

PAC Newsletter

Spring 2004

Vol. 25

PENNSYLVANIA ARCHAEOLOGICAL COUNCIL

PRESIDENT'S MESSAGE

This newsletter marks the transition in editorship from Philip Perazio to Renata Wolyneć. I take this opportunity to thank Philip for his hard work and attention to detail in compiling and producing newsletters for the last five or so years (beginning during the Kinsey administration). Renata will benefit from that experience and I thank her for continuing the effort.

Let's review the year. I became president last spring in a landslide election, after a short but arduous campaign. (Actually, I ran unopposed.) Shortly thereafter, the newly elected Board and I drafted a letter to send key politicians in Harrisburg regarding Act 70. PAC members residing in Pennsylvania were sent copies of the letter and were asked to send it, or a revised version of it, to their state representatives. In addition, I contacted Chris Dore (President of ACRA) and Lynne Sebastian (President of SAA) for institutional support in our effort to repeal Act 70. ACRA and SAA sent letters to the Governor, key representatives, and the PHMC on behalf of PAC.

To date, the effort has had little effect as far as I can tell. A few PAC members did receive more than form responses from their representatives. The letter sent by Rick Geidel resulted in a productive meeting with Representative Ron Miller. Representative Jerry Nailor requested a response from the PHMC regarding PAC's concerns about Act 70 and the inadequate funding for the Commonwealth Archaeological Program (CAP). Representative Nailor received a letter back from John Wesley (Interim Executive Director of the PHMC): "It is incorrect that the Historical and Museum Commission is not committing funds to this program. While we have had to set our priorities on the number and complexity of excavations that we are able to undertake annually, we have investigated several sites this year that were determined particularly significant" (letter from Wesley to Nailor dated January 24, 2003).

In any case, PAC formally requested from CAP progress reports in their efforts to keep ahead of development. To date, approximately 9,600 state permit requests were associated with about 344 archaeological sites listed in the Pennsylvania Archaeological Site Survey (PASS) files. Of these sites, 263 were "resolved through means other than site excavations," including: destroyed prior to permit application, not located on property, located within a resource protection area or green space. Out of the remaining 81 sites, 58 (71.6%) were addressed to the satisfaction of the CAP staff, with reports completed, underway, or planned to be completed. One site was partially addressed; due to time and resources constraints, CAP personnel were unable to complete as much work as they would have liked. Twenty-two (27.1%) significant sites are estimated to have been lost without data recovery, owing to landowner access denial (16) or lack of time (6). Despite John Wesley's implication to the contrary, it's clear to me that a considerable number of significant

archaeological sites have not received adequate or any attention due to lack of adequate resources.

In other news, public education has been continuing under the lead of Valerie Perazio and Beverly Chiarulli. PAC sponsored the archaeology essay contest again and issued awards for outstanding essays. The awards ceremony was held in June 2003 at the State Museum. A new batch of essays is currently under review for the 2003/2004 school year. Valerie Perazio attended the Pennsylvania Science Teachers conference, which was held in Hershey this year. A number of requests made by Pennsylvania schools for the PAC archaeology education trunks were honored.

In celebration of Archaeology Month, PAC and PENNDOT co-sponsored a table in the Capitol Rotunda on October 8, 2003. At the Carnegie Museum, the position of Archaeology Collections Manager has still not been reinstated. Their archaeological site files may be accessed only through the Bureau for Historic Preservation in Harrisburg. Researchers with an approved proposal will be allowed access to the artifact collections.

Last May, I sent a letter to Governor Rendell recommending that a professional archaeologist be appointed as a commissioner to the PHMC. PAC's argument was that "it is crucial that at least one of the Commissioners be a professional archaeologist who understands the nature of impacts to significant archaeological resources ... in the face of federal undertakings and state-permitted development activities." We proposed several candidates: Beverly Chiarulli, Verna Cowin, Sarah Neusius, Dan Roberts, and Dean Snow. We received a response from the Governor's office thanking us for our interest and that our recommendations will be considered "at the appropriate time."

As I complete my first year as president of PAC, I would like to acknowledge a few people. Beverly Chiarulli, Dan Roberts, and Sarah Neusius, in their unique ways, offered me advice on how to get things accomplished without giving up my day job. The PAC Board, for the most part, was responsive to numerous requests for input on a range of issues important for Pennsylvania archaeology. I thank Heather Wholey and Renata Wolyneec for representing PAC as a Consulting Party for highway projects.

Here's to another year of furthering the preservation and stewardship of Pennsylvania's past.

*Submitted by: Peter Siegel, PAC President
John Milner Associates, Inc. .*

COOPERATION COLUMN

There were no submissions for this edition.

CURRENT RESEARCH

Obsidian Research

A colleague and I are embarking on a project to source some of the obsidian artifacts found in New Jersey and adjacent states. My co-author, Carolyn Dillian, was employed by the University of California, Berkeley x-ray fluorescence lab for three years as a researcher and is currently president of the International Association for Obsidian Studies. Carolyn's Ph.D. dissertation

centered on a unique source of obsidian in northern California used as a sacred site.

Our aim is to not only categorize as many of the published specimens from our area as possible but to also try to obtain obsidian samples for study from archaeological sites in the Middle Atlantic and Northeast that have not yet been reported. For a summary of research to date in New Jersey see Bello and Cresson (1995, 1998).

Our project is open-ended and will grow as data comes our way. So far, we plan to submit at least a half dozen specimens. We feel that there are probably other samples of this unique lithic material in collections, and their study is important. Anyone having information on obsidian genuinely collected from prehistoric archaeological contexts in the Middle Atlantic or the Northeast is invited to contact us and participate. We will cover the costs of the analysis (see below).

The process is 100% non-destructive. We guarantee the safety of all specimens entrusted to us. We promise a quick turn-around time for research and analysis. Archaeological obsidian samples will be analyzed in the x-ray fluorescence lab at the University of California, Berkeley.

