INTRODUCING THE PAST TO THE FUTURE:
A CONTINUATION OF THE PALS PROJECT

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
MASTER OF ARTS

BY
BRIDGET NASH-CHRABASCZ

BALL STATE UNIVERSITY
MUNCIE, INDIANA
JUNE 2009
ACKNOWLEDGEMENTS

First and foremost, I would like to thank my husband for guarding the door and entertaining our children so that I could finally finish what I started so many years ago. I would also like to thank Dr. Ron Hicks, Bill Wepler, and Gail Brown for their advice and patience. Bill, what can I say -- I should have listened to you! And finally, I would like to thank all of the archaeologists, teachers, and administrators who assisted with the study. Without the knowledge you shared this study would not have been possible.
# TABLE OF CONTENTS

LIST OF FIGURES ................................................................. v
LIST OF TABLES ..................................................................... vi
INTRODUCTION ....................................................................... 1
BACKGROUND ......................................................................... 5
  Excavation-oriented programming developed by archaeologists .......... 8
  Excavation-oriented programming developed by teachers ................. 11
  Non-excavation-oriented programming ........................................... 14
    Computer software .................................................................... 14
    Internet Websites ...................................................................... 15
    Lesson Plans ........................................................................ 16
    Non-dig activities ..................................................................... 17
METHODOLOGY ....................................................................... 19
  Questionnaires ........................................................................ 20
  Focus Groups ........................................................................... 22
  Challenges .............................................................................. 23
PROGRAM OBSERVATIONS .................................................. 26
  Old Pueblo Archaeology Center ................................................... 27
  Museum of Man ........................................................................ 28
QUESTIONNAIRE ANALYSIS ................................................ 30
  Archaeologists ......................................................................... 30
  Teachers ................................................................................. 32
  Administrators ......................................................................... 37
FOCUS GROUP ANALYSIS .................................................... 39
CONCLUSION ........................................................................ 44
  Excavation-oriented programming ............................................. 46
LIST OF FIGURES

FIGURE 1 – Paper Archaeological Site ......................................................... 17
LIST OF TABLES

TABLE 1 – What do you believe to be the best means of teaching archaeology to elementary-aged students? ................................................. 31

TABLE 2 – What materials/resources do you use to cover archaeology in your classroom? ................................................................. 35

TABLE 3 – What do you think would be the best way to teach students in fourth- through sixth-grades about archaeology? .............................36
INTRODUCTION

Owing to the State of Indiana’s proposal to omit anthropology from the social studies requirements in the teacher-training program, and the Indiana legislature’s removal of college anthropology courses from the state’s curriculum requirements for pre-collegiate teachers, Dr. Luke Eric Lassiter started a project within the Senior Seminar course in the Department of Anthropology at Ball State University to reach out to schools (Cantrell 2003).

In 2000, Dr. Lassiter sent the first students from his Senior Seminar project into local high schools “in an effort to add anthropological knowledge to classroom instruction” (Cantrell 2003:18). As a member of Lassiter’s original project, William Cantrell sought to build on the Senior Seminar project by developing a model that would enable anthropology to be placed within local high schools. In 2002, the Placing Anthropology in Local Schools (PALS) project emerged.

The PALS project was three-pronged. It included the development and implementation of a prototype CD-ROM/Textbook of anthropology, a website for teachers that listed resources within Ball State University’s Department of Anthropology and class presentations in local high-schools by anthropology students (Cantrell 2003).

Through the PALS project, Cantrell sought to create an anthropology program with educators, rather than develop an anthropology program for educators. To reach this
goal Cantrell utilized a group of teachers and education outreach coordinators from various local high school and education facilities. Over the course of his meetings with the group, three topical areas emerged: the idea of ownership, applicability to State Academic Standards, and grassroots movements (Cantrell 2003).

Cantrell’s focus group believed that the idea of ownership encompassed not only the teachers but the students as well. They believed that in order for the “tool” to be useful in a teacher’s classroom that teachers needed to be collaborated with during the development process (Cantrell 2003). A similar conclusion was drawn by Zimmerman, Dasovich, Engstrom, and Bradley after conducting their Archaeology Days program in 1988 and 1989. They discovered that “archaeologists [spend] a great deal of time outlining what they [can] provide for teachers, but they [pay] little attention to the needs or concerns of [the] teachers themselves” (Zimmerman 1994:47).

For students, Cantrell’s group felt that “the idea of ownership [referred] to [the] applicability of content . . . students must have a sense that the lessons have a direct impact on their day-to-day lives” (Cantrell 2003:22). Making information relevant to today’s world is something that teachers struggle with on a daily basis. This need for relevance combined with the need to touch on the state standards leaves many teachers unsure of how archaeology can be integrated into their classroom.

Due to the various standards-based education reform acts like Goals 2000 or the No Child Left Behind Act of 2001, which raise academic standards and establish measurable goals (Philip Nash, personal communication 2007), many teachers feel as if they must teach to the state standards as these standards are what the students are held accountable for on their tests. Because of the limitations that many teachers now face,
Cantrell’s group believed that if a new program were to be incorporated it had to target the standards (Cantrell 2003). In addition to teachers feeling as if they do not have time to introduce topics “not specifically covered by the state or national standards,” Ashmore and Bauman (2003:11) discovered that for some teachers, it is the lack of support from their administrators that limits their ability to incorporate archaeology into their curricula.

The lack of support mentioned in Ashmore and Bauman’s research was echoed by Cantrell’s group. They believed that the lack of support stemmed from a poor economic climate “in which many schools barely have the funding to maintain current programs” let alone incorporate new ones (Cantrell 2003:23). Some of the educators in his group believed that in order for a new program to be successfully implemented it was necessary to start a grassroots movement among a “small group of concerned, committed teachers” and allow the program to “grow from teacher to teacher, classroom to classroom, and then school to school” (Cantrell 2003:23) for it is only after an individual or group has the interest and support of teachers that policy may change to allow for the program.

As a continuation of the PALS project, I chose to focus my research on archaeology within the elementary school curricula. Having worked in cultural resource management previously and for a firm with a strong archaeology education program, I had the opportunity to be a sounding board to both archaeologists and educators. Archaeologists want the entire process stressed, while teachers tend to cut out the mundane and focus on the digging aspect as it is fun for the students. This controversy is nothing new and has been the focus of many symposia at various archaeological conferences throughout the years.
To that end, I have expanded on the aforementioned topical areas discussed in Cantrell’s focus group, addressed the concerns of information format and packaging that emerged from Cantrell’s focus group and examined various means of reaching teachers, as well as the development of useful materials in hopes of finding a middle ground between archaeologists and educators. Ultimately, I wanted to find out if there is a way to keep archaeology “realistic” so that already held misconceptions are not being further perpetuated, while also making it “fun” so that the teachers enjoy presenting it and can maintain the kids’ interest.
BACKGROUND

From its inception, anthropology, including archaeology, has been primarily a research profession, “showing little interest in pre-collegiate education [and] placing virtually no effort into [the] discipline’s expansion into schools” (Selig 1997:30). While other social sciences reached out for public understanding, anthropologists stood aloof, believing that the discipline would become too popularized (Selig 1997). It is only within the past four decades that we have seen this attitude change.

With the ‘new social studies’ movement of the 1960’s and 1970’s, anthropologists began to reexamine their views on pre-collegiate education (Dynneson 1981). It was during this movement that financial support from both federal and private sources became available for the development of new curriculum programs for elementary and secondary schools (Dynneson 1981). Because the “curriculum emphasis nationally was on fostering inquiry skills, clarifying values, and understanding the scientific method” (Murphy 1998, para.4), archaeology was viewed as a primary tool for implementing the new curriculum.

Although several initiatives had been funded by 1967, and educational kits, workbooks, and teacher’s manuals were produced, archaeology was eliminated from the curriculum because it did not aid in the production of “solid, employable citizens” (Murphy 1998, para. 4). In fact, Congress viewed “anthropological education as
communist-influenced because it presented communal economic enterprises as good,” and attacked the discipline for being “godless because it was evolutionary supporting; [as well as] too frank and brutal for children because films showed baboon dominance fights and the Inuit killing and butchering game” (Murphy 1998, para. 4). While archaeology was no longer officially a part of the curriculum, teachers “who had a personal interest in the subject and who realized it’s potential as an instructional device” continued to use archaeology as a way to “satisfy curriculum requirements while lighting a fire in their kids’ desire to learn about history, social studies, and science” (Smith 1998:114).

During the early 1970’s public preservation programs began to sprout around the country (Murphy 1998). These programs brought to the forefront concerns regarding sensitivity to ethical issues when presenting the past to the public, as well as the protection of cultural resources, and "provided an opportunity for the [Center of American Archaeology] to introduce archaeology as a means to meet science and social studies educational goals" (Murphy 1998, para. 2).

Consequently, as mentioned in the introduction, the discipline began to define the goals of archaeology education during the 1980’s. At the same time, the number of teachers experimenting with archaeology grew. Unfortunately, this growth resulted in “a good deal of ‘bad archaeology’” (Smith 1998:115). Because the “professional community was still waffling about whether the public should be involved” teachers with little or no training often created “lesson plans, classroom activities, and simulated digs that bore little resemblance to reality” (Smith 1998:115). Due to the amount of misinformation being transmitted within the classroom, many archaeologists turned to educating teachers. “By educating teachers, who would, in turn, instruct their students, proponents of
archaeology education contended that the multiplier effect would ensure that future community leaders and private citizens would value archaeological sites and work to preserve them” (Levstik et al. 2003:3).

Additional steps have been taken within the past fifteen years to promote archaeology education at the pre-collegiate level. During the 1990’s, the Society for American Archaeology (SAA) established the Public Education Committee and diligently targeted both teachers and students by conducting teacher workshops, outreach programs in schools, and lectures, and by producing exhibits and publications, while also targeting the archaeological community in hopes of broadening the community’s participation in programs to integrate archaeological education into the classroom. The United States Department of the Interior Bureau of Land Management (BLM) also joined the campaign by launching Project Archaeology.

