Pennsylvania State Historic Preservation Office
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

Pennsylvania Archaeological Site Survey

Annual Site Reporting Acitivity in 2023

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Contents

Summary

In 2023, 309 new archaeological sites were added to the Pennsylvania Archaeological Site Survey (PASS) files, bringing the statewide total to 27,010 recorded sites. This represents a slight decrease in site recording from 2022. The majority of new sites were recorded through cultural resources management (CRM) projects, however, there was an increase in site recording from university research projects. In addition, we continued to see contributions from the Society for Pennsylvania Archaeology (SPA), SHPO managed surveys, independent research projects, and members of the public.

The PASS program continued its pro-active survey efforts in 2023 through the baseline survey initiative which recorded areas of surficial archaeological evidence in several counties throughout the Commonwealth. Additionally, an effort to survey Pennsylvania Historical and Museum Commission (PHMC) properties commenced, with survey of approximately four properties planned for 2024. Lastly, PA-SHARE and Surveyor both received updates and improvements to help facilitate resource recordation and usability. More information pertaining to these survey activities can be found in the below sections.

Site Recording Sources

As was true in preceding years, the most significant source of new sites in 2023 were from CRM projects, accounting for almost 70% of all newly recorded sites. The second highest source for new site recordation came from university student research projects. A total of 40 sites were recorded throughout Cumberland, Indiana, and Westmoreland counties as part of theses research projects conducted by graduate students at Indiana University of Pennsylvania (IUP). In 2023, 15 sites were recorded through the baseline survey program, a SHPO managed survey, that focuses on identifying and recording underrepresented historic resources across Pennsylvania. Research projects undertaken by the Pennsylvania Historical and Museum Commission (PHMC) added 14 new sites to the PASS files in 2023. These projects include ongoing fish weir research and archaeological investigations conducted by the PennDOT Highway Archaeology Survey Team (PHAST). Together, CRM projects, university research, SHPO managed surveys, and PHMC research accounted for approximately 92% of all newly recorded sites in 2023.

Source	Sites Recorded	%
CRM	215	69.58%
University Research	40	12.95%
SHPO Managed Survey	15	4.85%
PHMC Research	14	4.53%
SPA	12	3.88%
Other	9	2.91%
Individuals	4	1.29%

SPA members from Chapters 22 (Ohio Valley), 23 (Westmoreland), 24 (Bald Eagle), 29 (North Fork), 30 (Venango) and 31 (Hawk Mountain) recorded 12 new sites in Armstrong, Bulter, Lancaster, Monroe, Schuylkill, Venango, and Westmoreland counties. These included Pre-Contact period habitation sites, historic industrial sites, and rockshelters. In addition, SPA members from Chapters 24 (Bald Eagle), 29 (North Fork) and 31 (Hawk Mountain) updated 6 previously recorded sites with new information.

The PASS files also saw contributions by varies individuals and projects including an 18th century historic domestic site in Philadelphia County, a fish weir spanning the Delaware River in Pike County, and two Civilian Conservation Corps (CCC) camps in Centre and Crawford counties.

2023 Project Highlights

Various projects that contributed to the PASS files in 2023 are highlighted below. These articles were provided by guest authors and represent both work that was completed over several years and ongoing efforts.

Preliminary Results of the Archaeological Investigation at the Vey Site (36EL0445) City of St. Marys, Elk County, Pennsylvania

Robert H. Eiswert and Shannon Silsky, McCormick Taylor Inc.

The Vey Site (36EL0445) is an urban domestic site located in the City of St. Marys, Elk County, Pennsylvania. It was discovered during the Phase I archaeological investigations for the proposed S.R. 0120, Section C02, St. Marys Connector Project, which is being designed to reduce traffic flow in downtown St. Marys through the area called "The Diamond." Based on results of the Phase I/II investigations, the District 2-0 archaeologist, along with McCormick Taylor, Inc., determined that the Vey Site (36EL0445) was eligible for the National Register under Criterion D. The interesting and detailed history of the site, together with the high integrity of the archaeological deposits, indicated that the Vey site could reveal significant information regarding the settlement of diasporic German Catholic households in the remote northern tier of Pennsylvania during the nineteenth and early twentieth centuries. The general paucity of historic archaeological data from the city of St. Marys as well as from similar communities in the region, bolstered the significance of the site.

The City of St. Marys was first settled by the German American Catholic Brotherhood Society, a group of German immigrants from Baltimore and Philadelphia. In search of uncultivated lands where they would be free from the religious and ethnic persecution they were facing in the eastern cities, the group set out to establish a colony to the west. In 1842, the society purchased 29 land warrants from the Fox Land Company of Massachusetts that totaled approximately 30,000 acres in Clearfield, Jefferson, and McKean Counties, as Elk County had not yet been formed. The first group of settlers numbered fifteen people. There were no roads to this area at this time, so the settlers travelled by foot on early hunting paths. They arrived at the site on December 8, 1842, and named it "Marienstadt" or "Marys City" in honor of the Virgin Mary. The city was laid out the same year.

Henry Vey came to Elk County in 1855 from Columbia, PA but was originally from Bavaria, Germany. He lived on Lot 60 at 325 S. St. Marys Street in what is known as the Henry Vey House (Resource# 2021RE01459) with his wife Florence (née Focht) and their children Mary, Elizabeth, Casper, Nicholas, and Franklin. In addition to Lot 60, Henry owned Lot 62 (339 S. St. Marys Street), the adjacent property to the north ***(Figure 1)***. Census records indicate that Henry was employed as a carpenter and a blacksmith, but he was also involved in several real estate ventures with other businessmen in the community.

Combined, Lots 60 and 62 contained Vey's residence and blacksmith business. The configurations of these properties are documented on Sanborn maps from the late nineteenth century. Vey's blacksmith shop, which was built in 1863, was located to the north of the site boundary (this Lot number was changed to 443 on the Sanborn maps). By 1892, this parcel containing the blacksmith shop also contained a stable and a shed. The rear yard of his house (now labeled Lot 442) contained an oven with a wood framed structure attached to its southern end. Within six years, the oven's frame attachment was removed, and a two-story stable was constructed to the southeast of the oven. By 1925, the southern half of Lot 60 was sold out of the family and the Vey stable location was moved to the northern half of the lot, and a shed was constructed about 10 feet to the north of the stable location. Informant interviews indicated a larger garage/shed was constructed at the rear of the property and likely coincided with the demolition of the 1915 shed. The blacksmith shop was removed

