

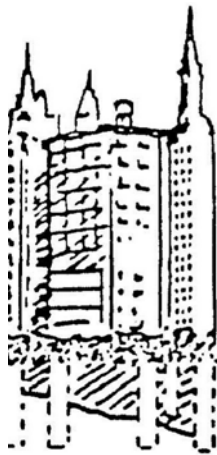
Program Proceedings

# The Practice of Urban Archaeology

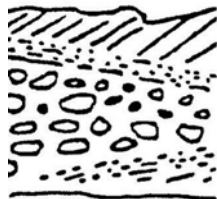
A Panel Discussion

Sponsored by:  
New York Archaeological Council (NYAC),  
Professional Archaeologists of New York City (PANYC) and  
Columbia Center for Archaeology

**Held**  
**Saturday, October 2, 2010**  
**Columbia University**



**PANYC**



# The Practice of Urban Archaeology

On October 2, 2010, NYAC and PANYC had a joint meeting where we held a panel discussion program called “The Practice of Urban Archaeology”. The panelists were from the regulatory or review side of the aisle from places outside of New York State. Panelists were William Griswold, Archaeologist with the National Park Service Northeast Region; Vincent Maresca, Senior Historic Preservation Specialist with the New Jersey Historic Preservation Office; and Catherine Spohn, Cultural Resource Professional with the Pennsylvania Department of Transportation, Engineering District 6-0. Mark Shaffer, Historic Preservation Specialist with the Pennsylvania State Historic Preservation Office, could not attend that day, but provided written responses that were read by the program moderator, NYAC and PANYC member Linda Stone. The program began with panelists presenting brief overviews of how the archaeological process works in their cities. The remainder of the afternoon was spent addressing a series of 10 prepared questions designed to enable comparisons between the panelist’s cities and those here in New York State. After the program, the panelists provided written responses based on their presentations. The following is a compilation of the panelists’ responses to the questions, in alphabetical order by speakers last name.

## **1 - Under what conditions are archaeological reviews required in your cities? Is archaeological work generally grouped with engineering/planning contracts or with construction contracts and why? What are the most common regulatory problems encountered when attempting to implement an archaeology project in your urban areas?**

**Griswold** The NPS follows the same process as other entities that are governed by Section 106 of the National Historic Preservation Act. Projects are generated by the park and usually entered into PEPC (Planning, Environment, and Public Comment) database system. This system then notifies individuals that have been selected to review projects or parts of projects. The advisory team can consist of an archeologist, ethnographer, historian, historical landscape architect, historical architect, and/or curator. The park’s Section 106 coordinator assembles the individuals that he/she feels should be on the team based on the specifics of the project. As an Archeological Advisor to numerous parks in the Northeast Region, I am notified when one of the parks that I advise is planning a project that involves ground disturbance. Once I receive notification, I can review the project.

Generally, I require more information to complete my review than is put in PEPC. Once all of the appropriate information is entered, I can evaluate the project. At this point, I can either sign off on the project with a no-adverse effect determination or I can require archeological excavation be conducted to further evaluate the project. Once all of the specialists have reviewed the project and any additional work that is required is completed, the entire project is sent on to the respective SHPO for review and concurrence.

In certain instances, the park’s compliance coordinator can utilize the 2008 National Programmatic Agreement to conduct an internal review only. The 2008 National Programmatic Agreement was negotiated by NPS, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers to limit outside review on a very specific number of recurrent projects that take place within the NPS.

For example, if a park is replacing a water line in the exact same corridor and with the exact same dimensions of disturbance, we can conclude the review after all of the advisors have commented if a no-adverse effect determination is rendered.

Compliance on projects needs to be completed before the construction contract can be advertized. We do our best to assess the impact to projects as far in advance as possible so that additional research can be done on for the project or so that the project can be redesigned to avoid creating an adverse effect. We work closely with our historical architects, facilities management staff, and project planners to mitigate potential effects through design changes where possible.

The most common regulatory problem in conducting archeological excavations in an urban area is making sure that all of the appropriate regulatory agencies have been notified and approved of the plan. Most of the individuals who do compliance for the region have a good idea of the various federal and state agencies involved in the process. Informing everyone of the project and getting agreement to proceed can be complicated.

Another problem involves changes in the construction program. Once all reviews on a project have taken place and the advisors have reviewed the projects the project is in effect finalized. However, as anyone who has worked in construction knows, plans change. Making sure that all of the changes to the construction have been assessed is always a challenge.

**Maresca** The New Jersey Historic Preservation Office (NJHPO) reviews projects for their effects on archaeological resources when federal funding, licensing, or permitting is involved. This is done in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations 36 CFR Part 800 (Section 106). The NJHPO also reviews projects requiring Freshwater Wetlands permits, Waterfront Development permits, Upland Development permits, Coastal Area Facilities Review Act (CAFRA) permits, and Highlands Preservation Area Approval issued by the State of New Jersey's Division of Land Use Regulation, as well as, review and environmental assessments under Executive Order 215. In addition, public entities conducting work on properties listed on the New Jersey Register of Historic Places requires archaeological review pursuant to the New Jersey Register of Historic Places Act. Finally, two New Jersey municipalities (Evesham and Hopewell Townships) have local archaeological ordinances requiring the consideration of new construction impacts on archaeological resources.

