



The Commonwealth Archaeological Program

Progress Report July 1997 to December 1999



Report Number 4
The Commonwealth Archaeology Program

Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation

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Acknowledgements

Since its establishment in 1996, the Commonwealth Archaeology Program (CAP) has been the beneficiary of a great many kindnesses. Our Commissioners, especially Janet Klein and Jim Adovasio, our Executive Director Brent Glass, our Bureau Director Brenda Barrett, and our Division Chief Kurt Carr, have all been committed to making the program a success from its inception, and have contributed a great deal of energy and support to our work.

The heart of our program is Jim Herbstritt, our field director, and the seasonal field technicians and CAP interns who do all the work. From July 1997 through December 1999, our crew included Kelly Hahn, Mark Henshaw, Jasun Lego, Elaine Lemmon, Tasha Manino, Rich Petyk, Becky Roman, and Liz Wagner. Hats off guys!

The firms that comprise our regional consultant initiative, the ASC Group, KCI, and Kittatinny Archaeological Consultants shouldered a number of large and complex projects over the last year and a half. Their work has made a real contribution to our program and to the Commonwealth's past.

My colleagues in the Division of Archaeology and Protection have, as always, assisted us with advice, encouragement and support as they continue to stand watch over Pennsylvania's archaeological heritage. Many thanks to Chan Funk, Mark Shaffer, Noel Strattan, Andrew Wyatt, and Jenny Wyatt.

Finally, and most importantly, I would like to thank the volunteers who gave so generously of their time at the Elliot Mine project and especially on City Island. These volunteers represent county historical societies, the Society for Pennsylvania Archaeology, and the Pennsylvania Archaeological Council. The best friends the Commonwealth's past could have are the unsung heroes who volunteer their efforts to record it and learn from it. Thank you one and all!

Joe Baker, Chief

Commonwealth Archaeology Program

Cover Illustrations:

Upper Right; Don Cadzow, State Archaeologist, in the Field ca. 1930

Lower Left; Jasper Fluted Point, Washington Boro, Lancaster County

Lower Right; 1999 Commonwealth Archaeology Program Crew with Governor Ridge, Spruce Creek

Introduction to the Program

The Commonwealth Archaeology Program (CAP) is the Pennsylvania Historical and Museum Commissions (PHMC) field archaeology program. Organized as part of the Bureau for Historic Preservation (BHP), the program conducts archaeological field investigations and laboratory analysis, produces reports, and conducts educational and outreach programs, across the Commonwealth. The Commonwealth Archaeology Program is a direct result of a singular piece of legislation.

House Bill 879, which became effective in early 1996, amended Pennsylvania's State History Code, and created an approach to the preservation and protection of archaeological sites that is unprecedented anywhere else in the United States. The bill, commonly referred to as Act 70, mandates the investigation of significant archaeological sites on private property by the PHMC if those sites are to be affected by Commonwealth permitted activities. Typically, these projects include the approval of sewage planning modules and other Department of Environmental Protection (DEP) administered permits for residential and commercial land developments, and DEP-issued non-coal mining permits. These investigations must be completed within very strict time frames, require the permission of the land owner, and cannot affect the issuance or timing of a permit regardless of the significance of the site in question. Pennsylvania is currently the only state in the nation with such an approach. By contrast, federal historic preservation statutes and regulations (specifically Section 106 of the National Historic Preservation Act) in the Commonwealth typically require applicants for federal permits, licensees or funds to underwrite the costs of archaeological investigations themselves. They also require identification-level investigations in cases where unrecorded archaeological sites are likely to occur, and they do not limit the duration of the investigations. Prior to 1996, Pennsylvania state policy closely paralleled the federal program.

Act 70 created the need for an in-house field archaeology program within the PHMC's Bureau for Historic Preservation, and in mid 1996, the Commonwealth Archaeology Program was developed to address this need. The program's mission includes the management and preservation of archaeological sites affected by Commonwealth permitted projects, archaeological research, and public education. The Commonwealth Archaeology Program has two mechanisms for achieving those goals: a regionally-based consultant initiative and an in-house staff component, each tailored to specific kinds of projects.

