

## Introduction to the Volume

On the 16th day of June 1984, our field crew stepped out of our rented living quarters in Ejutla de Crespo to begin a systematic, regional survey of the Ejutla Valley. We walked toward the eastern edge of the town, a community of around 8,000–10,000 people at that time. The fields at the edge of Ejutla seemed like a reasonable place to start on the first day of a multi-month archaeological survey, as a key aim on day one was training the crew on our survey methods, and the proximity to town meant that no one had to be concerned about the location, nor was much time needed for travel.

Walking in town, we immediately began to find prehispanic potsherds and broken obsidian blades on the surface of the unpaved streets. In addition, pottery that clearly was not modern often was visible in exposed adobe bricks used in the construction of contemporary house walls. As we approached the fields at the edge of town, we observed an unusual artifact on the ground, a small piece of marine shell. Unlike the rest of our team, we had considerable prior experience as crew members on archaeological surveys in the Valley of Oaxaca to the north of the Ejutla Valley (Blanton et al. 1982; Kowalewski et al. 1989). These regional archaeological surveys were an outgrowth of Kent Flannery's multiscalar project, *The Prehistory and Human Ecology of the Valley of Oaxaca* (Flannery 1976a). To us, shell was a rare surface find. Ejutla is, after all, ensconced in Mexico's Southern Highlands, more than 100 km from the Pacific Coast (Figure 1.1).

We reached the fields at the eastern edge of town, unaware of what awaited us. The first plowed fields we entered were littered with broken pottery and obsidian blades, but it was the dense scatters of surface shell debris that focused our attention. In one small collection area (~0.1 ha) we picked up more than 300 pieces of shell (Figure 1.2). This was unprecedented, as we almost never found shell, especially in quantity, during our many months participating in the regional surveys of the larger Valley of Oaxaca in 1977 and 1980 (Blanton et al. 1982; Kowalewski et al. 1989).

Most of the shell we found in these fields was cut debris, ranging from fragments of large gastropods to small pieces of nacreous mother of pearl, and, even to our untrained eyes, clearly was not food waste. Some chunks appeared to be broken, unfinished ornaments or blanks. Only a few pieces were finished or polished, mostly small thin disks. There also were a few small, complete shells. Mixed with the shell were unusual quantities of broken, heavily used obsidian blades (Figure 1.3). We surmised that these tools may have been used to cut the shell. We also observed ceramic wasters and stone debris that was indicative of

lapidary activities. The utilitarian ceramics, grinding stone fragments, and concentrations of building stones in these same fields appeared to be domestic refuse, which raised the possibility that the shell-related and other craft activities that we suspected were enacted in this setting may have been situated in a residential context. That prospect was a bit curious at the time since most prehispanic and other premodern production activities, especially for exchange, were presumed to have taken place in nondomestic workshops (e.g., van der Leeuw 1976, 1977).

Over the next several years we remained intrigued by our findings on the east side of Ejutla and returned in 1990 to address the many questions that were raised by the observations and discoveries that we had made there six years earlier. What was the socioeconomic context of the shell working, when were these activities enacted, what kinds of ornaments were crafted, and for whom? What about the less obvious indicators of ceramic production and stone crafting? In the remainder of this volume, we report on the excavations that we led in the area of dense surface shell. We document what we recovered during five seasons of field and laboratory work, what we learned from those investigations concerning shell ornament production and other prehispanic craft activities, and the broader implications of this research for prehispanic Mesoamerican economies and interregional interrelations more generally.

### 1.1. What Brought Us to Ejutla

That first day in the fields on the east side of Ejutla de Crespo was the beginning of a regional-scale project that we directed over two summers in 1984 and 1985 (Feinman and Nicholas 1990, 2013). The impetus to survey the Ejutla Valley began soon after the regional survey of the Valley of Oaxaca was completed in 1980 (see Figure 1.1). The two of us were part of the field crew that surveyed the southern part of the valley during the 1980 field season. The southern boundary of the Valley of Oaxaca survey area was determined as much by local permissions and time as by the low hills that separated the Valley of Oaxaca from the smaller alluvial basin to the south. Settlement did not drop off as we neared the boundary with the modern political district of Ejutla, and we often thought about what might lie farther south. At that time, less was known about prehispanic Ejutla than about the larger Valley of Oaxaca to the north.

