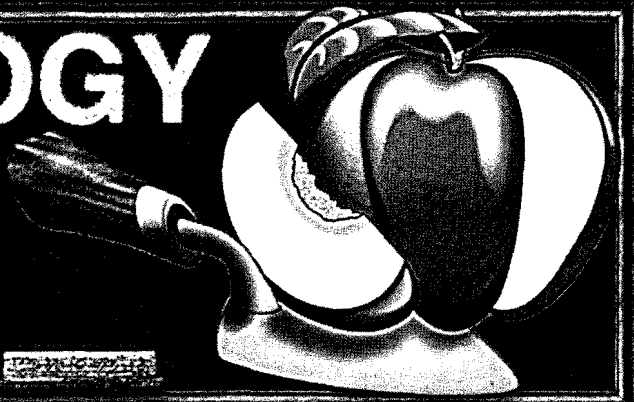


# ARCHAEOLOGY AND PUBLIC EDUCATION



Society for American Archaeology, Public Education Committee

Vol. 8, No. 3, 1998

## Archaeology And Public Education: Continuing To Evolve

**ARCHAEOLOGY AND PUBLIC EDUCATION**

Society for American Archaeology, Public Education Committee

**"We** don't apologize for the several ways in which American archaeology relies on federal laws and programs. It is entirely appropriate that preserving and understanding America's archaeological heritage be a national concern."  
*SAA President Bill Lips*

**ARCHAEOLOGY AND PUBLIC EDUCATION**

Society for American Archaeology, Public Education Committee

**Heritage Education**

**An All-Inclusive Approach**

*"Heritage education focuses... attention on the actual evidence of our history and culture, such as the natural and built environment, material culture, practices, and history, music, and folklore, then engages learners in an interactive exploration of this evidence."*  
— Heritage education advocate Kathleen Hunter

**ARCHAEOLOGY AND PUBLIC EDUCATION**

Society for American Archaeology, Public Education Committee

**MUSEUMS**  
THE OTHER CLASSROOM

*Museums offer ideal environments for teaching kids in all subject areas and helping them to develop critical thinking skills.*

**ARCHAEOLOGY AND PUBLIC EDUCATION**

Society for American Archaeology, Public Education Committee

**ARCHAEOLOGY EDUCATION IN THE OLD WORLD**

**ARCHAEOLOGY AND PUBLIC EDUCATION**

Society for American Archaeology, Public Education Committee

**Images On Stone**

**Understanding Rock Art**

**ARCHAEOLOGY AND PUBLIC EDUCATION**

Society for American Archaeology, Public Education Committee

**Federal Archaeology**

*Federal agencies have played a leading role in protecting the past by preserving and managing cultural resources, involving and teaching the public, and supporting archaeology education projects and initiatives.*

Since 1990, *Archaeology and Public Education* (ISSN 1080-0611) has been produced quarterly or thrice-annually by the Society for American Archaeology Public Education Committee (PEC). Volume 8, Number 3, will be the last printed edition. Editorial and production editors have included Ed Friedman, Phyllis Messenger, Michele Hope, KC Smith, Amy Douglass, and Cathy MacDonald. Regular contributing editors have included Carol Ellick, Mary Kwas, and Beverly Mitchum Chiarulli. The current editors wish to thank Dorothy Krass, SAA education manager, and Janet Walker, former SAA publications manager, for their assistance and support, as well as the many individuals who shared their thoughts and expertise in this newsletter.

Queries about the new PEC monograph series, forthcoming in 1999, should be directed to Amy Douglass, Tempe Historical Museum, 809 E. Southern Ave., Tempe, AZ 85282; (602) 350-5105.

#### PEC MISSION STATEMENT

The Public Education Committee exists to promote awareness about and concern for the study of past cultures, and to engage people in the preservation and protection of heritage resources. Our publications aim to aid educators, interpreters, archaeologists, and others who teach the public about the value of archaeological research and resources.

#### MEMBERSHIP INFORMATION

For information about the SAA Public Education Committee, contact Shereen Lerner, chair, Mesa College, Department of Cultural Sciences, 1833 W. Southern Ave., Mesa, AZ 85202; (602) 461-7306. For information about joining the Society for American Archaeology, contact the SAA office.



Find us on the  
World Wide Web at  
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## ONE ERA ENDS, ANOTHER BEGINS

KC Smith

Somewhere in the process of preparing this edition of *Archaeology and Public Education* (A&PE), coeditor Amy Douglass and I began to call it "The Ultimate Issue." The moniker referred primarily to the fact that Volume 8, Number 3, will be the last printed version of A&PE; but it also pertained to the newsletter's theme—an overview of archaeology education in the last decade, as spearheaded and witnessed by members and supporters of the SAA Public Education Committee (PEC).

During its genesis in the early 1990s, A&PE was a photocopied document that former PEC Chair Ed Friedman cranked out four times a year for a new and enthusiastic audience committed to public archaeology. The content was eclectic—from articles about public involvement in the discipline to news briefs and announcements and, especially, items intended to help teachers bring archaeology into their classrooms.

By 1993, Ed's other PEC duties had burgeoned, so Phyllis Messenger and I volunteered to take over the newsletter, and at the same time, the SAA Board of Directors agreed to fund its printing. A new era and a new look began for the publication. The "Education Station," a section devoted to teachers, became a regular feature, as did columns by PEC subcommittee chairs. Eventually, we chose a theme for each issue and solicited related articles, rather than simply relying on "whatever came over the transom," as Phyllis was fond of saying.

In 1996, Amy assumed Phyllis's role as the front-end editorial director, while I continued to handle layout and production. Over the next three years, we honed A&PE into a thrice-yearly newsletter that explored, in each issue, a specific aspect of archaeology that we believed would be of interest and use to classroom teachers, who remained our target audience.

Unfortunately, our success became our undoing. After the A&PE mailing list topped 10,000 recipients, the SAA Board knew that it no longer could offer the newsletter free of charge. A modest subscription fee was initiated for non-SAA members, although members could opt to receive the publication as a benefit of paying their annual dues. However, the freebies soon outstripped the subscriptions, and A&PE remained a financial liability. The board and PEC members discussed various options, but it was clear that A&PE's days were numbered.

A very glum ad hoc newsletter committee convened at the 1998 SAA Annual Meeting to consider the alternatives. For a variety of reasons, we preferred not to convert the newsletter solely to an electronic document on the SAAweb, as the board had suggested. We all felt strongly that archaeology educators, especially classroom teachers, would best be served with a printed publication—and that is the course that we decided to pursue.

In 1999, the PEC will introduce a new, biannual monograph series. As with A&PE, each booklet will include feature articles that explore a specific archaeological topic, complemented by an educational component. However, the monographs will be sold individually, fewer copies will be printed, and they will be marketed to a wider audience. The series will have a new name and a new look, and it will continue to provide information about archaeology geared primarily for the lay public.

A&PE will live on electronically in a modified form. The newsy elements of the newsletter will be posted and updated periodically on the SAAweb, and previous printed issues will be available on the same site,

*Continued on page 15*

# PUBLIC ARCHAEOLOGY

## A PROFESSIONAL OBLIGATION

*Francis P. McManamon*

Contributing to public education and outreach about archaeology should be a standard part of the professional activities of every archaeologist. Of course, not every archaeologist has the necessary skills and knowledge personally to carry out public education or outreach, such as developing a general interest video or delivering a series of public talks. Those who do not actively undertake such projects should contribute by supporting those who do. Moreover, the support should be meaningful—for example, extending to funding decisions, development of academic courses, and tenure decisions.

