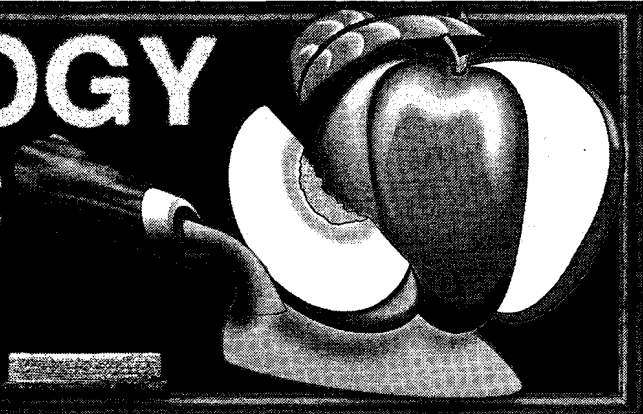


# ARCHAEOLOGY AND PUBLIC EDUCATION

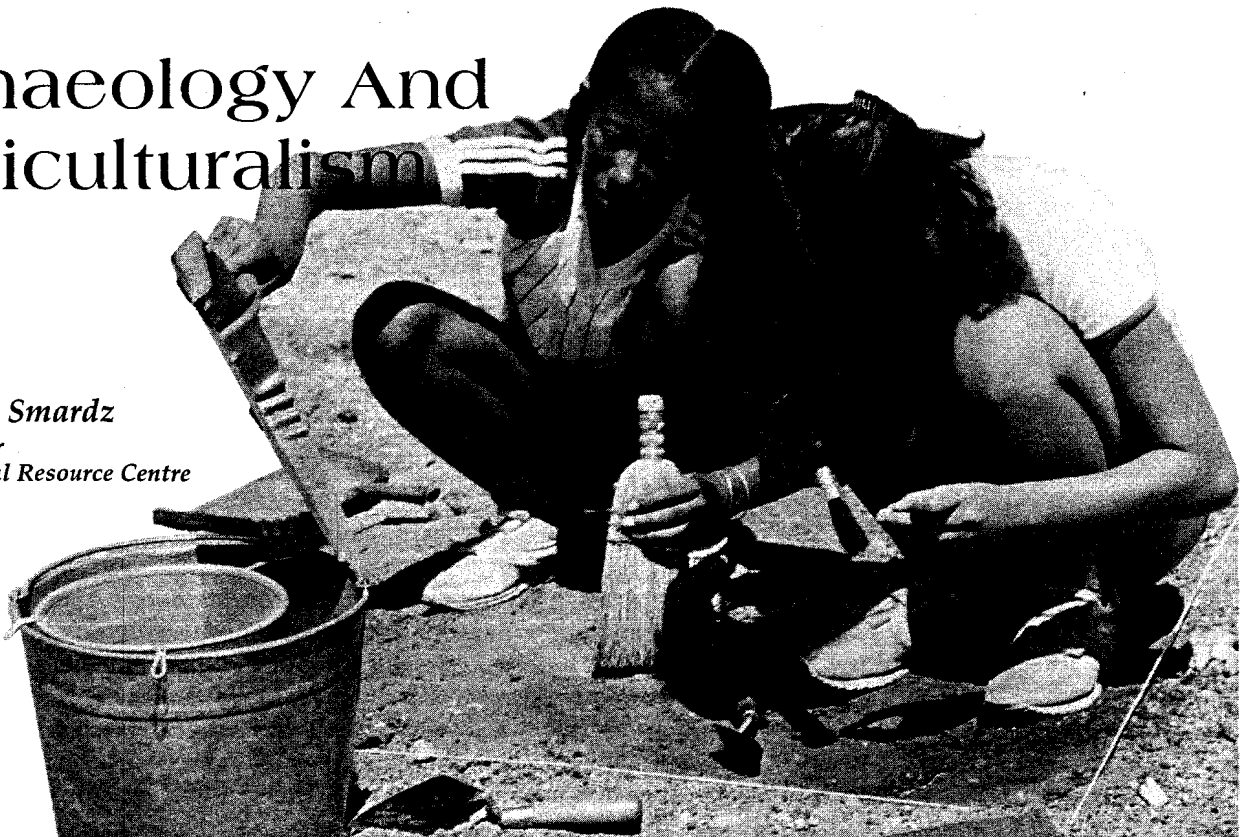


Society for American Archaeology, Public Education Committee

Vol. 5, No. 3 • Spring/Summer 1995

## Archaeology And Multiculturalism

*Karolyn E. Smardz*  
Administrator  
Archaeological Resource Centre



*"It is therefore declared to be a policy of the Government of Canada to . . . recognize and promote the understanding that multiculturalism reflects the cultural and racial diversity of Canadian society and acknowledges the freedom of all members of Canadian society to preserve, enhance and share their cultural heritage . . ."*

In 1992, the United Nations designated Toronto "the most multicultural city in the world." As the archaeologist in charge of public programming and excavations for that city for almost a decade, I have been in a unique position to explore the uses of the past in this urban setting, and to gain some insight into how archaeology can influence a population so ethnically diverse as ours.

The Archaeological Resource Centre (ARC), founded by the Toronto Board of

*Continued on Page 3*

**SAA**  
1995

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*Archaeology and Public Education* (ISSN 1080-0611) is a quarterly publication of the Society for American Archaeology, Public Education Committee. *Editors:* Phyllis Messenger and KC Smith; *Education Station Coordinator:* Cathy MacDonald.

#### 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 publication aims to aid educators, interpreters, archaeologists, and others who teach the public about the value of archaeological research and resources.

#### PUBLICATION DEADLINES

*Archaeology and Public Education* is distributed in March, June, September, and December. Material for inclusion must be received nine weeks before distribution. Submissions on IBM or Macintosh disks are preferred, or material may be sent electronically; call for email addresses. Submit articles, news briefs, and calendar items to Phyllis Messenger, Institute for Minnesota Archaeology, 3300 University Ave., S.E., Suite 204, Minneapolis, MN 55414; (612) 627-0315. Submit copy for the Education Station or the parks, museums, or network columns to the respective editors; see these features for addresses. Items should not exceed 500 words, and all material may be edited.

#### RECEIPT OF PUBLICATION

Send mailing list additions and address changes to: David Whitlock, Society for American Archaeology, 900 Second St., N.E., Suite 12, Washington, DC 20002; (202) 789-8200; 789-0284, fax.

#### MEMBERSHIP AND ADVERTISING

For information about joining SAA or placing display advertising in this publication, contact Brigid Brady-de Lambert at the SAA office.

# The Secret Archaeologists

*Bruce D. Smith*

*Immediate Past President  
Society for American Archaeology*

**T**he past fascinates a lot of schoolchildren, and I might venture to say that the distant past engrosses *all* youths. What makes children excited about the prehistoric past and archaeology? Because treasure might lurk there? Because the mystery is underground and hidden? Because searching for the past is like discovering ghosts? Because it is the unknown, the unfamiliar? Because it tells them a lot about themselves? Depending on the child, probably some or all of the above.