Archaeological investigation is usually conducted and completed at the planning level prior to any construction activities. Depending upon project circumstances, archaeology on urban sites may be conducted concurrent with construction through the implementation of permit conditions or the implementation of stipulation(s) outlined in a Memorandum of Agreement or Programmatic Agreement developed through the Section 106 consultation process.

Generally, there is no distinction between the regulatory processes for urban and non-urban environments for identifying, avoiding and mitigating impacts on archaeological sites in New Jersey. The main challenge for urban areas is working with the cultural resource management professional to modify the standard archaeological survey methods to identify and excavate archaeological sites in an urban setting. For example, backhoe trenching, geotechnical borings, and/or geophysical surveys may be more appropriate at the Phase I level than a

traditional program of shovel testing to identify archaeological deposits, sometimes deeply buried, in urban areas.

**Shaffer** In Pennsylvania cities, archaeological reviews are required when a federal agency is permitting, licensing, or funding a project. This is done in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. Archaeological reviews are also required when a state agency is funding a project. State agencies sometimes, but not always, require an archaeological review when that agency is permitting or licensing a privately-funded project.

Archaeological work sometimes appears to be generally grouped with engineering/planning contracts or with construction contracts, but because the SHPO is not involved in any of the negotiations involved in putting these contracts in place, the SHPO cannot be sure of when and specifically why this happens.

Perhaps the most significant regulatory problem encountered when attempting to implement an archaeological project in an urban area is the fact that many federal and state agencies still do not have cultural resources professionals on their staffs. This is despite the fact that both the federal and the state historic preservation regulations place the responsibility for effects findings and the resolution of adverse effects squarely with the funding or permitting agency. Too many agencies are still far too willing to attempt to place these particular responsibilities with the SHPO, although clearly, this is not one of the roles of the SHPO.

**Spohn** In Pennsylvania, the practice of urban archaeology faces many challenges, but also offers unique opportunities to further our knowledge of the history of the Commonwealth. Urban archaeology is practiced in cities of all sizes in Pennsylvania, from Philadelphia and Pittsburgh to smaller cities such as Harrisburg, Lancaster, Chester, Bethlehem and Wilkes-Barre, to name a few. In this paper I will concentrate on archaeology in the City of Brotherly Love.

The vast majority of archaeological reviews throughout the state are required because of federally or state funded or permitted projects, in compliance with Section 106 of the National Historic Preservation Act (NHPA) or the State History Code. Archaeological reviews may be required by State agencies for privately funded projects, but only under certain conditions. Many privately funded projects (commercial or residential development, for instance) do not require archaeological reviews.

In Philadelphia, unless carried out under Section 106 or the State History Code, the practice of urban archaeology falls under the jurisdiction of the Philadelphia Historical Commission (PHC), under the Historic Preservation Ordinance or Section 14-2007 of the Philadelphia City Code. The PHC is the city's regulatory agency responsible for ensuring the preservation of historically significant buildings, structures, archaeological sites, objects, interiors, and districts. The mayor of Philadelphia appoints the PHC's members, which consist of six local government and agency officials, as well as eight other persons learned in the historic traditions of the city and interested in the preservation of the historic character of the city. At least one appointee will be an architect; another is to be an historian; and a third shall be an architectural historian. There is no requirement for an archaeologist on the commission, and indeed there hasn't been an archaeologist on the commission or its staff since the 1980s.

The PHC's jurisdiction does not cover all archaeological or historic sites in Philadelphia, but only those on the Philadelphia Register of Historic Places. The PHC's Committee on Historic Designation nominates properties for the Philadelphia Register. Recently an archaeologist was appointed to this committee. Once a resource is listed on the city's Register, any work done on the property must get a permit from the City's Department of Licenses and Inspections (DLI), except for ordinary maintenance work which does not require a permit. The DLI submits permit applications to the PHC for review. The PHC can object to an application, in which case the DLI shall deny the permit. The PHC can deny approval of a construction project if it threatens archaeological resources and can require archaeological investigations for projects involving sites listed on the city's Register. However if a project involves an archaeological site that is not on the city's Register of Historic Places, and it does not have federal or state funding or require a federal or state permit, the project may not be reviewed.

With federally or state funded or permitted projects, archaeological work is usually grouped with the engineering/planning contracts because of the need to identify, evaluate and mitigate adverse effects to cultural resources before final design. Generally speaking, leaving archaeological work until final design or construction can result in construction delays and increased costs, which everybody wants to avoid. However in cases where archaeological monitoring may be required, archaeological work is carried out under construction contracts. This is frequently the case in urban settings, where access is frequently denied, because the Area of Potential Effect (APE) consists of active streets, parking lots or occupied properties.

The most common regulatory problems result from a lack of understanding among certain agencies and local governments of the Section 106 process. There is no archaeologist on the PHC or on its staff, although recently an archaeologist was appointed to the CHD subcommittee of the PHC. For many years the PHC showed very little interest in archaeology in the City, and as a result, archaeological investigations which should have been required may not have been conducted. Since the PHC only has jurisdiction over properties listed on the Philadelphia Register of Historic Places, some projects are automatically excluded from review. In addition, the agencies and the PHC often fail to consult with interested parties, like the Philadelphia Archaeological Forum, and interested federally recognized Native American Tribes and Nations, even when Section 106 is involved. A significant problem also arises from the attitude among agencies, including the PHC, that later historic and modern development has destroyed most archaeological resources in the city.