Although the Valley of Oaxaca has long been recognized as a core region of prehispanic Mesoamerica (Palerm and Wolf 1957), regional vantages are not entirely adequate

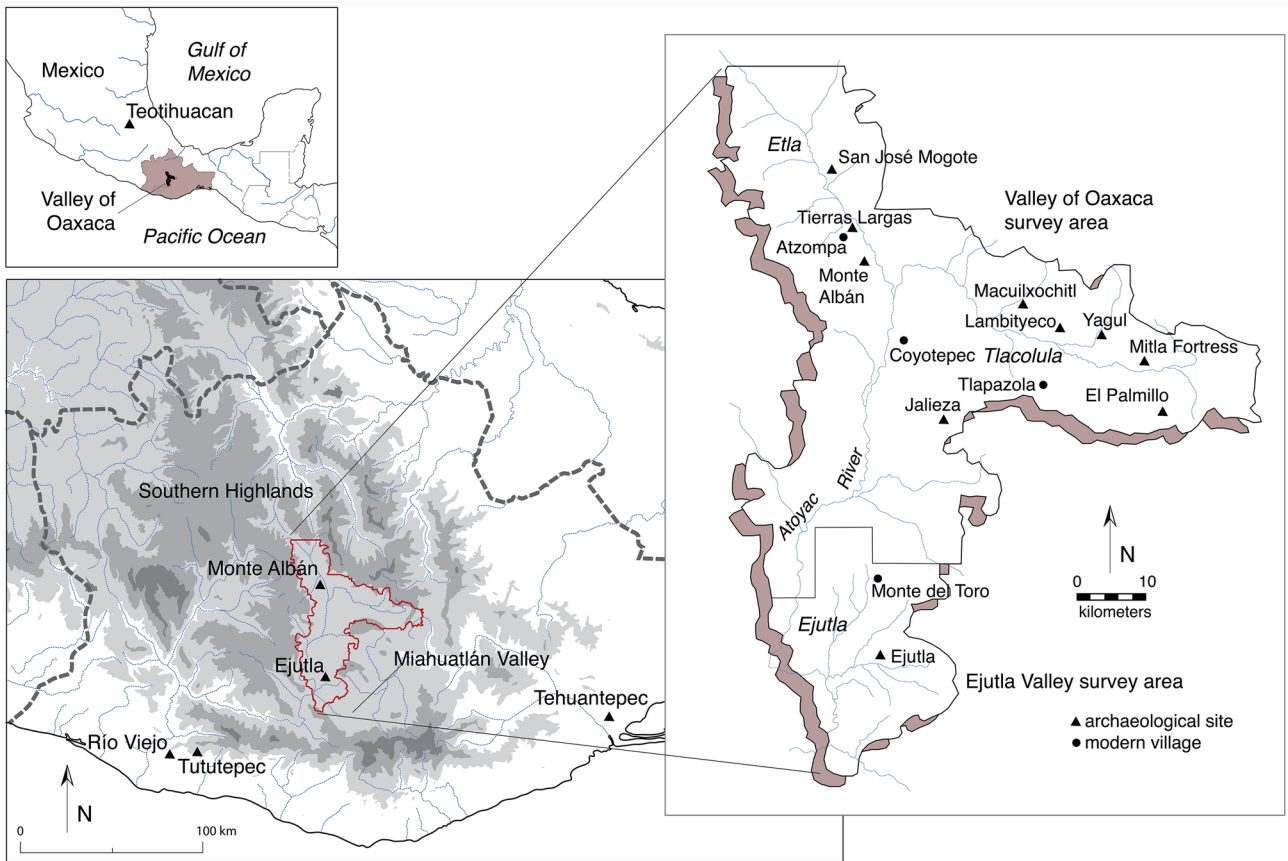
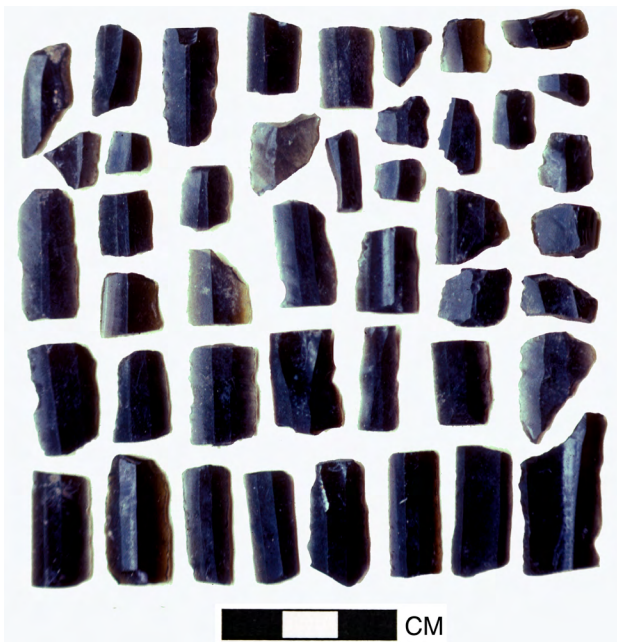