Project Archaeology seeks to “educate students to take responsible and thoughtful actions towards our archaeological heritage” (Smith et al. 1993:v). Thirty states currently have a Project Archaeology program or are developing one. The program consists of two main components. The first, *Intrigue of the Past*, is an activity guide that “forms the foundation, and includes information about the fundamental concepts, processes, and issues of archaeology” (Smith et al. 1993:2). The second is a state handbook. Unlike the *Intrigue of the Past* activity guide, the state handbook is state specific. Educators are given training, through workshops, on how to adapt their state-specific material to the activities found in *Intrigue of the Past*.

Although both professional archaeologists and teachers hold similar beliefs regarding the reasons for linking education and archaeology, their emphases have been different.
“Professional archaeologists have focused on preservation issues; in contrast, teachers involved in archaeology have been more interested in engaging students in the process of scientific inquiry and developing the cognitive skills necessary for scholarly work” (Davis 2000:199).

*Excavation-oriented programming developed by archaeologists*

There have been numerous archaeology programs developed by archaeologists throughout the years. Five of these programs are discussed in detail below.

At the “Kids are Scientists Too” camp, sponsored by the Connecticut State Museum of Natural History and the Connecticut Archaeology Center at the University of Connecticut, students in grades fifth through tenth had an opportunity to work alongside the state archaeologist as the former site of an 18th-century home on the university’s campus was excavated (Gillespie 2005). “Just like real archaeologists, the students measure how deep in the soil they are digging, store their discoveries in labeled plastic bags, use precise digging techniques and record the weather and temperature in a notebook before digging each morning” (Gillespie 2005, para. 10). The students’ notes are placed into the states’ archaeology archives at the end of the field session so that they may be referenced by researchers at a later date.

The “Archaeology: Can you Dig it?” summer camp held at the San Luis Archaeological and Historic Site in Tallahassee, FL., which is administered by the Bureau of Archaeological Research and the Museum of Florida History, began in 1986 and is one of several week-long sessions offered that deal with history and human culture (Smith 1991). The one-meter square two-level site is “fabricated with prehistoric and
historic strata, each having evidences of a domicile and food and tool production” (Smith 1991:15). During the first three days, campers are rotated through the excavation and “other, related activities” that assist with the presentation of archaeological research (Smith1991:15). After excavating, recording, and interpreting the deposits, the campers prepare exhibits about archaeology, which their parents are invited to view on Friday afternoon.

In 1985, “Archaeology Is More Than a Dig” began at Camp Cooper in Arizona. The program “was born out of a sixth grade archaeology project led by teachers and the public archaeologist at the Arizona State Museum” (Ellick 1991:28). The program, offered in the Tucson Unified School District, targeted third through sixth grade classes. Camp Cooper was set up to resemble a Hohokam archaeological site discovered within the area. “There are three pithouse floors facing a central ramada with a variety of pit features and caches in and around the area” (Ellick 1991:28). So that no child walks away disappointed, artifacts were scattered generously over the entire site to ensure that each child finds something. Prior to arriving on site, several weeks of in-class preparation are conducted by the teachers, with a staff archaeologist paying a visit to the classroom. Upon arriving at the site, students are divided into groups of four. Each child has an opportunity to dig for 45 minutes and spends 15-20 minutes mapping, taking notes, and filling out artifact bags. Students also participate in the lab by washing, processing and cataloging the artifacts. In addition to the fieldwork, many students have an opportunity to take part in a rock art station. In 1987 the rock art station consisted of a 115 lb slab of sandstone with simple designs that were pecked in by the kids that year. The following
year children were taught how to make rubbings of the petroglyphs from the previous year (Ellick 1991).

The “Mystery Culture Excavation” activity was included in the Classroom Archaeology activity guide put out by the Division of Archaeology, State of Louisiana, Baton Rouge. The first version of the activity divided students into two teams with each team describing a group of people and creating a site (Hawkins 1987). Once the sites were created, the opposite team would excavate and interpret it. Instructions about excavation, mapping, and labeling were provided to the teachers. In 1987, the activity was updated due to requests from teachers for a shortened version of the activity (Hawkins 1987). Hawkins added instructions for creating a “late prehistoric circular house and a historical two-room house,” which made it possible for the simulated sites to resemble actual sites in the area (Hawkins n.d., para. 10).

Old Pueblo Archaeology (OPAC), a non-profit founded in 1993 by Allen Dart, offers several programs to fulfill it’s mission of “educating children and adults to understand and appreciate archaeology and other cultures, foster the preservation of archaeological and historical sites, and to develop a lifelong concern for the importance of nonrenewable resources and traditional cultures” (Old Pueblo Archaeology Center 2008). One program, OPEN (Old Pueblo Educational Neighborhood), targets third through sixth grades. The site was constructed by archaeologists to resemble a southern Arizona Hohokam Indian village ruin and contains “full-size replicas of prehistoric pit-houses and outdoor features that the Hohokam used for homes, cooking, storing things, and other purposes (Old Pueblo Archaeology Center 2008). Prior to arriving at the center to participate in the program, teachers receive a packet of information and activities to assist with the in-class
preparation. OPAC offers both a two-hour and a five-hour excavation experience for their mock site. As part of the preparation for the five-hour program, a staff archaeologist visits the classroom to assist with their preparation so that they are familiar with the archaeological process and terms. Once on site students are divided into groups and rotated through various stations where they learn excavation techniques, how to screen for artifacts, how to map and record the artifacts/features, and what occurs in the laboratory. Once back in the classroom the students write a report describing their methods, results, and interpretations.

*Excavation-oriented programming developed by teachers*

While numerous teachers around the country have developed their own lesson plans and activities in an attempt to incorporate archaeology into their classrooms, those teachers discussed below took it a step further by developing simulated digs and publishing their experiences.

During the summer of 1983, Lou Ellen Watts, a sixth-grade teacher in Tucson, Arizona, began preparation for an archaeology project with her students. Watts knew of land near the school that had yielded stone bowls, potsherds, and lithics during the construction of stables for an Arabian horse farm and could be used for her project. Looking for advice, Watts contacted the public archaeologist at the Arizona State Museum. Wanting to introduce students to the archaeological process from start to finish, her class spent their first visit to the site mapping and recording the area (Watts 1985). Once a name for the site was decided on by the students, all of the data collected by the students during the survey was deposited at the Arizona State Museum. Students were
then charged with clearing the brush and establishing a grid. The students were divided into teams and assigned units. If artifacts were uncovered at the screen, students placed them in a bag with the official site number, date, and grid square number, depth, material and their names (Watts 1985). Students recorded their findings on archaeological forms and kept daily logs on what happened. After digging, bagging, and labeling artifacts students brought the artifacts to the classroom for lab work. In the lab the students used water and muriatic acid to remove the dirt and caliche from each artifact. “After we had counted, classified, and recorded our clean finds, we fed the data into our school’s computer for statistical analysis and feedback” (Watts 1985:7). Once the lab work was completed, the state archaeologist visited the classroom to study the “finds” with the class in order to assist with the interpretation of the data (Watts 1985). After the artifacts were analyzed, each student was required to turn in a written final report on the semester’s work.

As part of the public school curriculum, sixth-graders at Phoebe Hearst Elementary School in Washington, D.C., study ancient civilizations every fall (Carroll 1987). Rives Fowlkes Carroll, a sixth-grade teacher at Phoebe Hearst Elementary, decided to excavate behind a stone cottage built as a home soon after the Civil War that was next to their school so that the students could learn about their local history. To prepare his students Rives had the class read about archaeologists and archaeological finds, research the proposed site, conduct oral histories, meet with local archaeologists and surveyors to learn about their equipment as well as watch slides and movies of professional excavations and archaeological sites/laboratories (Carroll 1987). To give their excavation “structure and credibility” an archaeologist from Catholic University was hired to direct
the five-day dig (Carroll 1987:70). The students laid out one-meter square units and were divided into teams. The teams rotated between excavating, screening, and recording. Bags were labeled with the date, and the unit and level numbers. After digging students backfilled the units and replaced the sod. Lab work consisted of washing, labeling and describing (size, shape, color, materials, assumed age, texture) each artifact uncovered during the excavation (Carroll 1987). Having taken students on a field trip to a local museum, Carroll had students separate into varying museum roles (publicity, educator, writers, audio-visual, docents, guards, graphic designers) resulting in the production of their own exhibits for people to see. At the end of the unit parents, teachers, and fellow students were admitted to the students’ museum that displayed not only the items uncovered during the excavation but also journals that detailed their day-to-day personal experiences in the field.

In Alvin, Texas, a third-grade teacher, Stephanie Williamson, developed an archaeology unit in which the school’s playground took center stage. Williamson prepared for the dig by gathering artifacts for a tomb -- beads, old dishes, metal implements, toys and jewelry (Williamson 1991). She then painted the artifacts silver and gold, decorated them with hieroglyphics and planted the items three-to-six inches below the surface. Williamson assigned different jobs to her students -- head archaeologist, assistant archaeologist, diggers, artifact handlers, numberers and catalogers, cleaners, artifact sketch artists, and dig recorders (Williamson 1991). The students calculated the surface area of the dig site to make a curriculum connection prior to laying out the grid, and when an object was uncovered during excavation, Williamson had the students weigh the objects (using a balance) due to archaeologists on a real dig using “this information to
determine if artifacts are made of gold or other precious metals” (Williamson 1991:27). Once the excavation was completed, the students in Williamson’s class were asked to write descriptive paragraphs about the artifacts, without naming them. The essays, along with the illustrations drawn from the descriptive paragraphs, were placed into an artifact catalog that was available for parents to view along with their journals and photographs (Williamson 1991).

