PAC Newsletter

PENNSYLVANIA ARCHAEOLOGICAL COUNCIL

PRESIDENT'S MESSAGE

Since the last column I wrote, the PAC board and I have tried to find ways to address our concerns about Act 70 and the destruction of archaeological sites. Act 70 is the amendment to the state History Code, which gave the PHMC responsibility for investigating "known" archaeological sites in state permitted areas. In September, Dan Roberts, Pat Miller, Sarah Neusius, Ira Beckerman, and I met with Janet Klein, Chairman of the PHMC Commissioners and Dr. Brent Glass, Executive Director of the PHMC to express our concerns. Mrs. Klein was especially receptive and invited us to attend the next and all Commissioners meetings. Dr. Glass indicated he had not completed his review of Joe Baker's annual report, but that he was making some changes in the program, including an increase in the budget and a change in the management of the program to produce more reports on the investigations. I view both of these as positive steps, although I don't think they solve the major drawbacks of the program.

In October, I attended the PHMC Commissioners meeting in Pittsburgh, where the report was briefly discussed. I was given an opportunity to address the Commissioners and made three points:

1. Since there was some concern in the Commissioners discussion that the general public was not supportive of the idea of spending public funds to protect archaeological sites, I told them about the national poll that the SAA and NPS on public attitudes on archaeology. The poll results show that the American public is interested in archaeological sites and feels that they should be preserved or protected even if public funds must be spent for this. (I encourage all of you to look at the results of the poll on the SAA website at **http://www.saa.org**).

2. My second point was that, based on the Commonwealth Archaeological Program report, we now know that significant archaeological sites are being destroyed.

3. Finally, I pointed out that the legislature gave the PHMC the responsibility to investigate these sites. The PHMC has said that they can only investigate a limited number of sites with the funds that are available. This may be reality, but I noted that other agencies haven't been successful with this argument.

The Commissioners have appointed a committee, chaired by Jim Adovasio to look at the program. This committee will report at the next meeting in late January. I would urge you to attend the meeting in Harrisburg.

On another note, in the past six months, three individuals who had an enormous influence on archaeological investigations in the state have left their positions. Wayne Kober, Director of the

Bureau of Environmental Quality of the Pennsylvania Department of Transportation retired in July, Dan Johnson of the Federal Highway Administration in Harrisburg moved to the Maryland State Office, and Brenda Barrett Director of the Bureau for Historic Preservation of the PHMC resigned under pressure. For at least the past 15 years, these three supported the preservation and protection of archaeological resources in their agencies. I will miss them all, even through I am sure that their agencies will continue to support the same policies. Brenda is a PAC member and I wish her the best in her new position with the Heritage Parks Program in the Department of the Interior.

Beverly ChiarulIi
Indiana University of Pennsylvania

COOPERATION COLUMN

There were no submissions for this edition.

CURRENT RESEARCH

In an effort to shine some light onto the "gray" literature, the editor requests submissions for the Current Research column. These should be short descriptions of on-going or recently completed work. Reference to the full report should be included, if available. Please forward such items to the editor (see below).

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Archaeological Activities at the US Army Corps of Engineers, Pittsburgh District

The Army Corps of Engineers, Pittsburgh District, is responsible for inland river navigation, as well as, flood control and other civil works water-related resources in western Pennsylvania and portions of surrounding states. Due to its position on the steeper headwaters of the upper Ohio River, this district maintains more navigation lock and dam facilities than any other Corps district nationwide.

The District's current Lower Monongahela River (a.k.a. Lower Mon) Project is a $705 million modernization project for Locks and Dams 2, 3 and 4, the oldest on the river. Due to the planned elimination of Locks and Dam 3, the Lower Mon Project will have impacts beyond the immediate facility construction sites. Pool changes to accommodate the removal of Dam 3 (a combination of lowering Pool 3 and raising Pool 2) necessitate shoreside facility relocations, one bridge relocation and dredging in Pool 3 to maintain navigable depths.

