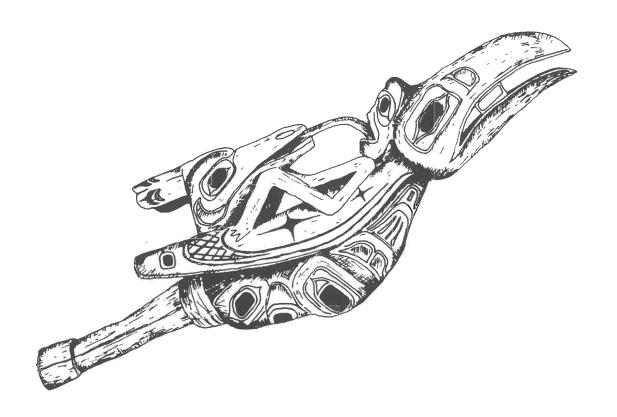
T E A C H I N G A A N T H R O P O L O Y N E W S L E T T E R

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IN THIS ISSUE ...

Toronto Students Dig Into Their Past! The Archaeological Resource Centre by Karolyn E. Smardz

The Teaching of Archaeology in Latin American Schools: An Interim Report from Buenos Aires by Irina Podgorny A Material Culture Exercise for the Classroom by Celia A. Daniels

Canadian Calendar

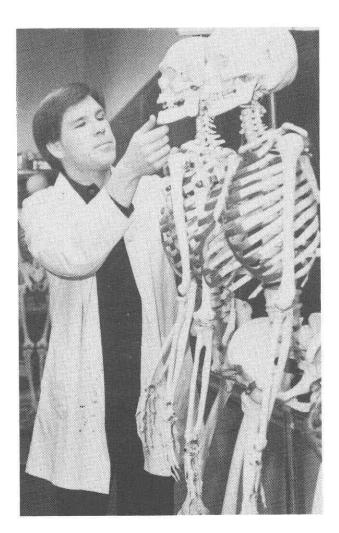
Notes on Contributors

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.

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Toronto Students Dig Into Their Past! The Archaeological Resource Centre

by Karolyn E. Smardz

The development of "educational archaeology" is a timely subject for discussion for both teachers and archaeologists. The World Archaeology Congress in 1986, the first International Conference on Archaeology and Education held in Southampton, England, in 1987, and the First Joint Archaeological Congress of 1988 all had sessions that dealt with aspects of the same problem — how best to inform, enthuse and involve the general public in archaeology.

As the administrator of the Archaeological Resource Centre in Toronto, my own area of interest is the teaching of archaeology within the framework of a large metropolitan public school system. The Centre is designed to provide a participatory learning experience for students enrolled in Toronto Board schools. Programs for students from Grade 4 and up are provided in both English and French. This is not confined to school-aged children, but includes special education, learning and physically disabled, adult education, English-as-a-second language, and senior citizen students.

Archaeology taught as a pre-university subject is still a new and somewhat controversial concept among members of the professional community. And, with isolated exceptions, it is not yet a widely accepted topic for teaching in North Amercian schools.

Yet archaeology as a discipline combines many of the modes of active and integrated learning that are the focus of modern educational theory. At the same time, an enhanced popular perception of the importance of archaeology can only benefit a profession long starved for public funding and whose major resource is diminishing at an alarming rate in the face of rapid urban and suburban development in many parts of the globe.

The information presented here is based on the experience of the Toronto Board of Education in the development of effective systems of public education in this discipline. Because no precedents for the Archaeological Resource Centre existed at the time of its inception, the manner of its evolution and the type of programs it offers stem largely from the creativity of staff members and from the tremendous support that they have received from the educational consulting staff of the Board of Education.

Archaeology and the School System — Its Role in Education

With archaeology, and particularly field archaeology, educators have a unique opportunity to involve students in the actual process of heritage research. Unlike almost any other exercise in which students may be engaged at the pre-university level, archaeological excavations are real scientific experiments. What is more, they are experiments that can be conducted only once. Every site is destroyed by the very techniques used in its exploration.

The educational impact of outdoor, experiential programs has long been recognized. Archaeology provides an excellent means of combining the outdoor experience with the problem-solving approach to acquired data that is promoted by modern educational theorists. By taking students out of the classroom, by putting them into a realistic learning environment, and by allowing them to discover and handle actual artifacts for themselves, they can gain a sense of their own past and a firm conviction that they have an individual and personal role in helping to preserve it. Participating students are aware that there is a relevance to their work that goes beyond the simple purpose of educating them.

Modern education has moved far beyond the point where the student is viewed as a passive recipient of reams of facts and figures. As early as 1980, the Ontario Ministry of Education described its concept of the student as follows:

Recognizing the diversity of individual abilities and interests, the Ministry views the learner as an active participant in education who gains satisfaction from the dynamics of learning. The concept of the learner as a mere processor of information has been replaced with the image of a self-motivated, self-directed problem-solver, aware of both the processes and uses of learning and deriving a sense of self-worth and confidence from a variety of accomplishments ... thus the very goals of education flow from the image of the learner for whom the direction is being provided.¹

In Ontario schools a model of Cognitive-Skills-Development is used to involve students of all ages and in all subject areas in the stages of information gathering, assimilation and interpretation for the purpose of drawing conclusions on which generalized applications and theories may be based. Archaeologists will be struck by the direct correlation between this model and the familiar process of archaeological research:

Cognitive-Skills-Development Model²

1. FOCUS

Limit, direct or define a problem or issue

2. ORGANIZE

Select or develop a visual presentation, chart or organizer for the focus

3. LOCATE

Identify, find and use reliable, relevant sources of information

4. RECORD

Summarize and translate information

5. EVALUATE/ASSESS

Determine the validity, appropriateness, significance and accuracy of information

6. SYNTHESIZE/CONCLUDE

Observe relationships in and draw conclusion(s) from information

7. APPLY

Predict, generalize, compare and decide, basing these formulations on the conclusion(s)

8. COMMUNICATE

Express information and ideas, and describe the cognitive processes involved

At the same time, traditional barriers between class-taught subjects are being eroded; integrated approaches are used in elementary and intermediate education and are beginning to find their application at the senior secondary level as well. There is literally no curriculum subject that does not relate to archaeology in some way. Its application may be as simple as the classroom discussion of the archaeological evidence for statements made in a student- oriented textbook or as complex as the implementation of a field school curriculum in the actual site context.

Archaeology, because of its uniquely multidisciplinary character, its suitability for active learning programming and its potential for meeting the requirements of the Cognitive-Skills-Development Model, provides the teacher with a pursuit tailormade to the needs of the modern educator. Not only can skills borrowed from a variety of disciplines be demonstrated in the field and laboratory situation, but also the student is offered the opportunity to practise these skills in the service of a particular — and socially significant — function, the unearthing of information about the past.

Archaeology can be also introduced from an almost infinite variety of viewpoints to students of almost any age or level of skills development. The staff of the Archaeological Resource Centre is engaged in the development of several programs and classes: programs for use in primary grade classrooms where the early childhood skills of sorting and matching are explored using buttons, modern coins and animal bones; classes in artifact identification through form and function that are applicable to intermediate skills levels in hypothes-

izing and organizing; programs in field archaeology relating to the older student's developments of decision making and casual skills;³ and a plethora of subject-oriented classes ranging from math skills used in archaeological cartography for learning-disabled students through artifact conservation methods for chemistry students and computer-use in archaeology for senior grades. This extreme flexibility in its application to many parts of the curriculum makes archaeological programming a highly relevant and much-in-demand resource within the Toronto school framework. In fact, the Centre's school field trip program consistently books one year in advance.

The Archaeological Resource Centre

The Archaeological Resource Centre is located in a large technical high school and consists of an artifact and information display area, administrative and computer facilities and a resource library of books, films and slides for use by teachers and students. In addition there is a classroom and working archaeological laboratory. Two more facilities complete the physical plant: a Public Interpretive Unit in the form of a large trailer is set up adjacent to each dig site to provide a tour for visitors, and a commercial Exposystem is used for the mounting of displays in schools, libraries and public buildings around town. Both the Centre and trailer are accessible to the physically disabled.

Toronto is the first city in North America to have a permanent archaeology unit within its department of public education. There are seven professional archaeologists on full-time staff. Each has considerable experience in, and a deep commitment to, public education in archaeology. They form a coordinated research team: each staff member has expertise in one or more areas of archaeological methodology, as well as experience in sites located in different parts of the world. As far as our students are concerned, archaeology doesn't just mean Ontario prehistory and history — we are just as likely to have to produce a class on Stonehenge or Egyptian hieroglyphics at short notice as we are to require a program in Native Canadian foodways.

There is also an Archaeological Information Officer, an archaeologist with training and experience in the field of public relations, employed at the Centre. In addition to its regular teaching and research duties, the Centre operates an intensive public information campaign. Site opening events, itinerant displays, lecture series and the like are conducted in order to disseminate information about Toronto archaeology to many more people than will ever visit the sites or take part in programs.

Brochures are distributed through libraries, hotels and Toronto tourist offices to encourage public visitation on all projects. This has a very positive impact — media interest in Toronto students digging into their city's past is intense. Not only is media coverage yet another excellent means of public education, but also it helps maintain the popular profile of the Toronto Board's involvement in heritage conservation.

The Development of the Resource Centre

How did such a unique facility come into being? In 1982, Toronto Board students took part as volunteers in the excavation of Fort Rouille, a French trading fort. This was not designed as a public archaeology project, but because the site was located in the Canadian National Exhibition grounds and operated throughout the fair, it received a lot of public attention.

In 1983, the Ontario Heritage Foundation initiated the first Public Archaeology Project in Toronto—the excavation of the Parliament Buildings of Upper Canada. Called "inSite: Digging Into Our Past," the project was operated seven days per week, with tour guides employed for the benefit of the large numbers of visitors. Over the summers of 1983 and 1984, some 30,000 people visited the site, with more than 6,000 of them taking part in the digging.

The Toronto Board of Education had been approached to see if students would be interested in participating in the project. The Board's first Grade 11 Archaeological Field School course was developed for the inSite project. It lasted six weeks during Summer School and students earned a full year credit for taking part in the combined classroom and field/laboratory program. The program was so successful that the course was offered again in 1984.

By the fall of 1984, so many teachers had visited the site and asked for on-site programs for their classes that the Ontario Heritage Foundation started offering its own day programs. As a comment on the market for such programming, the announcement to the schools went out on a Monday and the next six weeks' worth of programs were booked by the following Wednesday.