X-ray fluorescence (XRF) is a non-destructive technique that is used to determine the trace element composition of the obsidian. It is one of the most commonly employed chemical characterization methods utilized for obsidian artifacts. It is largely effective because of the unique nature of obsidian's composition, in that trace element proportions tend to vary between sources yet remain relatively homogenous within single flow events. Trace elements are those elements present in concentrations of less than 1%.

X-ray fluorescence provides the added benefit of accurate chemical characterization assessments without requiring extensive sample preparation. Objects can be placed whole inside the sample chamber. They do not need to be cut, ground, powdered, or otherwise damaged. Also, unlike Neutron Activation Analysis (NAA), artifacts do not become radioactive. X-ray fluorescence is a completely non-destructive technique, which is obviously ideal for archaeological specimens.

The XRF lab at Berkeley has successfully analyzed thousands of artifacts, including pieces from museums, CRM projects, NAGPRA collections, and private collections. In X-ray fluorescence, samples are placed inside a sealed vacuum chamber and irradiated with a beam of X-rays, similar to the kind used in dentist's and doctor's offices. This irradiation displaces electrons from the inner orbitals, creating vacant holes, which are filled by electrons from the outer orbitals. When electrons from the outer orbitals move into the inner levels, energy is emitted in the form of a secondary x-ray photon. The fluorescence caused by the emitted photon is distinctive for each element, creating an energy spectrum that reveals the elemental composition of the obsidian sample.

For more information, please check out <http://obsidian.pahma.berkeley.edu/analysis.htm>. To learn more about obsidian and obsidian analyses, check out <http://www.peak.org/obsidian>.

Our first sample (from the Lower Delaware Valley) is being submitted to the Berkeley lab next week. We will issue a brief synopsis of the results via these list serves. Please spread the word and start looking for shiny black /gray lithics with translucent edges in your collections! Contact: Charles A. Bello, M.A., RPA, 19 Ledge Lane, Pipersville, PA 18947, 610-294-8260, hop@epix.net.

References Cited

Bello, Charles A., and Jack Cresson

1994 A Fluted Point from Island Beach State Park. *Bulletin of the Archaeological Society of New Jersey* 50:53-56.

1998 An Obsidian Biface from the Lower Delaware Valley. *Bulletin of the Archaeological Society of New Jersey* 53:127-128.

Submitted by: Charles A. Bello CRCG

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PUBLIC EDUCATION

See Committee Reports.

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COMMITTEE REPORTS

Membership and Ethics Committee Report

In 2003, five applications were received for membership in the Pennsylvania Archaeological Council (PAC). These ranged the spectrum from prominent highly experienced applicants to those just beginning their professional careers. Four of the five applicants were approved for PAC membership. The denied applicant did not exhibit the required background as stated in PAC's membership guidelines. It was recommended that this applicant first become a member of the Society for Pennsylvania Archaeology (SPA) to gain more experience.

I want to thank the other members of the Membership and Ethics Committee, Shaune Skinner and Lori Frye, as well as members of the Executive Board for expediting the membership applications.

If you are a PAC member, please canvass your colleagues and have them submit their applications to the organization. We look forward to new members in the year ahead!

Inquiries regarding membership in PAC should be made to:

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*Submitted by: Ben Resnick, Vice President and Chair, Membership and Ethics Committee
GAI Consultants, Inc.*

Project Archaeology: Pennsylvania

In 2002, Local History Project Support grant ME #230361 from the PHMC was awarded to PAC for the development and production of a Pennsylvania and national education standards based curriculum for students and teachers focused on Pennsylvania archaeology. The project was completed in October 2003 as Project Archaeology: Pennsylvania, An Educational Standards Based Curriculum for Grades Four Through Eight.

The curriculum materials include a student reader, a separate lesson plan guide for teachers which is tied to specific standards, and a CD with all of the materials. In keeping with the educational goals of the time, these curriculum materials address several needs.

First, they were designed to facilitate reading comprehension. Second, they address powerful ideas, abilities, and issues that are identified by the state and national education standards. The curriculum addresses four themes in 16 lesson plans and 13 student readings. Section one addresses basic concepts such as archaeological methods, skills, and research. Section two addresses Pennsylvania before the coming of Europeans (knowledge, attitudes, and values). Section three compares similarities and differences among cultures. The fourth theme, stewardship of the past, permeates all sections.

The production staff consisted of PAC archaeologists, educators, and an illustrator. The project was directed by Renata B. Woly nec. Daniel Shelley, a curriculum development specialist from Robert Morris University, identified the education standards to be addressed, suggested possible topics for the lessons, and developed a format for the lesson plans. Members of the writing team included Renata Woly nec, Ellen Bedell, Sarah Neusius, Joseph Baker, and Beverly Chiarulli. Teachers William J. White and Christopher A. Triola, of Parker Middle School in Edinboro, PA, reviewed the materials. Illustrations and final assembly of the materials were in the capable hands of photo and computer artist Bernard Werner.

The materials will be made available to teachers who participate in a Project Archaeology Workshop. PAC is currently the Pennsylvania sponsor for these workshops. As project director, I would like to gratefully acknowledge everyone who contributed to the creation of this teaching and learning tool. Thank you all so very much!

*Submitted by: Renata B. Woly nec, Project Archaeology State Coordinator
Edinboro University of Pennsylvania*

New PAC Public Outreach Initiative

In partnership with the PHMC, Bureau for Historic Preservation (BHP), PAC is starting a new initiative to present information to local agencies, authorities, and interest groups on the Commonwealth's archaeological heritage. These groups either receive state or federal grants for activities that may affect archaeological sites or are themselves land owning or land developing agencies.