The District complied with federal historic preservation statutes by executing a Programmatic Agreement with the Advisory Council on Historic Preservation and the Pennsylvania State Historic Preservation Officer in 1992 prior to congressional authorization of the Lower Mon Project. Since 1992, the District has been executing cultural resource studies on components of the project tied to the project's construction schedule. The Programmatic Agreement required District to nominate the Monongahela River locks and dams to the National Register of Historic Places. This is an overview of some cultural resource studies conducted for the US Army Corps of Engineers, Pittsburgh District to help with Section 106 compliance for the Lower Mon Project.

- The Monongahela River Navigation System (locks, dams, etc.) may be eligible for listing on the National Register under Criterion A. Research on four themes were undertaken to place the Mon River Navigation System in its historic context including: the western movement; boat building; community development; and the coal, coke, iron, and steel industries of the Monongahela River Valley. Structural inventory forms were recorded for all the Mon River Locks and Dams in PA and WV. In addition, as a mitigation feature, the Monongahela River Navigation System is being documented with Historic American Engineering Record archival quality, large-format photographs, written text, and architectural line drawings including a system overview and details of Locks and Dams 2, 3, 4, and 7.
- The District completed a detailed, comprehensive technical study of the Monongahela River locks and dam engineering technology as part of our effort to evaluate the engineering significance of the Mon River Navigation System for the National Register under Criterion C.
- A thematic survey of district Civil Works residences built for federal employees working as lock tenders at navigation facilities or dam tenders at flood control facilities was completed recently. In June 2000, this study was awarded the Vernacular Architecture Forum's Paul E. Buchanan award for excellence in field studies.
- Underwater archaeology studies were undertaken for proposed dredging and filling locations within Mon River Pools 2 and 3. The Phase I remote sensing (side scan sonar and magnetometer) study identified potentially sensitive underwater targets. The Phase II study found three 19th century wooden barges or vessels for hauling coal, a 19th century anchor, and misc. debris. Our dredging and disposal operations in the pool will not affect the sunken vessels.
- A Phase IA literature search for the shorelines along Lower Mon Pools 2 and 3 and a landform assessment study of terraces along Pools 2 and 3 was conducted since future pool changes may affect shoreline resources. The assessment identifies areas that may have potential for intact buried prehistoric or historic archaeological sites. Phase I field investigations are slated for 2001 and 2002.

Archaeological Site 36AL480 Discovered at Leetsdale Casting Facility Location

The District is employing an innovative "in-the-wet" construction technique for building the new Braddock Dam to replace existing Dam 2. The base of the dam is being constructed in two large segments at a remote fabrication site at Leetsdale Industrial Park along the Ohio River. The fabrication site occupies about 30 acres of land along the Ohio River about 15 miles down river from Pittsburgh and 26 miles from the new dam site at Braddock.

A Phase I archaeological investigation was undertaken to locate and identify cultural resources that may be present in the Leetsdale fabrication area. Site 36AL480 was identified during this study. Additional field investigations at the site revealed numerous features and cultural strata. Cultural occupations ranging from the Middle Archaic period (ca. 6,000 B.C.) through the Historic period were identified within the upper 4 m of soils. The site is approximately 12 acres in size. The Pennsylvania Bureau for Historic Preservation and the District have concurred that site 36AL480 is eligible for the National Register under Criterion D.

The historic component of site 36AL480 is a brickworks, dating from the mid-19th century to the early 20th century, owned by the Harmonist Society. Phase II studies identified intact subsurface structural remains of five kiln foundations and several other structures. The core of the industrial

site possesses good integrity. Data recovery work has begun on the brickworks component. Fieldwork on the historic component will be completed in the spring of 2001. Data recovery excavations on the prehistoric components of the site are currently scheduled for 2001-2002.

More specific information regarding cultural resources studies for the Lower Mon project can be found in the District newsletter, The Monongahela Packet, Historical Bulletin for the Lower Mon Project. For a complete copy of this newsletter, web cam views of the dam construction site, and the latest on the archaeological investigations, visit our web site at **http://www.lrp.usace.army.mil/** Questions on Mon River cultural resources or the compliance process may be directed to Mr. Conrad Weiser at 412-395-7220. Questions on the Lower Mon Project may be directed to Mr. Hank Edwardo, Project Manager, at 412-395-7374. General questions on the Pittsburgh District mission and activities may be directed to Mr. Richard Dowling, Public Affairs Office, at 412-395-7501.