The importance of public education and outreach is not a new idea, although it has been emphasized in recent years, especially by public agency archaeologists and professional organizations such as SAA, the Archaeological Institute of America, and the Society for Historical Archaeology. The Antiquities Act was enacted more than 90 years ago to regulate how archaeological sites were to be treated on public lands. The statute emphasized expert, systematic excavation and recording as part of any archaeological investigation on public land. To receive a permit, the applicant had to ensure that any material excavated or collected would be placed in a "public museum" and that the finds should be "accessible to the public" (43 CFR 3.17). From the very beginning of government efforts to protect American archaeological resources, the importance of public outreach and accessibility of archaeological information was recognized.

A generation later, Jesse L. Nusbaum, the first National Park Service departmental consulting archaeologist, reported about the challenges of preserving archaeological remains on the public domain. He viewed improving public appreciation and understanding of archaeology as a crucial factor (Nusbaum 1929:7):

... the problem of protecting archaeological remains on the public domain is primarily that of educating the public to proper appreciation of the value of scientific investigation by qualified scientific and educational institutions as contrasted with the destructive work of the pothunter, the curio-seeker, and the vandal. In the former case the information and the materials gained are accessible to the public through published reports and public museums, while in the latter all benefit to the public is lost.

Nearly a century after the Antiquities Act was passed and 70 years after Nusbaum's report, the importance of public education and outreach has not diminished. In fact, the growth of population and increase in settlement density, the private ownership of land containing archaeo-

logical sites, and the general lack of knowledge about archaeology and ancient American history make the need to focus professional activity on public education and outreach even greater. Professional archaeologists must ensure that the progress in outreach that has occurred in the past decade is not lost. We need to make the conduct and support for education and outreach programs part of the regular business of professional archaeology.

A complementary set of public education and outreach programs is needed, each aimed at different audiences throughout the country. Activities are needed nationally, as well as at the state and local levels. The topics for continued activity and attention include formal education, supplementary education, general public access to archaeological information, and professional and graduate education for archaeologists.

### *Formal Education*

Programs involving the formal educational system have been a focus of archaeological attention during the last decade. Activity on this front has occurred nationally, statewide, and locally. Nationally, efforts have focused on how to coordinate educational activities so that information can be efficiently shared among archaeologists and educators. At the state and local levels, activities have concentrated on developing teaching tools, such as lesson plans and materials to use with particular lessons.

Important efforts also have included working with state departments of education to have archaeological information incorporated into statewide learning standards. At both of these levels, the focus has been on working with teachers to develop ways of including archaeological concepts and information in established school curricula. History and other social studies subjects have been one focus of these efforts, but math and science courses also provide opportunities for incorporating archaeologi-

*Continued on page 13*

# PUBLIC EDUCATION AND STEWARDSHIP

... yesterday and tomorrow

## A Retrospective

Phyllis Messenger

The field of archaeology has made dramatic changes in the last three decades. In the United States, it has been transformed from a discipline practiced mainly in university contexts to one that is carried out primarily in the context of cultural resource management, with increasing emphasis on responsibilities to the public and to the archaeological resources themselves. As Charles McGimsey and Hester Davis stated, it is not so much a matter of creating a "public archaeology," but that "archaeology has begun to recognize, utilize, and serve its various publics more effectively—publics which were there all along" (1998).

Archaeologists have embraced a broad interpretation of stewardship, encompassing not only the notion that the protection of archaeological sites requires public involvement, but also that the public should reap the benefits from archaeological research. The 1988 amendments to the Archaeological Resources Protection Act (ARPA) of 1979 strengthened penalties for violations of antiquities laws protecting cultural resources on public and tribal lands. ARPA also directed federal agencies to establish public education programs "to increase public awareness of the significance of the archaeological resources located on public and Indian lands and the need to protect such resources" (Jameson 1991). The programs set in motion by this amendment, and ensuing directives by then-Secretary of the Interior Manuel Lujan, may represent some of the most significant trends in developing ethical treatment of cultural heritage resources.

### Many Initiatives

The National Park Service (NPS), Bureau of Land Management (BLM), Bureau of Reclamation, and other federal agencies within the Department of the Interior have developed and supported numerous initiatives. These agencies are making a concerted effort to include multiple perspectives in their interpretive programs at parks and heritage sites. NPS spells this out in its 1988 Management Policies, requiring that parks "actively consult" with tribes in planning, developing, and operating interpretive programs (Sucec 1997). Project Archaeology, a middle-school curriculum developed by BLM, seeks to use the excitement of ar-

chaeology to teach "young citizens about their cultural heritage so that they are equipped to make wise decisions concerning the use and protection of archaeological sites now and in the future" (Moe and Letts 1998). BLM staff are working with networks of teachers and archaeologists in several states to implement and sustain this curriculum.

Professional societies, including SAA, the Archaeological Institute of America (AIA), and the Society for Historical Archaeology, have been at the forefront of developing resources that enable the public to understand and appreciate the past through archaeology—for example, SAA's *Teaching Archaeology. A Sampler for Grades 3 to 12* and AIA's *Archaeology in the Classroom: A Resource Guide for Teachers and Parents*.

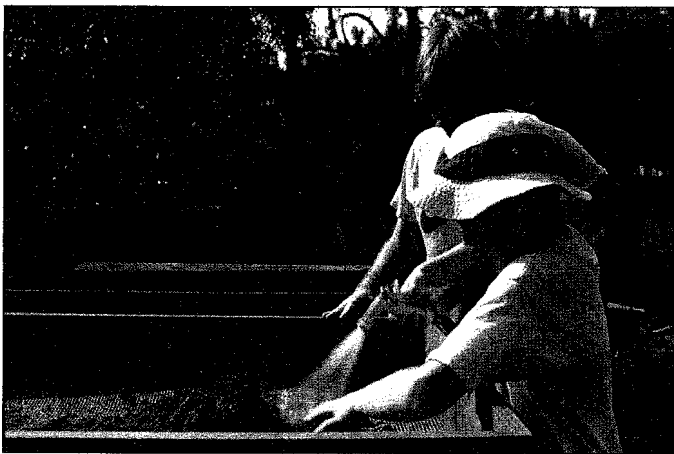
The SAA "Save the Past for the Future" project was kicked off at a special session of the 1989 SAA Annual Meeting and a week-long working conference in Taos, N.M., later that year. In Taos, three working groups addressed the critical problem of site looting and vandalism from three different perspectives—understanding, preventing, and combating the problem. Nearly 240 recommendations were compiled in a final report, *Actions for the '90s*, that was presented at the 1990 SAA Annual Meeting in Las Vegas. Among the conclusions of Taos conference participants was that public education was the most effective long-term solution to the problem of site looting and vandalism. An ad hoc working group developed an action plan that led to the establishment of the SAA Public Education Committee (PEC) in 1990.

