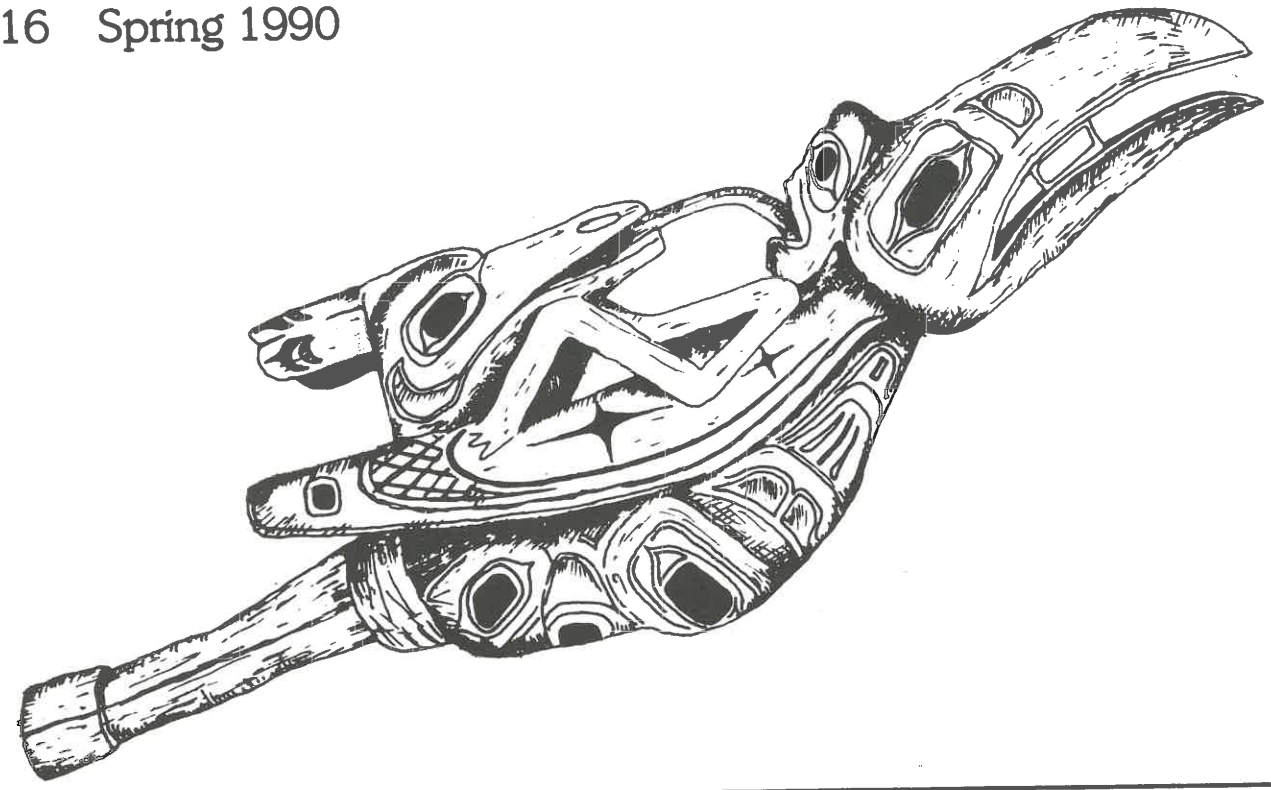
TAN
TEACHING ANTHROPOLOGY NEWSLETTER

No. 16 Spring 1990



INSIDE . . .

This issue of *TAN* is devoted to precollege archaeology. It highlights sample curricula: from Virginia, lessons for students in grades 7-12; and from Arizona, units for students in grades 5 and 6. Also featured are news about an Indiana company producing curriculum aids and an account of archaeology promotions by the U.S. National Park Service. These initiatives, and other information presented, show that teaching archaeology achieves many precollege educational goals.

