

Society for American Archaeology: Committee on Public Education

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EXPLORERS AND INVESTIGATORS OF THE COMMONPLACE:

CHILDREN AS HUMAN SCIENTISTS, by Walter Enloe, Department of Education,
University of Minnesota

From a child's perspective, the world is a wonderfully interesting and exciting place to explore and investigate. Just as with other organisms, they often want to explore their environment, to extend themselves into it as the result of external stimuli or internal need and interest. Children are also meaning-makers (*homo faber*) and interpreters of experience, and delight in the exploration and investigation of the variety of cultural forms and systems. As both organisms and people, kids are naturally inquisitive. They enjoy having wonderful ideas. For twenty years as a teacher and school-culture anthropologist, I have observed children in several hundred classrooms in Asia and the United States. It is my contention that most children begin school as eager, bright-eyed explorers full of interest in the whole of life and the human fabric of experience, and yet, by the end of fifth grade, a sizable majority are disinterested and increasingly apathetic. This is largely the result of a disparate, lifeless curriculum in which they inactively participate with little voice. (However, this schooling perspective holds more for the United States than, say, Japan.)

For the past several years, I've informally asked many ten to twelve-year-old Minnesotans about school life, particularly things they liked or disliked about school and why. Most often, kids like lunch and recess! And most often, especially by fourth and fifth grade, they dislike social studies and science, usually "the minor subjects" in elementary and middle school class rooms. Why? From conversations and observations, it's obvious that the traditional approach, which is the dominant approach, is to read books, and discuss and look at the pictures, and write and test about the "stuff" of social studies and science. This approach is too passive for the needs of growing children. The material to be "covered" is often isolated facts, dates, places, endless lists to be memorized. "It's boring," is a common response. Sometimes the children will see a video, often a "strange lands and friendly peoples" show. Occasionally, they watch the teacher do an experiment; sometimes they will do a report, most often rearranging material from an encyclopedia; occasionally they're fortunate to have a visitor, for example an archaeologist, who may make the class-time special with artifacts and discovery activities.

What must we do for the sake of our children? On the one hand, we must aid their "living experiences." We need to help them be active students of being human. Human studies is the intersection and overlapping of the human sciences (including biology) and the humanities. We need to help them see the subject-matter of their lives and the history of human beings as an integrated, interdisciplinary mosaic. Children need to understand the subject-matter of social studies and science by apprenticeship. We need students who are active investigators and experimenters and collaborators. We need to help children be practicing anthropologists and archaeologists. We must aid their lived experience of life and meaning-making.

On the other hand, we need to help children find excitement and interest in the commonplace, in their local and regional contexts. History for a ten-year-old child began eleven years ago. We don't have to go back five thousand years as the best or only way to find mystery and intrigue to spark the imagination and inquiry. The key is how we can best help our children be "intellectual explorers" on their turf--in their classrooms and in their local communities. What was on this land before the school? Why is our school named after a Barton? Where did our town name of Andersonville come from or our street's name? Why are Oreo cookies called Oreo? When did the first Christmas lights light up Main Street? etc. etc.

Let me share with you several ideas that grow out of my teaching experience. What did the occasional student who liked science and social studies talk about? "We get to do stuff!" It's typically hands-on, interdisciplinary, long term (more than a period); it's most often collaborative, it involves research, inquiry, planning, the making or construction or building of something, and presentation--a project!

Some years ago, I began a cross-cultural "information" exchange project between four upper elementary/middle schools in Australia, Japan, and the United States. We began by exchanging letters, art and crafts. This led later to computer disk exchanges and then audio and video tapes of music and sightseeing. Finally, we came up with the "wonderfully unique idea" of exchanging artifact

culture boxes. ("Artifact" for teachers usually means objects representing the subject of a lesson.) Each school had some fund-raising campaign to raise the equivalent of \$50.00 to buy locally made and/or interesting artifacts to send between the schools. Each was labeled and an annotated record was created so that children in another culture could inquire and discover their use by using an inference sheet. What was exchanged was by chance really interesting and the children were excited about both collecting and receiving cultural artifacts. There was some active inquiry and discoveries of cultural commonalities and differences. But something was missing.