The BHP has awarded PAC a \$6,000 grant for 2004 to identify and present programs or displays, or write newsletter articles to at least six of these organizations. Our preliminary research has found that many of the statewide planning or municipal organizations hold annual statewide conferences which include presentations on various environmental issues, exhibitor or vendor booths, or have newsletters or magazines which disseminate information to the organization's membership. PAC plans to use the PAC/SPA display to provide information on the importance of archaeological resources in these venues, similar to the outreach effort we have made with state teachers' organizations. Beverly Chiarulli, Diane Landers, and Doug McDonald have so far volunteered to spearhead this effort. If you are interested in participating, contact Beverly at Indiana University of Pennsylvania (bevc@iup.edu).

*Submitted by: Beverly Chiarulli
Indiana University of Pennsylvania*

CONSULTATION ACTIVITIES

Consulting Party Report Sumneytown Pike/PA 309 Connector Project

On December 2, 2003 Heather Wholey attended the Section 106 Consulting Party Meeting for the S.R. 1058, Section HAT, Sumneytown Pike/PA 309 Connector Project at the Towamencin Township Building as PAC representative. At this meeting Joe Capella, PENNDOT District 6 project manager, provided a brief overview of the potential impacts of the proposed improvements. Jennifer Holl, a preservation specialist with McCormick, Taylor and Associates, Inc., outlined the eight historic properties considered eligible for listing on the National Register of Historic Places.

The following is a list of those properties, the criteria for eligibility, and the recommendations given and concurred upon by the PHMC:

Property: George Heckler/Patricia Linton House

Criteria C

Recommendations: no effect

Property: Mainland Inn

Criteria A & C

Recommendations: no adverse effect

Property: Abraham Stover House

Criteria C

Recommendations: no adverse effect

Property: Towamencin Mennonite Church

Criteria C

Recommendations: no adverse effect

Property: Samuel F. Kriebel House

Criteria A & C

Recommendations: no adverse effect

Property: Nelson Souder House

Criteria A & C

Recommendations: no adverse effect

Property: Jacob Reed Homestead

Criteria B & C

Recommendations: no effect

Property: North Pennsylvania Railroad

Criteria A & C

Recommendations: no adverse effect

Richard Baublitz, senior archaeologist for McCormick, Taylor and Associates, Inc., discussed the four historic and five prehistoric archaeological sites (locus one through nine) encountered during subsurface testing. Brief descriptions and recommendations for these sites are as follows:

Site: Locus 1

Description: non-diagnostic prehistoric

Recommendation: not eligible

PHMC Findings: concurrence

Site: Locus 2

Description: Middle Woodland

Recommendation: eligible

PHMC Findings: concurrence

Site: Locus 3

Description: non-diagnostic prehistoric

Recommendation: not eligible

PHMC Findings: concurrence

Site: Locus 4

Description: foundation - saddle shop

Recommendation: not eligible

PHMC Findings: concurrence (disturbed by PECO line)

Site: Locus 5

Description: non-diagnostic prehistoric

Recommendation: not eligible

PHMC Findings: further testing

Site: Locus 6

Description: 19th century foundation-outbuilding

Recommendation: not eligible
PHMC Findings: further research

Site: Locus 7
Description: non-diagnostic prehistoric
Recommendation: not eligible
PHMC Findings: concurrence

Site: Locus 8
Description: 19th century
Recommendation: not eligible
PHMC Findings: further documentation (ironstone, redware, whiteware, and bottle glass)

Site: Locus 9
19th-20th century
Recommendation: not eligible
PHMC Findings: further documentation

The additional testing already undertaken at Locus 5 and the additional documentation that will be provided for Loci 6, 8, and 9 are expected to support the original recommendation that these sites are not eligible for inclusion on the National Register of Historic Places. The FHWA has found, and the PHMC concurs, that Locus 2 is eligible for listing on the National Register of Historic Places under Criterion D, and that since Locus 2 cannot be avoided during the course of improvements, mitigation of the adverse effect through data recovery is necessary.

*Submitted by: Heather Wholey
West Chester University of Pennsylvania*

Consulting Party Report US 219 Meyersdale to I-68

On August 21, 2003, Renata B. Woly nec attended the Cultural Resource Consulting Party meeting for the US 219 Meyersdale to I-68 project, at the Salisbury Borough Building in Salisbury, PA. The purpose of the meeting was to "introduce the consulting parties to the project and explain their role in the process." Final meeting minutes (October 7, 2003) were prepared by Deborah H. Hoover, Project Coordinator for McCormick, Taylor and Associates, Inc. The following is Renata Woly nec's interpretation of these minutes and is not to be construed as a formal project document.

In order to facilitate maximum attendance, two meeting times were available (12:30 PM and 6:00 PM). Woly nec attended the 6:00 PM meeting on behalf of PAC. Organizations represented at one or both meetings included PAC; Western Maryland Chapter ASM; Maryland National Road Association; Westsylvania Heritage Corporation; Salisbury Boro; SPA; Historical and Genealogical Society of Somerset County; Garrett County Commission; Elk-Lick Township; Garrett County Planning; PENNDOT; Heberling Associates, Inc.; and McCormick, Taylor and Associates, Inc.

Attendees at both meetings were given a project overview by Deborah Hoover, Project Coordinator for McCormick, Taylor and Associates, Inc. To date, information collected from

secondary sources and some field verification has been mapped and project corridors located in order to avoid cultural resources as much as possible. Alternatives to these corridors will be developed as well.

An Environmental Impact Statement (EIS) is scheduled for completion in the summer of 2004, with a formal public hearing to follow. Either through the EIS or a Final EIS, PENNDOT will recommend an alternative to FHWA. If agreement is reached, FHWA will issue a Record of Decision, thereby allowing the final design to begin (mid-year 2005). Construction would then begin as early as 2008.