What we are about in *Archaeology and Public Education* is more of the last item, none of the first, and a bit of all the others; teaching and telling about ourselves and helping teachers and students to unravel the mysteries of our various pasts. We also hope to encourage teachers to treat archaeology as a core part of the curriculum, recognizing that this is not an easy task. Teachers are beset with enormous workloads and objectives. We think that this publication and the lesson plans, produced so skillfully by members of SAA's Public Education Committee and other educators, can help instructors fit archaeology easily into that core. Skills that students are expected to develop as part of their day-to-day activities are gained through the study of archaeology. These include mathematics, writing, geography, learning about their surroundings, their world, and, perhaps most important, critical thinking skills.

This issue of *Archaeology and Public Education*—sent to the entire SAA membership for the first time—focuses especially on an issue that many schools across the country are grappling with: multiculturalism. In describing a project in Toronto, Karolyn Smardz explains why archaeology plays an important role in today's multicultural society. While the project was not geared "implicitly to serve the ends of archaeology," archaeology was the tool used to reach other goals. The children became more aware of an unfamiliar part of the city's past—its African Canadian heritage. They helped to uncover it, and by doing so, they placed value on that experience and knowledge. "No amount of preaching or promotion" could accomplish as much, Smardz notes.

Smardz's remarks help to explain why public education is becoming a very important part of SAA's objectives. Our prehistoric and historic past, and other cultural resources, are in jeopardy. These resources are too easy to discount when economic resources are at a premium. But we can change that picture dramatically by reaching the public and especially children—by giving them the tools and know-how to discover the common good of preserving these resources for themselves now and for others in the future. It's a big undertaking, trying to reach people with this message, but SAA believes that everyone really is a "secret" archaeologist. By reaching that part of the child, we can save much for the future because of a love of the past.

*Dr. Bruce Smith, whose term as SAA president ended in May, may be contacted at the Smithsonian Institution, Department of Anthropology, National Museum of Natural History, Washington, DC 20560.*

# Forging A Common Identity From A Multicultural Past

*Continued from Page 1*

Education in 1985, has been a focal point for transmitting information to the city's present international population about the cultural groups that occupied the area in the past. This includes various native peoples—known in Canada as our First Nations—and more than two centuries of immigrant ethnic groups.

Early in our careers as self-styled public archaeologists, staff at the ARC discussed at length the role and responsibilities of heritage educators in a multicultural society. We decided on a political agenda for the work of the ARC: to encourage popular understanding of and appreciation for the many cultural groups that helped to build the city as we know it today; to give all residents of Toronto a sense of ownership in and value for the remnants of past cultures that we excavate; and to raise a generation of Torontonians for whom archaeology is a normal, everyday part of life in their city.

## **Many Opportunities**

The city's buried heritage offered many wonderful opportunities to explore ethnic neighborhoods, businesses, and homes, all monuments to hard work and a desire for betterment that has always characterized immigrant populations. Accordingly, we accepted our responsibility as public archaeologists and set out to establish a research design that would permit the widest access to heritage information to the widest possible audience. Our goal was to make Toronto archaeology both public and publicly relevant.

Our pilot project in 1985 provided an excellent case in point. The home and business of Thornton and Lucie Blackburn was consciously approached as the first fugitive slave property ever excavated in Ontario. Likewise, it pro-



*The Blackburn project and other activities sponsored by the Archaeological Resource Centre have helped youths to learn about and to appreciate African Canadian heritage. Photos above and on page 1 courtesy of the ARC, Toronto Board of Education.*

vided a superb platform from which to demonstrate to the thousands of people who took part in the dig the critical and fascinating role played by African Canadians in the building of Toronto. The Blackburns fled from slavery in the United States and set about building a new life for themselves, establishing the first taxi business in Upper Canada. Many of the schoolchildren who participated in the excavation were themselves immigrants or the children of immigrants, who understood the drive to flee oppression. They could identify with the intrepid couple who had lived here more than a century ago.

## **Dual Messages**

The Blackburn project had a very important dual message. It helped new immigrants of African descent feel more at home in their chosen homeland by demonstrating the contributions that earlier immigrants of their own ethnic background had made. Further, it showed longer-term residents of Canada that peoples of African descent are not newcomers to Canadian shores.

I have always been uncomfortable with the idea of "public archaeology for archaeology's sake," where popular access to archaeological information is encouraged solely to enhance the role the public plays in helping conserve sites and pay for digs. I harbor the conviction that archaeologists, as interpreters and transmitters of cultural information, have a clear and urgent responsibility to provide social and educational benefits to the people whose heritage we are digging up.

Archaeology has a particularly relevant role to play in the modern multicultural society, as the Blackburn site example shows. It can be a way of learning about our prehistoric and historic past for children whose ancestors left behind their cultural heritage in other parts of the globe. It can serve as a therapeutic "time out" for hyperactive children or stressed-out adults. It can help educators teach math, science, or art. It can serve goals that don't implicitly serve the ends of archaeology at all—at least, not directly.

*Continued on Page 15*

# News Notebook

## Crow Canyon Seeks Field School Details

Crow Canyon Archaeological Center, which annually offers a four-week field school for 40 students in the 9th grade and higher, would like to exchange information with other sponsors of precollegiate field schools.

If you would like to share information or possibly participate in a conference dealing with current thinking on field schools for youths, contact Pam Wheat at Crow Canyon, 23390 County Road K, Cortez, CO 81321; (303) 565-8975, ext. 143. Please provide the following details: name of the program and the director, address for further communication, institution involved, length of the program and the number of years it has been offered, number of participants and age requirements, and the number of educators. If possible, please include a written curriculum or outline of the program.

## Conservancy Marks Its 100th Project

Lamb Spring, a prehistoric hunting and game-processing site located in the metropolitan Denver area, is the 100th preservation project of the Archaeological Conservancy, a nonprofit organization dedicated to saving the most significant cultural sites in the United States. Through partnerships, matching grants, and donations, the Conservancy hopes to make Lamb Spring a permanent archaeological and educational preserve that is available for public enjoyment, education, and research, as it has with significant sites in 22 other states.

For more information, contact the Archaeological Conservancy, 5301 Central Ave., N.E., Suite 1218, Albuquerque, NM 87108; (505) 266-1540.

## Reader Survey

### Dear Friends:

In five years, the mailing list for *Archaeology and Public Education* has grown from 400 recipients to more than 8,500. During that time, our free publication has undergone changes in format and content, and additional changes are in the offing. A challenge throughout these changes has been meeting our quarterly deadlines, and for your patience and loyalty, we thank you.

To curb costs and deliver timely information to our readership, which is comprised largely of teachers and educators, beginning September we will distribute only three issues annually, in the fall, winter, and spring. In addition, because of the ever-growing size of the mailing list, we anticipate

that a modest charge for the newsletter will be instituted by the end of this year.

The Public Education Committee and the newsletter editors would like to receive your comments about the quality of the publication, how well it meets your needs, and your reactions to the likelihood of a small subscription fee. We invite you to complete the survey on pages 5-6. We ask that you return it by August 11, but if you miss this date, send it anyway. We will take your comments to heart in preparing future issues, and we will summarize your comments in the winter issue. Please feel free to duplicate the survey if the newsletter is read by more than one person. Thanks!

