ies, social entrepreneurship, economic development." This is a broad claim, yet all these fields will benefit from this overview into the origins of Mata Ortiz pottery production, which owes much to serendipity. Highlighting Spencer MacCallum’s dogged search for the artisan who made vessels he bought in a secondhand store in Deming, New Mexico, the video documents his long-term support and encouragement of the creative and driven talent of Juan Quezada, which persists to this day. As a result, the video shows us the potentials of collaboration and learning by example.

Interviews with MacCallum highlight the chance purchase in 1976 of three Quezada pots and his adventure in the course of finding and then promoting the artist. Listening to commentaries by Quezada, MacCallum, and others who document the chronology of events, we discover a desolate village in the Chihuahuan basin-and-range desert, the inspiring role that Quezada played as a leader and teacher, and the success of MacCallum in increasing visibility of Mata Ortiz pottery from the 1980s to date.

The video introduces other family members, including the beguiling Nicolas who lamentably died before the video was released. Nicolas and other family members as well as neighboring villagers participated in the development of the unique pottery and building the trademark of the Mata Ortiz style. And we meet the younger generation who has taken the original ideas of Quezada a step further, specifically the inventiveness of Diego Valles.

Not only has the pottery of Mata Ortiz gained considerable visibility in the United States over the years, but significantly, Mexico has recognized the contribution of this modern artisanal tradition, one that was initially stimulated by the distinctive pottery made by prehistoric occupants of nearby Casas Grandes, also known as Paquimé. We are told that Juan Quezada won the highest arts and crafts award in Mexico for his works, as did Valles later in the category for young artists. Both these villagers received their honors at gala events from the president of the nation. Quezada commented that this was made easy by his experiences with MacCallum at museum events and presentations.

Because the content of the video is driven by a series of commentaries orchestrated around Quezada and MacCallum, there is minimal information concerning the distinctive production, stylistic origins, and decorative evolution of Mata Ortiz pottery. Moreover, we are given little information about the social context in which other villagers began to participate in pottery making, nor the growth in the technology of the pottery production.

Most significantly, at the beginning of the video we learn that Juan Quezada encountered a cache of prehistoric Casas Grandes pots that stimulated him to make his own. His earliest vessels were painted in a “Casas Grandes style,” but he and other potters in the village eventually elaborated this style and adopted stylistic elements from other sources. In particular, they developed a technique of fine-line painting using distinctive brushes made of human hair. We are left to wonder, though, whether this technique was a local invention or was acquired from elsewhere.

Regarding pottery production, in one scene we see a cart containing colored stones with mineral content. Are these for paints or for coloring slips? We follow Valles into the countryside to mine clay, but we learn little about the selection of clay sources and the preparation of clay, nor the tempering material that might be added before it is formed into vessels. Some of the commentaries take place while vessels are being formed or painted, but these give little idea of the whole production process. As well, brief unexplained scenes of vessel firing are included, but there is no coverage of how firing is done. If we had not visited Mata Ortiz in the mid-1980s and seen firing episodes, we would not have understood the simple firing procedures that Mata Ortiz potters use to produce either oxidized or reduced vessels.

We also do not gain a sense of Mata Ortiz as a community—the proportion of the villagers who are potters and how they relate to each other economically and socially in producing and marketing their arts. From our visit some 30 years ago, we know that not all villagers were potters. Outtakes associated with the video do provide some historical information, such as origin of the community’s name being from a nationalist who hunted out revolutionaries in the volatile first decades of the twentieth century. We also learn that the town has lumbering origins and provided workers for the railroad.

Despite these shortcomings, the video serves as an excellent introduction to the artisanal pottery production in Mata Ortiz, and it tells the story of its origin in the words of the principal participants. In this sense, the video also serves as an archive of oral history that surely will be of interest to future scholars studying this extraordinary development of an artistic tradition. As well, much of the attractiveness of the video derives from significant footage of the vast, arid landscape surrounding Mata Ortiz, some of the footage utilizing time-lapse photography, to place the community in a geographic context. Clearly Scott Petersen, the video’s director/editor, and Pete Biagi, director of photography, saw significance in the isolation of Mata Ortiz.