Paul Raber, of Heberling Associates, Inc., provided background information about the Section 106 process and work accomplished to date. As the first step, cultural resources were identified by reviewing archaeological and historic site files in Pennsylvania and Maryland. These are summarized in a Preliminary Reconnaissance Report. Phase 1 archaeological survey will be undertaken in spring, 2004, followed by a Historic Structures Survey and Determination of Eligibility Report to be completed by the end of October. Paul Raber explained that the project corridors were designed to keep away from obvious large and complex prehistoric sites along the Casselman River.

Paul Raber also reported that he and his team are in the process of preparing a detailed Predictive Model based on GIS data. When asked about the reliability of the data, he explained that every effort was made to minimize biases and that subsurface testing will be conducted. More intensive subsurface testing will be undertaken as the number of alternatives is reduced.

Bill Hunter, Heberling Associates, Inc., provided an overview of the historic structures work. He and his team identified a number of noteworthy resources in Maryland including Little Meadows and Tomlinson Inn, traces of Braddock's Road, Maust Barn, and Mason/Dixon line markers. In Pennsylvania, they identified individual farms, the Alverno Friary, old log barns, and two intact farms.

Throughout both meetings, attendees were given many opportunities to ask questions and request clarifications. They requested basic information about how the archaeology is to be done, how the structures information was gathered, and how a reliable predictive model will be developed and tested. Concerns were voiced about the lack of availability of specific site information and reports to the consulting parties. Paul Raber explained "there is a concern with the sensitive information contained within those reports and how to monitor who is able to review that information." He further explained that there is an effort underway to create a report which will synthesize the information. Attendees suggested that an interpreter/educator be part of the project team, an overlook be constructed at the interchange near Little Meadows, the bottomland at Little Meadows be avoided as much as possible, and a Welcome Center be constructed in Pennsylvania.

For a complete copy of the Memorandum of Meeting, please contact Renata Wolyneec at wolyneec@edinboro.edu.

References Cited

Hoover, Deborah H.

2003 Memorandum of Meeting: US 219 Meyersdale to I-68 Consulting Party Meeting. Prepared by McCormick, Taylor and Associates, Inc.

*Submitted by: Renata B. Wolyneec
Edinboro University of Pennsylvania*

PENNDOT/FHWA Tribal Consultation Activities

PENNDOT and the Pennsylvania Division, FHWA are continuing to fulfill their tribal consultation obligations as specified in the Section 106 and NEPA regulations. A total of fifteen (15) federally recognized tribes have been identified as having historic ties to the state. Each of the tribes has been contacted and initial guidance on the process of tribal consultation has been prepared by PENNDOT for its Qualified Professionals.

PENNDOT and Pennsylvania FHWA sponsored the first Pennsylvania Intertribal Summit held in Harrisburg in September 2003. Over fifty transportation and historic preservation staff, tribal members, and others attended the successful event. The goal of the summit was to introduce people on both sides of consultation to each other, and to begin the long process of mutual education. Both transportation staff and tribal members felt the summit was a great step toward effective and respectful consultation; a second summit is being planned.

Future projects are underway at PENNDOT and Pennsylvania FHWA aimed at furthering communication between transportation staff and tribal cultural resource contacts, as well as education for all involved. For more information on tribal consultation in Pennsylvania, including a report on the 2003 Intertribal Summit, be sure to visit www.penndotcrm.org.

*Submitted by: Ira Beckerman
PENNDOT*

Please forward comments regarding the 2003 Intertribal Summit Report to josebaker@state.pa.us or Karyn.vandervoort@fhwa.dot.gov.

THE COMMONWEALTH'S ARCHAEOLOGY PROGRAM ACTIVITIES

The Bureau for Historic Preservation (BHP) would like to report highlights of three of the more significant projects that have been conducted over the past year by The Commonwealth's Archaeology Program (CAP). SPA members will probably recognize the following as an updated version of two summaries published sequentially in their last two newsletters.

The four projects featured here were undertaken from early May through late November of 2003, using CAP and other BHP staff, interns, and volunteers. During December through February, artifacts and ecofacts from the projects were processed, with some preliminary analyses undertaken.

These sites and others were featured in an exhibit at the Pennsylvania Farm Show in January of this year. The following summary focuses on this year's Farm Show, the King's Quarry Site, highlights of the Union County storm water management project, and ongoing progress at a Late Woodland village in Lancaster County.

Annual PA Farm Show

Every year, the PHMC's Bureau for Historic Preservation (BHP) makes a strong showing at the Farm Show, and captures the attention of thousands of visitors who attend the largest indoor agricultural event in the United States. This year, the BHP and the Bureau for Historic Sites and Museums merged resources and put together a larger and more comprehensive presentation.

The equivalent of ten booth spaces housed exhibits, demonstrations, and PHMC literature and information brochures. The booth was tended by PHMC staff with expertise in archaeology, history, historic preservation, architecture, architectural history, planning, and historic preservation grants. In addition, rotating demonstrations of traditional crafts, both European and Native American, were featured every hour by staff of the PHMC's Landis Valley Museum and by Mr. Robert Winters, whose specialty is primitive technology.

Over the last several years, Robert Winters has contracted with BHP to stage living history demonstrations and to bring his expertise and craft to help out with public events and educational programs. During this year's Farm Show demonstrations, Bob held forth on prehistoric technology and constructed stone tools by hand. He never failed to simultaneously entertain and educate the interested children and adults who stopped by to watch him work in the booth. The PHMC would like to take this opportunity to thank the Pennsylvania Archaeological Council and the Society for Pennsylvania Archaeology for very generously providing support to bring Bob to this year's Farm Show.

The King's Quarry Site, 36LH2 Lehigh County

During the late spring of 2003, CAP conducted surface collections and mechanical excavations of the King's Quarry Site in Lehigh County. This site is a key contributing element of the Hardyston Jasper Prehistoric District (Anthony and Roberts 1988) and is one of only six remaining jasper quarries in the Reading Prong physiographic province of eastern Pennsylvania. The site was reported in the fourth quarter of the 19th century by Henry Mercer (1894) and was later recorded with the PHMC by Richard Jordan of Bryn Mawr. Later, in the 1990s, the site was mapped and sampled for artifacts by James Hatch, who presented his findings from this and other Reading Prong jasper quarries in a document submitted to PHMC (Hatch 1993). Unfortunately, there appears to be no hope that the site will be completely avoided and preserved, and it is slated to become part of a residential development in the very near future.

