

Appendix E –Archaeological Overview

AN ARCHAEOLOGICAL OVERVIEW OF THE I-64 TO ASHLAND CONNECTOR IN BOYD COUNTY, KENTUCKY (ITEM NO. 9-129.00)

by

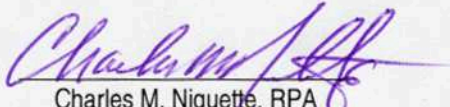
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Archaeology

A search of records maintained by the National Register of Historic Places (NRHP) (available online at: <http://www.nr.nps.gov/nrloc1.htm>) and the Office of State Archaeology (OSA) was conducted to: 1) determine what portions of the area of potential effect (APE) had been previously surveyed for archaeological resources; 2) identify any previously recorded archaeological sites that were situated within the APE; and 3) provide information concerning what archaeological resources could be expected within the APE. The work at OSA consisted of a review of professional survey reports and records of archaeological sites for the area encompassing the APE. In addition to the file search, a review of records maintained by the NRHP and the Kentucky Heritage Council (KHC) and of available maps was initiated to help identify potential historic properties (structures) that may be associated with historic archaeological site locations. An analysis of the association between sites and environmental variables (primarily soils) was also conducted to identify areas of high potential to contain significant archaeological sites. The following summarizes the results of this investigation.

OSA Site Files

The OSA database indicated that 16 previous professional archaeological surveys have been conducted within or partially within the APE. Nearly five percent of the APE has been previously surveyed. In all, only 3 archaeological sites have been identified within the APE (Figure 1). What little information is available at the OSA concerning these sites is summarized below.

15Bd2: Prehistoric open habitation without mounds of an indeterminate age or cultural affiliation. Although the OSA database lists the site's topographic location as unspecified, the site appears to be located on a floodplain or terrace of the Ohio River in Elk series soils. The site's NRHP eligibility has not been assessed.

15Bd4: Prehistoric earthen mound of an indeterminate age or cultural affiliation. Although the OSA database does not list the site's topographic setting, the site appears to be located on a dissected upland ridge sideslope in Latham-Shelocta silt loams (30–50 percent slopes). The site's NRHP eligibility has not been assessed.

15Bd5: Prehistoric earthen mound of an indeterminate age or cultural affiliation. The site is located on Tilsit silt loam on a high stream terrace (upland flat). The site's NRHP eligibility has not been assessed.

Despite the low number of previously recorded sites within the APE, Boyd County has a high number of sites which would typically qualify for preservation in place. These include site types such as earthen mounds ($n = 21$), mound complexes ($n = 9$), non-mound earthworks ($n = 1$), open habitations with mounds ($n = 3$), and stone mounds ($n = 12$). Earthen mounds have been recorded on the Ashland (USGS 1983a), Catlettsburg (USGS 1983b), and Burnaugh USGS (1989) quadrangles; most of the mound complexes, non-mound earthworks, and stone mounds have been recorded on the Burnaugh USGS (1989) quadrangle. Most of the mound sites appear to be located in upland settings near the Ohio River, although floodplain settings are also present. Five of these sites are located in the vicinity (outside) of the APE and include Sites 15Bd1 (open habitation with mounds), 15Bd24 (mound complex), 15Bd35 (earthen mound), 15Bd36 (earthen mound), and 15Bd40 (earthen mound). None of these additional five sites could be associated with a temporal or cultural affiliation.