The remarkable response to the availability of experiential archaeology programs on the part of Toronto teachers, students and members of the public demonstrated to the Board of Education the demand for — and educational viability of — integrating some sort of archaeological curriculum into the regular school system.

The Board began exploring the means whereby archaeology could be turned into a year-round course of study. Obviously this would entail hiring archaeologists. In addition, there were logistical considerations in respect to housing and equipping such a team. And finally, because there were no precedents for the development of such a facility, an entire roster of duties, job descriptions, requirements, equipment, renovations and so on had to be created.

Fortuitously, in April, 1985, the Ontario Minister of Citizenship and Culture announced the availability of a Community Facilities Improvement Program grant. Boards of Education were eligible to apply, and an archaeological education centre would certainly qualify as a community cultural facility. A proposal was drawn up and a site located for a pilot project should the application be accepted.

On July 13, 1985, at the Opening of the Thornton Blackburn House Site, the Minister of Citizenship and Culture, Lily Munro, announced the award of nearly a quarter-of-a-million dollars in capital funds for the renovation and equipment of an Archaeological Resource Centre within the Toronto Board of Education. In return, the Board agreed to provide salaries and operating costs for its ongoing existence.

The first excavation was at the home of an escaped slave couple from Kentucky who started Upper Canada's first taxi business. It was the first free Black site to be dug in Ontario, and received strong public support. The Thornton Blackburn House Site was located in a downtown school playground, the school of which was the oldest builiding still in use by the Board. The site contained a significant nineteenth century schoolyard component, in addition to domestic material, ... and the rest, as they say, is history.

Digging into Our Past — the Annual Excavation Project

The Centre's excavation activities focus on historic domestic sites located on or near schoolyards. This serves both research and logistical ends. Close proximity to bathrooms and classrooms is a consideration in the operation of public education programs. But also, nineteenth century schools tended to be built in areas of high population density and on inexpensive real estate, i.e., where lower-to-middle income level homes had been located. Their post- demolition remains were sealed under the cinder, plank or asphalt of the playground, with relatively little disturbance in subsequent years. The

upper levels thus tend to be highly disturbed, while lower strata have been protected.

Since lower-to-middle income sites of this type did not form part of the archaeological data base for the City of Toronto until the initiation of the Archaeological Resource Centre, this research fills a gap in the heritage information for that urban centre.

Furthermore, sites have to be chosen with a view to conducting research while allowing for the active participation of the public. Because of extensive grading and filling activities evident on schoolyard sites, students can be introduced to archaeological methodology without significantly endangering the resource. All delicate levels and features below this component are dug by staff, experienced volunteers and students of the (now) two high school field courses offered each summer.

It is important that even very young students understand how their unit fits into the site as a whole. Substantial structural remains — foundations and the like — form a recognizable cultural activity pattern for visiting student groups. In addition, a high artifact count helps maintain student interest and care in their work.

Hands On the Past — Field Programs for School Groups

The Centre offers seven half-day programs each week throughout the school year. In Spring and Fall these take place on-site, and begin with a slide talk in which students are introduced to basic archaeological method and theory, as well as site history. They are given the strongly-worded admonition that "archaeologists destroy their evidence as they dig." Later they are told that they "have the privilege of taking part in a real archaeological excavation," and we are trusting them to be very, very careful, because if they "make a mistake, we can't fix it." (TAN readers might be surprised at how well this attempt to instill a sense of responsibility into each student group works. Centre staff rarely experiences a discipline problem on-site).

Groups of no more than six students per instructor are introduced on the site to excavation, mapping and screening methodology. This is put into practice for a period of about one-and-a-half hours. All artifacts are mapped in place, which teaches students a basic archaeological skill and measurably slows the rate of trowelling. The dig period is followed by a hands-on material culture demonstration. Students are then thanked for "helping to preserve Toronto's past" and presented with a souvenir button to take home.

Sites and the Centre are open to the public each weekday, and interested individuals are encouraged to enroll in introductory courses preparatory to volunteering on the site or in laboratory analysis work. Media coverage and other aspects of the public information campaign serve to encourage people who "always wanted to work on an archaeological dig" to try their hand at discovering their own city's past through Toronto Board of Education excavation programs.

Indoor Archaeology — Winter Programs at the Resource Centre

Winter programs are offered in the classroom and range from Prehistoric Rock Art thorugh an urban historical and geographical program entitled "Thornton Blackburn's Toronto." These half-day field and classroom systems supplement regular classroom programming in subject areas right across the curriculum. The French language programs have proven particularly popular; few field trip opportunities exist for French immersion classes in Toronto.

Night School courses for adults are offered through the Department of Continuing Education. These are taught by Centre staff and vary annually, with two courses available in each term. Ontario Prehistory, Classical Archaeological and the Archaeology of the Ancient Near East are some of the courses that have been developed to date.

Cooperative education and independent studies programs are individually designed to meet the interests of participating students. Secondary school students are assigned projects that will contribute to meeting the objectives of the long-range research design: for instance, parts of China dolls found on Toronto sites were analyzed by a Grade 11 co-op student, while another student produced the first archaeologically-oriented report ever written on brickmaking in early Toronto. Student reports are added to the resources available to teachers, students and members of the public through the Centre.

In addition to the above-noted programs, Centre literature states that special activities and topical classes can be designed on request from individual teachers. In this way, Centre staff can most effectively meet the widely ranging curriculum needs of a large metropolitan school board.

