Society for Pennsylvania Archaeology, Inc.
79th Annual Meeting Program

Friday

10:30 a.m. – 12 noon    PAC Board Meeting    Clarion Jefferson Ballroom

12 noon – 1:30 p.m.    LUNCH

12 noon – 5:00 p.m.    Registration    Lobby

12 noon – 4:00 p.m.    Bookroom Open    Allegheny Forest Room

1:30 p.m. – 4:00 p.m.    PAC Business Meeting    Clarion Jefferson Ballroom

4:00 p.m. – 6:00 p.m.    SPA Board Meeting    Clarion Jefferson Ballroom

6:30 p.m.    Bus Departs for the Jefferson County Historical Society in Brookville. Meet in the Lobby

7:00 p.m. – 8:30 p.m.    Wine and Cheese Reception and viewing of the Native American Lifeways in Western Pennsylvania Exhibit at the Jefferson County Historical Society

8:30 p.m.    Bus Departs for the Holiday Inn in Clarion

9:00 p.m. – Midnight    Hospitality Suite    Room 200

Saturday Morning

The SPA business meeting and all papers will be in the Clarion Jefferson Ballroom

8:30 a.m. – 5:00 p.m.    Bookroom Open    Allegheny Forest Room

8:30 a.m. – 2:00 p.m.    Registration    Lobby

8:30 a.m. – 9:30 a.m.    SPA Business Meeting
9:30 a.m. – 9:35 a.m.  Welcoming Remarks

9:35 a.m. – 9:55 a.m.  GIS and LiDAR for Archaeological and Geomorphological Applications in Western Pennsylvania by Brian L. Fritz, North Fork Chapter #29

9:55 a.m. – 10:15 a.m.  Paleosols, Genetic Units and Climate Change in Pennsylvania: Archaeological Implications by F.J. Vento, Clarion University of Pennsylvania, H.B. Rollins, Professor Emeritus University of Pittsburgh, A. Vega, Clarion University of Pennsylvania, P. Stahlman, Clarion University of Pennsylvania, J.M. Adovasio, Mercyhurst College and D. Madsen, University of Texas, Austin

10:15 a.m. – 10:35 a.m.  Tired of Being Typed, or the Pot Sherd Says, “What?” by Roger Moeller, Archaeological Services

10:35 a.m. – 10:55 a.m.  Break

10:55 a.m. – 11:15 a.m.  A Preliminary Report on Excavations at the Glenshaw Rockshelter, 36AL482 by Bill Tippins, Allegheny Chapter #1, SPA

11:15 a.m. – 11:35 a.m.  Falling Springs Rock Shelter: 4500 Years of Use by Bill Black and Lynne Baer, French Creek Archaeological Society Chapter 26

11:35 a.m. – 11:55 a.m.  The Late Prehistoric Frontier in Indiana County by Beverly A. Chiarulli and Sarah W. Neusius, Indiana University of Pennsylvania

11:55 a.m. – 12:00 noon  Announcements

12:noon – 1:30 p.m.  LUNCH

Saturday Afternoon

All sessions will be in the Jefferson Clarion Ballroom

1:30 p.m. - 1:40 p.m.  Announcements

1:40 p.m. – 2:00 p.m.  Burial Ceremonialism at Sugar Run Mound (36Wa359), a Hopewellian Squawkie Hill Phase site, Warren County, Pennsylvania by Mark A. McConaughy, Pennsylvania Bureau for Historic
Preservation

2:00 p.m. – 2:20 p.m.  **What was the “broken straw” of Pennsylvania’s Brokenstraw Creek? – An Ethnobotanical Inquiry** by Charles E. Williams, Western Pennsylvania Conservancy

2:20 p.m. – 2:40 p.m.  **Prairies, Pigeons, Peavines and Place Names: Aspects of the Pre-Settlement Landscape of the Upper Ohio Valley** by Carl K. Burkett, Jr., Carnegie Museum of Natural History

2:40 p.m. – 3:00 p.m.  **The Transitional Archaic of the Susquehanna River Valley** by Patricia E. Miller, KCI Technologies, Inc.

