Civil Archaeology: using the Research Processes of Anthropology as a Classroom for Critical Thinking

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CIVIL ARCHAEOLOGY:
USING THE RESEARCH PROCESSES OF ANTHROPOLOGY AS A
CLASSROOM FOR CRITICAL THINKING

A Thesis
Presented to
The Faculty of the Department of Anthropology
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In Partial Fulfillment
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Master of Arts

by
John Mullin
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This thesis is submitted in partial fulfillment of
the requirements for the degree of

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Approved, April 1998

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# TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................................................................................ iv

ABSTRACT .......................................................................................................................... v

INTRODUCTION ................................................................................................................... 2

CHAPTER I – Educational approaches to archaeology programs ........................................ 7

CHAPTER II – Educational approaches to civics and critical thinking ............................ 12

CHAPTER III – Linguistics as a model for historical processes ...................................... 24

CHAPTER IV – Civil archaeology and the acquisition of critical thinking ..................... 34

CHAPTER V – Project outline for Historic Speedwell .................................................... 41

CHAPTER VI – Educational programs at Historic Speedwell ....................................... 55

CHAPTER VII – Conclusions ......................................................................................... 61

BIBLIOGRAPHY ............................................................................................................... 67
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ABSTRACT

This paper is about the potential use of archaeology as an educational tool. Based on the growing interest in educational archaeology programs, it looks at some of the basic ways in which educational archaeology programs are put together. Many of these programs are targeted at school social studies curricula. The developmental needs of students at various stages and current school approaches to teaching civics suggest that a contextual approach to teaching and learning is the most effective. The difficulties involved in recovering the past are investigated through the use of linguistics. This leads to the use of anthropology, and archaeology more specifically, as a tool for teaching and learning, independent of the specific content being studied. The process of archaeology is turned into a contextual learning environment as is demonstrated through the example of a civil archaeology project for Historic Speedwell. The project incorporates three separate, but interdependent, educational programs: a grammar school field trip program, a high school internship program, and an adult field school program. Each program has specific educational goals based on the developmental needs of its participants. By combining the developmental needs of students with the goals of archaeology, civil archaeology attempts to replace the current focus on school-based archaeology programs, which combine archaeology and schools, with a contextual learning approach, which combines archaeology and education.
CIVIL ARCHAEOLOGY:

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INTRODUCTION

It was in eighth grade civics class that I learned the importance of citizen participation in a democratic system. The class was called Civics and Government and it dealt with the government of the United States and the role of its citizens. In a bad class, students just misbehaved, threw things around the room, and spent their time doing seatwork. But in a good class, good things happened. The students would be broken into small groups and each group would research and discuss a particular piece of a larger project. When we were studying the legal system, for instance, everyone was assigned a role, such as prosecutor, defendant, jury member, etc., and given basic background information, like jury duty notices, subpoenas, and legal statutes regarding the “crime” that had been “committed.” The crime was acted out in the library, away from the class, and then the legal system kicked into action. Over the course of the next week, charges were filed, witnesses subpoenaed, a jury selected, and a court date set. I got to be the judge. In the end, it turned out that the witness for the prosecution had perjured himself, and was, in fact, the murderer. Everyone came away from that class with a sense of legal experience, as if it had actually been a real court case. While students in the “bad” civics class had only done seatwork and still did not understand how a jury was selected, in the “good” class we were throwing around off-hand comments about the best ways of getting out of jury duty, or the big paycheck they give you if you go.

The most important thing I learned in that class was that all the students, whether they were labeled as good, bad, or in-between, learned more when they were given a sense of control over what they were learning. Students learned best when they actually
got to do something with the information they were learning. After about one month of

teaching civics, I had finally found that piece of knowledge that would help me get my
"bad" classes turned around.

Through the very act of teaching, I had learned how to teach. And my students,
through the act of researching and discussing, had learned how to learn. In all of my
classes (eighth grade civics, eighth grade literature, and seventh grade world cultures), I
put my students to work learning what I was teaching. I presented the students with the
information that they were supposed to learn and asked them why they needed to learn it.
I gave them examples of how laws, rules of grammar, or world cultures affected them
and demanded that they present their own examples to the class. In no time, “what do
you think about that” became the catch phrase. Everyone knew that Mr. Mullin was
going to say it every time he presented some “factual” piece of information, and often
they would beat me to it. More importantly, they learned that, although the question was
the same for everyone, everyone’s answers were different. Students were being invited
to bring themselves, their personalities, and their backgrounds into the subject of the class
and in response they began to discuss what they did or did not like about certain laws or
cultures and why. They were learning the information that they were required to, but,
from my perspective, that was secondary to the real learning taking place. Regardless of
what the content materials of the class were, the students were learning how to think.

While I was student teaching, I was often asked when I was going to put together
an archaeology lesson for my classes. Everything seemed to suggest that I should have,
or so I was told. After all, I was an archaeologist teaching a seventh grade world cultures
class. But I did not teach archaeology to my classes and the reason was simple: I did not
believe that it was applicable to their curriculum. Any part of archaeology that I could present to them would have been just that, a part of archaeology. I did not want to teach my class that archaeology could be equated with digging a hole in the schoolyard and then filling it up again. Instead, I saw the seventh grade classroom as a place to teach the broader field of anthropology and that is what I did. When archaeology was presented, it was not forced, but, rather, fell into place within the context of the materials being presented. I was actually teaching archaeology, but not the way everyone else wanted me to. I was using archaeology to fill out the students understanding of world cultures, but the dirt associated with archaeology was often noticeably lacking.

While looking for a job as a high school history teacher, I came across an opportunity to finally teach archaeology the way I wanted to. It was not actually a teaching job. Instead, it led me to Historic Speedwell, where the staff was interested in performing an archaeological program for school groups and adults. The opportunity to put school children into an archaeological site was, to me, the perfect way to teach archaeology, and more importantly, to teach students. Rather than just presenting archaeological information in a classroom, and trying desperately to keep the class focused on something other than the clock or the walls, an actual field program would provide a real context for the children to learn in. I began putting together an archaeological program, but the interest in archaeology at Historic Speedwell changed, with a new board of directors and new staff.

This paper is about the program that could have been. It is about the blend of archaeology and education that I had envisioned happening at Historic Speedwell. But more importantly, it is about the possibilities that emerge when one truly tries to teach
students how to learn by incorporating them into the research and performance of archaeology.

The chapters of this paper attempt to lead the reader from archaeology to education and then, through anthropology, to the archaeology (or education, depending on your perspective) that I imagine can happen. In the beginning, I start with the field of archaeology. Chapter I is about the development of educational archaeology programs. This chapter looks at the creation of educational archaeology programs as one of the current focuses of archaeologists and as the basis of the program proposed in this paper. Chapter II focuses on the needs of education. If archaeologists seek out educators to put into use the information gathered in the field, then we should understand what it is that education needs. By looking at educational psychology and several approaches to presenting civics curricula, I attempt to find out what the needs of education (i.e., the students) are. This chapter concludes with my own analysis of what could provide the best approach to civics education. Chapter III attempts to use anthropology, in place of critical theory, as a model for understanding the ways in which we use the past. Based on linguistics and developmental psychology, this chapter sets the stage for Chapter IV. It is in Chapter IV that I discuss how archaeology and education can be combined to form a process that, for the sake of simplicity, I refer to as civil archaeology. Different from critical archaeology, civil archaeology is a learning process where the content produced by archaeological research is of little importance compared to the process of producing that information. To further explain this idea Chapter V gives a chronological description of the civil archaeology project that was planned for Historic Speedwell. Chapter VI fills in the gaps left by Chapter V's chronological description by focusing on the three main
programs that make up the Historic Speedwell project. These programs are examined separately in order to better explain what they are intended to do and why. Finally, in Chapter VII, I look at civil archaeology as a new way of making education and archaeology work together. Through civil archaeology, I see the possibility of creating contextual learning experiences for students of all ages.

The civil archaeology project that I present here is not perfect and has never been performed, but I see in it great possibility. I see archaeologists, on contract and academic sites, gaining a better sense of what educational archaeology should be. And, just as importantly, I envision the focus on school-based archaeology programs giving way to the better judgement of teachers who realize that the classroom should focus on what it does best, as it can only do so much.

Gee, to think that I learned all of this in the seventh and eighth grade.
CHAPTER I

While interest in creating educational archaeology programs is steadily rising in the United States and elsewhere, this paper attempts to address one aspect of archaeology that these programs often only glance over, and sometimes seemingly ignore altogether. The aspect in question is archaeology's status as a sub-field of anthropology. As a sub-field of anthropology, archaeology attempts to broaden our knowledge of Humankind and its past. But all too often educational archaeology programs seem to lose sight of this fact somewhere between the archaeologist's (or teacher's) creation of the program and the student's interpretation of the program. What starts with the archaeologist as a good idea, ends up with the student as just another thing learned in school, or just another day spent outside of the school.

Critical theory and reflective approaches to archaeology have attempted to provide some insight into how archaeology can better educate the public. In archaeology, the philosophy of critical theory, as attributed to Jurgen Habermas and the Frankfurt School (Eley, 1994:299-300; Potter, 1994:29-30), has resulted in Critical Archaeology. In Critical Archaeology, the archaeologist and his/her motivations for performing archaeology are viewed in light of the way they affect the results of his/her research. The major effect of Critical Archaeology is this attempt to focus on reflective approaches to archaeology (Leone and Potter, 1988:18; Leone et al., 1987; Potter, 1994:28-30). Rather than focusing on the performance of positivist research methods, Critical Archaeology requires that we reflect on our own role in the process of recovering the past (Potter, 1994:37). Archaeologists like Mark Leone, Parker Potter, and Paul Shackel go even
further by propounding that we should use this self reflection as a means to help us decide what role we will play in our research (Leone and Potter, 1988:19-20; Potter, 1994:37). By carefully choosing our role in the process, we can end up with results that we are better able to use. Thus Leone and Potter not only reflect on their roles in the process of archaeology in Annapolis (Leone, 1988; Potter, 1994), but they use this self reflection to help themselves choose the roles that they will play based on the end results they wish to produce.

