



Figure 3.5. All the marine shell collected from level 5 of 18n22e.

in the dense shell layers in 18n22e. Other shell taxa that were well represented in the collections include the large gastropod, *Strombus* (especially *S. galeatus*), the colorful pelecypod, *Spondylus* (more commonly *S. princeps* but also *S. calcifer*), and the large limpet, *Patella mexicana*. The shell was worked into a range of ornaments, including beads, disks, pendants, bracelets, and *placas* (small angular cut pieces) that were likely intended for mosaic inlay. Some were blanks for beads or pendants that were never finished. Overall, though, the ornaments were greatly outnumbered by shell debris, including fragments with cut marks, other unwanted or unusable parts that had been cut away, and tiny chipping debris recovered from the 1/8" mesh. Chipped stone tools and large quantities of small stone flakes and debris were also found in association with the shell in subsurface contexts, and based on the shell debris, the ornaments themselves, and the tools and other chipped stone debris, we documented various technologies that were used to work the shell (see Suárez 1977, 1981), including heavily worn obsidian blades that were used to cut the shell and chert microdrills that were used to perforate beads and pendants for stringing (e.g., Lewenstein 1987, 67).

One unexpected finding from the 1990 fieldwork was surface evidence of lapidary crafts. We collected seven small, stone drill plugs that have been recognized as a byproduct of hollow drills used to manufacture stone

bowls (Diehl 1983, 101–02; Saville 1900). The plugs varied in length from ~1.5 to 3 cm but had standardized diameters, 9–11 mm, similar to many of the shell disks that we had collected on the surface and in the test pits. We suspected that the same hollow tubular drills (likely of cane, see Caso 1965, 905; Coe 1965, 595–96) were used to extract circular disks from larger pieces of shell.

The abundance of shell debris, unfinished ornaments, and tools used to work the shell conforms to a manufacturing context. We did not find any cultural or architectural features in association with the midden of dense shell to define the context of production, but the likelihood that shell ornaments were crafted nearby encouraged us to return to Ejutla the following summer to expand the excavations into adjacent units.

3.2. Large-Scale Horizontal Excavation

From 1991 to 1993, we expanded the excavations from the initial test unit (18n22e) to expose an area of 190 m² in the eastern sector of the Ejutla site (Figure 3.6). The excavations took place entirely within one modern house lot, where additional subsurface probes revealed deep, intact deposits; however, further expansion was limited by modern structures and property boundaries. No attempt was made to obtain permission to excavate in the open fields to the south where additional subsurface probes

