



Technology and Tradition in Mesoamerica after the Spanish Invasion: Archaeological Perspectives

Rani T. Alexander (editor), University of New Mexico Press, Albuquerque, 2019. 291 pp., 75 figs., 28 tables, bibliog., contributors' bios., index. \$85.00 cloth

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A worthy accompaniment to recent collections on the postcolonial archaeology of Mesoamerica, Rani T. Alexander's newest edited volume focuses on the question of technological change following Spanish invasion of Mesoamerica. *Technology and Tradition in Mesoamerica after the Spanish Invasion* uses technological change as a window through which to understand the uneven and all but instantaneous imposition of Spanish—and Spanish descendent—cultural forms, values, and economies throughout Mesoamerica. The themes explored in the volume range from early technological shifts in the decades immediately following the initial invasions of the 16th century, to transformations that took well over three centuries to unfold. Authors speak to themes classic to archaeology—such as changes in ceramic production—and those more commonly encountered in science and technology studies—including innovations in water management and the industrialization of fiber production. The volume is at its strongest when archaeological insights are brought to bear on longstanding questions regarding the relationship between technology and society: under what circumstances do technologies become obsolete? How much do global pressures, including violence and economics,

influence the rate at which older technologies are supplanted by newer ones?

In his concluding discussion, Anthony P. Andrews (chap. 12) successfully pinpoints the important themes elaborated by the volume's contributors. Among these are the persistence of native technologies, the incorporation of European technological features within those technologies, and the importation of unfamiliar European technologies as key points of convergence. The authors successfully elaborate on these themes by demonstrating their significance for thinking not only about the life histories of specific technologies but about the social and environmental impacts that small shifts in technological knowledge—whether through gain or loss—can have. For instance, Alejandro Pastrana Cruz, Patricia Fournier García, William J. Parry, and Cynthia L. Otis Charlton (chap. 2) successfully tackle a recurrent technological question students of early colonial archaeology often face: does metal, which normative scholarship presumes superior to obsidian, actually supplant obsidian tool use immediately? They show that it does not; rather, this transition took nearly two centuries. Their approach—similar to that taken by other volume authors (chaps. 3, 5, 6, and 11)—underscores the fact that the pressures of colonialism are not reducible to rapid obliteration, nor are those pressures unidirectional.

Several of the authors make use of theories drawn from behavioral archaeologies, specifically the longstanding notion of *chaîne opératoire* and Michael Schiffer's concept of "invention cascades." Some chapters engage less directly with these sorts of theoretical

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frameworks, but in turn provide robust comparative analyses of multiple artifact classes across multiple contexts and time periods. Though they might read more densely (more akin to the familiar site report genre), they do heavy lifting to show how the adoption and adaptation of European technologies in Mesoamerica came in slow and uneven waves. For example, Tracie Mayfield, Elizabeth Graham, and David Pendergast's "Cane and Consumerism" (chap. 9), though it does not focus on any one technology, could be read as a deep, materially based social analysis of the idea of the plantation-as-machine. In addition, the use of innovative analysis techniques in many of the chapters may pique readers' interests. For researchers with questions about specific technologies such as *norias* (waterwheel powered well systems; Rani Alexander and Nina Williams, chap. 7), decorticating machines (Héctor Hernández Álvarez, chap. 8), or indigo dye processing (Kathryn E. Sampeck, chap. 10), this book is a wealth of previously unaggregated knowledge.

Overall, I found the studies presented in this volume to be quite valuable. My biggest critique lies less with the studies themselves and more with an ongoing issue in archaeological theorizing. Alexander (chap. 1) spends significant time outlining theoretical approaches to material and culture change in colonial contexts including acculturation, *mestizaje*, and hybridity. Extrapolating from material to culture has always been something that archaeology has simultaneously excelled at and struggled with. Though Alexander acknowledges the dissatisfaction archaeologists (alongside many other social theorists) have with these concepts, she concludes, "the contributors to this volume are not ready to sign a requiem for hybridity just yet." However, the particular historical conditions of settler colonialism and coloniality in Mesoamerica offer pointed examples that problematize research frameworks that center questions of technological abandonment, adaptation, innovation, production, and consumption around hybridity.

Many of the volume's authors do acknowledge this tension with respect to questions of societal transformation and technological change in Mesoamerica following Spanish invasion. As just one example, Krista L. Eschbach (chap. 4) offers a brilliant ceramic analysis of predominantly Afromestizo neighborhoods in the Port of Veracruz. She argues that by viewing the ceramic

assemblage as the result of a set of choices, archaeologists can assess the degree of technological contribution from European, native, and African traditions at each stage of production. She concludes that European and indigenous contributions to technological style in the Port of Veracruz's ceramic assemblage are identifiable, but that African technological contributions remain ambiguous. Thus, African descendent peoples were using both European and native vessel forms in their daily lives. Her analysis of the ceramics was innovative and thorough. Yet, I admittedly found myself frustrated by the potentials of the hybridity framework in this context. Though in some regions, such as the Caribbean, enslaved blacks—or even free African descendent castes living within the colonial system—brought their expertise to bear on local vessel forms, many would have had few *other* options than to materially (if not culturally) integrate into Spanish colonial society by consuming European and indigenous ceramics (alongside other material products). I do not aim critique at Eschbach specifically, who brings much needed attention to the largely invisible material signatures of African descendent peoples in Mesoamerican archaeological contexts. Rather, I mention this frustration as an example of how illustrating multiethnic, multiracial, multifaith colonial societies through material analyses will remain an elusive endeavor while our analytic frameworks—explicitly or implicitly—continue to equate certain kinds of pots with certain kinds of people. The works in this volume begin to unsettle the ideational ownership of certain technological types by particular categories of colonial persons as well as the unfounded myths of European technological superiority, but I am not sure it need rely on theories of hybridity to do so.

Archaeologists working in Mesoamerican contexts have been reasonably successful at bridging the epistemological divides between the so-called prehistoric and historical periods, but the field remains oriented toward preinvasion research questions and contexts. Sometimes this orientation creates a bias in the way that investigators approach sites, often overlooking or quickly discarding postinvasion period contexts. Stacie M. King and Elizabeth Konwest (chap. 5) remind us that "not all sites that date to the 'colonial' era are necessarily going to include diagnostic colonial goods, especially in rural areas." As such, the works presented in *Technology and Tradition* are a testament to how attention to things and contexts undervalued can inform not only the questions

specific to a given site, but what we understand about the materiality—and experience—of longer-term and larger-scale processes such as settler colonialism and racial capitalism. As Alexander rightfully claims in her introduction, the study of these postinvasion contexts and the technological changes they were implicated in illuminate “productive avenues” for archaeology and anthropology’s “enormous potential” to “contribute to

resolving today’s social, economic, and ecological problems.”

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