The Resources of the Resource Centre

In addition to Public Archaeology, research and public information programming, the Archaeological Resource Centre serves as just that — a facility

where teachers can borrow instructional media and also consult with staff on the integration of archaeology into existing classroom curricula.

At the moment there exists very little in the way of instructional media or even books about archaeology, anthropology or prehistory geared for teaching these subjects at the pre-university level. Curriculum guidelines for the Social Sciences and History in Ontario require that teachers introduce prehistory and pioneer studies and make reference to archaeologically-derived evidence. Yet educational materials geared to the needs of the average educator who is not a trained archaeologist are very thin.

Staff of the Archaeological Resource Centre are working madly to fill in this lamentable gap. Our desktop publishing system is turning out everything from coloring books to crossword puzzles in an effort to meet the needs of Toronto teachers in the area.

Learning to Teach Archaeology

One of the surprising things that the staff of the Archaeological Resource Centre at the Toronto Board of Education has learned is that in order to teach archaeology, it is not sufficient to be a good archaeologist. All people involved in programming or supervision must have a genuine interest in education and a real liking for imparting information about their own disciplines to vast numbers of the uninitiated.

At the Centre we have had the benefit of the expert consulting staff of the Board of Education to help with curriculum development and implementation. Teaching is a profession in its own right that requires nearly as many years of training as does archaeology and that also demands an awful lot of practice for proficiency.

Working with experienced teachers in the development of programs is as useful to the archaeologist in beginning an educational program as it is to the teacher interested in introducing a class of students to the fascinating world of digging up the past. It is also important that staff for educational archaeology projects be hired with a view to their ability to instruct in the discipline. Courses in curriculum development, skills training and student motivation are all available through local teachers' colleges and have been found more than useful in the development of effective programs in educational archaeology.

The Role of the Public

Public awareness, coupled with active participation in heritage conservation at some level, must be encouraged if the extremely fragile remnants of our past are to be even partially preserved. In order to achieve the necessary level of public awareness, people who are not archaeologists, historians or anthropologists must be made to feel that they have a stake in the conservation of heritage resources and that they can and should be active in helping to ensure it.

The obvious method for encouraging popular support is through public education, education that begins in elementary school and continues through a person's lifetime. This can be achieved in a variety of ways, from the simple mounting of displays through encouraging visitation on sites under excavation, and on through the operation of "Public Archaeology" projects on simulated or even — as we do in Toronto — real sites. Whatever the method, the long-term benefits of these efforts will be in direct proportion to the degree of personal involvement people are made to feel about the issue of heritage conservation.

The more people feel that it is *THEIR* heritage that is endangered, the harder each individual will fight to preserve it from destruction.



Conclusions

The Archaeological Resource Centre was conceived as a learning centre where educational and archaeological goals might be jointly achieved. The facility has a clear mandate for the development of new and better methods of bringing archaeology into the school curriculum while increasing the involvement of the public in prehistoric and historical site conservation.

The Archaeological Resource Centre at Toronto is indeed a pioneering venture in educational archaeology. To the best of our knowledge, it has never been done on this scale, and in this intensity, before. It is our sincere hope that through the various programs we offer, and the many students and members of the public who take part in courses, visit sites and otherwise are exposed to archaeology through our efforts, a new generation of Torontonians is going to grow up thinking that archaeology is an important and highly desirable aspect of their urban landscape.

Endnotes

Ontario Ministry of Education and Ministry of Colleges and Universities, Issues and Directions: The Response to the Final Report of the Commission on Declining School Enrolments in Ontario (Toronto: 1986), pp. 2-3.

Ontario Ministry of Education, Curriculum Guideline: History and Contemporary Studies, Part A: Policy and Program Considerations (Toronto: 1986), p. 12.

³ *Ibid.*, p.11.

4 Now Culture and Communications.

OF RELATED INTEREST...

Ed— The First Joint Archaeological Congress was held January 5 - 9, 1989, in Baltimore, Maryland. The session Archaeology and the Public: Education and Perception had much to say about precollege archaeology. It featured the following presentations:

Why Teach Archaeology? — Parker B. Potter, Jr., New Hampshire Division of Historical Resources

Archaeology: The Role of Colleges and Universities in Educating the Public — Sue Mullins Moore, Georgia Southern College

The Toronto Board of Education Archaeological Resource Centre: An Update — Karolyn E. Smardz, Toronto Board of Education

- Using an Accurate Simulated Site to Teach Cultural and Preservations Concepts to Children Marsha A. Chance, Historic St. Augustine Preservations Board
- The "Archaeological Mystique" and Educational Reality Gaynell Stone, State University of New York at Stony Brook
- Archaeology: A Tool for the Recovery of Data for Local History —Loretta J. Rivers, University of Connecticut
- The Excluded Past: Archaeology in Education Peter Stone, Regional Education Officer, English Heritage, and Robert MacKenzie, World Archaeological Congress
- Young Adults Archaeology Program for Students Grades 7 - 12 — Judith Feinberg Brilliant, St. Louis Society of AIA.
- Teaching Through Archaeology: Developing Workshops for Elementary and Secondary Teachers Pam Wheat and Joan Few, Houston Archaeological Society
- A Model Education and Video Outreach Program for American Indian Communities Veletta Canouts, Ronald L. Bishop and Suzanne P. De Atley, Smithsonian Institution; Victor Massayesva, Jr., IS Productions; and Alfred Qoyawayma, Salt River Project
- San Diego Presidio Archaeological Project and Public Education —Brad Bartel and Mac Davis, San Diego State University
- The Development of a Program for Children in Archaeology —Julie C. Wizorek
- Public Education: A Future for Our Past Duncan Scherberger, Toronto Board of Education, Archaeological Resource Centre
- "I love to find stuff in the past": Children and Archaeology *Tracey Cullen*, American Journal of Archaeology and *Michele Sola*, Manhattan Country School
- School Community Involvement in Local and State History —Ronald F. Kingsley, Kent State University