Figure 1.1. Map of Mexico's Southern Highlands and the Valleys of Oaxaca and Ejutla, showing places mentioned in the text.



Figure 1.2. Shell from one small collection area (CAE) on the east side of Ejutla de Crespo.



**Figure 1.3.** Obsidian from the same collection area (CAE) on the east side of Ejutla de Crespo.

to assess the limits of prehispanic polities or certainly the exchange links that extend beyond those boundaries (Kowalewski 2004). Political borders are not always coterminous with geographic regions (*sensu* Haggett 1966, 242–47) or with economic and cultural networks (e.g., Blanton and Feinman 1984; M. L. Smith 2012). One of our goals in expanding the systematic archaeological survey into Ejutla was to provide a broader macroregional perspective on the Central Valleys of Oaxaca, of which these two neighboring valleys were a part. What was the relationship between the Valley of Oaxaca and its smaller, southern neighbor? Did that relationship shift over time, and in what ways?

The results of the regional investigation of Ejutla (Feinman and Nicholas 1992, 2013) raised a series of additional questions that prompted our investigatory transition from survey to excavation. One of the joys of archaeological survey is finding the unexpected. The area of dense worked shell debris mixed with prehispanic ceramics and stone tools was one such unexpected discovery. But to address the questions that this evidence of prehispanic shell working in the landlocked Ejutla Valley brought to mind would require more fine-grained temporal and contextual information than survey could yield. Given the rarity of prehispanic shell working in highland Oaxaca, gaining a deeper understanding of this craft activity at Ejutla and why prehispanic Ejutleños crafted shell ornaments would be integral for examining interregional relations in the Central Valleys of Oaxaca.

## 1.2. Research Themes and Questions

Our discovery of shell-working debris in fields on the east side of Ejutla de Crespo, most likely in a residential

context, dovetailed with larger issues about interhousehold and intercommunity economic relations in prehispanic Mesoamerica that were starting to come to the fore. The earliest excavations in Oaxaca were carried out at the prehispanic urban capital, Monte Albán, with a focus on dating and monumental architecture (e.g., Caso et al. 1967). When Kent Flannery and Joyce Marcus (2005, 2015) began their excavations in 1966 at the earlier, Formative village at San José Mogote, in the valley's Etlá arm, north of Monte Albán, they placed great importance on looking at meaningful units to get at the social context of different activities. That research goal did not align well with the then-standard practice of excavating test pits and trenches. Instead, they (Flannery 1976a) made the residence the unit of analysis and excavated broad horizontal expanses to get at houses and their associated exterior spaces. Their illustration of the importance of domestic units for understanding a wider set of issues beyond building chronologies led to a broadening of themes that archaeologists in Oaxaca began to address. As results of the San José Mogote excavations were being published (e.g., Flannery 1976a), the focus of work in Oaxaca expanded from Monte Albán to the central valley and areas beyond. As we began excavations in Ejutla, we took inspiration from Flannery and Marcus's residential excavations at San José Mogote as a template to expand the corpus of excavated houses to other periods and to answer questions about the nature of interregional interaction, economic specialization, and the prehispanic economy.

