

ARCHAEOLOGY AND YOUNG STUDENTS: MAKING THE ENVIRONMENTAL EDUCATION CONNECTION

SUSAN M. HECTOR

The increasing interest in environmental education gives archaeologists an excellent opportunity to reach and teach students in grades K-12. Environmental education programs are given at many parks and community centers, and are often part of the core curriculum for the grade. Archaeologists can become part of these programs. Whether presented to at-risk middle school youth on a campout or field trip, or as an extended opportunity for high school students to do surveys and map features, teaching archaeology provides science education, and gives students an introduction to the history and prehistory of their communities. And, showing students that our field is important, exciting, and interesting will benefit these young people as they become the voters, taxpayers, and leaders of tomorrow.

INTRODUCTION

These days in California, the environment and land conservation are hot topics. The last two state bond acts to benefit parks contained hundreds of millions of dollars to purchase open space and conserve it. Conservation agencies like The Nature Conservancy the Trust for Public Lands have broad public support, and are helping local agencies and non-profits purchase and save hundreds of thousands of acres. In San Diego, many thousands of acres of open space will be locked up in habitat-conservation plans.

In response, environmental education programs have been springing up all over the place. Such programs are given at many nature centers and parks. Environmental education is part of the core curriculum at elementary, middle, and high schools. Books have been prepared to instruct teachers how to educate children about the environment.

The benefits of environmental education extend to at-risk youth. Inner-city and disadvantaged youth participate in government-funded programs that take them out to nature, teach them basic outdoor skills, and provide distance between the kids and their troubled lives. Many of these at-risk-youth programs provide a project that the students can complete, like shoring up an eroded streambed, or installing an information kiosk. Even after-school programs include environmental education and related projects.

This trend has not gone unnoticed by the media or our local leaders. Newspapers are full of

environmental stories: rare birds, endangered plants, hiking and riding trails. What's missing? Archaeology. The land purchased for conservation was not selected because it contained important archaeological sites; available funding is directed toward saving land that contains endangered species, so there is little consideration or even awareness that there is archaeology within the preserves.

The focus of this paper is to give insights and practical pointers, based on my experience, on how to incorporate teaching about archaeology into existing or new environmental-education programs. Teaching children about archaeology provides an introduction to science, and gives students information about the prehistory and history of their communities, resulting in respect and reduction in vandalism. You have the opportunity to capture their hearts and minds.

GRADE SCHOOL: K-5/6

I have included Kindergarten in this section, but in reality students younger than third-graders will not get too much out of an archaeology lesson. It is probably better for the youngest children to attend a supervised visit to a working archaeology site with their families. The San Diego County Archaeological Society allows families to visit and participate at some level in archaeology projects.

For the students between third and fifth or sixth grade, an introduction to archaeology needs to contain a short, sharp message: there were people here before you; science is fun and interesting; our community has an important history. Another key element: small groups with

attendant teachers. It is better to have a class visit twice with the teacher than to have the teacher bring forty kids. No one will learn anything. I am quite strict about this. Also, insist that the teacher stay for the entire lesson.

A field trip is essential. At these ages, attentions spans are short, children are active and like to talk, and they must be kept busy. The field trip should not be a long bus ride, but an activity close to the classroom. As with all grades, the travel away from the classroom provides transition from one world to the next. Getting students out of the classroom and into a natural setting quiets them and distracts them from school business.

An example of the perfect archaeology lesson is the elementary school program at Rancho Guajome Adobe. Third- and fourth-graders visit the park as part of their studies on the history of California. The teacher prepares them for the trip, talking about historical figures and events. But the real business takes place at the adobe. Students get a short walking tour of the adobe, with one- or two-sentence descriptions of what they are seeing. Walk and talk, walk and talk. The tour includes a lot of comments about the adobe; focusing the kids on the adobe leads to discussions about architecture, how modern people build, etc. Then, the group goes around the corner and there is a set-up for them to make adobe blocks. The blocks they make are used to repair the building, and the children are invited to come back with their parents to show Mom and Dad "their" adobe blocks.

Moral of the story: keep these kids moving and have them associate old buildings and learning about history with a fun experience.

MIDDLE SCHOOL

These kids are a tough audience. Some, if not most, have an attitude about school and may not get much from the teachers' pre-field-visit introductions. So don't expect much prior knowledge when they come out to the field.

My experience with this group is with at-risk, inner-city youth. Some have been in trouble, some are just headed that way. Again, keep the

group small and insist the teacher stay. I make the archaeology portion a part of the whole environmental-education program. As part of locally funded at-risk-youth programs, the students are given various lessons and experiences in the outdoors. They come out to an open-space park or preserve and get structured presentations and activities that focus on the environment.