During the 1990’s Neil Goldberg was completing his Ph.D. in anthropology when he was approached by the Dalton School in New York City about adding archaeology into their social studies program (Sandlund 2000). Goldberg created a simulated archaeological dig in two five-foot square boxes with Plexiglass fronts. Each box was filled with “1,000 pounds of topsoil, dried clay, and sand layered to create different colored strata” (Sandlund 2000:9). Goldberg then buried donated artifacts or ones found at flea markets. The students were divided into groups with each having an opportunity to excavate, map and log the artifacts, screen, and participate in lab activities such as washing and recording the items. After the students spent a month excavating the boxes, Goldberg required them to spend another month analyzing the items discovered as well as writing a report (Sandlund 2000).

**Non-excavation-oriented programming**

Due to the resource constraints many schools face, teachers are forced to be creative, if not frugal, in their attempts to utilize archaeology within their classrooms. Computer software, internet websites, lesson plans, and non-dig activities are some of the alternate methods of integrating archaeology into the classroom.
Computer software. There are several simulated archaeological worlds that can be investigated by students. *Virtual Dig: A Simulated Archaeological Excavation of a Middle Paleolithic Site in France*, Fugawiland, SyGraf, *The Archaeological Detective*, and Windig are examples of the computer software available for use by students. *Virtual Dig: A Simulated Archaeological Excavation of a Middle Paleolithic Site in France* and *The Archaeological Detective* are two of the more popular CD-ROM’s utilized within classrooms. *Virtual Dig* was created by professors from several universities for college students who were unable to attend a field school (Carr 2000). *The Archaeological Detective*, on the other hand, mirrors a video game while introducing students to archaeology via the process of solving a mystery. Students are able to “consult historical documents, question experts and participate in measurement, comparison, association, and deduction activities” as they work their way through the mystery (ERIC 1997). *SyGraf* and *Windig* “are derived from real-world archaeological sites like Danebury and include real data-sets for study and analysis” (Perkins 1997:1067).

Internet websites. One only needs to type the word “archaeology” into any search engine (i.e., Google or Dogpile) to be inundated with thousands of websites. If you narrow the field by searching for “archaeology websites for elementary students” you will still have several hundred options; however, most of the websites offer nothing more than background information for the students. Teachers look for media that will engage the students in their exploration of archaeology. Websites that do not offer pictures, live video stream or activities fail to grab and keep the attention of the students. While most of the websites visited did not offer either the stimulation necessary to keep the students’ interest or offered the stimulation without the reality of the profession, there were four
websites that may be of interest to teachers attempting to utilize the internet as a resource when teaching archaeology. Kids Dig Reed, National Park Service Archaeology Program Archaeology for Kids, Historic Jamestowne, and the Virginia Department of Historical Resources offered both the necessary stimulation with a variety of activities as well as factual information about archaeology.

With the assistance of a cow as a guide, students are led through the archaeological process on the Kids Dig Reed website, www.kidsdigreed.com, to learn about families who lived in West Virginia 150 years ago. Historical information, in-field video stream, and computer game type activities help cement the process of archaeology with the students.

The National Park Service Archaeology Program Archaeology for Kids website, www.nps.gov/archaeology/public/kids/index.html, explores the different types of archaeology and explains both the discipline and the process well. There are numerous links for teachers to use as well as several online activities to grab the attention of students.

On the Historic Jamestowne website, www.historicjamestowne.org, teachers can access both lesson plans for teaching archaeological concepts and interactive exercises, while the Virginia Department of Historical Resources offers an interactive adventure called "What do archaeologists do?"

Lesson plans. As with the websites, archaeology lesson plans can be accessed just about anywhere. They can be found on university and museum websites as well as on various teacher resource websites or posted singly on the internet. Not all of them were created by teachers. Some were created by museum educators and others by professional
archaeologists. Many of the lesson plans viewed focused on classification activities and the excavation of sandboxes. Most of the classification lesson plans entailed the placement of toys into various groups based on their attributes while the lesson plans detailing how to excavate range from placing sand and small objects into a shoebox to filling an inflatable swimming pool with sand and various objects found around the home. There are a few that discuss how to conduct a dig on the playground, but they are less frequent than the simulated digs involving a shoebox or swimming pool.

*Non-dig activities.* There appears to be a recent trend in the use of non-dig related activities within the classroom. The two more popular examples of this would be garbology and the use of a paper archaeological site. The garbology activity can be found on the internet as an activity or a lesson plan on various sites, as well as within the Bureau of Land Managements' Project Archaeology teacher's activity guide, *Intrigue of the Past.* This activity involves the use of garbage collected from the home or classroom and involves several archaeological concepts including culture, context, observation and inference, chronology, classification and chronology.

Introduced at the SAA's annual conference in 2001, the paper archaeological site (Figure 1) has been used in various institutions and schools throughout the country. The activity requires that a grid be laid on the ground -- some have placed tape on the floor and others have laid out large sheets

*Figure 1.* Paper archaeological site. (Photo courtesy of Gail Brown, Indiana State Museum)
of butcher paper -- to resemble that of a real site. Students are given paper or real artifacts
with the coordinates of the location in which they were found. Students are then expected
to place the artifacts back into the positions in which they were located based on the
coordinates given. Once in place, the students use the context of the artifacts and/or
features to form their interpretations of the site.
METHODOLOGY

Questionnaires were sent out across the United States to fourth- and sixth-grade teachers, administrators, and archaeologists. The questionnaires were designed to gain insight as to where teachers, administrators, and archaeologists stand on the issue of archaeology in the elementary classroom, as well as what each thinks needs to be addressed in order for archaeology to be used successfully as a teaching tool within the elementary classroom.

I compiled a list of organizations from around the United States that offer some sort of archaeology dig—real or simulated—to elementary classes, fourth- through sixth-grades, and visited several of them to evaluate their programs. Many archaeologists have spoken out against such programs because of the tendency to oversimplify the archaeological process for younger students, leaving an emphasis on the digging aspect of the discipline in a way that contributes to the already deeply rooted misconception that archaeology is simply a hunt for treasures.

When visiting the various organizations I looked to see if the programs addressed the goals of archaeology education, which include: “(1) to help students [and the public] understand and learn from the past; (2) to teach the importance of cultural context and processes; (3) to create an appreciation for the preservation of cultural resources; and (4) to illustrate the relevance of the discipline of archaeology in our society” (Clark 1998,
para. 5). I observed the programs for content and asked staff questions regarding their education level, degree area, and experience in teaching and with archaeology. I also observed the students as they participated in the program but did not interact with them.

In addition to discussing the use of “digs” in the classroom, I examined other methods of integrating archaeology into the elementary classroom such as computer software, internet, lesson plans, and non-dig activities like garbology.

Finally, I conducted several focus groups in the Yuma and Tucson, Arizona areas. I solicited fourth- and sixth-grade teachers to develop an in-depth dialog regarding the answers given to the questions asked on the questionnaires. Many teachers say they are unable to fit anything “extra” into their curricula due to the standardized tests. But, within the same school, I have spoken with teachers who taught a unit on archaeology and participated in an excavation with their students. I explored whether this discrepancy was due to a lack of motivation, a lack of understanding, a lack of training in the subject area, because they were not interested in the subject matter or because they didn’t know where to obtain materials in order to teach the subject.

**Questionnaires**

In January 2008 three-hundred questionnaires were sent out across the United States to fourth- and sixth-grade teachers, administrators, and archaeologists. The questionnaires were designed to gain insight into where teachers, administrators, and archaeologists stand on the issue of archaeology in the elementary classroom, specifically fourth- and sixth-grades, as well as what each profession thinks needs to be addressed in order for archaeology to be used successfully as a teaching tool within the classroom.
Due to the information being sought, each questionnaire was tailored to the specific audience to which it was being sent (Appendix A).

Rather than focusing on teachers, administrators, and archaeologists from one state, two individuals for each of the aforementioned categories were chosen from each of the fifty states, with a total of one-hundred questionnaires being sent out per category. It was anticipated that with a broader sample a more realistic picture of how archaeology is used in classrooms across the United States could be obtained.

Archaeologists were chosen at random from various museum, SHPO (State Historic Preservation Office) and CRM (Cultural Resources Management) firm websites. Fourth- and sixth-grade teachers were targeted due to both state and national academic standards allowing for the introduction of archaeology within the curriculums at these grade levels. Both teachers and administrators were chosen at random from their school website. Two cities/towns were chosen per state and one teacher and one administrator were chosen for each city/town. This method was chosen so that a broader look at the school system and how they apply the state standards could be viewed.

After receiving only three of the original three-hundred questionnaires in return, I explored distribution of the questionnaires via online listservs instead. ANTHRO-L, HISTARCH, and ARCH-L listservs were utilized for archaeologists. The Administrators and AERA-A listservs were utilized to contact elementary school principals. And, the AERA-B, AERA-C, AERA-F, AERA-H, ECENET, Grade 4, Grade 5, Middle School, Science, and Social Studies listservs were accessed to obtain interested teachers. Once being granted access to the listserv, a call for participants was posted and the response was immediate. Within two days over 77 participants had responded indicating
their interest. Of the 77 participants who responded to the initial posting, 32 returned their questionnaires.

**Focus Groups**

Fourth- and sixth-grade teachers within both the Yuma and Tucson, Arizona, areas were contacted to participate in a series of focus groups proposed for this project. The purpose of the focus groups was to develop an in-depth dialog regarding the answers given to the questions asked on the questionnaires. However, when teachers did not respond to the general mailing sent to the schools, I contacted them via their email addresses listed on the school website. No responses were received from teachers within the Yuma area and four were received from the Tucson area. The focus group for the Tucson area was scheduled for January 25, 2009, but I received two emails from teachers stating that due to a school staffing conference that was scheduled they would be unable to attend and another email from a teacher indicating that her schedule was a bit hectic and that she would prefer that I email her questions so that she could still participate in the focus group.

Due to the general lack of availability on a specific date and time I decided to compose a focus group questionnaire (Appendix B) and email it to those interested in participating with the understanding that there would be some back and forth due to the nature of the dialog. Six individuals participated in the online focus group, including one from the original Tucson area focus group. Four of the participants were from private schools and two were from public schools.
Challenges

Throughout the course of my research I encountered several roadblocks, some of which caused me to change the direction of my study. There were two challenges faced that I think most affected the outcome of this study: the return rate of the questionnaires and garnering interest in participating in the focus groups.