Numerous versions of these discovery "boxes" have sprung up around the globe. Some examples with which you may be familiar include discovery tables or boxes (also regalia table), archaeological suitcases and fish tanks, history trunks, and "Who am I?" archaeological bags. Another variation is "magazine and newspaper archaeology," using magazines or the Yellow Pages from the year students were born to investigate change and process, and give kids a sense of historical place.

Something has bothered me about how these activities are often carried out; what is the missing piece? I guess it's that in the expediency and good faith of wanting to teach something to kids, and in the examples above, to make the textbook content come alive, we often shortchange kids. To be a discoverer lacks the depth of being an explorer. To be a discoverer of what adults predetermine lacks the soul of being an experimenter and investigator. It is very important to familiarize students with artifacts and their various interpretations, and a teacher-made culture discovery box or suitcase or trunk does that well. But it's neither "deep" nor "broad" enough to be an authentic archaeological trench/site. Good research into a culture takes time, requiring a series of preparatory and evaluative steps, including hypothesis development, analysis, and theory building, as archaeologists well know.

There are many small ways in which we can step aside and let the explorers take over, by assuming ownership of a process more closely resembling steps in the

archaeological process. It happened several years ago with a cross-cultural exchange and exploration between a mountain school in Tennessee and an International School in Japan. Groups of students collected a set of artifacts of their own culture(s) to share with students of the other culture (it can be done across town or across the state, as well). Through investigation and consensus decision-making, they created a limited number of artifacts that best represented their culture(s). We were asking them to value and rank their choices of the most appropriate artifacts, to choose between a Coke can and bubble gum, or a school textbook and a TV guide. (One approach is to collect 100 artifacts and to determine that only 25 can be sent. Students had to rank objects w/rationale!) Once students decide upon what is important to tell about their culture, we invited them to reflect on what is universal, unique, essential to share about us. Should we send a McDonald Big Mac container! Or do they have McDonalds, too? Would they be interested in an American container? (Maybe) Would we like to see a Japanese Coke can? (Yes)

Through these activities of personal and collective reflection, our explorers spent considerable time determining what is valuable to share and what they value. Two years ago I discovered that teachers in Wisconsin had for years been linking kids and classrooms with culture boxes, some created by teachers for discovery; but most were collected and assembled and valued by the children themselves as they explored their own culture and reflected on what other people might want to know about it. It is not difficult to imagine all sorts of extensions of this project to explore concepts of cultural heritage preservation and stewardship.

SUBCOMMITTEE NEWS

Formal Education Subcommittee, from Paul Hooze, Licking County Archaeological Society, and Karolyn Smardz, Archaeological Resource Centre

The Formal Education Subcommittee met in Newark, Ohio, on April 4-7, and again in New Orleans on April 25-28. The Subcommittee addressed a variety of topics related to formal education and archaeology, and established a framework for future subcommittee work.

Topics that were discussed included: archaeology workshops for teachers, developing a curriculum model for archaeology, distribution of information, networking, the need for financial support, holding a 1993 network workshop, and possible awards for educators.

Major accomplishments of the subcommittee include the establishment of long-range and short-range goals and the construction of four sets of guidelines that are essential to the evaluation of or construction of educational materials about archaeology, for grades K-12.

The guidelines for educational materials include:

1. editorial and informational elements essential in archaeology education materials,
2. conceptual frameworks to be incorporated into archaeology education materials,
3. elements of archaeology method and theory that should be included in education materials,
4. Curricular elements that should be addressed in developing archaeology lessons for teacher use in class.

Public Session Subcommittee, from George Smith, National Park Service Southeast Archaeological Center

The public session, "Archaeology for the Public" organized by the Public Session sub-committee at the recent SAA meetings drew over 175 people. Based on the questionnaires turned in after the session, about half of the people attending were registered for the meetings while the other half were "the public." The vast majority of those attending indicated that the session was very good. Overall the public were pleased that the SAA had a session especially for them and found the papers interesting and informative. The artifact identification booth, staffed by Christopher Goodwin and Associates, identified artifacts and provided stimulating discussion to those who brought in artifacts.