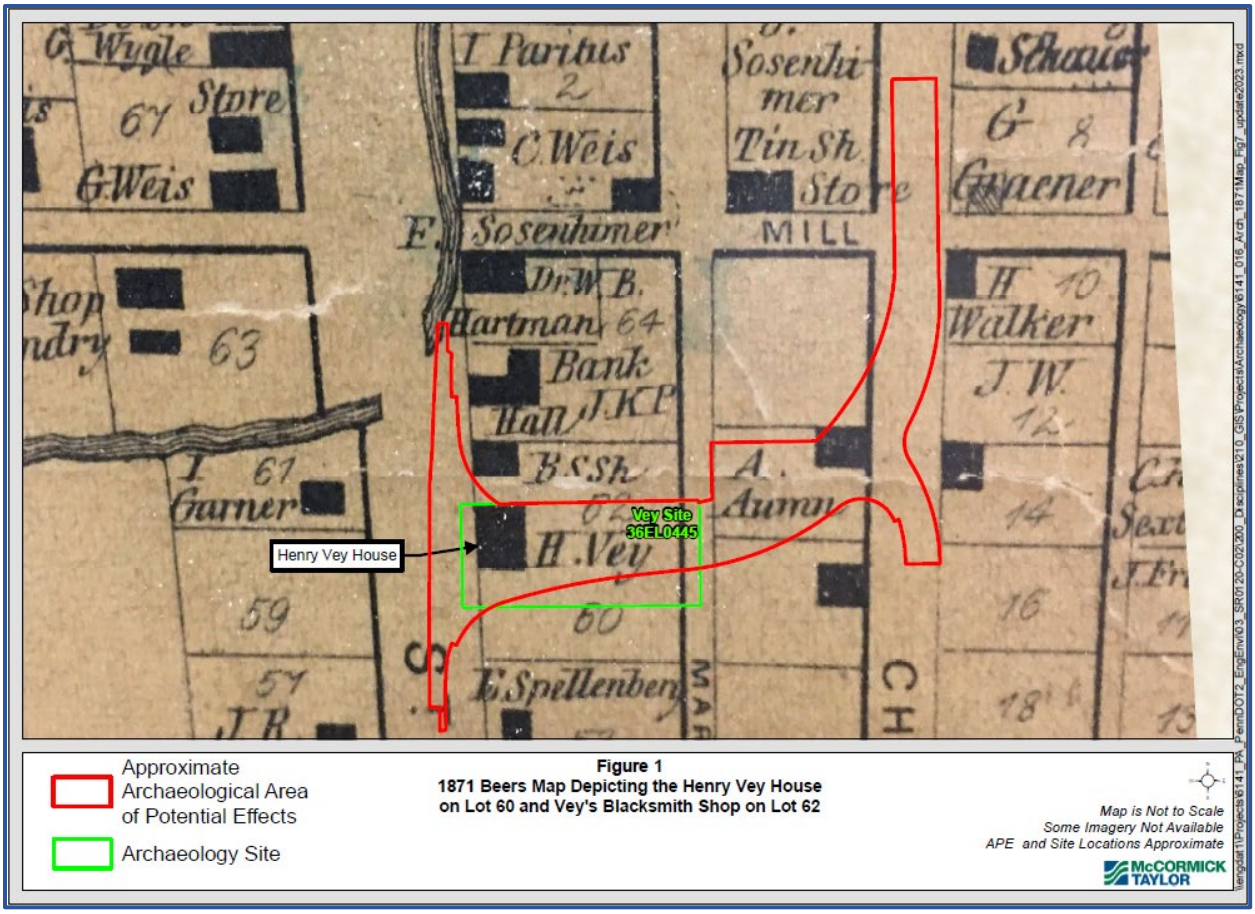


Figure 1: 1871 Beers map detecting the Henry Vey House.

from Lot 62 in the early twentieth century and an auto dealership was constructed. The shed on Lot 60 was extant until at least 1956. During the intervening years, the function of the oven structure seems to have changed, as it was described as a smokehouse in 1956.

The Phase I-III archaeological investigations at 36EL0445 consisted of the excavation of 73 Shovel Test Pits (STPs) and 34 1.0-meter x 1.0-meter (3.3-foot x 3.3-foot) Test Units (TUs) within the site's boundaries. Prior to the initiation of fieldwork, the former building locations were geo-referenced onto the project plans to aid in their recordation. The georeferenced building locations were further examined through a ground penetrating radar survey that was conducted prior to the Phase III excavations. Some of the features were found to be located beneath a significant amount of rocky overburden that was placed in the backyard to create parking areas. This fill was mechanically removed during the Phase III so that these features could be documented.

In total, 33 cultural features were identified. These included the buildings in the rear yard that are depicted on the historic maps. The two-story stable (Feature 8) was identified in Block 2 by a large area of subsoil staining caused by high foot traffic along the eastern limits of the georeferenced building location.

The oven foundation (Feature 1) was discovered at the southeast corner of the Henry Vey House in Block 1. Its foundation walls were constructed of rubble sandstone fastened with a weathered lime-based mortar. The foundation walls were about 1.5 feet thick and formed a roughly square shape measuring 4.5 x 4.5 feet ***(Figure 2)***. Based on the differing types of stonework, the upper courses of foundation stone appeared to be added after the lower, providing evidence of the reconfiguration of the oven during the late nineteenth century, as seen on the historic maps. Two post holes (Features 13 and 14) discovered about 16 feet to the south of the oven foundation in Block 3 were interpreted to represent support posts for the frame addition and roof that would have covered the work area associated with the oven.

Figure 2: View of Feature 1, post excavation.

The identification of Feature 10 in Block 5 seemed to be related to the functional change of the oven to a smokehouse in the twentieth century. Feature 10 was as an amorphous shallow pit that, in plan, measured approximately 6.75 x 3.9 feet. The high quantities of cut bone (predominantly cow and pig) recovered from Feature 10 provided evidence for both the butchering of animals raised on the property and/or the preparation of meat imported to the site. Diagnostic artifacts, including crown-style bottle caps (1897-present) suggest that the deposits are likely related to the early twentieth century occupation of the property by Nicholas Vey (1900-1912) or the Margert Vey (Schwabenbauer) and Joseph Schwabenbauer occupation between 1912 and 1947. Interestingly, census records indicated that Joseph Schwabenbauer was employed as a butcher with the Smith Brothers Company in 1927, establishing a possible connection with the bone and smokehouse (Wood 1927:91).

Excavations in the area just south of the oven foundation in Block 3 encountered Feature 16, a large pit that was found to be over 10 feet in length on its east-west axis and extended to about 2.0 feet below the present ground surface. The location of Feature 16 was within the projected footprint of the frame structure for the oven, but its long axis appeared to be perpendicular to the frame building. The base of Feature 16 contained a compact deposit of lumber resembling floorboards that was dumped into it when it was filled ***(Figure 3)***. An 1844 Seated Liberty Silver Dollar recovered from the lowest layer of the feature, encountered below the floorboards and just above the subsoil, indicated that Feature 16 was contemporaneous with the construction of the house and was likely one of the earliest features constructed at the site. Based on its size, shape, orientation, and depth, Feature 16 may be associated with a structure that was not documented on historic maps. This interpretation was further bolstered by the fact that the majority of the artifacts related to the Henry Vey occupation of the property were found to overlay Feature 16.

Figure 3: View of Feature 16, mid-excavation.

A privy pit (Feature 33) was discovered in Block 7. It was located at the terminus of the stone and concrete walkway leading from the back door of the house. In plan, Feature 33 measured 4.20 x 3.33 feet and was approximately 2.25 feet in depth. Based on the few diagnostic artifacts recovered from Feature 33, it was filled around the time ownership of the property transitioned from Nicholas Vey (1899-1915) to Margaret Vey/Joseph Schwabenbauer (1915-1947). Flotation of the feature fill has

yielded high quantities of botanical material that will provide detailed information regarding their household diet.

Artifacts recovered from the Phase III Data Recovery are still being analyzed; however, initial estimates suggest that, in total, the Vey Site has yielded over 14,500 artifacts. Numerous interesting finds that shed light into the lifestyles of the Vey family were recovered. These include high quantities of domestic artifacts, including tableware such as whiteware and ironstone with various hand-painted and transfer printed decorations. Abundant personal class artifacts were also recovered, and included clothing items such as buttons, beads, jewelry chain links, snaps, a ring, buckles, and eyelets. A representative sample of these are pictured in ***Figure 4***. Additional personal class items include pins, mirror glass, and a pharmaceutical bottle. Several toys were recovered that are related to recreational children's activities on the site, including marbles, ceramic doll fragments, and a small metal pitcher ***(Figure 5)***. Adult recreational activities could be observed by the presence of clay smoking pipes fragments ***(Figure 6)***. Religious items, including two saint medals and a budded crucifix ***(Figure 7)***, provided evidence of the Vey family's strong association with Catholic symbolism. These artifacts seem to confirm the idea that German Catholics had a much greater interest in the pageantry of religious symbolism than the Irish or most native-born American Catholics.

Figure 4: Sample of Personal Artifacts found at the Vey Site. Bottom Row: (left to right) Tubular blue glass bead (FN# 357), Round white glass bead (FN# 262); Middle Row: (left to right) Bone button and Brass button with a depiction of a squirrel (FN# 336), Snap button post and stud (FN# 301) Complete snap button with vine design (FN# 200); Upper Row: (left to right) Brass buckle fragment (FN# 268), iron/steel ring (FN# 360), copper brooch with milk glass inset depicting female profile (FN# 268), Copper alloy clothing hook (FN# 264), leather strip with copper eyelets (FN# 40).

Figure 5: Sample of Children's Toys found at the Vey Site. Bottom row: Unidentifiable white metal toy pitcher (FN# 90); Middle row: (left to right) porcelain dolls left arm (FN# 303), porcelain doll face (FN# 267), porcelain doll face with attached teeth (FN# 277); Upper row contains glazed and unglazed ceramic marbles: (left to right) blue/green (FN# 33), pink marble (FN# 32), unglazed marble (FN# 201), red marble (FN# 32).

Figure 6: Examples of smoking pipes found at the Vey Site. Top left: Refined earthenware reed-style pipe bowl (FN# 283); Lower left: Kaolin clay pipe bowl with foot (FN# 273); Mold form kaolin clay pipe stems of various designs along right side (Top to Bottom FN# 337, FN# 336, FN# 266).

Figure 7: Religious Artifacts found at the Vey Site. Left to Right: Copper alloy catholic religious medallions; budded crucifix (FN# 269), Miraculous Medal (FN# 322), St. Joseph Patron of China (FN# 24).

While the analysis of the Vey Site (36EL0445) is still ongoing, the results of the excavations will add to our understanding of the material culture of the northern tier of Pennsylvania during the mid-nineteenth and early twentieth centuries. As very few historic archaeological sites in the region have been subjected to intensive analysis, the data recovered from the Vey Site will also provide a comparative sample for other contemporaneous historic domestic sites in the northern tier. In addition to the technical Phase III Data Recovery report, the results from the investigations will be shared with the public through the development of an interactive ArcGIS *StoryMap*, followed by a public presentation in the City of St Marys.