Between February of 1996, when Act 70 took effect, and December of 1999, the BHP reviewed 4419 Commonwealth permitted projects for their effects on archaeological sites, and 177 of these projects (4 %) were found to contain one or more significant sites that might be affected by the project in question. Many of these projects (72) were resolved without any field visits or investigations. Sometimes the project sponsor submitted additional information about the project that indicated the site or sites in question would be unaffected, or had been destroyed by earlier phases of construction or other land use practices. In a few cases, projects resolved themselves when applicants revoked their applications after project funding or local permitting applications fell through, or when applicants applied for federal permits or funding, turning the projects into federal undertakings.



*Decorative Motif, Susquehannock Ceramic Vessel,
ca. 1600-1625 AD*

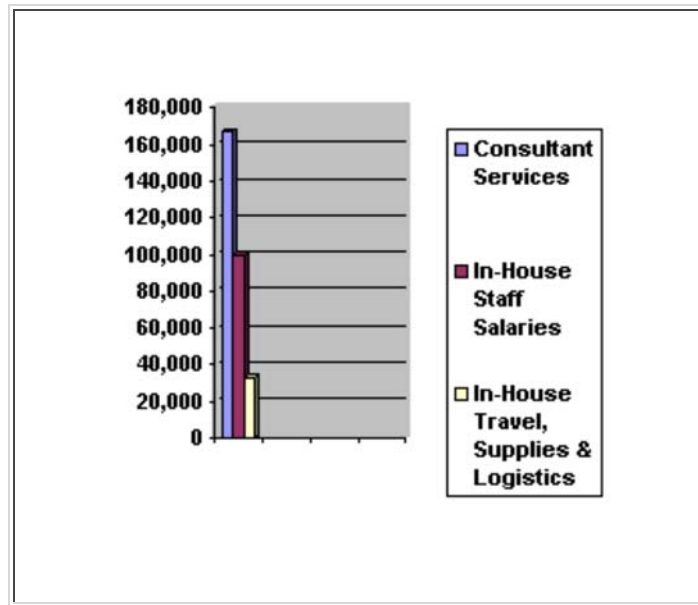
The remaining projects that potentially affected sites (105) required an initial field visit to collect some baseline information, and many of them were resolved with simple surface collections of artifacts, or very limited excavations. Others are being developed by project sponsors who are willing to waive or extend the time limits imposed by Act 70. These initial field visits, small scale projects, and long term investigations are handled by our in-house staff. The in-house staff, or CAP Crew, supervised by Jim Herbstritt, consists of one to three seasonal employees and a Summer intern, and is equipped to be highly flexible and mobile in response to a sometimes hectic and diverse project schedule. Since the program's inception, they have conducted field visits and investigations from border to border across the Commonwealth. The crew is also responsible for our large scale public education program conducted every Fall in City Island park in downtown Harrisburg, presenting and interpreting the buried past to thousands of visitors every year. The CAP crew has proved to be a cost effective and efficient way to address many of the PHMC's responsibilities mandated by Act 70, and the crew is part of the Commission's over 70 year old tradition of archaeological field investigations in Pennsylvania.

Our regional consultant's initiative, in effect since July of 1997, is utilized for projects involving relatively large scale or complex field investigations. They also provide the program with access to a wide variety of specialized services and analytical techniques. The three firms we retain were selected for their regional expertise in Pennsylvania archaeology, but the contract is structured to allow the consultants to work in any region of the state, depending on the locations of pending projects. Our current contract, in effect through June of 2000, retains the ASC Group in Western Pennsylvania, KCI Incorporated in Central Pennsylvania, and Kittatinny Archaeological Research Inc. in Eastern Pennsylvania. Collectively, these three firms have conducted four large field projects and five specialized analysis projects for us since their contracts began.



Budget

While our 1996 staff estimates for fulfilling our obligations under Act 70, based on the pre-1996 annual number of State compliance surveys and on our costs to conduct them, were between \$1,000,000.00 and \$1,250,000.00, the annual appropriation for the CAP remains at about \$300,000.00. It is expected to continue at that level for the next fiscal year. Our budget is divided among our consultant services, our in-house staff salaries and benefits, and logistical support for the in-house program. The apportionment of the Fiscal Year 1998 budget, ending in June 1999, is depicted below.