### The PEC Mission

The PEC mission is "to promote awareness about and concern for the study of past cultures, and to engage people in the preservation and protection of heritage resources." The committee has initiated numerous programs to promote this mission through outreach and collaboration with teachers, students, avocational societies, archaeologists, and the public, and through workshops, symposia, publications, media projects, and a traveling exhibit of archaeology education resources. The PEC has developed a network of coordinators representing most U.S. states and Canadian provinces to link SAA with local archaeologists and educators.

Through its mission, the PEC has expanded beyond its initial goal of protecting the past to involving the public in

*Continued on page 15*



*In the past decade, archaeology education programs have promoted preservation concepts and focused on precollegiate audiences. A key to the success of these efforts has been involvement of professional archaeologists and their willingness to work with youthful participants. Photo by KC Smith*

## Looking Ahead

Shereen Lerner

In the past decade, the Society for American Archaeology, through its Public Education Committee (PEC), has made great strides in expanding efforts to reach the public in a variety of venues. As we advance toward the 21st century, it becomes even more critical to look not only to the future but also to the past to help ourselves grow. Learning about the past can offer many opportunities to discover who we are, where we came from, and where we are going. To advance our education efforts, the PEC is looking to the future to enhance our successful programs and develop new ones.

So where are we going in our efforts to inform and educate the public?

### Top Priorities

Two PEC priorities will be teaching future professional archaeologists about the ethics of archaeology and educating professional archaeologists about how better to work with the public. As part of this effort, an SAA task force on teaching archaeology in the 21st century has been established, which has its roots in the Public Education Committee. The task force will focus on undergraduate and graduate education, and how to teach more effectively the basics of archaeology and the ethics and values of learning about and preserving the past. PEC members will serve on the task force to maintain the link to education programs.

In addition, the committee will work to encourage the review of education-related books in the SAA professional journal, *American Antiquity*. The committee also is working on a special issue in *American Antiquity* that focuses on public education. These efforts are important in helping professional archaeologists to realize that public education publications and programs are part of mainstream archaeology, and that such efforts are as important as more traditional modes of archaeological publication and presentation.

In the area of precollegiate education, we are working to review, update, and maintain guidelines for education programs. A career brochure available through SAA will be one of our major efforts. In addition, we are striving to work more closely with state social studies coordinators to incorporate archaeology into educational curricula.

Many of our future efforts will be directed toward reaching Native American educators and those who teach in schools with large numbers of Native American students. We are continuing to develop and hold workshops designed to teach such educators about teaching archaeology. Efforts are underway to secure long-term funding for future work in this area.

Perhaps one of our most ambitious goals for the future is to develop a theme-oriented monograph series that includes lesson plans, geared for precollegiate teachers. These biannual publications will be a useful tool not only for classroom educators but also for professional archaeologists who give presentations at schools or participate in public events. The information in these monographs will provide ideas about how to teach archaeology in a creative manner. As part of this publications transition, we also will enhance the SAA web page with a strong education component. This material will provide the public with information on educational programs and opportunities.

### A Steadfast Commitment

We will continue to encourage states to get involved in archaeology education programs. As part of our goal for 100 percent participation, we are developing a "how to" booklet for states that have yet to establish an archaeology week program. We also plan to expand our efforts with special interest groups. There is now an archaeology badge for Boy Scouts; we are working on developing a similar badge for Girl Scouts.

The PEC is moving ahead. As many studies have shown, people have an inherent fascination with the past. As archaeologists we can help to satisfy some of this curiosity by creating venues in which people can learn about the past. Through the efforts of the Public Education Committee, and countless others dedicated to bringing archaeology to the public, we will continue to enhance old programs, develop new ones, and work toward the goal of teaching about the past as part of discovering more about who we are, where we came from, and where we are going.

*Shereen Lerner, chair of the SAA Public Education Committee, teaches in the Department of Cultural Sciences at Mesa Community College, 1833 W. Southern Ave., Mesa, AZ 85202; (602) 461-7306.*

# Programs That Endure

## *Two Successful Archaeology Education Efforts Provide Models For Up-And-Coming Programs*

*Beverly A. Chiarulli and Nancy Hawkins*

Public archaeology education programs are relatively easy to start. Initially, someone has an idea; others add enthusiasm and funds; and suddenly, a program is off on its own trajectory. But how are such programs sustained? This article offers two approaches to maintaining that initial enthusiasm.

### *The Louisiana Model*

Louisiana's program to provide archaeology information to the public is long and successful. The State Historic Preservation Office initiated an outreach program in 1981 that steadily has grown and expanded. Annually, thousands of residents receive free publications, attend archaeology week events, and view exhibits about recent archaeological research. The outreach program is supported by a combination of state and federal funds.

Special efforts for teachers have included materials about archaeological methods and state prehistory and history. More than 1,200 precollegiate educators on our mailing list receive each new archaeology booklet that the office prints (about one a year), as well as the annual archaeology week schedule. The office also lends classroom exhibits, videos, books, and slide-tape programs to teachers, and it gives Louisiana teachers free copies of posters and classroom activity guides.

Consider a typical week in August. A 2nd- to 4th-grade teacher of gifted students arranges to preview copies of six books that her students can use to learn about archaeological methods. Several "Louisiana Studies" teachers ask for copies of free printed materials about state prehistory and history, and one requests information about reserving classroom exhibits. An education coordinator at an antebellum plantation borrows books for a teachers' workshop at the plantation, and the curator at another historic home requests videos to use with school groups.

The educators learned about the availability of these materials through a division web site, a teacher workshop, another state agency, and a friend. The longevity and stability of the Louisiana program—at the same address and phone number for more than 15 years—have led to a wide network of governmental, organizational, and individual contacts. These contacts refer classroom teachers, textbook authors, educational film producers, and others to the office. Thus, the Louisiana Division of Archaeology serves a manifold role: as a developer of materials, a source of information about commercially available items, and an advisor to producers of educational resources.

### *The Pennsylvania Model*

Public education in Pennsylvania began with an initial burst of enthusiasm seven years ago with the first state archaeology week, organized by the Pennsylvania Archaeological Council, the Society for Pennsylvania Archaeology, and the Historical and Museum Commission. Now extended to an archaeology month, the event remains the keystone for state activities.

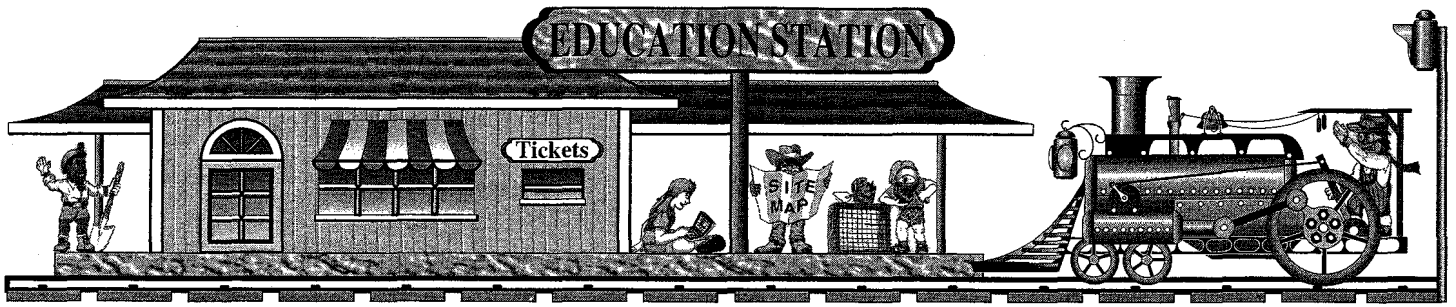
Particular emphasis has been placed on teacher training and curriculum development. More than 200 teachers statewide attended workshops funded by grants from the Pennsylvania Historical and Museum Commission and the SAA Pilot Program. Although the following year's contingent of 75 participants included Corps of Engineers, state park, and historic site interpreters, we believe that the decline in participation was due to the fact that, without internal sources of funding, workshops were held only when requested by specific agencies or school districts.