An Update on Recent Test Excavations at the Shoop Paleoindian Site (36DA0020): Preliminary Thoughts Concerning Chronology and Community Patterning

Kurt W. Carr, Joseph P Vitolo, Robert Ronngren, Sharon McDonald, Kim Sebestyen, and Brian Harrison

John Witthoft published the first substantial report on the Shoop site (36DA0020), over 70 years ago in 1952. He described the site as an early Paleoindian overlook, hunting, and processing camp. He identified the Onondaga chert quarries of western New York, located 350 km to the north as the source of 98% of the artifacts. This has since been confirmed by XRF (x-ray fluorescence) analysis conducted by Christine Rieth (2013) and thin section analysis by Frank Vento (Carr *et al.* 2020). The site covers over 15 hectares (38 acres) but consists of 11 to 19 separate concentrations. There are very

few artifacts from later time periods and this site is thought to be a single component manifestation, covering a limited number of visits during a relatively short time frame within the Early Paleoindian period. It is the largest Paleoindian site in Pennsylvania and one of the largest non-quarry sites in the Middle Atlantic region. Although the quantity of artifacts has grown to over 9,200 including approximately 2,100 tools, the nature of the individual concentrations has not been systemically determined. Do these represent separate visits by extended families as part of the seasonal round as suggested by Witthoft or do these concentrations represent different activity areas from a more limited number of visits by a large social group or is this a single event meeting place for several larger social units.

Most agree with Witthoft's assessment that hunting, animal processing, and hide scraping are the most common activities. This has been reinforced over the decades by surface collecting that has resulted in over 100 fluted points, over 500 endscrapers, 260 side scrapers, 200 bifacial tools, 140 wedges, over 650 utilized and retouched flakes, and over 7,000 pieces of debitage. Caribou or elk are frequently considered the focus of these activities but there is no faunal remains to support this scenario.

Endscrapers with notches and graver spurs.

Environmental Setting

The Shoop site is situated in the Ridge and Valley physiographic zone, approximately 10.5 km (6.5 miles) east of the Susquehanna River, in an upland valley (Ward 2008). Upland settings in the Ridge and Valley are an unusual landscape for Paleoindian sites as less than 10% of sites from this era are found in this setting (Carr 2018; Carr and Adovasio 2013 and 2020). The site is near the base of the north facing slope of Dividing Ridge that separates the Armstrong drainage to the north from the Powell's Creek drainage to the south. There is a perennial spring along the southeastern edge of the site and a first order stream, Conley's Creek, is situated just north of the site at the bottom of a steep slope although no artifacts have yet to be recovered from either of these specific locations.

Chronology

The dating of the Shoop Paleoindian assemblage has been problematic since the site was first published. With very little comparable data, Witthoft (1952), and later Cox (1972), believed the fluted points dated early in the Paleoindian period – Clovis age or slightly later. Since that time, several typologies have been proposed to describe the evolution of Paleoindian biface types in the greater northeast, notably Bradely *et al* (2008), Carr (2013), Ellis and Deller (1997), and Gardner (1989). Generally, these evolutionary schemes begin with the Clovis type characterized by flutes that are less than half the length of the biface and a blade that is parallel sided. The Clovis type is followed by types with longer flutes, a deeper basal concavity, and the sides are more divergent - no longer parallel sided. However, the dating of these later types continues to be problematic.

The fluted biface assemblage at Shoop includes over 100 specimens and contains a wide variety of shapes that at first glance could reflect fluted biface types from the entire Paleoindian era. Carr *et al* (2013) conducted a metric analysis of 72 bifaces and compared the results to the Clovis type and a series of later types or styles proposed by Bradley *et al* (2008) for the New England-Maritimes Region. The metrics suggest the Shoop fluted bifaces are most similar to the Clovis type. Their size and shape are most similar to Clovis, they exhibit short flutes and are generally parallel sided. However, as noted by Carr *et al.* (2013) and Cox (1986), the base is generally more deeply concave than the Clovis type and, in some specimens, the maximum width is slightly above the flute, creating a more divergent sided blade in appearance. Does this variation in the Shoop points reflect hundreds of years of changing fluted point styles or is the variation caused by the re-sharpening of points during the 350 km trip between the Shoop site and the Onondaga chert quarries in western New York. Radiometric dates are much needed to resolve this issue.

Fieldwork

Although Witthoft (1952) identified 11 artifact clusters, these were never mapped and the majority of the artifacts in existing private and public collections are unprovenienced. This has always been a problem with interpreting how the site was used – what is the nature of community patterning at Shoop. A field project was initiated in 2021 to explore this issue along with a search for charcoal to obtain an absolute date for the site. The field work focused on a wood lot at the south end of the site that, based on aerial photographs, has not been plowed in over 90 years. In the past two years of field testing, no evidence of plowing was observed in the excavation of 30 one-meter units and 27 shovel

test pits. Obviously, an undisturbed soil profile offers a greater opportunity for the analysis of horizontal artifact patterning and for identifying charcoal features for dating. A secondary consideration is that the site is threatened by urban sprawl. Twenty years ago, the ridge overlooking the site was farmland; now it is a housing development.

A wide variety of fluted point shapes reflecting resharpening rather than chronological differences.

The 2021 field investigation began with systematic testing in the wood lot along a colluvial terrace near the bottom of Dividing Ridge at the south end of the site. This produced only one cluster of artifacts that was designated the Miller Locus after the property owner. In 2022, the area was expanded into a block excavation measuring three by six meters. Units were excavated in 10-centimeter arbitrary levels within stratigraphic units and the soil was double screened using ¼ followed by $^{1}/_{8}$ inch screens. Although the use of $^{1}/_{8}$ screening requires more time, it has allowed us to identify minority lithic material types and we expect a more nuanced view of lithic reduction techniques. More importantly, one of the main goals of this project is to investigate community patterning and the use of $^{1}/_{8}$ screening is a more accurate identification of activity areas and human behavior.

A total of 18 units have been completed down through Level 4 resulting in the recovery of over 1,800 artifacts. The excavation seems to cut through the middle of an activity area with artifact densities increasing to the north and decreasing to the east and west.

Soil scientists John Wah, Dan Wagner, and John Stiteler each visited the site for one day. They identified the three soil horizons that produced cultural remains – 1) a thin, dark, unplowed A horizon measuring to a depth of 7 centimeters (although Wagner believes it has been plowed), 2) a tan BE horizon from 7 to 40 centimeters containing 79% of the artifacts, and 3) a reddish brown Bt1 horizon beginning at 40 cm below the surface containing 12% of the artifacts. The landform on which the site is situated extends another 1.6 meters below the current floor and is the result of a series of colluvial deposits dating to at least pre-Wisconsin/Sangamon times. The artifacts were dropped on a surface near the top of the BE horizon and subsequently buried through bioturbation and gentle down slope movement during Younger Dryas and Late Glacial times. According to John Stiteler "At the time they were deposited there would have been a thin forest-floor A overlying a Bw or BC, all of which has developed into the BE over the last 10,000ish years."

Soil profile at the Shoop Site

Results

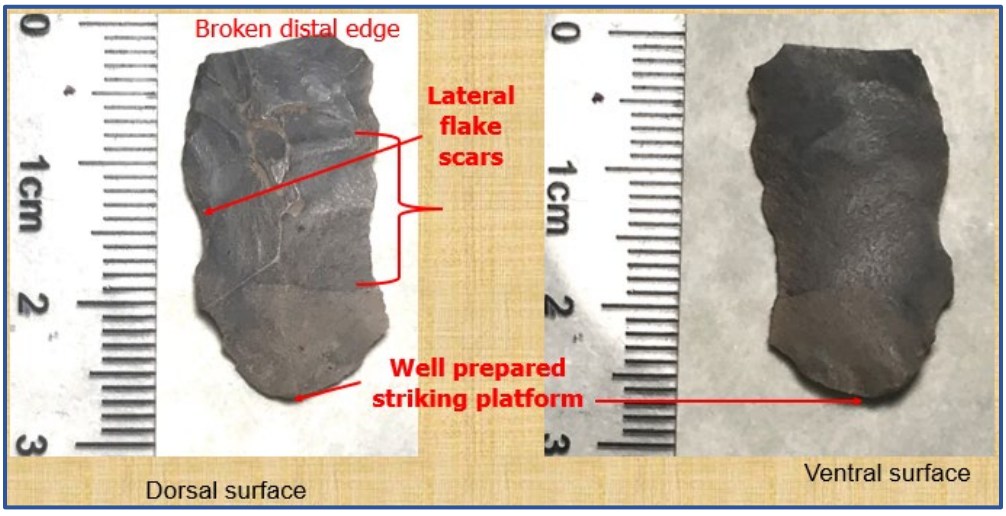
Artifacts are found throughout the A horizon, BE and 12% are even found in the top level of the older Bt1 horizon. However, we do not believe this is a culturally stratified profile but rather the vertical distribution of artifacts is the result of bioturbation – that is the vertical displacement of artifacts via roots, frost heaving, and animal borrowing including invertebrate soil transport. This is supported by decreasing artifact size with depth - as 95% of the artifacts in level 4, the Bt1, are less than 10 mm in diameter.