The State of the Program

The resource management decisions and allocation of limited resources necessitated by the provisions of Act 70 have profoundly affected the disposition of the archaeological record in Pennsylvania in some fundamental ways. Some of these effects have been detrimental, but some have been positive.

In the broadest sense, the management limitations incurred through both the provisions of Act 70 and our budget constraints have damaged the archaeological record in the Commonwealth. Since the Act precludes investigations based on the probability of an unrecorded site in the project area, unknown numbers of important sites have already been, and will continue to be, destroyed as a result of this legislation. A search of the BHP's Environmental Review Database provides some evidence of the effects of this change in resource management. As of December, 1999, we have reviewed some 4,400 initial permit notifications since February of 1996. Of these, about 1,100 were identified as high probability locations for a significant archaeological site to occur. Based on the results of surveys conducted for the Federal compliance program, which requires permittees and agencies to conduct identification surveys of high probability locations, and on projects resulting from the pre-1996 State program, we could expect about 50% of these projects state wide to contain an archaeological site or sites (BHP Compliance Report Database, 1999). Such an estimate would indicate that perhaps 550 archaeological sites, sites we will never know anything about, may have been lost as a direct result of Act 70.



Jasper Broadspears, ca 3500-4000 years BP, Lehigh County

Act 70 has also resulted in some loss of recorded, significant sites due to its requirement for landowner permission and adherence to time restrictions. To date, 23 sites, in twenty different project areas, have been destroyed as a result of these requirements. In all these cases, we were either denied access to a project area, or did not have the necessary resources to conduct the appropriate investigations. These sites have included

Woodland Villages, Archaic Period campsites, and a reported 19th century burial ground containing multiple interments.

Archaeology is itself an agent of site destruction, and its reliance on labor intensive field methods and, increasingly, on cutting edge technology, makes it an expensive undertaking. For that reason, archaeologists are trained to conduct excavations only when a site is imminently threatened or if the site is the only source of data available to address an important research question. Unfortunately, the time limits imposed by Act 70, combined with the peculiarities of the Commonwealth permitting process, have led to needless excavations at important archaeological sites and wasteful expenditures of our very limited resources. For example, extensive Commonwealth Archaeology Program excavations were conducted at the Herrs Ridge project and at the Clapsaddle Rockshelter, both in Adams County. Since both projects applied for Commonwealth permits, the Act 70 "clock" began ticking on the important sites in the project area, and we committed our resources to the projects. Both undertakings, a housing development and a granite quarry, fell through, and no damage will occur to the sites in the project areas, beyond that caused by unnecessary excavations. In a similar case in Montgomery county, the program conducted a month of fieldwork on a project that eventually became a federal undertaking when the project sponsor applied for a Corps of Engineers wetland encroachment permit. This may not be an isolated occurrence. Indeed there is some evidence that savvy engineering firms are advising their clients to apply for their Commonwealth permits first, have the Commonwealth Archaeology Program conduct any necessary archaeological investigations, and then apply for Corps of Engineers or other federal permits or funding, thus passing along the costs for archaeological preservation on federally permitted projects to the Commonwealth's taxpayers.

A final negative result of the new legislation is the loss of incentive for site avoidance. While it is difficult to measure with the data at hand, there's no doubt that many Commonwealth permitted projects prior to 1996 redesigned their facilities to avoid affecting the mapped locations of important sites rather than absorb the costs of mitigating them. Typically, this resulted in some open or green space being left in the designs of residential, commercial, or industrial developments, often at little cost to the project sponsor. Under the provisions of the current legislation, there is no reason for any permittee to avoid an archaeological site or an archaeologically sensitive location. Either the Commonwealth Archaeology Program will conduct an investigation, or the site will be destroyed, but in either case there is no incentive for avoidance or penalty for damage.

The low level of funding and the limited personnel complement for the program has caused some substantial difficulties for the management of affected archaeological sites. First, while our in-house staff is efficient, skilled, and dedicated, their workload is enormous. Having several field investigations and a backlog of initial field visits all in the "pipeline" simultaneously is the norm. This workload, and the restrictive time limits under which it must be completed, results in a crew schedule that does not allow for any tasks beyond basic field and lab work. Consequently, most management-level time is spent in program logistics and support, and little or no time is available for the conduct of research and analysis, and the generation of reports. The seriousness of this deficiency cannot be overestimated. If we cannot analyze the data we recover, and cannot publish the results, the effects to the archaeological record are not very different from what would occur if the sites were simply destroyed: the information is lost.