The site is dated from diagnostic artifacts identified by both Hatch and CAP. C-14 dates from the latter excavations are pending. The site appears to have been used from Paleoindian through Late Woodland periods. Although the site is a quarry, CAP's investigations recovered a small number of flake tools suggesting hunting, butchering, and other processing activities in addition to the expected quarrying and workshop-related materials.

The structure of the site appears to be that of a focused open-pit quarrying location encircled by workshop areas. As many as 22 quarry pits, previously mapped by Hatch, are present in the wooded core of the site, and a much larger pit was identified in an adjoining open field during the present project. CAP concentrated on controlled surface collections of the field, backhoe trenching through a series of overlapping quarry pits in the wooded area, and mechanically excavating a much larger step-trench in the massive back-filled crater in the adjoining open field.

Within the field next to the wooded quarry-pit area, and adjacent to the larger unforested crater, was a small topographic rise that measured 50 by 80 feet. This area, which was extremely dense in lithic materials, produced an unfinished though nearly completed Clovis point, a unifacial endscraper, and a sidescraper made on a large blade-like flake. The scrapers show an unmistakable Paleoindian signature, and several other trimmed flakes found nearby may or may not be part of this component.

After the open field was re-plowed and rain-washed, the area where these particular surface finds had been recovered was then gridded into 10-foot squares and collected entirely. Although another potentially early endscraper was found during these efforts, the deposit also proved to contain Late Archaic to Transitional artifacts and could not be seen as a pure context. Re-opening of small backhoe trenches, which had been dug by project engineers during soil tests, indicated that this particular part of the site contained a shallow plow zone over sterile subsoil. This is a remarkable circumstance, since this area lies immediately adjacent to a massive back-filled quarry pit.

Following this initial collection, the remainder of the newly plowed field was divided into 10-foot squares within micro-topographic zones, and a stratified 5 % random sample of the remainder of the plowed area was obtained. Field observations at that time indicated what appeared to be spatial differences in types of debitage, and differences in the quality and coloration of materials across the greater plowed area.

After these collections were completed, a step trench was dug with a track hoe. The excavated area was dug through residuum, revealing that prehistoric quarrying operations had extended as far as 23 feet into the ground in order to quarry the loose jasper nodules and boulders. Such evidence, of excessively deep quarrying, echoes Henry Mercer's finds at nearby Macungie where test excavations revealed over 18 feet of soil that was presumably disturbed through open-pit prehistoric quarrying.

In some areas of the King's Quarry step trench, layers of primary production debris capped old backdirt that would have been piled along the edges of, or even inside, the quarry pits. In addition, junctions of pit edges and the natural residual soils typically contained debitage. In a few areas, charcoal was found associated with debitage and/or burned jasper chunks. When these deposits were identified, carbon samples were retained from them. Several samples from this set were selected for C-14 dating and submitted to the radiocarbon labs at the University of Arizona. We are still waiting for the lab to present us with their results.

Besides the extent of the prehistoric quarrying, another eye-opening aspect of the study is the variety of jasper present at King's Quarry. Indeed, the natural lithic variation at this quarry appears to far surpass that of other related sources such as those found at nearby Macungie and Vera Cruz. Although King's Quarry contains a notable amount of the typical opaque brown to yellow jasper, there are other vivid colors (e.g., black, gray, blue, green, or variously banded or otherwise variegated) as well as varying textures and lusters.

Some of the translucent material is typical chalcedony, and some of the dark opaque materials would usually be classified as various chert or flints. Indeed, there are relatively common examples where a single specimen of rock contains a thick solid mass of black chert/flint on one face and a mass of typical yellowish brown jasper on the opposing side.

Certainly, the variety found at this site has implications for sourcing studies and identifications of

"exotic" materials in local assemblages. In addition, the extreme range of variation from this one source further frustrates attempts to confidently define materials through casual visual examination only. The black chert could be mistaken for materials from Ridge and Valley carbonate formations, while the green could be mistaken for a number of other non-local sources.

Due to the quality of the material, and because of the striking variety and beauty of the stone colors at this source, the archaeological site has long been collected from by mineral collectors and amateur lapidary workers, as well as by artifact collectors seeking points and tools. Consequently, not only have diagnostic artifacts been removed, but non-artifactual raw material specimens, as well as many workshop pieces such as cores, chunks, large flakes and the like, have also been removed over the years. However, the CAP collection from the site is massive and includes thousands of specimens. In addition, a gem collector, who has visited the site for many years, has very generously allowed CAP archaeologists to borrow and examine his collection. The excavations at this site, along with reviews of previous research, have demonstrated that the Reading Prong quarries are more complex than they initially appear. Hatch (1993) proposed a three-stage process for the evolution of the Reading Prong quarries, and these three stages were represented by three corresponding classes of quarries.

Class I quarries consist of working only the surface material. Primary and final flakes would be found all over the site. Essentially, the miners would completely work nodules wherever they were found and, as a result, all types of debitage would be found across the site.

Class II quarries would involve digging shallow pits. This category would begin to develop distinctive activity areas that separated the early stage quarry material from the later stage workshop areas. Based on his surface sampling of King's quarry, Hatch believed that this site was a Class II quarry.

Class III quarries involved the digging of very deep pits through previous backdirt which created filled, nested, and intersecting craters. His example of a class III quarry was the Vera Cruz site where he documented pits that were over 10 feet deep. Based on the waste material from these quarries, it appeared that a considerable amount of time was spent examining and testing, and throwing away the inferior material. Obviously, each class of quarry would involve an increasing amount of work.