## **2 - How is the process of regulatory archaeology structured in your area? Is it a three-phased process involving site identification, evaluation and data recovery, as in New York? What problems or advantages do you see that may stem from the way the process is structured?**

**Griswold** NPS follows the same process of investigation as others follow in New York, although not all states use the terms Phase IA, IB, II, and III to describe the various evaluation stages. Some states refer to the process as Reconnaissance Survey, Data Recovery/Mitigation.

Working on NPS sites provides some unique advantages for archeological research, because research may be conducted on the same parcel for decades. The Phase IA studies that are conducted on new or previously uninvestigated properties do not need to be redone every

time that additional archeological work is needed on a property, especially if they have been conducted on a fairly recent project.

Similarly, the archeological research that is done on NPS properties becomes cumulative as additional research is conducted. Most of the research on NPS sites is conducted under contract. NPS scopes of work then require the contractor to synthesize their work with that done previously at the park/site thereby complimenting the earlier work. On many sites, NPS maintains GIS files that contain cumulative excavation locations.

In addition, NPS utilizes the Systemwide Archeological Inventory Project (SAIP) to conduct inventory information (Section 110) on parks. This program allows some survey work to be done for various areas of the parks. In some instances, we don't have to conduct Section 106 excavations on parcels because the area has previously been surveyed under the Section 110 program. We also maintain a database of archeological sites through the Archeological Sites Management Information System (ASMIS) that allows us to keep current information about all sites registered in the system.

**Maresca** Archaeological survey in New Jersey is generally structured in three phases involving Phase I (identification) survey, Phase II (evaluation) survey, and Phase III (data recovery) survey. However, backhoe trenching, geomorphological testing, and geophysical testing in combination with standard Phase I hand testing may be appropriate at the Phase I level for the identification of deeply buried archaeological deposits within urban environments. The advantages to the consultative process encompassed by the Phase I/II/III process allows all parties to have input while developing the appropriate strategy to identify and treat archaeological resources in accordance with the Secretary of the Interior's Standards for Archaeology and Historic Preservation. Early planning is key to successfully addressing archaeological requirements in any regulated activity.

**Shaffer** In Pennsylvania, the three-phased process noted above is typically used for compliance archaeology. In our opinion, this is an appropriate structure, as it follows the process outlined in the language of Section 106 of the National Historic Preservation Act, specifically, resource identification, followed by evaluation (a finding of effects), followed by the resolution of adverse effects, via data recovery investigations or avoidance of the resource. In our opinion, it is most advantageous to follow the structure and the language of Section 106 and the regulations of the Advisory Council on Historic Preservation.

**Spohn** For projects that fall under Section 106 or the State History Code, the three-phased process is applied. The main advantage is that it offers an opportunity to survey areas that have not yet been tested for potentially significant archaeological sites. It also offers the opportunity to evaluate such sites, or archaeological resources that have previously been identified but not yet evaluated for their potential to yield significant information on the past. The three-phased approach can also give planners a chance to redesign a project so as to avoid potentially significant archaeological resources. In addition, using the three-phased approach assures that agencies are in compliance with Section 106 and the State History Code.

**3 - New York State prefers to receive a single report on Phase 1A and 1B work, whereas New York City prefers to see the Phase 1A report before signing off on Phase 1B testing plans. Furthermore, New York City requires the Phase 1A include research using primary documents such as deeds and census records whereas New York State**

**does not necessarily require research as intensive at the Phase 1A level. How do your cities handle these Phases?**

**Griswold** This is one of the advantages to working for the NPS. The Systemwide Archeology Inventory Program (SAIP) program requires an Archeological Overview and Assessment (AOA) for every park/site in the system as baseline information. In addition to summarizing and critically evaluating earlier archeological work done at the site, the AOA requires that archeological sites be listed in the Archeological Sites Management System (ASMIS) database and that extensive Phase IA research be done on the site. Therefore, for most NPS sites, the background research has already been done so that we can move directly to Phase IB investigation. The process to have an AOA written on all sites and parks in the region is nearly complete and only newly acquired parcels or new parks will need to have baseline information gathered. These Archeological Overviews and Assessments are redone as the information in the old ones is updated by new discoveries. In certain cases, the AOA may have to be redone when additional land is added to the park.

In addition to having the background archeological information for sites or parks within the region, we can tap into studies done by other cultural resource professionals within NPS. Usually there is a Cultural Landscape Report and a Historic Structures Report for the park and these reports also contain a wealth of background information about the parks. Sometimes National Register nominations have recently been done and/or a Collections Report may exist for the site. All of these reports have been compiled by experts in their fields and the information contained in them can be included in any assessment.

**Maresca** The NJHPO has guidelines and rules for both Phase I archaeological survey and archaeological survey reports submitted to the office. Both the Phase I archaeological survey guidelines and rules specify the use of primary documents such as deeds and census records in background research required as part of the survey effort to identify the potential for a project site to contain early historic period occupation.