## Outfitters And Guides Receive PEC Training

The Special Interest Groups Subcommittee of SAA's Public Education Committee presented a day-long workshop on archaeology and ethics to nearly 50 members of America Outdoors, an international foundation that represents guides and outfitters, at its annual meeting in December in Palm Springs. Doug Tims and David Brown, president and executive director of the organization, respectively, agreed to sponsor the archaeology workshop as part of the Professional Guides Institute training program.

The workshop was developed by Committee members Jeanne Moe, training specialist for the Bureau of

Land Management (BLM) in Utah, and Pam Wheat and Margie Connolly of the Crow Canyon Archaeological Center education program in Colorado. The program began with high-energy presentations at the convention center, then moved to nearby archaeological sites for an experiential learning component.

The workshop really came alive when participant Craig Langford, a guide with Wilderness Tours of Ontario, Canada, found a U.S. \$.25 coin dated 1853. It was such a surprise that some suspected that it might have been planted. In the end, the coin's location was recorded, and it was

# READER SURVEY

Please return this form by August 11 to Phyllis Messenger,  
Institute for Minnesota Archaeology, 3300 University Ave., S.E., Suite 202, Minneapolis MN 55414

## I. DEMOGRAPHIC INFORMATION

Your age:  10-19     20-29     30-39     40-49     50-59     60 or over  
Gender:  Female     Male    Your state or province \_\_\_\_\_

### Profession:

elementary classroom teacher     archaeologist     museum administrator  
 secondary classroom teacher     government administrator     museum educator  
 college or university faculty     resource manager     other museum staff  
 student     site interpreter     historic site staff  
Other \_\_\_\_\_ Your job title \_\_\_\_\_

### Employed by:

local school district     museum     federal agency  
 college/university     nonprofit organization     state/province  
 consulting firm     park or site     local government  
Other \_\_\_\_\_ How long have you held this position? \_\_\_\_\_

What organizations do you belong to (e.g., archaeology, museums, history, education, interpretation, other disciplines) that relate to public archaeology? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Do you have access to electronic information? Please check all that apply.

none     at work     at home     at a university     at a community facility  
 email     bulletin boards     on-line information     commercial server

Networks that you regularly access \_\_\_\_\_

## II. EVALUATION OF ARCHAEOLOGY AND PUBLIC EDUCATION

How long have you received this publication, and how were you added to the mailing list?

One issue     Two issues     3 or more issues     since the publication began  
 requested information     attended a workshop     sign-up sheet at a conference  
 SAA member     added by someone else     do not recall

Other \_\_\_\_\_

Is each issue read by more than one person?  Yes     No    How many people? \_\_\_\_\_

What happens to the newsletter after it is read? \_\_\_\_\_

Rate the usefulness of regular newsletter sections on a scale of 1 to 5, with 1 indicating LEAST useful and 5 indicating MOST useful.

Page 1 feature article \_\_\_\_\_ Editors' Letter \_\_\_\_\_ Other feature articles \_\_\_\_\_ News Notebook \_\_\_\_\_  
Education Station articles \_\_\_\_\_ Education Station lesson plan(s) \_\_\_\_\_ Educational resources \_\_\_\_\_  
Museum News \_\_\_\_\_ Archaeological Parks \_\_\_\_\_ Network News \_\_\_\_\_ Up and Coming (calendar) \_\_\_\_\_

Is the newsletter visually appealing and easy to read?  Yes     No     No opinion

How do you use the newsletter? \_\_\_\_\_

Overall, does *Archaeology and Public Education* meet your needs?  Yes     No     No opinion

List other articles or sections that would you like to see: \_\_\_\_\_  
\_\_\_\_\_

This newsletter is provided free of charge on request to SAA members. To help to defray some of the publication costs, SAA is considering charging a small fee to nonmembers. What would you consider a fair price for 3 yearly issues, each 12-16 pages? \_\_\_\_\_ Would you subscribe at that price?  Yes  No  
Would you or your employer pay for the subscription?  Self  Employer

If you are not an SAA member, are you aware that SAA has a low-cost Associate membership for non-archaeologists that includes a number of membership benefits?  Yes  No

To receive information about the Associate membership, please see page 2 of this newsletter.

**Are you familiar with other products and services of the Public Education Committee?**

- Teaching Archaeology. A Sampler for Grades 3-12  Education Resource Forum (traveling exhibit)  
 Classroom Sources for Archaeology Education  Education Network  
 Guidelines for the Evaluation of Archaeology Education Materials  Teacher workshops

Other contacts that you have had with the Public Education Committee: \_\_\_\_\_

To receive information about the Public Education Committee, contact Dr. Edward Friedman, Bureau of Reclamation, P.O. Box 25007, Attn: D-5300, Denver, CO 80225-0007; (303) 236-1061, ext. 239.

### III. PUBLIC EDUCATION TRAINING

The Public Education Committee wishes to identify postsecondary academic programs in education, anthropology, or other disciplines that support training related to public archaeology. Examples include internships, outreach programs, course offerings, workshops, and mentoring geared for college and university students.

Please list collegiate training programs related to public archaeology education that you know about:

\_\_\_\_\_

Contact person and address for this training: \_\_\_\_\_

Comments: \_\_\_\_\_

### IV. ARCHAEOLOGY EDUCATION AND YOUTHS (Attach an additional sheet if necessary.)

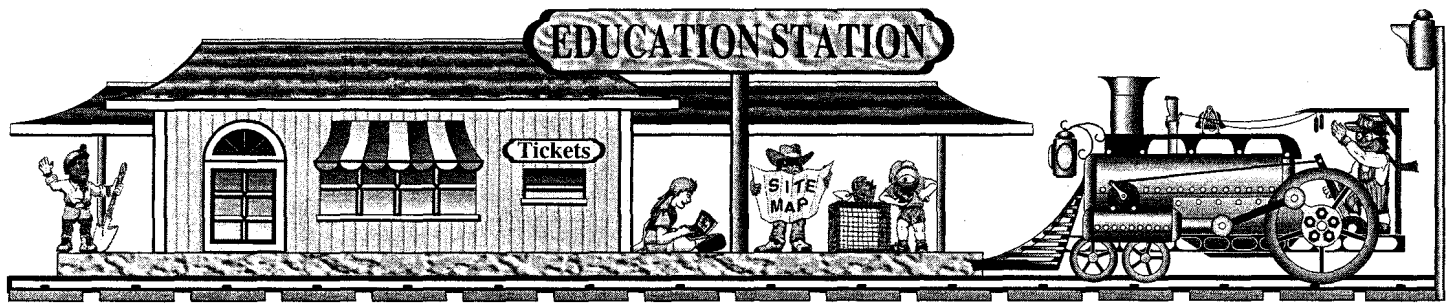
What do you think about the current trend of using archaeology to teach youths about the past?

Are there aspects of archaeology that *should not* be taught or used in precollegiate classroom settings?

What training or experience should teachers have if they wish to teach archaeology to youths?

Under what conditions should youths be allowed to participate in archaeological fieldwork?

How are you involved in public education in archaeology?



