

Allegheny Chapter #1

of the

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Editor

Amanda Valko
116 E. Englewood Avenue
New Castle, PA 16105
724-654-2744 (H)
amanda@quemahoning.com

Officers 2015 - 2017

President: Brian Fritz
Vice President Bill Johnson
Secretary/Treasurer: Amanda Valko

Meeting Information

First Tuesday of the month at 7:30 p.m., February through June and September through November. Holiday Dinner is in December at an alternate location.

May 2018 – Beverly A. Chiarulli, PhD, Associate Professor, Retired, Indiana University of Pennsylvania, will present the program *Formal Tools and Expedient Tools: A Comparison of Lithic Tool manufacturing and use in Belize and Western Pennsylvania*.

June 2018 – Jonathan Libbon, M.A., RPA, Principal Investigator, SWCA will present the program *From the Hills of Appalachia to the Shores of Lake Erie: Landscape Archaeology in Northern Ohio*.

Meetings are held at Michael Baker International, 100 Airside Drive, Moon Township, PA in the first floor presentation room. Parking is free. Building is locked so please buzz the security guard to get in and sign in at the reception desk.

President's Letter

Powering the Search for Paleoindians

Stratified Paleoindian sites are rare in Pennsylvania. Only three such sites have been archaeologically excavated in Pennsylvania. Most famous is the Meadowcroft Rockshelter (36WH297), located along Cross Creek in Washington County. The Shawnee-Minisink site (36MR43) found along the Delaware River in northeastern Pennsylvania has also been well publicized. Less well known, is the Wallis Site (36PE16) located along the west bank of the Susquehanna River in Perry County. Retired Carnegie Museum archaeologist Stan Lantz once said that the best Paleo sites were probably “deeply buried and hard to find.” Archaeology in deep soils is labor intensive and expensive.

Is there a way to leverage the power of modern machinery to do archaeology? I believe there is, and I have been working on a solution to the problem of deeply buried sites. In 2007 I worked with the Venango Chapter of the SPA in their search for the French and Indian war fortification known as Fort Machault. A 3-1/4 inch bucket auger was used to drill soil core holes along transects at five meter intervals. The soil removed from the auger was screened for artifacts. The number of artifacts recovered from the small holes was surprising. The auger survey successfully identified the likely location of Fort Machault. What if the auger has larger, say six inches or eight inches in diameter?

After stewing on this question for some time, I decided to build a larger auger. Next came some calculating, cutting, and welding. The new auger is twelve inches (30 cm) in diameter and weighs about 175 pounds. Obviously, this is too heavy to manually operate. The auger attaches to the hydraulic drive on a walk behind loader. The auger

bucket fills with soil as the drive head turns the auger into the ground to a depth of ten centimeters.



The auger at work drilling a hole.

Next the auger is rotated in the opposite direction which closes the bottom so that the soil will not fall out. When lifted from the hole, the hinge mechanism is triggered and the contents are emptied out and screened.



Emptying the soil from the auger bucket.

The auger is then returned to the hole for the next 10 centimeters of soil. In this first experiment, a perfect hole 1.6 meters deep was easily dug. This powered auger worked far better than I had expected. The first test of the powered auger was successful, but it was only a proof of concept experiment.



A 30 cm hole dug to bedrock at a depth of 1.6 meters.

Here is what I propose to build next. The first prototype of the Paleo Digger machine will include a vertical drill mast from which the hydraulic drive will slide up and down with precision. The auger bucket will be 50 cm in diameter. The target drill depth is three meters. Future refinements may include a two-stage screening system to sort artifacts from the soil, digital data logging, and a greater drill depth. The machine would be used to systematically dig holes at regular intervals as the initial step in finding deeply buried archaeological sites. It is my belief that this system has the potential to greatly improve the quality of archaeological surveys while reducing the labor cost of testing deep river deposits.

Construction is underway. I will provide more reports as the project progresses.

--Brian L. Fritz

2018 SPA FIELD TRIP The Middle Mississippians And Their Neighbors

This not to be missed bus trip introduces Mississippians and their Fort Ancient neighbors through tours of the Ohio Historical Center in Columbus, OH; Angel Mounds State Historic Site in Evansville, IN; Kincaid Mounds State Historic Site in Brookport, IL; Wickliffe Mounds State Historic Site in Wickliffe, KY; Cahokia Mounds State

Historic Site in Collinsville, IL; and SunWatch Indian Village in Dayton, OH as well as lectures and movies.