When we began excavations in Ejutla in 1990, Flannery and his students and colleagues had amassed a significant sample of excavated houses for the Formative period even beyond San José Mogote (Drennan 1976; Whalen 1981; Winter 1972), but there had been few excavations in Classic period domestic contexts beyond several residential terraces at Monte Albán (Winter 1974). A larger sample of domestic units for the Classic period Valley of Oaxaca was necessary to understand how similar or different the later domestic units were from those in the Formative period. We were also interested in the diversity and interrelationships between households during the Classic period. Our goal was to begin to build a sample of excavated Classic period houses, and the surface hints of shell ornament production in a residential context in Ejutla provided a potential venue for implementing that aim.

One of our first questions was the timing of the shell working at Ejutla. Was it even prehispanic, as we suspected, given the ancient pottery and stone tools we found in association with the shell? The best-represented shell taxa on the surface were Pacific Coast varieties that generally were used for ornamentation rather than for food in prehispanic Mesoamerica, so we did not think the shell was modern. Although most of the broken pottery in the area of dense surface shell could pertain to the Classic period, ceramics from multiple periods (Monte Albán Late I–Monte Albán V, 300 BCE–1520 CE) were mixed with the shell debris and other artifacts, so excavation would

be necessary to confirm whether or not the shell working mostly pertained to the Classic period.

Another question was the socioeconomic context of the shell working at Ejutla. Flannery and his colleagues found evidence of shell working in some Early Formative residential contexts, typically small concentrations of flint chips, chert tools and drills, and fragments of cut and discarded shell in the corner of a house (Flannery and Winter 1976, 39). But not all houses engaged in the same activities, and shell working and other specialized crafts tended to be centered in one community ward or another (Flannery and Marcus 2005, 66; Marcus 1989). Was the area of shell debris at Ejutla also a ward of households whose occupants crafted shell into ornaments? Was shell working (and potentially other craft activities) at Ejutla carried out in residential contexts, as indicated by the surface debris?

A third set of questions revolved around the nature of production, distribution, and the prehispanic economy. What was the nature of the technology that was used to craft shell ornaments at Ejutla? What tools were used to cut the shell and shape the ornaments? What ornaments were made, a small set of similar items, like the small disks we found on the surface during the regional survey, or a broad diversity? Was there a division of labor or different tasks carried out by separate households? What about procurement? The first worked shells that we identified in the surface debris were Pacific Coast varieties. Ejutla is considerably closer to the Pacific Coast than the Gulf Coast, so that was not unexpected. But would more investigation and analysis reveal a broader shell assemblage that also included Gulf Coast species? In Early Formative residential contexts at San José Mogote, far to the north, one of the most common categories of shell came from rivers of the Gulf Coast (Flannery and Marcus 2005, 79).

What was the scale and intensity of shell working at Ejutla? Did the crafters of shell ornaments work their trade on a part-time or full-time basis? For whom were the shell ornaments crafted? Were they intended only for local use or for broader distribution to other communities near and far? In the surface collections, there were few finished shell ornaments amid the much greater quantities of broken, unfinished ornaments and cut shell debris. But would we find more finished items in intact contexts such as house floors, burials, and offerings? Or would the shell species, debris, and unfinished ornaments at Ejutla provide clues that the site was a possible or likely source for some of the finished ornaments found at other contemporaneous sites in the valley, including Monte Albán, the regional capital? The intensity and context of shell ornament production at Ejutla, and whether or not households engaged in more than one craft activity, as seemed possible based on surface debris, has implications for how we think about the prehispanic economy.

