Trowels, Trenches, and Transformation: A Case Study of Archaeologists Learning, Teaching, and Enacting Environmentally-Friendly, Community-Inclusive Practices

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**Abstract:** Guided by the framework of “critical transformative learning,” this study explores archaeologists as adult learners and seeks to understand how they are learning to practice a new vision of archaeology in Mexico. In this project, personal transformation is linked to disciplinary and social transformation.

**So Why Study Archaeologists, Anyway?**

This paper presents research exploring archaeologists as adult learners and educators specifically examines the shifts of thinking and practice that are occurring among some archaeologists working in Yucatan, Mexico who are currently trying to build an alternative vision of archaeology and tourism. This vision acknowledges the damage to local environments, cultural resources, and local communities caused by many archaeological projects and seeks to create an archaeological project that respects local indigenous communities the natural environment. We view archaeologists as adult learners and educators who are reflecting on their practice of archaeology, learning to create new forms of practice, and teaching this new vision to others, including college and graduate students, and local Mayan workers who work at the site. The purpose of this research is to explore how archaeologists who are involved in a new project located in Yucatan, Mexico are learning to practice a different kind of archaeology. This multidisciplinary project (the first author is an archaeologist, the second is an adult educator) addresses issues of learning and reflexivity that are relevant to both adult education and archaeology, and has the potential to help enrich understanding of the connection between individual change, disciplinary change, and social change.

**Towards Critical Transformational Learning**

In this paper we use the framework of critical transformational learning, which seeks to redefine “transformation” as something that necessarily involves both individual and social change (Brookfield, 2003; Cunningham, 1998; Lange, 2004). While there has been a great deal of research within adult education on transformational learning, we hope to contribute to ongoing discussions concerning the “social dimension” of transformational learning (Cunningham, 1998, p. 15). A majority of the research and literature on transformational learning has been framed within an individualistic and psychological point of view (Cunningham, 1998). There is a need for more empirical work examining the social dimension of transformational learning, exploring learning experiences where individual transformation is tied to social transformation, and working towards an explication of what Lange (2004) has called “critical transformative learning” (Cunningham, 1992; Lange, 2004; Mayo, 2003; Taylor, 1998). In this project, we were concerned not only with the personal transformational journeys of individual archaeologists, but also with how this learning is integrated with social and contextual factors and community change. Cunningham (1998) argues that “so-called personal transformation that is not formed by action on oppressive structures is suspect even though the involved individual may feel good or even autonomous” (p. 17). In fact, in this project, we see change occurring simultaneously in three different yet interrelated arenas: individual archaeologists, the discipline of archaeology,
and the local communities within which this archaeological project is occurring.

**Context: Archaeology and Tourism in the Yucatan**

This project is situated within a long tradition of archaeology that has taken place within the Yucatan peninsula of Mexico. Because of the large numbers of tourists who visit cultural heritage and natural sites in Mexico, one issue facing this area of Mexico is that of sustainability. The kind of large scale tourism seen at many archaeological sites in the Yucatan often causes stress to local environments as well as to cultural resources and local communities.

Implicated in the way large-scale archaeological tourism is happening are the archaeologists themselves who conduct archaeological investigations. Throughout the history of archaeology, archaeologists have operated with little acknowledgement of the long-term impact of their work on local cultures and ecosystems. This is changing, however, as some archaeologists, anthropologists, government officials and non-governmental organizations within Mexico are seeking to develop an alternative model of archaeology and tourism that seeks to avoid some of the negative impacts of large scale tourism, and seeks to actively work with local indigenous communities. One such group of archaeologists who seem to be experiencing a shift in their thinking and who are currently trying to build an alternative vision of archaeology and tourism are those connected with the nonprofit organization Kaxil Kiuic, which manages the Helen Moyers Biocultural Reserve, which inhabits 4000 acres of dry tropical forest in Yucatan.