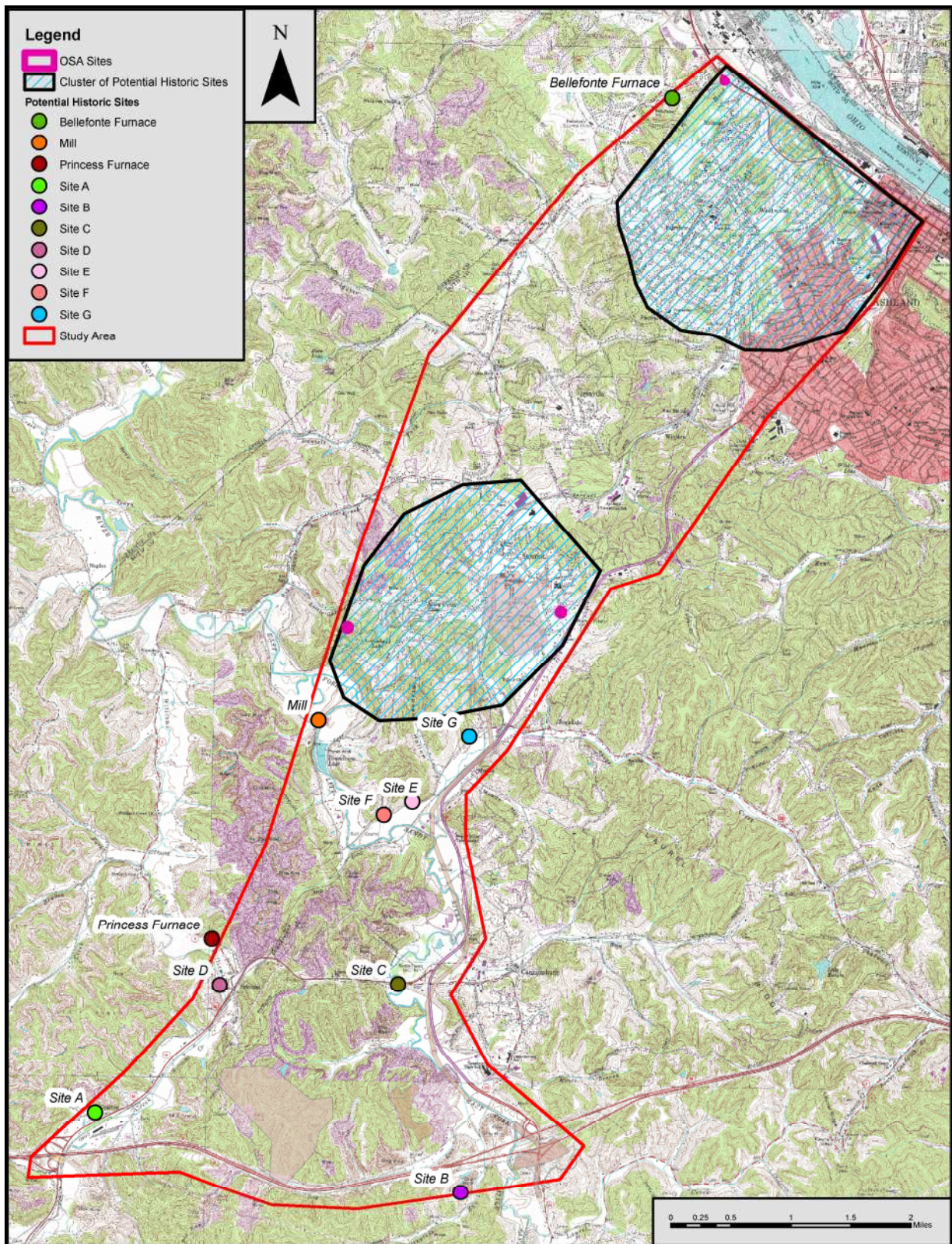


Figure 1. APE showing known archaeological sites and potential historic archaeological sites.

References

United States Geological Survey (USGS)

1983a Ashland, Kentucky, 7.5-minute series topographic quadrangle. United States, Department of the Interior, Washington, D.C.

1983b Catlettsburg, Kentucky, 7.5-minute series topographic quadrangle. United States, Department of the Interior, Washington, D.C.

1989 Burnaugh, Kentucky, 7.5-minute series topographic quadrangle. United States, Department of the Interior, Washington, D.C.

Areas of High Archaeological Site Potential

The OSA countywide site database was used to analyze the association between recorded site locations and environmental variables. This was done to identify areas with high potential to contain significant prehistoric archaeological deposits. Soils were found to be the best predictor because soil associations encompass such factors as landform age, depositional environment, slope, and erosion. This analysis suggested that within the APE deep soils on floodplains and stream terraces (alluvial environments) would have the greatest potential to contain significant prehistoric archaeological sites (Figure 2). Archaeological sites located in alluvial environments are often buried and, as such, have not been affected by later disturbances, such as plowing.

Table 1 includes a complete list of soil series located on floodplains or stream terraces within the APE. These soil types account for approximately 19 percent (1,153 ha [2,851 acres]) of the APE (Hail et al. 1979). In Boyd County, nearly half of all recorded archaeological sites have been located on floodplains or stream terraces. Despite this fact, only three archaeological sites have been previously recorded in the APE and these were recorded as being located on Elk series, Tilsit series, or unknown series soils. It is important to remember, however, that the eligibility of these, and most recorded archaeological sites in the county, had not been assessed.

