 1960 (PR 1974; PI 1979)

*6. Confident of Site Location X Yes ____ No

C. Ownership

*1. Name(s) Sonny Barrett
Address 11434 Fairfield Road
City/Town, State, Zip Leesburg, Ohio
Phone (937) 780-4961

2. Tenant (if any)
Address
City/Town, State, Zip
Phone (____)

*3. Ownership Status (select only one, as appropriate):
X Private (single) ____ Private (multiple) ____ Local Govt.
____ State Govt. ____ Federal Govt. ____ Multiple Govt.
____ Mixed-Govt./Private ____ Unknown

D. Temporal Affiliations

*1. Affiliations Present (select only one, as appropriate):
____ Prehistoric X Historic ____ Prehistoric and Historic
____ Unknown ____ Unrecorded

*Site No. 33- HI - 278
Plotted ☐

Ohio Historic Preservation Office

567 East Hudson Street
Columbus, Ohio 43211-1030
614/298-2000
Fax: 298-2037

OHIO HISTORICAL SOCIETY
SINCE 1885

*Site No. 33- HI-277

OHIO ARCHAEOLOGICAL INVENTORY

*Response required for acceptance of form

for official use only

Coder ___

Date ___

A. Identification

*1. Type of Form (select as many as appropriate):
X New Form ___ Revised Form ___ Transcribed Data

2. County Highland *3. Trinomial State Site Number 33- HI-277

4. Site Name(s) Barrett #1

5. Project Site Number FS #1

6. Other State Site Number

7. Source (of Item A.5. and/or A.6.)

B. Location

*1. UTM Zone ___ 16 or X 17
Easting 281050 0
Northing 4356770 0

2. Latitude ___ ° ___ ' ___ "
Longitude ___ ° ___ ' ___ "

*3. Township ___ Range ___ Not Applicable ___
Section ___ 1/4 Section: ___ SW ___ SE ___ NW ___ NE
Township Name Fairfield

*4. Quadrangle Name Leesburg

*5. Quadrangle Date 1960 (PI 1977; PR 1974)

*6. Confident of Site Location X Yes ___ No

C. Ownership

*1. Name(s) Sonny Barrett
Address 11434 Fairfield Road
City/Town, State, Zip Leesburg, Ohio
Phone (937) 780-4967

2. Tenant (if any)
Address
City/Town, State, Zip
Phone (___)

*3. Ownership Status (select only one, as appropriate):
X Private (single) ___ Private (multiple) ___ Local Govt.
___ State Govt. ___ Federal Govt. ___ Multiple Govt.
___ Mixed-Govt./Private ___ Unknown

D. Temporal Affiliations

*1. Affiliations Present (select only one, as appropriate):
X Prehistoric ___ Historic ___ Prehistoric and Historic
___ Unknown ___ Unrecorded

Plotted ☐ *Site No. 33- HI-277

Ohio Historic Preservation Office

567 East Hudson Street
Columbus, Ohio 43211-1030
614/298-2000
Fax: 298-2037

OHIO HISTORICAL SOCIETY
SINCE 1885

*Site No. 33- HI-279

OHIO ARCHAEOLOGICAL INVENTORY

*Response required for acceptance of form

for official use only

Coder ____

Date ____

A. Identification

*1. Type of Form (select as many as appropriate):

X New Form ____ Revised Form ____ Transcribed Data

2. County Highland *3. Trinomial State Site Number 33- HI-279

4. Site Name(s) Barrett #3

5. Project Site Number BS#3

6. Other State Site Number ____

7. Source (of Item A.5. and/or A.6.) ____

B. Location

*1. UTM Zone ____ 16 or X 17

Easting 280440 0

Northing 4356600 0

2. Latitude ____ ' ____ ' ____ "

Longitude ____ ' ____ ' ____ "

*3. Township ____ Range ____ Not Applicable ____

Section ____ ¼ Section: ____ SW ____ SE ____ NW ____ NE

Township Name Fairfield

*4. Quadrangle Name Leesburg

*5. Quadrangle Date 1960 (PI 1971; PR 1974)

*6. Confident of Site Location X Yes ____ No

C. Ownership

*1. Name(s) Sonny Barrett

Address 11434 Fairfield Road

City/Town, State, Zip Leesburg, Ohio

Phone (937) 780-4967

2. Tenant (if any) ____

Address ____

City/Town, State, Zip ____

Phone (____) ____

*3. Ownership Status (select only one, as appropriate):

X Private (single) ____ Private (multiple) ____ Local Govt.

____ State Govt. ____ Federal Govt. ____ Multiple Govt.

____ Mixed-Govt./Private ____ Unknown

D. Temporal Affiliations

*1. Affiliations Present (select only one, as appropriate):

X Prehistoric ____ Historic ____ Prehistoric and Historic

____ Unknown ____ Unrecorded

*Site No. 33- HI-279
Plotted ☐