In this way, reflective approaches, like that in critical archaeology, have affected the programs of State Historic Preservation Officers and contract archaeologists, but only to the extent that their programs, more than the programs of any organizations before them, attempt to make use of the social relevance of archaeological research. Because of this focus on the social relevance of their work, archaeologists strive to use their archaeological findings in order to educate the public. For instance, historic preservation organizations, both public and private, organize “Archaeology Weeks” (and months) during which publicizing archaeological research becomes a statewide focus. These agencies create posters that attempt to promote archaeology, often including images of archaeological sites and artifacts with catchy slogans (for example, posters produced for Texas Archaeology Awareness Month and Virginia Archaeology Month). These pictorial images are often combined with informative descriptions of sites and artifacts (such as the posters produced for Alaska Archaeology Week, Wyoming Archaeology Week, and Maryland Archaeology Month). Additionally, the agencies that produce and support these week or month long programs, create educational programs for use in the schools, often incorporating these programs along with their posters. For example, for Kansas
Archeology Week (the first full week of April) The Kansas State Historical Society Archaeology Office, funded through the Cultural Resources Division of the Kansas Historical Society, produces an annual poster that combines archaeological images (on the poster's obverse) with worksheets for classroom use (on the poster's reverse). Other states produce similar posters with obverse images and reverse literature, targeting their literature at secondary schools and beyond (as do the posters produced for South Carolina Archaeology Week). Additionally, many universities and state agencies are beginning to make such educationally focused archaeological materials available over the Internet.

Archaeological programs for the schools do not just involve reproduced handouts created by state agencies. Increasingly, educational archaeology programs are being created by teachers and/or archaeologists specifically for use by schoolteachers in classrooms. Sometimes teachers create programs, for use in their own classrooms, without the aid of outside support. Often these teachers will relate archaeology to their classrooms through the creation of a simulated archaeological site in the schoolyard (Trimble, 1990:107). Archaeologists, in turn, produce their own interactive programs for use by teachers. Paul Schuster's in-school archaeological program attempts to create, with the advice of teachers, a school-centered approach to meeting the needs of classroom teachers by combining archaeological information from Saint Mary's City with the usual school subjects of math, language arts, science, and social studies (Schuster, 1996). The primary similarity between these types of programs is that they are all based on the implementation of archaeology, in classrooms, by teachers.

Another approach that is used in the presentation of archaeology to schoolchildren is the field trip. The field trip attempts to take children out of the classroom in order to
show them some aspect, or aspects, of archaeology. Whether the field trip involves going to the field, the lab, or even a museum, the primary focus of the field trip is on taking children out of the classroom to see what goes on in the “real” world. Many archaeological sites provide field trip opportunities to local schools. During the excavation of a cemetery site in Newark, New Jersey (a site that I was working on at the time) local schoolchildren were often invited to watch the excavations taking place. Similar field trips have been performed on countless numbers of sites, but it is in examples like that of Annapolis and Saint Mary’s City, where students are truly presented the archaeological site (Potter, 1994), that the educational and archaeological potential of field trips is best represented.

By combining field trips with classroom programs, archaeologists attempt to make the most productive use of a limited amount of time. Pre-program classroom lessons are distributed to schools that will be sending students on the field trip. These lessons are presented to the students by their own classroom teachers. Having learned the appropriate background information, students are thus prepared to gain more from the actual field trip than they could otherwise have learned.

One such program, of particular interest to this paper, is a program called Archaeology Days, run by the University of South Dakota (Zimmerman et al., No Date). Archaeology Days was a co-curricular field trip program in which students (sixth graders) were presented programs that focused on how the students’ school subjects were involved in the various methods of archaeology in the context of an actual archaeological site. Before the field trip portion of the program, teachers attended sessions in which they were trained and given the materials needed to present pre-program classroom
readings and lessons. After the teachers had presented the pre-program lessons to their classes, they attended the field trip. On the field trip, the students worked with actual artifacts in the site laboratory and, most notably, were shown how to excavate, and then invited to help excavate, the site.

The results of Archaeology Days suggest that a contextual approach to educating the public about archaeology can produce great results. However, the tendency of archaeologists to create their programs for traditional educational purposes (i.e., school-based programs) suggests that, before targeting these educational programs at the schools, more investigation into the processes involved in education needs to be done.
CHAPTER II

Many archaeological programs that attempt to involve the public have some amount of focus on education and/or critical thinking. Furthermore, most of these programs attempt to find some kind of niche in the public schools in which archaeology can act as a tool to stimulate critical thinking in students. While such programs are “advertised” for their abilities to incorporate a myriad of educational subjects into one, the truth is, however, that most programs aimed at the public schools are, to some extent, attempts at gaining public support for archaeological research. Before attempting to reconcile the use of archaeology and the teaching of critical thinking, it is important to first look at some educational views on the teaching of critical thinking.

Developmental psychology provides educators with insight into theoretical stages of development and learning in individuals. There are several basic types of theory in developmental psychology (Pettit, 1992) but the major focus of educational theory comes from cognitive-developmental theory. The primary theorist in cognitive-developmental theory is Jean Piaget (Piaget, 1980; Pettit, 1992:12-16). Piaget’s theory of genetic epistemology (Furth and Wachs, 1975:11-30; Piaget, 1980; Pettit, 1992:12-13) is based on the idea that an organism has certain innate characteristics that produce certain types of development in that organism regardless of environment. Piaget applies his biological theory to suggest that cognitive development is an innate process (Piaget, 1980). Individuals have certain schemata (cognitive structures) which they use to understand their world. As an individual develops, these schemata come into conflict with environmental experiences. The disequilibrium (Piaget, 1980:101) that is created by
having a schema that does not agree with environmental conditions is the grounds for an individual’s development of a new schema (Piaget, 1980:96-99).

Piaget sees the overall development of an individual occurring in stages. His four stages of development are the sensorimotor period, the pre-operational period, the concrete operations stage, and the formal operations stage (Pettit, 1992:13-14). In the sensorimotor period (infancy), the child is embedded in his/her senses. There exists only a “self” (i.e., there is no “other”) and all experiences of the self are both non-symbolic and physical (since there is no “other” to communicate with symbolically). The disequilibrium which leads to the pre-operational period occurs when the child begins to physically learn about the existence of “others.” In the pre-operational period (roughly ages 2-7), the child begins to identify others by their physical characteristics and to use symbols. Here disequilibrium arrives when the child starts to identify disparate internal characteristics in others (i.e., perspectives, in others, that differ from the child’s own perspective). The child can then move into the concrete operations stage. In this stage, the child begins to understand the disparate internal characteristics of physical things and develops increased symbolic communication. At this stage, children begin to see concepts such as rules on the same level as physical entities (i.e., the rules, like people and objects, have objective, internal characteristics). The child’s disequilibrium in this stage is caused by the growing awareness of non-physical, abstract things and the symbolic nature of many things which have, until now, been understood literally. The child, now adolescent, is now in the formal operations stage, where s/he is growing aware of abstract ideas and the relative nature of all things. It is in this final stage that true critical thinking is possible.
To Piaget's early developmental stages Lawrence Kohlberg (1981), adds his own moral stages. According to Kohlberg, once an individual has developed the skills of formal operations s/he is not at the culmination of development, as Piaget's stages suggest, but is, instead, ready to develop further, gaining moral awareness (Pettit, 1992:15). By moral awareness, Kohlberg means the ability to seek out social rewards. The stages of moral awareness thus involve moving from formal operations to a self-knowledge stage in which the individual comes to model his/her actions on the actions of others in the hope of receiving rewards similar to those that the model receives (Pettit, 1992:15). Ultimately, growing moral awareness allows the individual to move from this moral version of concrete operations to a moral version of formal operations, in which the individual creates his/her own moral responses to situations, instead of depending on having others to model his/her actions after.

In light of the various abilities which children are capable of in each of the developmental stages above, we come to the question of how to apply this knowledge to education. Most often, this is done in the schools and what follows is a look at several approaches to the teaching of civics and social studies and the application of developmental psychology to classrooms.

As schools increasingly focus on the ability of students to think critically, they also find themselves becoming increasingly fanatical in the sense described by George Santayana when he said "A fanatic is someone who redoubles his effort when he has lost sight of his goal." While the original impetus to promote critical thinking in the schools comes from the inability of students to put to use the information being taught in the schools (Finn et al., 1985:3; Hirsch, 1987:4-5), the schools have now taken the idea of
critical thinking itself and simply made it another school topic (Damerrell, 1985:252). Instead of finding new ways to incorporate critical thinking into the classroom, or, as Piaget’s theory would suggest (Furth and Wachs, 1975:29-30), to incorporate the classroom into critical thinking, the schools instead choose to make critical thinking a subject unto itself, an option Piaget’s theory opposes (Piaget, 1980:13-14). Rather than looking at what might be wrong with the way the schools are currently run, Santayana’s fanatics simply look at the results of tests and surveys and conclude that if critical thinking skills are lacking in students then these skills must be taught with more vigor in the schools (Finn et al., 1985; Hirsch, 1987; Ravitch and Finn, 1987).

The fanatical approach cannot succeed in teaching students to think critically because of one major premise which we find at the core of Piaget’s theory: while it is possible to learn how to think, it is not possible to teach someone how to think (Furth and Wachs, 1975:12-13). This is not to say, however, that all attempts to teach critical thinking are in vain. Instead, this premise suggests that it is necessary to incorporate critical thinking into the everyday lives of students.

If one accepts that thinking, especially critical thinking, cannot simply be taught, then it follows that critical thinking must be learned by some other method than formal education. Piaget’s theory suggests that critical thinking is essentially the result of acquiring and putting to use a body of content information within a particular context (Furth and Wachs, 1975:15-19). Many school programs, however, attempt to teach critical thinking outside of any real context, and some programs have even tried to present it with neither content nor context (Langar and Chiszar, 1993:970). Thus if the schools fail to teach critical thinking, this failure can, in large part, be blamed on their
attempts to treat thinking as if it truly existed as a subject, despite the evidence of developmental psychology.

