

SOCIAL INEQUALITY AT MONTE ALBAN OAXACA: HOUSEHOLD ANALYSIS FROM
TERMINAL FORMATIVE TO EARLY CLASSIC

by

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University of Pittsburgh, 2003

The main objective of this dissertation is to reconstruct patterns of social organization and degrees of social stratification in Monte Albán, the capital of the ancient Zapotec state in what is now the state of Oaxaca, Mexico. Social stratification has been defined as the division of a society into categories of individuals organized into hierarchical segments based on access to strategic resources. The study of social stratification is an important aspect to research about the development of complex societies, since stratification has its origin in differential access to strategic resources, and, once the state arises as a form of government, this inequality is institutionalized, and social strata or social classes are formed.

This research is based on archaeological data from 12 residential units distributed throughout three different parts of the city and attempts to clarify the composition of the social structure at Monte Albán. Architecture, funerary practices, material goods, and health conditions, were used as archaeological indicators for identifying and evaluating domestic rituals, prestige, and levels of wealth throughout time.

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CHAPTER 1

INTRODUCTION

The main objective of this dissertation is to look for patterns of social inequality and degrees of social stratification at Monte Albán, Oaxaca, Mexico, from its foundation (500 B.C.) to the end of its period of maximum development (A.D. 800). Considering that power relations are conducted by individuals or families, I am interested here in evaluating social inequalities at the household level in contrast to those at a larger scale, such as ideological structures and institutions. Households provide a useful conceptual category for interpreting artifact clusters and architectural remains associated with past human occupations and socioeconomic aspects of the society at different levels of interaction (Hirth 1989). Spatial location may be related to land holding, labor activities, and access to strategic resources.

To effectively analyze these aspects, we have to look at the archaeological record to define social levels or hierarchies (the social structure), detect evidence of unequal access to basic and exotic sources; this, in turn, produces social stratification at different levels throughout the chronological sequence.

To do so, based in the proposed archaeological indicators, I will take into consideration three scales of analysis based on household data: (1) the first one was to evaluate social inequality at Monte Albán at different levels: within the single household unit, between household units located in the same area, and between household compounds from different areas. This required the excavation of household units in different areas of the Zapotec ancient city. It was necessary to quantify of the degree of

wealth of each individual, household unit, and household compound. The variables selected were architecture, artifact assemblages and funerary patterns. (2) The second scale evaluated the degree of social differences through time at Monte Albán. Four possibilities were foreseen: a) that social inequalities were slight from the foundation of Monte Albán, and continue so throughout its history; b) social inequalities developed gradually, each period enhancing the gap between rich and poor individuals; c) since the Monte Albán's foundation social differences were big, and they remained so over time; and d) social inequalities were fluctuating from one chronological period to another. (3) The third scale level was to determine the nature of social inequality at Monte Albán. Here we are looking for two major paths: the economic or the ideological.

Empirical data for this research comes from the archaeological exploration of 12 domestic units located in three different areas of Monte Albán. All of them were facing imminent partial or total destruction due to the broadening of the access road to the site (González Licón et al. 1994a). These structures were excavated in an exhausting fourteen months field season between 1990 and 1991. Several thousand ceramic fragments and hundreds of stone and obsidian artifacts were classified. The sample also includes information from 160 excavated skeletons. 107 individuals from 86 burials and 53 individuals from 16 tombs with different kind of associated materials including ceramic vessels, obsidian blades, marine shell, mica, jade, urns, tecalli vessels, non-modified animal bones and stone artifacts, among others. It is a small sample considering the size and length of occupation of the site, but it is also large enough in terms of what has been found and is available at the present.

Three different sets of archaeological indicators were used to compare these strategies and the extent of social stratification based on material wealth at different household units by chronological period. These indicators were: a) architecture, for which location, size, and form were examined, and as related to social groups, reflects residence patterns and as indicator of kinship and status levels to evaluate wealth differences. b) Funerary practices, which made it possible to examine differences in wealth, energy expenditure, and hierarchy and heterogeneity between individuals of the settlement. c) Ceramic assemblages, for which paste composition, decoration, form, and provenience was examined. Ware type, vessel shape, and decoration attributes are associated to chronological periods in the Valley of Oaxaca.

Time is emphasized in this research. The opportunity to see the evolution of social complexity is one of the main advantages of archaeological studies. Diachronic analyses give us the possibility to evaluate factors and causes of evolutionary change. Analyzing cultural systems through time is a chance to evaluate political and economic strategies in perspective. In this dissertation, the degree of social inequality at Monte Albán is seen as a reflection of a multidimensional system with subsystems or social positions structured vertically in terms of levels of authority and decision-making. In no way is social stratification seen as static or non-adaptive. The fact that the analyzed domestic units were inhabited during several periods allows us to explore inter- and intra-group relationships looking for wealth differences using house size, artifact assemblages and funerary patterns as indicators.