Submitted by Lori Frye and Conrad Weiser

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Coverts Bridge Project

Between 1998 and 2000, GAI Consultants, Inc. (GAI) conducted Phase I-III excavations at the Coverts Bridge Site (36Lr228), Lawrence County, Pennsylvania for Taylor Engineering and the Pennsylvania Department of Transportation. Coverts Bridge is a late-Late Woodland/Protohistoric camp located on the floodplain of the Mahoning River in Mahoning Township, west of New Castle. A second prehistoric site, the Coverts Crossing Site, was recently excavated by GAI on the opposite side of the Mahoning River for the same project. Results of these excavations were reported in the last issue of the PAC newsletter and in a recently submitted Phase I-III technical report.

The Coverts Bridge Site was first identified in 1998 during GAI's Phase I survey of the impact area of the Coverts Crossing Bridge Replacement Project. Phase I surface collection and shovel testing within the APE recovered 13 lithic debitage from seven shovel test pits. Subsequent Phase II excavations uncovered three features and over 200 prehistoric artifacts, including small grit-tempered ceramic fragments. Phase II features included two storage pits and a roasting pit, the latter of which yielded a burned corn cob and a calibrated age of AD 1480. Phase III data recovery yielded an additional 500 artifacts from 30 1x1-m (3x3-foot) test units, as well as one prehistoric feature which possessed a calibrated age of AD 1660.

Phase I-III excavations revealed artifacts and features from a single late Holocene buried soil. Artifacts recovered include eight pitted cobbles, 25 untyped prehistoric ceramic fragments and two triangle points. Immunological analysis indicates that the pitted cobbles were used to process black walnut and possibly rabbit, and one of the triangle points was used to hunt deer. Botanical remains from features indicated the processing of black walnut and assorted wild berries.

Coverts Bridge lithic artifacts were produced almost exclusively of locally-collected cherts, including Mahoning (Sky Hill), Onondaga, and Gull River (Yellow Onondaga). A majority of Mahoning chert, and all Onondaga and Gull River chert, was collected as secondary cobbles, while some Mahoning chert was also collected from primary sources a few kilometers north of the site. Non-local lithic raw materials, including Ten Mile, Uniontown, Flint Ridge, and Upper Mercer

cherts, comprise approximately 10 percent of lithic artifacts, suggestive of small-scale down-the-line trading or travel to the south and west. As with the Coverts Crossing Site across the river, non-local lithic data suggest that Coverts Bridge was used as a seasonal camp by Late Woodland individuals with links to the Monongahela culture to the south, rather than to Proto-Iroquois cultures to the north.

In summary, Late Woodland/Protohistoric forager-farmers used Coverts Bridge as a short-term campsite on at least two occasions in the late summer and fall between AD 1480 and AD 1660. These data complement those collected at the Coverts Crossing Site across the river which revealed at least three short-term seasonal encampments between AD 1050 and AD 1200. Although no postholes or other typical village traits were identified during excavations at either site, the two storage features at Coverts Bridge indicate the preservation of foodstuffs. These data suggest that both the Coverts Bridge and Coverts Crossing Sites were short-term seasonal camps used during the late Holocene. Even more than the Coverts Crossing Site, the Coverts Bridge Site was a special-purpose camp, in which nuts, berries, and small mammals were processed and perhaps stored for future use by individuals living in the Mahoning River valley of Lawrence County, northwestern Pennsylvania.

Public outreach was an important component of the project and included site tours for school groups, as well distribution of a trifold brochure and two Byways to the Past newsletters to schools, historical societies, and libraries in Lawrence County. In addition, research results were presented to various schools and organizations, including Mohawk Regional High School (North Beaver Township, Lawrence County), George Washington Elementary School (New Castle), the Lawrence County Historical Society (New Castle), and the Society for Pennsylvania Archaeology (Butler Chapter).

Please contact Douglas H. MacDonald, Ph.D., Co-Principal Investigator of the Coverts Crossing Project (**d.macdonald@gaiconsultants.com**, 412-856-9220x1375), if you would like more information regarding these projects and/or if you would like to participate in a symposium on the Late Woodland period in the Upper Ohio River region at the 2001 ESAF or 2002 SAA meetings.