The problem lies in the difference between the objectives of developmental psychology and the agendas of those who select the educational curricula of the schools. In looking at the creation of educational curricula one is almost forced to accept that it is the nature of the citizens of the United States to impress on themselves and others that in order to be free they must be educated in the ways of a free society (Giroux, 1991:22-23; Parker, 1991:v-vi; Stanley, 1992:xi). Because of this nature, schools attempt to teach their children such subjects as history, civics, and whatever other social studies, and sciences for that matter, that might help a child develop into the role of citizen (Parker, 1991:1-8). However, it is often hard to tell which social studies curricula are best suited to teach these types of topics. For instance, should a citizen be told what is right and what is wrong, or should s/he be taught to question why things are classified as right or wrong. To begin this discussion I will look at four approaches to the teaching of social studies that have just these kinds of differing emphases. By focusing on selected works of Diane Ravitch and Chester Finn (Ravitch and Finn, 1987; Finn et al., 1985), Howard Zinn (1970), Maurice Hunt and Lawrence Metcalf (Hunt and Metcalf, 1968), and Fred Newmann (1975, 1992; Newmann et al., 1977), I will attempt to illustrate the basic range of methods used in teaching civics and citizenship.

Diane Ravitch and Chester Finn (Ravitch and Finn, 1987; Finn et al., 1985), present to us an approach which shows a great concern for how much content a student is learning. Their approach to the social studies is based predominately on the scores which students receive on tests of content in history and geography. Because students are not
performing well on such tests, Ravitch and Finn feel that the quality of education has somehow decreased since their own schooldays when apparently, if we are to agree with their comments and asides, everything of importance was once taught (Ravitch and Finn, 1987:201-202). While they believe that the real emphasis of education should be on the development of critical thinking, they stress that before critical thinking can be “learned” a student must have a strong content centered education (Ravitch and Finn, 1987:203). Thus, by being taught content specific history, students will amass the data that they will need in order to become critical thinkers on their own. And, by testing students on the content information that has been presented to them, we can be sure that they are really gaining this knowledge. Among the recommendations that Ravitch and Finn (1987:205-214) suggest will help students to gain this database of information are: an emphasis on history, in context and time; more history at all grade levels; more world history; more geography in history classes; and the use of narrative history, especially that focusing on the lives of individuals. While they do not rule out the need for contextual knowledge, their emphasis on context serves only to relate the various pieces of information that they suggest students should be taught. Their use of context does not mean the use of this information in either historic or modern contexts, as is done is some of the other approaches.

Why should students be subjected to such vast amounts of historical knowledge? Civics and citizenship are partly to blame. By teaching students about history and geography, they are imparted with the knowledge of specific events and places. This type of knowledge and learning gives students a value-laden hidden curriculum which enforces upon them what society deems to be right or wrong (Hirsch, 1987:12; Giroux,
People, places, and events are not chosen randomly; they are, rather, chosen for specific reasons, and often in order to train students about their responsibilities as citizens (Plato, 1980; Stanley, 1992). In fact, in the works of E.D. Hirsch (1987, 1990) we find listings of exactly "What every American needs to know" (Hirsch, 1987). Hirsch's approach, which is based on the creation of a myriad of social "dictionaries" (Hirsch, 1985:53, 63-64, 1987, 1990), is an extreme example of the kind of hidden curriculum approach I use Ravitch and Finn to represent.

In Howard Zinn's book *The Politics of History* (Zinn, 1970), we see an historian's approach to history that focuses on the most radical parts of history. The purpose of such a focus is to gain new perspectives on the past, which can help one to better understand the present. Zinn's approach emphasizes the fact that one cannot use the specifics of history to predict anything, yet, if one studies the radical history, as opposed to the popular history, one becomes increasingly aware of the recurring problems in history and how some topics become omitted from the popular history (Zinn, 1970:47-55). Thus Zinn's proposal for historians to study and write history to include the side of the victim (Zinn, 1970:36-41) can be incorporated into education by teaching not just the doctrines which the United States claims to be founded on, but the realities which our present society is actually based on. The use of Zinn's approach within the Ravitch and Finn approach or within the approaches below acts to add either to the content being learned or to the content being criticized. Thus, studying the history of the victim can promote both the previously mentioned content and context emphasis of Ravitch and Finn or can be used to support the critical thinking approach of Hunt and Metcalf, mentioned below.
I mention Zinn because his work suggests that it is the misuse of history, by people like Hirsch, and not the use of history which makes history a difficult tool to use in the teaching of civics and citizenship (Zinn, 1970:45-46). Rather than seeing history as the sum of the events that compose it, Zinn sees history as the motivations that cause those events (Zinn, 1970:51-55). By using this kind of history in schools, teachers would be able to expose students to the processes by which events were created instead of just how, when, and where these events happened. The result is that one can teach students what it means to be a citizen by illustrating how society changes and, in turn, how citizens can, and do, react to these changes and propound new social changes.

Unlike Ravitch and Finn, Maurice Hunt and Lawrence Metcalf do not expect that students will simply begin thinking critically after being exposed to vast amounts of content specific history. Instead, Hunt and Metcalf feel that critical thinking and reflective thought need to be the subject of social studies (Hunt and Metcalf, 1968:65). By focusing on the students' abilities to think critically, the teacher is better able to challenge the students to do so. In the examples which they give in their book Teaching High School Social Studies (Hunt and Metcalf, 1968) they show that it is not just possible, but highly likely that most teachers who focus on content do not foster critical thinking (Hunt and Metcalf, 1968:71). They suggest, however, that it is not because the content matter will not provoke critical thinking, but, rather, that the teacher who emphasizes content will produce students who know content, and the teacher who emphasizes critical thinking will produce students who can think critically (Hunt and Metcalf, 1968:69-72). They suggest that the most drastic difference between the two types of teachers is that the former teaches the student content while the latter asks the
student to believe or disbelieve the content being taught (Hunt and Metcalf, 1968:72-77). Thus, in this approach, it is when a student is asked to support his/her beliefs, in light of the subject matter that has been presented, that the opportunity for critical thinking appears.

In Hunt and Metcalf, we see an approach to civics and citizenship that treats the educating of citizens in a more contextual manner. Instead of teaching civics through a kind of hidden agenda (i.e., under the guise of history, or some other subject), they feel that schools should be straightforward about how the students learn specific facts, so that students can become critical thinkers. In this way, students can learn to participate more fully in society as citizens.

In Fred Newmann’s approach, the social studies are used as a means for promoting active student participation in civic affairs (Newmann, 1975, 1992; Newmann et al., 1977). Instead of requiring students to learn about the mere content of history, and the other social studies, Newmann suggests that they learn such subjects in the context of the present. By focusing on the development of environmental competence (Newmann, 1975:16), a term he uses to describe a student’s ability to deal with the social and physical environment around him/herself, Newmann goes beyond the previous authors’ attempts at promoting content and/or critical thinking to endorse the need for students to become actively involved in their communities (Newmann, 1975:17). Students would have the option of taking Newmann’s civic action class in either the 11th or 12th grade (Newmann et al., 1977). The class would consist of six basic parts: 1) a course dealing with political-legal processes; 2) a course in communications; 3) a community service internship; 4) a citizen action project; 5) a literature course focusing on civic action; and
6) a course dealing with communications in various media. The various parts of the course would be team-taught by an English teacher and a social studies teacher.

By allowing students to become involved in civic topics of interest to them, the structure of the class allows students to take an active part in deciding what content matter the course will cover. While Newmann maintains that the teachers are ultimately responsible for assuring that the course covers applicable subject matter, the students are given a great deal of control over what they are taught in comparison to regular courses.

The four basic approaches above essentially range between the subject specific approach of Ravitch and Finn to the social context-specific approach of Newmann. While Ravitch and Finn feel that it is the teacher’s job to provide content to students, the other authors stress less content and more critical thinking until we reach Newmann’s emphasis on critical thinking in contemporary contexts. This ordering is not to suggest that any one of the authors is against either critical thinking or subject-matter content approaches but that the Ravitch and Finn end of the spectrum supports teaching content over critical thinking while Newmann’s side supports active critical thinking (within contemporary contexts) over content.

Because Ravitch and Finn approach the teaching of social studies almost entirely through the subjects of history and geography (Ravitch and Finn, 1987:205-214), what they are really advocating seems to be little more than a subject that can be taught and, consequently, evaluated “objectively.” Names, dates, and places are the emphasis of their recommendations, and though it is certainly important to have some knowledge of historical content, without including some higher goal than just teaching “facts” their recommendations merely yield easy to evaluate classroom programs.
If civics and citizenship are truly the purpose behind the teaching of social studies, then developmental psychology would suggest that the best approach to social education is a conglomeration of all four of the methods above. We can take Ravitch and Finn’s recommendation that history (or more broadly, the social studies) be taught every year through secondary school (Ravitch and Finn, 1987:206-207) and encourage the content and historical context specific approach at the early grades. From Zinn we get a broader idea of how radical history can be used to promote critical thinking rather than just indoctrination (Zinn, 1970:42-44). This radical history can round out the historical content of our classrooms, with increasing amounts of this type of history being included each year of school. Hunt and Metcalf’s conviction that critical thinking can be incorporated into the study of subject content is of great importance to this comprehensive approach. Since they suggest that it is possible to teach critical thinking by allowing students to try to reason out why things are (or were) the way they are (or were) (Hunt and Metcalf, 1968:69-72), their approach helps to combine both of the previous approaches along with critical thinking. Finally, in Newmann’s civic action program we see a culminating project that brings together all of the knowledge gained from the combined use of the previous three methods. By incorporating these methods and gradually advancing from a more content laden primary school program toward a critical thinking emphasis at the end of secondary school, the overall school program can be better brought into synch with the patterns of psychological growth described by Piaget (Pettit, 1992:13-14). Furthermore, if it is the moral development propounded by Lawrence Kohlberg (Pettit, 1992:15), which the school wishes to propagate, then such a combination of the previously mentioned four approaches would provide students with
the best advantages toward such growth. Ultimately, the project presented in this paper, through the use of such an educational framework, attempts to show that it is possible to successfully combine the developmental and educational needs of individual students with the professional needs of archaeologists and educators.
CHAPTER III

The theoretical basis of the educational archaeology project proposed by this paper is found in the combination of developmental psychology and linguistics. While developmental psychology forms the foundation of the project's educational approach, linguistics is used to support the project's anthropological approach. In the previous chapter, I have attempted to show how developmental psychology interprets the educational needs of students. It is likewise possible to use linguistics to interpret the needs (e.g., historical, cultural, etc.) of archaeology. By relating developmental psychology to linguistics it is possible to see how linguistics can play the same role in archaeology that developmental psychology plays in education. It is the similarities shared by these two theoretical approaches (developmental psychology and linguistics) that help to bring together archaeology and education to form my educational archaeology project.