3:00 p.m. – 3:20 p.m.  Break

3:20 p.m. – 3:40 p.m.  **Plowzone Patterning at a Shenks Ferry Village** by James T. Herbstritt, Pennsylvania Historical and Museum Commission

3:40 p.m. – 4:00 p.m.  **Preliminary Excavation Results from the Lemoyne Borough Memorial Park Site (36Cu194): A Washington Boro Stage Susquehannock Site in Cumberland County, Pennsylvania** by Andrew Wyatt, McCormick Taylor, Inc.

4:00 p.m. – 4:20 p.m.  **Serpents on the Rocks - Marking Time at Safe Harbor** by Paul Nevin, Conejohela Chapter 28

Primitive Games are not being held this year.

**Saturday Evening**

The Dinner Banquet and Auction will be held in the Courtyard

6:00 – 6:30  Cash Bar

6:30 p.m. – 7:30 p.m.  Dinner

7:30 p.m. – 8:00 p.m.  Awards

8:00 p.m. – 9:00 p.m.  **Rulers and Ritual: Searching for the Origins of the Egyptian State at the Predynastic Settlement at el- Mahâsna** presented by Dr. David A. Anderson, GAI Consultants, Inc.
Sunday Morning

All sessions will be in the Jefferson Clarion Ballroom

9:00 a.m. – 9:05 a.m. Welcoming Remarks

9:05 a.m. – 9:25 a.m. Prehistoric Settlement in the Lower Juniata River Valley: Recent Investigations by Paul A. Raber, Heberling Associates, Inc.

9:25 a.m. – 9:45 a.m. Rethinking the Chautauqua Phase: The Monongahelian and Iroquoian Occupations of the Allegheny Plateau of Southwestern New York by Rebecca J. Emans, Panamerican Consultants Inc.

9:45 a.m. – 10:05 a.m. The Early and Early Middle Archaic Period Occupations at the Confluence of the Little Kanawha and Ohio Rivers, Parkersburg, West Virginia by William C. Johnson, Ryan W. Robinson1, J. Steven Kite1, Edward J. Siemon, Denise L. Grantz Bastianini, Jonathan Glenn, Amanda L. Valko and Keith Bastianini, Michael Baker Jr., Inc. and 1 Michael Baker Jr., Inc., and West Virginia University, Department of Geology and Geography, Morgantown, West Virginia.

10:15 a.m. – 10:35 a.m. Break

10:35 a.m. – 10:55 a.m. Irwintown (36EL183): A Rafting-Era Lumber Town in Elk County, Pennsylvania by Gary F. Coppock, Heberling Associates, Inc.

10:55 a.m. – 11:15 a.m. Excavation of Industrial Worker Households in Greater Pittsburgh by Melissa Diamanti, Archaeological & Historical Consultants, Inc.

11:35 a.m. – 11:40 a.m. Closing Remarks

Abstracts

**Anderson, David A.,** GAI Consultants, Inc. Rulers and Ritual: Searching for the Origins of the Egyptian State at the Predynastic Settlement at el-Mahâsna

Since 1995, the el-Mahâsna Archaeological Project, working under the aegis of the University of Pennsylvania, Yale University, Institute of Fine Arts, New York University Expedition to Abydos, has been conducting archaeological excavations in the area of Predynastic settlement at the site of el-Mahâsna. Located approximately 10 km north of the early religious site of Abydos, el-Mahâsna covers and area of approximately nine hectares; large in comparison to sites of the period in the region surrounding Abyods. Large-scale excavations in the fall of 2000 uncovered Predynastic habitation remains dating from the Naqada Ic – II c-d period (ca. 3700 – 3200 B.C.) including the remnants of a large, more substantially constructed structure. This presentation will present information on this structure and its associated artifact assemblages. Specifically, data suggesting early ritual activity will be presented and discussed, including the presence of a large assemblage of anthropomorphic and zoomorphic clay figurines, as well as observed differences in recovered faunal remains from the structure. Finally, the potential that the structure at el-Mahâsna may be the remains of an early cultic/ritual building dating to the Naqada Ic-IIab period (ca. 3700 – 3450 B.C.) will be explored.