Douglas H. MacDonald

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River Avenue Redevelopment Project

A recent Phase III data recovery project in Pittsburgh, conducted in advance of the Heinz Plant expansion, has uncovered well-preserved archaeological resources to a late nineteenth-century tannery. The work was conducted for the Urban Redevelopment Authority of Pittsburgh (URA) by GAI Consultants, Inc. under the direction of Ben Resnick (Principal Investigator) and Kim Parson (Field Director). During the late nineteenth century, leather and wool production comprised the most important industries in Duquesne Borough and Allegheny City (today Pittsburgh's Northside). Tannery remains at the site comprise one of only a few archaeological examples of this industry identified in Pennsylvania despite the fact that more tanneries were located in the state from circa 1880 to 1920 than anywhere in the nation. Based on information collected to date, it appears that the site represents the sole example of a small, late nineteenth-century urban tannery in Pennsylvania and possibly the region

Archaeological investigations consisting of both mechanical and hand excavation identified significant historic archaeological resources associated with the operation and layout of the Adam Wiese & Company Tannery (ca. 1873-1890). These include the discovery of important construction details of the leaches and lime and tanning vats, information that is generally unavailable from the historical record. Investigation of the leaches, for example, provides important data on the architecture and physical organization of the Wiese Tannery Leach House where the production of tannin took place (leaching water through ground bark).

In 1880 Adam Wiese employed 5 men working 10-hours days at his Allegheny City tannery at a rate of $2.25 per day. During this period, Wiese reported the production of 7,800 skins with the value of products at $10,500. Skins, which may have included sheep pelts, were used to manufacture various products, including shoe uppers and gloves. Based on a review of Adam Wiese's 1887 probate inventory, we also know that harness leather was produced at the tannery.

In addition to tannery remains, archaeological features and deposits relating to mid-nineteenth to early twentieth-century tenements were uncovered. Discovery of a block of row house foundations, cellars, privies, and historic yard deposits are likely associated with industrial workers. Archaeological and cartographic evidence suggests that the tenement buildings were constructed in two distinct phases. It appears that, for a time, these one- to two-story tenements were affiliated with the extensive A. & J. Groetzinger's Labelle Tannery located adjacent and south of the Wiese Tannery. Initial laboratory analysis suggests that one of the above-noted privies contains artifacts (ceramics, patent medicine bottles, cut bone, seeds, coins) dating to circa 1850-1880 prior to the construction of the tenement building and Labelle Tannery, at a time when the parcel was occupied by an earlier planing mill.

As part of GAI's continuing public education and outreach efforts, a site tour was conducted and public information flyer was produced for the project. This work also involves public presentations of project results. The draft technical report is in preparation.

Benjamin Resnick

PUBLIC EDUCATION

(See Committee Reports)

COMMITTEE REPORTS

Archaeology Month Excavations on City Island 2000 PAC members played an invaluable role in the 2001 City Island Archaeology Project. The 2001 program, the sixth cosponsored by the PHMC and the City of Harrisburg, saw over 1,800 middle school students, and thousands of walk-on visitors attend the celebration. This year's visitors viewed the exposure and partial excavation of a large 19th century feature with intact Native American features sealed below it. The project's field lab, again staffed by the Londonderry School of Dauphin County, employed sophisticated imaging technology in the identification of artifacts from the site. Indeed, the lab was even visited by Dr. Roger Easton of the Rochester Institute of Technology, one of the foremost authorities on imaging technology and historic documents and objects in the United States! The popular experimental

archaeology program boasted a Knapp-in featuring five accomplished flint knappers all working on a common experiment with South Mountain Rhyolite; the construction of a Clemson Island phase "proto-longhouse", keyhole structure, and bark-lined pit; a Native American garden; and a variety of experiments. The experiments included the manufacture and firing of native ceramics, a replicative use-wear experiment in hide scraping, and some fire-cracked rock experiments as well. The 2000 Archaeology Month Essay Contest winners were honored in a ceremony on the island, and First Lady Michele Ridge made a surprise appearance on-site for the final day. PAC members assisted in the excavation, in talking with visiting students and adults, in the lab, and in the experiments, and made an enormous contribution to the project. Many thanks to the individual PAC members, companies, and organizations that volunteered their time, efforts, and resources to the project. This years participants included the Allegheny Heritage Development Corporation, Archaeological and Historical Consultants, the Army Corps of Engineers: Pittsburgh District, GAI Consultants, Heberling Associates, Kittatinny Archaeological Research, KCI Technologies, and Indiana University of Pennsylvania. We look forward to PAC's continued involvement next year!