It is not my intention in this dissertation to make generalizations about the entire city, but to look for some patterns of internal organization and degrees of status

differentiation in the sample, as a characterization of a sector of the Monte Albán population in certain periods of its existence. We are aware that the residential units excavated do not represent the whole social structure at Monte Albán; for example, we do not have the palaces from the ruling elite or the wattle-and-daub huts from the peasants, but even so, we expected to find internal differences among them. We used published data from previous archaeological work at the site to complement the panorama.

PART I, THEORY AND METHOD

CHAPTER 2

SOCIAL INEQUALITY AT MONTE ALBÁN, OAXACA

This dissertation is concerned with the process of the development of social inequality in pre-Hispanic Monte Albán with a main focus on the impact on the household level between the Late Formative (phase Late I, 250 B.C.- A.D. 1) and the Late Classic (phase IIIb, A.D. 450-650). The study of social stratification is an important aspect to consider in the development of complex societies. Social stratification is based on differential access and control over land, strategic resources, information, and ideology, as well as its institutionalization in state-level societies.

It is recognized that Mesoamerica was one of the five regions worldwide developing pristine state societies. In the Valley of Oaxaca, as in other areas of Mesoamerica as well, there is archaeological evidence of long sequences of cultural development and social complexity that at some point turn into state formations. Together with the process of state formation are the institutionalization of social inequality and the consolidation of social classes.

In the Valley of Oaxaca, the foundation of Monte Albán around the year 500 B.C. triggered a process of economic and politic integration, but above all, a great demographic concentration. By phase II, as the Zapotec state expands its territories beyond the Valley of Oaxaca, there is a greater emphasis on local political and economic autonomy. A population decrement and looser administrative hierarchies are the result. This expansionist tendency is reversed during phase IIIa when Teotihuacan turns into the most dominant and influential city in the central highlands. Among the

consequences are a contraction in the Zapotec state territories into the Valley of Oaxaca, an increment of population in Monte Albán, and a more differentiated administrative hierarchy and greater political integration (Blanton et al. 1990: 108).

With these major evolutionary changes during the main periods of Monte Albán's history, in this dissertation I am interested in evaluating the impact of these political, economic and social changes at the household level, or in other words, to look for changes in the way of life of the common people.

Nature and Extent of Social Inequality

Social inequality has been present in almost all human societies depending on the sex, age and individual skills of their members. The reason for the development of inequality has been own personal benefit of the individuals who promote competence among them when looking for political or economic positions. The idea of social stratification, while entailing the notion of inequality, implies its institutionalized presence. In this sense, although in all societies there are social inequalities, not all are permanent or stratified (M. G. Smith 1966).

Stratification is related to different types of values and can be subdivided in several dimensions: economic, political and social. Economic stratification is related to the distribution of economic rewards (especially access to critical material resources). Political stratification is due to unequal distribution of political rewards and access to offices (M. G. Smith 1977 in de Montmollin 1989: 23). Social stratification has been defined as the division of the society into categories or groups of individuals arranged

hierarchically in terms of status (Fried 1967: 185-191; Adams 1975: 243-265; C. Smith 1976; in M. E. Smith 1987: 327). There is consensus among cultural materialists that social stratification arose in response to unequal access to basic resources and differential control over economy (Earle 1987). Furthermore, unequal distribution of life opportunities and situations among groups of people ranked as inferiors and superiors within the social group contributes to social stratification (M. G. Smith 1978: 30), and to privileged access to prestige and social rewards (de Montmollin 1989: 23). It is generally held that social stratification is related to state-level societies (as a qualitative distinction from ranked and egalitarian societies).

The origins of social stratification are not always the same, manifested sometimes in different spheres although interlinked among them: status or social prestige, political power, and economic wealth (Lenski 1966; McAnany 1993), or prestige, status (social position), power (as the ability of one person or group to direct the actions of others), and wealth as result in the control of material (or ideological) resources (Blanton et al. 1999: 36). Political power is obtained by different means (social control, religion/ideology, economy, military), and in each case, I refer to how it is obtained and exercised by certain individual, group or segment of the society, but not all of them. In this sense, the way power is distributed in a living society is fundamental and will determine their potentials, possibilities and levels of stratification (M. G. Smith 1978: 36).