The first time I distributed the questionnaires participants were chosen at random from school, museum, SHPO, and CRM firm websites. Utilizing this method, the return rate was less than one-percent. It is quite possible that had I obtained phone numbers and/or email addresses for the chosen participants and contacted them prior to mailing the questionnaires that a) I could have verified whether they were still employed at the school, museum, CRM firm, etc., to which I was going to be mailing the questionnaire, and b) whether or not they were interested in participating.

On-line listservs were used for my second attempt at distributing the questionnaires. While this method yielded 32 returned questionnaires, each listserv had the potential to reach hundreds if not thousands of members. Why was it then that of the thousands of people I had the opportunity to reach only 77 initially responded and of those only 32 actually completed and returned the questionnaire? I am curious as to whether the percentage of people participating would have increased had I emailed them a website link to the questionnaire instead of emailing the questionnaire to them.

I was surprised that the focus groups faced the resistance that they did. Having worked with teachers in various institutions, it never crossed my mind that most teachers would be less willing to get involved in “extra” activities. My first attempt at recruiting for the focus groups involved the distribution of flyers at local elementary schools. It was
my hope that the offices would place a flyer in every fourth- and sixth-grade teacher’s mailbox as well as hang them on the bulletin board. I did not receive any response by utilizing this method. Having spoken with other individuals that offer programming for teachers, I learned that when materials are not addressed to a particular teacher they are usually distributed to the library and that the librarian then decides how to distribute the materials if at all. More often than not, they end up in the garbage.

I then attempted to solicit participants through word of mouth via Yuma elementary school teachers I knew. This too was unsuccessful. While some interest was expressed there was always something that prevented the group from meeting. I thought the ideal time to meet was during their breaks; however, whenever the teachers had a break many would leave town. Weekends were also tricky as some worked weekend jobs, while others spent time catching up on grading and classroom work.

I tried a similar approach when recruiting teachers for the Tucson focus group. I contacted Old Pueblo Archaeology Center to obtain the names of interested teachers. I was given the names of nine teachers that were active with the center. Of those nine, four teachers responded. When the focus group in Tucson was arranged, two of the four teachers had to cancel due to a school meeting and another inquired about the possibility of conducting the focus group via computer as she was interested in participating but having a hard time fitting the focus group into her schedule.

As scheduling appeared to be the road block preventing the focus group from forming I decided to try to conduct it online instead. Maybe people who are more technologically savvy than I may have been able to put together some type of online forum or chat for the group. However, mine ended up being similar to the distribution of
the questionnaires. The main objectives of the focus group and a list of questions that I had planned to use to guide the conversation were distributed to the Tucson teachers interested in participating. Because we were not speaking to one another in person and clarifications were needed, conversation via email that would have normally occurred face to face was necessary. Personally, I think the overall group conversation lacked substance as the ability to spring off one another was not present and I think the discussion was more superficial than it would have been had we met in person.

Despite the challenges faced in these areas I believe the data collected in regards to the expectations of archaeologists and teachers for archaeology programming and how it should be implemented into the classroom can still contribute to the discussion that is occurring within the field.
PROGRAM OBSERVATIONS

Numerous organizations throughout the United States offer some sort of archaeology dig--real or simulated--to elementary classes. Many archaeologists have spoken out against such programs because of the tendency to oversimplify the archaeological process for younger students, leaving an emphasis on the digging aspect of the discipline in a way that contributes to the already deeply rooted misconception that archaeology is simply a hunt for treasures.

Old Pueblo Archaeology Center in Tucson, Arizona, the Museum of Man in San Diego, California, and the Heritage Education Programs in Riverside, California, were chosen for evaluation. However, due to the economic climate of the past year, Heritage Education Programs could not be evaluated because of the lack of program availability due to fewer teachers being able to utilize the program.

When visiting the organizations I looked to see if the programs addressed the goals of archaeology education, which include: “(1) to help students [and the public] understand and learn from the past; (2) to teach the importance of cultural context and processes; (3) to create an appreciation for the preservation of cultural resources; and (4) to illustrate the relevance of the discipline of archaeology in our society” (Clark 1998, para. 5). I observed the programs for content and asked staff questions regarding their
education level, degree area, and experience in teaching and with archaeology. I also observed the students as they participated in the program but did not interact with them.

**Old Pueblo Archaeology Center**

Having served as Old Pueblo Archaeology’s lead instructor for their education programs in the past, I was delighted to visit with both Allen Dart, Executive Director of Old Pueblo Archaeology, and the current lead instructor, Cris Wagner, in October 2008. Old Pueblo offers both a two-hour and five-hour version of their simulated excavation program, OPEN, for fourth- and sixth-grade classes.

The two-hour program begins with the lead instructor discussing the history of the Hohokam, a prehistoric cultural group located within Arizona. After providing the cultural background of the area and reviewing the site rules, the students are led to the site and divided into groups of four. Each group of four is assigned an instructor from Old Pueblo, and they are shown how to fill out the field paperwork, measure the starting depth, and properly use a trowel. The instructors assist the students as they rotate through excavation, sifting fill, and paperwork. Once the excavation is completed, the students are led to another area where they are instructed about laboratory procedures. First the students wash the artifacts that were uncovered in the fill via dry-brushing or a bucket of water and then classify the artifacts based on varying attributes.

The five-hour program is run similarly to the two-hour program and includes a one-hour in-class presentation by the lead instructor prior to arriving at the center for the program. The in-class presentation reviews basic terminology and discusses the archaeological process. To assist students in their understanding of the concepts and
terminology, the lead instructor walks them through a variety of exercises. Prior to leaving the classroom ethics are discussed, with an emphasis on leaving things in place and not taking them home.

All of Old Pueblo’s instructors are either currently taking courses toward their degree in anthropology at the University of Arizona or Pima Community College or have already obtained their degree in anthropology. On occasion volunteers assist with the program. The volunteers are quite knowledgeable about the archaeological process as they have been required to spend time at Old Pueblo’s public excavation program where they assist archaeologists with the excavation of various sites within the Tucson area and also assist within the laboratory.

*Museum of Man*

The Museum of Man offers several educational programs including a mock archaeological field camp in which students “will learn archaeological methods in a mock dig site” (Museum of Man 2009). In August 2007 I traveled to San Diego, CA, to observe the program but was informed upon arrival that the program had been cancelled. After speaking with the docent about my purpose in observing the program, I was led to their Discovery Center and the balcony on which their mock dig rests.

The mock dig is typical of those located in museums throughout the nation. There were three stations with approximately eight inches of sand located in each. There were paintbrushes anchored to each of the containers so that participants could move the sand away from the molded plastic bones affixed to the containers.
The docent was unable to answer my questions about the education level of the individuals that led or assisted with the program but was quick to note that the exhibit was among the more popular exhibits for kids at the museum.
QUESTIONNAIRE ANALYSIS

As noted previously, questionnaires were sent via postal mail and email. Three questionnaires were received from the original postal mailing and thirty-two were received as a result of the listserv posting. The results of the questionnaires are detailed below.

Archaeologists

A total of twenty-one questionnaires were received from archaeologists. Thirteen (62 percent) of the respondents indicated that they had previously led, or been involved in, an excavation for elementary-aged students. Of the thirteen who had been previously involved in an excavation for students, seven were involved in a simulated excavation, six assisted with a real excavation, and three had assisted with both simulated and real excavation programs for students.

Although all respondents agreed that archaeology should be taught to fourth and sixth graders, not all agreed on the method by which it should be taught (Table 1). Eight (38 percent) of the respondents thought that a presentation by an archaeologist in the classroom would be the best way to teach archaeology to fourth and sixth graders while only one
thought that a teacher-led dig on school grounds would be an appropriate way in which to teach the students archaeology.

Despite the method utilized, several of the respondents were concerned about how teachers would present the subject matter to their classes. Some were concerned that there would be too much focus on the items discovered by the teachers. One respondent was extremely concerned about the potential for future pothunters noting that if teachers are going to “teach it at all, [they] need to teach in terms of information learned through excavation, not treasures found and identified.” Another respondent echoed the aforementioned sentiments and questioned the ability of elementary teachers to

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage of responses</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation by an archaeologist</td>
<td>38%</td>
<td>8</td>
</tr>
<tr>
<td>Field trip to participate in a dig</td>
<td>24%</td>
<td>5</td>
</tr>
<tr>
<td>Textbook/Books from the library</td>
<td>19%</td>
<td>4</td>
</tr>
<tr>
<td>Archaeology software</td>
<td>14%</td>
<td>3</td>
</tr>
<tr>
<td>Archaeology websites</td>
<td>14%</td>
<td>3</td>
</tr>
<tr>
<td>Simulated dig at school</td>
<td>14%</td>
<td>3</td>
</tr>
<tr>
<td>Field trip to observe digs by professionals</td>
<td>10%</td>
<td>2</td>
</tr>
<tr>
<td>Field trip to see a museum exhibit based on a dig or other archaeological topic</td>
<td>5%</td>
<td>1</td>
</tr>
<tr>
<td>Teacher led dig on school grounds</td>
<td>5%</td>
<td>1</td>
</tr>
<tr>
<td>Study own trash</td>
<td>5%</td>
<td>1</td>
</tr>
</tbody>
</table>
effectively teach archaeology when “most teachers are not aware of or capable of handling hands on archaeological training and still incorporating the necessary ethical messages.”

When asked about their thoughts on teachers conducting their own excavations—either simulated or on school grounds—the respondents were overwhelmingly in favor of teachers seeking professional assistance for both. When teachers are conducting a simulated excavation, 48 percent of the respondents felt that they should obtain some level of assistance from professional archaeologists while 14 percent of the respondents indicated that as long as teachers “have completed a field school course [they] should be capable enough to supervise a classroom dig.” Forty-three percent of the respondents were comfortable with teachers conducting a real excavation on school grounds with assistance from a professional while 29 percent were against teachers conducting real excavations because sites “are non-renewable resources [and] they should not, in general, be excavated, unless it is to address a specific research question.”