Joseph Baker and Gary Coppock

FORUM

[Members are invited to submit comments on issues of current concern. With luck, varying points of view will be presented.]

NO SUBMISSIONS FOR THIS ISSUE

PAC COMPUTER USER'S COLUMN

Personal Data Assistants or PDAs are going to be the next big technological development (if they are not already). PDAs got their start when Palm, Inc. introduced the Palm Pilot and the Palm Operating System (OS). The Palm Pilot is a handheld computer the size of a calculator designed to keep appointment records, contact telephone numbers, and travel account information. It uses a type of handwriting recognition system (you have to make the characters in a specified Palm Pilot notation protocol) to take short notes, up to 4K.

Palm Pilots and PDAs first made inroads with many corporate executives who found them to be useful in organizing daily tasks, contacts, and business functions. However, early Palm PDAs were limited the fact that for most people, keeping a paper calendar organizing book did just about as much for them as the PDA, and at a much cheaper price.

Early Palm PDA models employed a black-and-white touch screen for data entry. One limitation was that the screens were hard to see in bright sunlight. More recent models (notably the Palm V series) have improved the black-and-white screen to eliminate this problem. Color touch screen models were introduced by Palm, but these are still difficult to view in bright sunlight. Early Palm PDAs also had limited memory for storing data. More recent Palm models (usually those having an "x" for extended memory as part of their model code) have effectively addressed the memory problem. User's download the Palm PDA's information to their desktop computer by means of software and a cable connecting the Palm to the desktop's RS232C serial port. Palm software synchronizes files on the Palm PDA with various desktop programs (i.e., it matches files on the

two systems and automatically updates files to the most recent version to insure data are identical). Palm software for the desktop is included with the PDA when it is purchased. Synchronization insures that data and appointments can then be viewed on both the desktop and PDA when needed.

Palm's success at introducing PDAs was soon followed by the inevitable copycats. Clones of Palms were developed by several different companies, the most successful being Handspring, Inc. Also, the Palm OS is an open one. Many software developers have written programs for use with the Palm OS, greatly expanding PDA usefulness. There now are spreadsheet, database, accounting (including Palm versions of most desktop personal accounting software) and many other programs that can be purchased from third parties for use on Palm or Palm clone PDAs. Unfortunately, PDA software can not handle all complex spreadsheet and database formats employed on desktops and mainframes due to memory limitations. Still, simple spreadsheets and databases can be designed and used on the PDAs. The data can be transferred to desktop systems where they are converted for use with specific desktop PC software (always check to be certain the PDA software is compatible with a desktop program you use since data exchange is determined by the PDA software writer).

Once Palm PDAs were established as a useful tool for executives, it wasn't long until Microsoft cast a lustful eye at the emerging PDA market. Microsoft developed Windows CE for use on PDAs, but the first few versions did not make much of an impact on the PDA market. Palm and its clones still hold, by a very large margin, the majority stake in the PDA market. Nevertheless, Microsoft keeps plugging away.

I see the competition between the Palm- and Microsoft-based PDAs as paralleling competition that occurred during the initial years of desktop computers. Apple introduced the first really useful personal computer (PC). IBM tried to come up with its own PC running a Microsoft OS and failed dismally at first (remember the IBM jr.?). However, Microsoft and IBM (and their clones) continued to develop their OS and hardware eventually supplanting Apple as the preferred desktop system. I would not be surprised to see a similar fate befall Palm PDAs and the Palm OS with Microsoft eventually winning the battle. The primary reason for this is Palm OS and software has to be converted to Microsoft desktop software. Some of this is automatic, depending on the software, others require a third party translating program. Since the majority of desktop computer users currently use Microsoft desktop software, any PDA system that easily transfers data between the two will become the preferred one.

Palm, Inc., seems to be happy to continue with its own OS and is not worried about the Microsoft initiative. Probably the early users of PDAs, who own Palm systems, will remain loyal to them, just as Apple computer users did with the early desktop systems. Palm and Palm clone users are the majority of PDA owners, currently accounting for over 90% of PDA purchases. However, it isn't going to be the current users who will determine the ultimate outcome of the race. New users who enter the PDA market without any favored position concerning the type of OS used will be the ones who decide the outcome.