The NJHPO's preference for Phase IA and Phase IB reporting is guided by project-specific circumstances, and is not a blanket policy at the present time. For example, New Jersey's freshwater wetlands permitting rules require the submission of a Phase IA archaeological survey if the project site: 1) is over 20 acres in size; 2) is located within 250 feet of water; 3) contains a historic or archaeological site; or 4) public comment identifies that the project site contains historic and/or archaeological resources. Similarly, for large multi-county projects requiring Section 106 Consultation, such as utility corridors, an initial Phase IA archaeological survey is useful so that all parties can agree on the areas of resource sensitivity and the appropriate Phase IB testing methodology along the alignment/project area. However, in circumstances where a Phase I archaeological survey (which combines the Phase IA and Phase IB levels) has been requested by the NJHPO because a project site has been identified as having a high potential for the presence of significant archaeological resources at an early stage in project planning, the NJHPO prefers to receive a combined report.

**Shaffer** the Pennsylvania SHPO, we are not particular as to whether or not the Phase IA and Phase IB reports are submitted as separate documents or as one document. However, we feel that the Phase IA level research must be intensive enough to reconstruct past ownership and land use in the project area and to develop expectations as to what conceivably could be in a particular project area in terms of archaeological resources. In most cases, and in all of the

good ones, primary source materials such as deeds and census records, historic maps and any other applicable primary sources are employed at the Phase IA level. This is particularly important in urban areas, for which, in many cases, there is much more detailed documentary information available than there generally is in more rural areas. In Pennsylvania, we do not sign off on Phase IB work plans without first reviewing and concurring with the Phase IA background research investigation. For urban areas, the SHPO often suggests that a geomorphological assessment should be carried out as a part of the Phase IA investigation. Experience has shown that most project areas in urban settings are characterized by some level of surficial disturbance. The goal of the geomorphological assessment is to determine if potentially significant cultural horizons or features are present beneath the clearly disturbed areas close to the current ground surface, or if there is the potential for such buried cultural deposits. Because the mantle of disturbance can sometimes be several feet deep, backhoe trenching is a tool often employed to collect information on the soil profile within the urban project area. Ideally, a qualified geomorphologist will prepare a report with recommendations as to the potential presence and potential depth of buried cultural deposits. Another benefit of a geomorphological assessment in an urban area is that it sometimes demonstrates how a particular project area has been so disturbed as to have no potential for buried cultural deposits, and this eliminates the need for conventional Phase I archaeological testing. CLARIFICATION - To clarify (hopefully), at the PA SHPO, we try to treat geomorphological assessments the same for both prehistoric and historic sites. For prehistoric sites, we sometimes suggest that a geomorphological assessment be conducted prior to the actual Phase IB testing, because:

- a) it sometimes indicates that controlled test excavations (Phase IB) are not necessary due to the nature and age of the soil profile (cases in which stable, buried relict land surfaces have not been preserved and are not present, and
- b) it should guide the nature and extent of the controlled Phase IB test units, particularly in terms of the placement of test units in the Area of Potential Effect and also in terms of the depth of excavation required to examine all identified buried cultural horizons.

For historic sites, we would suggest the geomorphological assessment be thought of as part of the background research (Phase IA), because, as with the use of historic documents, the goal is to develop sound expectations as to what could be present in the Area of Potential Effect, and the results of the geomorphological investigation should be used to guide the placement of controlled Phase IB test units and to determine the depth to which the Phase IB test units should extend in order to examine all identified buried cultural horizons.

Also, there have been some cases in which a project sponsor has assumed the mechanical trenching that has been conducted for a geomorphological assessment is the Phase IB investigation, and this is not necessarily the case, particularly with urban historic sites.

So, it is for these reasons that we generally think of the geomorphological assessment as a “pre-Phase IB tool,” with which to refine the specifics of Phase IB testing strategies. I hope this provides some clarity on our rationale, although I’m sure this rationale could be debated by others.

**Spohn** In reply to this question, I can only speak for PennDOT, since I am not aware of how other state agencies treat Phase IA and IB reports. Generally speaking, we combine Phase IA and IB reports into a single report as a way to save time and money, unless the Phase IA report indicates that further archaeological testing is not warranted or for major projects that cover



large Areas of Potential Effect (APEs), such as the I-95 project in Philadelphia. In such cases, an intensive Phase IA study evaluates the entire project area for archaeological potential and reveals which parts require additional archaeological research. We do require the use of primary documents such as deeds, census records and historic maps in order to assess the archaeological potential of our project areas. We also use geomorphological analyses rather intensively to evaluate archaeological potential for both historic and precontact periods. As for projects in the City of Philadelphia, projects which do not fall under Section 106 or the State History Code are covered by the PHC, which does not necessarily require Phase IA or IB reviews. This is partly due to the absence of archaeologists on the PHC. Also, the PHC only reviews projects that are listed on its own Register of Historic Places, so it's likely that some privately funded projects in the City are not required to do either Phase 1A or Phase IB archaeology.