TEACHING ANTHROPOLOGY NEWSLETTER

Precollege anthropology is being taught more and more often and in more and more places. Anthropology is now part of many history, science and social studies curricula.

Teaching Anthropology Newsletter (*TAN*) promotes precollege anthropology by: providing curriculum information to teachers; creating a forum for teachers to exchange ideas; and establishing communication between teachers and professors of anthropology.

TAN is published free-of-charge semiannually in the Fall and Spring of each school year by the Department of Anthropology, Saint Mary's University, Halifax, NS B3H 3C3. Items for publication should be submitted to Monica Lewis, Circulation Manager, or Paul A. Erickson, Editor. Deadlines for submission are October 1 for the Fall issue and March 1 for the Spring issue. News, reviews and articles are solicited!

Archaeology/Walney: A Curriculum of Historic Archaeology

by Barbara M. Naef

Archaeology/Walney is a 12-lesson curriculum unit developed for use in grades 7-12 social studies classes. Written in 1984 by Michael Harrison, a classroom teacher who has since become a curriculum development specialist, the unit presents lessons and activities which meet several educational objectives.

The content of the unit introduces the students to the basic tenets of archaeology. During the first six lessons the students develop an understanding of the function and purpose of archaeology, from general principles to the defined processes of field surveys. Lesson I leads the students to identify and describe the role of the archaeologist. Lesson II covers archaeological terms. Lessons III and IV are concerned with the location of sites and collections of materials. Lessons V and VI discuss describing and "explaining" artifactual materials. Appropriate activities are included with each segment.

Lesson VII serves as a summation and review unit where students' knowledge and comprehension are tested and confirmed prior to the introduction of the second section of the curriculum, *Walney,* which details a site-specific test case. Application of knowledge, analysis, synthesis and evaluation - all the elements of critical thinking - are the educational objectives of the Walney curriculum component. Studying a specific historic site with numerous archaeological resources allows the students to use their newfound skills and to assume the role of archaeologist. It should be noted that the curriculum can meet its objectives without the site visit, which concludes the unit for those students in proximity to the Fairfax County, Virginia, site.

For students in the Fairfax County Public Schools, this curriculum unit meets the Program of Studies (POS) objectives defined for Social Studies classes, grades 7-12. It is assumed that the objectives are compatible with those of most school systems because of continued interest in the unit, demonstrated by periodic inquiries and the resulting national dissemination of the curriculum materials.

The unit is successful because it defines and accomplishes prescribed educational objectives through the study of an exciting archaeological discovery. Walney is the name of a stone house built c.1780 on farmland in northern Virginia. Historical records, dating from 1725, define the use of the land on which the house stands. They allow the site to serve as a representative microcosm of 18th and 19th century American history in terms of Indian hunting grounds, colonial tobacco farming, slave labor, Civil War battles and economic depression. The land was cleared

Oops . . . .

Editor's Note:

During a computer changeover in *TAN*'s office, we noticed that a few subscribers' names were omitted from the mailing list for the last one or two issues. If your name was omitted, it should now be reinstated, and you should be receiving *TAN* regularly from now on. While we were double checking our list, we updated and corrected some names and addresses to make it more accurate as well as complete. If other changes are necessary, please notify the Editor or Circulation Manager.