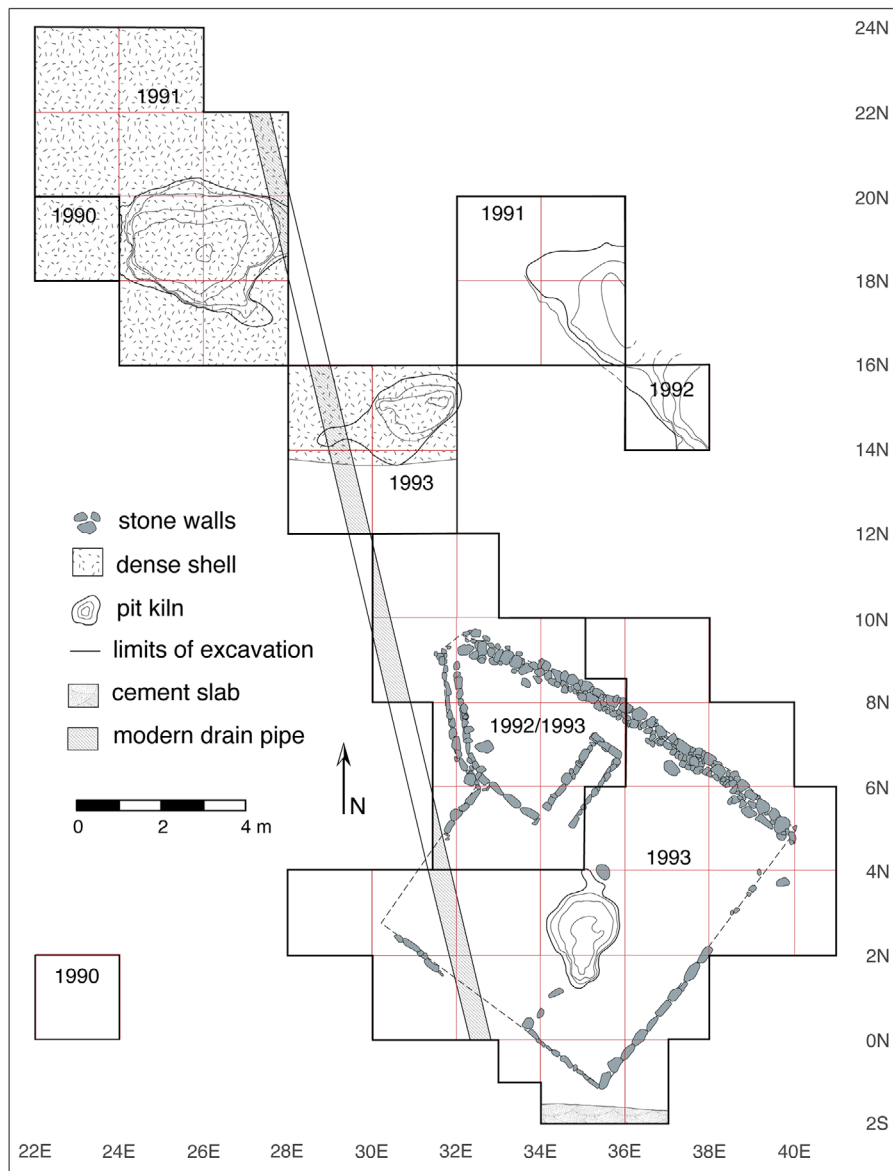


Figure 3.6. Map showing the areas excavated each year of the project.

corroborated the prior year's findings of high bedrock and fewer intact subsurface deposits.

We used the same 2×2 m grid that we laid out for surface collections and test pits and followed the same basic excavation procedures we had used in the 1990 fieldwork (Feinman et al. 1991). We excavated in natural/cultural stratigraphic layers, subdividing them into 5 or 10 cm levels (depending on context and nature of the deposits) in thicker strata and changing to new levels at stratigraphic boundaries. Discernible features including pits, hearths, burials, dense middens, and possible rooms were excavated separately within each level. Heavier tools (shovels, *baretas*) were used to remove the disturbed plow zone, whereas smaller tools (trowels, ice picks, dental picks, and brushes) were used for intact deposits where the density of artifacts, especially shell, was high. Within excavation

blocks, we followed features into adjacent units and exposed broad horizontal areas before excavating to lower levels. All units were excavated to the underlying bedrock.

All excavated soil was screened in either 1/4" or 1/8" mesh, depending on the context and nature of the deposits (Figure 3.7). Soil from the disturbed plow zone was screened in 1/4" mesh, while all deposits with dense shell debris were screened with 1/8" mesh to recover the byproducts and residues of manufacturing activities as well as tiny beads that could slip through the 1/4" mesh. All recovered artifacts were collected separately by unit, level, feature (when present), and material (ceramics, shell, lithics, bone, etc.). Other remains, such as mica, stucco, burnt rock, daub, were recorded for each provenience, and in some cases were collected. The presence of charcoal was always noted, and samples were taken for ^{14}C dating



Figure 3.7. Crew members excavating and screening excavated deposits at Ejutla.

when adequate amounts were present in intact contexts of significance. Soil samples for flotation were collected in select contexts, but in general, prehispanic organic material was rare or poorly preserved. All collection bags were recorded on a master list by year to track bags and help root out recording errors.