Social inequality is considered, in general, as multidimensional and complex (McGuire 1983; Tainter 1978; Weber 1968). Social hierarchies can be defined as a system of ordering people in a social setting according to status and role, inequality and

heterogeneity. Inequality or vertical differentiation refers to the hierarchical ranking of social positions in terms of dimensions of status (Blau 1977: 45). Heterogeneity or horizontal differentiation is the distribution of a population among a society's social groups. Status is defined as all social positions that vary by gradation (in terms of graduated parameters), such as wealth, prestige, power, and administrative authority (Blau 1977: 46; in Ravesloot 1988: 13). Thus, stratification is the hierarchical ordering of these sets in society. In this dissertation, I concentrate on the identification of social hierarchies as the basic institutionalized inequalities that define and integrate the social segments in a state (Palka 1995: 5).

Until recently, there was the generalized notion that the emergence of state level societies and social stratification were simultaneous in cultural evolution. Recent studies have demonstrated that social inequality has been present since the first hunter-gatherers and later in chiefdom societies, also named intermediate or pre-state societies. Starting from chiefdom societies, individuals tend to organize themselves in terms of their kinship relatedness to the chief in power, and the latter will be chosen depending on his or her kin ties to an original ancestor from which the whole chiefdom is organized. This kinship feature will distinguish the ruling group from the rest of the population, and more importantly, will justify its right to rule and have prime access to any kind of resources. The community will be hierarchically organized based on kinship ties, and each individual, since birth, will have a determinate position in it (Price and Feinman 1995: 3). Inequality, in state level societies, will be institutionalized. The integration of social classes will no longer be associated with the greater or lesser degree of kin ties to the chief, but instead established based on a more complex and

stable social system, internally differentiated, and divided in social strata or classes (stratified). In Mesoamerica, during the Early and Middle Formative, social differences in chiefdoms were inherited, or ranked, while in state societies by Late Formative, social differences were institutionalized, or stratified.

The Social Structure

Explanations of the material culture based on generalizations of social theory have been used to analyze social hierarchies. In stratified, state-level societies, it is generally assumed that social classes are more clearly defined than in chiefdoms, and groups tend to form indicating the corresponding social class that one belongs to (Grove and Gillespi 1992: 191). In most of the cases the archaeological record, and based mainly in quantitative indicators, however, gradual differences in the levels of wealth or status used to differentiate social inequality are shown. In this sense, wealth differentiation is considered to fall more along a continuum, than being a discrete distribution, and identification of such “types” of status groups as broad socioeconomic hierarchies for analytical and comparative purposes, is not easy to accomplish.

Researchers dealing with archaeological data consider that the social structure is complex and formed by at least three social strata, with a top class integrated by the nobility, a middle class, and a larger class formed by the commoners or peasants. From this etic perspective, based on method and a quantitative approach to the archaeological record, elite groups have been identified by their association to sumptuary objects, more elaborate architecture in their residences, and a more complex

funerary treatment (Chase and Chase 1992; Kowalewski et al. 1992; Joyce 1995). In the archaeological context, these stratification levels, or evidence of social classes, will be indicated also by an unequal and permanent amount of wealth. We need to keep in mind that identification of social classes cannot be done by limited or restrictive access to just a few status goods and/or labor, but may be distinguished by multivariate evaluation of quantitative and qualitative differences of prestige and non-prestige goods, location and size of the inhabited house, health condition, and funerary treatment among others. In this sense, there are some basic social hierarchies that may be present at Monte Albán, such as the ruling elite, non-ruling nobility, lesser noble families, petty elites, high-status commoners, middle-status commoners, and low-status commoners. Additionally we can think of other sub-categories such as artisans, slaves, outcasts, ethnic minorities and those in-between the classes already mentioned.

Ethnohistorical documents written by European hands at the time of Spanish conquest and later, describe pre-Hispanic society as very stratified into two major classes (Acuña 1984; Burgoa 1989a, 1989b; Díaz del Castillo 1974; Gay 1986). We have to consider that in many cases, the informants were noble people, with better knowledge of their culture than commoners, but for the same reason, with their own, emic perspective. Many archaeological studies focused on evaluating social stratification in Mesoamerica, trying in certain ways to recreate the social scheme presented by the colonial sources from Late Postclassic and Early colonial times consisting of only two social classes. Based on an emic perspective, with major emphasis on categorical rather than quantitative differences, these studies consider the existence of only two class divisions or strata (Marcus 1992; Sanders 1992; Sanders

and Price 1968; Sharer 1994; Thompson 1954). Into this perspective, based on ethnohistorical chronicles, pre-Hispanic social structure would be integrated by two social classes: that is the ruler and the ruled, elite and non-elite, or nobles and commoners. The elite frequently assumed supernatural origin or being non-human, meanwhile the commoners were descendent from other commoners (Marcus 1992: 222; 1992b).