Our limited program resources also adversely affects our approach to large scale archaeological investigations. Investigations of substantial stratified or multi-acre sites are clearly beyond the capabilities of a three or four person crew, particularly if the fieldwork must be accomplished within a very limited time frame. Furthermore, our in-house capabilities do not include some specialized techniques and expertise such as floatation analysis, geomorphology, and the analysis of Historic Period collections. As a result, we

typically assign large field investigations or specialized analysis projects to one of the consulting firms we retain. Since those firms must charge several times our costs for in-house services, the most obvious effect of this is revealed in a glance at our FY 1998 budget; where seven projects (about 10% of our annual project workload) assigned to our consultants resulted in 55% of our annual costs. Our budget constraints also affect the scopes of work we assign our consultants. Such work is often limited to what we can afford, and is not always defined by what the site or assemblage in question actually warrants. As a result, our investigations of large and complex sites such as the Ashmore Farm site or the Elliot Quarry complex constitute extremely limited samples of extremely important cultural resources.

Despite all of these shortcomings, the provisions of Act 70 and the establishment of the Commonwealth Archaeology Program have made some very positive changes in our management of the Commonwealth's buried past. Prior to the establishment of the program, the BHP had no consistent field presence and all of the Bureau's recommendations for proposed projects were based entirely on our paper and electronic records. Current field conditions were usually completely unknown. If the Commonwealth Archaeology Program has proven nothing else, it has demonstrated the value of direct observation of field conditions. Currently, 64% of the projects the program staff visits are resolved following either a simple field visit, a one-day surface collection or other limited investigation, or a field visit combined with additional information from a detailed development or mining plan. Direct observation of field conditions often provides information that is simply unavailable through the in-house records. This information may indicate that:

- a site is mis-mapped in the records and is not in the affected area
- a site is so ephemeral that it can be entirely surface collected in less than a day
- a site was destroyed by prior land use
- a site is in a portion of the project area that cannot or will not be affected, such as a wetland buffer area .

In other words the program has given the bureau's archaeologists access to information they have never had before. That information is being integrated into the Pennsylvania Archaeological Site Survey (PASS) files and into the predictive models employed by the bureau's review staff, and it will result in more streamlined and accurate reviews of both federal and state projects. In retrospect, a limited capacity for field observation prior to 1996 might have influenced the political and management debate that created Act 70 in some very substantial and positive ways.

The Commonwealth Archaeology Program has also augmented the bureau's efforts at public outreach and education. Since the program staff took over the responsibility for the annual Archaeology Month excavations at City Island, attendance at the annual two week event has included about 1800 school students and several thousand casual visitors annually. The City Island project has now grown into one of the most widely attended public excavations and celebrations of prehistory in the Eastern US. The program staff has always tried to involve volunteers in as many projects as possible, and investigations at the Washington Boro, Herbein, Willow Creek, and Elliot Mine projects all benefited from volunteer participation. The importance of these efforts at public involvement and outreach is inestimable. Ultimately, there is no better protection for the buried past than an involved and educated public!

Finally, despite the limitations on our time and resources, investigations conducted by the program are beginning to make some substantial contributions to our understanding of the past. Investigations at large Native American sites like the Washington Boro complex, Willow Creek, Herbein, and the Elliot complex are

a tremendous source of new data on Native American land and resource use and on the evolution of prehistoric cultures in the Commonwealth. Our work at a large number of very small prehistoric sites is refining our view of how the Native people of Pennsylvania actually used and settled the complex topography of the Commonwealth. Program-sponsored work at Historic Period sites like the Wager Farmstead is beginning to make substantial contributions to our understanding of Euro-American settlement and economics in Early Pennsylvania. The new and important information being gathered by the CAP is part of the over 70 years of PHMC sponsorship for and research in the archaeology of Pennsylvania, a tradition we are proud to share in.