We completed a form for each excavated level, recording the depth of the level, the tools used to excavate the level, size of screen mesh, soil descriptions, any observed features, general descriptions of the recovered artifacts, all unusual artifacts, charcoal samples (if collected), and the general nature of the deposits. For each level, we mapped artifact distributions, all features, and exposed bedrock, and elevations of all significant elements were recorded on the map. All features, artifact concentrations, and wall profiles of finished units were photographed.

Basic analysis of principal artifact classes was completed during each field season. All artifacts were catalogued, washed, measured, coded, and weighed in the field laboratory concurrently with fieldwork and during the final weeks of each field season after the excavations had been closed. All significant artifacts were photographed, and select artifacts were drawn.

We began the block excavations in 1991 with units adjacent to 18n22e, the test unit in 1990 that had the greatest amount

of shell debris (see Figure 3.6; Feinman et al. 1991). The densest shell deposits in 18n22e were in the northeastern corner of the unit, so we expanded to the north and east. The plow zone was between 40 and 55 cm deep, and below that we followed the dense midden of ceramics, shell, and associated production debris into adjacent squares (Figure 3.8). Dense shell deposits extended across the 10 new units we opened in this excavation block. In addition to



Figure 3.8. Exposed midden in unit 18n24e with dense ceramics and shell debris.

the heavy volume of shell, we recovered debris indicative of lapidary activities (confirming surface findings in 1990), cloth production, and ceramic vessel and figurine manufacture, including several figurine molds.

Below the midden we encountered ashy deposits mixed with heavy concentrations of ceramics (Figure 3.9). The deepest levels were below the midden in the southeastern part of this excavation block, where the bedrock had been artificially dug out to form a roughly circular pit whose base was 190 cm below the modern surface (Figure 3.10). Some of the ceramic fragments were from large vessels that had been placed upside down near the bottom of the pit.

The second excavation block was 4 m to the east and consisted of four units. The plow zone was deeper (55–65 cm below the surface) and almost completely devoid of artifacts. The levels below the plow zone also contained much lower densities of material, especially shell debris, than the excavation block to the west. Very little cultural material was recorded until the lowest levels, where we encountered ashy layers containing high quantities of ceramics and a second large pit that had been dug into the bedrock to a depth of 225 cm below the modern surface (Figure 3.11). This ash-filled feature extended beyond the

limits of the excavation block. The bedrock at the base of both pits was burnt. Based on the presence of the heavy ash deposits, the characteristics of the ceramic assemblages, and other indicators of pottery production, these features were more than just ash pits, most likely firing pits, or pit kilns.

In 1992, we undertook a brief field season to better document the firing pit that was partially excavated in the eastern block in 1991 and to define the southern limits of the midden with dense shell debris in the western block. We began with two 2 × 2 m units. Our findings in the unit adjacent to the eastern block (14n36e) provided additional information on the size and contents of the pit kiln. We also exposed part of a third, lower firing feature, indicating that the specific location for firing may have shifted with some regularity (Figure 3.12). Given the depth of the firing features (>2 m below the surface) and the brevity of the field season, we were unable to excavate additional units to expose the pit kilns completely.

The other unit (8n32e) was placed in an area that we had been unable to access in 1991 due to contemporary usage. There was no surface evidence in the general area (building stone, vegetational differences, etc.) to guide us on what we might find. We did not come down on dense



Figure 3.9. Ashy deposits and ceramics near the base of 18n24e.



Figure 3.10. Partially exposed base of large pit in 18n24e and adjacent units.