**Black, Bill and Lynne Baer,** French Creek Archaeological Society Chapter 26, Falling Springs Rock Shelter: 4500 Years of Use

Located along the Cornplanter-Venango Path, Falling Springs Rock Shelter (36-Ve-209) was used by Native Americans as a travel shelter, seasonal camp, lithics workshop and hunting station. Collected artifacts include flaked and ground tools, ceramics representing more than sixteen pots, extensive faunal remains and thousands of chert flakes. Excavations by Richard Ziegler and Neal Densmore in 1971, and more recent work by French Creek Chapter # 26 in 2005-2007, suggest a 4,500 year sequence of occupations crossing several major time periods.

**Burkett, Jr., Carl K.,** Carnegie Museum of Natural History, Prairies, Pigeons, Peavines and Place Names: Aspects of the Pre-Settlement Landscape of the Upper Ohio Valley
The pre-settlement landscape of the upper Ohio Valley was the product of the natural world and human activities interacting with each other for over 16,000 years. Several lines of evidence bear on the nature of this interaction at the time of white settlement. This paper focuses on an area in which Native American communities participated in a fur trade network that centered on Fort Franklin, the present Franklin, Pennsylvania. This area includes the Allegheny River drainage north of Mahoning Creek and the upper Beaver River drainage. The study includes historical records, ethnographic accounts, place names and native language data that reveal landscape character. This information is considered in relation to native land management practices, notably the use of fire, and how a better understanding of these practices might explain certain patterns of artifact and habitation site locations.

Chiarulli, Beverly A. and Sarah W. Neusius, Indiana University of Pennsylvania, The Late Prehistoric Frontier in Indiana County by

Frontiers are zones of interaction where expanding societies move into new lands. They may also represent a boundary where cultures interact as they expand and contract. The "frontier" between the Monongahela in the Conemaugh-Blacklick watershed and their non-Monongahela neighbors to the north in the Crooked Creek watershed crosses Indiana County, Pennsylvania. During the past 8 years, the IUP Late Prehistoric project has investigated a number of villages in each of these watersheds and has found as many similarities as differences between the two areas. In this presentation, we examine several questions about what a frontier is and its archaeological correlates. Then we use the evidence we have acquired to consider the validity of recognizing a Late Prehistoric frontier in Indiana County.


The Pennsylvania Department of Transportation, District 2-0, and the Federal Highway Administration plan to replace the bridge that carries S.R. 3002, Section A01, over Irwin Run in Spring Creek Township, Elk County, Pennsylvania. The project is situated in the Allegheny National Forest, along the bank of the Clarion River within the High Plateau section of the Appalachian Plateau physiographic province. When established in 1850 Irwintown possessed a water-powered saw mill and other industrial and domestic structures. By the late 1870s it possessed a steam-powered saw mill, five houses, a barn, stable, and orchard. The site was abandoned by 1920. Today the Irwintown site (36EL183) is a ghost town that
contains features related to the rafting-era lumber town that thrived at this location in the latter half of the nineteenth century. Based on these results, it was determined that the Irwintown Site was eligible for listing in the National Register of Historic Places (NRHP) under Criterion D. Because impacts to the site could not be avoided by the proposed bridge replacement, a plan was implemented to mitigate the adverse effects of this project. The mitigation efforts included: 1) a HABS/HAER recordation of the NR-eligible bridge; 2) completion of a NR form for the Irwintown site, including the creation of a detailed map showing all known features; and 3) the production of an educational pamphlet about the site for distribution to the public.

Diamanti, Melissa, Archaeological & Historical Consultants, Inc. Excavation of Industrial Worker Households in Greater Pittsburgh

The lives of steel workers and other industrial workers at the beginning of the 20th century have been documented in labor organizing and other social history studies. Archaeology can contribute information not found in documentary records by illuminating economic and subsistence patterns only available in the artifact record. Recent excavations for the PA Turnpike Commission's Mon/Fayette project have focused on a sample of house lots from three historic urban settings. In Braddock and the Glenwood neighborhood of Pittsburgh, steel mills were the major employer, while in Turtle Creek, Westinghouse Electric replaced coal mining to dominate both the economy and social life. Preliminary findings from the excavations of house lots have yielded good results from both deep features such as privies and cisterns, and from common yard deposits. The data from these sites are contributing to the interpretation of the lifestyles and consumer choices of these urban populations.