When asked what main points/objectives should be imparted to an elementary class about archaeology, all respondents indicated that discussion about the archaeological process should take place. One respondent felt that it was necessary to emphasize the fact that “archaeologists must do a great deal of preparation and research before digging” and that excavation is only a small percentage of the overall process as archaeologists spend a lot of time in the lab and writing the report. Fifty-eight percent of the respondents felt it necessary to deemphasize the digging aspect as “archaeology is not just about digging” and emphasize the fact that “archaeology is about people, not artifacts.” One respondent indicated his/her concern that elementary students do not
understand that “we can learn about people who did not leave written records through archaeology and we can also learn new things about more recent people who did have records” because there has been so much emphasis on the “digging up and collecting of artifacts.” Other points for discussion included in the questionnaire include: archaeology is a science (10 percent), archaeologists don’t dig dinosaurs (10 percent), archaeologists don’t keep what is found (5 percent), and resource protection and laws for looters (5 percent).

**Teachers**

Twelve teachers responded to the educator questionnaire. Three of the teachers taught fourth grade, three taught fifth grade and four taught sixth grade. Two of the teachers taught mixed classrooms with one teaching a fourth and fifth grade combo and the other teaching a fourth, fifth, and sixth grade combination class.

Of the twelve teachers that responded, five (42 percent) indicated that they cover archaeology in the classroom. Of the five teachers utilizing archaeology in the classroom two have either personal or professional experience with archaeology. One teacher indicated that he had taken a college course and another noted that in addition to a college course she had also participated in a dig. The remaining teachers indicated a general interest in the subject matter due to museums, other teachers with an interest, or having a member of the family involved in archaeology--one teacher having a step-daughter who is an archaeologist in Europe.

When asked why archaeology was not incorporated into their lesson plans/curricula, the remaining seven teachers indicated that either there is “not enough
time and not a part of [the] standard base curriculum,” that it “doesn’t fit our curriculum,” or that they had “never thought about how archaeology might correlate to [the] subject matter.”

Sixty-seven percent of the respondents indicated that writing was covered in their classrooms, with reading, math, and science being covered in 50 percent of the classrooms. Social studies was covered in 33 percent of the classrooms and art and computers were each covered in less than five percent of the classrooms.

Teachers overwhelmingly chose textbooks, the internet, and hands-on activities as the main resources used to supplement classroom lessons with each being chosen by 11 (92 percent) of the respondents. Videos and computer software were utilized by 83 percent of the respondents with presenters and field trips being utilized 75 percent and 67 percent of the time, respectively.

When asked about the materials and resources used to cover archaeology within their classroom, 33 percent of the respondents indicated that they developed their own materials and/or utilized books from the library (Table 2). Twenty-five percent of the respondents indicated the use of a field trip to an archaeology site and/or archaeology websites, and 17 percent utilized a simulated dig in their classroom.

As with the archaeologists, teachers were asked what they thought the best methods were to teach students about archaeology. Half of the respondents thought that some sort of hands-on activity was necessary (Table 3), with 33 percent of the respondents choosing a presentation by an archaeologist or to conduct their own dig. One teacher noted that she would have them “dig around in the area or on the school grounds.”
Thirty-three percent of the teachers that responded thought that a visit to a local site would be beneficial while 25 percent would use a simulated dig in the classroom.

Of the three teachers who chose the use of a simulated dig, one has both taken a college course and participated in an excavation, one has indicated experience through museum visitation and the third had no personal or professional experience with archaeology. The four teachers that indicated an interest in conducting their own dig as a means to teach their students about archaeology had varied experience. One had taken a college class and visited an archaeological site, one had visited museums and has a
When asked if the use of archaeology in their classrooms would help them meet any standards and/or goals, 67 percent of the respondents indicated that it would, with 25 percent not answering the question, and 2 percent stating that it would not. One teacher felt that “any subject could be used effectively to teach any standard.” She went further to

**Table 3.** What do you think would be the best way to teach students in fourth- through sixth-grades about archaeology?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage of responses</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands-on</td>
<td>50%</td>
<td>6</td>
</tr>
<tr>
<td>Conduct own dig</td>
<td>33%</td>
<td>4</td>
</tr>
<tr>
<td>Field trip to visit an archaeological site</td>
<td>33%</td>
<td>4</td>
</tr>
<tr>
<td>Videos</td>
<td>33%</td>
<td>4</td>
</tr>
<tr>
<td>Presentation by an archaeologist</td>
<td>33%</td>
<td>4</td>
</tr>
<tr>
<td>Simulated dig in the classroom</td>
<td>25%</td>
<td>3</td>
</tr>
<tr>
<td>Internet</td>
<td>17%</td>
<td>2</td>
</tr>
<tr>
<td>Textbook</td>
<td>17%</td>
<td>2</td>
</tr>
<tr>
<td>Scavenger Hunt</td>
<td>8%</td>
<td>1</td>
</tr>
<tr>
<td>Photographs of excavations</td>
<td>8%</td>
<td>1</td>
</tr>
<tr>
<td>Reading books</td>
<td>8%</td>
<td>1</td>
</tr>
<tr>
<td>Learning vocabulary</td>
<td>8%</td>
<td>1</td>
</tr>
<tr>
<td>Interviewing students’ parents</td>
<td>8%</td>
<td>1</td>
</tr>
</tbody>
</table>
note that if given the opportunity and support she “would happily use archaeology as a component for programs [she] would use with all students, but especially the gifted ones.”

Administrators

Two questionnaires were received from elementary school principals. One is the principal of grades first through fifth in an independent school and the other is the principal of grades kindergarten through sixth in a public school system. Neither principal has had any personal or professional experience with archaeology but both have developed an interest in the subject matter from reading *National Geographic* or watching the *Discovery* channel.

When asked if there were any standards for archaeology within their state educational standards, the principal of the independent school indicated that they were not bound by the state standards and was unfamiliar with them, while the public school principal stated that she had not seen any archaeology standards but that her state was currently working on the social studies standards and may include them there. The public school principal felt that because of the No Child Left Behind Act, many teachers no longer had the latitude to incorporate supplemental programming, such as archaeology, into their classrooms. However, “if teachers have the right attitude they can teach the standards, Reading First programs and materials. It takes time and prep and caring.”

When asked if their school district currently teaches anthropology or archaeology as part of the curricula, the principal of the independent school said that they were not teaching either and that archaeology would not fit into the curriculum of the fourth grade
and that if they were to add it to the fifth grade that “something else would need to be dropped if we added any significant amount of archaeology” due to the amount of subject matter covered in this grade level. The principal of the public school stated that archaeology was only being taught within some of the grade levels in their reading sections. However, she was hopeful that teachers would incorporate archaeology into the fourth- and sixth-grade classrooms as she has seen it in the sixth-grade classrooms elsewhere and the information is impressive.

When asked about the typical annual budget for a fourth- or sixth-grade teacher for field trips and classroom materials, the independent school principal stated that each teacher had around $5,000 per school year to utilize while the principal of the public school noted that after-school money from taxes is utilized to go on field trips or, if none is available, the “students raise the money.” The students at the public school are required to bring their classroom supplies—colored pens, pencils, folders—and most of the $11,000 that was budgeted goes to printing, ink, etc.
FOCUS GROUP ANALYSIS

Of the six teachers participating in the focus group only one has had archaeological experience. In addition to taking his classroom to Old Pueblo Archaeology every year for the past twenty years, he has also participated in various workshops with a local CRM firm and assisted with survey work.

Due to 58 percent of the teachers responding to the focus group questionnaire citing reasons such as “doesn’t fit into the curriculum” or “never thought about how archaeology might correlate to the subject matter” as reasons for not utilizing archaeology within the classroom, this was one of the first topics to be discussed within the focus group. Two of the teachers agreed with the aforementioned statements. One even stated that many teachers, including herself, were not familiar enough with the subject matter and that it could be uncomfortable to present information in which they were not experts as the kids may ask questions. Two of the teachers who are actively utilizing archaeology within their classroom, including the one who has worked with local CRM firms in the past, thought that if teachers were to participate in training opportunities that they would be more likely to include discussion about archaeology within their classrooms.

Three of the teacher questionnaire respondents mentioned Project Archaeology as a training tool. However, when the focus group was asked about their participation in
Project Archaeology and whether they feel better prepared to teach archaeology as a result of this program, only one participant had heard of and participated in the program. He indicated that he felt better prepared to teach archaeology because of the tools he learned.

In addition to expanding on some of the data gained from the teacher questionnaires, I wanted to explore and expand on the topical areas that emerged in Cantrell’s focus group: the idea of ownership, applicability to State Academic Standards, and grassroots movements (Cantrell 2003).

Cantrell’s focus group believed that in order for the “tool” to be useful in a teacher’s classroom that teachers needed to be collaborated with during the development process (Cantrell 2003). Five of the six teachers within the focus group, from both the private and public schools, concurred with Cantrell’s focus group stating that “teacher teams who have designed their own projects and develop them over a few years have much more ownership and enthusiasm for the work.” While most of the focus group believed that those teachers who were invested in a topic were more likely to teach it and teach it well, one teacher stated that regardless of whether the teacher had a hand in the development of the materials, that “most would be willing to integrate the material/subject matter into their classroom as long as they were confident in the material/subject matter to be taught.”

As indicated by the principal within the independent school district in the survey questionnaire, private schools are not bound by the State Academic Standards and “enjoy a lot of freedom in choosing curricular approaches and formulating goals,” most of the discussion occurred with the teachers within the public school system. However, two of
the teachers within the private school mentioned that they “do keep [the standards] in mind when [they] do [their] curriculum” and that they “think that archaeology could fit into the curricula via the standards.”