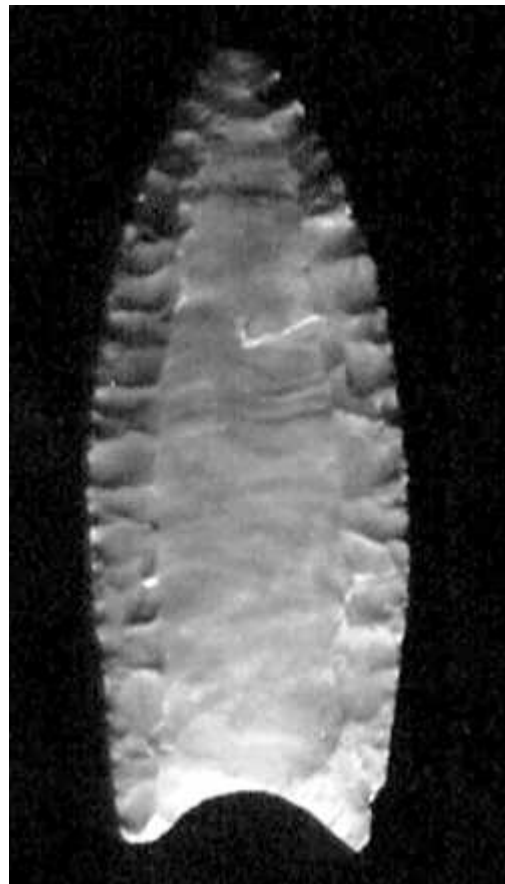


Some Recommendations

The Commonwealth was something of a cultural and geographical crossroads in Prehistoric times, was one of the original thirteen colonies, was a major theater of the American Revolution and the Civil War, and was a cradle of the Industrial Revolution. Consequently, Pennsylvania has a buried past that is second to none, and that past is deserving of the best treatment we can provide it! Without question, the Commonwealth Archaeology Program, and the management and preservation of Pennsylvania's archaeological heritage, could be substantially improved through the implementation of a number of changes in policy, support and organization.

Legislative Solutions

As noted above, the current provisions of Act 70 are contributing to the destruction of the state's buried past. Indeed, in the public meetings held across the state for the Commonwealth's Preservation Plan, outright repeal of Act 70 was a suggestion heard at several of the forums. Without a doubt several policy changes are certainly warranted. An easing of the time limits for investigations and some modification of the requirement for landowner consent would certainly be useful. A disincentive or penalty for permittees who knowingly use the provisions of Act 70 to avoid federal-level compliance would make the act more fair to Pennsylvania's taxpayers. Perhaps the two most important changes in policy that could be implemented would be some provision for the consideration of archaeologically sensitive (high probability) locations and some positive, possibly tax based, incentive for developers and permittees to avoid the locations of important sites. These two changes would directly result in the investigation and protection of a substantial number of significant archaeological sites, and neither is so controversial as to be politically impractical.



Jasper Fluted Point, Lancaster County, ca. 12,000 Years BP

Public/Private/Non-Profit Partnerships

The establishment of a working group involving organizations that represent developers, non-coal mining interests, preservation organizations, DEP and the PHMC should be considered. Such a group might help defuse some of the antipathy and acrimony that often surrounds public debates on the merits of development and archaeological preservation; goals that are not necessarily mutually exclusive. This group might also help to direct and fund efforts at preservation and research across the Commonwealth.

Currently, the creation of a state-wide archaeological preservation trust fund is under consideration by the board of Preservation Pennsylvania, the state-wide non-profit dedicated to historic preservation efforts in the Commonwealth. The creation of such a trust would accomplish a number of important goals for the preservation of the Commonwealth's buried past. First, working with Preservation Pennsylvania or with the Archaeological Conservancy or other land trusts or conservancies, funds would be available to buy easements or to actually purchase exceptionally important sites to protect them from development. Second, there would be a state-wide non-profit organization to actively advocate for and promote the protection of archaeological sites, a role that is really beyond the scope and experience of the Society for Pennsylvania Archaeology or the Pennsylvania Archaeological Council. Finally, the trust might be able to supplement the activities of the Commonwealth Archaeology Program at large-scale investigations of important sites or in public education efforts like the City Island project.

As a final, policy-based recommendation, some kind of official recognition or award for permittees or developers who make substantial or exceptional contributions to the preservation of sites on their properties is certainly warranted, and might encourage other developers to consider similar efforts.