TAN readers who want more information about this session can write to Karolyn E. Smardz, Archaeological Resource Centre, Department of Education, The Toronto Board of Education, c/o Danforth Technical School, Rm. A4, 840 Greenwood Avenue, Toronto, ON, M4J 4B7.

The Teaching of Archaeology in Latin American Schools: An Interim Report from Buenos Aires

by Irina Podgorny, translated and edited by James R. Jaquith

In spite of a number of gloomy background conditions—economic crisis, a huge international debt and the legacy of the latest military dictatorship—Argentinian graduates in anthropology ask questions about their futures, most of which reflect this theme: How shall we meet the challenge of relating scientific knowledge to the country's practical needs?

Anthropological conferences held since the restoration of democracy in 1983 have attempted to respond to these questions. Serious attempts have been made to synthesize social scientific knowledge with applied implementation models.

Our project is entitled Archaeology in Buenos Aires Province and its Utilization in Contemporary Education: Two Case Studies —Quilmes and Berazategui. It is our hope that it will make a contribution to answering these questions. In this spirit, I shall describe it in the present report.

The operating plan of the project was designed and developed by the author as a post-graduate research effort. It is being carried out with the aid of a grant from the University of La Plata and is directed by Dr. G. G. Politis and Professor M. R. Neufeld of the University of La Plata and Buenos Aires University, respectively. The towns of Quilmes and Berazategui subsidize classes in local schools and in the regional museum. The grant is for the years 1988 annd 1989; courses in the towns commenced in 1987. We are grateful for the collaboration of anthropology students and teachers in the area.

Preliminary Considerations

Our starting point has been to seek out and develop modes of interaction between archaeologists and the general population of two municipalities near Buenos Aires: Quilmes and Berazategui. Both are components of the so-called second industrial belt of greater Buenos Aires, characterized by their relatively recent origin, high rate of population growth, availability of open spaces not yet urbanized and lack of spacial consolidation.

About 25% of Argentina's total population is concentrated in greater Buenos Aires. The principal components in this population are Italian and

Spanish immigrants, relatively new arrivals from bordering nations and former inhabitants of rural areas, attracted to the "belt" by the demand for manual labor. In addition to these groups — whose arrival in the area is linked to different periods in the country's development — we must include urban migrants from Buenos Aires proper. The aboriginal inhabitants (Querandi, Pampas and Guarani Indians) of what was to become the "belt" were killed off during the period of European conquest during the sixteenth and seventeenth centuries.

There have been very few archaeological investigations of these groups and their ancestors (Outes 1897, Cigliano 1963). Excavations of colonial and early national sites are just as infrequent. A tradition of archaeological research in Argentina has been established for more than a century, focusing for the most part on indigenous and rural sites. "Consideration of the relationship between researchers, fieldwork proper and local communities which by virtue of geographic, economic, historical and ethnic criteria are linked to the sites" is almost nonexistent (Manasee 1988). We must also recognize and deal with the numerous misconceptions about aboriginal peoples current in the country and promulgated in a variety of media. I refer both to unscientific distortions —those, for example, published by Von Daniken — and to relatively accurate assessments by scientists and other scholars. Thus, we assume that the facts of Pan-American and Argentinian archaeology (outside of academic circles) are virtually unknown and that popular "knowledge" of our indigenous past is derived from inaccurate and often pernicious stereotypes.

We currently are considering the advantages of teaching archaeology outside the universities. In so doing, we have taken into account:

- Subjects which allow for the synthesizing into a conceptually integrated whole the variety of themes which often are presented separately in the educational establishment.
- A theoretical and methodological framework which will allow us to recover remains of the past (of which there are many) and which will allow us to establish a pedagogically appropriate relationship with them.

• An archaeological account which will refute the popular conception that Latin American aboriginal peoples lack any significant history, the gross popular underestimation of the time during which our continent has been occupied and the idea that aboriginal peoples "were incapable of diffusing the scanty knowledge which they actually had" (Sarmiento 1883).

Returning to Quilmes and Berazategui, our work relates to educational facilities in both communities (primary and secondary schools, cultural centers and a museum). These will be the foci of our research and applied activities (See Diagram). We have two principal goals: to understand stereotypes and other perceptions current among local people about the indigenous past. We shall gather such information through both qualitative and quantitative techniques. And, in addition, we shall engage in the actual teaching of archaeological subjects. In attempting to achieve both goals, we have decided upon the following:

- Participant-observation research by the teacher on these methods: Conducting, in the Regional History Museum of Quilmes, an archaeology workshop organized to plan local research and the teaching of archaeological methods directed both to adolescents and to adults (Podgorny 1987) and; an additional workshop for children of ten to twelve years.
- In-school workshops for pupils and teachers. Those designed for children will include these components: archaeological work using lithic and ceramic materials, experimental archaeology, petroglyphic art (particularly animal representations in Argentina), origins of food production in the Americas and archaeological representations of men and women from different regions of the earth.
- Nonparticipant-observation studies of guided visits to the regional museum in Quilmes and social science lessons and patriotic ceremonies in the schools, the most important being on October 12 (Dia de la Raza/Columbus Day).
- A survey of the number of books on archaeological topics in area libraries and the frequency of their use.