**4 - Monitoring of construction excavation has become more prevalent in recent years. NYAC, the organization that wrote the archaeological standards adopted by our SHPO, has, along with PANYC, compiled guidelines for archaeological monitoring in urban settings which detail what should be considered when monitoring is proposed. These guidelines specify what should be included in a comprehensive monitoring plan. Do your cities have monitoring guidelines? How do you handle requests from applicants to substitute monitoring for pre-construction testing? Is your response affected by consideration of on-site or logistical conditions such as work planned in busy roadways, potentially very deeply buried sites or work that is on a fast track schedule?**

**Griswold** Archeological monitoring is conducted on NPS sites only in very unique situations. Most people within the NPS now understand that monitoring is not and should not be a substitute for controlled excavation. However, monitoring can be effectively used under the following situations:

- In a previously disturbed situation where “islands” of preserved deposits or features may be identified, but it is not effective to identify the islands through controlled archeological testing.
- For large scale construction projects after Phase I, II, and if necessary Phase III excavations have been done.
- Where logistical conditions dictate its use.
- When the archeological advisor feels that monitoring may uncover additional archeological information on a project even though the project itself is not expected to have an impact on the archeological resources (e.g. sidewalk replacement projects).

**Maresca** NJHPO does not have formal standards for archaeological monitoring. Typically, an archaeological monitoring plan is developed by the cultural resource consultant in consultation with the NJHPO so that the appropriate monitoring methods are employed for the resources and conditions within the projects area of potential effects.

Archaeological monitoring alone is not an appropriate replacement for the Phase I and Phase II archaeological survey. Monitoring is generally employed as part of the mitigation that is developed for a particular project. However, for areas of restricted access (such as work below in-use transportation arteries with limited windows for investigation), the NJHPO has

agreed to substitute archaeological monitoring for pre-construction testing. Again, archaeological testing methodologies, particularly in urban areas, are developed in consultation with the NJHPO so that the appropriate methods are employed within the alignment. Through consultation with NJHPO, alternate Phase I survey in urban areas can include geotechnical borings, geomorphological trenching, backhoe trenching, and/or geophysical survey to supplement the traditional hand-testing techniques to identify archaeological sites. The work plan is very much influenced by site conditions requiring the development of “prudent and feasible” survey methods to identify sites in urban areas.

**Shaffer** Pennsylvania, we have published guidelines for archaeological investigations for the Phase I through the Phase III levels. This includes some general information on monitoring in urban settings. One thing we note in the guidelines is that, in our opinion, monitoring alone does not meet agencies’ legally-mandated responsibilities to identify significant resources, to consider the effect of their projects on them, and to provide the SHPO and the Advisory Council an opportunity to comment. The SHPO will rarely accept monitoring alone as an appropriate survey or treatment strategy. However, in some urban settings, legal responsibilities for the preservation of archaeological data can be accomplished through development of a well researched context and a monitoring program, with a contingent data recovery program during construction. A monitoring plan, when appropriate, should be developed in consultation with the SHPO and the responsible permitting or funding agency.

**Spohn** The PASHPO has published guidelines for archaeological monitoring during construction which agencies should comply with in federally or state funded or permitted projects. Monitoring is usually only substituted for the traditional three-phased approach when construction will take place within existing active roadways, sidewalks and parking lots; there is a potential for deeply buried sites in spatially restricted areas or areas that have a substantial amount of previous disturbances; or there are significant time restraints. Requests to substitute monitoring for pre-construction testing are handled on a case-by-case basis. PennDOT requires substantial background research (a Phase IA survey) along with a well-developed and complete monitoring plan which provides for documentation and data recovery as necessary with the ability to stop construction as needed. Archaeologists must work closely with the engineers to ensure compliance with the monitoring plan. For projects that fall under the jurisdiction of the PHC in Philadelphia, the PHC would presumably follow the guidelines in the Secretary of the Interior’s Standards, but that would only apply to properties on the City’s Register of Historic Places and under certain circumstances.

**5 - Do you ever feel that local politics plays a role in the decisions you must make to ensure the archaeological compliance process proceeds as it is intended to? If you have found this to be the case, it is understandable that you may not be at liberty to share specific examples, however it would be interesting to know to what extent, if any, you feel the archaeological process has the potential for compromise in your cities and what suggestions you might provide regarding strategies to overcome such pressures.**

**Griswold** We are legally bound to uphold the tenants of Section 106 of the NHPA. Laws and regulations almost always take precedence over politics.

**Maresca** Regulated activities are public projects and as such are subject to comment by

individual citizens, advocacy groups, and public officials. The consultation process that is built into the review process allows all these concerns to be considered, evaluated and acted upon as appropriate so that the public benefit of the project is realized while, at the same time, compliance with state and federal requirements regarding impacts on archaeological resources is implemented.

All regulated activity is compromise. We will never get 100% recovery of an archaeological site. The regulatory agencies need to be flexible and creative, not dogmatic, in balancing project needs with archaeology. Energy needs to be focused on explaining the requirements of the regulatory environment to the public and their representatives while focusing judicial use of archaeological survey to recovery the most important information that we can within the project constraints. The fight is proportional to the caliber of the threatened resource and the will of all those involved.