Science before Modernity, Archaeology of the Present

Fumie Iizuka

School of Anthropology, University of Arizona, P.O. Box 21030, Tucson, Arizona 85721-0030, U.S.A. (fiizuka@email.arizona.edu). 26 VIII 14


The foundation of behavioral archaeology and what separates
it from other archaeological theories: it seeks to study the “relationships between human behavior and material culture” regardless of time or place (Reid, Schiffer, and Rathje 1975: 864). In his latest book, The Archaeology of Science: Studying the Creation of Useful Knowledge, Michael Schiffer, a founder of this approach, introduces a new theme of behavioral research—the archaeology of science. Contesting the general association of “science” with modernity, Schiffer originally expanded its definition to encompass the qualitative discovery processes that produced shared knowledge among indigenous peoples as well as those living in premodern contexts. Here, he voices his concern that despite the behavioral definition of science as existing in all societies, past and present, most case studies have focused on traditional societies. Building on expertise in science, technology, and invention processes, Schiffer contends that recent and contemporary scientific activities can be effectively analyzed within the behavioral framework, taking his inspiration from the analysis of Nevada test sites and Cold War military sites by Rodney Harrison and John Schofield (2010).

The intellectual contribution of this approach to the archaeology of science is that it is “archaeological research into the processes and products of science” (13) in various temporal periods and societal contexts. To establish a framework for the archaeology of science, he divides the volume into three parts. In part 1, he theorizes archaeology of science and contextualizes examples provided in part 2, existing approaches. Part 3 details future possibilities. The behavioral approach involves interactors (e.g., people, artifacts, and environmental phenomena) and sequence of interactions for an activity. Technical choices are made by producers to achieve performance characteristics. Changes in performance can occur during an artifact’s life history. When new technical choices are made, new performance or interactions emerge. These may lead producer-investigators to form generalizations, describe the effect, and make discovery claims (14–17). Science emerges when observation of patterns enables interactors to predict empirical outcomes of performance discoveries and share this knowledge (17–18). Schiffer proposes that projects by investigators (i.e., scientists) from any societal context can be examined and analyzed. Scientific projects are constrained by resources required for a project (developmental distances) that depends on social and economic contexts (20). Complex science projects require subsidiary technology projects to create necessary new apparatus and artifacts, which in turn may produce additional scientific projects (21, 23). Scientific knowledge with predictive capabilities consists of descriptions and generalizations that can be modeled by archaeologists (25). Scientific descriptions made by investigators involve observations, categories, and classifications. Investigators’ scientific generalizations involve empirical generalizations, experimental laws, and with further complex processes, manufacture of recipes, scientific theories, and models or simplified explanations (25–38).

Schiffer’s contribution in part 2 is the application of his theory of science to existing studies done through experimental archaeology, ethno-archaeology, and archaeometry. Here, he suggests how to model science using existing archaeological approaches but acknowledges that examples are limited because they mainly come from traditional societies and past cases. For instance, experimental archaeologists conducted replication studies of lithic production to determine how Folsom knappers performed a complicated task of bifacially detaching a long channel flake. They came up with various possible methods of doing so, demonstrating how experimental archaeology helps infer scientific processes involved with the Folsom flute creation (47–48). Using ethnoarchaeological description of interactions from a case study of obsidian scrapers used to process hides in Ethiopia, Schiffer created a model for a recipe for hide scraper use and retouch (55–57). Modern researchers used archaeometric studies—chemistry and X-ray diffraction—combined with replications, ethnohistory, archaeological evidence, and context, to understand processes that created the exquisite pigments in the ancient Maya Blue (66–69).

In part 3, Schiffer proposes ways to apply the behavioral approach to study science in cases mostly from modern periods. For example, he redefines the scholarly discussion over whether Otto von Guericke’s 1672 device is the first “Electrical Machine.” By asking behavioral questions about the creator of the machine and subsequent changes, he provides a contextualized narrative that infers the creator’s scientific behavioral elaboration. Scientific expeditions to Antarctica are also proposed as a topic of research. Investigation of decision-making processes in adopting tools and artifacts adjusted to the station conditions and assessing performance characteristics of machines used for transportation (137, 141, 143). Schiffer further suggests that scientific activities can be studied by analyzing remains from the US nuclear establishment. The scientific endeavor to produce an atomic bomb in the Manhattan Project was high in developmental distance, producing many subsidiary technology and scientific projects, generalizations, and cascades of inventions (145–148). After the war, the Manhattan Project induced a military-industrial-academic complex and triggered international competition.