Although only the third place winner was able to attend the award ceremony, the essay awards were very successful and drew many positive comments from the audience. Peter Young, of ARCHAEOLOGY Magazine, provided very heartfelt and positive remarks as part of the awards ceremony.

Overall, the session was a success, and should be an even bigger success next year in Pittsburgh. Currently, the committee is compiling a report on the session for the SAA. The subcommittee is looking for local coordinators to work with them on organizing next year's public session. If you are interested, call George Smith at 904-561-9106.

Postscript: The 1st and 2nd place winners, along with their classmates, were in Baton Rouge on Tuesday, May 7, to observe the legislature in session. The State Representative for their district, a supporter of archaeology, arranged for the awards to be presented on the floor of the House. The speaker suspended the rules to allow the two winners, the three finalists from the class,

the teacher, the principal, and the state archaeologist (Kass Byrd) to take pictures as Kass and Representative Francis Thompson presented the plaques to the two winners and the National Geographic books to the teacher and the principal. It was clearly a significant and exciting experience for the students, teacher, and principal.

Education Resource Forum, from KC Smith, Museum of Florida History

For people seeking ways to incorporate archaeology into elementary and secondary curricula, the recent SAA meetings in New Orleans offered a look at some of the teaching manuals, newsletters, resource guides, books, games, videotapes, and posters currently available for this purpose. More than 100 items were on display at the "Education Resource Forum," the SAA Public Education Committee's first effort to apprise professional archaeologists and educators of the vast array of general and regional materials available to import archaeology into the precollegiate classroom.

Developing and promoting the Education Resource Forum in 1991 was one of several initiatives adopted by the Public Education Committee at the 1990 SAA meetings in Las Vegas. Likewise, the Society for Historical Archaeology (SHA) presented a poster session at its professional conference last January that included educational materials. Recognizing their similar intent to present a display of resource items at future meetings, education committee members from both organizations have agreed to a cooperative venture, wherein the assemblage of teaching manuals, books, and other items will be shared and augmented by both groups. In addition, to further extend the visibility and utility of the materials, plans currently are underway to make the collection available to national teaching societies for display at their conferences.

A listing of the resources featured in New Orleans was prepared and distributed free of charge. To obtain a copy, please contact **KC Smith, Museum of Florida History, 500 South Bronough Street, Tallahassee, Florida 32399-0250; 904-487-3711.**

In addition, archaeologists and educators who develop new teaching or public awareness materials are asked to send a copy to Smith for inclusion in the Education Resource Forum collection.

Special Interest Group Subcommittee, from Larry Desmond, University of Minnesota-Morris

Just about everyone who does archaeology is already a member of a regional or nationally organized special interest group, such as the Sierra Club, the National Rifle Association, Mensa, historical societies, and American Association for Retired Persons. One effort of this subcommittee is to publicize and promote efforts on behalf of archaeology and preservation within these groups. For example, archaeologists Harvard Ayres and Shawn Haley, both members of the Sierra Club, have carried the preservation message to members of the club by involving them in their SE Utah Anasazi site survey and anti-looting project during the last two years. Ayres also chairs the Sierra Club's Native American Sites Committee, and Haley (a member of the SAA Public Education Committee) plans an article on their preservation work in the club's national publication Sierra.

Along that same line, Hank Meals is working with special interest groups in Northern California near Nevada City, which is known for its richness of Native American culture and historic Gold Rush sites. Hank believes in working on a number of fronts to educate the residents of the area about their cultural heritage resources, and the preservation of those resources. He works with, and is an active member of, a number of grass roots environmental organizations and citizens groups; and as a member of a Nevada County

Citizens Cultural Resource Subcommittee, he is working toward a cultural resource ordinance. He often gives walking lectures and has enlisted the help of a 4-wheel drive club in preservation and protection of sites in remote mountain areas. Lloyd Chapman, of the Mid-Atlantic Region of the National Park Service, is focusing outreach efforts on youth groups, including the Boy Scouts of America. These activities will be discussed in a future newsletter.