	— Archaeology and education	
Research on perception of the past	Action in cultural centres/museum	Action in schools

- A survey of archaeological conferences, addresses, exhibitions, etc., including estimates of attendance at these functions.
- The revision of published archaeological works, principally research in the province of Buenos Aires.

Discussion

To date, our activities have been limited to participant-observation research. We have found that those who attend workshops in the museums are from the middle class and enjoy a considerable amount of free time. They all know at least a bit about the subject, most having participated in relevant courses or conferences. What they know of ancient Egypt is their closest link to archaeology, followed by Classical Greece and the high cultures of the Americas, European prehistory and the indigenous cultures of northwestern Argentina. None was aware of archaeological investigations of hunter-gatherer remains on the plains of the province of Buenos Aires. Nor had they ever talked to an archaeologist (most commonly perceived as "either young or old, but always a man").

The workshop for children attracted middleclass grandchildren or great- grandchildren of European immigrants who live near the museum. They attended because it was something different from their usual courses or because they liked the idea of discovering ancient or lost civilizations. They associate archaeology with pyramids, with the dead and with "mysteries" such as wolfmen and taking apes. They had never studied archaeology in school. When we talked about Indians, they would repeat what they had been told in school: "They were savages who dressed in animal skins and who hunted animals with bow and arrows and bolas." Faced with actual archaeological evidence and their participation in discussions, many changed their views. Some concluded that the aborigines were intelligent. Others came to regard Indian practices as reasonable, given their cultural backgrounds, while some held to their earlier ideas because "only savages would hunt and eat animals."

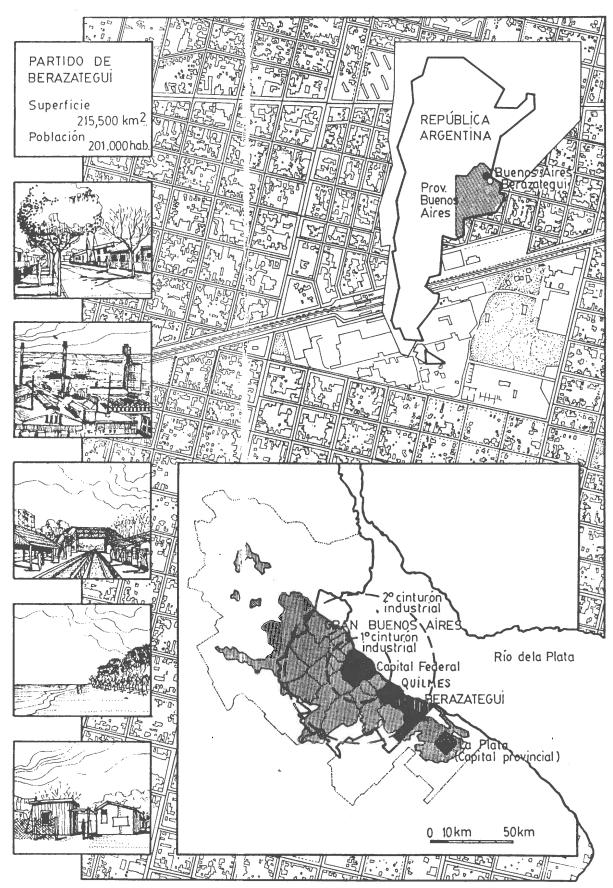
Virtually all of the children say they prefer their own way of life which they see as "more comfortable." Only one said he would prefer living as an Indian "so I wouldn't have to go to school." A peer responded that without school he would never be able to work. "No problem" — the child replied — "I would just hunt a guanaco and do whatever I wanted." The older children consider the Indians to be our direct ancestors in a developmental sequence beginning with the apes and concluding with them-

selves. Work in the schools is carried out by invitation from teachers to pupils who want to learn more about archaeology. As a result of their prior teachings, these children tended to believe that "the Indians were savages."

The few archaeological materials they had studied are isolated, with little or no relation to prior or subsequent events or to other places. The educational establishment rationalizes this strategy on the basis of a misinterpretation of Piagetan theory relating to children's understanding of time and space (cf. Stone 1988, for a comparison of pedagogical strategies current in the United Kingdom.) On the other hand, children are unaware that archaeological information is a consequence of research by archaeologists. Indeed, the word archaeology is unknown in schools attended by working-class children, while in middle-class schools pupils have already formed some notions about pyramids, fossils and idealized adventurer-archaeologists. School teachers typically project an image of the archaeologist as a man dressed like Indiana Jones travelling through steamy jungles or blistering deserts. In the schools, teachers never present Indians as savages, but rather as "our symbolic forbears and roots" (Podgorny n.d.).