Changes in the Program

At the program level, the discussion above dramatically depicts the severe limitations on our effectiveness resulting from the current level of support and staffing. If some way is not found to increase our support and personnel, the result will be continued inadequate sampling of significant sites and a continued restriction on our ability to analyze and report our findings. Additional funding should be directed at the handful of major investigations we undertake each year, and toward hiring additional seasonal and permanent staff. Our most critical staff needs include support staff for our program administration to track our project schedule, logistics, personnel, supplies, and budget. These functions are currently served by the program chief with limited assistance from a part-time clerical employee, and they absorb time that should be spent on the analysis and reporting of results. A permanent, part-time, archaeological technician position should be created to assist the program chief with critical administrative functions. With this employee handling most of the day-to-day record keeping and logistics for field and lab projects, the program chief could then focus on disseminating the results of the program's investigations to the public and the professional community.

The program currently lacks in-house expertise in Historic archaeology, cartography and graphics, geomorphology, and curation and conservation of collections. We typically address these needs through the use of consulting services, but as noted above, the use of consultants can be extraordinarily expensive, draining resources that might best be used for additional field investigations. We should make every effort to secure training for our existing staff, and to hire additional permanent staff with specialized skills, if the program is to successfully and efficiently manage its workload.

Some changes in the basic organization of the program's role and duties are also worthy of consideration. Chief among them is an increase in efforts at public education and involvement. Cooperative projects with the Society for Pennsylvania Archaeology, the Pennsylvania Archaeological Council, Preservation

Pennsylvania, and the new archaeological preservation trust fund, should be considered. These projects, modeled on the City Island project, would serve to involve more citizens in the preservation of their own past, and the local publicity such projects could generate might result in local support for preservation efforts. The education effort at City Island should be expanded to involve a more formal adult-level education effort, possibly involving local colleges and universities. This effort would complement our already well developed primary and secondary education program. Finally, publications, on-line and interactive programs, and videos aimed at the general public ought to be developed through the Commonwealth Archaeology Program. Such efforts would make it possible to reach many more citizens, and would raise public awareness of the problems and potential of the Commonwealth's archaeological heritage across the state. Obviously, and as noted above, none of these very worthwhile changes would be possible without an increase in our level of support.



Selected Projects

The Willow Creek Site: 36 Bk 512; A Prehistoric "Factory" in the Maiden Creek Valley

On a gentle hillside overlooking tiny Willow Creek in Ontelaunee Township, Berks County, many generations of Native Americans encamped and fashioned tools from quartzite that they found on Irish Mountain a mile or two to the south. Slowly, over five or six millennia, their camp above the stream grew into an enormous (at least four acres) archaeological site that preserved evidence of their use of Hardyston quartzite and, by inference, of much of their daily lives. When the site was threatened by a proposed commercial development, CAP staff instituted a workplan of multiple surface collections and controlled excavations at the site that consumed much of the summer of 1998, and netted an astonishing 32,000 stone artifacts!



Surface Collection in Progress at Willow Creek

Our work at Willow Creek has provided information that is rarely if ever recovered from upland archaeological sites including:

- comparative data on a variety of commonly used field methods, data that may change our management of data collection strategies at similar sites across Pennsylvania.
- the definition of small activity areas within the enormous site, and the correlation of those areas to specific chronological periods or prehistoric cultures.

- Documentation of nearly the entire sequence of stone tool manufacture from the initial reduction of large quarry blanks to the resharpening and repair of finished and used tools.
- The discovery and recording of some of the Irish Mountain quarries where the raw material used at Willow Creek undoubtedly came from.

Our work at Willow Creek was assisted for a day by the entire 1998 field school class from Penn State University, under the direction of Dr. Jim Hatch, who made an invaluable contribution to the project with their enthusiasm and sheer numbers! The artifacts and information from Willow Creek are currently under analysis, and we expect them to provide some ground breaking conclusions as our lab work and background research continues.