What about macroscale relations across the region? On the regional surveys we had noted much more evidence

of utilitarian craft production (ceramics and lithics) in the Valley of Oaxaca than in Ejutla (Feinman and Nicholas 1992, 2013; Kowalewski et al. 1989). We did find many good clay deposits in the Ejutla Valley, so we suspected that ceramic manufacture there might have been of smaller scale (intended for local use) or shorter duration than in the Valley of Oaxaca, making it less visible on the surface. The shell was different. Shell working was much rarer in the region overall, but heavily concentrated in Ejutla. In the much larger Valley of Oaxaca, evidence of shell working has been found only at San José Mogote during the Early Formative (Flannery and Marcus 2005; Flannery and Winter 1976, 39–41; Marcus 1989) and for later epochs in surface collections on a few residential terraces at Monte Albán (Blanton 1978). In the Miahuatlán Valley, immediately south of Ejutla and closer to the Pacific Coast, evidence of prehispanic shell working has been reported (but not described in detail) in one small habitation area that is part of a large site near the district capital (Brockington 1973, 15; Markman 1981, 32). But the densest surface evidence of shell working was at the Ejutla site. We suspected that excavations in the fields of dense surface shell at Ejutla could provide a wealth of information, not only on details of shell ornament production but also to help us answer broader questions about macroscale relations and the nature of the prehispanic economy.

### 1.3. Organization of the Book

We organize this volume into a series of chapters that present background information on Ejutla, the basic findings of the excavations, our principal research themes, and the material record. In chapter 2, we discuss a range of topics relevant to our excavations in the area of dense surface shell, from a fuller picture of the Ejutla Valley drawn from the regional survey, a description of the Ejutla site beyond the shell area, a brief introduction to shell in prehispanic Mesoamerica in which to situate the surface findings at the Ejutla site, and the importance of excavating houses in Mesoamerica. We briefly introduce three other sites in the Valley of Oaxaca—El Palmillo, the Mitla Fortress, Lambityeco—where we subsequently excavated houses and on which we draw when relevant to findings from Ejutla. Chapter 3 lays out our three-stage investigatory plan of surface collection, test pits, and large-scale horizontal exposures to recover information on the timing, context, scale, and nature of shell ornament production and other craft activities at Ejutla. In chapter 4 we describe the architecture and other physical evidence we uncovered, including the prehispanic structure, the subterranean tomb, the firing pits near the structure, and the temporally diagnostic ceramics associated with the different features and levels of the excavations. Subsequent <sup>14</sup>C assays place the shell working in the Middle–Late Classic (550–800 CE) (Table 1.1). In chapter 5 we focus on the features and artifact assemblages that reveal the domestic context of the excavated structure, including the subfloor tomb and its contents, the kitchen area and interior workspace, and the range of utilitarian artifacts and subsistence remains that are typical of residential

**Table 1.1. Chronological sequence for the Valley of Oaxaca.**

Dates	Mesoamerican period	Oaxaca (c. 1970–1990s)*	Revised chronology**
1500	Late Postclassic		Monte Albán Late V
1300		Monte Albán V	
1100	Early Postclassic		Monte Albán Early V
900		Monte Albán IV	Late Monte Albán IIIB-IV
700	Late Classic	Monte Albán IIIB	Early Monte Albán IIIB-IV
500	Early Classic	Monte Albán IIIA	Monte Albán IIIA
300			
100 CE	Terminal Formative	Monte Albán II	Monte Albán II
100 BCE		Monte Albán Late I	Monte Albán Late I
300	Late Formative	Monte Albán Early I	Monte Albán Early I
500		Rosario	Rosario
700	Middle Formative	Guadalupe	Guadalupe
900		San José	San José
1100	Early Formative		
1300		Tierras Largas	Tierras Largas
1500			

\* Chronology used during the regional surveys of the Oaxaca and Ejutla Valleys

\*\* Revised chronology for the Classic and Postclassic based on excavations and radiocarbon assays

contexts in Oaxaca and were present in the middens and the pit kilns. We make comparisons as relevant to El Palmillo, the Mitla Fortress, and Lambityeco. The mixing of utilitarian debris with artifactual evidence for ceramic production, shell working, and lapidary crafts connect these specialized activities to the members of a single household.