**Methodology**

A qualitative case study design was used because of the exploratory nature of the problem. Guided by a participatory design, the authors of this paper actively worked together to define research questions and methodology. The second author spent one week during the summer of 2004 at the archaeological site Kiuic, where she conducted observations at the site. During this time in Mexico, she conducted informal interviews with two of the three lead archaeologists who have been involved with the project since its inception (Jim and Ricardo) and with the Reserve Director (Robert); conducted a formal interview with one of the lead archaeologists (Jim); and engaged in informal conversations with four undergraduate students and one of the graduate students who worked during the 2004 summer field season. During the Spring of 2005, the second author conducted formal interviews over the phone with one of the lead archaeologists (Ricardo), as well as with two of the graduate students who have been involved in the site for the past 4-5 years (Rachel and John). The interviews lasted between one hour and three hours each, and were tape recorded. Field notes and interviews were transcribed by the second author and analyzed by both authors following Merriam (1998).

**Findings**

These archaeologists are currently in the process of transforming their practice, and are engaging in critical reflection on the relationship between their own practice, the field of archaeology, and the larger community. Each is concerned with how their actions, as both archaeologists and wider citizens of the world, affect local communities and society in general. The path they have taken has been one of moving from complaining to more formal critiquing to action. What this “action” consists of is currently in the process of being negotiated both within each archaeologist and among them, as they seek to define the purpose of their work. Much of the learning taken on by these archaeologists centers around redefining archaeology and defining the responsibilities that archaeology has to different stakeholders. Findings reveal three themes
illustrating their current struggles as they try to enact a new vision of archaeology at Kaxil Kiuic.

**Coming to an Awareness of our Culpability: Critique without Action**

Hodder (2003) argues that archaeology is “fully complicit in the construction of the local” but that “there has been little reflexive discussion of this process in archaeology” (p. 63). One of the reasons these archaeologists are now seeking to create a different kind of archaeology is that they have come to the realization that they played a role in cultural and environmental changes occurring over the last two decades in the Yucatan. The older archaeologists had been involved in projects that were conducted in ways that were less concerned with local environments and communities. These older archaeologists had had at least one major experience working with an archaeological project that had gone “out of control” – meaning events began happening that affected the local environment and communities that they felt they were not equipped to critique in a coherent way nor to take positive action on. The younger archaeologists did not necessarily have these first-hand experiences, but had been involved in other experiences that had shown them how large-scale tourism is impacting the environment.

One reason some of the archaeologists gave for their lack of ability to critique and take action came from the way they were trained as archaeologists. These archaeologists reflected on their formal training as archaeologists, which presented archaeology as an objective, research-based science. For instance, Jim stated, “You don’t worry about issues like social and cultural impacts on the environment or the communities and all of this stuff. That’s just getting in the way of you getting your work done.” And even though the field of archaeology is changing to include some of these issues in university curriculum, even the younger archaeologists suggested their formal training lacked much of a focus on a more reflexive or critical archaeology. Rachel stated that examining “ethics in archeology definitely isn’t a focus of any course.”

Others argued that it was less about their archaeological training and more about the lack of opportunity to do archaeology any differently. Ricardo, for example, argued that his archaeological training did instill an ecological awareness, in terms of being “interested in cultural ecology.” Ricardo stated, “we were really highly interested in trying to understand the environment in relationship to society.” The exploration of this relationship played out mostly in the kinds of questions Ricardo asked of the archaeological record, but he sees his current interests at Kiuic as an extension of his earlier interests; the difference is that now he has the opportunity to build on what he had done in the past.

These archaeologists, then, engaged in learning and critiquing, at first without acting. Rachel explained that during her undergraduate years she was starting to become aware of the environmental impact of her own and others’ actions, but she stated that “I wasn’t really actively doing anything” about it. Jim also said that during the time before his engagement with Kiuic, “What I had was just kind of reflections on things—changes I’d see in the communities and thinking about things like, are they going to put a hotel here? Are they going to put t-shirt shops? What is that going to do to the local people? What is my relationship or responsibility, if any, to those kind of things? What is my relationship to presenting the past? When I look back on it I see my relationship was mostly complaining more than anything else about what I didn’t like, as opposed to working towards things I did think should be done.”