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



## RASH TREASURES ESOROS DE BASURA

*A science-based archaeology education program  
provides bilingual classroom learning experiences*

### *Denise Aedan*

When they think of archaeology, many people think of men in pith helmets in Egyptian deserts, digging into the tombs of bygone pharaohs. Hollywood has promoted images of priceless treasures, deadly curses, and wild adventurers solving ancient riddles as they escape from life-threatening traps.

Archaeology is much more than a search for "gold and glory," since it combines tools from all of the arts and sciences into a great quest for the written and unwritten human past.

The primary goal of *Trash Treasures*, *An Introduction to Archaeology* is to introduce students to the tools of modern archaeology. The teachers and archaeologists who created this science-based curriculum focused on two of archaeology's most important processes: research and writing. We felt that it was important to use a context not rooted in a specific region; instead, we chose to send our archaeologists-in-training into the future to study the material remains of present-day culture.

The curriculum thus is useable in any part of the world, and it offers students a common and familiar base from which to launch their studies. No special equipment or digging is required; all that students need are pens and pencils.

In fact, students discover that these simple writing tools are the key to archaeology and all of the sciences. Organizing information is what scientific thinking and writing are about. *Trash Treasures* presents research and writing skills progressively; after working through the lessons in the curriculum, the archaeologists-in-training are using their research tools to gather, prepare, and defend their data. At each step of the way, youths are shown that writing is the glue that holds research together.

One of the introductory lessons, "Archaeological Mapping," asks students to record and to organize their observations using a map; they then write directions that are clear enough for someone else to follow. Next, they practice their new descriptive and observational skills to draw scale pictures of artifacts, and to create precise

written descriptions of their artifact. In a final evaluation lesson, "To Dig or Not to Dig," students use research skills to create position papers for a debate on digging a new site. By participating in this activity, they have progressed from observing and ordering to hypothesizing, comparing, and inferring.

An important goal of *Trash Treasures* is to give students who are non-native English speakers access to public heritage as well as a successful experience in science. All lessons and worksheets are translated into Spanish and feature a multicultural cast of characters who appear throughout the book. Our commitment to encouraging non-English speakers to study the past and the future extends to a college scholarship fund for bilingual students. Three percent of *Trash Treasures* sale proceeds are placed in that fund. Our first scholar and the unit's translator, Adriana Mendez Rodriguez, hopes to study medicine.

*Denise Aedan teaches science at Woodrow Wilson Middle School in Hanford, Calif., and is a coauthor of Trash Treasures/Tesoros de basura.*

**TRASH TREASURES****To Dig Or Not To Dig****Overview**

Evaluating the need for a salvage archaeology project in a hypothetical scenario, students must balance such concerns as employment, cost effectiveness, and the value of local heritage.

**Objectives/Skills**

Students will

- prepare a role play, and discuss and communicate results
- conduct analysis, application, inferencing, and comparison

**Subjects**

Social studies, science, politics

**Age Level**

Grades 7 through 12

**Materials**

- copies of the scenario
- list of townsfolk (roles)

**Time Required**

Allow one hour to prepare for this activity and two or three 90-minute periods to complete it.

**Background**

Any construction or development project that receives federal funding must comply with the National Historic Preservation Act, the Archaeological Resources Protection Act, and often the National Environmental Protection Act. The common thread among these laws is a desire to preserve the past for public benefit. Most states also have laws to protect resources on their public lands.

Examination or excavation of archaeological sites often is done by private firms contracted for a specific project. Excavation is time consuming, and it often is conducted as salvage archaeology, done one step ahead of bulldozers. Such projects are important because they preserve information that otherwise would be lost. Once a site has been dug, whether by construction workers, artifact collectors, or scientists, some of the data at the site inevitably is lost. This information is precious to archaeologists and should be precious to the public. Each artifact and structure is a piece of the past, and we all have a right to that heritage.

**Vocabulary**

*Contract archaeology* — archaeology that is contracted by private firms or the government for projects to conform to local, state, or federal laws

*Salvage archaeology* — excavations carried out to save as much of a site as possible in a short period of time

**Preparation**

1. Copy the scenario and list of townsfolk (page 9) for each student.

2. Just before the activity, arrange the classroom to look like a city council meeting, with a table for council members, a podium, and seats for members of the community.

**Procedure**

1. Inform students that they will evaluate the need for a salvage archaeology project, then discuss the background information. Distribute copies of the scenario and list of townsfolk.

2. Ask students to read the scenario,

then discuss the circumstances and their implications. Ask them to choose roles, understanding that each character has a general attitude, which can be developed to logical conclusions.

4. To prepare for the town meeting, ask students to write a short summary of their position and how they intend to express themselves during the meeting.

5. Lead students in a role-playing activity in which they make presentations to the city council in support of their positions. Complete the activity with a town vote based on the possibilities raised in the scenario.

6. Discuss the results of the scenario and the pros and cons of each position. Guide the discussion with such questions as: Why would it be important to save the archaeological site? What is more important—jobs for the present and future, or saving the past? How would their position in the community affect their opinion in a controversy like the one in Copper Wells?

**Assessment**

Ask students to use a cause-and-effect diagram (page 10) to detail their personal positions on the Copper Wells controversy. Emphasize that to persuade others of the rightness of their viewpoint, they must be aware of its possible effects and anticipate the possible effects of other views.

*This lesson plan was adapted from Trash Treasures/Tesoros de basura by Denise Aedan, Tim Aedan, and Christina Elnora Garza. Illustrations by Cynthia J. Wong Leonard. Translated into Spanish by Adriana Mendez Rodriguez. Trash Treasures is published by Earth-Time Curriculum, 335 E. Encore, Hanford, CA 93230; (209) 583-7511.*



# The Copper Wells Controversy

Copper Wells, a small desert community an hour's drive from a large state capital, was founded near a local copper mine in the late 19th century. When the mine shut down 15 years ago, many jobs were lost. To rejuvenate the area, townsfolk plan to build an amusement park and family entertainment site to attract tourists. The project will include building hotels and campgrounds to accommodate visitors, converting the mine into a museum, and refurbishing the old trolley system.

During the ground breaking ceremony, the mayor unearthed a 700-year-old artifact made by ancestors of the local Native American tribe. The people of Copper Wells are concerned about this turn of events and how it will affect their plans to revitalize the community, because many people will have to move if the project is not completed. Other community members have opposed development from the start, protesting the increased traffic and pollution that it will bring to the area. A town meeting has been called to decide what to do.

Some of the fundamental issues in the dilemma include:

- ✓ The plan will create 800 jobs, opportunities for small businesses, and attract thousands of tourists.
- ✓ The project land is privately owned and the project will be privately funded; thus, excavation and data recovery are not legally required before construction unless human remains are found.
- ✓ Some Indian activists want to halt the project to "preserve the homes and memories of our ancestors."
- ✓ Archaeologists want to excavate the site before construction begins to "save its contents for science, the future, and our common heritage."
- ✓ Controversy has erupted over the concepts of "progress" and "preserving the past." The story has been picked up by national news agencies.

## Copper Wells Community Members

*Harvey Greenback, mayor.* He supports the project, seeing his political career tied to its success.

*Ella Dent, city council member.* She is a lobbyist for the project.

*Ignacio Guerra, city council member.* His family was swindled out of land when copper was found. He opposed project zoning changes.