The students go on a hike, which burns up some energy. As they emerge from the trees or around a bend, they see me, or you, working at a screen. The setting creates a mysterious, intriguing atmosphere that captures their attention and quiets them down. I am not set up on a real site. I have set up, on a tarp, a screen and a couple of buckets of dirt. The dirt is really purchased sand, and I have put some unprovenanced historic and prehistoric objects in the sand. I have my dig kit open. I introduce myself.

My message here is, someone lived here before you and you can find out about them through science. Part of the message is to get the students to understand that the relationships between artifacts give them meaning, with the hidden message not to pick things up that they might find. An analogy that I use with middle school and older students is to consider their own home in a thousand years. There will be no structure above ground, but all the objects inside are still there covered with dirt. If you carefully dug through the house, you would be able to tell where the kitchen was, where the bathroom was, and where their rooms were. However, if someone had been removing things, and digging through it without a plan, everything would be all mixed up and you would not be able to tell anything about the people who lived there. I ask, what else could archaeology tell us about your house?

This whole time, I am moving my hand through the screen. When I finish talking, I am looking through the screen, holding up objects and saying one or two sentences about them. I give a short background on the native people who lived in the region. Then, I invite someone to dump another bucket into the screen, and I ask all to gather around and help me look through it. Obviously if you can enlist a helper with another screen, you can handle more kids. I have seen

tough, rowdy skinheads turn into little kids with round eyes as they pulled things out of the screen. I ask them what they found, and what it might mean. Shortly, they are called back together and led away, as I continue to work.

Moral of the story: keep it simple and don't get technical. Stop yourself before you start talking about shellfish analysis.

HIGH SCHOOL

These people are fun and are usually up for nearly anything. The general message in high school is that archaeological sites are part of the environmental system and cannot be separated from it. People have changed and been changed by the environment. This is a rich message and very complex, and ties right in with the emphasis today on environmental education.

An added complication of high school education in archaeology is that you generally do not get the cross-section of young people that you have in the earlier grades. Some high school teachers are very interested in archaeology and the environment, so their students get the trips.

I make high school kids work for me. I am currently working with Granite Hills High School, so that program is a good example of the types of things to do with high school youth. Several of the teachers got together and decided to do more with history, so the Granite Hills program has a history focus. The teachers developed a curriculum about local history, and part of it is prehistory, local native people, and archaeology. It is not overly complex or deep, but it is good material.

I use site mapping as the platform for teaching; it keeps people active, they have to think about it, and I get a site map. The program begins with a classroom lesson. I have been very fortunate to have a local Native American as a partner in this project, so he talks about the Kumeyaay people, their history, and their culture. I then get into the science of archaeology portion. Provenience, analysis, hypotheses, in about half an hour. We spend the remaining time practicing site mapping, with an emphasis on mapping milling features. I made a styrofoam boulder and applied different types of milling surfaces to it, so they measure that. It is again important to control

the number of participants; I take no more than 15.

No more than two weeks later, the students spend the better part of the day out in the field, at a real site. They are put into teams and given assignments, which are rotated. Measure, measure, measure while I and a couple of assistants go around and talk to them. I have a team of assistants who take students out of their teams to help with the overall mapping. I provide lots of breaks, and a lunch on site with a discussion about the use of acorns and how they are processed, or how stone tools are made. Of course, go heavy on the ethics and use the thousand-year-old-house analogy. By about three o'clock, everyone is tired and they get to go home. Several of the students linger to ask how they can get more involved, so make sure you have a specific answer and don't just promise to get back to them. You should be prepared to guide them to a specific archaeology project that takes volunteers; you might have to create one, which is what I have done several times.

You will also get questions about how to become an archaeologist. You should be encouraging, and point the students toward science and history. I always emphasize college and more college. I also go out of my way to talk to shy students, generally girls, who seem interested but don't ask any questions.

Moral of the story: Make these kids work and make it meaningful to them as you impart information. You are whetting their appetites for history, science, and the environment.

ALL GRADES

Teacher or instructor preparation is essential. Of critical importance is that the classroom end of the process contains focused, correct information. Several times I have been questioned by students when information I give is not the same as the information provided by the teacher prior to the field trip. Review and amend all material that the teacher plans to provide.

Never agree to talk about archaeology to a classroom of kids in school. You will lose their attention in about five minutes as they slump, squirm, and wait impatiently for you to finish. Also, despite your best intentions, putting an

archaeologist in front of a class switches on the teaching gene, and before you know it you are getting into settlement patterns, seasonal transhumance, and multiple-edge lithic analysis.

Moral of the story: Have fun, and don't do it if you don't like kids. They can tell.