We welcome any inquiries regarding ideas for working with special interest groups, but also would like to hear from anyone involved with or working with special interest groups, so that we can build a network, and help each other and learn from one another.

EDUCATING THE PUBLIC

Michigan Department of State Promotes Archaeology Through Exhibits, Programs and Publications, by John R. Halsey, Michigan Department of State

The Bureau of History of the Michigan Department of State is Michigan's primary historic preservation and public history organization. One of its major agencies is the State Historic Preservation Office whose functions are well-known. Another of its agencies, the Michigan Historical Museum (MHM), is responsible for ten satellite or field museums as well as its new home in the Michigan Library and Historical Center in Lansing. Five of the field museum sites have significant archaeological resources that have been utilized in site restoration and interpretation. In addition to its permanent exhibits on archaeology, the NHM in Lansing has sponsored special exhibits on highway archaeology and is currently

housing a major temporary exhibit on underwater archaeology of the Great Lakes.

The education staff of the MHM has given teacher workshops on archaeology and has arranged slide and film presentations on shipwrecks and underwater archaeology. The MHM has also hosted the Lansing Divers Showcase, an annual meeting of sport divers, many of whom have an avocational interest in underwater archaeology. Scott Peters, MHM Exhibits Coordinator, and I have taken an introductory course in basic underwater archaeological techniques.

Dr. Roger Rosentreter, Editor of Michigan History Magazine, a bimonthly journal directed at a lay audience, has made a major commitment to the publication of a wide variety of archaeological topics. As head of the Bureau's Archaeology Section, I actively solicit articles from professional and avocational archaeologists and have had good cooperation. Michigan History Magazine averages four to five major articles a year. A regular feature in each issue is a brief history of one of Michigan's 83 counties. Frequently, there will be a sidebar story discussing some unique aspect of the subject county's archaeology. These have ranged from logging dams to lost mounds to petroglyphs.

The Publications Section of the Bureau of History headed by Rosentreter, in cooperation with the Michigan Department of Transportation, has published the first volume in a series devoted to major highway salvage excavation projects in its Michigan Cultural Resource Investigation Series with another volume scheduled for this year. Our most ambitious archaeological publication to date is Beneath the Inland Seas: Michigan's Underwater Archeological Heritage. The topic of underwater archaeology has exceptional public interest and we have already sold almost 40% of the initial printing of this four-color, 64-page book. As noted by Jeremy Sabloff in his recent

article in this NEWSLETTER, the public's desire for archaeological news and information continues unabated. In Michigan, we think we are satisfying that desire by giving the public up-to-date, accurate information in a variety of attractive and accessible formats.

ARCHAEOLOGY IN THE SCHOOLS

The Language of Oysters: Science and Archaeology, by Mike Johnson, Heritage Resources Branch, Fairfax County, Virginia

Over the last ten years, the Fairfax County Archaeology Program in Northern Virginia has had extremely gratifying results sponsoring one high school science fair project each year. We have learned that archaeology and science are a big hit, because they demonstrate applied science. The judges love it, especially when the techniques are applied to understanding extinct cultures. Our science fair students almost always work with real archaeological data.

The most recent success was the 1991 Northern Virginia fair in which Carol Blosser, a student at W. T. Woodson High, entered a project titled, "The Language of Oysters." She analyzed the growth rings in the hinges of oyster shells from the Late Woodland Taft Site (44FX544) and the 18th Century Belvoir Plantation (44FX4). The purpose was to compare seasonality of oyster exploitation between the Prehistoric Native American occupants of Taft and the Colonial English occupants of Belvoir. Carol was aided by the Fairfax County staff and was treated to an excellent lecture and demonstration of the method by Dr. Henry Miller, Director of the St. Mary's City Archaeology Program in Maryland.

The project only received an "Honorable Mention" at the W. T. Woodson Fair, but Carol's science teacher felt that the project was "special" and sent it on to the Regional Science Fair. There she won the "Grand Prize" plus many other honors from private industry and the Federal government. The Grand Prize included an all expenses paid trip to Disney World and the International Science Fair in Orlando, Florida.