Less than 3% of the artifacts are classified as formal tools and utilized flakes. 98% of the artifacts are in Onondaga chert with minor numbers of jasper, Normanskill chert and a black chert, possibly from

the Shriver formation. Thermal alteration is common with approximately 35% - 40% exhibiting evidence of pot lids or internal crazing. Cobble or bedrock cortex is rare and evident on less than 5% of the artifacts. Based on an examination of striking platforms and with assistance of long-time lithic technologist, Steve Nissly, antler, bone, or wooden batons or pressure flakers were used to remove at least 95% of the debitage. Hammerstone reduction seems to be rare and no hammerstones were recovered from any of the collections. The tool assemblage consists of approximately 51 utilized flakes, retouched flakes, wedges, endscrapers, side scrapers, bifaces, and gravers; and most of these are fragments.

Community Patterning

There are two other artifact concentrations with catalogued artifacts at the south end of the site in or adjacent to the wood lot. The Fogelman-Frey concentration (Fogelman 2014) is located 150 meters east of the Miller locus in the unplowed wood lot; it is a relatively small cluster, less than nine meters in diameter, but it produced 54 tools. The Shertzer locus is located in a plowed field, 80 meters southeast of the Miller locus; it is large, approximately 60 meters long, and produced over 2,000 artifacts including 300 tools. In an effort to investigate the relationship between the Miller locus and the Shertzer locus, two transects of 50X50 cm test units were placed uphill and south of the block excavation at five-meter intervals. Most of these did not produce any artifacts but halfway between the two concentrations, one unit produced 133. This was expanded into a one-meter unit that produced a total of 637 flakes and tools. The surrounding units at 5-meter intervals produced less than seven artifacts from each unit. This is a small concentration with an extremely high artifact count, covering an area of at most 10 m in diameter. It could represent a very limited number of lithic reduction events. The analysis of the artifacts is ongoing, but at least one channel flake was recovered, along with a fragment of a wedge and a distal fragment of a projectile point. To my knowledge, this is one of a very few channel flakes recovered from the entire site, and it obviously documents fluted point production.



Channel Flake

Summary

In summary, these individual artifact concentrations identified along the southern border of the site represent a diverse set of activities ranging from a potential habitation site such as the Shertzer locus with its large numbers and wide variety of artifacts to the single reduction event located between the Shertzer and Miller loci. Based on Witthoft's original observations, we have always known that the artifacts at Shoop were organized into individual concentrations, but now we have real examples and a better understanding of the size and artifactual characteristics of these concentrations.

Field work in 2024 will start in mid-April and we will continue with the investigation of community patterning. The high artifact density area between the Miller and Shertzer concentrations will be expanded, and we will continue our use of close interval transect testing to identify additional activity areas in the wood lot.

Finally, this project is being conducted by a small group of dedicated volunteers who have contributed significantly to its success. In addition, several groups, notably Jack Cresson and Steve Nissley's flint knapping group and Heather Wholey's archaeology class have volunteered for a day or a weekend. If anyone is interested in joining us, please contact Kurt Carr at paleocarr@gmail.com.

References

Bradley, James W., Arthur E. Spiess, Richard A. Boisvert, and Jeff Boudreau
2008 What's the Point?: Modal Forms and Attributes of Paleoindian Bifaces in the New England-Maritimes Region. *Archaeology of Eastern North America*, 30:119–72.

Carr, Kurt W.
2018 Peopling of the Middle Atlantic: A Review of Paleoindian Research. In *Middle Atlantic Prehistory: Foundations and Practice*. edited by Heather A. Wholey and Carol L. Nash, pp 219-260. Rowman & Littlefield, Lanham.

Carr, Kurt W. and James M. Adovasio
2012 Shades of Gray Redux: The Paleoindian/Early Archaic "Transition" in the Northeast. In *From the Pleistocene to the Holocene: Human Organization and Cultural Transformations in Prehistoric North America*, edited by C. Britt Bousman and Bradley J. Vierra, pp. 273-318. Texas A&M University Press, College Station.

2020 The Paleoindian Period in Pennsylvania. In *The Archaeology of Native Americans in Pennsylvania, Volume 1 – 3*. Edited by Kurt W. Carr, Christopher A. Bergman, Christina B. Rieth, Bernard K. Means and Roger W. Moeller; Elizabeth Wagner, Associate Editor, pp 59-104, University of Pennsylvania Press, Philadelphia.

Carr, Kurt W., James M. Adovasio and Frank J. Vento
2013 A Report on the 2008 Field Investigations at the Shoop Site (36DA20). In *The Eastern Fluted Point Tradition*, edited by Joseph A.M. Gingerich, pp. 75-103. University of Utah Press, Salt Lake City.

Cox, Stephen L.
1972 *A Re-Analysis of the Shoop site*. Manuscript on file at The State Museum of Pennsylvania, Section of Archaeology.

1986 A re-analysis of the Shoop site. *Archaeology of Eastern North America* 14:101-170.

Ellis, Christopher J., and D. Brian Deller
1997 Variability in the Archaeological Record of Northeastern Early Paleoindians: A View from Southern Ontario. *Archaeology of Eastern North America* 25:1–30.

Fogelman, Gary L.
2014 *The Pennsylvania Fluted Point Survey: Addendum II Additional Fluted Points for The Pennsylvania Fluted Point Survey.* Fogelman Publishing, Turbotville.

Gardner, William M.
1989 An Examination of Cultural Change in the Late Pleistocene and Early Holocene (ca 9200 to 6800 B.C.). In *Paleoindian Research in Virginia: A Synthesis*, edited by J. M. Wittkofski and T. R. Reinhart, pp. 5–51. Special Publication #19 of the Archaeological Society of Virginia.

Ward, Michael
2008 *A Physiographic Study of the Paleoindian Shoop Site (36DA20) Dauphin County, Pennsylvania* created in fulfillment of the requirements for a Geo-archaeology field course with Clarian University under the instruction of Dr. Frank Vento. Manuscript in possession of the senior author.

Witthoft, John
1952 A Paleo-Indian site in Eastern Pennsylvania: An Early Hunting Culture. *Proceedings of the American Philosophical Society* 96(4): 464-495.

2023 Archaeological Excavations at Fort Halifax (36DA0008)

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Built in 1756 and garrisoned by the Augusta Regiment, short-lived Fort Halifax was located on the line of communication between Fort Hunter and Fort Augusta—the fortification served as protection for the bateaux and wagon trains of the Susquehanna Expedition. Necessitated in part by the Penn's Creek Massacre (October 16, 1755), the fort's role was a vital part of the colony's effort to construct Fort Augusta upriver at the Native American town of Shamokin. Until the 2021 Juniata College Archaeological Field School, the fort's precise location had been lost with the passage of time—its rediscovery is an important component in the interpretation of life on Pennsylvania's colonial frontier between Braddock's defeat and the fall of Fort Duquesne. The 172-acre Fort Halifax Park in Dauphin County is owned by Halifax Township, and park activity is stewarded by the non-profit organization, The Friends of Fort Halifax Park, Inc.

The Fort Halifax Rediscovery 2023 project is funded in part by a National Park Service American Battlefield Planning and Protection Grant, and a PHMC Keystone Historic Preservation Grant. This work was a continuation of the 2021 field school that successfully located Fort Halifax through the documentation of mid-eighteenth-century artifacts and features. Ahead of the 2023 field school, we

Figure 1: Drone's eye view of excavations at Fort Halifax Park, looking south between the Susquehanna River and the Norfolk Southern Railway.

hosted a training session of the Advanced Metal Detecting for the Archaeologist (AMDA) that recovered 307 artifacts. Along with the field school collection, these artifacts are being processed by Juniata College students in the Cultural Resource Institute laboratory on campus. The mapped distribution of metal detector finds provided additional contextual information to inform our excavation strategy the following month.