*T. J. Rightman, city council member.* A wealthy sheep rancher, he has land to lease to new businesses.

*Vance McGoode, city council member.* A project supporter, he has odd environmental protection ideas and lacks tact and cultural sensitivity.

*Philbert Norbert, shop owner and business community spokesperson.* He hopes the project will help local livelihoods.

*Erma Chippendip, leader of the local environmental activist group.*

*Otto Bagit, local environmental activist and reformed industrialist.*

*Flower O'Donnell, environmental activist and cafe owner.* She's torn between her possible loss of income and a cleaner environment.

*Dr. Oswald Grunwald, state university archaeologist.* He wants to bid on an excavation at the Copper Wells archaeological site, should the town decide to fund such a project.

*Alicia Alcaraz, Dr. Grunwald's graduate student.* She hopes to use the project as her Ph.D. topic.

*Dr. Penelope Smith, archaeologist from the state capital.*

*Angelina Nunn, archaeologist from the state museum.*

*Edgar Jones, chair of the local Native American tribe.*

*Bob "Two Birds" Johnson, vice chair of the local tribe.*

*Ellie Richardson, Native American tribal member.* She teaches math and science at a nearby community college.

*Fred Rogers, Native American artisan.* He supports the project because it will increase his craft sales.

*William D. Williamson, mining company president.* He will sell the mine to townsfolks for their museum.

*Sam Jones, unemployed miner.* He looks to the project for his next job.

*Rachel Jones, Sam's wife.* She is employed at Philbert Norbert's shop.

*Anna Sanchez, unemployed miner.*

*Juan Carasco, construction worker.* He sees the project as the beginning of stable employment.

*Margaret Payczek, local construction firm owner.* She has contracted to build two project hotels.

*Lisa Orlando, noted reporter for a major network.* She first broke the Copper Wells story.

*Raymond L. Ruhlbraker, legal representative for the project investors.* He is involved to protect the initial investment of \$1,000,000.

*Additional opinionated players as needed to create enough parts.*

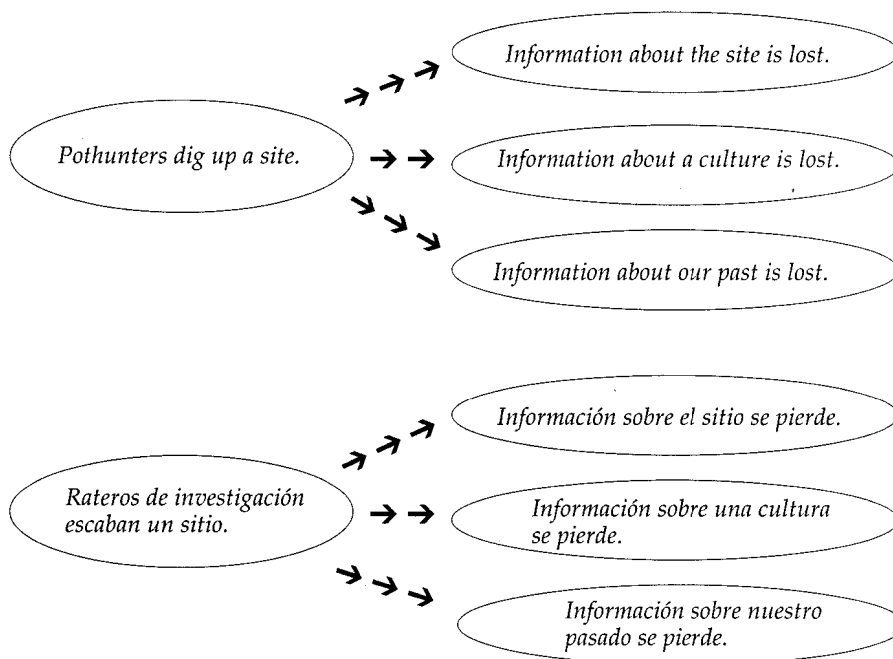
## More From Trash Treasures

Because of its original length, "To Dig Or Not To Dig" had to be edited considerably. For omissions and changes of nuance, the editors apologize. More important, it was not possible to demonstrate the bilingual nature of the manual, *Trash Treasures: An Introduction to Archaeology/Tesoros de basura: Una introducción a arqueología*. Teachers sharing archaeology with Spanish-speaking students should contact the authors for further information about this resource.

As an assessment for the lesson plan, teachers are instructed to ask students to use a cause-and-effect diagram to explore their positions in the Copper Wells debate. *Trash Treasures* offers the information and illustration reproduced at the right to assist teachers and students with this assignment.

### Writing Strategy: Cause and Effect Diagram

Cause and effect organization strategies help students to determine potential outcomes for a certain action. Students move from looking at just the action to evaluating the effects of the actions. Cause and effect diagrams (diagrama de causa y efecto) help students to list multiple effects of a single cause. Determining all of the effects of a certain action is critical in science to anticipate the effects of research.



## EDUCATIONAL RESOURCES

### Magazine Theme Pack

Cobblestone Publishing has produced a mini theme pack on archaeology. The boxed set of five issues of *Cobblestone* magazine includes a 16-page teacher's guide and articles dealing with such topics as fieldwork, lost treasures and ships, and what bones tell us. The cost is \$25.95, plus \$3.00 for shipping. Contact Manuela A. Meier, 7 School Street, Peterborough, NH 03458; (603) 924-7380.

### AIA Bibliography

Part II of "Finding Out About Archaeology," a six-page bibliography covering fiction, biography and accounts of archaeological discoveries, is now available from the Archaeological Institute of America, Long Is-

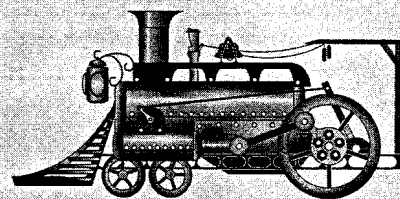
land Society. For a free copy of the publication, write to Naomi Taub, Education Chair, AIA/LISOC, 115 Northgate Circle, Melville, NY 11747.

### MayaQuest Update

Response was favorable from the thousands of teachers and students who kept in touch with MayaQuest, Dan Buettner's interactive educational bicycle expedition across Mexico and Central America. By the time the expedition ended in early May, MayaQuest Internet resources had been accessed nearly one million times.

The expedition and related educational activities were so successful that organizers plan to repeat the expedition in winter 1996.

*email address.* Send a query to  
Continued on Page 15



The Education Station invites examples of lesson plans and activity ideas, comments about useful resources, and articles about unique approaches to teaching archaeology. Please accompany material with illustrations and black and white photos. Do not send color slides or negatives.

Send material to Cathy MacDonald, Social Sciences Department, Father Leo Austin Secondary School, 570 Walsh Drive, Port Perry, Ontario, Canada L9L 1K9; (905) 666-2010.

## Teacher Training

# Math And Science Funds Mesh With Archaeology Education

Connie H. Nobles  
and Susan J. Wurtzburg

Offering workshops for educators is one of the most effective approaches to public education and archaeology. Presentations to teachers have a broad educational impact since teachers contact many students, parents, and colleagues. The exposure of teachers—and the students whom they instruct—to concepts such as site preservation and professional standards in an archaeological context should decrease the uninformed desire to destroy sites and collect artifacts. Moreover, teachers and students sensitized to archaeology may mention these concepts to family and friends, possibly limiting the negative impacts of those around them.