For Schiffer, the multitude of documents, material remains, and science projects from the Manhattan Project is an ideal subject for testing behavioral questions. However, because the project also had many social implications over time, such as impacts on environment and human health, I suggest the research agenda could be expanded by proposing social responses of individuals and communities to the mega nuclear project and their possible influence over the directionality in industries (e.g., as Schiffer has done in his studies of other modern technology: Schiffer 1991; Schiffer et al. 1994). The proposition to study space exploration seems the most innovative application of archaeology of science. Schiffer suggests that archaeology becomes a perfect tool to examine performance characteristics, artifact variability and change, as well as to make international comparisons, generalizations,
and recipes of space technology. Studying debris of artifacts remaining in space and on planets as well as technologies that can be inferred in missile and rocketry sites and their subsidiary projects (170–171) are suggested as subjects, among others.

The archaeology of science expands the behavioral concept by focusing on the science behind technology in traditional and past societies and by demonstrating that science of the modern era can be modeled with this archaeology. It gives us a framework to study behaviors and decision-making processes of scientists/investigators during production and demonstrates that by posing behavioral questions we can comprehend processes in which predictable outcomes lead to shared knowledge and in which empirical generalizations, recipes, and theories emerge. In sum, this new work by Schiffer is an important contribution to archaeological theory and related fields and a must-read for those interested in the study of science in the past and present.

References Cited


Bridging Ethnography and Bildungsroman

Lauren Carruth

Elliott School of International Affairs, George Washington University, Suite 501/1957 E. St. NW, Washington, DC, 20052, U.S.A. (carruth@email.gwu.edu). 7 XI 14


Peter Redfield’s latest book, *Life in Crisis: The Ethical Journey of Doctors Without Borders*, is a must-read for anyone interested in humanitarian work, the history of humanitarianism, or the anthropology of aid. It is a foundational text for social scientists engaging what is now termed “medical humanitarianism.” Personally and professionally, I have long been fascinated by the subject matter Redfield so carefully explores, and to put it simply, this is one of the most fascinating scholarly manuscripts I have read. The book, while dense, offers several unique and important contributions.

*Life in Crisis* provides a historically and analytically rich ethnographic case study of the famous aid institution Doctors Without Borders, also known as Médecins Sans Frontières, or more simply, “MSF.” MSF becomes Redfield’s protagonist, he claims, rather than merely his ethnographic setting; but over the course of the book, MSF also emerges as a considerable antagonist—continually critiquing itself and the humanitarian enterprise.

Though focused on an institution (not a people) as it moves through time and space, Redfield engages in what many would consider traditional anthropological research. He represents chosen “native” voices—in this case, an array of volunteers and staff associated with MSF, in the many locations they inhabit. He also provides meticulous detail and critical insight into MSF’s well-known “origin myth”: its founding by a group of indignant French aid workers just back from providing medical assistance to civilians during the Nigerian Civil War and upset about the International Committee of the Red Cross’s alleged silence and negligence in the face of suffering. Outside this book, MSF is often cast as antithetical to the Red Cross. Redfield deftly complicates this framing by depicting the chaos and precariousness of the organization’s first years, by characterizing ethical and practical disagreements as fundamental to MSF’s emerging ethos, and by highlighting the importance of professional medical ethics, including the Hippocratic oath, and the mundane practice of emergency medicine, as fundamental to its (contested and malleable) principle of neutrality. The founders, however conflicted, imagined a new and different kind of global emergency medical relief organization: one that refused complacency and embraced polemics, one that grounded its relevancy in the provision of high-quality medical care wherever needed (“sans frontières”), and one devoted to witnessing suffering and advocating on behalf of patients (“témoignage”).

*Life in Crisis* revisits several additional ethical dilemmas that shape MSF’s mandate and decision-making processes, but to add depth, Redfield steps beyond staffers’ words and writings to examine their philosophical and political underpinnings. For example, Rony Brauman, former head of the French section of MSF, famously maintained that a “human” is defined as “a being who is not made to suffer” (41). But rather than following this statement to the simple conclusion that MSF’s work is to end suffering and thereby save human lives, Redfield tracks Brauman’s logic and language backward through time. He finds resonance with Hannah Arendt’s writing on the birth of “victims” and “politics of pity” during the French Revolution; with abolitionist movements recognizing the moral injustices and necessity of action to end suffering for distant enslaved populations; and even with Rousseau, who argued that suffering was a historical phenomenon resulting from human action, rather than divine will or moral failing. In so doing, Redfield brings new relevancy to each of these ideas, including Brauman’s.

This text also usefully places MSF—as an organization, as a collection of actors, and as a political force—within the French, and to a lesser extent, broader European intellectual, cultural, and political milieux. At the same time, Redfield demonstrates how MSF’s collective moral compass was calibrated not solely by its leaders’ medical training and personal encounters with suffering, but also by their collective readings of some of the most influential thinkers and writers to the