A long-term solution has been to continue to support programs provided at the request of a school district or agency, and to embed workshops within university programs. The most successful program has been a three-credit course, Basic Archaeology for the Teacher, taught by anthropology professor Renata Wolyneć at Edinboro University of Pennsylvania. Originally taught in summer sessions, the course now is presented during the regular school year. Because it can be taken for graduate or undergraduate credit, it reaches teachers in training and those working on advanced degrees. Such courses provide a broader understanding of archaeological concepts than is possible during one- or two-day workshops.

As Wolyneć describes it, the course uses materials from two Bureau of Land Management programs—Intrigue of the Past and Project Archaeology: Pennsylvania. Continuing education workshops for teachers also will be taught at Indiana University of Pennsylvania. Our challenge in sustaining Pennsylvania programs is to find homes in organizations willing to make long-term financial and staffing commitments toward their implementation.

In both states, stability is the key factor in creating an enduring program. The Division of Archaeology in Louisiana provides stability for its program. The Pennsylvania program still is looking for partnering institutions and programs to support its archaeological education efforts.

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The Education Station is designed as a pull-out section of resources and information for archaeology educators

# Lesson Plans

## KEY TO CLASSROOM CONTENT

*Barbara Gronemann*

Lesson plans are not just for teachers. Any experience that imparts knowledge to a group is a form of lesson. A lesson is an experience through which useful knowledge is gained. An effective lesson focuses on a few key objectives and identifies the thinking skills, materials, and procedures to be used during the activity. It also is directed at a specific audience, whose skill levels and daily experiences are known to the presenter.

Let's say that your child's 4th-grade teacher knows that you are a historical archaeologist. The class is studying state history and prehistory. You are asked to talk for 45 minutes about archaeology during the history period.

How do you present your knowledge to students, especially if you don't have a degree in education, and you're not sure what they already know? First, don't take the word "talk" too literally because talking isn't the only means through which you can impart information. Plan a hands-on activity that will make your presentation a sure-fire learning success.

For example, a hands-on activity might allow students to work on their own: give each student a pot sherd and a magnifying glass and ask the kids to discover details about prehistoric pottery. Alternatively, the class might be divided into teams, with students in each group deciding cooperatively on a hypothesis for the use of an unfamiliar artifact. Or the whole class might participate in a playground activity to experience the procedures in an archaeological survey.

Regardless of the chosen arrangement for participating, the steps and activities involved in the presentation need to be organized. As a classroom educator, you need a plan. The plan is a method, scheme, or design for attaining your objectives. Your objectives—what you want students to gain from the learning experience—give direction to the plan.

When the teacher invites you to visit the class, ask what she or he would like students to learn from the experience. Determine the students' skill levels and briefly outline the content of their studies. Because the entire topic of archaeology would be too overwhelming, select one concept area to cover. "Archaeology is an integrative, interdisciplinary field. The study of archaeology can address some of the concerns

of educators today—namely, scientific inquiry, problem solving, observation-inference, cooperative learning and citizenship skills" (Smith et al. 1993). There is a wide spectrum of possibilities for using archaeology in the classroom.

As the invited archaeologist, get to know your audience. What is the "here and now" for these 4th graders? What are their daily experiences? What are their clothing fads? What are their favorite foods, games, TV shows, books, sports, and clubs? This information will help to relate what you present in their language, and it can help you to illustrate your points. Since you have a 4th-grade child, you may have a good idea of the answers to some of these questions. If you do not have your own children to relate to, you may want to seek help from the teacher.

Let's say that, when you last visited the school, you noticed that your child's classmates were really into playing marbles. Playing marbles was an everyday experience for these 4th graders. It was their here and now. And let's suppose that you have access to a collection of marbles uncovered at various historical sites. Why not use marbles as the artifact in the hands-on experience?

The challenge now is to narrow down the broad field of archaeology to one specific archaeological learning experience that would include marbles. Looking back, you recall that the words "opaque" and "transparent" were on your child's spelling list. These words would fit beautifully if the marbles were analyzed and described on an analysis sheet. Now your objectives need to be clarified and the procedures for carrying out the activity listed. What knowledge or outcome do you want the students to have? Once you have your objectives and lesson activity planned, consult with the teacher to see if it is feasible for the class.

The following pages (pp. 8–9) provide a template for planning a hands-on classroom lesson, using marbles as a means of introducing an archaeological concept.

*An author and a former classroom teacher and museum educator, Barbara Gronemann is the founder and director of Southwest Learning Sources, Inc., 6440 E. Presidio Rd., Scottsdale, AZ 85254–3970; (602) 991–0341.*

HOW TO CONSTRUCT

# A Good Lesson Plan

## LESSON TOPIC: AN ANALYSIS OF MARBLES.

### Lesson Overview

The lesson overview provides a brief description about the topic, nature, and purpose of the activity.

To demonstrate what happens to artifacts in the lab, students will be given bags of historic marbles, analysis sheets, and calipers to measure the diameter of the marbles.

### Objectives

Objectives identify what you want students to know, comprehend, be able to apply, analyze, synthesize, or evaluate from the lesson experience (Bloom 1956). Objectives often are stated in terms of the desired outcome, i.e., *Students will . . .*

Students will understand that the description and comparison of the different marble sets represent important steps in archaeological analysis. Through this process, information will be acquired about the social history of marble playing; for example, no matter where or at what time they lived in the state, children played with marbles.

### Subjects/Skills

Subjects refer to the disciplines addressed by the activity. Because archaeology is so interdisciplinary, it offers myriad opportunities to enrich lessons in virtually all subject areas. Skills refer to the thinking skills used in the learning experience. One of archaeology's great benefits is its ability to enhance critical thinking skills.

- Science, mathematics, history
- Analysis, comprehension, comparing, contrasting

### Class Size/Age Level

Class size affects the feasibility of an activity; for example, larger groups need more time to accomplish tasks, so an activity should be as simple as possible. In addition, lesson plans usually are developed with a particular audience age in mind, although they often can be tailored to meet the needs and skills of younger or older students.

### A Complete Line of MARBLES

Everything that sells—from the common gray shooters to the big brilliant specialties. Note what a very profitable return can be gotten from a small investment.