Conclusion

In this paper I have presented a plan of research and applied activities with the goal of assessing the specific problems of teaching archaeology (pre-history, protohistory and colonial history) both within and independent of the educational establishment. Data gleaned from our participant observations suggest that there exists: (a) correspondence between perceptions current in the schools and those which circulate generally in society in terms of ignorance of the field and theoretical work which underlies current perceptions, these tending to be accepted as absolute truths; (b) failure to establish in the minds of students a sense of continuity with the past; (c) correlation between the different social sectors and tendencies toward differential interpretation of information about life-styles of other peoples: (d) a resynthesis of archaeological information in the schools via the establishment of a set of fictitious relationships — the presentation of knowledge as an integrated whole including the idea that Indian groups constitute the roots of our national society. The Indian past, Indian artifacts and their very skeletal remains are the roots of our prehistory. The traditional role of archaeologists has been limited to gathering museum materials and to preparing texts for use in the schools (See Rojas 1909).



The artist is Eduardo V. Puszcyzk.

Rethinking these problems in 1989 from both archaeological and teaching perspectives, it is apparent that how we approach the doing and the teaching of archaeology makes a contribution to answering the question: "To whom does the past belong?"

TAN readers who would like to be kept informed about future work on our precollege archaeology project in Argentina can write to Irina Podgorny, Av. Este 1879, 1886 Ranalagh, Argentina.

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TRANSLATOR'S EPILOG

It strikes me as worthy of mention that the situation as described by Podgorny for Argentina does not parallel its analogs in other parts of Latin America. The picture in Mexico, for example, is quite different in that the citizenry is much better informed about the indigenous past of their country. There are several reasons for this that merit consideration. One is that pre-Spanish Mexico was occupied by

vastly greater numbers of people (representing many ethnic backgrounds) than Argentina ever was. Indeed, the best estimates of anthropological demographers suggest twenty-five million, roughly the population of present-day Canada.

Even today, Mexico has a large number of indigenous people and ethnic groups. To mention but two, there are over a million native speakers of Aztec and more than fifty thousand speakers of Tarahumara.

Another factor is as much political as anthropological. As the military phase of the Mexican revolution was winding down, a new constitution was drawn up and promulgated in 1917. For the first time officially, Mexico acknowledged both its overwhelming Indian past and its current biological composition, profoundly influenced by indigenous genetic "contributions." That is, Mexico recognized that, both historically and physically, it is an Indian nation. Subsequently, decisions were made and implemented that the country should be both proud and knowledgeable of its heritage. Enormous sums (by Mexican standards) were spent on archaeological research and reconstruction, one consequence of which was to increase appreciably the influx of curious tourists and their dollars. Many cities, streets and individuals have been named for prominent Indian figures. One of these was the most popular candidate in the recent presidential election: Cuauhtemoc Cardenas.

In addition, however, the government institutionalized its now officially-acknowledged heritage in the school system, training teachers not only in the details of the nation's indigenous past, but as well in the moral obligations to pass on this information to their pupils. Moreover, Mexico has established an impressive program for the training and employment of archaeologists and other anthropologists.

All of these factors plus the continuing commitment of the federal government have resulted in a general level of knowledge not rivaled in Latin America, and, perhaps, nowhere in the Americas—

James Jaquith.



A Material Culture Exercise for the Classroom

by Celia A. Daniels

Teaching anthropology in a museum revolves around the artifacts collected, preserved and exhibited there. These artifacts can be viewed as "material culture" — literally, culture in its physical form. Archaeologist James Deetz has called artifacts "fossilized ideas." Through pieces of material culture we can learn about the people who produced these artifacts and their values, beliefs and way of life. But just as we must learn letters and words in order to read, we must learn new skills to decode the information held in an artifact.

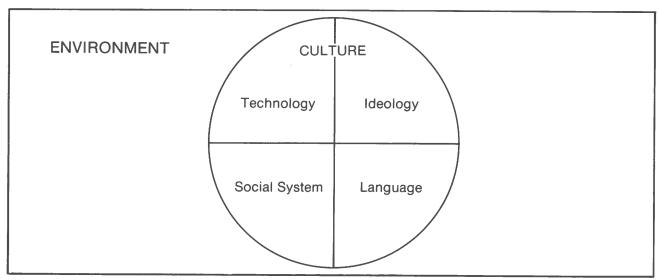
Educating with artifacts can take place successfully outside the museum environment. This article is designed to provide some ideas about how to learn about other cultures through the study of material culture. It is based on an exercise I developed for use with small groups of high school students in the University of Kansas Museum of Anthropology. The exercise has become a popular program that I have since used with all ages from adults to gifted middle elementary students. Because any combination of artifacts can be used, the possibilities are almost endless and the exercise can be easily adapted to the needs of different groups.

The first step is to have a basic understanding of culture. Culture can be defined simply as a learned way of life; it is what ties human beings together and enables them to survive. Culture is a system with four interrelated parts: language (the way we com-

municate); ideology (the ideas we have and the things we believe); sociology (the way we relate to one another); and technology (the tools people use and how to make them). Some reflection on our own culture helps illustrate these concepts. In the classroom, teachers can adapt a discussion of the parts of culture to the age of students. The diversity in our own culture and communities will be evident in the discussion. Answers to the question "What is our ideology?" will vary in the areas of religious beliefs and moral issues. Still, students should be able to discover some acceptable definitions of ideology in our society: beliefs; ideas of right and wrong; ideas of beauty or success; etc. Topics of discussion about our social system and social relations might include male/female roles and behavior, family structure and residence or courtship/dating patterns. Technology includes tools, clothing, containers and housing. Technology is not just the artifact but the process used to produce it.