Piaget warns us that, in children, language is produced by thought and not vice versa (Furth and Wachs, 1975:13). If we are to make use of this innate process then we must try to understand the epistemology of how and when language moves from an act secondary to thinking to an act that presupposes thought. Anthropological linguistics, with its similar focus on innate schemata and environment interaction, can help us to put Piaget’s theory into perspective and, ultimately, into practical application. In anthropology, the sub-field of linguistics concerns itself with the ways in which people use (Heath, 1989; Lave, 1988; Reddy, 1979), and have used (Boas, No Date; Whorf, 1956), language to communicate with each other. While all aspects of human life are the
subjects of anthropology, language is of special concern in discussing human culture and society. All humans make use of language, and thus their local languages form, and are in turn formed by, their societies. Because communication is a very basic aspect of human culture, it is easy to overlook the role it plays in defining a culture.

According to the Sapir-Whorf hypothesis, members of a culture are so embedded in their language that their perceptions of the world around them are often defined by the language that they describe that world in (Whorf, 1956:156-159). It is here that we can see how Piaget's theory fits into linguistics. Piaget's theory asserts that the development of intelligence is innate until roughly the age of 12, at which time symbolic communication and learning begin to take precedence over physical and physiological forms of communication and learning (Pettit, 1992:13). According to Piaget, it is not until at least around age 12 that symbolic, abstract thinking becomes possible (Furth and Wachs, 1975:18). Piaget's conclusion that symbolic communication is the prerequisite foundation for critical thinking essentially paraphrases the Sapir-Whorf hypothesis's conclusion that one's language acts to define one's experiences.

The Sapir-Whorf hypothesis finds its proof in the languages of Native American societies (Boas, No Date; Whorf, 1956), but it is also applicable to modern cultures within the United States. Taking this one step further, the combination of Piaget's theory and the Sapir-Whorf hypothesis has likewise been proven by research focused on minority cultures within the United States (Heath, 1989; Lave, 1988; Villegas, 1992). These studies, through their views of childhood development and learning in African American and Native American communities, demonstrate that the environmental based
development and learning of young children, which is assumed by Piaget, does indeed give way to the language based development and learning of adults.

Before addressing the implications of linguistics and Piaget on my own particular educational program, I would like first to examine, through linguistic metaphor, the processes through which we recreate, and present, the past. I choose to do so through linguistics, rather than the usual philosophy based critical theory, because my approach is through the field of anthropology. Since the study of language is a basic aspect of anthropology, I use linguistics, as it pertains to the study of thought and its transmittal and receipt, to support my approach to critical thinking and archaeological research.

Because my focus is on the development of critical thinking through the act of performing research, I feel that linguistics provides better support for my critical thinking approach than critical theory can. While I attempt to produce critical thinking and an environment for it to occur in, critical theory attempts to produce critical approaches to the creation of research results.

Although the discussion of particular philosophical schools of thought, and the evolution of critical theory, may be germane to the application of critical archaeology (Potter, 1994:27-39), critical theory is not, in and of itself, necessary for the application of my critical thinking approach. Because critical theory itself, if viewed critically, can be identified as a development based on specific environmental conditions [in the case of the Frankfurt School, the environment being the Christian Democratic West Germany (Eley, 1994:299-300)], I find through the very nature of linguistics and languages themselves, that a linguistic approach already takes into account both the focus of critical theory (i.e., the effect of the researcher on the research) and the focus of developmental
psychology (i.e., the effect of the environment on the learner) without bringing with it the unnecessary baggage of a particular social need. In introducing a linguistic approach to understanding and promoting critical thinking, I begin here by presenting a metaphor for linguistics and applying it to the use of material culture studies.

"You'll find better ideas than that in the library", [original emphasis] is derived from the conduit metaphor by a chain of metonymies. That is, we think of the ideas as existing in the words, which are clearly there on the pages. So the ideas are "there on the pages" by metonymy. ... The effect of this...is to suggest that the libraries, with their books, and tapes, and films, and photographs, are the real repositories of our culture. And if this is true, then naturally we of the modern period are preserving our cultural heritage better than any other age, because we have more books, films, tapes, and so on, stored in more and bigger libraries.

Suppose now that we drop the conduit metaphor.... From this point of view, there are of course no ideas in the words, and therefore none in any books, nor on any tapes or records. There are no ideas whatsoever in any libraries. All that is stored in any of these places are odd little patterns of marks or bumps or magnetized particles capable of creating odd patterns of noise. Now, if a human being comes along who is capable of using these marks or sounds as instructions, then this human being may assemble within his head some patterns of thought or feeling or perception which resemble those of intelligent humans no longer living. But this is a difficult task, for these ones no longer living saw a different world from ours, and used slightly different language instructions. Thus, if this human who enters the library has not been schooled in the art of language, so that he is deft and precise and thorough in applying instructions, and if he does not have a rather full and flexible repertoire of thoughts and feelings to draw from, then it is not likely that he will reconstruct in his head anything that deserves to be called 'his cultural heritage'.” (Reddy 1979:309)

In our own Standard American English (SAE) speaking culture, we are embedded in a linguistic paradigm which Michael Reddy calls the conduit metaphor (Reddy 1979). The conduit metaphor is a metaphorical transfer of knowledge in which thoughts are moved from one person's mind to another's via the conduit of language. Essentially developed by Noam Chomsky (1980), the conduit metaphor is a staple tool of linguistics. A speaker or writer takes his/her own thoughts and puts them into packages (i.e., words)
in order to transfer these thoughts to a listener or reader. The listener or reader then interprets the contents of these packages. Thus, the conduit metaphor assumes that all words are filled with certain meanings and that these meanings are easily transferred between two people who understand the language. Without shared perceptions of these words, however, there is a failure in communication. The failure of the conduit metaphor demonstrates that while you may not be able to communicate your thoughts, as you have experienced them, to another person, you can use language to induce in another person similar thoughts. The similarity between the thoughts which you invoke in your words and the thoughts which are evoked in another person by those same words is entirely dependent on the amount of shared experiences, or culture, you and the other have.

The conduit metaphor can be applied outside of linguistics. The most obvious implication of this metaphor concerns the way we begin to look at others with different linguistic and/or cultural backgrounds. If the communication of thoughts between two people in SAE is often imprecise because of its need for cultural commonalties, then the difficulty we encounter when that communication takes the form of a reader reading the works of a dead writer becomes more easily understood. If the writer had written his work in the early part of this century and the reader were reading it in the end of this century it is likely that the cultural differences between the two (reader and writer) would be noticeable. While the differences might not be large enough to leave the reader confused as to the meaning of the writer, it would probably be enough to give the reader a different understanding of what was meant than that which the writer had tried to "put into words."
If we lengthen the amount of time between the writing and the reading, then we have, conceivably, decreased the amount of shared cultural commonalities between the writer and the reader. After 200 or 300 years, despite a “shared” language, the thoughts a writer invokes in a certain word are not necessarily going to be discovered, intact, by the reader. The context in which the writer writes is too different (too far removed) from the context in which the reader reads for the reader to assume s/he can simply “read” (by which I mean discover the originally implied thoughts “in” the words) what the writer has written. The reader must understand the context in which something was written in order to best understand what s/he is reading.

The difficulties that the conduit metaphor implies in the interpretation of past cultures is, perhaps, most easily seen through archaeology. In attempting to understand what is represented by an artifact we begin with the conduit metaphor’s view that the artifact has a meaning which the object is capable of communicating all by itself. This assumption leads to the kinds of positivist approaches we have seen in New Archaeology. We cannot, however, always understand the meaning of artifacts simply by examining them (Binford, 1983:96). To truly understand what the artifact meant we need to examine it in context. Only by seeking to put ourselves into the context of the object can we go beyond our own interpretations of it and try to come as close as possible to “discovering” its original meaning (Binford, 1983:98-100).

This brings us to the most basic implication of the conduit metaphor, which is that we cannot assume that words, either spoken or written, (or any other artifacts for that matter) act to transfer thoughts independently of a cultural context. In anthropology, this suggests that we must strive to view all aspects of all cultures in context. If we do not try
to gain the perspective of a member of a culture, by embedding ourselves in his/her culture, than we cannot truly understand that culture. This holds true in our attempts to understand past cultures. After all, if it were possible to understand these past cultures simply by "reading" their artifacts, then there would be no need for specialists to do so (Reddy 1979:310).

It is this implicit need of our linguistics, and of all of our symbolic communication, that demands we gain the kinds of contextual knowledge of the "other" that we attempt to reproduce through living history. In living history museums we step beyond the contextual limits of written history to create a place where we can physically go to "see" and "be apart of" the past. We go beyond merely engaging our minds in the linguistic search for the past that we can otherwise encounter through the use of books (i.e., the words of others) alone. Living history takes multiple aspects of a particular culture and recreates that culture in a manner in which it can be experienced all around us. We attempt to embed ourselves in a defunct culture, and in doing so we allow ourselves to take what we have of the past (written accounts and histories, as well as other material culture) and seek the meanings of these things by recreating their no longer existing context.