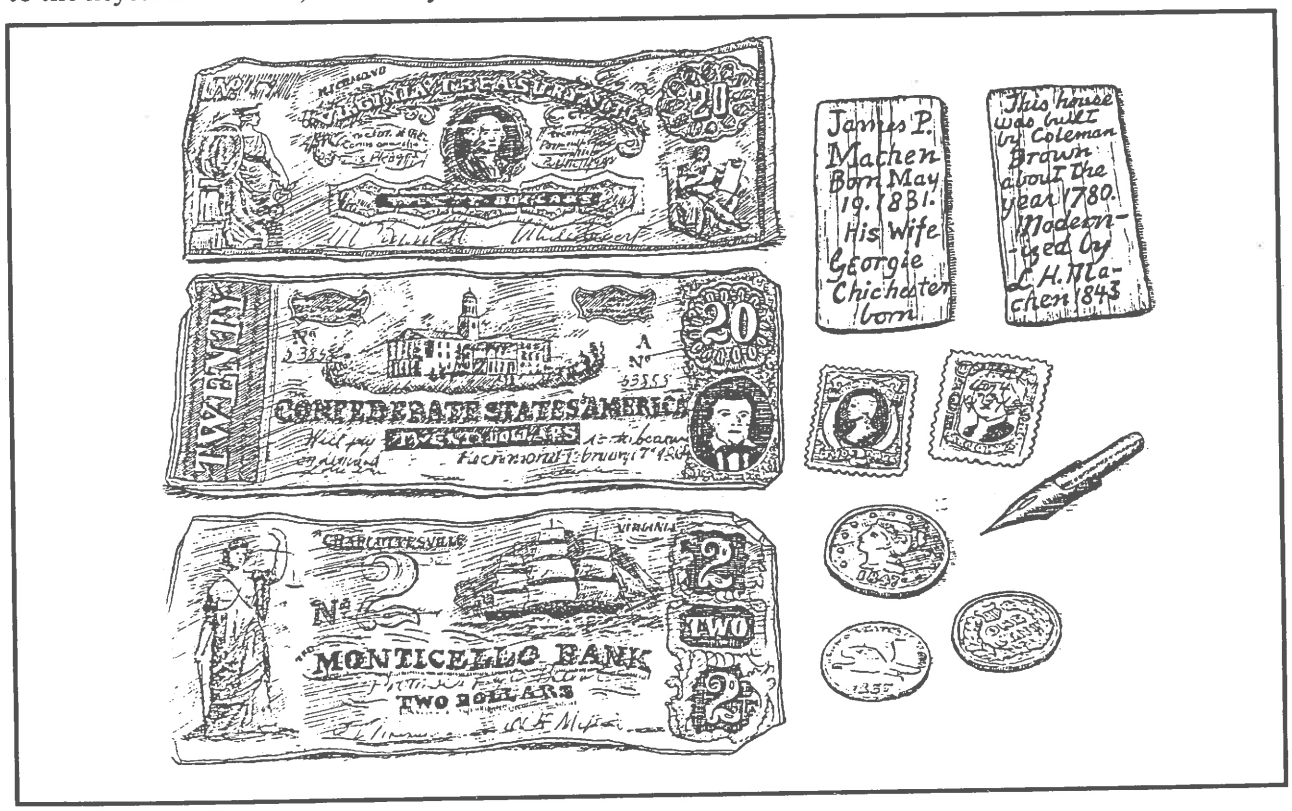
TAN is now mailed to subscribers in 9 of the 10 Canadian Provinces, 40 of the 50 American States (plus the District of Columbia) and Australia, Argentina, England, Mexico and Turkey. We have a truly international readership!

of virgin forests, farmed, despoiled in war, farmed again, and allowed to return to second growth forest. The historical records are confirmed by the trenches and erosion gullies which remain from Civil War troop activities. The interpretive theme of the park, *A Story of the Land and Its People,* is illustrated graphically in the *Archaeology/Walney* curriculum.

The artifacts examined in the unit are representative of this particular site history. A carved head, found as the keystone over the original north door entrance of the 1780 portion of the house, provides students with the opportunity to hypothesize the why, who, where and how of the carving. Research has not provided an explanation of the carved head's origin. It could have originated as a tombstone that was removed to the keystone location, or as a keystone in the classical tradition. There are characteristics in the carving that belong to either Afro-American or northern European decorative traditions. Conclusions reached by the students are conditioned by the techniques learned in the first lessons of the unit.

