

specialization (Spence 1981). Yet, while some researchers presumed that the ample evidence for production debris was a clear indicator that obsidian working was enacted in nondomestic settings or workshops (Santley et al. 1989; Santley and Kneebone 1993), other investigators questioned the heavy reliance on surface findings, minimizing the presumed specialized production at Teotihuacan based in part on the surface mixing of domestic trash with the obsidian refuse (Clark 1986). John Clark (1986, 32) argued that production waste (which he expected to come from nondomestic workshops) should not be comingled with household trash, and that locations thought to have been areas of specialized production at Teotihuacan may just be garbage dumps or refuse accumulations. The anomalous ‘mountains’ of obsidian surface debris at the site were seen rather as ‘molehills’ when it came to high-intensity production for exchange (Clark 1986).

To a degree, this analytical debate stemmed from imprecision in the manner in which the term ‘workshop’ was employed (Costin 2020, 180), either as any location of production, or more precisely as a nondomestic setting where high-intensity production was carried out. But the even more fundamental disagreement stemmed from the presumption that scale and intensity of production were necessarily coupled in line with the monolithic model. Excavations at Teotihuacan subsequently have established that high-intensity obsidian working for exchange was enacted in a domestic context (Hirth et al. 2019).

At roughly the same time that the debate over craft specialization at Teotihuacan was happening, there were parallel discussions regarding the Classic Maya site of Colha, where excavations had yielded a suite of indicators for specialized chert tool manufacture for exchange (Hester and Shafer 1994; Shafer and Hester 1983, 1986, 1991). At that site, excavations exposed numerous dense concentrations of chert debris and large quantities of certain chert tool forms (both finished and unfinished). These tool forms made with similar chert materials were found at neighboring sites, but only in finished form. Much of the Colha chert debris was found adjacent to residences, seemingly indicating that these production activities were taking place in residential settings (McAnany 1993, 233).

Nevertheless, as at Teotihuacan, the seemingly strong case for craft production at Colha was challenged (Mallory 1986), and it was argued that the chert concentrations were just waste dumps while the tools were exclusively produced for local consumption. Undergirded by entrenched notions of self-sufficiency, the alternative view presumed that the occupants of a site, like Colha, that was not a major regional center must have principally been devoted to farming. Once again, core tenets of the monolithic, categorical model clouded the issue. Researchers on both sides of these interpretive debates were slow to recognize that high-intensity specialized production for exchange could be situated in domestic contexts, even when those activities were unlikely to have been full-time.

6.3. The Ejutla Research

The unusual surface concentration of marine shell that we first encountered in 1984 on the eastern edge of the modern town of Ejutla was noted during the regional survey project focused on the Ejutla Valley (Feinman and Nicholas 1990, 2013). From the survey and mapping of Monte Albán (Blanton 1978), the Valley of Oaxaca Settlement Pattern Project crews were vigilant and systematic in recording surface artifacts, including atypical concentrations, that could be indicative of production activities. Despite this focus, archaeological contexts with even one piece of marine shell on the surface were relatively rare in the landlocked Valley of Oaxaca, and only a handful of sites (out of more than a thousand recorded during the systematic surveys) had more than a few pieces of shell (Blanton 1978; Blanton et al. 1982; Kowalewski et al. 1989). Pieces of shell debris and worked or cut shell fragments were highly infrequent on Oaxaca survey sites.

In this context, the surface shell findings, which included worked, cut pieces, at the eastern edge of modern Ejutla not only provoked a series of questions but opened a realm of analytical opportunities (Feinman and Nicholas 1990, 1992, 2013; see chapter 2). If the shell was indeed prehispanic, could be dated in accord with the surface pottery that was found with it, and could be placed into an identifiable context, then this location seemingly would represent a place where marine shell was crafted into ornaments. And, importantly, it also could provide an opportunity to investigate in what scalar context (house, nondomestic workshop) the shell was crafted. We already (chapter 1) have posed a series of related queries that we aimed to research, but we stress this question here as it was directly pertinent to the debates that were ongoing in relation to production at Teotihuacan and Colha. For this research question, shell was a fortuitous material to assess these issues, as it clearly was not a utilitarian good, as pottery or stone can be. Therefore, unlike those more basic goods, it seems less likely that the products of shell craftworking were entirely consumed by the producer’s household.

During our first two field seasons of excavations at Ejutla (1990–91), we were able to rapidly discern that marine shell was indeed crafted at the site, the working of shell was definitely prehispanic, most of the shell came from the Pacific Coast, and other craft activities were enacted (pottery production) in the same setting (Feinman and Nicholas 1993; chapters 7, 8, and 9). We also strongly suspected that the setting that we were studying was a domestic context, an interpretation that we affirmed during excavation and analysis seasons in 1992–94 (chapters 4 and 5). Although much of the marine shell debris that we exposed was found in midden contexts, both chemical and microartifactual analyses linked craft activities, most specifically the working of shell, to domestic living surfaces (Feinman 1999; Feinman et al. 1993; Middleton 1998, 2004; Middleton and Price 1996). Stone tools (chert drills and obsidian blades) likely used to work shell were

recovered in conjunction with the shell debris both in the middens surrounding the house and inside the residence.