Previous Fairfax County-sponsored science fair entrants have won three first and one second place prize in the Earth Science categories at the regional fair. Others have received prizes at local high school fairs. One student, Beth Spyrisson, who was a multiple science fair winner, is now a senior in anthropology at William and Mary and has been accepted to two anthropology graduate programs.

Some of the Science Fair topics have included:

1. Examining spatial artifact patterning from a large, controlled surface collection.
2. Examining spatial artifact patterning from a transect interval sample.
3. Flotation analysis.
4. Pollen analysis.
5. A comparison of various plant fibers used in handmade bark cordage (collected and made by the student).
6. Analysis of meat processing methods from cattle bones recovered from an 1890's trash pit from a Spanish American War training camp.
7. The application of modern lithic replication (student did the knapping) to analyzing real prehistoric stone tool manufacturing strategies.
8. Faunal analysis from a prehistoric Native American midden.
9. Ph testing of a prehistoric Native American shell midden.
10. Oyster analysis.

We have tried to limit our number of projects to one a year because they do take some staff time. However, we feel that the effort is worth it. Hundreds of people see each project at the local high school fair and if the project moves on to the regionals, thousands more are sensitized. It is especially gratifying to see the interest and excitement displayed by the student doing the project and the pride the parents have in their child's success.

"Linking the Past with the Future in Public Archaeology," © by Cameron Quimbach and Katherine Kappus, Archaeological Communications

Archaeology! Mention the word and people will tell you it's everything from digging rocks and dinosaurs to collecting arrowheads, coins and golden idols. Unfortunately, this misconception predominates in the general population and young students carry this belief with them into adulthood. Education can change this.

Founded in October of 1988, Archaeological Communications is a private outreach program created to promote North American archaeology through elementary and secondary education. One of the primary objectives of the program is to erase misconceptions about archaeology. "Digging for dinosaurs is not archaeology, yet most students think that's what it is," states Cameron Quimbach, director and founder of Archaeological Communications. "We want to show students the excitement of discovering humankind's past through archaeology."

There are three programs from which educators can choose: **"Indiana Jones: Fact of Fallacy," "Ancient Clues,"** and **"Stories from Stone."** These classroom programs are structured to promote critical thinking and to teach deductive reasoning skills. Lectures, combined with hands-on activities, teach students about North American

archaeology as a scientific discipline. These programs are not curriculum materials but services provided by our staff.

Education is the first step in site preservation. Without it, sites are destroyed and knowledge of the past is irretrievably lost. Archaeological Communications is committed to preserving the past through education. For more information, please write Archaeological Communications, P.O. Box 30262, Indianapolis, Indiana 46230.

Diaries in the Dirt, by Robert L. Brooks,
Oklahoma Archaeological Survey

In 1990, Oklahoma Archaeological Survey received funding from the National Endowment for the Humanities 1990-1992 Exemplary Award program, Phillips Petroleum Foundation, the Kirkpatrick Foundation, and the Robert S. and Grayce B. Kerr Foundation for their "Diaries in the Dirt: Signs of the Plains Village People" project.

As designed, "Diaries in the Dirt" has five components. The first of these is a Teacher's Guide to Archaeology prepared by Roxanne Rhoades and the Archeological Survey. The guide provides teachers with basic information on archaeological theory and methods, basic chronologies, exercises for their students, and reference materials. The second part of the kit is a board game resembling Monopoly, but concerning archaeological concepts. This game explains basic skills in archaeological methods to students; through the use of discovery cards, it also acquaints students with actions and activities commonly encountered by archaeologists. A third part is another board game resembling Concentration, which focuses on life during Plains Village times (ca. 700 to 900 years ago). Through the use of concept cards, students learn about Plains Village people's social, economic, and

religious lifeways. The two board games can be played by 4-5 students.