**Re-Defining Ourselves/Archaeology and Its/Our Responsibilities**

Through reflection on their culpability, these archaeologists have begun formulating a more formal plan to move beyond critique, to take action, and to practice archaeology differently. Jim, for instance, stated, “As the project continued, we began to think about it more. There was this sense that I had a responsibility that I wasn’t living up to. In terms of what I was
doing with my work.” These archaeologists are all in the process of re-defining what archaeology means both on a personal level, and on a disciplinary level—in fact, the redefining of their personal responsibilities cannot be separated from the disciplinary responsibilities. This redefinition is necessary and is an important part of their shifting from critique to action.

Part of redefining archaeology involves redefining to what and to whom they personally, and archaeology as a discipline, are responsible. One of the biggest struggles these archaeologists faced was how to redefine their practice of archaeology to take into account responsibility towards more than just “doing good science.” The archaeologists all referred to doing something that went beyond “the basics” of scientific archaeology, to incorporate other responsibilities not typically addressed in archaeological literature or training—that is, to incorporate the newfound awareness that their actions and their disciplines’ actions (or lack thereof) were negatively impacting local environments and communities. Rachel, for instance, stated, “You can do the archaeology, but then, there is a point where you CAN move beyond doing the archaeology to doing other things.”

An issue that came up repeatedly in the interviews, then, is the ongoing, messy process of defining responsibilities. The archaeologists identified several areas where their responsibilities lie. Within some of these areas, responsibilities are easy to define and act out; within others, the archaeologists struggle with how to defining and enacting them. For instance, a relatively straightforward arena where these archaeologists feel they have a responsibility is to the archaeological record—they feel responsible to do the actual excavating of sites in a manner that embodies good practice in archaeology. Ricardo stated, for example, “If you are digging, you are destroying in some ways the context. You cannot put it back again, so you have to record it and preserve it well.” They also have a responsibility to the ecosystem or the environment, which is described by Jim as another “pretty easy” responsibility to figure out. Jim stated, “You combine that with the archaeology, and you have the responsibilities for studying the relationship between cultural resources and ecological resources, how they could work together, how you manage these things together.” A third responsibility is to the research community and to fostering scientific knowledge. Rachel stated, “I think it’s important that we keep trying to present, even if its not in a published form, yet, but at meetings so that those in the field of archaeology are aware of what we’re doing.” A fourth responsibility is to present the past to the public. This becomes fuzzy and problematic, however, when archaeologists try to define which public they will serve, and try to negotiate how public access interferes with their responsibility to the ecosystem. As Jim put it, “You have the responsibilities for presenting the past to the public, determining whose public, what public you’re going to be presenting it to, learning how to do that, which leaves us in this whole debate about, ok, what can the system sustain, in terms of visitors and what kinds of experiences they should have? How do we do that effectively? How do we do that in a way that doesn’t damage or degrade the system that we’re trying to sustain?”

The final responsibility mentioned, and the one that is most problematic, is the responsibility this project has to the local communities. These archaeologists are struggling to define how to involve local communities in the project, when the traditional relationship between project and local communities has been one of seasonal employer-employee. Jim stated, “You’re trying to figure out what kind of opportunities you can make available to them, what kind of things they want and need.” The archaeologists admit that this responsibility is “the hardest one to answer” and that they “don’t have the expertise” (Jim). They also problematized their relationships with the local Mayan communities, acknowledging that there are “inequities of power” (Jim). Ricardo stated that they are trying to get involved with local communities yet
avoid paternalism. He said, “We should try to find a way that we can help besides just giving them a salary. Try to use our knowledge for improving their lives. We are aware of paternalism and these kind of things, but trying to do something so that development that is sustainable.”

Struggling to Create a Culture of Critique and Praxis: How do We do this on the Ground?