At the same time, given the anomalous quantities of shell recovered in the contiguous area where we excavated part of a Classic period residence and adjacent external areas, it is clear that most of the shell ornaments prepared by the Ejutla craftworkers were not consumed by the householders themselves. Finished ornaments were a small fraction of the shell artifacts unearthed, and even the domestic tomb, associated with the excavated residence, contained only a single shell bead. The residents of this house cut and worked a suite of marine shell species, but finished ornaments made from most of those species were not found, which again seems to indicate that they were mostly distributed and consumed elsewhere.

The Ejutla craftworkers were specialists, producing in a residential context, but collectively they were not devoted full-time to making shell ornaments, as other crafts, including pottery, fired-clay figurine manufacture, and the working of stone were also evidenced in association with the excavated residence. Figurines made in Ejutla were consumed at other sites in that region (Carpenter and Feinman 1999; Feinman 1999). Farming and food preparation were also evidenced materially in the house that we studied (chapter 5). The practice of multiple craft production activities in association with a single domestic unit at the Ejutla site (Feinman 1999; Feinman and Nicholas 2007a) has recently been more widely recognized in prehispanic Mesoamerica as well as in other premodern economies (Brumfiel and Nichols 2009; De Lucia 2013; Hirth 2009a, 2009b, 2009c; Shimada 2007; Widmer 2009).

6.4. Broader Implications for Prehispanic Mesoamerican Economies

For the study of Mesoamerica, the dismantling of the monolithic, unilinear model of craft production and the decoupling of scale and intensity in regard to economic specialization, which was to a degree fostered by our findings in Ejutla (Feinman 1999; Feinman and Nicholas 2000), had revolutionary ramifications for how we think about ancient Mesoamerican economies and even premodern economies more generally. The recognition that almost all specialized craft production in prehispanic Mesoamerica, even late prehispanic metal working (Maldonado and Engelhorn-Zentrum 2009), was situated in domestic contexts holds even after several subsequent decades of intense fieldwork focused on many regions and eras of that macroregion's past. Furthermore, Mesoamerica is not the only premodern region where craft specialization of both utilitarian and prestige goods generally was situated in domestic contexts (e.g., Bernier 2010; Costin 2020).

The placement of most prehispanic Mesoamerican craft specialization in domestic contexts immediately casts doubt on the application of theoretical models (Marx

1971; Rosenswig and Cunningham 2017; cf. Feinman and Nicholas 2017) that uncritically extrapolated from other global regions and placed the control of most production in the hands of governors or principals (Feinman 1999; Feinman and Nicholas 2000, 2012). If hundreds or thousands of households across regions of prehispanic Mesoamerica produced goods for exchange, how could that production be centrally administered? Why do we lack any evidence of central storehouses for craft products? Given the realities of prehispanic Mesoamerican transport, the notion that weighty products, like ceramic jars or stone tools, were first confiscated by principals and then redistributed neither seems plausible, nor does it find a thread of empirical validation (Feinman et al. 1984; Feinman and Nicholas 2007b, 2012).

And yet, the realization that economic specialization in Mesoamerica was mostly centered in houses served to raise fundamental questions about the distribution and consumption of craft products. Markets, which impressed the Spanish invaders at the end of the late prehispanic Mesoamerican world (Feinman and Nicholas 2021), were generally diminished by anti-market frames (Cook 1968) that lessened their perceived importance and the temporal depth of their pre-Aztec presence in Mesoamerica. A plethora of recent studies have compiled multiple lines of evidence to document the importance and the diversity of precolonial Mesoamerican markets (e.g., Feinman and Garraty 2010; Feinman and Nicholas 2010; Garraty and Stark 2010; Masson and Freidel 2012; Shaw 2012). But Mesoamerican market systems were not just critical modes of exchange isolated to specific regions; rather, there is mounting indication that macroregional interconnections between local market networks extended across Mesoamerican regions long before the Aztec empire. Craft products and other goods were moved considerable distances across the macroregion over time (Blanton and Fargher 2012; Feinman and Nicholas 2020c; Feinman et al. 2022; Golitko and Feinman 2015; Hirth 2013). And the directionalities and volumes of Mesoamerican economic networks were variable over time and space (Blanton et al. 2005; Feinman et al. 2022); intensities and patterns of production and consumption were dynamic. Markets take different forms and roles in relation to governance in the political-economic contexts in which they are embedded (Feinman and Garraty 2010).

In general, when domestic consumption practices have been compared across settlements or regions, they tend not to be indicative of pooling or redistribution, but rather reflect other mechanisms of economic transfer, like marketplace exchange (Feinman and Nicholas 2010, 2012; Hirth 1998). More specifically, whereas a ceramic figurine made in Ejutla was exchanged to another settlement in the region (Carpenter and Feinman 1999; Feinman 1999; chapter 7), shell ornaments were likely moved longer distances, possibly even to Monte Albán (chapter 8), and mica from Ejutla traveled as far as Teotihuacan (Manzanilla et al. 2017; chapter 8). The findings from Ejutla underpinned a key step in eclipsing