City Island 1998 and 1999: An Encounter with the First Visitors and The Beginning of a New Excavation

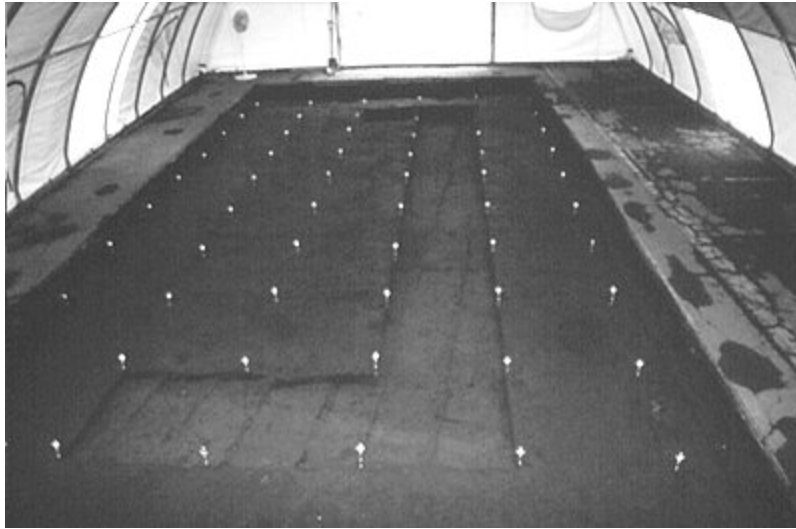
The fourth annual Archaeology Month excavations at the City Island site (36 Da 12) was memorable for several reasons. In 1998, the excavation was officially opened by First Lady Michele Ridge! The project also inaugurated an entirely new education program administered by the State Museum's Education Division, who moved their entire staff and program on-site. The 1998 excavation also saw the unveiling of our new web page, featuring daily updates on our progress at the site, and photos of the work in progress.



Mrs. Ridge and Mayor Reed Help Visiting Students Look for Artifacts at City Island

We finally completed our work in the excavation block originally opened in 1994, setting the stage for future excavations in an entirely new area. Perhaps our most important accomplishment was our documentation of the earliest Native American visitors so far encountered on the Island. As part of the 1998 project, a deep test unit was excavated some 15 feet to the base of the Island in order to document the complete history of the Island's formation from repeated floods over the last 10,000 years. At about 2.25 meters (roughly 8 feet) below the surface of the parking lot, small flakes of jasper, fragments of fire cracked rock, charcoal, and a Bifurcate projectile point, were encountered in the excavation. Wherever such points have been found in contexts where radiocarbon assays were available, they consistently date to the beginning of the Middle

Archaic Period, some 8,000 years ago! This occupation is the oldest and deepest ever encountered on a Susquehanna river island, and may document some of City Island's very first visitors. Some 1800 Middle and High school students and several thousand walk-on visitors witnessed 1998's remarkable discoveries and achievements, and 25 hard working volunteers helped our staff make it all happen!



1999 Excavation Block at City Island

Based on the results of the preceding four autumn excavations, a new excavation block was chosen for the 1999 campaign approximately 60 feet north of the 1994-1998 excavation area, and the removal of the parking lot revealed a completely intact soil profile. The Euro-American farming of City Island is well documented in the rich, dark layer of plowed soil full of 19th and 20th century artifacts, found just beneath the blacktop. This plowzone, some 30 centimeters or 6 to 8 inches in depth was found to overlay intact flood-deposits that contain substantial evidence of earlier, Native American visitors. There is enough new data available in the 1999 excavation block to bring us back for several autumns!

The City Island Web Page (housed on the State Museum of Pennsylvania's Website at www.statemuseumpa.org) became an unqualified success in 1999, with over 22,000 "hits" during the two week duration of the project, and over 30 volunteers, including members of several Society for Pennsylvania Archaeology Chapters and many professional archaeologists from the Pennsylvania Archaeological Council, helped the program staff present the project to several thousand walk on visitors, and nearly 2,000 middle and high school students. As part of the demonstration and experimental archaeology area, a massive (24 foot long!) dugout canoe was fashioned on the west edge of the Island. The canoe log, a large white pine trunk killed by insects, was provided by the Pennsylvania Bureau of Forestry, and the resulting canoe was the largest aboriginal vessel ever made as part of the City Island project. It was one of our most popular exhibits, and was launched on the last day of the 1999 project with six adult passengers! With all of the public attention and critical success the City Island program has enjoyed in the last two years, and with the promise of fresh discoveries waiting in the new excavation block, the Commonwealth Archaeology Program is committed to making City Island 2000 our most successful project ever.