**Shaffer** There have been relatively few cases in which some entity, sometimes an agency representative, sometimes an archaeological consultant, and sometimes a municipal official, has given the impression that an attempt is being made to circumvent the Section 106 process. However, the SHPO does not have the policing power to ensure the compliance process proceeds as intended, although we believe that most agencies responsible for compliance with Section 106 make a good faith effort to do so. We would suggest that if some local political entity appears to be applying pressures to circumvent the archaeological compliance process, this entity should be reminded that the federal agency has certain legal obligations and that if these obligations are not met, then legal action may be taken against that agency. While legal action against an agency appears to be a somewhat rare occurrence in Pennsylvania, it has happened.

**Spohn** For PennDOT, there have been instances where local politicians or project managers have tried to circumvent the Section 106 process and forgo archaeological testing, but because of the fear of legal action or the loss of federal funding, they are rarely if ever successful, especially in recent years. For projects that are privately funded and are only under the jurisdiction of a local agency, such as the PHC, the situation can be quite different. The pressures of economic development can influence the decisions of local agencies that have little political or economic clout. The absence of a professional archaeologist on the PHC or its staff may mean that there is less support for archaeological research for city projects than there would be if an archaeologist was on the Commission or its staff. Since the PHC's members are appointed by the mayor, this could also influence the decisions of the PHC.

**6 - How is the public education aspect of archaeological work addressed in your cities? Do you have requirements for education components such as opening sites for public tours, providing literature for public consumption or creating archaeological site web pages? Are there other aspects of public archaeological education which you have successfully incorporated into projects under your jurisdiction?**

**Griswold** In the Northeast Region, we try and take advantage of any and all opportunities for fieldwork to educate the public about what we are doing. Many school groups visit parks where archeological excavation is occurring and we try to educate these groups about archeology in general and about the cultural resource management process in specific. These "tours" are both formally structured (set up in advance) and informally structured (where visitors just happen to be there at the right time).

We also reach out to the public by presenting programs during Archeology Month. For archeology month, we have conducted lab tours in Lowell, MA, archeological boat rides on canal boat tours, and gathered geophysical information on sites using Ground Penetrating Radar, Magnetometry, and Resistivity. These programs have been conducted in Lowell, MA, Saugus, MA, Concord, MA, and Cornish, NH. We try and take a “road show” at least once a year. Occasionally, when significant information is uncovered, like at Fort Stanwix, or at Washington’s Home in Philadelphia, websites are developed to highlight the discoveries.

A portion of the Archeological Resources Protection Act (ARPA) requires public education and involvement to prevent looting. I am part of a cadre of instructors who teach ARPA law and investigative techniques for ARPA crimes at the Federal Law Enforcement Training Center (FLETC). One of the sections of the course requires me to teach students about developing programs for educating visitors and school children about archeological crimes. These “students” then take back the information from these programs and develop programs to educate visitors and students on archeological crimes.

**Maresca** Public education is a component of the Secretary of the Interior’s Standards for Archaeology and Historic Preservation, and, as a result, is a necessary part of any strategy developed to mitigate the effects of a project on significant archaeological resources. Either some or all of the standard methods discussed in the question above are applied. While not a result of archaeological compliance, I was involved through the private sector with an archaeological education program developed by the Union County Cultural and Heritage Commission for their school district (middle school groups). The program consisted of classroom education on archaeology and field methods, on-site “box dig” at a county park where students learned how to excavate and record the reconstructed archaeological site, and final classroom presentation by each excavation group their results and interpretation.

**Shaffer** The public education component is generally, but not always, a component of an archaeological mitigation plan in which a National Register-eligible archaeological property cannot be preserved in place, and the elements of the public education component are usually spelled out in the project Memorandum of Agreement. Some examples include public tours, the installation of signage, historical markers or other wayside exhibits and the production of popularly-styled, well illustrated, non-technical reports and web sites for the interested public. The Federal Highway Administration and the Pennsylvania Department of Transportation have sponsored a series of non-technical reports concerning projects which have affected a variety of significant cultural resources located across the state, and these publications are made available to the public on request. These publications are in addition to the technical CRM reports kept on file at the SHPO.

**Spohn** For projects that fall under Section 106 or the State History Code, public outreach is a component of all projects that involve data recovery, and in some cases even if a project terminates with Phase II. The type of outreach or educational components varies according to the particular constraints of the project. Public tours can be arranged provided that all safety concerns are addressed, the property owner is agreeable, and the agency can be assured that the site will remain protected. For instance, there is one section of the I-95 project in Philadelphia where the APE was extremely narrow. There was not enough space and there were concerns for the safety of the public in that situation. However, we are providing opportunities for members of the public to view sites that are more open and present less of a

safety risk. At PennDOT, we have used a variety of exhibits, presentations at professional conferences, schools, and public meetings, signage, web sites, brochures, and other formats to inform the public of the results of our archaeological investigations. PennDOT also has a non-technical series of illustrated publications called “Byways to the Past,” which features archaeological investigations for a PennDOT project and which are distributed to interested members of the public.