As we gathered information that answered our initial set of queries, other findings were unexpected and raised additional questions; for example, the evidence of multicrafting and high-intensity production for exchange in a domestic context did not fit extant models of prehispanic craft specialization, which has implications for how we

view the prehispanic economy. In chapter 6, we discuss those extant models and how the evidence for domestic specialization and multicrafting at Ejutla provoked us to revisit the workings of the Classic period economy. The following chapters focus on the evidence for specialized production at Ejutla.

We present the evidence for ceramic production in chapter 7. The contents of the pit kilns indicate that they were used to fire a range of vessel forms. The ancient potters crafted both utilitarian vessels mostly for local use and also a range of figurines for broader exchange. The chapter includes an extensive presentation of the figurine assemblage. The subject of chapter 8 is shell. We begin with background

on shell ornaments in Mesoamerica before presenting the Ejutla shell assemblage of more than 24,000 pieces. Most of the shell are small cut fragments and debris from Pacific Coast species. A small subset comprises ornaments in a variety of states, from blanks to partially crafted to finished adornments. We describe the range of ornaments and the technology and tools used to work the shell, including obsidian blades, chert microdrills, and tubular cane drills and string used with an abrasive such as sand. We subsequently sourced obsidian from our excavations at all four sites. The contrast in obsidian at Ejutla and the other three sites sheds light on possible routes of exchange and the movement of marine shell to the Ejutleño artisans. In the course of our investigations, we were invited to analyze shell objects recovered during excavations at Monte Albán directed by Marcus Winter and by Ernesto González Licón; here we make comparisons to the Ejutla assemblage, which raises the possibility that some of the items crafted in Ejutla made their way to Monte Albán.

In chapter 9, we describe other craft activities at Ejutla. Two abundant classes of stone tools—obsidian blades and chert microdrills—were used to work the shell. The obsidian blades were imported, while the chert was local, with the microdrills made on site. Other stones appear to be work surfaces used in crafting the shell ornaments. The stone materials at Ejutla also include evidence of lapidary activities, notably the application of the same tubular drill technology that was used to make shell disks. A comparison of stone materials at Ejutla to those of the other sites we excavated highlights the rarity of the Ejutla assemblage and its association with shell working and lapidary activities. Although in lower quantities, bone tools and other worked, decorative pieces, including a high quantity of loose dog canines, were mixed in with shell debris.

We return to the key themes of the book in chapter 10. In this concluding chapter, we briefly discuss what we see as key findings of this study. What are the implications of shell working for Ejutla's interregional relations with the rest of the valley? What inferences follow from the evidence of household production for exchange and the importance of multicrafting for the prehispanic economy? We conclude by discussing questions that were raised in the course of the Ejutla research and foreshadow how these queries served to shape subsequent investigations that we implemented in Oaxaca. The results from those studies have been the backbone of our recent publications on craft specialization, settlement organization, governance, Classic–Postclassic chronology, and ritual activities; they also ground what we plan to be a suite of volumes to follow this work.

## Background to the Ejutla Site

The Ejutla Valley is a small alluvial basin at the southern edge of the much larger Valley of Oaxaca (see Figure 1.1). Together they are the core of Mexico's Southern Highlands. While high mountain ridges largely define the edges of these valleys, the physiographic divide between them is so gradual that one traveling the main highway is hardly aware of passing from one (Oaxaca) to the other (Ejutla), and throughout most of the prehispanic era, Ejutla was part of the political, cultural, and economic networks that centered on the Valley of Oaxaca. Population densities were never as high and individual sites were never as large in Ejutla. Nevertheless, the relationship between the two valleys was not static (Feinman and Nicholas 1990, 1992, 2013, 181–82). When Ejutla was first settled during the Early–Middle Formative period, it was a nearly vacant frontier with only a few small settlements. The population grew and site hierarchies developed in Ejutla as Monte Albán was established (ca. 500 BCE) in the center of the Valley of Oaxaca and expanded its hegemony over the subsequent centuries, but it was not until the Classic period (ca. 250–900 CE) that large population centers (>1000) were established in the Ejutla Valley and the region was more tightly interconnected to the Valley of Oaxaca (see Table 1.1). By the Late Postclassic period, after Monte Albán's decline as the regional capital, a series of small, economically interdependent polities in Ejutla may have increased their ties to coastal areas outside the Central Valleys of Oaxaca.