In addition to the Walney carved head, other artifacts discovered in a time capsule during the restoration of the building are analyzed in the context of the site history. The artifacts, placed in a foundation wall in 1875, were found in a mustard tin in a wooden box. Objects included United States of the Confederacy paper bank notes from the Civil War era, tax stamps, coins, a pen nib from the nearby city of Alexandria, two chips of wood with pencilled script noting information on the history of Walney house and the Machen family, and a copper plate with "James P. Machen" punched into it. Discussions that conclude the curriculum unit reinforce the basic tenets of archaeology and its purpose and function in the context of understanding our culture.

For further information, or to receive a copy of the curriculum ($5.00 in U.S. dollars to cover reproduction and postage costs), please write A.T. Stephens, Museum Education Coordinator, Division of Historic Preservation, Fairfax County Park Authority, 3701 Pender Drive, Fairfax, Virginia, USA 22030.



Teaching Unit: Introduction to Archaeology for Fifth and Sixth Graders

by Jeanne Hardy Miller

In the summer of 1987, I enrolled in a course at the University of Phoenix titled "Teaching the Gifted." As part of the requirements, I created a 26-week archaeology teaching unit for gifted 5th and 6th graders, incorporating the educational tools I had become familiar with through my past experiences. These included children's books on archaeology and ancient and prehistoric cultures, excursions around the state of Arizona and a simulation game called "Dig 2" (Lipetzky 1982). I tested this unit with my own class again this year, and, after some alterations, I am quite pleased with the results.

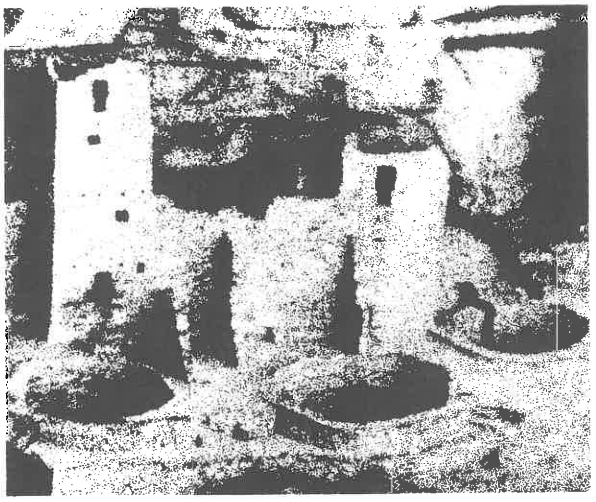
The teaching unit revolved around Sandra Kaplan's ideas for a differentiated curriculum. This curriculum included: content, process, product and the affect areas of organization.

The CONTENT was archaeology with three major objectives:

- to introduce students to certain civilizations and their achievements in art, technology, religion and methods of communication.
- to have the students gain an appreciation and an understanding of these civilizations and to respect them for their cultural differences.
- to understand that no matter how different a culture is, all people have certain needs in common.

The PROCESS (weeks 1-8) revolved around some basic archaeological concepts: the idea of culture and the meaning of culture universals, the evolution of a prehistoric culture, deciding where to dig, stratigraphy, tools, excavation and chronology (Stark 1986). Various activities were included to enable the students to have the opportunity to learn by reading and listening, and also experience a few hands-on activities.

The PRODUCT (weeks 9-14) focused on the students' independent studies of ancient civilizations or prehistoric cultures of their choice. They each researched a particular culture and wrote a report. Each child also had to devise various projects by using the levels of learning in Bloom's (1984) taxonomy, which includes: knowledge, comprehension, application, analysis, synthesis and evaluation. The students' projects have ranged from models of Khufo's pyramid and The Casa Grande of the Hohokam to writing original plays about Egyptian/Greek gods



and goddesses. Other reconstructions included Inca pottery, original Maya headdresses, a scale model of a Pompeiian villa with an active Mount Vesuvius, and a clay model of an Anasazi kiva. Since the unit was first introduced, I have developed Independent Learning Centers on ancient civilizations and prehistoric cultures (Miller 1989).