The results of our testing indicate that King's Quarry fits with the Class III type rather than Class II. Moreover, we would also suggest that we are seeing what could be classified as a fourth stage involving the re-mining of the backfill areas to salvage pieces that the earlier miners considered too inferior and/or too small for their purposes. We are assuming that Paleoindian peoples created Class I quarries and essentially mined jasper from near-surface deposits at King's Quarry. Although their mining activity was obliterated by subsequent Archaic mining, a small group of artifacts from the earliest activity on the site was remarkably preserved, having barely missed being dug through and redeposited by later quarrying operations.

Throughout the Archaic period, prehistoric miners began to create Stage II quarries by digging ever-deeper quarry pits. We assume, from previous research and from some evidence at the site, that the Transitional period and the production of broadspears was the most intensive use of jasper, and that the deepest quarry pits date to this period. After Transitional times, the pits were backfilled by both natural and cultural processes.

The set of depressions and pits in the wooded area's surface probably represents Woodland re-mining of soils disturbed by earlier quarrying. The material in this backfill area is generally small (fist-sized) but more than sufficient for Late Woodland expedient tool technologies. This sequence will be confirmed or adjusted once the C-14 dates have been received.

Unfortunately, time and budget constraints prevented CAP from looking at a section of the site that sits next to a swampy stream that lies north of the actual quarry. Due to proximity to that stream, it is proposed that there are probably larger numbers of camping episodes showing non-quarry activities there than elsewhere on the site.

36UN10

Union County

The Union County Industrial Development Corporation (IDC) is proposing to create large wetlands at the back (west) edge of a floodplain on the West Branch of the Susquehanna River near Allenwood. The purpose of this wetland is to filter storm water from an Industrial Park that is being built in the adjacent uplands. An area adjacent to previously recorded Site 36UN10 is slated for wetlands creation for the storm water management facility, and this site was the primary focus of investigation by CAP. At this site, CAP conducted controlled surface collections, backhoe trenching, assessment by geomorphologist Frank Vento, and limited excavation to examine artifacts, stratigraphy, and features incidentally revealed by one of the stratigraphic test trenches.

Another controlled surface collection was made on nearby site 36UN36, dating from Middle Archaic through Late Woodland periods. This latter site is located shortly downstream from 36UN10, but is situated on a higher and older landform. At the time that the work was undertaken, plans for any construction near this site were not pressing. However, more recently, the area adjacent to the site has been slated to be used as an accompanying element of the same storm water management facility of which 36UN10 is a part.

Site 36UN10 is located on the natural levee of a high floodplain that correlates with Vento's "Valley Heads Terrace" level (Vento et al. 1989). Excavation of one of the trenches opened for geomorphological investigation at the extreme north end of the site revealed a surprisingly rich stratified subsurface deposit that appeared to extend from Late Archaic through Transitional periods into the Early Woodland period. Upon making these findings in this one trench, the locations of the remaining strata cuts were moved away from this location and continued elsewhere with no similar finds made in them.

Notable findings in the aborted strata cut include a concentration of wood charcoal in association with a small cache of chalcedony blades, a rhyolite side-notched projectile point, a two-hole gorget of slate-like material, and an unusual faceted sphere of graphite. A soapstone sherd may or may not have been an intentional part of the cache. Carbon collected for analysis should enable adequate C-14 dating by conventional means, and we hope to have the results of this analysis in the very near future. Recently,

Dr. Robert Smith, of the Pennsylvania Geologic and Topographic Survey Division of DCNR, examined artifacts from 36UN10 and concluded that these objects were likely derived from a number of disparate sources. The chalcedony may have been obtained from the Hardyston Formation which is located in the Reading Prong, many miles east of the site area. The rhyolite is probably not from the Caledonia area quarries of Adams County. Its source is undetermined. The

slatey material is probably local. The soapstone is likely from areas of known quarries in southern Pennsylvania. The graphite is probably not from Pennsylvania, and would require testing to attempt to narrow it down to either an area of Maryland or, alternatively, eastern Canada.

In addition to these findings, a large shallow basin was present at a slightly lower stratigraphic position. This too proved unusual and unanticipated. Excavation of this feature revealed a thin discontinuous sheet of charred wood lying across the bottom and extending up the sides of the feature. Upon excavation of the overlying fill, it eventually became obvious that this mat of carbon was more than likely a lining in the pit. A large portion of this sheet was taken out in block and will be examined further in the lab. The remainder was recovered for flotation, wood identification, and C-14 dating. Contents of the pit included two typical Lamoka projectile points of chert and a less distinctive stemmed point of argillite or siltstone. (Earlier excavations at 36UN82, about a mile downstream were undertaken by Louis Berger and Associates (Wall 2000). Here, in sealed context, was a pure Lamoka component that contained various hearths, including pit features.)

The removal of a portion of the 36UN10 pit lining en masse allowed us to experiment with a relatively new chemical used in conservation of archaeological specimens. Cyclododecan, a solid until heated, is applied in liquid form to the object. It hardens rapidly and, under ideal conditions, the artifact becomes rigid enough to be removed without being damaged. After the chemically treated artifact sits for several weeks, the chemical substance begins to "sublimate": that is, it gradually breaks down. Eventually, the material has disappeared entirely, leaving the artifact in the same condition as it was before the treatment. Possibly, the object is a strip of charred wood cambium used to insulate the pit.

A plan was devised to ensure that the archaeological resources of sites 36UN10 and 36UN36 would not be adversely affected. To this end, IDC's surveyors mapped the site boundaries of both 36UN10 and 36UN36 in order to leave the sites in place and to avoid them during wetlands creation.

Wetlands will be created in areas of floodchute and old terrace that was archaeologically surveyed adjacent to the site area. Eventually, however, at least one outfall pipe will have to be run from the 36UN10 wetlands across the levee in order to drain off the filtered storm water. The current proposal runs this pipe along the alignment of a series of filled backhoe test trenches used to assess stratigraphy from the levee to the back of the floodplain on the opposite (south) end of the site from the trench where the artifact and feature concentration was found.