The fuller incorporation of Ejutla into Monte Albán's political sphere during the Classic period appears to have had economic ramifications. The Ejutla Valley has fewer large expanses of good farmland and receives less rainfall than parts of the Valley of the Oaxaca, so exchanging surplus crops to communities in the larger valley was not the draw. Instead, Ejutla is positioned geographically closer to the coast and is a crossroads for natural transportation routes that enter the valley system from the east and south (White and Barber 2012), serving as a conduit for coastal and lowland products from farther south, including marine shell and cotton. Surface shell was recorded at a much higher proportion of sites (six to seven times as many) in Ejutla than in the Valley of Oaxaca (Feinman and Nicholas 1990, 1992, 85, figure 7), with most of the shell observed at sites near the Ejutla River, its tributaries, or along the Atoyac River between its confluence with the Ejutla River and its exit point from the central valleys, at the southwestern edge of the Ejutla Valley (Feinman and Nicholas 2013, 116–17). These sites largely track the movement of Pacific Coast shell into Ejutla, but only at the Ejutla site did we find clear evidence of shell ornament production.

Spindle whorls were not frequently observed during surface survey in either valley, yet we noted twice as many in Ejutla (Feinman and Nicholas 1992, 88, figure 8), most of which are small, simple whorls that fit into Mary Parsons's (1972; see also Carpenter et al. 2012) category of whorls that were used for spinning cotton. Postclassic ethnohistoric accounts relate that cotton largely was traded from lowland coastal areas, such as Tututepec and Tehuantepec, south of the central valleys, to highland towns where it was woven into finished textiles (Ball and Brockington 1978). In addition, Ejutla is lower in elevation than the Valley of Oaxaca, and there are small patches of good flat land with high water table along the Atoyac River in southern Ejutla where it would have been possible to grow cotton (Feinman and Nicholas 2013, 118; see also Saindon 1977). Whether or not cotton was grown in Ejutla in prehispanic times, this resource, like shell, most likely traveled routes through Ejutla to reach communities farther north.

### 2.1. The Ejutla Site

The prehispanic community at Ejutla de Crespo was initially settled in Monte Albán Early I (ca. 500–300 BCE) on a low spur on the north side of the Ejutla River overlooking the broadest stretch of alluvium in the Ejutla Valley (Figure 2.1, Figure 2.2). The continuously occupied settlement was one of the largest sites in the Ejutla Valley throughout the prehispanic era, growing to more than 1800 inhabitants in the Classic and Postclassic periods (Feinman and Nicholas 2013, 107, 165), when the limits of the site expanded beyond the bounds of the modern community (covering ~1 km<sup>2</sup>). The site was recorded during mid-twentieth-century visits and reconnaissance by archaeologists of Mexico's Instituto Nacional de Antropología e Historia, who reported several tall mounds in town (Feinman and Nicholas 2013, 20–23), and a cruciform tomb, likely Postclassic, was reported in the center of town early in the twentieth century (Diguet 1905). Although no evidence of this tomb existed at the time of the regional survey, we documented at least 12 mounds, several still standing 8–12 m tall (Figure 2.3) (Feinman and Nicholas 2013, 290). Fragments of carved stones were visible in the outer foundation walls of several houses in town. The largest one portrayed an individual with arms crossed on the chest (Figure 2.4), a posture thought to signify revered ancestors (Marcus 2002, 119), similar to several carved stones from Río Viejo (Monuments 7–9) and other sites on the Pacific Coast of Oaxaca (Joyce et al. 2001, 352; Urcid 1993, figure 18; Urcid and Joyce 2001, 203–04, 207; Zeitlin 1993).