The physiography of the APE is well dissected, although not as rugged as would be typical of the Eastern Coal Field Region (McGrain and Currens 1978). The northern portion of the APE has less rugged topography with more residential and urban development adjacent to the city of Ashland. The central and southern portions of the APE are more dissected with slightly more than 50 percent of the APE being steeply sloped (3,315 ha [8,193 acres]). Despite the steep slope, these areas retain the potential to contain archaeological sites such as rockshelters or petroglyphs. Additionally, archaeological sites located in ridge line saddles may have been covered and preserved by colluvial deposition related to deforestation (iron industry and logging). Upland flat areas also possess the potential to contain archaeological sites. Although upland areas typically would be classified as having a lower potential to contain NRHP-eligible cultural resources, the presence of prehistoric mound sites in greater Boyd County elevates their potential. To some degree, however, this upland potential is diminished by the fact that most of these site types (earthen mounds, mound complexes, non-mound earthworks, open habitations with mounds, and stone mounds) are moderately visible and have likely been previously recorded.

References

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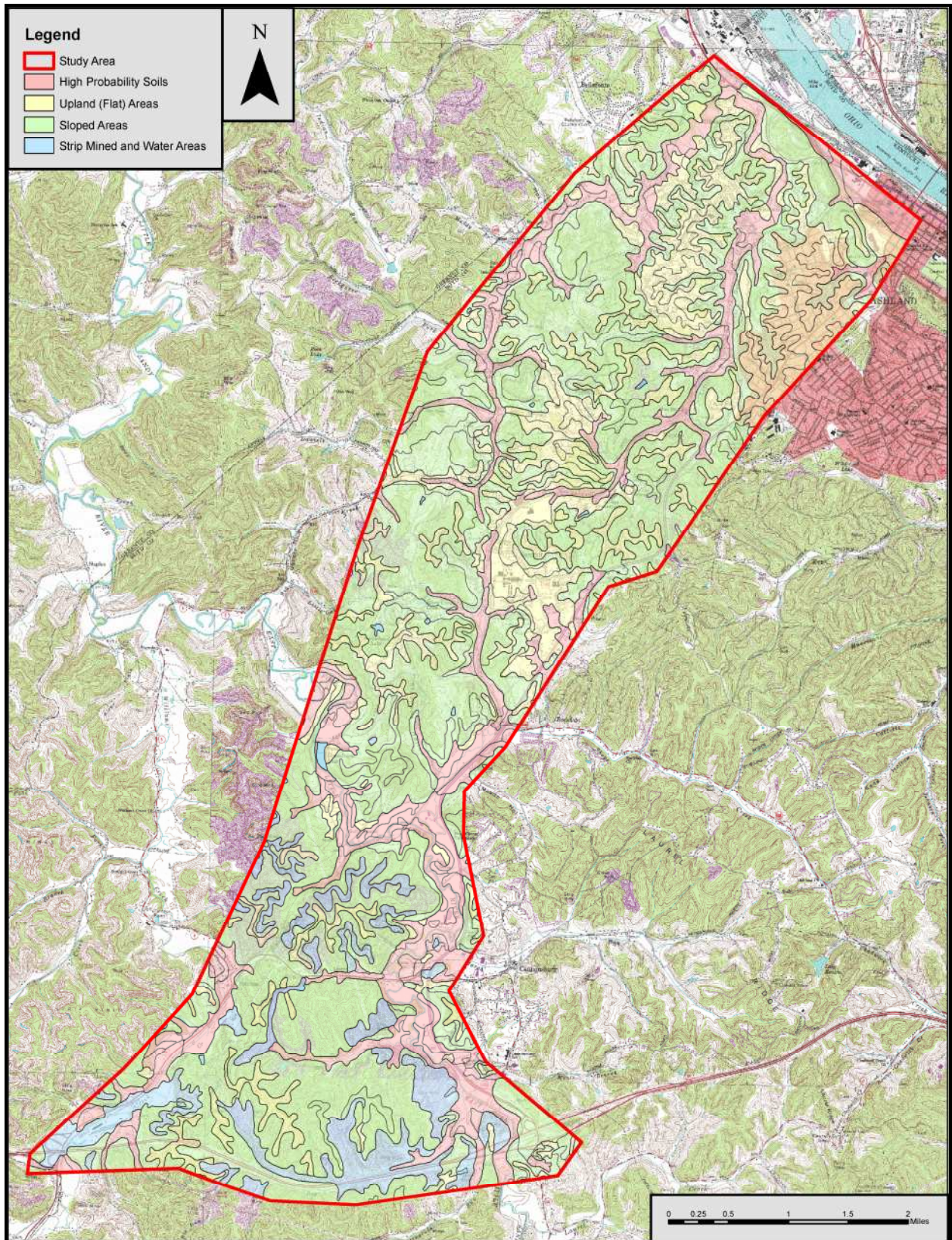


Figure 2. APE showing high probability soils (floodplain/terrace), sloped areas, and upland (flat) area.