AMERICAN MARBLES.		IMPORTED MARBLES.																					
	2F14. Common Gray American Marbles—Compare in size and weight with others. 1000 in one bag of about 50 M. . . . Per M. 15c	Approximate sizes: 00, 1/4 in.; 0, 1/2; 1, 3/4; 2, 1; 3, 1 1/4; 4, 1 1/2; 5, 1 3/4; 6, 1 1/2; 7, 1 3/4; 8, 1 3/4; 9, 1 3/4; 10, 2.																					
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	2F16. Imported Polish—ed Genuine Stone Marbles—Ass'd. colors and size. 1000 in bag. Full count. . . . Per M. 67c		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Size</th> <th>Per M</th> </tr> <tr> <td>2F17. 00—500 box. . . . .</td> <td>\$0 22</td> </tr> <tr> <td colspan="2">(in case lots 50M, 2ic.)</td> </tr> <tr> <td>2F18. 0—500 box. . . . .</td> <td>35</td> </tr> <tr> <td>2F19. 1—200 " " " " " " "</td> <td>50</td> </tr> <tr> <td>2F20. 2—100 " " " " " " "</td> <td>\$0 08 72</td> </tr> <tr> <td>2F21. 3—100 " " " " " " "</td> <td>11 1 00</td> </tr> <tr> <td>2F22. 4—50 " " " " " " "</td> <td>18 1 50</td> </tr> <tr> <td>2F23. 5—50 " " " " " " "</td> <td>24 2 00</td> </tr> <tr> <td>2F24. 6—50 " " " " " " "</td> <td>32 3 00</td> </tr> </table>	Size	Per M	2F17. 00—500 box. . . . .	\$0 22	(in case lots 50M, 2ic.)		2F18. 0—500 box. . . . .	35	2F19. 1—200 " " " " " " "	50	2F20. 2—100 " " " " " " "	\$0 08 72	2F21. 3—100 " " " " " " "	11 1 00	2F22. 4—50 " " " " " " "	18 1 50	2F23. 5—50 " " " " " " "	24 2 00	2F24. 6—50 " " " " " " "	32 3 00
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- Class size: 25 students divided into four groups
- Age level: 4th grade

### Time Required

This is the amount of time needed to complete a lesson. A time limitation helps to keep the lesson focused.

In the scenario presented on page 7, the teacher has set a time limit of 45 minutes—which is about the length of most class periods. Regardless of how long you have, try out an activity with children to see whether the lesson is doable in the allotted time. Set up a time limit for each step.

### Materials

A list of the materials required for the lesson will ensure that you have everything that you need.

- Four artifact bags containing marbles recovered from four sites—a fort, homestead, ranch, and home in a historic district—with excavation data (site number, date, location, etc.) written on the bag

Each bag should have a different selection of stone, hand-made glass, steel, clay, and machine-made glass marbles. The differences in the sets of marbles will be due to the fact that the sites date to different time periods.

- An analysis sheet, calipers, and pencils for each group
- The analysis sheet should provide spaces for recording the diameter, material, and type of manufacture (hand made or machine made) of each marble in a bag, and include a space for drawing or describing marble design elements. Because the type of manufacture may be difficult to assess, students also may need written resources to consult (e.g., Bauman 1970; Block 1998).

- A key that lists raw materials used to manufacture marbles (clay, stone, glass, metal, and wood), with subdivisions for design and color. The key also should include the manufacture dates of various marble types.



## Vocabulary

Define words that are important to understanding the lesson and provide examples using the words to ensure that students comprehend their meaning.

- historical archaeologist, historical artifact, archaeological site, calipers

## Background

This is information that a presenter or teacher should know before beginning the lesson. Often, students also need to know the information to complete the activity.

If you are a historical archaeologist, you have the knowledge necessary to present the lesson, although you still need to know about the students (see page 7). If you are a teacher, you should know that archaeologists analyze and research artifacts to learn about cultures and behaviors of people of the past. Before an archaeological site is excavated, a research design is formulated with specific questions and hypotheses that one hopes will be answered and confirmed by data obtained from the site. Artifacts are among the details that help to answer those questions. By identifying the physical characteristics of marbles from different sites, and comparing and contrasting their attributes, information may be gleaned about marble playing by children of the past.

## Setting the Stage

This step introduces the lesson, providing the "grabber" that sets the tone and enthusiasm. It can be presented as an activity, demonstration, object of interest, picture, interactive discussion, or pertinent question.

Hold up a plastic bag containing marbles excavated from a historic site. Ask students what they are, and whether they play marbles. Do these marbles look like the ones they use? Explain that these marbles, found at forts, homesteads, school yards, and ranches, were used by children many years ago. Explain that the marbles are historic artifacts because of the time periods in which they were made and used. Define an artifact as "any object made or used by humans," and introduce and discuss the other vocabulary words. Tell students that they will analyze the marbles to learn about them and the children who played the game in the past.

## Procedure

Define each step that will be taken to present the lesson activity.

Divide students into four groups, placing each team at a separate work station. Redefine the term "historic artifact" and show some examples. Explain the data recorded on the artifact bags and distribute a lab analysis sheet to each group.

Explain that each group will analyze marbles from different historic sites, and demonstrate how students should accomplish each step of the analysis. Be sure that they know

how to use the calipers. Tell teams to decide among themselves who will be responsible for the different analytical tasks. Each group also should choose a reporter, who will list the marbles that the group analyzes, the sites from which they came, and the basic characteristics of each marble that the students record on the analysis sheets.

When the analysis is complete, explain that, at this stage, a real archaeologist would compare and contrast the analyzed sets of marbles. As each team reporter shares details about the group's findings, chart the information on the blackboard. Ask students pertinent questions to prompt their interaction about what can be learned by comparing and contrasting the marble sets. For example, do all four sites have the same types of marbles? If not, how are they different?

Next, lead a discussion about additional information that could be used to gain further insight about the marbles. For example, what information about each site or the other artifacts found with the marbles would be useful? How could the students find out where the marbles were made?

## Closure

The lesson conclusion helps the presenter to determine whether the objectives were met.

Ask questions that prompt students to think about the learning experience and the information acquired. Why do you think that the marble analysis was important? What new information have you learned about the work of archaeologists? What have you learned about marble playing in history? Where might you find other details that would be helpful in the marble analysis? Hopefully, the students will suggest going to the library, where they can research not only marble-making and where certain kinds of marbles were made, but also additional information about archaeology.

## Epilogue

The most important step of the lesson is for you, the presenter, to have fun along with the students. If you have a good time, the students will as well; your enjoyment will create a good learning atmosphere. Moreover, it will be a learning experience for you as well as the students.

*The format for this lesson plan was taken from Intrigue of the Past: A Teacher's Activity Guide for Fourth Through Seventh Grades (Smith et al. 1993) and adapted to the A&PE style. The author thanks Mark Hackbarth for his comments and information.*

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# TO DIG OR NOT TO DIG?

One of the oldest public outreach programs has experimented with numerous alternatives—and reached a firm conclusion

Nancy Hawkins

Excavation is the part of archaeology that is most familiar to the public. It also is appealing to teachers as a high-interest, hands-on educational tool. As a result, it functions as a “hook” for getting students involved in archaeology. The Louisiana Division of Archaeology (LDA) has explored many types of student excavations, both simulated and real, and has had experiences that run the spectrum from disastrous to exemplary. In our experience, the primary factor that leads to a positive educational experience is direct and intensive leadership by archaeologists. Therefore, we now discourage any type of excavation, even a simulated one, unless a professional archaeologist is involved.