The remaining weeks of the unit implemented the "Dig 2" simulation. This simulation game is an archaeological reconstruction of a vanished civilization. Students were organized into teams which created secret cultures. These cultures ranged from the past to the future. Each team created artifacts to reflect the imagined cultures and fitted them onto the culture universal sheet. The artifacts were then buried for another team to excavate and reconstruct. A final confrontation revealed the accuracy of each team's archaeological reconstruction and analysis. This component was successful because students gained understanding by actually doing archaeology rather than by just reading about it. The classroom became an archaeological laboratory, and the students themselves acted as archaeologists, observing, measuring, interpreting and discussing their findings.

The AFFECT (the final component) was the evaluation of what the students learned while creating and analyzing the imaginary cultures. The students discussed their experiences in the teaching unit, and each of them submitted a one page essay on their thoughts and feelings of archaeology.

Throughout the unit, the students travelled to various archaeological sites in and around the Phoenix area, with a culminating trip to Mesa Verde National Park in Colorado.

The successes of this unit can be measured in

(Continued on page 5)

Exploring Archaeology — A 10 Week Science Unit For Fifth Graders

by Patti Bell

Archaeology can be a highly motivating subject for teaching science skills to children. It provides a thematic focus and can be integrated with nearly all grade-school required subjects (math, social studies, language arts, etc.). Science skills can be emphasized through the use of hands-on activities and critical thinking relative to archaeological method and theory and culture history. The appeal of archaeology to precollege instruction has been reviewed by Higgins and Holm (1986).

I chose archaeology as a thematic approach in developing a science unit during my student teaching experience at the University of Arizona in the Spring of 1988. I designed a 10 week science unit for fifth graders in cooperation with Marilyn Pearce, fifth grade teacher at Erickson Elementary in the Tucson Unified School District. The major goal of the unit was to introduce students to the science of archaeology by means of an integrative curriculum. The 30 hour unit was taught during 15 one-hour periods, eight 1½-hour periods, and a three-hour fieldtrip. A variety of hands-on activities involving whole class participation and small groups was used throughout the 10 week period. A fieldtrip to a nearby prehistoric rock art site completed the unit.

(Continued from page 4)

two ways: the genuine responses of the students to archaeology in general and their acceptance and understanding of other civilizations and cultures as contributors to the existence of humankind today. *TAN* readers who want more information can write me at 1334 W. Temple St., Chandler, AZ 85224.

References Cited

Bloom, Benjamin, ed.
1984 *Taxonomy of Educational Objectives. Handbook 1, Cognitive Domain.* New York: Longman.

Lipetzky, Jerry
1982 *Dig 2.* Lakeside, CA: Interaction Publishers.

Miller, Jeanne Hardy
1989 *Dig Into The Past.* Phoenix, AZ: Thinking Caps.

Stark, Rebecca
1986 *Archaeology.* Hawthorne, NJ: Educational Impressions, Inc.

I defined the objectives of the science unit as follows:

Knowledge Objective: Students will be introduced to major concepts associated with the study of archaeology: culture, prehistory, artifacts, context, stratigraphy, excavation, scientific method, and preservation.

Attitude Objective: Students will be exposed to the values of preserving portions of the past and protecting archaeological sites for future generations.

Skills Objective: Students will acquire scientific-method skills of observation, description, and explanation.

Skills Objective: Students will acquire measuring, gridding, mapping, and recording skills that are associated with the scientific method skills.

During the 10 week period, 25 lessons were completed by means of whole class participation, small groups, and archaeology centers. Two on-going projects, "Pottery" and "Create a Culture," extended over the 10 week period and were presented in a series of steps. Although science skills were emphasized in the unit, the archaeology theme was integrated with social studies, language arts, art, math, and computers. Arizona's Archaeology Week celebration coincided with the presentation of the archaeology science unit, and students were encouraged to attend the celebration's weekly events at local museums, archaeological sites, shopping malls, and public libraries.

The main weekly activities and their associated learning objectives were:

"Introduction to Archaeology" (one hour duration, used with small groups). Objective: Students are introduced to archaeology vocabulary and an artifact kit.