The answers to some of these questions may seem obvious and natural to the students. But if they are asked to think about what the answers might be if they lived in another country (such as rural Latin America) or back when their grandparents were young, students will see how their answers to these questions offer much information about our way of life.

It is also important to remember that each culture exists in a certain physical environment which influences and affects that culture. Building a graphic which illustrates this helps students better understand these concepts (see Diagram).



Diagram

Adapted from *Introduction to Socialization: Human Culture Transmitted* by Thomas Rhys Williams. St. Louis: C.V. Mosby Co.; 1972.

With a basic understanding of the concept of culture, it is possible to learn about a specific culture from an artifact it has produced. The data encoded in an artifact are limited. Information about language and many details about the culture are not visually accessible through an artifact. But it can communicate information about the environment of the people who produced it, their technology and some of their beliefs.

The language of artifacts is a visual one which requires close observation. Using these questions to examine the artifact will help students translate what they can see into a broader understanding of the artifact in its cultural/environmental context.

The Exercise

Carefully examine a single artifact, look for clues about the culture which produced it and then answer these questions:

- 1. A. What is the artifact made of?
 - B. What do these materials tell us about the environment?
- 2. A. How is the artifact made?
 - B. What does the way it was manufactured or modified tell us about the culture? What tools/technology are needed to make it?
- 3. A. What does the artifact do?
 - B. Does it have a function beyond its practical use?
- 4. A. What does the artifact tell us about the beliefs or ideas of the people who created it?

Each of these questions can lead to other questions, new connections and greater understanding. This is an exercise in creative thinking; let the possibilities unfold.

A few examples will help clarify how the exercise works. The first example is a carved wooden figure of a man (see Illustration). The answers to the first question are wood and forest. However, the environment of a forest can vary from sub-arctic to tropical. If the kind of wood could be determined it might suggest a certain environment. Are there other clues about the environment? If the figure has few or no clothes it probably indicates a warm or tropical zone.

A second example is a piece of hand-woven cotton clothing. In this case, the answer to question two is that the artifact is woven on a loom. But if the material is cotton we know that the people who produced it are agriculturalists or trade with agriculturalists. An agricultural technology and knowledge are indirectly needed to make the artifact. More directly, a loom and spindle or spinning

wheel would be needed. In addition, the tools and knowledge of tailoring are needed to sew the article of clothing. If the woven clothing is a blouse, we can answer question three by stating that it covers a woman or keeps her warm. But if the blouse is decorated or brightly covered this must also have a purpose. The practical function of the blouse may be for protection or modesty. It may also have a secondary function to make a woman look more beautiful, demonstrate her ability as a fine weaver or seamstress or indicate the village where she lives. The blouse may have several secondary functions. In answering question four, we might be able to determine ideas of beauty, modesty, and perhaps behavior (e.g., could a woman play basketball in this blouse?).



Illustration African Twin Figure. Illustration by Ann P. Schlager.

Through this exercise we can learn many aspects of the culture which produced an artifact. Of course there is much information which cannot be determined by observation alone. Moreover, a single artifact offers a very limited view of a culture. This material culture exercise is only the first step towards an understanding of a way of life or a group of people. After the observation experience, the artifact needs to be looked at in its cultural context in order to gain a holistic understanding of the culture. If the wooden figure is a Yoruba twin figure from Nigeria, its role and importance in that society should be explained. If a Navajo sandpainting is examined, the role of art production for tourists as well as the traditional meaning of sandpainting ceremonies should be elucidated.

There is a variety of ways to find artifacts for use in this classroom exercise. Some museums have materials which they loan to schools. An ethnic or import shop may have objects to loan or donate. Artifacts may also be borrowed from well-traveled students, community members, or private collections. Materials of ethnic groups including Native Americans are sometimes more readily available. Students can complete the exercise without touching the artifacts, so there will be little wear and tear on them.

CANADIAN CALENDAR 1989

May 11 - 14 Society for Applied Anthropology in Canada. Annual Conference, University of Ottawa. Contact Bruce Cox, Department of Sociology and Anthropology, Carleton U., Ottawa, ON K1S 5B6.

Aug 23-26 First International Congress on Understanding Language Use in Everyday Life, Organized by the Discourse Analysis Research Group, Calgary. Contact Madeleine Aldridge, Conference Office, U. Calgary, 2500 University Drive NW, Calgary, AB T2N 1N4.

Nov 9 - 12 The Archaeology of Gender. Twenty-Second Annual Chacmool Conference, University of Calgary. Contact 1989 Programme Committee, Department of Archaeology, University of Calgary, Calgary, AB T2N 1N4.

To encourage creative thinking and expose the students to greater variety, several different artifacts can be examined. To add more focus to the exercise concentrate on a theme, such as containers or jewelry, and get a cross-cultural perspective by looking at a number of these types of artifacts from different cultures. Or study an object's history by looking at how the object has changed over a period of time. With a collection of artifacts from a single culture, students can build on their knowledge of the culture with each additional artifact they observe and decode.

Artifacts are the physical reflections of the abstract ideas, behavior, and knowledge that constitute culture. When we study anthropology through material culture, we learn not only about other groups of people but also about ourselves, our artifacts, and our own way of life.

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Karolyn E. Smardz is Administrator of the groundbreaking new Archaeological Resource Centre of The Toronto Board of Education.