Emans, Rebecca J., Panamerican Consultants Inc., Rethinking the Chautauqua Phase: The Monongahelian and Iroquoian Occupations of the Allegheny Plateau of Southwestern New York

First defined by Jack Schock in 1974, the Chautauqua Phase is a little-used construct delineating the chronology of the Allegheny Plateau of southwestern New York and northwestern Pennsylvania. As defined, the phase is supposed to dated between AD 1450 and 1525, and includes such characteristics as sites located on elevated knolls with earthen embankments, shallow flat-bottomed pits, a high occurrence of shell temper, four surface treatments (smoothed, cordmarked, smoothed cordmarked, and simple stamping), diagonal and opposed incised rim designs, decorated lips, occasional castellations, the absence of collars, handles, and lugs, and mostly Iroquoian smoking pipes. This paper
argues that the Chautauqua Phase is a fallacious construct obscuring multi-component sites. New AMS dates are presented with alternative interpretations of the four sites on which the phase is based. Two main occupations of these sites are related to the Monongahela Tradition and Niagara Frontier Iroquois, and date between AD 1250 and 1400.

**Fritz, Brian L.,** North Fork Chapter #29, GIS and LiDAR for Archaeological and Geomorphological Applications in Western Pennsylvania

LiDAR is a promising new technology that captures high resolution elevation maps of the Earth's surface. Newly acquired LiDAR elevation models of Western Pennsylvania provide archaeologists with powerful tools for identifying archaeological sites and historic properties. Examples of archaeologists using GIS and LiDAR will include identification and delineation of landforms that are likely to contain prehistoric camp sites, the mapping of historic lumber railroads in the Allegheny National Forest, exploring the geology of early 19th century iron ore mining, and the search for a French and Indian War era fort.

**Herbstritt, James T.,** Pennsylvania Historical and Museum Commission, Plowzone Patterning at a Shenks Ferry Village

The Quaker Hills Quarry site is situated on a pronounced bluff overlooking a bend of the Conestoga River near Millersville, Lancaster County. The four acre village site is recorded in the Pennsylvania Archaeological Site Survey (P.A.S.S.) file as 36LA1100. Based on the pooled average of 15 corrected radiocarbon dates, its age is somewhere between 1423–1526 AD, (at the two sigma range) thus placing site occupation well within the Funk Phase period of Shenks Ferry Culture.

In 2002 the Pennsylvania Historical and Museum Commission’s (PHMC) Commonwealth’s Archaeology Program (CAP) began archaeological investigations at 36LA1100. The study was undertaken in response to the site’s impending destruction by a proposed high density housing development. CAP’s survey methods included multiple controlled surface collections to determine 1) site boundaries, 2) artifact densities and 3) indication of subsurface features based on spatial separation of artifact clusters that several centuries of continuous plowing had not obliterated.

Subsequent machine stripping of nearly 50% of the site over five seasons of field work used the surface collection data to guide, test and verify the site’s archaeological integrity through the excavation recovery process.
The presentation outlines the methods and results of the foregoing undertaking and concludes with recommendations regarding how such methods can best be employed in similar field situations.

Johnson, William C., Ryan W. Robinson1, J. Steven Kite1, Edward J. Siemon, Denise L. Grantz Bastianini, Jonathan Glenn, Amanda L. Valko and Keith Bastianini, Michael Baker Jr., Inc. 1 Michael Baker Jr., Inc., and West Virginia University, Department of Geology and Geography, Morgantown, West Virginia. The Early and Early Middle Archaic Period Occupations at the Confluence of the Little Kanawha and Ohio Rivers, Parkersburg, West Virginia

Phase I-III investigations at the confluence of the Little Kanawha and Ohio rivers for the West Virginia Division of Highways and the Federal Highway Administration documented two deeply stratified sites. At the Godbey Field site, two initial Middle Archaic Stanly Stemmed-Kirk Serrated point components, associated with five CAMS dates, were excavated between 1.0-1.4 m bgs. At the West Blennerhassett site on Blennerhassett Island, two LeCroy point components with five associated CAMS assays were documented at 4.8 m bgs. Multiple early Middle Archaic components were recorded between 2.5-4.0 m bgs. Thirty-seven features, several Kirk Serrated points, numerous flaked stone tools, and 11 CAMS dates were associated with a weak 15-20 cm thick anthropogenically modified soil horizon at 3.4 m bgs.