It was in this position that I found myself earlier this year. I did not have a PDA and had no opinion concerning the viability of any particular PDA OS. Frankly, I had not thought much about them or the need for using a PDA. However, the Hawk Migration Association of North American (HMANA, the folks that count migrating hawks at hawk watches), decided that PDAs would be useful as a method of record keeping at the sites. I happen to be a HMANA member and run a

hawk watch up at Brady's Bend, Pennsylvania during fall weekends. HMANA officers believed PDAs could be used to record daily counts at the hawk watches in real time. The data could then be downloaded to desktops for modem transmission to permanent record depositories (Cornell Laboratory of Ornithology and Hawk Mountain Nature Preserve). PDAs would eliminate the need to fill out paper field forms, copy them, and send them via snail mail to the record depositories. Most HMANA board members (I am not on the board) have various models of Palm Pilots and decided on an initiative to develop a Palm OS-based system for recording migration data. Unfortunately, this would necessitate someone creating or writing new software to do this, since existing Palm OS software was not capable of doing the task. The HMANA board hoped to get Palm, Inc. or a granting agency to fund development of the software. It was at this point that I learned about the HMANA initiative. It sounded interesting to me, and it spurred me to think about how a PDA might prove useful for recording information at archaeological excavations and other projects.

I have never been one to look for special software to do what I think is a fairly uncomplicated task (and I wrote a lot of my own statistical software in BASIC back in the early days of PCs, and did some FORTRAN mainframe programming during grad school at the University of Pittsburgh). I don't like small-scale proprietary software since it is very likely the person(s) who developed the software will eventually move on to other things leaving it unsupported. Also, OS systems evolve and it is likely that the proprietary software will eventually not work on upgraded systems. Basically, I feel it is unwise to invent new software for systems when there are existing supported software alternatives. I decided to investigate alternatives to the HMANA initiative after talking it over with some of the people involved.

The HMANA initiative suggested using the Palm Vx as the system of choice. The Palm Vx uses a bright black-and-white touch screen that is easily seen in sunlight. I looked at the system and was rather underwhelmed by its capabilities. It came with the basic Palm OS software (i.e., date book [calendar], address book, to do list, memo pad [character recognition entry] for taking short notes, calculator, expense software, and Email reader [downloaded from your desktop PC and it recognizes most common formats]). None of these things were really all that useful to me and certainly not at the $399 list price for a Palm Vx. To make the Palm Vx useful, third party software would have to be purchased, such as a spreadsheet or database, etc. This would drive price of a useable system to over $500 at the very least. Also, depending on the software purchased, there was no assurance the data would easily convert to the Microsoft desktop software I use.

I started looking around over the summer at various PDA systems. I heard that Microsoft was coming out with a new version of its Windows CE OS and that Hewlett-Packard, Casio, and Compaq were developing systems based on Windows CE 3.0. Windows CE 3.0 systems include what are called "pocket" (since Windows CE-based systems are often called Pocket PCs to distinguish them from the Palms) versions of Microsoft Word, Excel, Money, and Outlook. It should be noted that Windows CE versions 1 and 2 DO NOT include pocket versions of Word, Excel, etc. I decided to wait and check these new systems before purchasing a PDA since I use Microsoft Office software (including Word, Excel and Outlook) at work and home. The ability to easily interchange PDA and desktop files appealed to me. I also believed a usable spreadsheet employing a simple form could accomplish the recording tasks needed at hawk watch sites.

Hewlett-Packard's Jornada 540 series and Casio's Cassiopeia E-125 were the first out on the market with Windows CE 3.0. Both of these systems have color touch screens for data entry. Both

systems were priced at $549 and had Pocket Word, Excel, Money, Outlook and other built in software. The Pocket PCs would easily exchange and read files, without conversion, with desktop versions of the same programs. However, after looking at the systems, the color screens were hard to see in bright sunlight, making them unusable outdoors on bright days (such as occur on hawk watches or archaeological excavations).