Although standards-based education reform acts like Goals 2000 or the No Child Left Behind Act of 2001, which are based on the belief that setting high expectations and establishing measurable goals can improve individual outcomes in education, leave many teachers feeling as if they must teach to the state standards as these standards are what the students are held accountable for on their tests, both of the teachers within the public school questioned the length of time the questionnaire respondents had been teaching.

The public school teachers within the focus group felt that more seasoned teachers find a way to fit the subject matter to the standards. As noted by one teacher, the standards support the use of archaeology within the classroom but due to the performance objectives (PO) not having the word "archaeology" within them, they are not used; however, a seasoned teacher knows how to make the PO’s work in their favor. The following PO’s were cited as an example:

- Grade 4 Arizona Science Standard, Concept 1: Observations, Questions, and Hypotheses, PO 1. Differentiate inferences from observations.
- Grade 6 Arizona Social Studies Standard, Concept 2: Early Civilizations Pre 1500, PO 3. Describe the cultures of the Mogollon, Ancestral Puebloans (Anasazi), and Hohokam.
While the example given for the sixth grade may be a more obvious fit for archaeology, there are several within the Arizona State Academic Standards that are similar to those listed for the fourth grade.

Regardless of the number of years of teaching experience, the focus group agreed that it is the desire of the teacher and the amount of effort they want to expend that will ultimately decide whether certain subject matter is taught within the classroom. “If they are willing to spend the time making the connections” the implementation of archaeology into the elementary school classroom will work.

It is these connections as well as those that are made with teachers that will assist with the integration of archaeology into the elementary classroom. Like Cantrell’s group, the focus group felt that it “is always better to start at the grassroots level where the teacher’s enthusiasm comes through.” Regardless of whether they taught at a private or public school, four of the six teachers believed that a grassroots movement would be beneficial as there are “no administrative memos, directives, meetings, curriculum maps, or bureaucracy” and there was more opportunity to feed off of the passion because “teaching is always about the person standing in front of the kiddos.” One teacher noted that both “student and parent interest is greater when it’s a classroom or grade level project.” If the students, parents and teachers are excited about a project, that information is passed up to the principal who then passes it on to the superintendent.

Cantrell’s group suggested that teachers were more likely to incorporate subject matter into their classrooms if it was presented as a unit (Cantrell 2003). While two of the teachers claimed that there wasn’t enough “time in the day to add a unit to the current curriculum,” two of the teachers noted that any “packaging” that simplifies and
streamlines a classroom teacher’s effort [would be] greatly appreciated.” One stated that it would be easier for the teachers if there were “suggested lessons that used archaeology to teach certain topics, and then the teacher could pick and chose what would work in their classroom.” The other two teachers did not feel a “unit” would be useful because archaeology could be incorporated into the classroom in so many different ways. They did agree that a list of suggested activities or a “video of successful simulations in action” would be helpful.
CONCLUSION

With a nation of students who are uninterested in the basics of school, we must find new, innovative, ways to reach out to them. Archaeology has become one of the ways to draw students out of their technology-driven comas. “Archaeology projects have become an engaging way to teach children social studies, math, and science” (Sandlund 2000:8). Teaching math, social studies, and science under the guise of archaeology makes the subjects come alive again. No longer are students repeating their time tables or solving for x; they can use math to figure out how tall the post for a house would have been, or how many feet of dogbane it would have taken to make a basket. These are tangible examples of the sorts of techniques that are needed for the new generation of students who are used to high-tech video games.

Many students today don’t realize that they utilize the process of the scientific method on a daily basis. By looking at the process of archaeology, students walk step by step through the scientific method and see how it affects their daily lives. They develop a hypothesis, test it against the evidence, and revise the hypothesis. In addition to learning about science and math, students are also learning about other cultures. It is through cultural studies that students learn to “build a respect for and value diversity; realize that in spite of their cultural difference, human beings share similar human experiences and
concerns; understand the effects of technological change on human culture; [and] understand that human behavior is influenced by culture” (Dynneson 1998a:121).

Unfortunately, to date there have been few efforts in the U.S. targeted toward pre-collegiate student learning about archaeology. It is my hope that by assessing both the archaeological and educational communities’ needs that a better understanding of what needs to be done in the future to bridge the gap between archaeologists and educators will be gained. The discipline must remember that educators and students are not the only ones to benefit from efforts such as this. Archaeological study can promote “respect for the material remains of the past” in addition to contributing to early adolescents’ historical thinking (Levstik et al. 2003:2). The same thing can be said for younger students. If students begin to develop an appreciation and respect for material remains of the past, there is a better chance that sites around the country will be preserved. And this, after all, is one of the principles of archaeology as outlined by the Society for American Archaeology’s Executive Board in 1996 (Kintigh 1996).

Under the principle of public education and outreach, archaeologists are expected to “reach out to, and participate in, cooperative efforts with others interested in the archaeological record with the aim of improving the preservation, protection, and interpretation of the record” (Kintigh 1996, para. 6). Despite the acknowledgement by the SAA that archaeologists should participate in such endeavors, many remain leery. Questions of how archaeology should be presented, how much information should be divulged, and who is capable of presenting the information remain. Archaeologists are in a precarious position. As shown in Louisiana (Hawkins 1987) when information is shared, recipients have the ability to modify the information received for various
purposes resulting in the further perpetuation of misconceptions about the discipline and/or damage to archaeological sites. If archaeologists choose not to engage the public with their interest in the materials located within the landscape, sites are often damaged due to ignorance. So how do archaeologists enlist the public in their efforts while maintaining the confidentiality and integrity of the resources?

Throughout this study archaeologists and educators were asked about their thoughts on various methods in which to present archaeological material to students within the fourth- and sixth-grade classrooms. These methods were divided into excavation-oriented and non-excavation-oriented programming. The resistance of some educators to utilizing archaeology lessons within their classrooms was also explored.

*Excavation-oriented programming*

The data obtained from the questionnaires serves to support the widely held belief that archaeologists are less in favor of using excavation as a tool to teach archaeology than teachers. Although all archaeologists agreed that archaeology should be taught to fourth- and sixth-graders, only 14 percent of the respondents thought that the use of a simulated dig at school was an appropriate way to teach archaeology to students. And, only one archaeologist thought that a teacher-led dig on school grounds was appropriate for teaching elementary-aged students about archaeology. On the other hand, 33 percent of the teachers felt that conducting their own dig was the best way to teach students about archaeology, while 25 percent believed that the use of a simulated dig in the classroom would be the best means to teach the subject. Overall, 50 percent of the teachers felt the use of “hands-on” activities was necessary to teach archaeology.
It is this need by teachers to use hands-on activities like excavations to teach archaeology that causes most archaeologists concern. In fact, 58 percent% of the archaeologists felt it necessary to deemphasize the digging aspect with 48 percent in favor of teachers obtaining assistance from a professional archaeologist when conducting a simulated dig.

While archaeologists may not appreciate teachers like Lou Ellen Watts using the term “relics” (1985:6) to discuss archaeological finds in lieu of the proper terminology, or Stephanie Williamson (1991) for making the dig the focal point of her archaeology unit instead of emphasizing the other parts of the archaeological process, there are just as many programs put forth by museum professionals and archaeologists that have contributed to the misconceptions of archaeology as those developed by teachers.

During a teacher-training session, Nancy Hawkins, with the Division of Archaeology in Louisiana, passed out instructions for creating a simulated excavation. She later received reports of teachers modifying the activity “resulting in the Treasure Hunt and the Real Excavation” and a college student using the instructions to conduct an actual excavation (Hawkins 1997, para. 13). In an attempt to assist at a fair festival, Hawkins again provided the instructions for the simulated excavation and was later informed that “actual artifacts were used, and children were allowed to keep them” (Hawkins 1997, para. 17).

The exhibit at the Museum of Man is focused entirely on digging. Although I was unable to observe the program for elementary-aged students, I imagine that there is some sort of discussion and/or supervision included in the program. However, the balcony where both the dig is located and the program takes place is open during normal business
hours to visitors of the museum. Other than a display panel discussing the items located in the sand, there is nothing to aide the visitor in a more thorough understanding of the archaeological process or to assist them in making the connection between what they are uncovering and the people once associated with the items.

What is it about programs or exhibits like the one offered at the Museum of Man that offends those within the profession? The archaeologists that participated in this study were clear in their desire for the emphasis of such programs, professional or teacher-led, to be on the information about past cultures that is gained from an artifact, rather than on the artifact itself. One respondent noted that programs needed to convey the fact that there was once a person or people behind each and every artifact. “You can hold a spear point in your hand, but unless you understand how it was made, how it was used, and why it was found in a particular place, it’s essentially only a rock.” Almost all archaeologists that responded noted the need to discuss the archaeological process, with ethics, laws, and the importance of “strata, provenience, context and association” rounding out the discussion.

If the criteria for an acceptable program are as listed above, should mock excavation programs like the ones at Old Pueblo Archaeology Center or those developed and led by teachers like Neil Goldberg (Sandlund 2000) be used as models on which to base all excavation-oriented programming for elementary schools?

As noted previously, Old Pueblo offers a mock excavation program with two options. The two-hour program spends roughly an hour excavating with the remaining time working in the lab and discussing the students’ interpretations of the site, while the five-hour program involves both pre-site and post-site activities, including the writing of
a report, in addition to the excavation and lab work conducted on site. Although there is an emphasis on digging while students are at the Center, the five-hour program takes the students through the archaeological process, as they are required to develop research questions prior to arriving and to write a report when finished.

In his simulated dig, Neil Goldberg requires his students’ to excavate, map and log the artifacts, screen, and participate in lab activities such as washing and recording the items. Once field and lab work are completed, another month is spent analyzing the items discovered as well as writing a report. Unlike most simulated digs used in the schools, Goldberg’s runs about two months overall. He believes that in order for a program “to be meaningful, archaeology should not be a one-day activity to give kids an opportunity to play with dirt” (Sandlund 2000:11).