Among the most prolific archaeological remains encountered in the Allegheny National Forest during Phase I archaeological identification surveys are industrial archaeological sites and structures associated with the historic exploration and development of oil and gas. In order to appropriately and effectively manage significant heritage resources associated with the historic petroleum industry, the USDA Forest Service Allegheny National Forest needed to know what was "junk in the woods" and "what was important" in order to identify, inventory, protect, preserve, and/or interpret significant industrial archaeological remains. The approach that the Forest uses tiers to the National Register of Historic Places (NRHP) Multiple Resources Documentation Form (MPDF) that's been developed by Pennsylvania's Oil Heritage Region entitled "Resources of the Oil Industry in Western Pennsylvania, 1859-1945." Much of this NRHP MPDF
references historical background research conducted by the ANF in our attempts to develop the historic context of this industry, identify associated property types, develop evaluation criteria to determine National Register significance of these unique heritage resources, and undertake appropriate steps to protect, preserve, and interpret important oil-related heritage resources. This paper provides a brief overview of these efforts.

**McConaughy, Mark A.**, Pennsylvania Bureau for Historic Preservation, Burial Ceremonialism at Sugar Run Mound (36Wa359), a Hopewellian Squawkie Hill Phase site, Warren County, Pennsylvania

Sugar Run Mound (36Wa359) is a Squawkie Hill Phase Hopewellian burial mound located in Warren County Pennsylvania. There were three separate periods of mound burial. The earliest burial phase included construction of a central cist, a bird and possible celt/ax effigies made from large stone cobbles. This paper investigates the possible ceremonies involved in the construction of the first mound phase.

**Miller, Patricia E.**, KCI Technologies, Inc., The Transitional Archaic of the Susquehanna River Valley by

Investigations at a number of stratified sites along the Susquehanna River have provided information on Transitional Archaic adaptation between 3000 and 3800 BP. The period was marked by the use of broadspears and the movement of rhyolite and steatite up the Susquehanna River. This paper synthesizes data from radiocarbon-dated components to provide an overview of the period, including the rise and fall of the trade system. The information from the Susquehanna River valley is compared to archaeological data from other regions.

**Moeller, Roger**, Archaeological Services, Tired of Being Typed, or the Pot Sherd Says, “What?”

A recent re-analysis of Late Woodland ceramics from the Faucett site in the Upper Delaware Valley of Pennsylvania raised questions concerning the observed range and meaning of design element variation. The prevailing pottery typology for the study area places these specimens in continuum from Owasco through Oak Hill and Chance as pre-cursors for the local development of Munsee or within a time span of more than 500 years. The question became more intriguing because many of the very diverse sherds had come from a cluster of apparently contemporaneous pit features. One should not assume that sherds with nearly identical motifs should automatically be considered contemporaneous over long
distances. Dating sherds in central New York may not be useful in assigning
dates to Delaware Valley vessels.

Nevin, Paul, Conejohela Chapter 28, Serpents on the Rocks – Marking Time at Safe Harbor by

The use of devices to keep track of solar or other celestial movements and events by ancient peoples in the Americas is in many cases a subject of controversy, compounded by input from "authorities" outside the field of archaeology looking for evidence to support their "New Age" beliefs about ancient societies. But were the creators of the petroglyphs at Safe Harbor, Lancaster County, doing just that? Observations at Safe Harbor suggest the possibility that serpent designs carved into the rocks there may in fact have been used to mark solar events, specifically sunrise and sunset positions on equinoxes and solstices.