In addition, knowledgeable teachers are more likely to lead their students in nondestructive archaeology learning projects. Individuals who understand the importance of archaeology and the heritage value of cultural resources also are likely to express concern about the issue of preservation, promote the passage of resource legislation, and provide greater support for archaeological programs and education.

### Earth Science Program

Given these anticipated benefits, archaeologists have much to gain by involvement in educational workshops. For several summers, Connie Nobles has conducted eight-hour educator workshops in Livingston Parish, La., at the request of the parish coordinator for the Eisenhower Funds. These federal grants, administered by individual states for the improvement of math and science teaching, include funding categories for teacher inservice and retraining.

Over time, the focus of the Livingston Parish workshops has broadened from basic environmental science to include archaeology. Geology and archaeology are a particularly useful combination for Louisiana teachers, since earth science is a state-mandated educational component at both elementary and secondary levels.

Last summer, Nobles and Susan Wurtzburg presented a six-hour session, "Archaeology and Geology of Louisiana," which introduced the participants to both prehistoric and historic archaeological sites in the state. Lesson plans used during the program were developed by Nobles for *Adventures in Classroom Archaeology*, a teaching manual produced with grant support from the Louisiana Division of Archaeology. The workshop also incorporated portable artifact kits based on excavations of Poverty Point and a shipwreck, *El Nuevo Constante*, integrated with the existing curriculum requirements of the state.

### Underserved Kids Targeted

One objective of the Eisenhower Funds program is that presented information should meet the needs of underserved students such as females and minorities. Based on our own research and personal interests, we concentrated on gender equity. The 1992 American Association of University Women report, *How Schools Shortchange Girls: Executive Summary*, was used to sensitize teachers to classroom gender issues. A presentation followed dealing with women's historical contributions to state archaeology, using Wurtzburg's article, "Down in the Field in Louisiana: An Historical Perspective on the Role of Women in Louisiana Archaeology."

### Author Seek Games

Connie Nobles is looking for leads regarding archaeology-related games, puzzles, computer simulations, or game-like crafts for a Public Education Committee evaluation project funded by the Bureau of Land Management. Please contact her at the address or phone number below if you can provide tips about resources.

The workshop began and ended with brief tests of the teachers' knowledge of Louisiana archaeology. These results were encouraging, since the post-tests showed marked improvements over the pre-tests. In addition to increasing their store of archaeological understanding, each teacher also left the session with a thick folder of lesson plans, hand-outs, and references.

The success of these Louisiana programs has relevance to archaeologists and teachers in the U.S., since Eisenhower Funds are available across the nation for improving the presentation of math and science concepts, and archaeology is demonstrably valuable to the teaching of these subjects. We have presented this information to stimulate archaeologists both to access these funds and to provide educator workshops.

Connie Nobles can be reached at Southeastern Louisiana University, Department of Education, SLU 749, Hammond, LA 70402; (504) 549-5547. Susan J. Wurtzburg can be reached c/o Lyle Campbell, Department of Linguistics, University of Canterbury, Private Bag 4800, Christchurch, New Zealand.

## SUMMER'S HERE!

# Check These Training Opportunities

If you're still looking for ways to pass the summer, it may not be too late to take advantage of archaeology-related teacher workshops and field schools. Many of the resources listed below offer programming year-round.

A guide to your options is the *Archaeological Fieldwork Opportunities Bulletin*, produced annually by the Archaeological Institute of America, which lists more than 250 excavations, field schools, and special programs worldwide. Cost is \$13 for AIA members, \$15 for nonmembers; add \$4 for shipping. Send orders with checks payable to Kendall/Hunt Publishing Co., 4050 Westmark Dr., Dubuque, IA 52002. Call (800) 228-0810 or (319) 589-1000 for credit card orders.

The Mississippi Valley Archaeology Center (MVAC), La Crosse, Wis., sponsors programs for teachers, precollegiate students, and the general public. Teachers can earn college or continuing education credits in workshops or field trips dealing with archaeology, Native American cultures, and local life. MVAC also offers camps and field schools for youths from grades K-12 that focus on culture, archaeology, dinosaurs, rocks, and other subjects. An archaeology field

school will be offered for the general public in late July. Contact Bonnie Christensen, (608) 785-8454.

The Cerros Archaeological Development Project, Belize, is planning teacher workshops, August 1-15, at the Maya site of Cerros. Participants from Belize and the U.S. will gain experience in archaeology, Maya culture and prehistory, and tropical forest environment. College credit is possible. Contact Dr. Beverly Mitchum, (412) 242-8950, or Dr. Debra Walker, (305) 348-2247.

The Toltec Mounds Archaeology Camp, Scott, Ark., will introduce kids 10 to 13 years of age to archaeological methods and concepts, field and lab techniques, and ethical and governmental issues. The camp, July 24-29, promotes responsibility and stewardship toward cultural heritage, and presents archaeology as a career choice. Cost will be \$50.00; reservations are required; and registration will be limited. Contact: Hollie Holmes, (501) 961-9442.

Crow Canyon Archaeological Center, Cortez, Colo., has three upcoming teacher workshops. "Archaeology in the Classroom," July 23-30, will introduce educators to method and theory, and how to incorporate them into the classroom. Cost will be \$725. "Building an Archaeology Resource Unit," July 30-August 5, will use visits to local archaeological sites as a basis for developing site-specific lessons. Cost will be \$825. "Social Studies through Archaeology" will be offered October 1-22 for \$175. Continuing education units are available for all workshops for a small additional fee. Contact Pam Wheat, (800) 422-8975, ext. 142 or 130.

The Center for American Archeology, Kampsville, Ill., has a full agenda of field schools and educational programs for amateurs, students, teachers, and the lay public. Field schools for teachers, August 7-11 and August 14-18, will focus on archaeology as a teaching medium for exploring natural and human sciences. Tuition of \$200 includes housing. Contact the Education Section, (618) 653-4316.

The University of Stockholm will sponsor a two-week experience in Ireland at a Stone Age cemetery in Carrowmore, Co. Sligo. Excavation periods are July 10-21 and July 31-August 11 and will include field education, lectures, and excursions to famous sites. Price is \$1,960 plus travel and accommodations. Contact Professor Göran Burenhult, Department of Archaeology, University of Stockholm D8, S-106 91 Stockholm, Sweden; or fax intl. + 46 + 451 631 95.

The Institute for Minnesota Archaeology, Minneapolis, is offering an archaeology field program through August 18 for credit or noncredit. Individual may register for two or more weeks. For cost and registration details, and information about other Institute programs throughout the year, contact Phyllis Messenger, (612) 627-0315.