Figure 3.11. Dense layer of ceramics and stones in ashy deposits in 18n32e.

shell debris below the plow zone as we had in the western excavation block to the north; instead, in a comparable stratigraphic layer, we exposed the top of a roughly formed wall of large unmodified cobbles and some shaped stones extending across the northern half of the unit and a largely perpendicular wall of smaller, shaped stones along the western edge of the unit (Figure 3.13). We expanded the excavations into adjacent units to follow the stone foundations in both directions. The wall of large cobbles continued to the east to the edge of the exposed area, while

the stones on the west were part of two parallel lines of stones that appeared to be a drain exiting the northeastern corner of a room, or patio, defined by two perpendicular lines of shaped stones (Figure 3.14). There was a small firepit in the area enclosed by the stone foundations. We eventually opened 35 m² in 10 full and partial units. These units were not excavated to bedrock; rather we extended the units horizontally to expose as much of the structure as possible in the limited time we had. Based on the shell debris, finished shell ornaments, and various indicators of ceramic manufacture that we found in and around the stone foundations, the structure is contemporaneous with the shell working and ceramic firing activities previously identified in this sector of the site. Other artifacts found in association with this multiroom structure indicated that it was domestic in function, tying the craft activities to a residential context. The location of craft middens adjacent to the excavated structure also conforms with ethnoarchaeological findings that garbage created by residential units generally is deposited on the house lot, but not in areas that interrupt other household activities (e.g., Hayden and Cannon 1983).

In 1993, we returned to Ejutla to excavate the rest of the residential structure (Figure 3.15). After removing the backfilled dirt from above the structure walls exposed in 1992, we continued to open up units as we removed the plow zone and then followed the stone foundations of the structure into adjacent units. A full exposure of the structure was limited, however, by contemporary features (Figure 3.16), including the house lot boundary



Figure 3.12. Ash-filled pit in 14n36e.



Figure 3.13. Roughly formed wall of stones in 8n32e.

(on the north and east), a modern drainpipe (on the west), and a cement slab (on the south) (see Figure 3.6). Once we defined the fullest extent possible of the prehispanic house, we excavated to lower levels in broad horizontal exposures until we reached bedrock or sterile deposits,

following the same procedures as in the 1991 and 1992 excavations. The northern part of the structure was sitting on a patch of higher bedrock (approximately 90 cm below the surface), while the bedrock was much lower to the south (~185 cm below the surface), where in the lowest



Figure 3.14. Small firepit in the area enclosed by the stone-lined drain and north wall of the prehispanic structure.

levels we found a small, stone-lined firing pit under the house floor.

A block of units excavated north of the structure connected the 1992–93 excavations to the blocks excavated in 1991 (see Figure 3.6). In these units we defined the southern edge of the dense shell midden, which ended 4–5 m north of the house. Just below the midden was another small firing pit.

All artifacts were preliminarily analyzed before the end of the field season. Given the high quantities of artifacts and debris from a range of craft specializations that we collected during the four years of excavation, all mixed with domestic trash, we returned to Oaxaca in the summer of 1994 to complete more detailed analyses. This further study of the materials informed and strengthened our discussions of the chronological sequence of the structure and associated features (chapter 4), the domestic assemblage (chapter 5), and the multiple craft

specializations in which the residents of the excavated structure engaged (chapters 7, 8, and 9). These findings provided an empirical basis to re-envision the prehispanic economies of Ejutla, Oaxaca, and Mesoamerica (chapters 6 and 10).

Overall, the Ejutla excavations uncovered a significant segment of a Classic period house and exterior areas associated with that residential unit. The exterior areas included ceramic firing features, midden deposits, and offerings. The prehispanic residence was sufficiently exposed to estimate its size and spatial layout. Further excavation of those parts of the prehispanic house that were not exposed or studied was precluded by modern dwellings, associated living spaces, a contemporary footpath, and areas that were too disturbed to yield contextualized prehispanic materials. Nevertheless, what we were able to discover and study yielded one of the first horizontal vantages on a Classic period house in the Valley of Oaxaca outside of Monte Albán.



Figure 3.15. Area of excavations at the beginning of the 1993 field season, showing modern house lot walls and structures.



Figure 3.16. Team members excavating the prehispanic structure within the confines of the modern house lot.