Based on investigations at 36Ju104 and other sites in the Lower Juniata River Valley, Raber (2007; Raber et al. 2004) proposed a settlement model for prehistoric settlement in the region. Recent investigations at a number of sites—including 36Ju15, 113 and 118—have provided detailed supplementary data that expand and amplify some aspects of the model. The results of these investigations are summarized and interpreted in terms of the proposed settlement model.

Tippins, Bill, Allegheny Chapter #1, SPA, A Preliminary Report on Excavations at the Glenshaw Rockshelter, 36AL482

The Glenshaw Rockshelter (36AL482) is a relatively small rockshelter overlooking Pine Creek and heavily traveled Route 8 in Allegheny County, Pennsylvania, less than 6 km from downtown Pittsburgh. Although the site showed little in the way of archaeological potential and was overlooked by archaeologists for more than 50 years, the author excavated 11.5 square meters at the site in 2006 and 2007, primarily as a training exercise. This effort was surprisingly productive. Clear stratigraphy and a number of well preserved features and artifacts were encountered at depths of up to 80 cm below ground surface. Four AMS radiocarbon dates and diagnostic artifacts indicate that the site was occasionally visited by Native Americans from Late Archaic through Late Woodland times. In addition, a possible cache of four putative Kirk/Palmer Corner Notch points indicates that the site may have been visited during the
Early Archaic period.

**Vento, F.J.,** Clarion University of Pennsylvania, H.B. Rollins, Professor Emeritus University of Pittsburgh, A. Vega, Clarion University of Pennsylvania, P. Stahlman, Clarion University of Pennsylvania, J.M. Adovasio, Mercyhurst College and D. Madsen, University of Texas, Austin, Paleosols, Genetic Units and Climate Change in Pennsylvania: Archaeological Implications

In the mid-Atlantic region, alluvial paleosols as allogenic genetic units (i.e., now-buried, cumulic A-horizons) document prolonged episodes of terrace stability and are excellent chronstratigraphic marker horizons, which can be recognized in both interbasin and intrabasin stratigraphic correlations. Autogenic genetic units (e.g., a sand horizon from a one day flood event), on the other hand, are locally developed, the result of a circumscribed event that is constrained geographically and/or environmentally. Further, genetic units can provide important information on the response of fluvial systems to Holocene climate change and for archaeological site prediction. During the early Holocene, the driving mechanisms for prolonged changes in the fluvial regime in the northeast was the ablation of the Laurentian ice sheet and changes in atmospheric circulation. For example, from 10000 yrs B.P. to 6000 yrs. B.P., the Holocene was dominated by strong zonal flow, which favored relatively slow, continuous, vertical accretion along the major drainage lines in the region. After 6000 B.P., the continued ablation of the ice sheets allowed for more frequent merdional circulation and the penetration of warm and moist air masses, and in turn, larger cyclonic storms. Paleosols on aggrading terraces within the mid-Atlantic region reflect these changes in atmospheric circulation.

**Williams, Charles E.,** Western Pennsylvania Conservancy, What was the “broken straw” of Pennsylvania’s Brokenstraw Creek? – An Ethnobotanical Inquiry

Brokenstraw Creek meets the Allegheny River below Warren, Pennsylvania. The rich alluvial environment at the confluence of these two streams, currently called the Irvine Flats, provided productive habitation sites for Seneca, and later, Delaware Native American tribes through the Mid-eighteenth Century. The name “Brokenstraw” is thought to be derived from the original Seneca and Delaware place names for the area, later perpetuated by French and English explorers. This “broken straw” was said to be a species of grass that grew taller than a human, dying back in the winter and littering the ground with dead stems and leaves. What was this grass species? Using data from contemporary botanical surveys of the Middle Allegheny watershed, and historical observations and plant records, I
identified a suite of species that could include the “signature grass” of Brokenstraw Creek. Likely, not one but several tall grasses in an alluvial grassland community provided the basis for the creek’s name.