We do not, however, reproduce all aspects of the past culture. For example, in our living history museum what is always clean today may not have been clean in its own time. Whether we walk the recreated streets looking at the furniture in the houses or the tools in the shops or the very streets themselves, we are likely to find these things cleaner than they should be (i.e., cleaner than they were). In its own time the furniture may have been used more and polished less, this goes likewise for the tools, and the streets could
very well be “better” (perhaps cleaner, flatter, smoother, etc.) than they have ever been before. This is due to the fact that in interpreting the past we decide which aspects of the past can and cannot (should and should not) be reproduced. We decide whether we will take a house or shop and fill it with museum pieces (material culture) which we will present to the public, or whether we will take that same place and fill it with reproductions of the cultural activities which once took place there. The basic difference between these two situations being that the human characters we put into these buildings can either tell us about the artifacts on our own level or they can simply exist as cultural characters who’s interactions with the artifacts around themselves act to interpret those objects (and, in turn, the characters themselves).

Because we, in the present, create these cultural pasts from our own experiences, in embedding ourselves too deeply in the living history that we ourselves have created we risk losing sight of our embeddedness in the present. When one walks the recreated streets of a living history museum, it is possible to forget that those streets are, at best, merely three-dimensional reproductions of formerly existing things. It is easy to lose sight of the fact that this three-dimensional model was developed to create the illusion of the (as of yet) unreproducible dimension of time. Thus, it is possible to enter this reproduction of the past and mistakenly see the physical deficiencies of our reproductions as contextually significant aspects of the past rather than as contextual anomalies of the present. In our living history, the conduit metaphor requires that all objects should be assumed to be a part of the past that is being represented, but, as we have seen, we cannot always make such assumptions.
In recreating a living cultural context, if our goal has been to recreate a time and place that we can go to in an attempt to embed ourselves in the cultural context of the past, then we have, to some extent, failed. To simply attempt to move from an embeddedness in our own time, place, and culture to an embeddedness in a recreated time, place, and culture does not fully answer the question of how we can make up for the differences between our own cultural context and a past cultural context. Because history, all of culture for that matter, only exists in the present, we must not fool ourselves into seeing the living history we have created as the actual cultural context of the past. At first our embeddedness in our own time (i.e., the present) may seem to suggest that all attempts at recreating the past are doomed to failure in one way or another. That assumption is, however, incorrect, or, more accurately, incomplete. Our attempts at recreating the past in a museum may lack the cultural context required to truly see the past, but we make a great advance toward the achievement of cultural context when we put objects together contextually. This can be seen in museums where we put objects from the same historical context physically near one another or, better yet, when we put the museum pieces into a building similar to one in which those pieces may have originally been found. We move even closer to an understanding of a past culture when we move from attempts at merely displaying actual or reproduced artifacts in their own physical contexts, to attempts at reproducing the cultural contexts of which those artifacts were a part. And we make even more considerable advances toward the recovery of the past when we do not simply allow ourselves to embed ourselves in our recreated "contextual" past but instead recognize that we, and our recreated past, are embedded in our present (Bennett, 1994:150-151).
Only by constant reaffirmation of our embeddedness in our own time, place, and culture can we continually make further advances toward the recovery of past cultures. If Reddy shows us that one cannot understand “his cultural heritage” from the de-contextualized writings of one’s predecessors (Reddy 1979:309-310), then he serves to demonstrate that we cannot understand the past without first understanding the present. If we do not take the time to “learn” what a given word or object means to its user today, in relation to where and when s/he is, we cannot expect to learn what an artifact meant to its user in the past. We must look at our own culture as if we did not know it already, to insure that when we are looking at a past culture we have a stronger sense of what aspects of our own culture influence our interpretations of that past culture and how. By seeing, and recognizing, ourselves as being embedded in our own present time, we can better understand where we are now and, by looking at the objects of the past from within our own time, we can gain a better perspective as to some of the cultural differences between the past and the present. The more pieces of the past we can gather together and learn to literally translate from the "language" of the past into the "language" of the present (and vice versa), the more we can learn about the context of the past. And it is through our contextual development of our knowledge of the past that we come closer to possessing a “full and flexible repertoire of thoughts and feelings to draw from” in reconstructing both our past and our present.
CHAPTER IV

In this paper, I have attempted to demonstrate some methods that archaeologists use to put archaeological data into practical application. I have pointed to the use of educational programs, by archaeologists, to promote archaeology. I have mentioned the use of archaeology programs by teachers to promote critical thinking. I have introduced educational psychology and applied it in order to judge what type of educational program can "teach" critical thinking. And finally, I have used linguistics, in place of critical theory, to understand the epistemology of historic preservation and the search for contextual learning. The type of educational program that I am proposing incorporates the ideas discussed in the previous chapters into one approach, an approach I refer to as Civil Archaeology.

Civil archaeology is a contextual, process-based, teaching/learning tool. It is based on the assumption that civics and critical thinking can be taught and learned through the contextual use of anthropology. The process of performing archaeology becomes the context for teaching and learning critical thinking skills. The processes of archaeology (i.e., its research methods) are used to create (and to be in themselves) the content of civil archaeology. In civil archaeology the specific data and specific interpretations gained from excavating a specific site are of secondary importance to the contextual teaching and learning which take place during the various phases of anthropological research and analysis.

Like other archaeological programs, civil archaeology is based on the idea that archaeology can be a valuable tool in teaching children and adults. The value of
archaeology is partly due to the fact that it incorporates pre-historic and historic pasts as well as the present. At its most basic level, archaeology applies the sciences and humanities as a means to view the past. However, the archaeological past does not exist outside of the present. A site is excavated for a reason and the results are created by this reason. A site that is left unexcavated may tell us more about our present than the site could ever reveal of our past. Who, why, when, where, how; if we asked all these questions of both the excavator and the site the answers to these questions would help to tell us more about our present and, at the same time, help to explain the “past” that we derive from the site.

Since we cannot dig in the past, we can focus instead on digging in the present. If we accept that our interpretation of the past is inevitably related to our own time and place then we must strive to make our interpretations of the past either precise or general. Our methods can “catch” only so much, our research can be only so intensive, our analysis can be only so accurate. We must know the names and life stories of the individuals involved, in order to gain history from a long lost site. But we cannot always know such specifics without prior historical knowledge. We can learn from the site of Custer’s “Last Stand” what happened in that place and at that time, but if we did not know what happened and when it happened could we discover what happened and when? And more importantly, could we understand what it meant in the context in which it occurred?

It has been shown that archaeology can be an effective one-shot tool to aid in the elaboration of history (Carson, 1978; Cotter, 1978; Harrington, 1978; Wilderson, 1975). The more we know of the historical past the more details we can know of the
archaeological past and, in turn, the more details it can add to the historical past. But it is archaeology's ability to provide cultural information on a much more general level that makes it a valuable tool in its own right (Cleland and Fitting, 1978; Schuyler, 1978; Orser, 1988). We can use archaeology to reveal specific information about an individual; however, human relations, on a broader level than the individual, is the area that archaeology deals with best.

Therefore, while archaeology can be used to teach us about the past, it is better suited to teaching us about human relations. We can use archaeology to find out things that history does not know, like the size of a building or the color of someone's dinnerware. But, we can best use archaeology to help interpret broader social patterns. Perhaps the large warehouse with white dinnerware tells us most about socio-economics and how the economy (whether local or global) worked. In archaeology, we can record historical specifics yet focus on the larger picture.

Whenever we are involved in archaeological research, we should be doing that research in order to discover ourselves. In performing archaeology, we make it possible to rediscover our past, as well as who we are today. Thus, even when we are doing contract archaeology for the DOT or the Corps of Engineers we must remember that we are, in essence, using archaeology to uncover a more complete picture of ourselves, not just to fulfill legal mandates. For this reason, we should use archaeological excavations publicly as a means to rediscover the processes of human relations and to educate ourselves, and others, as to how these processes work in the present and have worked in the past.
In archaeology we should do as Prown suggests with material culture (Prown, 1988:23-29), but on a broader level, examining parts of sites, as well as whole sites (perhaps even as broad as local societies or the global society). Archaeology is often presented as a science that must produce scientific evidence (Binford, 1978). In this frame of view, archaeologists must excavate methodically and with as little bias as possible. We must produce records that can be used in ways that we have not yet considered. We must reproduce the physical nature of the site as best as possible as it must inevitably be destroyed. But the very processes through which we seek to create such data alter our results (Potter, 1994). It is inevitable that the act of looking at an object changes it. After all, as the conduit metaphor suggests, I will see one thing in that object and you may see another. However, if we allow ourselves to be a part of what we do, while attempting to “produce” standardized forms of data, we come out ahead. If we first describe artifacts from a distanced, scientific standpoint (to the extent that this is possible) and then allow ourselves to become more personal in our narration, it becomes easier, for those who will eventually make use of our data, to understand what aspects we have imbued in our data and what aspects are part of the original material culture.

The most important effect on archaeology, and especially contract archaeology, that civil archaeology attempts to have is in producing the above “scientific” results while using the whole process of archaeology as a teaching/learning experience. While pursuing the methods of science in an attempt to salvage the past, we can be teaching those methods. Likewise, it is possible to teach the methods of history, mathematics, geography, etc. All of those subjects that comprise the study of humankind, for that matter, can be taught through archaeology. Most importantly, by performing all of the
skills needed for successful archaeological research, it is possible to teach more than just the specific pieces of information that comprise all of these subjects; it is possible to contextually teach the skills of these subjects and consequently the skills needed for critical thinking. While the archaeological product of civil archaeology is the excavation and recording of an archaeological site, the civic product of civil archaeology is contextual education. In this way, archaeology is able to provide a very broad base of tools, and a broad overall focus, to allow those who use it to learn from it. It can teach specifics, such as history or mathematics, and yet its focus (anthropology) is on the need to view all the individual parts of human life as members of the same body.