The final theme that emerged from the data concerned the struggles to put into practice the issues raised more theoretically in the discussions about taking action and being responsible. As in defining to whom archaeology is responsible, some enactments of these responsibilities are easier to create and teach than others. The responsibilities towards the archaeological record and the ecosystem are easy for the archaeologists to enact and teach—they “fit” with their training as archaeologists. Paralleling the struggles they are having defining the fuzzier responsibilities, the archaeologists are finding it difficult to enact and teach some of the other responsibilities, such as ways of interacting with and including local communities, which includes how to address and model ways of dealing with issues of race, class, gender, and power. Most of them agree that their training did not give them the skills to practice the kind of archaeology they are trying to do at Kiuic. Rachel stated, “There’s no handbook to developing and properly excavating and minimally affecting an area. It seems like we’re kind of learning as we go.”

These archaeologists are currently struggling with how to enact their environmental and community-oriented vision, in several different contexts, including how to enact this vision with undergraduate students, with the general public (including but not limited to those members of the public who will visit the site as eco-tourists and on educational tours), and with the local Mayan community. In each of these contexts, these archaeologists expressed concern that they cannot force people to change or become more ecological in their outlooks, but they hope that they can live as an example for others to follow.

Jim, for example, is struggling with how to bring more of a discourse of critique into the project at Kiuic, specifically with regard to how he is teaching the undergraduate students. He stated that within the discourse of contemporary archaeology, issues of power are raised. But when reflecting on whether this discourse infuses the Kiuic project he said, “Probably not enough. . . I think part of our discourse is probably just trying to get people to function and work together in a way that gets some work done.” When discussing a situation where some of the college students said what could have been considered disrespectful or even racist statements about the Maya workers, he expressed concern that he did not want to “force” them to become “critical,” although he would like to see them reflect on their relationships with the workers. He stated that while his private discourse problematized power relations, he was hesitant to assert his power over the students and “force” them to deal with inequities of power. He asked, “Do I regulate the behavior or do I let the behavior develop and see if there are positive things that come out of it? Do we manipulate it, or do we create contexts and let things happen?”

This struggle with “forcing” issues was also raised when Rachel discussed her concern about teaching the public about environmental issues. She states, “I think that the nature of Western society seems to be very individualistic and capitalistically oriented. And I know that in my own everyday life, I try to be more aware of my actions and things that I purchased or what I use, or throw away. . . I worry about the way that we might impact the environment there.” Her vision includes effecting change among visitors to the Reserve from the United States as well as among the local communities, but she acknowledges she cannot force someone to change. She hopes for the American visitors that “We could provide a positive example [that] people can take it back to their homes. . . I hope more people can and will become aware of their impact in everyday life.” She also worries that, with the local communities, “You can’t tell people what to
do, but you can encourage them. We can’t come down from the US and tell people how to farm, but we can do it ourselves, and show how this can be beneficial, and worthwhile to do.”

**Discussion**

This study addresses three issues that must be addressed in the ongoing effort to understand critical transformational learning: vision, knowledge construction, and praxis (Cunningham, 1998; Mayo, 2003), and exposes struggles archaeologists are undergoing in each of these areas. By examining the ongoing journeys of archaeologists who reveal their struggles as well as their moments of clarity, we are seeking to get a better sense of the “messiness” of these types of journeys, in contrast to the ways these journeys are typically expressed in much adult education literature—which are “usually told in a linear and sequential manner...” (Brookfield, 2000, p. 45-46).

What emerges from this study is that these archaeologists are concurrently redefining themselves, their practice of archaeology, and the discipline of archaeology; they are also seeking to bring about change in the ecological awareness of Western visitors and to bring about positive change in the local Maya community. This journey isn’t linear nor complete; these archaeologists are working out just what their responsibilities are, and how to enact them. The stories and practices of the archaeologists in this study reveal that these journeys of transformation are much more complicated than the narratives described by Brookfield. One reason for this messiness is the “social dimension” (Cunningham, 1998) of the learning; these archaeologists are involved not simply in personal transformations, but in personal transformations that are inseparably tied to disciplinary and social changes. Enacting personal and disciplinary changes “on the ground”—where one is seeking to foster community and social change—is a difficult and constant negotiation, as this project reveals.

**References**