With regard to ethnohistorical information, social stratification in agricultural state societies was reinforced by the belief that both elite and commoners have had different origins in an ancient past. The elite will be comprised of a small ruling group which try to validate their position in power based on a divine ancestor and strictly regulated class endogamy marriages. To Joyce Marcus, the most relevant aspect of this two strata conception was that nobility practiced class endogamy that separates both in a definitive way (Marcus 1992). The ruling and leading group is regulating the social institutions and maintaining privilege over strategic resources, and is identified through the differential and exclusive access to sumptuary goods, titles, offices, and mobilization of human labor for craft production and building construction (Webster 1992). It is generally assumed that each social class had access to different kinds of goods and services.

Based on ethnohistorical information, Joseph Withecotton (1977) divides the Zapotec society into nobility and commoners, but he mentions the priests as a third class. Heredity, sumptuary rules, and endogamy were ways to perpetuate membership into the nobility and commoner strata. The priestly strata, linked more closely to the nobility, had different criteria for membership. To Withecotton the nobility had two subdivisions: the *tijacoqui*, the highest ranking, ruling, or princely nobility; and the

tijajoana or *tijajoanahuini*, those of second rank. In the colonial documents both were referred to as *caciques* or *principales* respectively. Access to the noble class had no gendered restrictions, as both sexes were able to have a high rank. The highest ranking woman was called *coquitao xonaxi*, while a noblewoman of second rank was known as *xonaxi xinijoana* (Córdova 1942: 377, in Withecotton 1977: 142). Commoners were called *tijapeniqueche* in Zapotec, although in colonial text they are more frequently referred to by the word *macehual*, as they were called in Nahuatl.

Also based in ethnohistoric sources, Flannery shows how the Zapotec had a graded hierarchy of residences, based on the status of the occupant. "Ordinary Zapotecs lived in a simple house called a *yoho* or *yo'o*. A *Coqui* or lord resided in a *quehui* or *yoho quehui* "casa real", probably to be considered a minor palace. The *coquitao* or supreme ruler lived in a *quihuitao* "palacio real hermoso" (Córdova 1578a). This major palace was such a place for conducting the affairs of state as a royal residence. The building went with the office of king, and served for many generations. Zapotec rulers were taken to special places deemed appropriate for burial; there they were laid to rest in tombs already prepared during their lifetimes...major masonry structures were built over these tombs; some were temples, but others took the form of small palaces" (Flannery 1983b: 133).

There is also evidence of the differences between nobles and commoners toward the type of dresses or food that only the nobility may wear or eat. According to the *Relaciones Geográficas* (Acuña 1984), nobles and *caciques* in towns like Mitla, Huitzo, Teitipac, or Tlalixtlac were dressed with highly decorated cotton mantles and loincloths while the commoners wore only maguey fiber cloths. Nobles eat all sort of meat such as

deer, turkey, rabbits and other animals whereas the commoners were able to eat maize, wild fruits and grasses. In personal adornment the differences were more obvious. Noblewomen and noblemen used brightly decorated woven cotton or feathered mantles and shirts as well as lip plugs; earrings; feather headdresses; jade and shell. By the Postclassic period, gold and silver objects were incorporated as adornments of the nobility. Even in war, nobles were better equipped with different kinds of weapons and armor than those of commoners.

The debate about pre-Hispanic social structure is open. As Arthur Joyce summarizes in his review of the Mesoamerican Elites book edited by Chase and Chase (1992), both perspectives may not be mutually exclusive: a) from an emic perspective, pre-Hispanic societies consider themselves formed by two classes, nobility and commoners, which is how ethnohistorical chronicles depicted it, b) from an etic perspective, archaeological data provides a way to evaluate levels of material wealth which is related to stratification and social structure. Nevertheless, from the archaeological data, indices of material wealth are distributed gradually, and there are no other clear indications to distinguish noble from commoner groups (1995).

Differences between the archaeological context and the systemic context have also been widely argued (Thomas 1991: 131-132; Schiffer 1976), in particular when the indicators that we use for elite identification cannot always be associated to a certain public or private rank and its significance can change through time (Grove and Gillespi 1992). The systemic context has been characterized as past, social, dynamic and complete, in opposition to the archaeological context that is considered as present, static and incomplete (Flannery 1967). In these cases the use of Middle Range theory

may help to explain the archaeological data, connecting both types of context (but see Feinman and Neitzel 1984; Kowalewski et al. 1992: 264). Other scholars have already discussed the difficulties when trying to identify the elite through the archaeological record, because it is not an easy task to discover those persons who controlled the institutions (Chase and Chase 1992: 3; Kowalewski et al. 1992: 259).