Finally, the $499 Compaq iPaq 3630/3650 (the two numbers represent the same computer, the different model numbers are employed so Compaq can track sales through non-Compaq outlets, iPaq 3630, and direct Compaq sales, iPaq 3650) arrived in late July, 2000. It had all the MS software found on the other two Pocket PCs, but had a good color touch screen easily viewable in bright sunlight. In addition, it has a digital voice recorder built into it, can play MP3 recordings, and has a Pocket PC book reader. The spreadsheet, word processing software with both keyboard stylus or character recognition entry, voice recorder, and viewable color screen sold me. I purchased an iPaq 3630 from a local Staples outlet in August 2000.

I initially had some problems with the iPaq 3630 when I tried to install it as the picture setup instructions indicated. This was largely due to erroneous instructions issued with the Compaq iPaq. If you do purchase this system, DO NOT hook it up directly to your PC and charge the battery BEFORE installing the software as it shows in the installation instructions. Install the software on your PC first, or you will have to delete it and go through some nasty contortions to reinstall everything before synchronization will work. However, once that problem was straightened out, the iPaq synchronizes without problems with my desktop PC.

I am currently using my iPaq 3630 to record hawk watch data on a Pocket Excel spreadsheet at Brady's Bend. The iPaq Pocket Excel generated file is read directly by my Office 2000 version of Excel and I am pleased with the results.

The iPaq 3630/3650 comes with Microsoft Outlook for scheduling appointments. I am currently using Outlook on my iPaq 3630 to schedule field visits to proposed strip mine sites and other business meetings, and to record contact information (names, telephone numbers, addresses, etc.). I also download the information to my home desktop version of Microsoft Outlook 2000 where I can check on meetings that will occur the next day, etc. It will be even more useful to me when the State of Pennsylvania finishes converting everyone in the state system to Windows NT and Microsoft Office 2000, which includes Microsoft Outlook for setting up appointments. For example, Outlook can be used to check all Bureau for Historic Preservation employee appointment calendars and then set up joint meetings and block off the time when all the people are available. [Thanks Big Brother! - editorial comment, PAP]

PDAs would make useful field recorders for archaeological projects. PDAs could be used to record various types of archaeological data, such as feature and excavation unit information. They could also be used to assign lot/catalog numbers in the field and then easily transfer these data to desktop systems at the processing lab. Another possible useful function of PDAs are as GPS units. Some GPS manufacturers have produced modules that attach to PDA models (check to see availability since they do not work with every model out there) permitting field archaeologists to record site locations, etc.

I have also used my Compaq iPaq 3630 to take meeting notes (it does not have a 4K limit per note file as found in the Palms), and I find it easier to use than a laptop for taking notes at conference presentations. There is a built-in character recognition program for entering notes, or an onscreen

keyboard can be used to enter each letter using the stylus and a hunt-and-peck entry method. I prefer the latter method because I find it faster and more reliable than character recognition. Portable external keyboards for data entry are available for most Palm OS models and will soon be available for Windows CE 3.0 models. The portable keyboards I have seen for the Palms can either be rolled up or folded for easy transport in a briefcase.

The biggest problem for use at archaeological excavation projects would be to keep PDAs relatively clean. Dirt can get under the touch screens of most models, making it difficult to enter data without cleaning (and this usually will have to be done by the company manufacturing the system).

Another problem would be battery life. PDAs use either rechargeable batteries or replaceable AA alkaline batteries, depending on the model. Each system has advantages and disadvantages. Battery life also is determined to some extent by the type of view screen used. Color screens use up battery power at a much faster rate than black-and-white ones. Palm OS black-and-white screen PDAs have batteries the can last several weeks under optimal conditions. The Compaq iPaq 3630/3650 and other Pocket PCs with color screens usually have rechargeable batteries that last for about 10 to 14 hours under optimal conditions. The short life of Pocket PC batteries usually is mitigated to some extent by automatic power downs when the system is not in use over a set period of time, usually set at 5 minutes or less. The power down system conserves battery life. Pocket PCs are usually good for a day of use if recharged at night. Pocket PCs can recharge while hooked up or synchronized with the desktop PC, so you do not lose use of the PDA while batteries are recharging.