36LA1100

Lancaster County

In the summer of 2002, CAP began investigations at the Stabler Tract, the location of a proposed residential development in Lancaster County near Millersville. The project, as currently planned, will impact the Quaker Hills Quarry Site (36LA1100), a Shenks Ferry village which may date to the mid 1400's, although it may be younger. Secluded in an upland saddle above Conestoga Creek, the village is contained within an area of approximately four acres. An arrangement was made with the owners/developers to extend the time limits past those imposed by the State History Code.

First, the site was re-plowed and disked, and over 1,500 three-meter squares were surface-collected. Artifacts included "Funk Phase"-Shenks Ferry sherds, small triangular projectile points,

and quartz cores and debitage. Following the collection, plowed topsoil was mechanically stripped in narrow trenches, and the village outlines began to emerge. The plan of what has been revealed to date shows that the site is surrounded by a circular or oval palisade, with features and signs of domestic structures lying on what appear to be orderly placements inside of the palisade's walls.

Excavations on the site were re-opened in September of 2003. They continued until inclement weather began in earnest during November. During this time, additional hearths, pits, and post molds were defined, and additional sections of the palisade were revealed. This palisade appears to have been plowed away in more eroded areas, but has a very strong presence on the west side of the site where, in some places, the post mold pattern is double-rowed. At this point, we have not yet been able to determine whether or not this discontinuous double post mold line is a result of rebuilding, repair, or the like.

In addition to several more strip trenches that were cleared this season, a moderate-sized block excavation was opened on the western side of the site where preservation of features appeared greatest. Here, the entire area was carefully cleaned and mapped. Several features were either tested or excavated completely.

Feature 3, a large refuse-filled pit measuring 2.5 meters by 1.5 meters in plan and 40 centimeters in depth, was the most productive of the excavated features. This pit was located just outside of the western edge of the palisade, and may have begun as a borrow pit or some other facility before it became a receptacle for hearth sweepings and other village refuse. Since the pit was strewn with pottery and fragile organic remains, excavation proceeded slowly, using bamboo tools as well as trowels and brushes.

Contents included lithic debitage; triangular arrow points; deer, bird, and other animal bone refuse; shellfish remains; and potsherds representing a minimum of nine Funk Incised vessels. Of special note, though not unexpected, were the charred remains of both corn and beans. In addition, a good sample of charcoal was obtained for radiocarbon dating and wood identification. The vast majority of the excavated soil was floated rather than dry-screened. This method allowed for the recovery of small pottery fragments, chunks of prepared pottery temper, microdebitage, shell beads, floral remains, and delicate faunal remains such as fish bones.

Organic preservation is very good in pits, and even in midden-filled natural disturbances on the site. In addition to abundant food refuse bone, some of which shows clear butchering marks, there are objects such as antler tine projectile points and pieces of other implements made from animal bone. At present, however, we are still processing and examining our inventory of recovered materials, and our accounting of the types and quantities of the different artifact classes is preliminary.

The harsh wet weather that characterized much of late 2003 was a major hindrance to progress on the site, and conditions eventually necessitated shutting down the site for the winter and weatherproofing it. As soon as the weather stabilizes, we will return to this site, remove the protective covering, and resume excavations using SPA volunteers, limited numbers of office staff, and two interns (during the summer months).

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Submitted by: Doug McLearen

Bureau for Historic Preservation, PHMC

REMEMBERING OUR COLLEAGUES

Ronald A. Thomas

Ronald A. Thomas, age 63 of Wilmington, DE died peacefully at Christiana Hospital on January 19, 2004.

Ron was the founder and president of MAAR Associates, Inc., Newark, DE (an archaeological consulting firm) for over 25 years. Before starting his own business in 1976, he was with the Delaware Division of Historical and Cultural Affairs. He served as the first State Archaeologist from 1965-1976. While in this position, he established a state wide research program, developed an archaeological compliance process for the State of Delaware, and designed and operated the Island Field Archaeological Museum and Research Center, which was built around a Native American burial ground.

Previously, he was an instructor at the University of Pittsburgh and was an assistant adjunct professor at the University of Delaware, Department of Anthropology.

Ron was very active in the Archaeological Society of Delaware and served as its newsletter editor for many years. As a member of the Delaware State Review Board for the National Register of Historic Places and the Historic Preservation Grants Selection Committee for the State of Delaware until 1994, he participated directly in national and state preservation efforts. His efforts included not only archaeological resources but also standing historic structures and historical districts. As a member of the Grants Selection Committee, he dealt with grant proposals for

funding by the National Historic Preservation Program by numerous governmental and private survey and development organizations.

He was a charter member of the Middle Atlantic Archaeological Conference, past president of the Delaware Academy of Science, and was currently chair of the Unmarked Human Burials Committee for the State of Delaware. Ron was widely published on the prehistoric and historic archaeology of the Middle Atlantic area and acquired a national reputation for his contributions in the field.

He received his undergraduate degree from Penn State University and his Master's degree from the University of Arkansas. He also took graduate courses at the University of Pittsburgh and Temple University.

He was an avid supporter of public involvement in archaeology. Throughout his career, he sought to foster understanding and cooperation between the professional community and the many groups interested in preservation and archaeology.

In addition to his family, he leaves behind hundreds of colleagues and coworkers whose lives he touched during his 40-year career.

He was preceded in death by his wife, Mary-Joan Thomas who died in 1997. He is survived by his daughter, Jessica L. Billy and her husband, Stephan; and his son, Christopher B. Thomas and his wife, Beth. He has 6 grandchildren: Joshua, Dylan, and Christina Billy; and Teagan, Megan, and Kira Thomas. He is also survived by his parents, Abraham G. and Mary S. Thomas of Wilmington, DE, formerly of Uniontown, PA; and his brothers, Phillip Thomas and his wife, Susan of Uniontown, PA and William Thomas and his wife, Debbie of Herndon, VA; as well as many uncles; aunts; cousins; nieces; and nephews. He also leaves behind his special friend, Eileen Best of Melbourne, FL.