From June 4 to 24, eleven undergraduate students joined the 2023 Juniata College Archaeological Field School at Fort Halifax. They hailed from several institutions including Juniata College, Dickinson College, Shippensburg University, SUNY Potsdam, Miami University of Ohio, and the University of Georgia—camping on site to learn the basics of archaeological field methods. By the end of the session, the field school students had collectively excavated 56 test units in search of fort-related artifacts and features. Providing valuable hands-on experience, the artifacts are being cleaned and

cataloged by some of the same field school students who helped excavate them—presently following the collection through the curation process.

Figure 2: Field school excavations in progress around one of the stone hearth foundations.

Previous field school excavations in 2021 located architectural elements of Fort Halifax and yielded 1,906 historic artifacts and 1,779 prehistoric artifacts. The main material categories consist of iron, lead, copper, ceramic, bone, and chipped stone. Outstanding artifacts recovered this season included a watch key, a tiny copper charm, and a carved bone die! In addition to mid-18th century artifacts, the discovery of several features provided crucial insights into the fort—including two large stone hearths and more of the presumed outer fortifications. Several well-preserved faunal specimens will provide insight into diet and site structure. A magnetometer survey, conducted by Stuby Subsurface LLC during the field school session, identified two additional anomalies targeted for investigation.

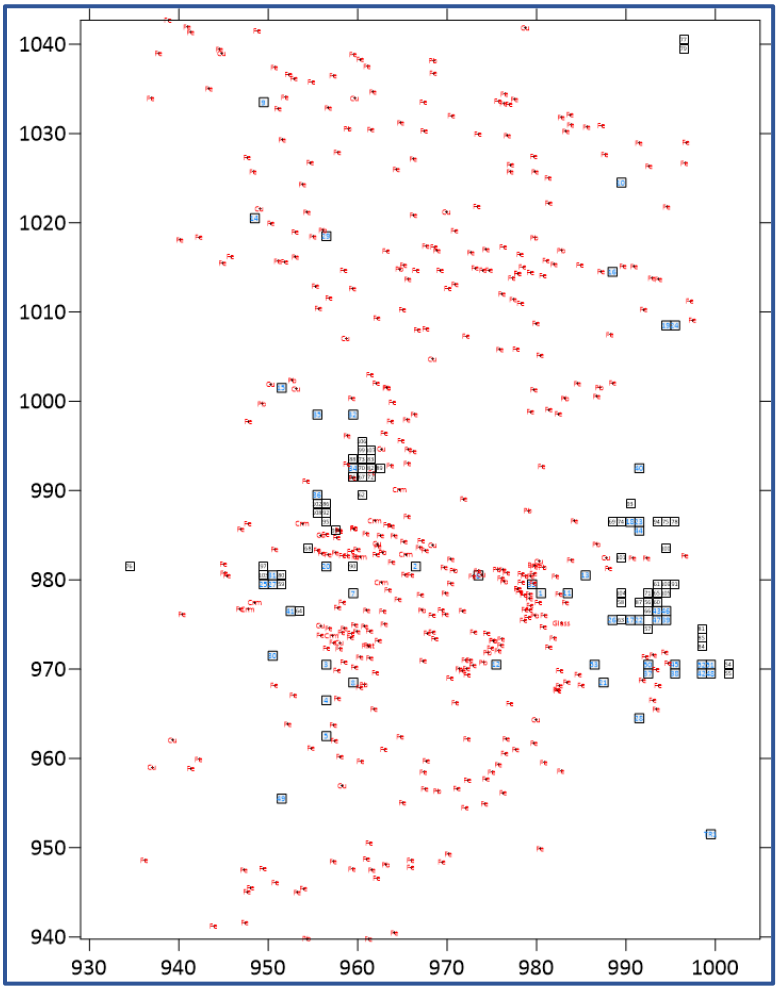


Figure 3: Site map (meters) showing metal detector finds (red) and test units from the 2021 (blue) and 2023 (black) Juniata College field school sessions.

As the Juniata College program continues to partner with the Halifax community, we will provide periodic updates from the CRI laboratory while the collection is processed and the 2023 report produced. There is more work to be done to reveal the entire layout of the fort and its interior structures. Since the rough footprint is emerging, we conducted a 50 x 50 meters square ground-penetrating-radar survey (GPR) this past November to search for more structural remains and, perhaps more importantly, the fort's well. The well is alleged in the historic record to be in the northeast bastion of the fortification. As with foundational features, finding the well would help immensely with documenting the fort's orientation on the landscape. Guided by the GPR survey data, we will be returning for a follow-up field school session in June (5-14, 2024), to locate the well (fingers crossed) and to document additional structural evidence. The ongoing success of this project is due largely to committed members of the community that value this spectacular historic site and want to share its story.

A Glimpse into the Past and Archaeology Across Pennsylvania

Rhiannon Flaig, Summer 2023 PASS Intern

During the summer of 2023, I was able to experience a Keystone Internship with the Pennsylvania State Historic Preservation Office. As an Archaeological Site Survey Intern, I was able to participate in many different trips and projects that occurred in 2023. My time at the SHPO enriched my education and allowed me to make connections across all types of work at the PHMC.

My main project during my internship was to go through the Society for Pennsylvania Archaeology (SPA) journals and update information in PA-SHARE. There were many sites that were missing information, so my job was to fill in the gaps. This project lasted the length of my internship and I ended up finishing it within the last few days of my time at the SHPO. This project opened my eyes to the long history of archaeology in Pennsylvania. It was truly amazing to see how the field of

Pithole City volunteer Vicki Gilson, PA SHPO archaeologists Casey Hanson and Justin McKeel, and PA SHPO intern Rhiannon Flaig conducting primarily investigations at Pithole City.

archaeology grew and changed throughout the years. I think it is important to reflect on the past and continue to learn from it. In addition to updating preexisting sites, I was able to create sites in PA-SHARE as well. This included sites that were reported to us by the public as well as going out into the field and recording a site myself. While doing this, I became well acquainted with PA-SHARE and Surveyor/Survey123. These tools are not only great for people in the archaeology profession, but they also allow the state to work collaboratively with the public.

In addition to my main projects in the office, I had many opportunities to get out and explore Pennsylvania. One of my most notable trips was attending the Allegany National Forest (ANF) Conference. Here I was able to see how the PA SHPO and the ANF collaborate and share information. After the conference, we took a tour of some of the historic highlights of the ANF. During this trip, we made a stop at Pithole City. Pithole was an oil city that was relatively short lived. However, this area is able to show the history of the oil industry in Pennsylvania, which I learned a lot about at their visitor center.

Rhiannon Flaig and Kurt Carr looking at the stratigraphy of a wall at the Shoop Site (36DA0020)

Another notable trip was my visit to the Shoop site. The Shoop site is a Paleoindian site, which is the oldest type of archaeology I have experienced. There I was able to talk with former state archaeologist Kurt Carr and work with him on the site. I was able to ask a lot of questions about professional archaeology and I even learned a few new skills. This was an awesome opportunity, especially since I had been reading about the Shoop site in the SPA journals I was working on in the office.

One of my favorite trips we took was to Michaux State Forest. During this trip, we were able to find a site that had been previously unrecorded. Using the Survey123 app, I was tasked with recording the site by taking pictures and describing the area. It was exciting to be able to report on this site, especially because I had never done something like that before. When we got back to the office, I was able to transfer the information into PA-SHARE and "create" the site record. Having that experience was something I am so thankful for, and I hope I can continue to do this type of work in the future.

Overall, my time at the PA SHPO as a Keystone intern was amazing. I was able to experience so much in such a short time, as well as gain skills that I can use in the future. The people I met at the SHPO were so kind and provided excellent guidance throughout my entire internship. I am extremely thankful for this internship and I can't wait to see what future interns get to experience.

SHPO Survey Activities

In 2023, the PASS program continued to progress with survey initiatives from the previous year, as well as make improvements to the systems used to capture and share archaeological site information. Below is a recap of the activities that took place in 2023 and a look at what's to come in 2024.

PA-SHARE and Surveyor Updates

Since the initial launch of PA-SHARE and Surveyor in 2021, PA SHPO staff have been collecting and tracking external and internal user feedback for potential improvements to the system. In early 2023, this feedback provided the basis for PA-SHARE 2.0- a large scale effort to update and improve PA-SHARE and Surveyor. Improvements in the PA-SHARE 2.0 scope of work span the entirety of the system and include redesign of user queues and resource pages, improved search capabilities, improvements to the mapping and many more! This is a multi-year effort and scheduled to be completed in 2025 but users can expect changes periodically as updates are completed and made available. For a more detailed list of current updates to PA-SHARE, please see the PA-SHARE 2.0 Update blog post.

The most noteworthy PA-SHARE 2.0 upgrades for the PASS program are the changes to the archaeological resource pages. These changes stemmed from the desire to organize the information in a more cohesive way and present important information more prominently. The most obvious change in the resource record is the color coding now present at the top of the page. The coding indicates the National Register status of a site providing quick visualization of this important detail (Figure 1).