Although the PHC opens its meetings to the public, will provide information and technical advice on request from members of the public, and maintains a small library on the history, architecture, preservation and archaeology in the city, it has no specific mechanism for involving interested parties like the Philadelphia Archaeological Forum, the Society for Pennsylvania Archaeology, the Pennsylvania Archaeological Council, or any of the other nonprofit preservation-oriented organizations that operate in Philadelphia like the Preservation Alliance for Greater Philadelphia or the Historical Society of Pennsylvania. Nor does the PHC have a mechanism to consult with interested Native American Tribes and Nations on projects or properties that involve Precontact sites. Unless projects fall under Section 106 or the State History Code, information about archaeological sites in Philadelphia may not reach the public.

**7 - Many cities are Certified Local Governments, enabling them to apply for preservation grants that can involve projects including archaeological surveys. The CLG program requires the city establish a “qualified historic preservation commission.” How does CLG status affect archaeological work in your cities? Do you know of archaeological projects funded through the CLG program? If so, can you discuss the specific process that occurs regarding the review of these projects?**

**Griswold** No comment.

**Maresca** New Jersey has two CLG’s (Burlington County, Evesham Twp and Mercer County, Hopewell Township) with specific archaeological requirements within their local ordinances. Evesham Township is the most active with a cultural resources consultant on retainer reviewing all projects. Archaeological survey reports are sent to the HPO for review and comment. The archaeological training and coordination with the other 43 CLG program staffs is sporadic.

**Shaffer** Projects involving the CLG program usually have some kind of state and/or federal funding source(s) and these projects generally undergo the same kind of SHPO review as any other state or federal undertaking. If, upon review, it is determined that a project may impact a previously identified resource, or, if it appears the project is located in an area thought to have the potential for an unidentified resource, then the SHPO will send a letter to the CLG requesting a Phase IA investigation, or a geomorphological assessment, or a Phase IB investigation.

**Spohn** If there is federal or state funding involved, then either Section 106 or the State History Code would apply, and archaeological investigations would in that case be required, if applicable. However, most of the historic preservation commissions or HARBs in Pennsylvania cities do not have archaeologists on their commission or board, even the PHC. This always raises the concern that archaeology does not receive the degree of attention that above-ground structures receive in Pennsylvania.

**8 - Does your city have a qualified historic preservation commission and, if so, is it staffed with at least one archaeologist who can review the CLG funded projects? If so, do they also review other local projects? If not, how are archaeological project reviews handled locally, or not, and is a specific review process being developed? If so, how was/is this process developed?**

**Griswold** No comment.

**Maresca** Again, New Jersey has only two CLG programs that are either staffed by, or consult with, an archaeologist for projects within those municipalities. Both municipalities have implemented an archaeological ordinance requiring the review of building projects.

**Shaffer** While Philadelphia and Pittsburgh have qualified historical commissions, neither city currently has an archaeologist on staff. Because of this, the SHPO assists with the archaeological reviews. The usual review process is followed, as noted above.

**Spohn** The PHC does not have an archaeologist on staff or on the commission and has not had one since the 1980s. There is now a professional archaeologist on the Committee on Historic Designation which nominates sites for the Philadelphia Register of Historic Places. The PHC only reviews projects which involve properties on the city's Register of Historic Places and require a city permit. The Pennsylvania SHPO often assists with archaeological reviews for these projects, especially if a state permit is required. The PHC does not have specific rules related to archaeology, but applies the Secretary of the Interior's Standards to all projects.

**9 - In certain situations, urban archaeology can be inherently dangerous to the archaeologists. How do you balance the need for safety with the goals of the archaeological compliance process? What creative field techniques have been employed in your projects to enable data collection and preserve safety?**

**Griswold** Safety is a paramount concern for NPS. Most of the project scopes that are developed require strict adherence to OSHA regulations and development of a safety plan. The archeologist who develops the scope must assess the need for additional safety precautions and will often require additional safety measures to adhere to OSHA requirements like shoring, soil contamination testing, or UXO detection.

**Maresca** Urban archaeology often includes deep excavation work in confined spaces and issues of site contamination. Projects being reviewed under Section 106 employ methods that are both "prudent and feasible" within the context of specific project circumstances. For example, urban projects may include combinations of backhoe excavation using a trench box/shield, geotechnical borings examined by a geomorphologist, geophysical survey (GPR), sampling of deeply excavated soils, and heavy machine cross sectioning of deep shaft features such as a well or canal prism. In all cases, archaeological survey work follows OSHA standards for excavation, trench entry, and shoring, and in many cases, is guided by a health and safety plan prepared in light of the specific project site conditions. While not creative, many large projects require geotechnical borings so arranging for a geomorphologist to be on-site with the drilling team while the borings are being taken is a cost effective way to complete the necessary engineering studies while providing important information on historic site

development and cultural resource potential. Another example included an archaeological program within an industrial site consisted of geomorphological borings followed by deep soil sampling that identified positive evidence for Native American occupation below dense urban fill and former marsh within the Hackensack Meadows. Finally, in cases where the safety hazards preclude archaeological investigation, alternate mitigation methods may be employed such as the development of research driven historic contexts or a synthetic document on the specific resource being affected by the project.

**Shaffer** The SHPO does not conduct archaeological fieldwork and therefore, is not directly involved in developing field techniques designed to keep archaeologists safe. This is a question which may be best posed to archaeological consultants and archaeologists employed by the agencies that are actually doing the projects. At a minimum, OSHA standards must be met for state and federal undertakings.