In this sense, instead of repeating the same old idea of trying to classify a society in clear-cut social strata, I consider the position of Feinman (1995) and Kowalewski et al. (1992: 260) to be more productive, which tries to analyze and evaluate through time the degrees of social stratification by analyzing the distribution of detected material resources. This model does not try to identify social classes, as such, nor whether they are two or more, but instead the differences in terms of material wealth among the inhabitants of Monte Albán.

To Fallers (1973), Feinman (1995), and Kowalewski et al. (1992: 260), besides the methodological problems related to the identification of social strata discussed above, such division of the social structure into well-differentiated classes is an oversimplification of the true complexity of social inequality. Instead of social strata, archaeological analysis should focus on material wealth, as resulting from interpersonal and intersocial group relations of superiority and inferiority in which people are ranked vis-à-vis other people. It becomes difficult to identify distinct social strata since status distinctions are blurred through interpersonal hierarchies and because of the various ways that inequalities are created. Differential access to basic resources, sumptuary goods, and human labor is also cited as the means of dividing broad social strata in sociopolitically complex societies (Fried 1967; Earle 1991, 1996; Sanders 1992),

although empirical data, household sizes, artifact and ecofact assemblages, and funerary treatment, among others, does not yield a clear-cut division of social strata with regards to access to materials and labor.

The Household as an Analytical Unit of Analysis

This study is based on archaeological data from twelve domestic residences that were excavated at the ancient Zapotec capital of Monte Albán. These households units are the primary focus of this dissertation because, as mentioned above, I am interested in evaluating social differences at this level during the periods of state consolidation. Relevant information derived from other studies at different levels of analysis, at the site and regionally, will be also included.

At the household level, Santley considers that the emergence of complex society depends on the kind of decisions taken by individual households related to survival on landscapes at various spatial scales. When all the households get back what they need, there should be little or no investment in sociocultural complexity. If the costs of supporting institutionalized ranking are less than the costs of accepting a decline in lifestyle for households with greater access to critical economic resources, then ranking based on redistribution should be selected as the basis for socioeconomic integration. On the other hand, if the costs associated with maintaining a higher standard of living are less than the costs of maintaining a more hierarchical system based on redistribution, then land should be increasingly treated as a private resource and the

patron-client relationship should emerge as the basis for socioeconomic articulation (1993: 83).

Many authors consider the household as the most common social component, the basic and most abundant unit of social organization in many societies. Representing the primary unit of production in a community, it is where the most basic levels of economic and ecological aspects are related to consumption, storage and distribution (Wilk and Rathje 1982). We have to look for some of these questions at the household level because it is there where socioeconomic adaptation can be most directly studied. Households adapt to local economic and ecological situations, not global ones (Wilk 1997: 9), thus each case has its own specific characteristics, as has been studied in the Valley of Oaxaca as well (Marcus and Flannery 1996). In pre-industrial societies, households are the foci of most production, storage and distribution tasks, and they are also a primary unit of consumption and reflect levels of resource control: a) by the type and quantity of goods actually consumed in the household and b) by expressions of social rank which reflect indirect claims over labor. One of the problems is the lack of models that allow us to measure human behavior as specific qualitative and quantitative distributions of material culture. For Hirth (1989) what is needed is to link household-level behavior with the architectural form of the household and the composition of its portable artifacts assemblages.

In general, many archaeological and ethnographic studies have demonstrated the importance of the household as a social unit of analysis. To M. E. Smith (1987: 297-298) there are three main advantages: a) it is considered to be the basic unit of production and consumption in agricultural societies, because many of the activities

involved with adaptation to the social and ecological context operate at the household level; b) it is possible to identify and select households from different social ranks into a society by means of their spatial location, activity or occupation of their inhabitants, and others means; c) taking into account that many government decisions involving social, political or economic aspects have a direct impact on households, and that it is possible to evaluate the evolutionary process of some of these institutions in the households.

Differences within the Single Domestic Unit

Households have been defined as units of “social and economic cooperation” (Wilk and Netting 1984). Archaeologically, the term “household” covers a wide variety of cohabiting groups, including a group of unrelated individuals cooperating in housekeeping, a nuclear family, an extended family and a family with servants or boarders or living with members of other families. The household is a domestic housekeeping unit in which the members have a variety of economic and social relationships. In a similar sense, by households, what Blanton (1995) considers “task-oriented residence units”, emphasizing the task of achieving and maintaining desired social status. Centralized control of production is often central to household strategies in this regard. The term household unit or house is related only to the material remains, but the term “household” is conceived of as a socioeconomic unit, the domestic group, and not simply the material record but the functional operation of all the house residents with its possessions. This distinction it is very important (Hirth 1993: 121). It implies that in houses occupied by several generations, usually by several chronological periods,

the relationship between houses as artifacts and households as social groups may be problematic (M. E. Smith 1989: 453).