### ARCHAEOLOGICAL DIG IN IRELAND

**Combine your Irish holiday with a two-week hands-on archaeological experience.**

Professor Göran Burenhult of the University of Stockholm, General Editor of the Landmark Series from the American Museum of Natural History "The Illustrated History of Humankind", invites you to participate in the Swedish archaeological excavations at Carrowmore, Co. Sligo, Republic of Ireland. The Stone Age cemetery of Carrowmore, located in beautiful Yeats Country, boasts some of the oldest stone-built monuments in the world. No experience needed. Course includes field education, lectures, and excursions to famous sites. Advanced courses in field methodology also available for students of archaeology. Price: 1.960 US\$ + travel and accommodation in B&B or hotel. Excavation periods: July 10-21 and July 31 - August 11, 1995.

For more information, please write to Professor Göran Burenhult, Department of Archaeology, University of Stockholm D8, S-106 91 Stockholm, Sweden, or fax intl. + 46 + 451 631 95.

# Archaeological Parks

Mary L. Kwas, Parks Column Editor

I have moved! Please note my new address, and send announcements, press releases, and calendars of events to me at 2408 Hampton Ct., Fayetteville, AR 72703. Please keep in mind that, while the information in this column often relates to prehistoric sites, we are equally anxious to highlight the events and activities at historical parks and locations. We invite historical archaeologists and educators to send their information.

**Serpent Mound**, Peebles, Ohio, has been named one of America's Most Endangered Historic Places by the National Trust for Historic Preservation. A planned resort development in the Ohio Brush Creek Valley is expected to impact the site negatively. This earthen embankment resembling a snake almost a quarter-mile long is the finest serpent effigy in North America. Serpent Mound is a National Historic Landmark owned by the Ohio Historical Society and may be eligible for nomination as a World Heritage Site. In addition, the site is situated within an unusual geological area designated as a National Natural Historic Landmark. For additional information about

saving Serpent Mound, contact Tom Johnson, Serpent Mound/Ohio Brush Creek Alliance, P.O. Box 52, Seaman, OH 45679; (513) 544-5103.

**Kolomoki Mounds State Historic Park**, Blakely, Ga., a National Historic Landmark, contains a temple mound, two burial mounds, and four ceremonial mounds built by the Swift Creek and Weeden Island peoples in the 12th and 13th centuries. The museum interprets the mounds and associated cultures. Contact Larry Blankenship, (912) 723-5296.

**Pueblo Grande Museum and Cultural Park**, Phoenix, Ariz., has begun an expansion project that will nearly double the size of the facility. The expansion will include indoor and outdoor classrooms, a community room, a gift shop, a new library, and collections management areas. New exhibits will be installed after construction is completed, with dedication planned for November 1995. Contact Roger Lidman, (602) 495-0901.

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# Museum News

Amy A. Douglass, Museums Column Editor

This issue of the column features developments on the national level that indicate the proactive role that museums are taking as public educators, often in partnership with schools. National recognition of this trend, in the form of grants and legislation, ultimately will benefit archaeology education. Some of the information included below was reported initially in recent issues of *Aviso*.

Please send additional information or other museum news to me at the Tempe Historical Museum, 809 E. Southern Ave., Tempe, AZ 85282; (602) 350-5105.

The **Institute of Museum Services (IMS)** has announced 15 recipients of this year's IMS Museum Leadership Initiatives awards, which strive to transform traditional thinking about museums and schools. Awards of grants are given to projects that demonstrate a new, unique collaboration between museums and educational institutions. Winning projects included the use of research findings in shaping the learning process in museums; the use of interactive telecommunications to expand museum/school partnerships; and model programs for integrating museum resources into student learning.

The **National Education Goals Panel (NEGP)**, charged by the **Goals 2000** legislation with motivating schools and communities to engage in education reform, has included museums on a short list of entities with which potential reformers are urged to collaborate. The recognition came in the NEGP's Community Action Toolkit, a six-part "do-it-yourself" guide to organizing for reform. Most of the funding for reform initiatives will go to individual schools and school districts in the form of grants for innovative programming.

Last October, Secretary of Commerce Ron Brown announced that the **Museum Computer Network (MCN)** is one of two recipients of grants in the arts and culture category of the **Telecommunications and Information Infrastructure Assistance Program (TIIAP)**. MCN is receiving an award of \$158,150 to support Cultural Heritage Online, a project that is slated to create a multimedia resource about folk art collections. Cultural Heritage Online is intended to initiate standards and formats for presenting information such as text, images,

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# Network News

Beverly Mitchum, Network Coordinator

This column highlights issues and activities related to the SAA Public Education Network. If you have news of events in your region, a query for archaeologists, or you want to know how to reach your network coordinator, contact me at Bushy Run Battlefield, P.O. Box 468, Harrison City, PA 15636-0468; (412) 527-5585.

"How can I contact teachers?" This is a question that I often hear from network coordinators. In this issue, I would like to describe the experiences that we have had working with the Pennsylvania Council for the Social

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## Archaeological Parks

*Continued from Page 13*

**Mounds State Park**, Anderson, Ind., contains some of the finest examples of earthworks and mound construction in the state. Believed to have been built about 150 B.C. by the Adena and Hopewell peoples, the site has 10 mounds and earthworks. The largest is the "Great Mound," which includes a central platform surrounded by a bank and a ditch. Call (317) 642-6627.

**Chucalissa Site and Museum**, Memphis, Tenn., has been threatened with closure at the end of the fiscal year. A task force appointed by the University of Memphis president to study the issue has recommended that the site and museum remain a part of the university and that funds be acquired to restore and update the facility. If funds cannot be found, the task force recommended closing Chucalissa in June 1995. Call (901) 785-3160.

The **Poverty Point Site**, Epps, La., presented a variety of programs this spring relating to Native American lifeways, including Indian myths and legends, Indian dances and crafts, and Spring School Day, which featured demonstrations of tool use, flint knapping, earth oven cooking, basket weaving, and bead working. Contact Nancy Clendenen, (318) 926-5492.

**San Luis Archaeological and Historic Site**, Tallahassee, Fla., formerly a 17th-century Spanish mission and Apalachee Indian village, is preparing for the construction of two full-scale buildings modeled after domestic structures known through archaeological fieldwork to have existed at the townsite. The Spanish and native dwellings will enhance interpretation, living history, and educational programming. Contact Mark Ames, (904) 487-3711.

Studies (PCSS) and the Pennsylvania Science Teachers Association (PSTA). Most states have equivalent teachers' organizations affiliated with regional and national associations.

Phil Neusius of Indiana University of Pennsylvania is the Pennsylvania Network Coordinator. In the state, we have created a "network" of archaeologists interested in educational activities. Renata Wolynech of Edinboro University of Pennsylvania, Phil, and I have used the teachers' organizations to make contact with hundreds of educators in the state.

Each fall, both organizations hold statewide conferences. About 1,400 teachers attend the PSTA meeting, and 450 teachers attend the PCSS. Most states probably are like ours, in that conference organizers always are looking for individuals or organizations to make presentations on interesting school programs or partnerships. Four years ago, when Renata and I began to work with the PSTA, we submitted a late proposal for a presentation and were placed in the last session of the two-day conference. Only a handful of teachers attended our session. We also made the kind of presentation that archaeologists give—we talked about archaeology. We have learned from our mistakes and now give a much different program. The following are some suggestions that you may find helpful.