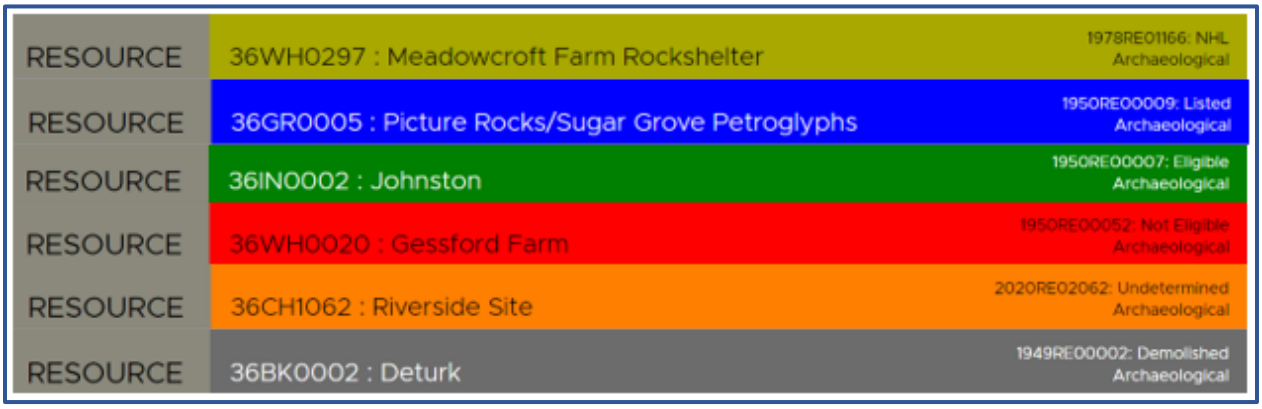


Figure 1: Color-coded banners indicating National Register status. Light Green= National Historic Landmarks (NHL); blue=listed in the National Register; green= eligible for listing in the National Register; red= not eligible for listing in the National Register; orange= undetermined/not yet evaluated for listing in the National Register; and gray = demolished.

In addition, the Summary tab has been modified to present essential site details, like site type and chronology, near the top of the page (Figure 2). The site type and chronology can still be found in its previous location on the Detail tab as well. The Summary tab was streamlined to help eliminate the need for excessive scrolling by moving the attachments section directly under the resource overview section and a new Associations tab was added to consolidate information for associated resources,

projects, surveys, and reports. Please note, the Associations tab is only available to users with a Pro or Business account.

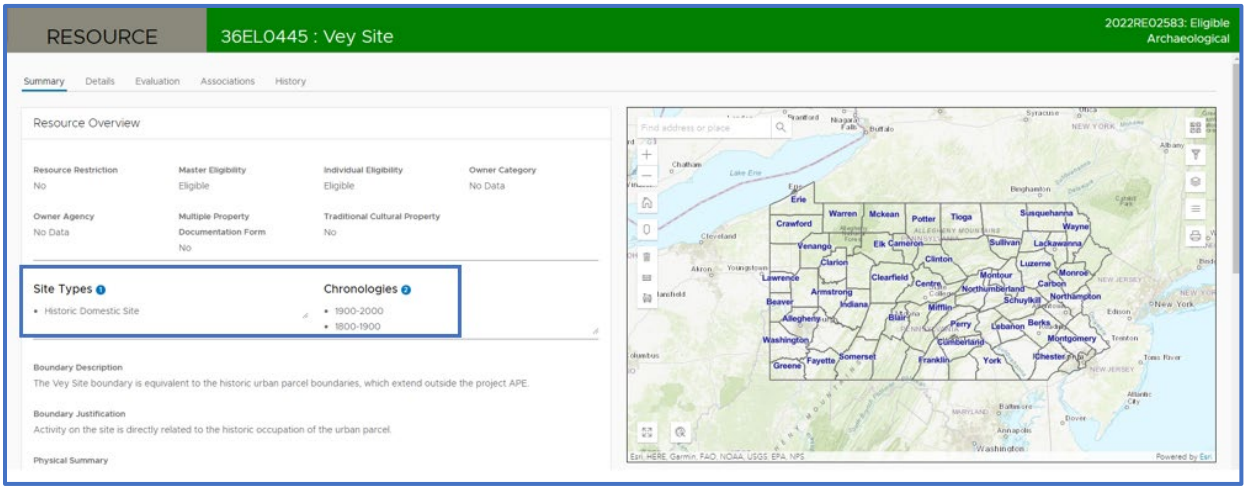


Figure 2: Summary tab of an archaeological resource page showing new location of site type and chronology fields.

Fields on the Details tab were reconfigured to closely mirror the field order when submitting archaeological sites to PA-SHARE. The Detail tab starts with the site traits section at the top and ends with the water drainage information at the bottom. A new physical data and site condition section was added to group information such as site elevation, slope, topographic settings, and previous disturbance (Figure 3). Prior to this grouping, these fields were spread throughout multiple sections on the Detail tab making them difficult to find. Lastly, general formatting changes were made to consolidate table fields and reduce unnecessary scrolling. The overall goal of this reconfiguration is to make the Details tab more intuitive and help users locate information more efficiently.

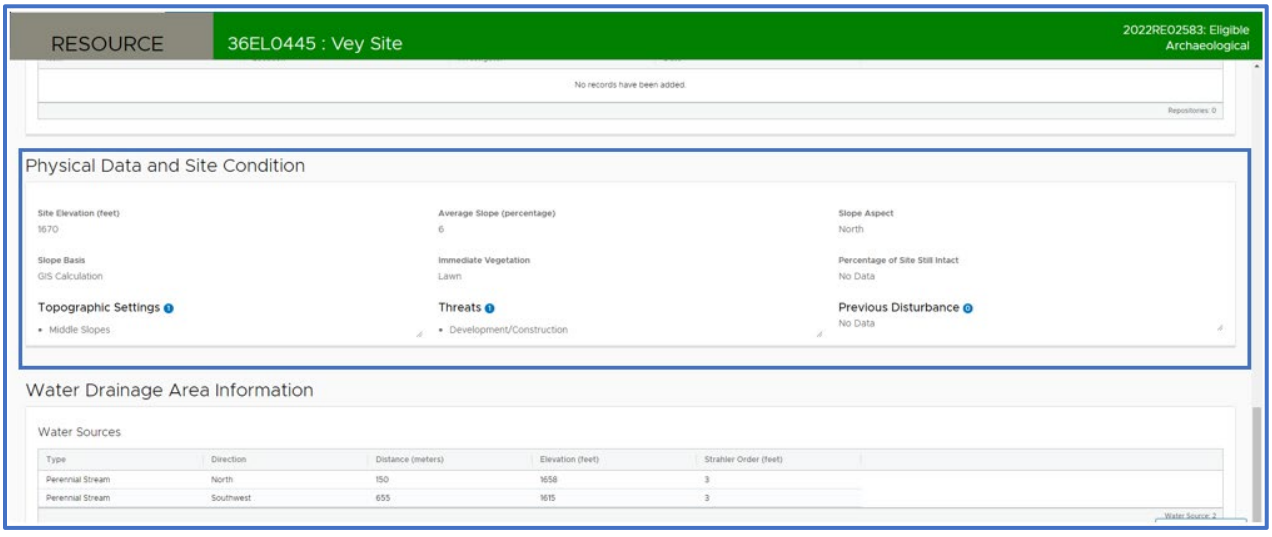


Figure 3: Physical data and site condition section now present on the Details tab grouping information that was previously spread throughout multiple different sections on this page.

PA-SHARE 2.0 also includes upgrades to Surveyor, the PA SHPO's set of survey tools integrated with PA-SHARE to help facilitate the collection of historic and archaeological resources. Surveyor has three interfaces: Surveyor Manager, Surveyor Mobile, and the Surveyor field app. The majority of updates are focused on Surveyor Manager which is the interface users utilize to manage their survey projects and team members, add resources, and interact with PA SHPO staff. The new updates will not be available until early 2024 but users can expect more robust resource recording with the availability of more fields and a notification system that allows users to track resource progression through Surveyor and into PA-SHARE.

Baseline Survey

The baseline survey is a muti-year survey initiative that aims to document a significant number of historic resources across a vast geographic area of Pennsylvania. While originally only intended to record above ground resources, Year 2 and 3 of the survey effort included the concept of surficial archaeological as a way to record the remnants of properties that were no longer extant.