The fourth aspect of "Diaries in the Dirt" is an excavation exercise called EX-SITE. Here, students have the opportunity to learn through simulated excavation of a multi-component site derived from actual archaeological data. The class is divided into 4- to 5-member excavation teams with 3 to 5 teams, depending on class size. Each team member is assigned specific responsibilities (e.g., recorder, excavator, analyst, writer, etc.). The site consists of a set of 64 2" squares (16 per level) representing 2x2 meter excavation units from four levels: surface, historic Indian, Plains Villagers, and Paleoindians. Encounter cards identify what was found in the squares that the students excavate. Certain excavated artifacts are available for "hands-on" learning. These include both replicas and non-provenance materials from museums and the Archeological Survey's collections. Students are instructed in the dimensional, morphological, and functional analyses of these items. The students also encounter human remains and learn about responsible treatment of Indian people's cemeteries. At the completion of each level, students must interpret their findings and those of their classmates. A Users Guide accompanies EX-SITE to assist teachers in its application.

The fifth ingredient is a series of sandboxes housed at the Oklahoma Museum of Natural History and the two satellite museums. A set of artifacts representative of the cultures discussed throughout the program and comparable to those used in the EX-SITE exercise are excavated using archaeological techniques. Artifacts include both replicas (artifakes) and non-provenance materials (artifacts). Excavation teams analyze these materials which are focused around seven themes (e.g., the "flint knapper's tool kit," "home and the hearth," the "shaman's hut," etc.). This activity

serves as a companion exercise to the simulated excavation.

"Diaries in the Dirt" has been targeted for 4th-6th grades. However, in working with curriculum development staff from the Oklahoma School Systems, we have discovered the program can be applied successfully through the 9th-10th grades. Ten kits have been prepared for this project. Three are housed at the Oklahoma Museum of Natural History while others are at the Museum of the Great Plains in Lawton and the Pioneer Indian Museum in Woodward.

Workshops have been conducted for interested teachers at the Museum of Natural History and the two satellite centers. To date, the success of "Diaries in the Dirt" has been phenomenal.

Students and teachers have been enthusiastic and challenged by the program's emphasis on both science and history. After playing EX-SITE for eight hours, one class of students commented that it was better than Nintendo. Another group of 4th graders who had recently been exposed to "Diaries in the Dirt" recorded an archaeological site in their non-school time. A serious problem has been demand for the kits. There is currently a month to two month backlog of requests that cannot be met. We are exploring means of systematically bringing "Diaries in the Dirt" to the Oklahoma school systems.

For more information regarding "Diaries in the Dirt," contact Robert L. Brooks, Oklahoma Archaeological Survey, 1808 Newton Drive, Norman, Oklahoma 73019-0540, or 405-325-7211.

RESOURCES

LEAP, by Patricia Knoll, National Park Service, Washington, D.C.

The Archaeological Assistance Division of the National Park Service is soliciting material for the second volume of the Listing of Education in Archeological Programs (LEAP) Clearinghouse. The Clearinghouse includes summary information about public education efforts.

The LEAP Clearinghouse contains, but is not limited to, information on: (1) Projects or programs (including cooperative efforts among agencies) to protect archaeological resources, and to educate the public about these resources; (2) projects or programs with avocational organizations and volunteers involving archaeological survey, testing, excavation, curation, or interpretation; (3) projects or programs with museums, academic institutions, historical societies, etc., for exhibits or displays about archaeological resources; and (4) brochures, posters, videos, radio and television coverage, and other products of these efforts. The LEAP Clearinghouse is intended as a reference for Federal, Tribal, State, and local agencies, museums, societies, educational organizations, and individuals seeking information on existing projects, programs, and products to increase public awareness or archaeology.

A LEAP summary report was published in 1990 that includes all information collected by the Clearinghouse from 1987 through 1989. It has been distributed to many Federal agencies, heads of contributing Departments, and Congress, and is available through the Government Printing Office.

Information may be submitted to the LEAP Clearinghouse by any Federal, Tribal, State, or local organization, academic institution, archaeological or historical society, museum, private foundation, company, or individual that has used outreach methods and materials to promote an archaeological project or program to the public.

Agencies and organizations which would like to be listed in the Clearinghouse may send the attached form to LEAP Coordinator, Archaeological Assistance Division (436), National Park Service, P.O. Box 37127, Washington, D.C. 20013-7127, telephone 202-343-4101, or FTS 343-4101, FAX 202-523-1547.