Fees: \$350/person* to cover bus, all ticket and speaker fees, a wine or beer tasting, snacks, and 5 box lunches. Participants must book their own rooms all of which include breakfast, but we have negotiated rates for our group that come to an estimated \$438.50 including taxes per person for 5 nights double occupancy. Participants will also purchase their own dinners.

Registration Deadline: May 7 full amount due to SPA. You may pay online using PayPal at www.pennsylvaniaarchaeology.com or by check to The Society for Pennsylvania Archaeology, PO Box 213, New Bethlehem, PA 16242. For more information: See Winter and Spring SPA Newsletters, Ask your SPA Chapter President for details shared with them, or contact Dr. Sarah Neusius (sraahneusius@gmail.com, (724)388-0459); Dr. John Nass (nass@calu.edu).

*This rate applies to the SPA member and a guest or to members of ESAF affiliated societies; an additional charge of \$50/person will be applied to each guest after the first guest as this field trip is a member benefit. You must be a member of the parent organization, not just of a local chapter. New SPA members will receive the discounted rate on this field trip.

SPA Meeting Recap

The annual Society for Pennsylvania Archaeology is over again for another year. It was a well-attended conference. The presentations were interesting and varied and the banquet speaker, Dr. Michael Gramly, presented some interesting ideas on the ritual hunting of proboscideans in the New World. Proboscideans are mammals of the order Proboscidea, comprising the elephant and the now-extinct mammoth and mastodon, for those of you who didn't know. Even the banquet food was good! SPA awards were given at the banquet dinner. Following are the award winners.

Archey: Chuck Williams

Mason: Sarah & Phil Neusius

Lifetime Achievement: Mary Alice Graetzer

The auction was successful too. Edmund Dlutowski, life member of the Ohio Valley Chapter, served as auctioneer this year. See photo below.



Edmund Dlutowski performing his auctioneer.

Lower Susquehanna Archaeological Society, Chapter 28, S.P.A.

1. Name changed to: Lower Susquehanna Archaeological Society, Chapter 28, SPA (formerly named Conejohela).
2. Chapter President: Paul Nevin, 6298 River Drive, York, PA 17406, Phone: 717-252-4177 Email: chapter28SPA@aol.com
3. SPA Chapter representative: Dennis Brooks, 121 Street Road, Holtwood, PA Phone: 717-230-4583 Email: info@spa28.org or lingvistika@yahoo.com
4. Facebook: Lower Susquehanna Archaeological Society, SPA 28.

Lower Susquehanna Archaeological Society, Chapter #28 meets on the 3rd Sunday every other month at 1:00 p.m. Nov.- February, 4:00 p.m. March-October, at Columbia Historical Preservation Society, 21 N 2nd Street, Columbia, PA 17512. Please call to verify meeting dates and times or visit our face book page for the most current information. Chapter 28 offers archaeological related lectures, workshops, field trips and excavations focusing in the York and Lancaster Counties of PA.

2018 MEMBERSHIP FORM

To become a member of Allegheny Chapter #1, SPA, complete this form and send it to Amanda Valko, Secretary, Allegheny Chapter #1. Thank you!

NAME _____ DATE _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

TELEPHONE NUMBER _____

EMAIL ADDRESS _____

PRESENT CHAPTER AFFILIATION (IF ANY) _____ STATE MEMBER? _____

MEMBERSHIP CATEGORY (CHECK ONE):

<input type="checkbox"/> LIFE	\$150.00	<input type="checkbox"/> ACTIVE HUSBAND/WIFE	\$16.00
<input type="checkbox"/> SUSTAINING	\$ 20.00	<input type="checkbox"/> STUDENT	\$ 8.00
<input type="checkbox"/> ACTIVE INDIVIDUAL	\$ 10.00	<input type="checkbox"/> INSTITUTIONAL	\$16.00

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RETURN TO: Amanda Valko
116 E. Englewood Avenue
New Castle, PA 16105
724/654-2744

Allegheny Chapter #1, SPA
Amanda Valko, Editor
116 E. Englewood Avenue
New Castle, PA 16105-2129