1. We submit our proposals early in the spring.
2. We talk about hands-on lesson plans or activities that can be transposed directly to the classroom.
3. When possible, we set up exhibits or staff a booth where we can talk to individual teachers.
4. We take plenty of handouts and examples of materials that teachers can use.
5. We take sign-up sheets so teachers can add their names to the SAA Public Education mailing list.

We also joined these organizations and volunteer to help in as many ways as we can. The PCSS asked other disciplines to send representatives to their board meetings. I attended as the representative of a state archaeological organization and have now been elected to the board. Our efforts have been so successful that during the recent PSTA conference in Pennsylvania, we gave our presentation to a standing-room-only audience of ninety teachers and staffed a booth on archaeology for two days.

Both of these organizations are affiliated with regional and national associations. To learn more about the state and regional chapters that service your area, contact:

- National Council for the Social Studies Information Services, 3501 Newark St., N.W., Washington, D.C. 20016; (202) 966-7840.
- National Science Teachers Association, 1840 Wilson Blvd., Arlington, VA 22201-3000; (703) 243-7177.

# ARC Multicultural Programs . . .

*Continued from Page 1*

If ordinary people are given the opportunity to participate in the discovery and conservation of actual heritage remains, they will acquire a value for the past that no amount of preaching or promotion can accomplish. Hence, the conservation message will be assimilated anyway. At the same time, the people who take part in digs that explore different cultural attributes and backgrounds gain an appreciation for cultural diversity. They come to understand more fully why different peoples approach their environment in different ways. With understanding comes tolerance, and archaeology is, indeed, serving an important and relevant role in our modern multicultural societies.

Multiculturalism is about understanding and accepting cultural diversity. It is about not being afraid of cultural, ethnic, or religious differences between ourselves and the other people around us, for fear is at the heart of racism and intolerance.

Archaeology cannot escape having an educational, and hence political, role

to play in our modern global village. Exploring similarities and differences in how people cope with given situations in varying places and times disturbs long-held myths and prejudices. Archaeology educates us not only about our human past, but about current societal composition as well.

Public archaeology is an educational vehicle and device through which we learn tolerance, banish fear of diversity, and acquire knowledge that helps us deal with the multicultural populations that make up our present world. Archaeologists, then, must play a role that greatly exceeds doing public archaeology so that more sites can be saved or excavated, more artifacts analyzed, and more site reports written. Archaeology can and must be used to transmit cultural information that will engender inter-cultural, inter-racial, and inter-ethnic tolerance in North America's "multi-culture."

*Karolyn E. Smardz may be contacted at the ARC, 800 Greenwood Ave., A4, Toronto, Ontario, Canada M4J 4B7; (416) 393-0665.*

## Epilogue . . .

Prompted by budget cuts, the Toronto Board of Education last fall decided to end virtually all support for ARC staff and activities, which it had funded for more than a decade.

According to University of California archaeologist Brian Fagan, "Toronto's ARC was, quite simply, about the best public education archaeology program in the world." In an article concerning the school board's move, which appeared in the January/February issue of *Archaeology* magazine, he calls Toronto's decision "to abolish its world-renowned public archaeology program especially disturbing."

## Museums

*Continued from Page 13*

and publications on the Internet. It will serve as a model for other information providers in the cultural heritage field.

On a less positive note, it appears that S1822, the **Communications Act of 1994**, is dead for awhile. This legislation is a rewrite of federal communications law that would have deregulated much of the telecommunications industry. In exchange for the vast profit-making potential associated with deregulation, Congress would have required that the industry provide moderate support to qualified public institutions such as schools, libraries, public health care centers, and museums. An array of opponents, including members of the telephone industry, killed the bill. However, a strong precedent has been set for the inclusion of such provisions in legislation that eventually will govern the telecommunications industry and the nation's information superhighway.

## Educational Resources

*Continued from Page 10*

mayaquest@mail.mecc.com for a free Internet program with information about the expedition, curriculum resources, and discussion groups.

**Lesson plan exchange.** To contribute to MayaQuest school-based projects, submit a work plan via e-mail to [MayaQuest@InforMNs.k12.mn.us](mailto:MayaQuest@InforMNs.k12.mn.us).

### MayaQuest Institute

Educators of grades K-12 can join MayaQuest team members, including Dan Buettner, and leading archaeologists for a three-day teacher institute, August 2-4, hosted by the Hamline University Graduate School, St. Paul, Minn.

Participants will choose from a wide selection of workshop sessions fea-

turing successful MayaQuest classroom projects, archaeology in the classroom, Internet activities, and Maya weaving and math.

Two graduate quarter credits can be earned during the institute, which will cost \$225. For information, contact Jennifer Gasperini, (612) 641-2855.

### Maya Art Activity Book

A new publication by the San Diego Museum of Man offers classroom and field trip activities for middle school students, including writing about Maya art objects, making maps and timelines, and sorting images by style. The 260-page activity book, edited by Ann Fuerst, is available for \$27.50, plus \$3.50 for shipping. Contact the San Diego Museum of Man, 1350 El Prado, Balboa Park, San Diego, CA 92101.

# UP AND COMING

## SAA Urges Public Attention And Action In Possible Preservation Law Changes

Congress has issued an early warning that it may scrutinize or attempt to amend the system of federal historic preservation laws, regulations, and institutions that serve as cornerstones in the protection and management of cultural resources in this country.

A letter recently sent by three Republican legislators to the executive director of the Advisory Council on Historic Preservation (ACHP), an independent federal agency, expressed concern about "burdensome regulations," private sector rights, and costly compliance associated with federal mandates, particularly the National Historic Preservation Act (NHPA) and its Section 106. The latter requires federal agencies to take into account the effects of their undertakings on historic properties, and to consult with the ACHP before approving or proceeding with any project that receives federal funding or support.

SAA has issued an "Action Alert" that provides background details about the matter, general points of information about preservation legislation, and statements reaffirming the importance of cultural resource protection and the high regard that Americans place on archaeological sites. It also urges people to remain informed about proposals to change preservation laws and regulations, and to write to senators and representatives to express support for federal archaeological protection and management.

Legislators may be contacted by mail, telephone, or fax. If one is uncertain about how, or with whom, to make contact, SAA will fax a congressional list free of charge through its FaxBack service. To receive this document, use the hand set on a fax machine; call (800) 375-5603 and

respond to the voice prompt by entering document number 7220. The list will be arranged by state and congressional district, and will include telephone and fax numbers.

Letters should be addressed in the following way: The Honorable John Jones; U.S. House of Representatives or U.S. Senate; Washington, D.C.; zip codes are 20515 or 20510, respectively.

Archaeologists are united in their concern about the rate at which archaeological resources are imperiled or destroyed. They also can attest to the vast cultural information that has been recovered because of legislation. Lay people can lend a supportive hand by remaining aware and vocal in the future.

YES! Add my name to the mailing list for *Archaeology and Public Education*.



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### Special Note To SAA Members

This issue of *Archaeology and Public Education* is being sent for the first time to all SAA members, who constitute less than one-eighth of our regular mailing list. If you enjoy the publication and would like to receive it on an ongoing basis, check "YES" in the box below, then send a photocopy or fax of this page to the Society for American Archaeology, 900 Second St., N.E., Suite 12, Washington, D.C. 20002; (202) 789-0284, fax.

**Copy deadline for  
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