In the context of baseline survey, surficial archaeological evidence is the indication of one or more former structures or activity areas that are visible on the surface, such as foundations, middens, altered terrain, and other features, that are 50 years or older. While the focus of baseline survey is on visible evidence, the lack of such evidence does not mean that a potential archaeological site does not exist, particularly if suggested by background research. Baseline survey methodology did not include any excavation and required that survey teams stay within the public right of way during field survey. Therefore, it is important to note that not all areas documented during baseline survey activities received an official PASS number. A majority of areas documented require additional investigations to assess if an archaeological site is present.

Figure 4: Cold cellar associated with Lechauweki Springs Park (36LH0401) in Lehigh County. The Lechauweki Springs summer resort operated between 1873 and 1891. The buildings were fully demolished in 1955 but a few structures remain including this cold cellar.

Year 3 of baseline survey kicked off in 2023 and is scheduled for completion in 2024. Thus far, 18 counties have been surveyed resulting in the identification of 392 potential archaeological sites. Of these potential areas, 14 were determined to include adequate information to receive an official PASS number in 2023 (Figure 4 and 5). Areas that did not receive PASS numbers serve as opportunities for future archaeological research and investigations.

Figure 5: Grant Street Stone Building and Ruins (36VE0337) in Venango County. This site contains remains of a hearth/foundation on the southern side and a stone structure on the northern side. The stone structure was said to be an old jail by local informants. The hearth remains may be the dwelling of Mrs. M Bailey as shown on an 1865 map of French Greek Township.

To learn more about the PA SHPO's baseline survey initiative, please visit: https://www.phmc.pa.gov/Preservation/survey/Pages/Baseline-Survey-Effort-2020-2024.aspx.

Survey of PHMC Properties

The Pennsylvania Historical and Muesum Commission (PHMC) properties survey initiative was first introduced in the 2022 PASS report and grew out of the need to have consistent survey for all properties owned by the PHMC. Currently the PHMC owns over 20 properties throughout the Commonwealth that showcase and educate the public on Pennsylvania's unique history. Over the years, several properties have been subjected to cultural resource management survey; however, the level of survey efforts have varied. The lack of consistency in survey across the properties makes it challenging for PA SHPO staff to make quick and informed decisions during the project consultation process. The PHMC properties survey initiative provides an opportunity to alleviate some of these difficulties by providing up-to-date and consistent survey for all properties.

During 2023, the initial plans for the archaeological phase of the survey effort were solidified and funding was secured to conduct an archaeological constraints analysis for approximately four properties. The constraints analysis will gather available information on previously recorded archaeological surveys and sites on the property and assess the potential for the presence of both historic and Pre-Contact period archaeological resources. The analysis will include an archaeological probability assessment for the property and appropriate recommendations for future survey. Execution of the archaeological phase of the PHMC properties survey is scheduled to begin in 2024.

Looking to 2024

Many of the survey efforts outlined above will continue into 2024. Baseline survey will wrap up its third and final year and will continue to identify areas of surficial archaeological evidence. In addition, the PASS program will begin the archaeological phase of the PHMC properties survey with the implementation of the constraints analysis.

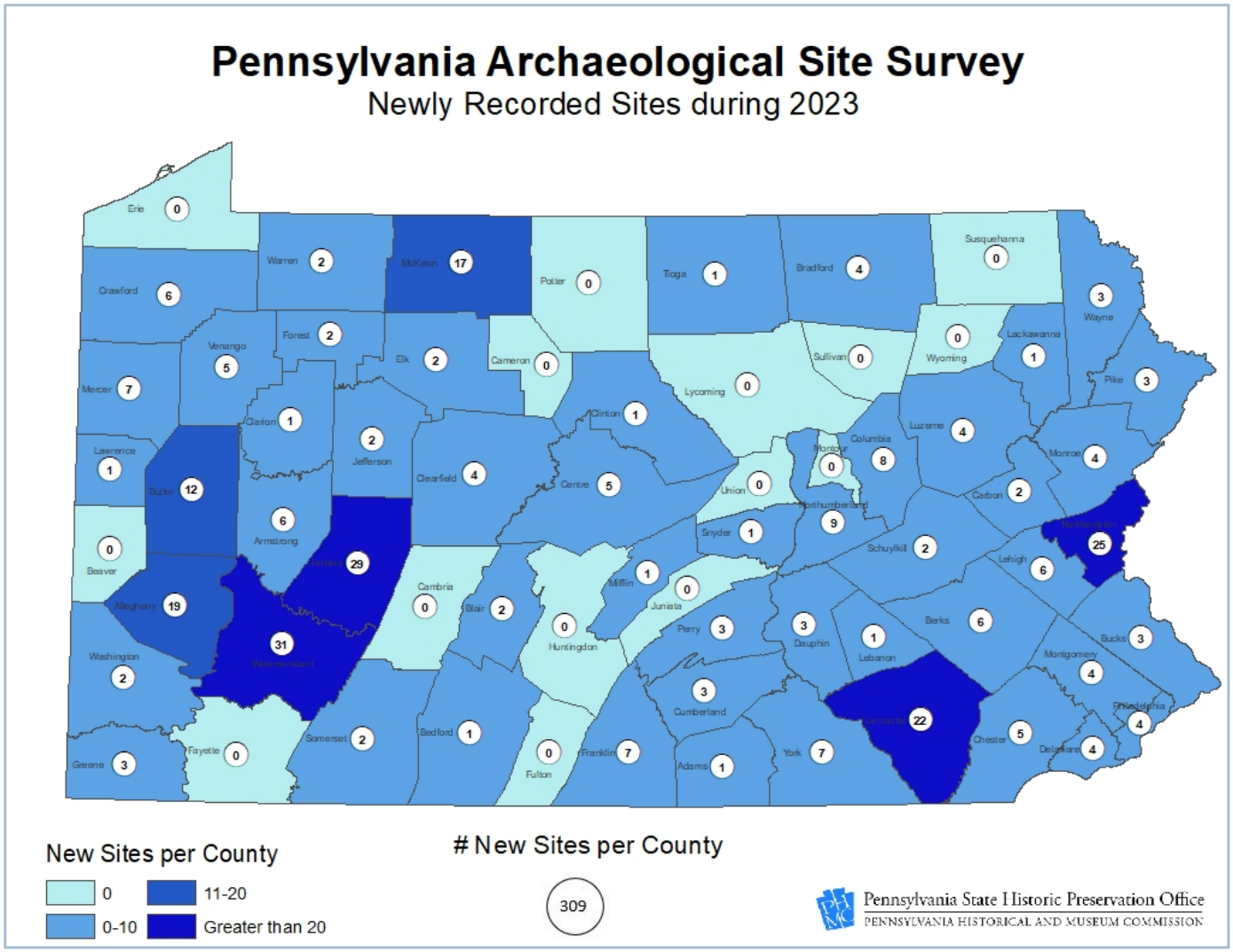
The PASS program would like to thank all those that contributed to and supported our efforts this year! We looked forward to continuing a collaborative, informative, and engaging PASS program in 2024. For more information on site registration and survey, please contact Taylor Napoleon at tnapoleon@pa.gov.

Data Summary and Maps

County	1/1/2024	1/1/2023	New	Deletions	Density*
Adams	594	593	1	-	1.13 sites / sq. mile
Allegheny	796	777	19	-	1.09 sites / sq. mile
Armstrong	606	600	6	-	0.93 sites / sq. mile
Beaver	416	416	-	-	0.95 sites / sq. mile
Bedford	349	348	1	-	0.34 sites / sq. mile
Berks	1,007	1,001	6	-	1.17 sites / sq. mile
Blair	132	130	2	-	0.25 sites / sq. mile
Bradford	367	363	4	-	0.32 sites / sq. mile
Bucks	500	497	3	-	0.81 sites / sq. mile
Butler	560	548	12	-	0.71 sites / sq. mile
Cambria	223	223	-	-	0.32 sites / sq. mile
Cameron	72	72	-	-	0.18 sites / sq. mile
Carbon	180	178	2	-	0.45 sites / sq. mile
Centre	577	572	5	-	0.52 sites / sq. mile
Chester	1,088	1,083	5	-	1.43 sites / sq. mile
Clarion	214	213	1	-	0.36 sites / sq. mile
Clearfield	120	116	4	-	0.11 sites / sq. mile
Clinton	231	230	1	-	0.26 sites / sq. mile
Columbia	69	61	8	-	0.14 sites / sq. mile
Crawford	510	504	6	-	0.50 sites / sq. mile
Cumberland	241	238	3	-	0.43 sites / sq. mile
Dauphin	324	321	3	-	0.63 sites / sq. mile
Delaware	195	191	4	-	1.06 sites / sq. mile
Elk	450	448	2	-	0.56 sites / sq. mile
Erie	360	360	-	-	0.44 sites / sq. mile
Fayette	597	597	-	-	0.74 sites / sq. mile
Forest	571	569	2	-	1.36 sites / sq. mile
Franklin	466	459	7	-	0.62 sites / sq. mile
Fulton	80	80	-	-	0.18 sites / sq. mile
Greene	505	502	3	-	0.87 sites / sq. mile
Huntingdon	235	235	-	-	0.26 sites / sq. mile
Indiana	522	493	29	-	0.63 sites / sq. mile
Jefferson	206	204	2	-	0.32 sites / sq. mile
Juniata	135	135	-	-	0.35 sites / sq. mile
Lackawanna	87	86	1	-	0.19 sites / sq. mile