Each of the aforementioned programs covers the essential areas outlined by archaeologists in the questionnaire and are engaging and hands-on for the students, which is a requirement for the teachers. However, due to various constraints, financial or time, most teachers are unable to spend four or five hours participating in mock-excavation programs, let alone a month or two in their classroom devoted to archaeology. Are these teachers then relegated to finding a way to make it work even if they cannot cover everything archaeologists feel it necessary to cover? Should programs like the one offered at Old Pueblo continue to have a shorter program for teachers who are unable to participate in the 5-hour program? If so, what should be cut? Is it better to cut the program back, leaving some of the archaeological process on the chopping block, than to have the teachers develop their own digs?
From the responses provided in the questionnaires it is clear that both teachers and archaeologists have differing opinions as to how archaeology should be taught to fourth- and sixth-graders, what the benefits to teaching the subject matter are, and what the objectives should be. Archaeologists tend to view the benefits of archaeology being taught within the classroom as “improving the preservation, protection and interpretation of the archaeological record” (Kintigh 1996, para. 6) because it is commonly thought that students who “participate in archaeology lessons are more likely to want to preserve artifacts and sites than students who do not study the discipline” (Dynneson 1998b:101).

However, teachers “involved in archaeology have been more interested in engaging students in the process of scientific inquiry and developing the cognitive skills necessary for scholarly work” (Davis 2000:199). Mary Black (1998:11) lists four benefits of including archaeology within the classroom for teachers. The first states that “because archaeology draws upon both science and the humanities, it is a natural vehicle for interdisciplinary learning”: teachers can combine geography, history, anthropology, language arts, science, and art into one unit. The second benefit states that “since archaeology relies on the study of objects, it is a hands-on experience for children.” The third benefit to using archaeology within the classroom is that it “requires students to use higher-order thinking skills, such as analysis, synthesis, and evaluation in order to solve problems presented by artifacts.” The final benefit listed by Black discussed archaeology lesson plans and their ability “to provide opportunities for making and interpreting maps, charts, and graphs; measuring, sequencing, making inferences based on evidence; drawing conclusions; and writing.”
Non-excavation-oriented programming

Preferred by many archaeologists, non-excavation oriented activities have also been used within the classroom. Of the 12 teachers who responded to the teacher questionnaire 33 percent developed their own materials, 25 percent utilized online websites, 17 percent relied on the textbook and less than 8 percent utilized an archaeologist for a presentation, archaeological videos or a fieldtrip to a museum to teach archaeology. None of the respondents utilized any of the computer software available.

When asked what they look for in teaching materials, the respondents indicated that they look for material that is both engaging and relevant to the students’ lives; however, due to the rapid advances that are being made with video game software, it is becoming increasingly difficult to capture the students’ interest unless the material is presented in a similar format. While many academics doubt the educational value of “edutainment” products, Broadway (1997) believes it is possible to have fun and learn at the same time. Yet although websites that employ virtual reality are sure to grab students’ interest by allowing them to take a virtual walk through an ancient site or conduct an excavation, “they are labor intensive and use a lot of memory” (Younger 1998:263). However, memory is much cheaper now.

Few of the websites geared toward fourth or sixth grades I visited offered virtual reality and a majority offered nothing more than text. In fact, many of the websites I visited during the course of my research did not offer the stimulation deemed necessary by teachers to keep the students interest or, if the stimulation was offered, it was often
without the scope of the profession having been taken into consideration, which has been
deemed necessary by archaeologists.

In his study of various media being used for educational purposes, Perkins
(1997:1068) noted that the “learning materials on the World Wide Web are currently in a
state of rapid development and no particular pedagogic model predominates.” Ten years
later, this situation continues, and I think all would agree that much of the information on
the web is outdated. Some of the websites I visited during the course of my research
contained either incomplete or inaccurate information either because the individual who
posted the information was unfamiliar with the subject matter or the information had
become outdated. This can be problematic as most people, especially those unfamiliar
with archaeology, pick websites at random off of Google or Dogpile and are unaware as
to whether the source or the information contained therein is legitimate. Wikipedia is
quickly becoming the place to obtain information; however, while the information is
usually reliable, it is a public use site and can be modified by whomever as seen fit. In
addition to websites that may contain inaccurate information, there are numerous lesson
plans floating around that further the misconception that archaeology is about digging up
“cool” things.

A lot of emphasis within this study was placed on the programs being developed
by teachers with or without archaeologists, but what about the material that is already in
cyber-space? Although it was not at the heart of this study, it does warrant some
discussion since this is the way most individuals obtain their information today. With so
much out there already, how do we rid the web of the inaccurate information and ensure
that the information posted is current and accurate? How can one police the web when new material is posted hourly? Who should be responsible for monitoring the websites?

Computer software is another unregulated resource being utilized within the classroom. Although none of the teachers involved in the study indicated they used computer software to teach archaeology, there are several products currently on the market. Due to budget constraints many teachers are unable to purchase these products for use in their classrooms; however, for those teachers who are able to purchase and utilize the software, it is important to understand what grade-level the software targets. For example, Windig, SyGraf, and Virtual Dig are too complex for elementary students, while The Archaeological Detective mirrors a video game and is more relevant to the students’ lives.

Many of the lesson plans I encountered based themselves off of Lipetzky’s DIG2. This simulated learning experience curriculum requires students to create cultures and their artifacts and to bury them for the team to discover. The activity also “emphasizes creative representation of cultural universals through a mural, a Rosetta Stone, a central symbol, and a secret tomb, also referred to as a ‘cursed’ tomb” (Hawkins n.d., para. 4). While the activity introduces students to metric measurement, the grid system, site forms and mapping, it also mentions the “‘thrill of finding mysterious artifacts’ and fosters an image of archaeologists being primarily concerned with digging up symbolic and ceremonial artifacts” (Hawkins n.d., para. 5).
Implementing Archaeology in the Classroom

While 67 percent of the teachers indicated that the use of archaeology in their classroom would help them meet any standards and/or goals, 58 percent indicated that they did not incorporate archaeology into their classrooms due to there not being “enough time,” the subject was “not a part of [the] standard base curriculum,” because they had “never thought about how archaeology might correlate to [the] subject matter” or they felt that the support and/or opportunity to integrate the material was not present.

Although the move to national educational standards is problematic for archaeology, Davis (2000:196) believes that “it is possible to find space for archaeology within the content standards, [however, the] pressure on the educators to address the basics is overwhelming and often limits their willingness to experiment with the curriculum.” It is this pressure and unfamiliarity with the standards that keeps many of the younger teachers from finding ways to make the subject matter fit. Those teachers in the focus group that teach within the public school system believed that veteran teachers were the ones more likely to find a way to make the subject matter fit within the state standards as they are more familiar with how to make the connections and more willing to take chances.

Although there are connections to archaeology in both the fourth- and sixth-grade state standards for Arizona, only the sixth grade has a direct reference to archaeology. Due to the discipline’s multi-disciplinary approach it is possible to find connections in math, science, history, geography, and art. If the connections are there, why are so many teachers convinced that they are not? Is it because they are unfamiliar with how to make
the connections, because they are unfamiliar with the subject matter, or because they simply do not have the time and are too overwhelmed to even try?

One member of the focus group indicated that many teachers were not familiar enough with the subject matter and were uncomfortable presenting information in which they were not experts. When this was discussed among some members of the focus group, the group felt that training conducted by archaeologists would be beneficial. Because teachers are required to take continuing education credits, most felt this would be a way to engage teachers and an opportunity to teach them about the archaeological process as well as to show them how archaeology can be used within the classroom.

It is interesting to note that while teachers want to be trained by an archaeologist and shown how to utilize the subject matter within the classroom, most prefer to assist with the development of the materials to be used within their classroom. This preference echoes the sentiments expressed by Cantrell’s (2003) focus group, which felt that if the collaboration happened and teachers were invested in the topic, then they were more likely to teach it and teach it well.

For those teachers who indicated that they had never thought about how archaeology might fit into the curriculum, it is clear they need assistance in making the necessary connections. As indicated in both the answers within the questionnaires provided by teachers and the discussions with the focus group, packaging would be helpful in making this connection. *Archaeology for Educators*, a unit created by Maureen Malloy and Ann Kaupp of the Society for American Archaeology, contains several activities for use within the classroom. While Cantrell’s group indicated that they were more likely to incorporate material into their classrooms if it was presented as a unit, such
as the *Archaeology for Educators*, my focus group felt that “suggested lessons that used archaeology to teach certain topics” should be put together instead “[so] the teacher could pick and chose what would work in their classroom.” Malloy and Kaupp encourage teachers to complete the entire unit in sequential order so that the students are able to make the necessary connections. Some of the focus group participants felt that this need to use every lesson as a stepping stone to the next would require too much time, something that is a luxury in their classrooms. However, one teacher believed that regardless of how the material is packaged, any “‘packaging’ that simplifies and streamlines a classroom teacher’s effort is greatly appreciated.”

In addition to the state standards and material access, teachers listed support and opportunity as another deterrent for implementing archaeology into their classrooms. The two administrators who responded to the questionnaire were on both sides of the fence with this issue. The principal of the private school stated that archaeology would not fit within the fourth-grade curriculum and that while it would fit into the curriculum of the fifth-grade, “something else would need to be dropped” due to the amount of subject matter already covered in this grade level. The principal of the public school indicated that archaeology was covered via the text in some of the grade levels and was hopeful that teachers would incorporate more archaeology into their classrooms as she had seen it successfully done in sixth-grade classrooms elsewhere.

Although only two principals participated in the study, it is clear that there are differing opinions as to what should or could be implemented into the classroom. Not only is the interest or desire of the teacher necessary but also the interest and support of the principal. Because principals are further removed from the classroom and the
students, focusing on policy matters and things of the like, how can archaeologists make the connections for the principals so that they too can see the value of archaeology within the classroom? Without their support, the teachers are going to have a difficult time obtaining funds to assist with any programming, field trips, or training necessary to make this successful within their classrooms.