Pottery Project, Step 1 — "Pottery Designs" (one hour, whole class). Objective: Students create their own black-on-white pottery designs.

Archaeology Centers (45 minutes each, groups of five or six students rotate to each center).

"Future Artifacts"	Pottery project, Step 2 — "Make a Pot"
"Learning about the Past"	"Indian Symbols"
"Grid It"	"Mayan Math"
"Tree-ring Dating"	"Pottery Styles"
"Jewelry Workshop"	"Stratigraphy"

"Table-top Grid" (one hour, small groups). Objective: Students practice observation, des-

cription, and explanation skills by using a table-top grid with artifacts.

Pottery Project, Step 3 — "Paint a Pot" (one hour, whole class). Objective: Students paint the pots with black-on-white designs created from Step 1.

Pottery Project, Step 4 — "Break a Pot" (one hour, whole class). Objective: Students break their painted pots into sherd fragments and reconstruct another student's broken pot.

Pottery Project, Step 5 — "Reconstruct" (one hour, whole class). Objective: Students continue reconstructing pottery fragments, learning from experience about problem-solving, attention to detail, and visual acuity needed in archaeology.

Create a Culture, Step 1 — "Create" (one hour, partners). Objective: Students create model cultures and their associated artifacts for burial in a shoebox site.

Create a Culture, Step 2 — "Bury a Culture" (one hour, partners). Objective: Students bury artifacts in their shoebox sites, using layers of sand and ash.

Create a Culture, Step 3 — "Scientific Method" (one hour, whole class).

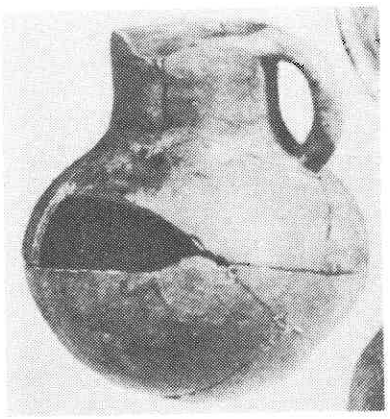
Create a Culture, Step 4 — "Excavate" (one hour, partners).

Create a Culture, Step 5 — "Explain" (one hour, partners and whole class).

Fieldtrip — "Prehistoric Rock Art Sites" (three hours, whole class). Objective: Students visit easily accessible rock art sites and make a mylar tracing of rock art images.

Thirty-three students, including five students with learning disabilities, participated in the archaeology science unit. Nearly all of the students liked learning about archaeology, completed their assignments, and enjoyed doing the lessons. Several students already knew about the prehistoric Hohokam and, as fourth graders, had attended the School District's Camp Cooper archaeology program. The majority of students, however, were unfamiliar with archaeology and had no previous knowledge of the subject. Learning was evaluated by means of class participation and completion of the assignments. Formal and informal methods were used. Archaeology handouts and worksheets were kept in student folders and graded.

Overall, the unit objectives were met, and archaeology became a familiar word and concept to the students. Favorite activities were the archaeology centers and the pottery project. Technologies such as flint knapping, jewlery



making, and rock art manufacturing were also popular. Concepts of culture, timelines, and stratigraphy were the most difficult for students to understand. Visiting a real archaeological site as a culminating activity resulted in piqued interest in local archaeology and an awareness of local culture.

I encourage other teachers to use archaeology to enrich the education of elementary school students. Anyone who wants more information or advice can write me c/o Prehistorics — Cultural Connections, P. O. Box 1858, Bozeman, MT 59711.

Successful Instructional Aids

Learning about the Past: The Science of Archaeology. National Geographic Society filmstrip and guidebook.

The Ancient Ones. Arizona Historical Society video about Arizona's prehistoric past.

Hurkle. Computer software by MECC. Hurkle hides on a grid, and students have to locate him by selecting coordinate points.