County	1/1/2023	1/1/2023	New	Deletions	Density*
Lancaster	1,675	1,653	22	-	1.77 sites / sq. mile
Lawrence	364	363	1	-	0.99 sites / sq. mile
Lebanon	568	567	1	-	1.56 sites / sq. mile
Lehigh	401	395	6	-	1.15 sites / sq. mile
Luzerne	383	379	4	-	0.43 sites / sq. mile
Lycoming	368	368	-	-	0.30 sites / sq. mile
McKean	366	349	17	-	0.37 sites / sq. mile
Mercer	303	296	7	-	0.45 sites / sq. mile
Mifflin	122	121	1	-	0.28 sites / sq. mile
Monroe	303	299	4	-	0.50 sites / sq. mile
Montgomery	518	514	4	-	1.04 sites / sq. mile
Montour	116	116	-	-	0.89 sites / sq. mile
Northampton	388	363	25	-	1.03 sites / sq. mile
Northumberland	220	211	9	-	0.49 sites / sq. mile
Perry	102	99	3	-	0.19 sites / sq. mile
Philadelphia	266	262	4	-	2.06 sites / sq. mile
Pike	277	274	3	-	0.51 sites / sq. mile
Potter	55	55	-	-	0.05 sites / sq. mile
Schuylkill	110	108	2	-	0.14 sites / sq. mile
Snyder	302	301	1	-	0.92 sites / sq. mile
Somerset	504	502	2	-	0.47 sites / sq. mile
Sullivan	33	33	-	-	0.07 sites / sq. mile
Susquehanna	230	230	-	-	0.28 sites / sq. mile
Tioga	187	186	1	-	0.16 sites / sq. mile
Union	155	155	-	-	0.49 sites / sq. mile
Venango	337	332	5	-	0.50 sites / sq. mile
Warren	703	701	2	-	0.78 sites / sq. mile
Washington	1,846	1,844	2	-	2.15 sites / sq. mile
Wayne	320	317	3	-	0.43 sites / sq. mile
Westmoreland	1,279	1,248	31	-	1.25 sites / sq. mile
Wyoming	132	132	-	-	0.33 sites /sq. mile
York	492	485	7	-	0.54 sites / sq. mile
TOTALS	27,010	26,701	309	0	0.60 sites / sq. mile

*Density is measured as "x sites / 1 square mile." It is calculated by dividing the number of recorded sites in the county by the area of the county in square miles.



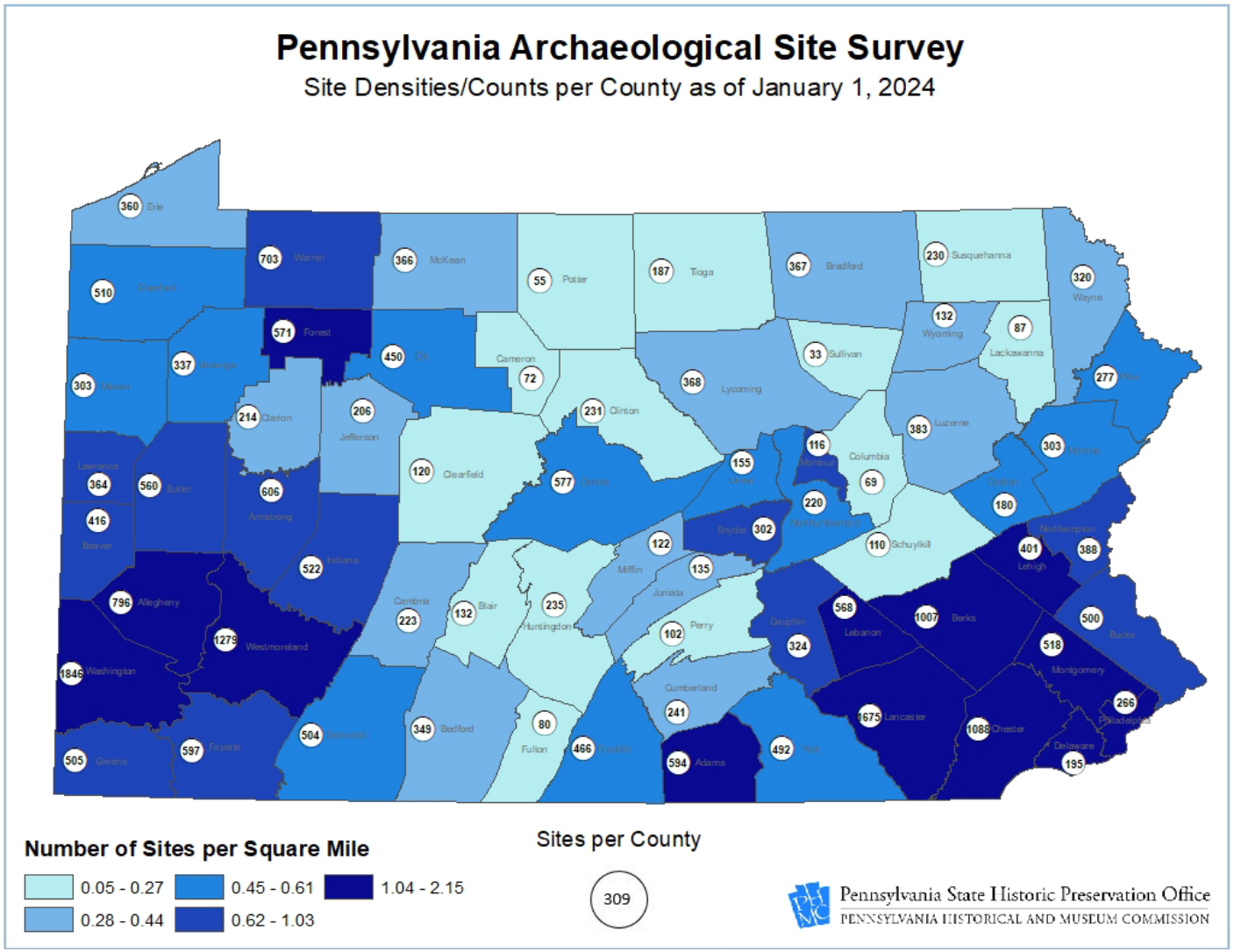
Map displaying the number of new sites recorded in each county last year.

Counties with the Greatest Increase in Sites during 2023

County	Number Recorded	% of Total Increase
Westmoreland	31	10.03%
Indiana	29	9.39%
Northampton	25	8.09%
Lancaster	22	7.12%
Allegheny	19	6.15%
McKean	17	5.50%
Butler	12	3.88%
Northumberland	9	2.91%
Columbia	8	2.59%
Franklin	7	2.27%
Mercer	7	2.27%
York	7	2.27%
TOTAL:	193	62.47%

Ten Counties with the Greatest Density of Recorded Sites

County	Sites / Sq. Mile
Washington	2.15
Philadelphia	2.06
Lancaster	1.77
Lebanon	1.56
Chester	1.43
Forest	1.36
Westmoreland	1.25
Berks	1.17
Lehigh	1.15
Adams	1.13



Map displaying site densities and total counts per county.

Ten Counties with the Highest Numbers of Recorded Sites

County	Number	% of Total Sites
Washington	1,846	6.83%
Lancaster	1,675	6.20%
Westmoreland	1,279	4.74%
Chester	1,088	4.03%
Berks	1,007	3.73%
Allegheny	796	2.93%
Warren	703	2.60%
Armstrong	606	2.24%
Fayette	597	2.21%
Adams	594	2.20%
TOTAL	**10,191**	**37.71%**

Ten Counties with the Lowest Numbers of Recorded Sites

County	Number	% of Total Sites	Observations
Sullivan	33	0.12%	*No change from 2018*
Potter	55	0.20%	*No Change from 2022*
Columbia	69	0.26%	
Cameron	72	0.27%	*No change from 2016*
Fulton	80	0.30%	*No change from 2018*
Lackawanna	87	0.32%	
Perry	102	0.38%	
Schuylkill	110	0.41%	
Montour	116	0.43%	*No change from 2018*
Clearfield	120	0.44%	
TOTAL	**844**	**3.13%**	