Like Cantrell’s group, the focus group felt that it “is always better to start at the grassroots level where the teacher’s enthusiasm comes through.” One focus group member even suggested getting the students and the parents involved, as the parents have the greatest amount of control within a school; if their children are happy, the parents are happy, and that is passed on to the principal who then relays the information to the superintendent. The key is to find a teacher who is extremely passionate about the subject and is willing to put in the time and effort to make the program successful.

**Recommendations**

All of the archaeologists in this study agreed that archaeology should be included within the elementary school curricula. However, not all agreed on the method in which it should be implemented. While some supported the use of mock excavations and/or digs on school grounds others preferred the use of movies, books or field trips. A majority of those indicated that they would prefer that a qualified archaeologist assist teachers wanting to use archaeology within their classroom.

Given the current education crisis in which teachers are being forced to teach in overcrowded classrooms with no monies for supplies or field trips and their only hope of obtaining additional funding for the following year hinging on the test scores of the
students, many teachers are unwilling to consider the addition of new material into the curriculum, especially when it is not required for the test.

Considering this and that archaeological communities want to be involved, I recommend that we work together both to centralize the information that already exists and to create lesson plans, activities, units, etc., that can be used by teachers within the classroom.

During the course of my research it became apparent that while there is an abundance of information out there, it is scattered and difficult to locate. If I were a teacher looking for resources I would be overwhelmed. And, as previously discussed, many of these materials are either outdated or contain inaccurate information. Where is a teacher who is unfamiliar with the subject matter to turn when he wants to utilize the information in the classroom? Most will click on the first five links that appear on Google not knowing if the information contained therein is accurate.

A website that centralizes the information would help alleviate the issue. And, if the website were tied to an organization, like the Archaeological Institute of America or Society for American Archaeology, or to the Advisory Council on Historic Preservation with each State Historic Preservation Office maintaining the state information, and if there were a committee to oversee the information posted, I believe teachers would have an easier time locating materials to use within their classrooms and archaeologists would be able to rest easier knowing that the information being used is accurate.

While both the Archaeological Institute of America and the Society for American Archaeology have websites that currently contain web pages dedicated to educators, the information contained therein is rather sparse. The website needs to be more
comprehensive. It needs to be the one stop for teachers when shopping for information on archaeology. In addition to containing information on archaeological resources (books, articles, computer software, websites, and lesson plans), there should be areas that teachers could access to find out who in their state has an archaeological program, what archaeologists in their state are willing to come their classrooms to do a presentation, what grant opportunities are available to assist with fieldtrips, and any continuing education opportunities or training, like Project Archaeology, they may be able to participate in.

I think it would behoove the agency that takes on this challenge to form a committee comprising both archaeologists and teachers. This committee would review and approve any information prior to its being posted on the website to ensure accuracy of content as well as applicability to national and state standards. The committee would also be responsible for developing the standards by which archaeological programs are to be accredited. Once the standards are established, those programs that wish to be listed on the website as approved facilities would be reviewed by the committee. This would be similar to the process that museums go through. Museums are accredited based on their compliance with industry standards. Once the program has been accredited, it would be listed on the website and teachers would know which programs in their state are deemed reliable by the archaeological community. This process should be repeated for websites, books, computer software, lesson plans, etc.

While the task may be daunting, a systematic review of all teaching materials available needs to occur. One of the main complaints I heard as an instructor for archaeology was that teachers were passing on misinformation. This is going to continue
until we get a handle on what is out there and let the teaching community know what is current, reliable information. We cannot expect non-archaeologists to know the difference. With both professions working together on a committee to realize this goal, teachers will have the ability to continue developing materials for the classroom, allowing them to have ownership and confidence in the subject matter to be taught, and archaeologists will be able to be involved in every aspect to ensure the information being taught is both accurate and complete.
APPENDIX A:

Questionnaires

(Archaeologists, Teachers, and Administrators)
Introducing the Past to the Future: A Continuation of the PALS project
Professional Questionnaire

1. There have been numerous reports of teachers conducting their own excavations, either simulated or on school grounds. What are your thoughts on this?

2. Have you ever led, or been involved in, an excavation for elementary aged students? If so, how was the program structured?

3. Do you think teachers should be teaching 4th-6th grade students about archaeology? Why or Why not?

4. If a teacher were to come to you to ask you what main points/objectives should be imparted to the class about archaeology, what would you say?

5. What do you believe to be the best means of teaching archaeology to elementary aged students? (check all that apply and provide examples if available)
   - Textbook/Books from the library
   - Archaeology software
   - Presentation by an archaeologist
   - Archaeology Websites
   - Field trip to participate in a dig
   - Simulated dig at school
   - Teacher led dig on school grounds
   - Other: ___________________
Introducing the Past to the Future: A Continuation of the PALS project

Educator Questionnaire

1. What grade do you teach? _____ 4th _____ 5th _____ 6th

2. During the 2007-2008 school year, what subject matter did you cover in your classroom?

3. What types of resources do you use to supplement your lessons in the classroom? (check all that apply)
   _____ Presenter
   _____ Textbook
   _____ Field Trip
   _____ Video
   _____ Hands-on activities
   _____ Computer Software
   _____ Internet
   _____ Other: _____________

4. Do you incorporate archaeology into your lesson plans/curricula? Why or why not?

5. If you do cover archaeology in your classroom, what materials/resources do you use? (check all that apply and provide examples if available)
   _____ Textbook
   _____ Archaeology software
   _____ Books from the library
   _____ Presentation by an archaeologist
   _____ Archaeology Websites
   _____ Field trip to an archaeology site
   _____ Simulated dig in classroom
   _____ Develop own materials
   _____ Field trip to a museum
   _____ Other: _____________
6. What do you think would be the best way to teach students in 4th-6th grades about archaeology?

7. What has been your personal or professional experience with archaeology?

8. Do you think the use of archaeology in your classroom would help you meet any standards/goals? If so, which ones?
Introducing the Past to the Future: A Continuation of the PALS project

Administrator Questionnaire

1. Within your state educational standards, are there any standards for archaeology? What are they?

2. Does your school district currently teach archaeology and/or anthropology as part of the curricula? Why or why not?

3. If a teacher within your school district were interested in incorporating archaeology into their 4th-6th grade classroom, would it be possible? Why or why not?

3. What is a typical annual budget for a 4th-6th grade teacher for field trips, classroom materials, etc.?

4. Do you think teachers have the latitude they once did to incorporate supplemental programming, such as archaeology, into their classrooms since the passing of the No Child Left Behind act? Why or why not?

5. Would you support a teacher within your school district who wanted to incorporate archaeology into their classroom?

6. What has been your own personal and/or professional experience with archaeology?
APPENDIX B:

Focus Group Questionnaire
Focus Group Questions

The purpose of the focus group is to provide an in-depth analysis of the answers to the questionnaires. Please feel free to supply as much information as you would like.

1. What is your personal/professional experience with archaeology?

2. What material do you cover in your classroom?

3. If you cover archaeology how do you handle the material (ie. is it a mere mention or in depth)? Where are you obtaining your sources for the material you are presenting?

4. If you do not cover archaeology in your classroom, why? Do you not see it fitting into the curricula? Are you unsure of the subject matter?

5. Do you think archaeology fits into the curricula via the standards?

6. What type of media works best for relaying information to your students? (hands-on, books, CDROMS, video, combination)

7. What type of medium do you think would work for relaying the concepts of archaeology to the students? What have you tried? Which was better or worse than the others?

8. Have you conducted or witnessed a teacher using a simulated dig? How was it conducted? What was the response of the students?

9. Have you participated in Project Archaeology? If so, do you think this has better prepared you to teach archaeology?

10. It has been suggested that teachers are more likely to integrate materials/subjects into their classrooms if they have ownership or a hand in the development of the materials. Do you think this is true? Why or why not?

11. It has also been suggested that teachers would be more likely to incorporate archaeology into their classrooms if it was presented as a unit. How important is this, in your opinion, for the classroom? Or, is it easier to read a manual/textbook and teach it yourself?

12. In the previous PALS project, it was suggested by teachers that a grassroots movement would be necessary to have anthropology/archaeology integrated into the classroom. The teachers felt that by working with a teacher they could then spread the word to other teachers who would then in turn spread it to others and the
administrators and that without teacher support and the push for the integration, it would go nowhere. What do you think? Is this approach realistic? Is this approach better than trying to approach administrators?
REFERENCES CITED

Ashmore, Pamela, and Timothy Bauman


Black, Mary


Broadway, Jan


Cantrell, William Dustin

Carr, Sarah


Carroll, Rives Fowlkes


Clark, Joella


Davis, M. Elaine

2000 Archaeology Education and the Political Landscape of American Schools.

*Antiquity* 74(83):194-204.

Dynneson, Thomas


Ellick, Carol


ERIC - Educational Resources Information Center


Gillespie, Noreen

2005 Young Archaeologists Dig up House’s Story. Electronic Document.
Hawkins, Nancy

n.d. To Dig or Not to Dig? Electronic Document.

1987 Classroom Archaeology: Including Archaeology in Existing Curricula, an
Example from Louisiana. Electronic Document.
http://www.cr.nps.gov/seac/protecting/html/4h-hawkins.htm, accessed on

1997 Precollegiate Excavations: Archaeologists Make the Difference. Electronic

Kintigh, Keith


Levstik, Linda, A. Gwynn Henderson, and Jennifer Schlarb

2003 Digging for Clues: An Archaeological Exploration of Historical Cognition.
Murphy, Harry

Old Pueblo Archaeology Center
2002 Center Information. Electronic Document.

Perkins, Phil
1997 University Archaeological Education, CD-ROMs and Digital Media.
Antiquity 71(274):1066-1070.

Sandlund, Chris
2000 Archaeology in the Classroom. Electronic Document.
http://www.digonsite.com/grownups/using.html

Selig, Ruth
Smith, KC


Smith, Shelley, Jeanne Moe, Kelly Letts, and Danielle Paterson


Watts, Lou Ellen


Williamson, Stephanie


Younger, John

Zimmerman, L.J.