In lieu of flowers, the family suggests donations to the Archaeological Society of Delaware, PO Box 12483, Wilmington, DE 19850; or to the American Cancer Society, 92 Read's Way, Ste. 205, New Castle, DE 19720.

Modified from www.delawareonline.com [published 01/21/2004].

*Submitted by: Mark McConaughy
Bureau for Historic Preservation, PHMC*

Ann Mabe Brown

Phil Neusius reminds us that although Ann Mabe Brown was not a PAC member, she was known and admired by many for her active participation in the SSHE annual Undergraduate Anthropology Conference and her hard work in developing the Mansfield Anthropology program.

Ann Mabe Brown, age 55, died Friday, February 20, 2004 at Soldiers and Sailors Memorial Hospital in Wellsboro, PA. Ann was the wife of Charles Anderton "Andy" Brown. She was born on February 28, 1948 in Williamson, WV, the daughter of William and Lillian (Wimmer) Mabe.

Ann received her BSW from the Virginia Commonwealth University (VCU) in Richmond, VA; an MS in Sociology at VCU; and MA from the University of VA. In 1979, she received her Ph.D. from the University of VA. She was employed by Mansfield University for 24 years as a Professor of Anthropology. Ann was a member of the American Anthropological Association and the Society for American Archaeology.

Excerpted from "Reflections of Life" bulletin distributed on February 24, 2004 by the Jacquelyn A. Buckheit Funeral Chapel in Mansfield PA.

*Submitted by: Phil Neusius
Indiana University of Pennsylvania*

PAC COMPUTER USER'S COLUMN

There is no article in this issue.

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ANNOUNCEMENTS

Byways to the Past Conference May 19-20

The Fifth Annual Byways to the Past Conference is scheduled for May 19 and 20 at Indiana University of Pennsylvania. The conference is sponsored by PENNDOT, the Bureau for Historic Preservation, the Federal Highway Administration, Preservation Pennsylvania, the Pennsylvania Turnpike Commission, and IUP Archaeological Services. This conference offers the Commonwealth's most comprehensive opportunity to learn about the goals, achievements, and challenges of building and maintaining the transportation network of the future while retaining the fabric of the past.

This year, there will be a pre-conference workshop on Public Outreach and Education. Conference sessions start on Wednesday morning with a plenary session "Transportation and the Future of the Past." This session will focus on how the transportation community's role, as stewards of the Commonwealth's past, will be profoundly affected by recent events: the pending reauthorization of the Federal Transportation Bill, the appointment of a new Executive Director at the Pennsylvania Historical and Museum Commission, and continuing federal and state efforts to streamline the Section 106 process.

This important session will feature the senior resource managers at PENNDOT, FHWA Pennsylvania Division, PHMC, and the Advisory Council on Historic Preservation in a moderated discussion of the future of historic preservation and transportation in Pennsylvania. Participants will include Barbara Franco, Executive Director PHMC and State Historic Preservation Officer; Susan McDonald, Environmental Quality Assurance Division, PENNDOT Bureau of Design; Karyn Vandervoort, Environmental Team Leader, FHWA Pennsylvania Division; and Dr. Laura

Henley Dean, Office of SHPO Services, The Advisory Council on Historic Preservation. Susan Shearer, Executive Director of Preservation Pennsylvania, will moderate the session.

Other sessions will include: Revising the Pennsylvania State Guidelines for Archaeological Investigations: An Opportunity for Questions, Suggestions and Comments, moderated by Dr. Kurt Carr and the Staff of the Bureau for Historic Preservation; Transportation Enhancements and Historic Preservation in Pennsylvania; Field and Lab: Best Practices and New Ideas in Archaeological Field and Analytical Methods; and Crossing the Bridge: The Preservation and Management of Pennsylvania's Historic Bridges. During the Thursday luncheon session, FHWA will present the Third Annual Preservation Awards.

Registration information is available on the conference website at <http://www.pennbyways.org/> or you can contact Joe Baker at the PENNDOT Central Office in Harrisburg josebaker@state.pa.us.

*Submitted by: Beverly Chiarulli
Indiana University of Pennsylvania*

MEETING AND EVENTS CALENDAR

** Please send notices of upcoming events to the editor.

SAA NOTE

Pennsylvania is underrepresented in the SAA Press Information Referral Network. Please consider volunteering. For more information, please read the SAA Archaeological Record, March 2004 issue.

SPA NOTE

PAC encourages its members to join the Society for Pennsylvania Archaeology. It is important to foster communication between professional and avocational archaeologists. Moreover, membership in SPA supports Pennsylvania Archaeologist in which PAC members often publish. SPA annual dues are \$20.00 for individuals, \$18 for students, and \$25.00 for families, which should be sent to: Society for Pennsylvania Archaeology, P.O. Box 10287, Pittsburgh, PA 15232-0287

HOUSEKEEPING

Please make sure PAC has your current e-mail address (or FAX number) so that we may distribute urgent information as quickly as possible. Send updates to mmcconough@state.pa.us.

EDITOR'S NOTE

I am grateful to all contributors for their efforts to provide thoughtful and timely submissions to the newsletter. I am especially grateful to Mark McConaughy and Philip Perazio for their immediate assistance whenever I needed it. To all of you, please accept my heartfelt thank you!

Materials for the *PAC Newsletter* should be sent to:

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Please send contributions by e-mail attachment or on disk (Word preferred).

A heartfelt thank you to Philip Perazio for your many years as editor of this newsletter. Your efforts on PAC's behalf are appreciated more than words can adequately convey!