## *DIG 2: Simulated Excavation*

In the early 1980s, when our outreach program was in its infancy, we explored various avenues for working with teachers. We wanted to build on successful existing activities while introducing new ones. Local teachers who already included archaeology in their classes often mentioned two types of activities enthusiastically. The first was going on actual collecting trips led by non-archaeologists; the other was conducting simulated excavations using a commercially available activity called *DIG!*, which was revised and renamed *DIG 2* in 1982 (Lipetsky 1982).

Dismissing collecting expeditions as inappropriate, we examined the *DIG 2* project, which the teacher’s guide summarizes in this way: “In *DIG 2*, competing teams create secret cultures. Artifacts are made that reflect these cultures. Each team buries its artifacts for the other team to excavate and reconstruct. A final confrontation reveals the accuracy of each team’s reconstruction and analysis.”

Among our goals in introducing archaeology to students is to teach what archaeology reveals about people, and how archaeologists collect data and draw conclusions. Additionally, the overriding goal is site protection and archaeological ethics. We assessed how well *DIG 2* accomplished these goals. We noted that *DIG 2* does a good job of teaching social studies concepts and helping students grasp ways in which certain aspects of culture can be expressed at archaeological sites. However, it emphasizes creative representation of cultural universals through a mural, a Rosetta Stone, a central symbol, and a secret tomb, also referred to as a “cursed” tomb.

In representing the “how” of archaeology, *DIG 2* presents an introduction to metric measurement, grid system, tools, site numbers, site forms, mapping, and recording observations. It introduces archaeological terms and refers teachers to excellent published books about archaeology. Yet it also mentions the “thrill of finding mysterious artifacts” and fosters an image of archaeologists being primarily concerned with digging up symbolic and ceremonial artifacts.

The lab aspect focuses on reconstructing artifacts and

preparing label cards for an open house, which may reinforce the stereotype that the point of archaeology is to provide objects for museums. However, the cards do include interpreting artifacts to figure out what they reveal about the culture.

As for ethics and site protection, the guide emphasizes context and that “archeology is much more than collecting arrow heads and mummies.” It also points out that “anyone who calls himself/herself a professional archeologist is expected to write a final report.” Conservation, however, is not a theme of the activity.

The *DIG 2* activity intrigued me, and the enthusiasm of teachers using it impressed me. I decided to modify the activity to represent archaeology and sites found in Louisiana more accurately. Another goal was to decrease the wildly creative aspects of the project, replacing them with an emphasis on realistic detailed recording, analysis, and interpretation. In retrospect, I know that this decision to make the simulation more like real archaeology ultimately backfired.

## *Mystery Culture Excavation Simulation*

We included the result, called “Mystery Culture Excavation,” in the first edition of *Classroom Archaeology*, published in 1984. As in *DIG 2*, students were divided into two teams, and each team described a group of people, created a site, excavated the opposing team’s site, and interpreted the site. Like *DIG 2*, students described cultural aspects such as technology, dwellings, food, art, and religion. However, I omitted many traits used in *DIG 2*, such as values, ethics, and rites of passage. These cultural components rarely are represented (or recognized) at Louisiana sites. Mystery Culture Excavation had no Rosetta Stones, murals, or tombs, but it had plenty of instructions about excavation, mapping, and labeling. It also showed how to construct screens and how to build frames for raised excavation units.

Some teachers reported that they needed a shortened version of the activity. So, for the 1987 revision of *Classroom Archaeology*, I added instructions for creating a late prehistoric circular house and a historic two-room house. This allowed a class to skip the steps of creating cultures, manufacturing artifacts, and burying artifacts. It also made it more likely that the sites for the project would be similar to sites found in Louisiana.

I used the simulated excavation in teacher training programs and with students who attended a week-long workshop. It was engrossing, educational, and exciting. I felt that this activity was a success—a good substitute for both the collecting forays at real sites and the unrealistic *DIG 2*. Then reports started trickling in about how people actually used the instructions. The good news was that some teachers liked it and used it as I had imagined. The bad news was that other people liked it, but put a new spin on it.



Students learn about archaeological techniques and site preservation during a field experience at Orange Grove Plantation. Photo courtesy of the Louisiana Division of Archaeology.

## The Treasure Hunt

The "Treasure Hunt" occurred at a major festival in north-west Louisiana. Initially, it was conducted in conjunction with a nearby, professionally led public excavation. Festival coordinators suggested adding a kids'-only simulated excavation, and one of the organizers contacted me about this. I gave her instructions for the Mystery Culture Excavation. We talked about the goals and processes of archaeology and the purpose and details of conducting a simulated excavation. The plan was to simulate a site from the 1800s, which coincided with the age of the real site that was being excavated.

After the festival was over, I heard that all plans to use careful excavation techniques had been abandoned with the first onslaught of children. I contacted the organizer to discuss improvements for the future, such as more supervision and more emphasis on recording artifacts. Nonetheless, the Treasure Hunt went downhill from there. In the following years, all attempts to do anything but find artifacts were discontinued. Actual artifacts were used, which children were allowed to keep. Intervention by professional and avocational archaeologists was ineffective in redirecting the event.

## The Real Excavation Phenomenon

In 1989, LDA sent a questionnaire to recipients of *Classroom Archaeology*, asking about its usefulness. Through this process, we found out about the "real excavation phenomenon." A college student reported that he used the simulated excavation instructions to conduct an actual excavation. A teacher reported, "We carried out three digs [and] this guide was our 'Bible'." As a result, we reprinted *Classroom Archaeology* without the simulated excavation information, but as recently as this year, a teacher planning an excavation on school property noted that instructions were in *Classroom Archaeology*. She was redirected to other instructional activities.

These experiences have led me to oppose providing instructions to teachers or other non-archaeologists about how to conduct simulated excavations. Although excavation can provide a wonderful, in-depth introduction to archaeology, it also can mutate into something unexpected. Since the late 1980s, LDA has avoided classroom digging activities and currently focuses on providing activities that are short, practical, and inexpensive to conduct, that do not require extensive in-service training, and that complement the state curriculum.

## The Orange Grove Plantation Site

Through Louisiana Archaeology Week, LDA has been involved tangentially in several public excavation projects. For example, the project at Orange Grove Plantation site has allowed students as young as 10 years of age to excavate, screen, and record archaeological remains. Archaeologists

from Earth Search, Inc., orchestrate the project, which include excellent late-18th century features on Cytec Industries property near New Orleans. School groups take a bus tour of the chemical plant, then visit the archaeological site. An archaeologist leads a tour of the research in progress, and provides an orientation to archaeology and an introduction to the plantation. Students then observe a technician washing artifacts and examine examples of recovered artifacts.

Discussions at the slave cabin focus on archaeological methods, 18th-century architecture, and slave life. Students walk to the great house and discuss interpretations of exposed features and artifacts. Guides discuss the difference between "digging to answer questions and digging for fun" (Dawdy 1996). They also explain that the student excavation will contribute to the research project as a whole.

Following the introduction, 15 children go to an area unlikely to have features, where they learn about excavation techniques and work for 30 minutes. Earth Search archaeologists supervise the activity and watch for features. If students uncover a feature, they are moved to another location. All recovered materials are washed and analyzed the same way as those from other parts of the site. Approximately 2,000 students from the New Orleans area participate in the project each year, and both teachers and youths report that it is a "wonderful learning experience."