The archaeological site is not just a resource for children to learn about history or civics, as it is often portrayed. These uses of archaeology may be suited to the decontextualized archaeology produced for classroom consumption, but in the archaeological site the subject of learning can be the broader topic of critical thinking, itself. In the context of the archaeological site, children and adults can just as easily gain an understanding of trigonometry or geography as they can history. Through anthropology, they can learn about all of our humanities and sciences. But most importantly, through the contextual process of researching all of the separate subjects that comprise the field of anthropology, it is possible (almost, in fact, necessary) that one will be put into a situation in which one must think critically about various pieces of (possibly conflicting) data in order to produce a plausible analysis. The value of civil archaeology is that its very purpose is to put people into that situation so that they can develop the skills of critical thinking.
In light of this, what does it mean to learn about the facts of one man’s life? It obviously depends on how you learn these facts. If you use the archaeological site only to learn about him and what he did then you gain very little. If, on the other hand, he is treated only as an aspect of the archaeological site then you make it possible to learn far greater things. Furthermore, in civil archaeology it is not necessary to abandon any one aspect of a site. Just because the life of that one man constitutes only one aspect of the site, this does not mean that civil archaeology cannot be performed on a site whose goal is to increase our knowledge of the historical facts about that one man. In fact, because this method attempts to promote critical thinking over the recovery of any particular information, it should be possible to gain a little more objectivity in the process of rediscovering the facts of the past.

If we turn to Franz Boas and the results of the Bureau of American Ethnology research which he headed we can see how important a teaching/learning based methodology can be. It would seem almost inevitable that Franz Boas learned far more about the cultures he studied than he has taught us. Likewise of his knowledge of the objects which he collected and we now warehouse in museums. To truly understand what Boas was learning we “had to have been there” when he was learning it. In civil archaeology we can be there. More importantly, we can take others with us in the same way that Boas was able to take his own students with him. Just as his students probably learned more from the contextual performance of research under Boas’s direction, so too can civil archaeology students learn from the archaeologists that they work under. What our student participants learn from the trip may not be the same thing we do, but that is part of the benefit of their being there. It can be said that Boas’s students were more
directly useful to us than any of the "stuff" he saved up, so too would the importance of the students of civil archaeology overshadow the value of any of the collections of data and artifacts such archaeology would result in. While the latter can be important and should be saved for future reference, we need only look at the museums full of Boas’s equally important data, and compare these objects with the likes of Ruth Benedict or Margaret Mead, in order to see that the artifacts we save are nothing in comparison to the opportunities that we create for critical thinking. The process of learning through archaeology may at first appear to be secondary to the end results produced, but civil archaeology insists that the contextual learning process created by the act of performing research ultimately outweighs the benefits of just presenting the products of that research.
The civil archaeology project proposed here is a variation on a project that was to take place at a small historic site in Morristown, New Jersey called Historic Speedwell. Although the project was never actually performed, I include it here as an example of how a civil archaeology project could be organized.

Historic Speedwell is composed of six original eighteenth and nineteenth century buildings and three relocated eighteenth and nineteenth century houses, the latter having been relocated from elsewhere in Morristown. Historic Speedwell began in 1966 as a non-profit historic restoration with the goal of preserving the homestead and iron works of Judge Stephen Vail (1780-1864). Through the daily journals of Stephen Vail, much information is available about the industrialization of Morristown, and the rest of the United States, during the nineteenth century. From the Speedwell Iron Works came parts for the first transatlantic steamship, the SS Savannah, as well as parts for local steam trains (Cavanaugh et al., 1981). And it was at Speedwell that Stephen Vail’s son, Alfred Vail, along with Samuel F.B. Morse first designed and tested a working model of the telegraph (Cavanaugh et al., 1981). Through volunteers, Historic Speedwell presents interpretive programs to the public, which focus on such things as the buildings and grounds, the lives of the Vail family, and general aspects of life in the 1800s.

The archaeology of Historic Speedwell would be one of these interpretative programs. The archaeology project would be centered on the former site of workers’ housing and the historical topic for the students and adults would be on what working conditions would have been like in Morristown in the 1800s. The project would involve
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<th>Pre-program</th>
<th>Phase I Preliminary Work</th>
<th>Phase II Practical Training</th>
<th>Phase III School Tours</th>
<th>Phase IV Adult Program</th>
<th>Phase V Analysis</th>
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<td><strong>Project Staff</strong></td>
<td>Participate in staff training</td>
<td>Train interns</td>
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<td>Prepare reports along with interns</td>
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<td>Select high school interns</td>
<td>Beginning presentation of internship courses</td>
<td>Continue preparing written materials for grammar school and adult programs</td>
<td>Continue preparing written materials for adult program</td>
<td>Oversee excavation of primary site</td>
<td>Analysis of interns</td>
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<td>Develop internship courses</td>
<td>Prepare written materials for grammar school and adult programs</td>
<td>Excavate practice site</td>
<td>Oversee and present grammar school tours</td>
<td>Present adult program</td>
<td>Analysis of program results</td>
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<td><strong>High School Interns</strong></td>
<td>Apply for internship</td>
<td>Basic training</td>
<td>Excavate practice site</td>
<td>Present grammar school tours</td>
<td>Lead excavation of primary site</td>
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<td>Develop program materials with staff</td>
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<td>Participate in in-school programs</td>
<td>Classroom lessons</td>
<td>Hands-on excavation and lab work</td>
<td>Post-tour analysis of grammar school program</td>
<td>Prepare reports on school tours</td>
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<tr>
<td><strong>Grammar School Students</strong></td>
<td></td>
<td>Assignment to student groups</td>
<td>Classroom programs</td>
<td>Guest speakers</td>
<td>Enroll in adult program</td>
<td>Classroom programs</td>
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<tr>
<td><strong>Adult Program Participants</strong></td>
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<td>Excavate primary site</td>
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four categories of participants within six project stages. The four categories of participants include project staff, high school interns, grammar school students, and adult program participants. The six project stages are the Pre-Program stage, Phase I – Preliminary Work, Phase II – Practical Training, Phase III – School Tours, Phase IV – Adult Program, and Phase V – Analysis. The project is composed of three separate, but intrinsically related, programs, a high school internship, a grammar school field trip program, and an adult field school. The schedule in Table 1 attempts to illustrate the relationship between the six stages of the project and the four categories of participants, with the three educational programs forming the body of the table.

The project description that follows is in the format of a project outline. This outline organizes the activities of the four categories of participants under the broader headings of the six project stages. Thus, I will follow the example laid out in Table 1, by discussing under the headings of each stage of the project (as it occurs from left to right in the table) the categories of participants (as they appear from top to bottom in the table).

**Pre-Program**

The focus of the Pre-Program stage of the project is on the selection and training of the project staff and the selection of high school interns. The project staff will be sought out from among the many individuals who volunteer their time and expertise to Historic Speedwell. Separate from the administrative staff of Historic Speedwell, which determines the educational and archaeological focus of the project (and includes the Archaeological Project Director), the project staff, who are responsible for the implementation of the project, will be selected by the administration. The project staff
will consist of four members: a Site Historian, a Field Work Director, a Laboratory Director, and a Director of Analysis. The Site Historian will be responsible for the development and implementation of all the historical information to be used by the project. The Field Work Director will be responsible for all materials regarding the excavation of the site. The Laboratory Director will be responsible for all materials regarding the processing of artifacts. And the Director of Analysis will be responsible for the various analysis phases of the project and all materials related to these analyses. Each of the project staff members will be responsible for teaching an internship course about the subject of their position. These courses will be presented starting in Phase I of the project and will continue through to the end of the project. The courses will meet at Historic Speedwell and will take place weekday evenings at times which would have to be determined by the staff.

Project Staff:

In this stage of the project, the staff will focus on the preparation of the internship program. High school interns will be sought from eleventh and twelfth grade students in area high schools. From those students who apply to participate in the program, the administration and project staff will select four to eight interns. The Site Historian will prepare the materials required for the internship’s history course, using historical works on Historic Speedwell [such as *At Speedwell in the Nineteenth Century* (Cavanaugh et al., 1981) and *Historic Speedwell: Student Activity Book* (Historic Speedwell 1984)] and general research on the 19th century [including basic content works such as *A History of the*]
American People (Thernstrom, 1989) or The Social Fabric (Cary and Weinberg, 1987) and more critical pieces such as The Protestant Temperament (Greven, 1977)]. The Field Work Director will assemble the necessary tools and equipment required for the archaeological excavation of the site. The Field Work Director will also prepare the materials for the internship’s course on archaeological methods, including in this material resources on surveying, mapping and excavation [such as Surveying (Evett, 1979), Historical Archaeology (Noel Hume, 1975), and Invitation to Archaeology (Deetz, 1967)]. The Laboratory Director will establish a laboratory and assemble all of the physical materials needed to perform lab work. The Laboratory Director will also prepare the materials needed for the internship’s course on laboratory methods, including in these materials resources on artifact conservation [A Guide to Artifacts of Colonial America (Noel Hume, 1969) and The Parks Canada Glass Glossary (Jones and Sullivan, 1989)]. The Director of Analysis will prepare the materials needed for the internship’s analysis and writing course, incorporating resources on research and analysis methods [such as Critical Strategies for Academic Thinking and Writing (Gross et al., 1993), A Global Perspective (Nelson, 1989), Scientific and Technical Writing (Sandman et al., 1985), and Utilization Based Evaluation (Patton, 1986)] along with the materials produced by the other staff members.
High School Interns:

At this time, those high school students who are interested in participating in the program will submit applications to the Archaeological Project Director.

Phase I – Preliminary Work

This phase of the project begins with the introduction of the high school interns to the project. During Phase I the staff and interns will work together to produce the materials to be used in the grammar school and adult programs. Intern training will be focused on in this phase, and in later phases, through the internship courses that the staff will present to the interns.

Project Staff:

The staff will introduce themselves and their positions to the interns. In Phase I, each internship course will concentrate on the basic information with which it is concerned. The history course will present background information about Historic Speedwell and the 19th century. Likewise the archaeology course will give the interns a basic background in archaeology and the laboratory course will give them a basic background in laboratory methods. In this phase, the analysis course will begin presenting the interns with literature, based on various topics, which they will research and analyze. By having the interns research certain issues (such as those suggested in books like A Global Perspective) and then discuss these issues as a group, the analysis course will try to introduce the basic critical thinking skills that will be applied contextually in later project
phases. Through the internship courses, the staff and interns will begin preparing the written materials that will be required for the grammar school and adult programs.