The Residential Complex

During the four summers (1990–93) of investigation in Ejutla, we excavated a contiguous area of 190 m² in the area of dense surface shell at the eastern edge of both the prehispanic site and the modern town. The excavation exposed a multiroom structure with rooms around an interior patio. The structure included a small subfloor tomb, kitchen area, and stone-lined drain. Domestic trash in and around the structure confirmed its residential character. Associated exterior space included several ash-filled pits, one of which was subsequently covered over by construction of the house; a midden area with high concentrations of cut shell mixed with domestic garbage; and the simple pit burial of a single individual (Figure 4.1). The middens and the pits contained high densities of ceramics, including numerous pottery objects and vessel wasters, defective figurine fragments, and molds that are indicative of ceramic production. These subsurface findings confirmed our surface observations that residents of this sector, or neighborhood, of the Ejutla site engaged in several different craft activities, most notably the working of marine shell. The fieldwork also specifically enabled us to associate multiple craft activities with one residential structure.

In this chapter, we describe physical details of the excavated house, the subfloor tomb, and the firing features, followed by a discussion of the ceramic chronology and ¹⁴C dating of the excavated features and associated craft activities. In chapter 5, we present the artifact assemblages and other material remnants associated with the excavated house and tomb that support our interpretation that the structure was a domestic residence. These basic findings provide a foundation to discuss implications of the specialized production that we documented. These production activities were implemented in a domestic context, and the evidence for multiple kinds of craftwork in this residential context have important ramifications for how we contextualize the prehispanic economy of Oaxaca and beyond (chapter 6). Subsequent chapters focus on the specific craft activities associated with the residents of the house: ceramic production, including figurines (chapter 7), the crafting of shell ornaments (chapter 8), the working of stone into tools and lapidary objects (chapter 9), and the fashioning of animal bone into tools and other decorative pieces (chapter 9).

4.1. The Residential Structure

The prehispanic house that we excavated in Ejutla was defined by a foundation of stones that demarcated several rooms around a small patio (Figure 4.2). These basal stones

would have helped preserve the integrity of the walls from damage by water seepage (Barnard 2016). Outbuildings and other surface features of a modern house lot blocked us from expanding in all directions to confirm the full extent of the house (Figure 4.3), but we fully exposed the patio and the northern and eastern rooms (Figure 4.4). Areas to the west and south, where prehispanic rooms were likely situated, were partially destroyed by several post-occupation activities. The base of a colonial adobe wall had cut through part of the southern wall of the prehispanic patio, a modern pit had removed a section of the western patio wall, and a modern drainage pipe cut a north–south path through the western portions of the excavated area and further impacted the southern and western edges of the patio.

Partially preserved foundation walls of flattened and shaped rectangular stones defined the edges of the residence's small patio. The patio enclosed an area of 4.5 × 4.3 m and was oriented approximately 35° east of north. The best-preserved foundation walls were in the northwestern corner of the patio, where a stone-lined drain allowed water to flow from the patio to beyond the northwestern edge of the residential structure (Figure 4.5). Roughly shaped stones formed the sides of the drain, and smaller flat stones lined the bottom. A small room on the east side of the patio was approximately 2.5 × 4.3 m in size. A foundation of large, roughly formed rectangular stones formed the eastern, exterior wall of the room, while a line of much smaller and thinner rectangular stones marked the southern edge of the room (Figure 4.6). Although only a few foundation stones in the northern and western (interior) walls of the east room were preserved, they appear to have defined a small, covered living space that was entered from the patio. During the excavations we also uncovered an offering of two small, carved ceramic vases that had been placed outside the corner of the east room, most likely as part of a dedicatory ritual during construction of the house (Figure 4.7, see also Figure 4.2).

Centuries of plowing the agricultural fields around Ejutla had disturbed the prehispanic structure, and the uppermost floor(s) of the rooms around the patio and the walls above the stone foundations were not preserved, but some small flecks of plaster were present in levels where the top surfaces of the stone foundations first became visible. The lower and subfloors of the patio and the east room consisted of a mixture of earth and crushed bedrock. In subsequent investigations at El Palmillo, we excavated a series of houses on residential terraces (Feinman et al. 2001a, 2001b, 2002a). In these contexts,