During several other events in Louisiana, archaeologists have invited precollegiate students to excavate. Some experiences have been successful; others have not. The successful ones are tightly organized with intense supervision. The time digging is limited, and the archaeologists emphasize that they conduct a great deal of background research, analysis, interpretation, and writing beyond what the students see.

If dedicated archaeologists are not available to commit the time and effort required to teach students personally, teachers should avoid actual or simulated excavations. Teachers can use many excellent classroom activities without undertaking digging. They can teach about the science and results of archaeology without becoming archaeologists.

Nancy Hawkins is the archaeologist manager, Louisiana Division of Archaeology, P.O. Box 44247, Baton Rouge, LA 70804; (225) 342-8170. This article was adapted from a paper presented at the SAA 61st Annual Meeting, April 1996.

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# Assessing Their Worth

## Evaluating Archaeology Education Programs

Pam Wheat

In the last decade, archaeology education programs have become an important component of heritage education. In 1990, the seminal SAA document, *Actions for the '90s*, suggested the development of a network of leaders and resources devoted to education for youths. Since that time, an abundance of publications has emerged that cite examples of educational and interpretive programs and curricula that focus on archaeology and heritage education (e.g., Knoll 1990, Smith and Ehrenhard 1991, Smith and McManamon 1991, White and Hunter 1995, Jameson 1996, Hankins 1997). These resources underscore the desirable connection between in-school curriculum and archaeology education and heritage education, both of which involve the use of local cultural and historic resources for instruction.

The archaeological community has a vested interest in establishing sound criteria for materials marketed to the public, and to school audiences in particular. To that end, archaeology educators need to strengthen the evaluative process and to recommend quality materials to teachers interested in archaeology. Developing and using criteria that measure archaeological concepts is an important step in the process.

The move toward self and public evaluation began with *Guidelines for the Evaluation of Archaeology Education Materials*, developed by the SAA Public Education Committee (PEC). Based on the guidelines' ideal set of criteria, program managers were able to determine how their resources and materials measured up. In addition, the guidelines established criteria for judging the many publications emerging in the school market. "Making the Grade," a symposium at the 1993 SAA Annual Meeting, challenged authors and managers to review their offerings. Evaluation of what students learn became the mantra of the 1990s.

The 1994 SAA "Save the Past for the Future" conference refocused the PEC's energy, as the archaeological community recognized the value of educating youths to be future heritage stewards. The Formal Education Work Group identified evaluation as a key component for improving the quality and effectiveness of formal education programs.

Several programs illustrate the continuing emphasis on evaluation and connecting with the broader educational community. In 1996, Crow Canyon Archaeological Center (CCAC) commissioned the University of Colorado at Boulder to conduct a study of its basic student program. Richard Kraft and Nancy Markham observed and interviewed the members of three participant groups, then contacted the same students and sponsors several months later. The researchers credited CCAC as being "one the most exciting learning environments" that they had seen. They also were amazed by the student interest and concentration, problem-solving, and critical thinking on such "abstract" concepts. This effectiveness of programs in archaeology education should be shared with the wider educational community.

To develop a strong curriculum and connect with pre-service teachers, the College of Education at the University of Texas at Austin, and the Texas Historical Commission obtained a focus grant from the National Endowment for the Humanities to develop a teaching unit and training sessions. Teachers involved in this program were introduced to the context, methodology, and artifacts associated with the La Salle Shipwreck Project. Their obligation was to return to the classroom in fall 1998 to pilot the curriculum and allow videotaped observation of their classes to evaluate their educational impact. These data will be shared with the educational community at state and national social studies conferences as well as with archaeologists at annual meetings of SAA and the Society for Historical Archaeology.

Validation of programs remains a significant goal for archaeology educators. Our growth as a community has prepared us to offer concepts and methodology to educators who seek a curriculum that connects students with their heritage and promotes multidisciplinary learning. Armed with data evaluating the curriculum and programs, archaeology educators can collaborate more effectively with educators in traditional classrooms, informal settings, and other systems where the youths are being schooled. This critical phase in archaeology education opens the door for a wider audience to hear the stewardship ethic that is needed to preserve archaeological resources.

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# Archaeological Parks

Mary L. Kwas, Parks Column Editor

Are you planning a unit on archaeology or Native Americans for your class this year? If so, you might consider including a trip to an archaeological park for a memorable, firsthand experience. In the past decade, sites across the nation have expanded the range of their public programming, enhanced school group tours by tying information to local curricula, and developed resources for teachers.

A visit to an archaeological park brings students face-to-face with the past. A typical visit may include watching an introductory video or slide show, viewing museum exhibits about the site's culture and artifacts, and enjoying a guided tour of the site by an interpreter. Other special activities may include crafts classes, exploratory sessions, and worksheets.

The first step in visiting an archaeological park is locating one nearby. One list of Native American archaeological parks, organized by state, can be found on the web site "Archaeological Parks in the U.S." at [www.uark.edu/misc/aras](http://www.uark.edu/misc/aras). You also might check state and federal parks departments or state historical societies for parks in your vicinity.

Once you have located an accessible park, contact its education office for information about visiting. Many parks produce a teacher's guide, such as **Aztec Ruins, N.M.**, (505) 334-6174; **Anasazi Heritage Center, Colo.**, (970) 882-4811; or **Hopewell Culture National Park, Ohio**, (740) 774-1126. Hopewell Culture has three traveling trunks that teachers can borrow—Living Map, Timelines, and Hopewell Tool Time.

Some parks offer special teacher training, usually in the summer. For example, check out the teacher workshops at **Poverty Point, La.**, (888) 926-5492; or the Archaeological Insti-

tute for Teachers at **Elden Pueblo Project, Ariz.**, (520) 523-8797.

Many archaeological parks feature an annual major Native American cultural festival. Some of these festivals are held in the fall and specifically feature days for school visits. If you live nearby, you might want to experience the **Moundville, Ala.**, Native American Festival, (205) 371-2572; **Archeofest at Pinson Mounds, Tenn.**, (901) 988-5614; or **Native American Days at Chucalissa, Tenn.**, (901) 785-3160. Such festivals usually include colorful Native American dance groups and demonstrations of traditional crafts.

Classes, workshops, and demonstrations are also a part of the offerings at archaeological parks. They may include such topics as basket weaving, flint knapping, pottery making, ancient tools, storytelling, and archaeological methods. Although mostly scheduled on weekends, a number of these classes may be provided for school groups by special request. If a weekend program fits your lesson plan, call the park office to inquire about an individualized class.

Archaeological parks are a wonderful resource for classroom study in many subjects, not just archaeology and Native American cultures. A little creative thinking can offer a realm of options for a study plan with interesting activities and novel approaches to learning. Here are a few ideas: study math by measuring mounds or architectural remains; explore the ecological setting in the adjoining woods or desert; use map skills while studying the layout of a site; or research the history of site ownership. Teachers living near archaeological parks have a unique "learning laboratory" at hand. Explore the possibilities!

## Electronic News

Joelle Clark, Electronic Communications Chair

There is no doubt that technology is revolutionizing every aspect of education, especially with the increased use of the World Wide Web or Internet as a learning resource. The Internet can be a powerful resource for both archaeologists and educators. It also can be challenging, confusing, time-consuming, and frustrating.