We can say that at least two major sources account for household size as a good indicator for social inequality: ethnohistorical and ethnographical references both have shown the tendency of elites to live in larger households than non-elite members (Flannery 1983d). The elites, due to the control over larger amount of supplies and more needs for services and functions, tend to have larger houses. Production and storage of staple surpluses for use public feasting to the sponsorship of craft specialists which manufacture utilitarian or ritual paraphernalia for redistribution or trade (Acuña 1984; Burgoa 1989; Wilk and Ashmore 1988).

There are several types of domestic structures or household units. The most simple is the house composed of a single room, but there may be others with two or three single rooms. The next type is when several rooms were constructed around a central patio forming a household unit, a patio group (M. E. Smith 1993), or house compound (Santley 1980). These household units may vary broadly in size (there are six categories in Blanton's classification of patio area 1978: 96-98). The presence of several household units constitutes a house cluster (M. E. Smith 1993), a household's area, a barrio (Blanton 1978), or a house compound cluster (Santley 1980). The last level may be the site, or a macro cluster, which can include two or more house clusters (M. E. Smith 1993).

The cooperation of household members in economic production and consumption is one of the major determinants of the structure, composition and persistence of the household. The longevity of this social unit is largely responsible for

the continuity in behavior that leaves traces in the archaeological record (Hirth 1993). Internal household hierarchy may be related to age, sex, kinship, and labor specialization. Depending on their individual position in the household, each person, not necessarily related by kinship, performed different roles depending on age, sex, and individual skills. These included gathering water, vegetables and grains, game, and firewood, food preparation, storage of goods, and also several productive activities including agriculture, pottery making, and the manufacture of, among others. Division of labor can be studied by comparing the features and house floors with an eye to establishing male and female activity areas, common household activities, and craft specialization (by household, area, or site).

One possibility of the development of inequality is based on the monopolistic control by elders of prestige goods required for the social reproduction of junior household members for example, items required for bride-wealth payments (Blanton 1995). Based on analysis of funerary practices at Monte Albán, different levels of wealth have been found. People living in the same domestic unit had different status and also received different mortuary treatment, which has been misinterpreted for some researchers as an indicator of class (Wilkinson and Norelli 1981; Winter 1986). In the Valley of Oaxaca, domestic units from different periods were compared to see if differences in access to imported materials and sumptuary goods existed, which would reflect differences in status. Burials of all periods were also compared in an effort to detect variations in treatment that might reflect variations in status, as well as similarities that would reflect grouping within the society. They noted whether burials were treated as individuals, or as members of a multiple interment and which offerings were

associated with which sex, or with young adults versus elders (Flannery, Marcus, and Kowalewski 1981: 64).

The spatial and quantitative analysis of the architectonic features, artifact assemblages and mortuary practices recovered from the domestic units give us an idea about activities performed by its members such as production, distribution and decision making units (Hirth 1993). Correlation of wealth with age, sex, and spatial location, yield the internal social organization of the household unit; it also makes it possible to correlate the domestic units to other levels of analysis, as illustrated below.

Differences between Houses in the Same Area

Major determinants for differences in household sizes are social class (as I mentioned above, elite houses are generally larger than commoner houses), amount of agricultural land worked by commoner households, and the effects of demography and development cycles (Carrasco 1964, 1972, 1976, in M. E. Smith 1993: 197-198). The second factor is related to other two variables, labor requirements and individual household wealth (Wilk and Netting 1984, in M. E. Smith 1993: 198).

Considering size and form of the household units at Monte Albán, at least two classifications have been attempted for the Classic period that are examples of the differences in material wealth found in a same area. Winter (1974, 1986: 353-361; Table 2.1), in a three-class social structure model, found three types, all of which are house compound or patio group types: a) type 1 houses, possibly inhabited by low class people, have a total area under 100 m², and patio area of 12-14 m². The patio surface is