Table 1. Summary of Soil Series for Floodplains and Stream Terraces.

Soil Code	Soil Description	Flood Frequency	Drainage
AIB	Allegheny loam	Indeterminate	Indeterminate
Bo	Bonnie silt loam	Frequent	Poorly drained
Co	Cotaco loam	Indeterminate	Somewhat poorly drained
Cu	Cuba silt loam	Frequent	Well drained
EkA	Elk silt loam	Indeterminate	Indeterminate
Hu	Huntington silt loam	Frequent	Well drained
Mo	Morehead silt loam	Indeterminate	Moderately well drained
Pf	Pope fine sandy loam	Frequent	Well drained
Sm	Stendal silt loam	Frequent	Somewhat poorly drained
Sn	Stokly fine sandy loam	Frequent	Somewhat poorly drained
Wb	Weinbach silt loam	Indeterminate	Somewhat poorly drained
WhA, WhB	Whitley silt loam	Indeterminate	Indeterminate

Review of Potential Historic Archaeological Resources

Several sources were consulted in an effort to identify potential historic archaeological resources within the APE. Primarily these included the site survey files at the KHC, the Cultural Historical Resource Overview (Powell 2007), and available historic maps. Cultural historic sites with aboveground structural features often have associated archaeological deposits. These types of resources have therefore been used to estimate the types and locations where potential historic archaeological deposits may be encountered.

Within the APE, there are historic districts as well, as individual cultural historic properties, which may have associated archaeological deposits (see Figure 1). Two historic districts and six individual properties are either listed in the NRHP or have been determined eligible for listing in the NRHP. Additionally, Powell (2007) located six historic districts and 26 additional individual properties which appear to meet National Register criteria, pending further research, within the APE. A wide array of historic properties was located and includes dwellings, bridges, churches, commercial/industrial buildings, a prison complex, a park, and a school gymnasium.

Nine historic districts are located in or adjacent to the APE. Most of these contain late nineteenth or early twentieth century structures and are located in fairly urban areas. These districts include industrial complexes as well as residential neighborhoods. Of particular note is the Ashland Historic Commercial District which spans the turn of the century and is listed in the NRHP and the Twelfth Street Historic District, which contains nineteenth century residential structures built by the owners of local industries. The urban properties in residential districts often possess more confined and clearly demarcated domestic activity areas. Although potentially disturbed by subsequent activities, such as road maintenance/widening, utility installations, and landscaping, urban archaeological deposits have yielded significant data in other parts of Kentucky (Faberson et al. 2007; Haney et al. 2004; O'Malley 1996).

The residential dwellings may be broadly described as clustered near the city of Ashland and near the central portion of the APE (see Figure 1). Most of the documented cultural historic sites date from the late nineteenth and early twentieth century. Several cultural historic sites (dwellings) are scattered in the southern portion of the APE (see Figure 1; Sites A–G). These tend to be some of the earlier structures which are extant in the APE. These structures may have more spatially extensive archaeological deposits. These more rural structures could have activity areas which are less constrained and have a wider potential range of subsistence/domestic activities. For example, the Midland Trail dwelling (Site A; Powell 2007) likely dates from the mid-nineteenth century and is located near U.S. 60 in the southern portion of the APE.

In addition to the available extant cultural historic resources (Powell 2007), historic maps provide clues to the locations of potential historic archaeological sites/deposits. Although no iron furnaces are located within the APE, the remains of several nineteenth-century iron furnaces are

located in the vicinity of and adjacent to the APE (see Figure 1) (Powell 2007; Schenk and Mitchell 1876). These locations may have had extended complexes or communities with associated archaeological sites and deposits related to operations or industry workers' residences. These charcoal-fueled iron furnaces include the Bellefonte, Princess, and Clinton Furnaces (Schenk and Mitchell 1876). The production of charcoal and iron has strongly influenced the development of Boyd County. This industry influenced deforestation (and subsequent erosion), settlement patterns, and the placement of roads and railway lines. In addition to the iron industry, other scattered residences and churches are noted on the 1876 (Schenk and Mitchell) map of Boyd County. These are largely located along streams. One mill (see Figure 1) is depicted along the East Fork (Schenk and Mitchell 1876).

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