As the name suggests, the web is a complex system of links to communication, resources, commercial products, and other sources of information on the Internet. With a simple query about archaeology, one can find hundreds of thousands of sites from personal home pages to interactive web pages for studying about real or imaginary cultures. Beyond all this, the challenge remains: how do archaeologists and educators ride this technological wave and use the Internet to promote effective teaching and learning?

The answer lies in one's goals and objectives for using the Internet. Archaeologists use it to communicate research, partner with educators to develop web sites that are useful to K-12 students, develop web-based courses, or communi-

cate with other colleagues or educators and their students about their work and interests. Educators and their students use the Internet to conduct online research, enhance the curricula, create web sites to communicate and share their experiences, take virtual field trips, and establish communication links with other educators, students, and archaeologists.

For both archaeologists and educators, the primary goal of using the Internet for archaeology education should be to enhance the in-depth understanding of archaeology. Both extant and emerging technologies must utilize effective learning strategies and adhere to the same standards of education that apply to printed lesson materials. That is, Internet web sites must adhere to educational reform strategies for authentic, interactive learning. Authentic learning implies that students do something that is closely related to real-world problems and that is of relevance and interest. Interactive learning implies communication and feedback between the student and the instructor or method of instruc-

*Continued on page 16*

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# RETROSPECTIVE . . .

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the study of the past. One of its main objectives has been to integrate archaeology and heritage education into educational curricula to provide valuable tools that mesh with state and national standards. This has been accomplished through partnerships with state and federal agencies, educational institutions, and other professional societies. Many educational programs—from the BLM Project Archaeology initiative in many states to the Boy Scouts of America archaeology merit badge—have been publicized and facilitated by PEC efforts.

## A New Focus

The field of archaeology education has matured to the point that discipline-wide discussions have shifted from “how-to” issues to theory, policy, and professional responsibility. SAA’s review and revision of its code of ethics, culminating in the 1996 adoption of “Eight Principles of Archaeological Ethics,” reflects the profession’s acceptance of public education and involvement as an integral component of the modern practice of archaeology. The overarching first principle, “stewardship,” states that all archaeologists must work for the long-term conservation and protection of the irreplaceable archaeological record by practicing and promoting stewardship. Regarding public education and outreach, the fourth principle says that archaeologists should participate in cooperative efforts with others to improve the preservation and interpretation of the record by enlisting public support and communicating interpretations of the past.

In addition to the work of SAA and other professional societies, institutions such as Crow Canyon Archaeological Center and the Center for American Archaeology promote responsible public involvement in archaeology through their experiential learning programs. The Archaeological Conservancy, which protects sites through purchase, has launched a new publication aimed at a popular audience. Strong public interest in archaeology also is evident in the continued popularity of television and video series and magazines.

But does this strong interest in the topic mean that there is greater awareness of stewardship? While there are no reliable statistics yet, anecdotal evidence and the increasing numbers of arrests and convictions based on enforcement of ARPA and other laws suggest that the public attitude toward the past is changing. People are willing to convict pot-hunters and treasure-hunters for interfering with everyone’s ability to understand and enjoy the past.

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## From The Editors . . .

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just as past editions of the *SAA Bulletin* are. A team from the Arkansas Archeological Survey, coordinated by PEC member Mary Kwas, has agreed to study how this process can be completed effectively and economically. It will present a recommendation to the SAA Board, which then will select a course of action. Thus, the PEC’s objectives of providing in-depth information as well as timely announcements will be continued, but simply in different formats.

Which brings me to the second application of “The Ultimate Issue” moniker. Since A&PE began as an educational instrument of the PEC, it seemed appropriate to Amy and me that we should conclude the newsletter’s formal existence with an overview of archaeology education—in a sense, a summary of what our committee now knows that we didn’t understand 10 years ago when we formed. Most of our contributors are long-time PEC members or supporters, whose professional and personal experiences in bringing archaeology to the public enable them to offer astute observations. Amy and I are grateful that they have contributed to this swan song issue, and we look forward to their support, and that of other colleagues, as the new phoenix arises.

## Correction

In the last issue of A&PE, we incorrectly identified Barbara Little as the coordinator of the Teaching with Historic Places program. In fact, Beth Boland coordinates the program. Little is the archaeologist for the National Register of Historic Places. We regret the error.

## Email Addresses

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# NEWS AND NOTES

## Trust Booklets

The National Trust for Historic Preservation publishes a series of booklets that answer questions about preservation. For a list of titles, call or write Information Series, National Trust for Historic Preservation, 1785 Massachusetts Ave., N.W., Washington, D.C. 20036; (202) 588-6189.

## SI Resource

*Smithsonian in Your Classroom* (formerly *Art to Zoo*), a newsletter that highlights the power of teaching with objects, is available free of charge from the Smithsonian Office of Education,

A&I Building, Rm. 1163, MRC 402, Washington, D.C. 20560; (202) 357-2425.

## AIA Web List

The Archaeological Institute of America now features a list of high-quality web sites dealing with archaeology that includes short reviews. This information can be found at <http://csaws.brynmawr.edu:443/web2/AIAWebSites.html>.

## Science Listserve

The Informal Science Educators Network Listserv offers electronic networking for those who care about science and science teaching in a variety of educational settings. Although the primary users are educators and exhibit developers who work in museums,

zoos, and botanical gardens, the listserv welcomes communication with volunteers and professionals teaching science, teacher educators at the college level, and researchers. Subscribe by sending the message SUBSCRIBE ISEN-ASTC-L followed by <your name> to [LISTSERV@HOME.EASE.LSOFT.COM](mailto:LISTSERV@HOME.EASE.LSOFT.COM).

## TAN Newsletter

*Teaching Anthropology Newsletter* promotes precollegiate anthropology by providing curriculum information and a forum for teachers, professors, and anthropology advocates to communicate and exchange ideas. Published semiannually, it is available free of charge from the Department of Anthropology, Saint Mary's University, Halifax, Nova Scotia B3H 3C3 Canada; (902) 420-5628.

## Electronic Technology . . .

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Under these parameters, students need to be working with archaeological concepts, processes, questions, and data using electronic media as appropriate for their research or project.

Thus, the role of archaeology education on the Internet is to create better, more useful content for consumers, and to evaluate and implement the quality resources already in existence. Archaeology educators also should be proactive in exploring new technology and possibilities to communicate interactively with diverse student populations through advanced technologies, such as virtual reality MOOs (virtual environments). Electronic environments that

use inquiry methods to explore and explain culture in virtual environments already exist. For instance, *MayaQuest* and *Real Time Mysteries Ancient Civilizations* can be accessed through *Classroom Connect* (<http://www.classroom.net/>). They are online, interactive educational opportunities for teachers and students to follow and contribute to archaeological research on the Internet. These environments can provide archaeologists, educators, and students places to learn collaboratively with current and correct information.

On the one hand, more and more archaeologists are using the Internet to communicate their research—from daily excavation reports to full-scale in-

terpretive models. On the other, educators are using the net to locate and use curricular extensions. As a result, more opportunities exist for archaeologists and educators to use and develop meaningful websites for students. Concurrently, evaluation criteria need to be established to assess the content and the value of these sites. There is no doubt that further research and development of effective teaching and learning about archaeology on the Internet is needed. Nonetheless, with the growing importance of electronic media and the Internet, archaeology educators would be remiss in not helping to shape the future of archaeology education on the Information Superhighway.



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