stuccoed and some rooms may be plastered too, but not always. Sometimes the main patio is connected to secondary patios with rooms around it. Exterior walls were made with adobe or wattle-and-daub. Burials are in slab-delimited pits under the room floors, with one or two domestic vessels. Artifact assemblages include manos and ground stones for food preparation; obsidian blades and silex flakes as cutting instruments; fragments of jars, comales and bowls for food preparation and consumption; ceramic figurine fragments probably used in domestic rituals and ceremonies; and kilns for ceramic vessels production as a part time specialized activity. These houses belonged to low class people, related to agriculture and food production. b) Type 2 houses were possibly inhabited by second rank nobility, traders, and administrators, with total area of 120-200 m², and a patio area of 16-25 m² including the patio's external corridor (see Caso 1969; Caso and Bernal 1952; Caso, Bernal, and Acosta 1967 for tomb inventories). All the patio and room surfaces are plastered. Secondary patios connect secondary rooms with the main patio. Some walls were made with adobe bricks over stone foundations, while others were probably wattle-and-daub made. Burials are found in slab-limited pits with small offerings, and tombs built beneath a room floor, with access from the central patio. Offerings in tombs are more abundant than in pits, including domestic serving vessels, incense burners, jars and miniature bowls. Tombs also were used several times. c) Type 3, are the palaces and elite houses, which according to Winter are the residences of the rulers of Monte Albán and his families, have a total area of 400-625 m², and internal patios of 80-170 m². The thick stonewalls were the foundation for adobe walls. There are lateral and corner rooms, all plastered. These residences only have one main tomb (as tombs 103, 104, and 105 explored by

Caso), containing several urns, jade figurines, vessels and other objects with no other associated burials to the house (Caso 1938). On the other hand, Richard Blanton (1978: 96-98; Table 2.2), considering household units patio area from surface survey and excavated data, recognized at least six categories as follows: 1) over 10 m², 2) around 16 m², 3) at 80-100 m², 4) at 280-520 m², 5) at 580-780 m², and 6) nine examples over 1000 m².

Table 2.1: House Type Classification by Winter (1986)

	<i>Type 1</i>	<i>2</i>	<i>3</i>
By Patio Area	12-14	16-25	80-170
By House Area	100	120-200	400-625
% of patio	13%	13%	20-27%

All quantities in squared meters

Table 2.2: House Type Classification by Blanton (1978)

	Type 1	2	3	4	5	6
By Patio Area	10	16	80-100	280-520	580-780	>1,000
By House Area	150	250	350	500	600	>600
% of patio	6.6%	6.5%	25.7%	56-104%	n.e.	n.e.

All patio and house areas are in squared meters. n.e.= not estimated

At this level of analysis we have two possible answers: a) All of the houses within the house compound cluster have the same size, materials, and quality of construction. The ecofact, artifact and ceramic assemblages are also the same from one house to another and the funerary pattern has the same similarity as well. This may indicate that all of the individuals from a house compound cluster are members of the same

corporate group with no differences in rank or lineage among domestic units. Individuals from the houses clustered in the same area participate in similar kinds of productive activities, and had the same level of access to basic and sumptuary resources. However the household group's boundaries can become difficult to draw with precision when all members do not live under a single roof, or when membership is fluid and constantly changing, or when people can belong to two households (Wilk 1997: 35). b) If on the contrary, we see that there are differences in size, material wealth, and or funerary treatment from one house to others in the same area, this may indicate that the inhabitants of one house would have had better access to strategic resources and accumulated more wealth.

There are at least two models to explain these differences: redistribution and patron-client relationship. (A) Redistribution or chiefdom model. A house compound grows from an extended family, high status households perform a set of functions for the entire social cluster, and material resources flow bidirectionally between households of unequal status. In Santley's model, it is assumed that land was held in common by corporate members of the same household compound, that products from it were shared, and that most households were capable of generating some surplus (Santley 1993: 77). This model is similar to the "old ancestral" model proposed by Kirch (1984), where even low-ranking families were still genealogically connected to the chief and his high-ranking close relatives. What it will tell the archaeological indicators: If the cluster was occupied by a descent group which used ceramics as a means to materially express its corporate character, for example by an extended family or a ranked lineage, one would expect to find little variability within the compound in material technology. For

example, the same types of service pottery would be used by all member households within the cluster, except for goods that serve as symbols of rank. The founding household may have a larger house, but not very much larger when number of residents is taken into account (Santley 1993: 80). There would be little variability in housing overall; high status houses are not more elaborate. There is a high degree of access to the highest status household; doorways allowing passages between households of different rank. There is also a “redistributive” function for a high status household (of prismatic blades), and the same types of utilitarian pottery are used by all households within the compound. Higher status compounds, however, might use distinctive types of pottery, as symbols of their higher ranking position, and these should not be present in lower status contents because of social rules limiting their usage. (B) Patron-client relationship model (the great provider). This model involves a vertical, hierarchical relationship within co-residential unit as the basis of social integration. The existence of patron-client relationships presupposes economic inequality. In other words, access to critical economic resources is unequal. Land is considered to be a private resource (Santley 1993: 78). A high-status household does not have corporate, compound-wide functions. There are wealth differences with high status households dominating the coresidential group. This model is also similar to the “territorial” model proposed by Kirch (1984), where the lowest ranking families were divorced from the genealogy and became a separate stratum of commoners.