Offerings from Cobblestone Publishing, by Manuela Meier

FACES, the Magazine About People, is published by Cobblestone Publishing in cooperation with the American Museum of Natural History in New York. The entire March 1991 issue is devoted to the study of archaeology. FACES has invited its readers to learn about archaeological sites in past issues as well and has visited the ruins of two ancient Indian civilizations in the November 1985 (Maya Civilization) and November 1986 (The Incas) issues. "Becoming Human" (January 1988) featured fossils in the study of evolution. Underwater archaeology and treasure hunters were part of the May 1985 issue (Lost Treasures/Lost Ships). The February 1990 issue on "Fire" took readers to sites in Belgium, France, Kenya, and China. More sites were explored in Brazil (January 1989), Ancient Mexico (June 1990), and South Africa (January 1991).

The June 1983 issue of COBBLESTONE, The History Magazine for Young People, offered an in-depth look at archaeology in the United States.

The May 1991 issue of CALLIOPE, World History for Young People, features lost cities. Each issue of CALLIOPE contains a 2-3 page department featuring archaeology.

For a free catalogue listing all the back issues of the three magazines, as well as subscription information, please write to Cobblestone Publishing, Inc., Dept. ARCH, 30 Grove Street, Peterborough, New Hampshire 03458.

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DEADLINES & DUE DATES

To ensure your spot in the next issue of the **NEWSLETTER**, we need your **material by August 1, 1991**. Your submittals keep the readers informed. Send them to Ed Friedman, Bureau of Reclamation, P.O. Box 25007, D-5530, Denver, Colorado 80225-0007.

THE WORD IS SPREADING

It was reported in the last issue of the **NEWSLETTER** (Vol. 1 No. 3) that our readership reached 780. I am pleased to note that this issue will be going to 1,047 individuals.

Due to this unexpected growth in readership, we are no longer able to include the updates of the mailing list. If you are interested in receiving the Public Education Committee's mailing list, please contact Ed Friedman, Bureau of Reclamation, D-5530, P.O. Box 25007, Denver, Colorado 80225-0007, 303-236-0926, or FTS 776-9026.

If we need to change your listing in the **NEWSLETTER**, please call or write Ed Friedman.

NATIONAL PARK SERVICE
ARCHEOLOGICAL ASSISTANCE DIVISION

LISTING OF EDUCATION IN ARCHEOLOGICAL PROGRAMS (LEAP)
Project/Program Summary

Agency/Institution: _____ State: _____

Project/Program: _____

Contact Person:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: Area Code (_____) _____; FTS _____

Title and Narrative Summary of each product (list each product individually, including multiple examples of the same product type; continue on back if necessary).

Product Type:

A. Poster B. Brochure C. Exhibit/Display D. Volunteer Involvement E. Archeological Site Tour/Open House F. Public Ceremony/Dedication/Commemoration G. School Curricula (elementary, middle, secondary) H. Classroom Presentation I. Adult Education J. Film K. Videotape L. Audiotape M. Slide/Audio Tape N. Public Service Announcement O. Radio Spot/Interview P. Television Spot/Interview Q. Television/Program (PBS type) R. Newspaper Article S. Press Release T. Popular Publication U. Popular Article V. Community Outreach

Note:

Classroom presentations include K-12 and college. Popular publications are considered to be books, guidebooks, magazines, and newsletters, etc., that reach a general audience. Popular articles appear in these publications. Community outreach specifically relates to presentations to local groups.

Product type: _____ (use letter code as indicated above)

Date: _____

Title: _____

Narrative Summary: (limit to 100 words or less)

Information Provided By:

Name: _____ Agency/Office: _____

Phone: _____ Date Completed: _____

ARCHAEOLOGY FOR THE CLASSROOM

Surveying the Past, by Carol Ellick, Tucson, Arizona

Where did people live in the past? Did they live way out "there" in the deserts and forests? Chances are that people have lived everywhere we are today, at some time in the past. People lived any place they could find the essentials for survival: food, water, and shelter.

The environment that surrounded them functioned as their supermarket, drug store, hardware and department store. People knew where to find the materials they needed to make their tools, gather plant foods and hunt. Every place people use, they leave their mark. What archaeologists find are the fragmented remains of use from each site.