Wyatt, Andrew, McCormick Taylor, Inc., Preliminary Excavation Results from the Lemoyne Borough Memorial Park Site (36Cu194): A Washington Boro Stage Susquehannock Site in Cumberland County, Pennsylvania

Data recovery excavations at the Lemoyne Borough Memorial Park site (36Cu194) are currently being conducted in advance of rail line construction on a 1.65 acre parcel owned by the Borough. Although earlier Archaic and Woodland occupations are represented, the most significant component is a Washington Boro stage (circa 1600-1625 A.D.) Susquehannock hamlet or village. Excavation to date has revealed at least one partial longhouse pattern, 16 large refuse-filled storage features, and numerous smaller pit features. These features exhibit excellent preservation of floral and faunal remains, and have also produced a small number of European trade items. This presentation will summarize the results of excavation to date, and offer tentative hypotheses regarding the site’s location and relationship to other Susquehannock sites in the lower Susquehanna River Valley.

Glossary of Terms

AMS radiocarbon dates - accelerated mass spectrometry, a method of radiocarbon dating using very small amounts of organic material

Anthropogenically modified soil horizon – soil modified by human activities

Appalachian Plateau physiographic province – a region of similar topography and geology covering the western and northern half of Pennsylvania.

Archaic – a prehistoric hunter and gatherer cultural period dating between 8000 BC and 1000 BC

Artifact densities – locations where artifacts are more numerous

Botanical surveys – Systematic identification of all plant species found within a survey area

Broadspears – flaked stone projectile points and knives that are broad across
their width relative to their length, generally attributed to the end of the Archaic Period

**Castellation** – decorative elements on pottery where portions of a pot’s rim are arched upward above the rest of the rim

**Cisterns** – shallow wells or underground storage tanks built to store water

**Collar** – the portion of a pot between the rim and neck

**Cornplanter-Venango Path** – an important north-south Indian and Traders’ path located in northwestern Pennsylvania

**Controlled surface collections** – systematic collection and mapping of artifacts found on the ground surface

**Chronstratigraphic** – the correlation of soil layers that were formed at the same time

**Delaware** – historic groups of Algonquian Indians who lived in the Delaware Valley

**Elevation models** – computer based maps that show the surface elevations of an area of the earth

**Ethnographic accounts** – written accounts that document a people’s lifeways, language, or history

**Faunal** – having to do with animals

**Features** – human made disturbances in the ground such as cooking hearths, storage pits, refuge pits, foundation trenches, etc.

**Heritage resources** – archaeological sites, historic structures, and historic places that inform us about our cultural heritage

**Hopewellian** – a Middle Woodland cultural tradition centered in Midwestern states and known for the construction of elaborate earthworks and burial mounds

**LiDAR** – Light Detection and Ranging, an optical instrument that uses a laser to map the earth’s surface from an over flying aircraft, similar to radar
**Longhouse** – an Iroquoian multi-family house that is constructed long relative to its width.

**Merdional** – north-south wind patterns that promote periods of more extreme weather

**Monongahela** – the name archaeologists have given to Native American groups living in southwestern Pennsylvania just prior to European contact

**National Register of Historic Places** – a database of important historic structures and archaeological sites that is maintained by National Park Service

**Owasco** – pre-European contact Native American groups living in New York who may have been the ancestral people of historic Iroquoian tribes

**Paleosols** – old layers of topsoil that were buried and preserved by subsequent flooding

**Petroglyphs** – pictures and symbols carved into rock

**Pottery typology** – a system of classifying types of pottery

**Privies** – pit toilets, usually located in small out buildings; outhouses

**Rockshelter** – a naturally exposed rock ledge that has a rock overhang which shelters an interior area from the weather

**Seneca** – historic group of Iroquoian Indians who lived in central New York

**Settlement model** – a theoretical model of how prehistoric people utilized the land and its resources

**Shenks Ferry Culture** – the name archaeologists have given to Native American groups living in the Susquehanna River basin before European contact

**Stratigraphy** – the layering of soil and sediments such that the deepest layer was the oldest to be deposited and each subsequent overlying layer is younger.

**Susquehannock** – historic group of Iroquoian Indians who lived in the Susquehanna Valley of Pennsylvania
Woodland – a prehistoric cultural period defined by the use of pottery and domesticated plants dating between 1000 BC and 1600 AD