The Elliot Mine Complex: Working Together to Save the Past

Situated on Slippery Rock Creek, on the Butler/Lawrence County line, the proposed Elliot gravel quarry contains a cluster of some 19 archaeological sites within its 200 acres of glacial terraces. These sites have produced artifacts from Paleo-Indian fluted points to 18th Century trade items, and constitute a complete record of human occupation of the Slippery Rock valley. In order to recover part of this remarkable record, the program has joined in a unique partnership with the mine operator, Glacial Sand and Gravel Company, our consultant, the ASC Group of Columbus Ohio, the Butler County Historical Society, and the Ohio Valley Chapter of the Society for Pennsylvania Archaeology. With Glacial providing logistical support and heavy equipment, ASC and our in-house crew providing professional expertise and the bulk of the labor, and the Historical Society and SPA Chapter contributing volunteer labor, we were able to recover some crucial data from two of the largest sites in the Spring and Summer of 1999, prior to the commencement of mining operations. At

one site, 36 Bt 5, prehistoric features from both the Archaic and Woodland periods were encountered and tested, as was a late 18th or very early 19th century privy associated with the first Euro-American settlement of the property. At site 36 Bt 345, the remains of a Late Woodland settlement, including what may be part of the community midden were excavated. In addition, the basic stratigraphy of the entire eastern half of the project area was defined by Dr. Frank Vento from Clarion University. The artifacts and data are currently under analysis at ASC's laboratories, and a technical report on the 1999 field work is being produced. Our joint efforts at the Elliot Complex will not end with the report. Currently, all the members of this unique partnership are developing a long term plan to recover data from the sites on the property as mining proceeds over the coming decade. This plan will likely involve the efforts of all of the partners and perhaps a series of field schools involving a regional university or universities. To date, the Elliot Mine project has been an outstanding example of private, public, and non-profit cooperation in historic preservation, and we expect even better results as our partnership continues.

The Analysis of the Central Builder's Collection: A Stratified Early Archaic Occupation Near the Forks of the Susquehanna



Block Excavation, Site 36 Bt 345, The Elliot Mine Complex

The Central Builder's Quarry Site, 36 Nb 117, was tested by the BHP staff in 1992 and 1993 as part of the PHMC's very first Archaeology Week celebrations. Those excavations produced an artifact catalog of roughly 30,000 objects, and encountered at least four prehistoric occupations buried in a floodplain of the North Branch of the Susquehanna. The deepest of those occupations was a sealed, Early Archaic deposit containing a Kirk projectile point, large cores of locally available siltstone, and at least one hearth. This occupation has been radiocarbon dated to some 9,500 years before the present. During the Winter of 1998/1999 the program staff completed the inventory and cataloging of the collection from Central Builders, including the analysis of the tens of thousands of stone tools and pieces of debitage from the site. This analysis, based largely on the morphology of the flakes and cores rather than their size, is the largest and most ambitious laboratory project so far conducted by the Commonwealth Archaeology Program.

It has documented the reliance of most of the site's prehistoric inhabitants on locally available raw materials, especially siltstone, detailing exactly how those materials were used. This research will form the foundation of the technical report (currently in production) on this extremely important site.



*1992 Bureau for Historic Preservation Excavation
at the Central Builders Site*



*1992 Visitors to Central Builders,
The First Archaeology Month Program in the Commonwealth*



So Far: Commonwealth Archaeology Program Projects to Date

The summary statistics below track the results of CAP projects from February of 1996 through December 1999. A complete listing of all projects is produced as a monthly report to our Executive Director and Commissioners, and is available on request.

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Total Initial Permit Reviews: 4419

Projects Affecting Sites: 177 (316 sites)

Projects Pending A Site Visit: 7 (9 sites)

Investigations in Progress: 23 (68 sites)

Investigations/Reports Completed: 8 (23 sites)

Projects Resolved: 120 (193 sites)

**Projects Resulting in Sites Destroyed with No Investigations:
19 (22 sites)**



Susquehanna Broadspear, ca. 3500 Years BP