High School Interns:

The interns will begin attending internship courses. With the help of the course instructors, the interns will be assigned responsibility for preparing particular materials for use in the grammar school and adult programs. In this phase, and over the course of the next two phases, the interns will be responsible for writing the printed materials required for these programs. The materials that the interns will produce will include the history of Speedwell, relevant aspects of the 19th century, the archaeological methods to be used in the program, and the laboratory methods to be used in the program.

Phase II – Practical Training

Phase II is a continuation of the activities begun in Phase I. In addition, Phase II includes the excavation of a practice archaeological site and the preparation of the grammar school field site. Preparations for the grammar school tours of Phase III will be finalized.

Project Staff:

The staff members continue presenting their internship courses to the interns. In this phase, the courses focus on the practical application of what the
interns have been taught so far. The history course focuses on the preparation of historical materials to be used in the grammar school program, with the Site Historian directing the interns in writing these materials. Likewise, the Field Work Director and Laboratory Director will work with the interns to produce the methods and written materials for use in the grammar school program.

Additionally, the Field Work Director will oversee the excavation of a practice archaeological site and the creation of the grammar school field site. The practice archaeological site will entail an actual archaeological excavation. This excavation will proceed in an area of Historic Speedwell that has been disturbed in the recent past by various construction projects. The practice excavation will conclude by “leaving” (setting up) parts of the site in various stages of excavation. The resulting site will be used as a part of the grammar school program in Phase III. The Laboratory Director will use the artifacts recovered from the practice site as the subject of the internship’s laboratory methods course. The Director of Analysis will use the internship’s analysis course to help the interns prepare report materials for use in the grammar school program.

High School Interns:

The course work and material preparation of the earlier phases will continue in this phase. The interns will participate in the excavation of the practice site and will be assigned roles (such as crew chief or laboratory assistant) for their participation in the adult field work portion of the project. At this time, the interns will prepare, under the direction of the staff (through the internship
courses), the materials needed for the grammar school program. The interns (along with the project staff) will go to the various schools that will be participating in the grammar school program and present the pre-field trip program that they will have thus constructed during the internship courses. This pre-field trip program will incorporate a brief presentation of the archaeology involved, including field, laboratory, and analysis methods, and will also include an interactive presentation [perhaps similar to the pre-visit portion of Unknown Hands (SPNEA, no date) a program of The Society for the Preservation of New England Antiquities]. The interns will present the pre-field trip program to the grammar school students, with the project staff acting in a supportive role.

Grammar School Students:

The grammar school students will, in this phase, participate in a pre-field trip program that will introduce them to the site of Historic Speedwell and the work being done there. Additionally, the students will be assigned to small student groups (of up to eight students). In these groups, the students will participate in pre-field trip program activities. These groups will also be used during the actual field trip.

Phase III – School Tours

In this phase, the grammar school program is carried out and final preparations are made for the adult program. Intern training continues, through the internship courses, with emphasis placed on the application of the grammar school program materials and
the preparation of materials for the adult program. Advertisement of the adult program to prospective participants is done by the administration of Historic Speedwell at this time.

Project Staff:

The staff focuses their internship courses on the preparation of materials for the adult program. They oversee, and help the interns to present, the grammar school tours of the site. The project staff will present history, archaeology, laboratory, and analysis sessions to the grammar school students, with the help of the interns. During this phase, the project staff will concentrate on the materials being presented to the grammar school students (in the history, archaeology methods, and laboratory methods courses), the analysis of the grammar school program (in the analysis course), and the preparation of materials for the adult program (in all four courses).

High School Interns:

The primary focus of the interns' work in this phase will be on the grammar school program. The interns will lead the grammar school students through a tour of the site that will include classroom instruction as well as hands-on work in the laboratory and grammar school field site. While the project staff will present most of the classroom instruction, the interns will work on the laboratory and field work portions of this phase of the project. The interns who will be working as crew chiefs will lead the grammar school students through the archaeological excavation "in progress" in the grammar school field site. The
crew chiefs will essentially give the students the handouts on fieldwork, show the
students how to excavate and then have them follow his/her lead. Likewise, the
interns who will be working as laboratory assistants will demonstrate the work
that goes on in the laboratory. The laboratory assistants will essentially give the
students the handouts on laboratory work, show the students how artifacts are
conserved and labeled, and then have the students participate in handling and
labeling the artifacts.

The grammar school program will conclude with a post-tour analysis of
the program in which all of the student groups are brought together for an end of
tour discussion. The interns will use the information gathered through this
discussion in the analysis of the grammar school program that they will be
performing later in the project as a part of the internship’s analysis course.

Also during this phase, the interns will continue preparing the materials to
be used in the adult program with an increasing emphasis on their particular role
in the adult program. Crew chiefs will focus on materials needed for their role in
leading excavation work and laboratory assistants will focus on materials needed
for their role in leading laboratory work. The roles that the students have played
in the grammar school program will act as practical training for the roles they will
play in the adult program.

Grammar School Students:

The grammar school students in the program will attend the various
classroom and hands-on portions of the field trip in student groups which have
been established in the previous phase. In the classroom sessions, students will learn about the site of Historic Speedwell, life in the 19th century, and the purpose of the archaeological project. In the fieldwork sessions, students will be shown an archaeological site in various stages of excavation (the field trip excavation site). They will thus be shown how a site goes from initial surveying and gridding, through stratigraphy and excavation, to completed excavation and backfill.

Students will be invited to participate in the excavation of the site so that they can physically feel what excavation is like. In the laboratory sessions, students will be shown artifacts in various processes of conservation. They will have the opportunity to see how the artifacts proceed from one stage to the next, to handle the artifacts, and even to assist the laboratory assistants in labeling the artifacts.

By attending these sessions in small groups, the students will get more attention than they could otherwise be afforded.

The final session of the field trip will be an analysis session in which all of the students will be involved in a discussion of the day’s events. By bringing together all of the small student groups, it will be possible for the students to discuss their individual experiences of Historic Speedwell with the class as a whole. The focus of the discussion will be on the issue of working conditions in Morristown in the 19th century. At the end of the analysis session the program will conclude by asking the students questions about the archaeology project itself and what they liked or disliked about it.

Adult Program Participants:
At this time, adults who are interested in participating in the field school program will begin to enroll.

**Phase IV – Adult Program**

The adult field school program will be carried out in this phase through the use of classroom sessions, lectures by guest speakers, and the excavation of the primary archaeological site (the site of the workers’ housing).

**Project Staff:**

The staff will continue working with the interns through the internship courses. The project staff will present classroom programs to the adult program participants. These classes will focus on the same four topics (history, archaeology methods, laboratory methods, and analysis methods) that have been presented in the internship courses. The staff will oversee all of the work being lead by the high school interns on the real site.

**High School Interns:**

The interns will lead the adult program participants through their roles as crew chiefs and laboratory assistants in field and laboratory work. They will be involved, to some degree, in the presentation of classroom programs for adults. The interns will continue their work in the internship courses, now focusing on the analysis of the historical materials about the site and the archaeological remains being excavated.
Adult Program Participants:

Adult program participants will take part in classroom programs with the project staff. They will perform laboratory and field work under the supervision of the interns. Adult participants will attend lectures given by guest speakers who will have been invited to speak about topics of interest to the site of Historic Speedwell. At the conclusion of the adult program participants will be given an opportunity to discuss their feelings about the various aspects of the field school through evaluation sheets and a group “de-briefing” session.

Phase V – Analysis

This phase will conclude the archaeological project. The project staff and interns will work together to produce a final report about the archaeological work performed, along with an analysis of the three educational programs.

Project Staff:

The project staff will conclude the internship courses by having the interns write final reports about the archaeological work done at Historic Speedwell during the project. The staff will use these reports to evaluate the interns and the internship program. Finally, the project staff will be responsible for putting together the final report on the archaeological project and analyzing the educational programs.
High School Interns:

The interns will conclude their internships by writing final reports. They will write reports in which they analyze the results of the grammar school and adult programs, they will also write reports on the archaeological results of the project. After all of this work is complete, the interns will be given an opportunity to help evaluate the internship program.
CHAPTER VI

The civil archaeology project at Historic Speedwell attempts to combine archaeology and education in order to meet the historical needs of the Historic Speedwell Foundation. The project applies theories of cognitive-developmental psychology to an archaeological project to form the basis of a series of three educational programs. I have shown how these programs work chronologically in order to demonstrate the contextual nature of this civil archaeology project. However, it is necessary to discuss the various aspects of each educational program to show how the context of civil archaeology at Historic Speedwell provides the critical thinking opportunities I have suggested it will.

In particular, the educational programs will each be examined to see how they meet the needs of civil archaeology educationally and archaeologically. From the standpoint of education, the three programs can be described as a grammar school program, a high school program, and an adult program. The educational purposes of these three programs can be seen as follows. The grammar school program attempts to show children how we learn. The high school program attempts to teach young adults how to learn. The adult program attempts to give adults an opportunity to learn. From the standpoint of archaeology, the three programs can be described as a public relations program, a staff training program, and a research program. The archaeological purposes of these three programs can be seen as follows. The public relations program demonstrates the uses to which archaeology can be put. The training program prepares the field program’s staff (including the interns) for their positions. The research program seeks specific answers to research questions. This chapter addresses the three programs
in that order: Field Trip Program, Internship, and Field School. Under these headings, each program will be described in terms of its educational purpose, its archaeological purpose, the stage of developmental psychology the participants are involved in, and how the program attempts to fulfill its purposes.

**Field Trip Program**

*Educational Purpose:* To show children, through the context of an archaeological site, how we learn the kinds of content material that they are being taught in grammar school.

*Archaeological Purpose:* To publicize archaeological research.

*Developmental Stage Involved:* Children who are moving from the concrete operations stage into the formal operations stage (a change that takes place roughly around the age of 12).