Artifact Kit. Tucson Unified School District kit containing stone, bone, pottery, and shell artifacts used by the prehistoric Hohokam.

Pottery Styles Kit. University of Arizona Media Center instructional kit containing pottery sherds of various types and time periods.

Motel of the Mysteries, by David MacCauley (Houghton Mifflin, 1979). Future archaeologists uncover a buried motel from the twentieth century (humorous).

Secrets from the Past. National Geographic Society, 1979. Archaeological findings from around the world are depicted through illustrations and color photos.

Reference Cited

Higgins, Patricia J. and Karen Ann Holm
1986 Archaeology and Precollege Education: A Literature Review. *Practicing Anthropology* 8 (3-4): 26, 28.

Archaeology Education In the U. S. National Park Service

The Archaeological Assistance Division of the U.S. National Park Service has increased the amount of attention it gives to public education and awareness about archaeology. Some of that attention is directed to precollege students.

According to a recent issue of the Division's publication, *Federal Archaeology Report,* in 1988, as part of the education outreach program of the Office of Public Service, the Smithsonian Institution Conservation Analytical Laboratory taught a special science course at the Hopi Junior/Senior High School in Arizona. Four workers who had been studying Hopi yellow-firing pottery taught students how to formulate and investigate problems in science and how to relate Western science to the traditional knowledge of Hopi potters. For information on the course contact Veletta Canouts, Archaeological Assistance Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127.

In Minnesota, the Institute for Archaeology and the Historical Society jointly published an activities book that tells students how to use original sources in understanding the past, using a French fort site as a case study. Last summer the Institute also sponsored a workshop for teachers who wanted to know how to present archaeology to young Minnesotans. There are plans to develop curricular materials and distribute them to interested educators in the State. For more information contact the Institute for Minnesota Archaeology, 3300 University Ave., SE, Suite 202, Minneapolis, MN 55414.

The Archaeological Assistance Division itself has launched a novel public awareness program by producing and distributing, free-of-charge, "Take Pride in America" archaeological theme bookmarks. The bookmarks feature an archaeological protection message and are printed in three different colors with six different motifs. They have a space on the back for the address and telephone number of a local heritage organization that can be contacted for information. In Delaware, supplies of the bookmarks were sent to social studies teachers at 40 different schools. Requests for the bookmarks, which come in packages of 500, should be made to Patricia Knoll of the Archaeological Assistance Division at the above address. Requests for copies of *Federal Archaeology Report* should be addressed to the Publication Specialist in the same office.

Archaeological Communications:

"linking the Past with the Future in Public Archaeology."

by Cameron Quimbach and Katherine Kappus

Archaeology! Mention the word and people will tell you it is everything from digging rocks and dinosaurs to collecting arrowheads, coins and golden idols. Unfortunately, this misconception predominates the lay population, and young students carry this belief with them into adulthood. Education can change this. That is the foundation upon which Archaeological Communications was developed.

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

The classroom programs are structured to promote critical thinking and deductive reasoning skills. They introduce students to different aspects of archaeology. Lectures combined with hands-on activities teach students that North American archaeology is a scientific discipline. Students are challenged to formulate hypotheses about activities performed at archaeological sites, based on physical evidence.

Education is the first step to site preservation. Without it, sites are destroyed, and knowledge of the past is lost. Archaeological Communications is in the forefront of preserving the past through education.

Programs and Services

Programs are interactive classroom lectures coupled with "hands-on" activities that promote critical thinking skills. They are 1 - 2 hours long and structured for 5th through 12th grade students. Each costs $50 plus transportation costs. These programs are primarily available in the American Midwest (Wisconsin, Michigan, Illinois, Indiana, Ohio and Kentucky). For more information contact Archaeological Communications, P. O. Box 30262, Indianapolis, IN 46230 (Tel: AC317-925-6986).