**Spohn** Safety is a major concern for archaeologists working in an urban situation. The areas involved can be quite small and narrow, and the amount of fill or overburden from historic and recent development can measure anywhere from a few feet to 20 to 30 feet or more. In the situation where the archaeological potential is unknown, an intensive Phase IA research survey including core borings or geomorphological studies can help decide whether physical testing is necessary or desirable for that project. Projects that require excavation must follow OSHA standards. In larger areas, stepped excavation units are used, with shoring as needed. Where space is more restricted, smaller units (1 by 1 or 2 by 2 meters) are used, with appropriate shoring to prevent wall collapse and protect the archaeologists. In the I-95 project, URS Corporation is using shoring boxes with ropes and pulleys to hoist buckets from the lower parts of the excavation units. Mechanical stripping is frequently used to remove large amounts of fill. This can be done in relatively narrow areas with smaller machines like a bobcat.

There are situations where it may be more appropriate to seek an alternative other than excavation to comply with Section 106. For instance, PennDOT had a project involving the construction of a pedestrian bridge over railroad tracks on the east bank of the Schuylkill River in center city Philadelphia. Most of the proposed ground disturbance involved the placement of piers to support the structure. Background research disclosed that historic wharves had been located within the Area of Potential Effect (APE) in the nineteenth century, when this part of Philadelphia supported a number of industries along the river. Core borings identified a layer of relatively thick wood, believed to represent these wharves at approximately 15 feet below the existing ground surface, and covered with unconsolidated fill including concrete, metal, coal, ash and cinders. The APE was quite small, measuring in width from 7.5 feet to a maximum of 35 feet, a very narrow area which would need to be opened up mechanically to meet OSHA standards. Furthermore, the unconsolidated fill above the level of the wharves is very unstable, posing an additional safety concern. In place of archaeological excavation, PennDOT proposed to do extensive historic archival research to evaluate the role of these wharves in the economic development of the city and prepare a report on this research. Two plaques about the wharves and their significance were erected, one on the pedestrian bridge itself and one in a nearby park. Alternative mitigation may be the most appropriate approach to compliance in certain situations where conditions are extremely hazardous.

## **10 - Is there anything else which may be of interest regarding the practice of archaeology in your cities that you would like to share?**

**Maresca** continued challenge is making the public aware that nationally significant

archaeological sites still exist within, and below, the urban landscape. Nineteenth and early twentieth century filling of wetlands, river channels, and waterfronts encapsulates and preserves archaeological sites in diverse environments, even below existing buildings. Second, while archaeological sites may be truncated by later intrusive building activities, those surviving elements of the archaeological site still holds important information for archaeologists to excavate, study and provide a coherent interpretation of that particular story of past human activity.

In addition to the regulatory requirements discussed above, New Jersey also has two additional mechanisms for archaeological survey. New Jersey Pinelands Commission is a separate regulatory agency responsible for permitting activities within their jurisdictional boundary (south-central New Jersey). Phase I archaeological surveys submitted for Pinelands review must follow the Pinelands survey and reporting format (a combined Phase IA and Phase IB). Also, the New Jersey Historic Trust funds preservation projects that often include an archaeological component. Based on Trust staffing, the review process either directly involved the HPO or a consulting archaeologist working directly for the Trust.

**Shaffer** Many project sponsors and agency personnel who are not archaeologists appear to not have a very good understanding of the extent to which significant archaeological deposits have been buried and preserved in urban settings. More than a few such people may assume that if an area is currently paved, for example, this activity would have destroyed anything of interest that may have once been there. There is a growing number of projects, particularly in Philadelphia, that have demonstrated this simply is not the case. This is an important fact that the archaeological community as a whole should share, using specific examples, with project sponsors and agency personnel.

**Spohn** Generally speaking, the situation for the practice of archaeology seems to be improving in Philadelphia. City agencies have solicited consultants to perform archaeological services for their projects which have federal funding. This has not always been the case in Pennsylvania cities in the past. While the PHC still does not have an archaeologist on the Commission itself or on its staff, one was recently appointed to the committee that evaluates nominations to the city's Register of Historic Places. There is still a lack of understanding of Section 106 and its requirements among many agencies and project sponsors in Pennsylvania. PennDOT has found that hiring Cultural Resource Specialists in archaeology to work in the Districts has vastly improved our compliance with Section 106, enhanced preservation efforts throughout the Commonwealth, and greatly increased our knowledge of the history of Pennsylvania through the results of the research conducted for our projects. Furthermore, the attitude that archaeology is very expensive, time consuming and delays or shuts down projects is still prevalent among agencies and developers, although this is not usually the case.

Many folks in city agencies, developers, and many members of the public believe that later historic and recent development in our cities has destroyed the archaeological resources that once existed. But recent work in Philadelphia (i.e. the I-95 project) has clearly demonstrated that significant archaeological resources still survive. By reaching out to the public, agencies, developers and officials, and by sharing the results of archaeological projects in our cities like the I-95 project in Philadelphia, we can enhance the practice of urban archaeology and demonstrate its value to present and future generations.

Compiled and edited by Linda Stone