Program Methods: This program attempts to incorporate these purposes by putting students (focusing on seventh graders), physically, into an archaeological project.
The field trip program begins with a pre-field-trip session that takes place in the students' school. This pre-field-trip session is intended to introduce students to the subject of Historic Speedwell while at the same time "briefing" them on the types of activities they will need to perform during the field trip. In the pre-field-trip session, the class is split up into the groups that the students will participate in during the field trip. At the site, the students will attend the various sessions involved in the program with their groups. By using small groups, it is possible to give the students more attention than could be afforded by presenting sessions to the class as a whole. When the student groups are involved in the activities of the various sessions, students will be gaining contextually based information about the research methods of anthropology.

Through the use of classroom and field sessions, children are given a contextual understanding of how and why archaeology is performed. This type of approach can be far more useful in promoting an awareness of the need for archaeological research than pre-packaged classroom-ready programs.

The field trip program is able to fill the educational, archaeological, and developmental needs outlined above by taking children (who are moving from the pre-concrete operations stage into the formal operations stage) and contextually presenting to them and involving them in the processes of archaeology. The educational need for contextual knowledge, the archaeological need to educate the public about archaeology, and the student's need to understand abstract cognitive processes are all combined through the field trip program.
Internship

*Educational Purpose:* To show young adults, through the performance of anthropological research on an archaeological site, how to use research to produce information.

*Archaeological Purpose:* To train the project staff to carry out the research tasks that they will be performing during the archaeological project.

*Developmental Stage Involved:* Adolescents in the formal operations stage who are beginning to advance into Kohlberg's moral awareness stages.

Program Methods:

The program attempts to do this by putting high school students into research and teaching situations within an archaeological project.

The internship is modeled after Newmann's environmental competence program (Newmann et al., 1977) but with the specific purpose of promoting critical thinking and an awareness of anthropological research methods. The interns learn these methods by producing the materials needed for the field trip programs and the field school, putting these materials into use, and then analyzing the results of these programs. By giving the high school students research tools
and a place to put these tools into use, we present them with a contextual learning environment that cannot be reproduced within the confines of a school. It is within this learning environment that critical thinking becomes not only possible, but, in fact, commonplace.

Thus, the internship program gives young adults an opportunity to learn and perform the research processes of archaeology. The educational need for critical thinking and research skills, the archaeological need for trained project staff and preliminary research, and the student’s need for an opportunity to develop the skills of formal operations are all combined in this internship program.

Field School

*Educational Purpose:* To give adults, through participation in an archaeological project, an opportunity to learn and put to use the methods of anthropology.

*Archaeological Purpose:* To gain answers to research questions from an archaeological site.

*Developmental Stage Involved:* Adults who are embedded in the stages of moral awareness.
Program Methods:

The program attempts to do this by providing adults with classroom and field experiences on an archaeological site.

The field school gives participants the opportunity to take classes based on various aspects of anthropological research and to perform archaeological excavation work. Through the classes, presentations by guest speakers, and fieldwork, the participants gain an opportunity to learn not only the history of the site, but anthropological research as well.

The field school thus combines the educational need for learning opportunities, the archaeological need to perform research, and the participant’s need to further his/her range of experiential knowledge.
CHAPTER VII

Although the project description for civil archaeology at Historic Speedwell was designed for use on that particular site, it is presented here to provide a general example of how archaeology and education can be combined to produce civil archaeology. For this reason, the preceding description attempts to deal only with those aspects of the project which are directly relevant to the educational goals of civil archaeology. For instance, one issue that is noticeably lacking from the description above is the source, or sources, of funding for the project. Another unresolved issue is how the high school students can find the time to be in the internship and high school simultaneously. Both of these questions are relevant to the performance of the project, however, neither question has direct relevance to the goals of civil archaeology. Because this example project is provided to demonstrate the goals of civil archaeology, the answers to questions like these are of little relevance here. Instead, in concluding I look at how the goals of civil archaeology provide benefits other educational archaeology programs cannot.

Currently, archaeology and education tend to be tossed together by teachers who want exciting new programs for their classrooms and archaeologists who want to put their results into practical use. Unfortunately, each of these groups sees the other as having more idealistic goals than these. The archaeologist sees the teacher as someone who instills knowledge in the young and the teacher sees the archaeologist as someone who, literally, discovers the past. While these descriptions have some amount of validity to them, focusing on these descriptions does not, in and of itself, lead to a beneficial combination of the two fields.
When we assume that the archaeologist discovers knowledge and the teacher instills knowledge, the obvious synthesis of archaeology and education is for the archaeologist to discover the knowledge that the teacher will instill in the students. But this synthesis is based on ideals of what a teacher and an archaeologist do. In applying educational archaeology programs to schools, teachers actually look to archaeology as a quick fix for an otherwise boring curriculum, while archaeologists see teachers as the perfect consumers for their archaeological research results.

Ethnographic research suggests that the ideal of what a teacher should do has little effect on what the teacher actually performs (Jackson, 1990; Lortie, 1975; Palonsky, 1986; Rutter et al., 1979). Faced with the day-in, day-out schedule of the classroom, teachers need to find ways to bring fun activities into the school. Archaeology is seen as one of these activities. Teachers choose archaeology because the ideal archaeologist is someone who goes out into exotic places to discover the past. But this ideal of what an archaeologist should be is, in reality, as misplaced as our ideal about teachers. Just as most teachers spend large amounts of their time distributing materials and maintaining order in their classrooms (rather than instilling knowledge in students) (Jackson, 1990), most archaeologists spend their time doing shovel test-pit surveys on future highways and commercial developments (rather than exotic excavations). The archaeologists, trying to find socially relevant uses for the information that they find, eagerly agree to teachers’ requests for archaeological programs for the classroom.

When SHPOs’ offices and archaeologists produce educational materials for use in schools and other institutions, they are, in effect, attempting to demonstrate to the public the value of archaeological research. Posters and archaeological programs are created by
archaeologists for use in classrooms and classroom teachers attempt to incorporate this archaeological literature into their curricula. While the classroom teacher is simply looking for a new way to teach the same old things, the archaeologist, searching for somewhere to use the results of archaeology, sees the classroom as a place where his/her findings can be put into use. Classroom teachers invite archaeology into their classrooms as an activity that will motivate their students to think critically, but the programs that archaeologists develop to fill this need often vary little from the typical classroom lessons that are presented on any other subjects. Ultimately, these teachers’ uncritically accept archaeology as the right tool, and the classroom as the right place, to teach multidisciplinary critical thinking, and the archaeologists, attempting to demonstrate the social value of their work, produce educational archaeology programs that run the risk of becoming little more than extra lessons within the usual school curriculum.

The usual synthesis between education and archaeology does not truly coalesce because it is founded on the ideals of each of these fields. If we replace these ideals with the actual performances of the teachers and the archaeologists, we see that the consequent performance synthesis may not appear to be as exciting as the ideal synthesis, but it is, in fact, one and the same. If teachers want fun new things to teach and archaeologists want to publicize the relevance of their finds, then the result is archaeological products being taught in classrooms by teachers. We end up taking the excitement out of both fields and producing more of the same old routines.

Civil archaeology approaches the issue differently. It assumes that if the purpose of education is to educate students, then it should use the most appropriate means according to the subject being taught. It also assumes that if the purpose of archaeology
is to perform and publicize archaeological research, it too should use the means most appropriate to the subject. The resulting synthesis between education and archaeology becomes contextual, rather than content-based. Instead of a simple formula, in which the archaeologist produces content and the teacher instills this content into students, the result is far more complex. This complex synthesis of education and archaeology is the basis of civil archaeology. It is a synthesis that concludes that the archaeologist can educate students of any age by immersing them in the contextual application of anthropological research methods. It assumes that simply producing materials for use by schoolteachers in classrooms does not meet the ideal goals of either education or archaeology and, in turn, it seeks to find a method that will meet these goals.

Civil archaeology sees education and archaeology as processes that can be separated from their results. In doing so, it does not concentrate on the content produced by archaeology, but on the processes that produce that content. Nor does it focus on the content of education, but instead on the processes of learning. It may be true that archaeology combines the sciences (geography, mathematics, biology, etc.) and humanities (history, literature, philosophy, etc.), but it is the use of these combined disciplines that is archaeology. To present these disciplines out of the context of archaeology is to, instead, present archaeology in the context of these other disciplines. By doing this, all of the benefits anticipated by the use of archaeology are lost. Instead of leading to the creation of exciting archaeology programs, the images of exotic fieldwork using holistic multidisciplinary methods erode, resulting in the mere addition of bits and pieces of archaeology to the already existing educational curricula. If the sum of archaeology is equal to the total of its parts, then archaeology, out of context, is already
taught in school. But civil archaeology assumes that the sum of archaeology (or anthropology, for that matter) is greater than the total of its parts. Instead of presenting archaeology in the context of education (as is done when archaeological data is applied within a typical school curriculum), civil archaeology presents education in the context of archaeology.

In this way, civil archaeology provides an opportunity to get more out of routine archaeological work than just research reports and data to be used in predetermined activities. It likewise gets more out of education than just students with specific content information. Instead of focusing on the recovery of specific data about the past and the presentation of this content in the schools, civil archaeology focuses on using archaeology, and the processes involved in it, as education in itself.

Archaeology is currently performed in order to seek out data necessary for the completion of predetermined projects. These projects can range from the construction of roads and buildings to the creation of ethnographies, histories and museums, but in all cases, archaeology is used to create data (which is in turn used to create information) for a specific use. Civil archaeology, as a form of archaeology, incorporates this need to produce data, but makes this recovery of data secondary to the propagation of critical thinking.

Civil archaeology makes the very act of performing archaeology an end in itself. Government mandated reports or critical social histories can be produced by civil archaeology while, at the same time, the performances of both archaeology and education are elevated from being otherwise routine processes, to becoming a stage for contextual learning. Civil archaeology is a reaffirmation that archaeology is a learning process and
that the archaeologist is its student. Furthermore, it steps beyond the critical idea that the archaeologist is a process which influences the research being done, by attempting to focus on the inverse statement; that the process of research influences the archaeologist. Thus, civil archaeology is an attempt at putting anthropological methods, which endeavor to uncover our past, into the hands of its students. By equipping the public with such tools (and not just the *products* of those tools), the public is given the opportunity to look at their contemporary society in the same reflective manner as the anthropologist.
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