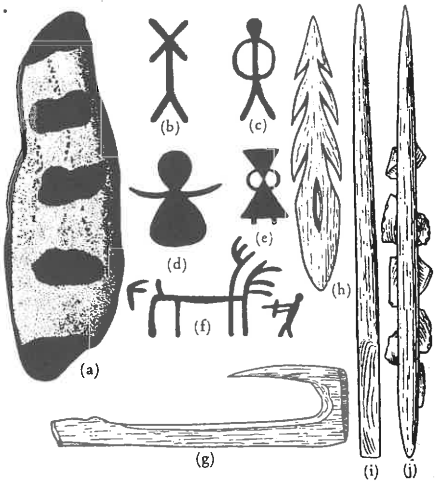
Public Awareness of Anthropology: Some Low Measures

Startling results emerged from a recent survey of scientific literacy in Canada, *Scientific Literacy: A Survey of Adult Canadians,* sponsored by the Social Sciences and Humanities Research Council of Canada and the Ministry of Industry, Science and Technology. The survey was based on 2,000 telephone interviews conducted in late 1989.

In a basic knowledge quiz, surveyors found that more than 4 out of 10 Canadians didn't believe or didn't know that human beings have descended from earlier groups of animals; 1 out of 4 didn't believe or didn't know that continents are moving slowly on the surface of the earth; and 1 out of 3 believed that early human beings and dinosaurs lived at the same time. Sad to say, these figures are on a par with those for the United States and Britain, based on similar surveys conducted in 1988. They point to a need for more public education about anthropology, particularly prehistory. Requests for copies of the report should be directed to Professor Edna F. Einsledel, Graduate Program in Communication Studies, Faculty of General Studies, University of Calgary, Calgary, AB T2N 1N4.

Archaeology and Education

Archaeology and Education, a new international newsletter, has made its debut. This exciting newsletter, to be published biannually, is designed to promote communication among archaeologists, teachers, museum professionals and anyone else interested in precollege archaeology of all sorts, including prehistoric and historic archaeology, industrial archaeology, even underwater archaeology. To subscribe or contribute, contact Carole Stimmel, Editor, Archaeology and Education, Archaeological Resource Center, c/o Danforth Technical School, 840 Greenwood Avenue, Toronto, ON M4J 4B7.



CANADIAN CALENDAR 1990

Aug 16-18 International Conference on Salish and Neighboring Languages, 25th Annual Meeting, Vancouver, British Columbia. Contact M. Dale Kinkade, Dept of Linguistics, U British Columbia, Vancouver, BC V6T 1W5.

Nov 1-4 American Society for Ethnohistory, 1990 Annual Meeting, Toronto, Ontario. Contact Trudy Nicks, Dept of Ethnology, Royal Ontario Museum, 100 Queen's Park, Toronto, ON M5S 2C6.

Nov 8-11 Chacmool Conference, 23rd Annual Conference, Calgary, Alberta. Contact 1990 Conference Programme Committee, Dept of Archaeology, U Calgary, Calgary, AB T2N 1N4.

Nov 29-Dec 1 Canadian Association for Physical Anthropology, 18th Annual Meeting, Banff, Alberta. Contact Dr. M. Anne Katzenberg, Dept of Archaeology, U Calgary, 2500 University Drive, NW, Calgary, AB T2N 1N4.

NOTES ON CONTRIBUTORS

Patti Bell is an archaeologist and educator with Prehistorics — Cultural Connections in Bozeman, Montana. She developed and taught a 10-week archaeology science unit for fifth graders in Tucson, Arizona.

Katherine Kappus is Assistant Director of Archaeological Communications and Epilepsy Services Consultant for Community Hospitals in Indianapolis, Indiana.

Jeanne Hardy Miller is a teacher in Chandler, Arizona, where she created and taught a 26-week archaeology unit for gifted fifth and sixth graders.

Barbara M. Naef is Senior Administrator of the Fairfax County Park Authority, Division of Historic Preservation, Fairfax, Virginia.

Cameron Quimbach is Director of Archaeological Communications, a non-profit company promoting precollege education in North American archaeology.