Archaeological sites are found by accident by passers-by and on purpose by archaeologists on a survey. Both methods are helpful when the information gets recorded and transferred to the state site record files. A survey is used to record information on a specific piece of property prior to disturbance.

Before entering the field on a survey, the project director researches previous work in the area, what was discovered, and the results of the investigation. The field equipment needed to conduct an archaeological survey includes a U.S. Geological Survey (USGS) quadrangle map of the area for plotting sites and isolated finds (artifacts), a field notebook for the crew chief to make notations in, pin flags and flagging tape to pin point artifacts for mapping purposes, and site record forms.

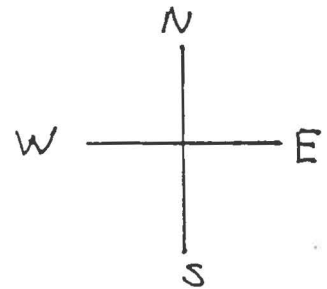
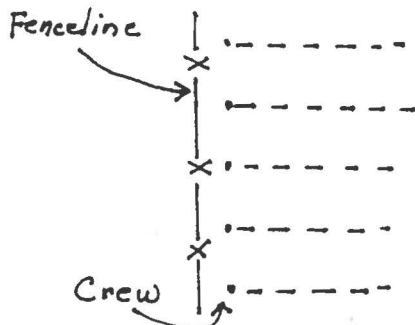
To begin the survey, the crew lines up along the property boundary spaced an even distance from one another. The distance between each person may be anywhere between five and twenty meters, depending on contract requirements and the visual coverage needed of the ground surface. The crew chief sets the compass bearing and informs the crew on the direction to be taken before they begin the transect. It is the crew's responsibility to maintain the proper distance from one another, to stay on line and report any artifacts they encounter.

When an artifact is spotted, the discoverer calls out to the crew chief and the information on location and artifact type are duly noted. The artifact is left in place. If an artifact concentration is encountered, the crew works together to measure and map the site using the compass for position and pacing for distance. The site is plotted on the USGS map so that it can be relocated in the future. The crew continues on in this way until the project area has been completely covered. Depending on the size of area, this could take anywhere from a few hours to a few months. When the survey is completed, the crew returns to the office to write up their findings. All research materials, field procedures, discoveries, and conclusions are included in the final report. A survey is an important first step in field archaeology.

ACTIVITY 1:

Story Problem

The crew members are lined up along the fence line that is the boundary to the survey area. What direction will they be walking? _____. There are five people on the crew, and the distance between each person is five meters. How wide is the area they can cover in one transect? _____. If this crew covered 10,000 meters that day, how many square meters did they survey? _____. How many kilometers does that equal? _____. What does it equal in miles? _____.



ACTIVITY 2:

Measuring your pace

Archaeologists use their pace to measure distance on a survey. Before entering the field, they must measure the distance of their footsteps in relation to meters so they can determine distance in the field.

Materials:

10 meter tape measure
pencils and paper (one per student)
string and 4 nails (if outside)
masking tape (if inside)

Set-up:

Lay out a starting line and measure 10 meters off it. Lay out the finish line parallel to the starting line.

Procedure:

Students walk from line to line in a natural stride, counting how many steps it takes them to walk from line to line. Repeat this procedure 5 times, writing down the answers in column form. Average the number of paces by adding the column and dividing by 5. To find out the distance of one pace, divide 10 by the average. One pace equals this portion of a meter.

Example:

Trial #1= 12 paces
Trial #2= 14 paces
Trial #3= 13 paces
Trial #4= 12 paces
Trial #5= 13 paces
Total 64

Average $64 \div 5 = 12.8$

Pace $10 \div 12.8 = .78$ meters, or 78 centimeters

To use this information to measure, simply count the number of steps it takes you to walk the distance and multiply that number by the length of your pace.

ACTIVITY 3:

Use the above procedure to measure a place. From your classroom door to the next one down the hall works well. Let students pace off the distance. They then multiply the number of paces by the length of their pace. Measure the distance with a metric tape and check for accuracy. It takes some practice. Good luck!