There are two ways that PDAs connect with desktops, and you should check the model to see which one is provided when it is purchased. One is the previously mentioned serial connection through an RS232C port. It is a reliable connection method, but usually has the drawback of transferring data at a relatively slow rate. The other method is via the Universal Serial Bus (USB) port. This method provides faster data transfer, but it can be a touchier synchronization method depending on the desktop OS system used. Windows 95 and Windows NT do not directly support the USB port and PDAs used with these operating systems should use a serial connection. There are ways to work around this in the PC bios settings, but it is tricky and should not be attempted by folks who really do not understand how the bios settings work (you can really screw up your computer if you change the wrong settings). Windows 98 and 2000 support use of USB ports. I believe Palm OS PDAs can also synchronize with MacIntosh systems (or there is third party support for this), but check before buying a particular model. Pocket PCs are not useable with MacIntosh systems.

There are several useful Web sites for checking and/or purchasing PDAs online. They have more and better information than anything I can provide.

The Gadgeteer site provides excellent reviews of various PDAs, PDA accessories, and PDA software. It is a super site! http://www.the-gadgeteer.com/

The About.com site, listed below, has bulletin boards devoted to PDAs, links to other web sites, and other info. http://palmtops.about.com/gadgets/palmtops/

Information about the Earthmate GPS system for use with handhelds and laptops is at:
http://palmtops.about.com/gadgets/palmtops/gi/dynamic/offsite.htm?site=http%3A%2F

%2Fwww.delorme.com%2Fearthmate%2F

Information about the Earthmate GPS system with Topo USA 2.0 (Topographic map GPS software for use with Palms and Windows CE 2.0, $249.95) is at: http://palmtops.about.com/gadgets/palmtops/gi/dynamic/offsite.htm?site=http%3A%2F%2Fwww.delorme.com%2Fearthmate%2F

The Palm, Inc.(manufacturer of Palm PDAs) Homepage is at: http://www.palm.com/home1.html

The Handspring Visor homepage (manufactures Palm OS clones) is at: http://www.handspring.com/

A Palm-size PC On-Line web site that provides information about handheld PCs and software is at: http://www.palmsizepc.com/

PalmGear Headquarters which is an online site for purchasing software and accessories for Palm OS PDAs is at: http://www.palmgear.com/

The Compaq Handheld Computer homepage (for iPaq 3650 and other Compaq handhelds) is at: http://www5.compaq.com/products/handhelds/

The MSn Estore for handheld PDAs is at: http://eshop.msn.com/category.asp?catid=40

Both Palm- and Windows-based PDAs currently have utility with the appropriate software. Even though PDAs are an emerging technology that will certainly evolve into better and more usable systems, I do recommend obtaining an existing PDA if you find it useful and cost effective. There will always be that better PDA "just around the corner" and waiting for it will simply result in depriving yourself of a useful tool. PDAs are becoming increasingly powerful and useful. I have no doubt that they will become an indispensable piece of equipment in the future for archaeological work.

Mark A. McConaughy

ANNOUNCEMENTS

No announcements in this issue.

MEETING AND EVENTS CALENDAR

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

PAC MEMBERSHIP

Inquiries regarding membership in PAC should be made to:

Daniel G Roberts
John Milner Associates, Inc.
535 North Church Street
West Chester, PA 19380

Work Phone: 610-436-9000
Work FAX: 610-436-8468
EMail: droberts@johnmilnerassociates.com

PLEASE 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 and $25.00 for families, which should be sent to:

Archaeological Services
P.O. Box 386
Bethlehem, CT 06751-0386.

EDITOR'S NOTE

Materials for the PAC Newsletter should be sent to:

Philip A. Perazio, KAR, Inc.,
P.O. Box 1117, Stroudsburg, PA 18360
Phone: 717-620-2591; FAX: 717-620-0186
EMAIL: kittarch@sunlink.net

Please send contributions by email or on disk (Wordperfect preferred). Short items, 1 page or less, may be submitted in hard copy or by FAX.

Deadline for next issue:
1 April 2001.

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NOTE: Please make sure PAC has your current FAX and/or Email addresses so that we may distribute urgent information as quickly as possible. Send updates to Mark McConaughy.

In order to control costs, instead of being printed in the Spring Newsletter as has been done in previous years, the PAC membership list will be distributed to members via email, fax, or mail, as available.

The Editor