Resource flows here would not be bidirectional, as in the case of the redistribution model, but would be largely from the top down; that is, from the household of the provider to the households of those in need. The archaeological indicators will

show major differences in architecture and artifact assemblages' composition between compounds within the cluster, especially on the lower social level. Differences in size and or form of the domestic unit and in funerary patterns would be also evident. High status houses are much larger (larger floor space per person). Major household differences in ceramic assemblages within a compound, with small quantities of highly valuable pottery such as polychromes, found even in lower status contexts (due to fewer social conventions restricting their use in lower-status context), indicating vertical exchange (Santley 1993: 80).

From the conflict model perspective, Brumfiel considers that the presence of a larger house in the same area might be indicating, at the city level, a lack of control over rivals by evenly dispersed, tight clusters of elite and commoner housing indicative of leader-follower groupings well suited to factional competition. Based on the type of labor investment, different strategies can be followed for competitive success (Brumfiel 1994). Agricultural intensification may improve the leader's ability to attract followers by sponsoring larger feasts or by supplying them with improved lands (Earle 1978).

Differences between Areas

This question is based on the hypothesis that household clusters or Barrios at Monte Albán may have socioeconomic significance. Based on architectural features and patterns of artifact deposition, Blanton divided Monte Albán into 15 barrios including the Main Plaza as barrio 2. Nine barrios are located in Monte Albán proper for the period IIIb. Houses excavated for this dissertation in Pitayo, Carretera, and Estacionamiento

areas will be analyzed separately. Considering Blanton's barrio division (1978), Estacionamiento area is located within the Barrio 2; Carretera area in Barrio 5; and Pitayo area in Barrio 8 (Table 2.3).

Table 2.3: House Type Classification in Present Study

	<i>Carretera</i>	<i>Pitayo</i>	<i>Estacionamiento</i>	<i>North Platform</i>
By Patio Area	12-20	27-35	25-80	64
By House Area	100-175	100-225	215-625	750
% of patio	12%	15-27%	11-13%	8.5%

All patio and house areas are in squared meters

There are differences in size, administrative structures, and elite houses between these barrios. Three variables are directly related to elite population, non-elite population, and total mound volume by site subdivision. That is, barrios with fewer elites have less or no elites and less in the way of mounded construction and vice versa. This means that elites in each subdivision or barrio have depended on their attached population, or some portion of it, for labor in construction (Blanton 1978: 67).

The settlement pattern at Monte Albán indicates a relationship between larger residential units and proximity to the Main Plaza. Better access to information and probably to land and resources. Domestic structures of different sizes and socioeconomic levels are not randomly located all over the city. Social stratification at Monte Albán is somehow related to the settlement pattern. High status residences are close to the Central Plaza or to the civic-administrative (barrio) centers (Blanton 1978). The two largest and probably highest-ranking elite domestic structures, the so-called palaces, are located one on the southeast corner of the Main Plaza and the other on the

North Platform. Both residences are in the core of the city where most of the ceremonial, ritual and political activities were performed (González Licón 1998).

In the archaeological record we should see differences in architectural features of the household units from one area to another. Size, form, and construction techniques may vary from one area to another. The artifact assemblages and the funerary pattern may be different as well. In the area with larger household units, individuals would be interred with more grave goods and their tombs will be an indication of more energy invested for their construction. Artifact assemblages and funerary offerings will indicate the presence of better quality utilitarian wares and a greater quantity or better made exotic goods than those from the area with smaller houses.

How Large Were the Differences?

Social inequality is rooted on differential access to resources and information. A way to know how large social inequalities were at Monte Albán at a certain specific chronological period is estimating, based on the archaeological record, the amount of material wealth that each individual, household, and area may have had. Based on the analysis of data from architecture, artifact assemblages, nutritional conditions, and funerary patterns, a wealth estimate was determined by individual, by household unit and by area. We needed to look for correlations among these indicators: a) house unit location, sizes, and forms, b) dietary and health conditions, tools used for production, preparation and serving food in the material record, c) patterns of grave associations by

age and sex of individuals. With this data we find the sets of clusters indicating prestige and wealth differences.

When was it Developed?

For the second part of this question we have at least four possibilities: 1) early development in the first chronological periods, then continuing with no more changes; 2) gradual development so that with each period the gap between rich and poor individuals becomes greater; 3) since the foundation of Monte Albán the differences were big and they remained so with no change during the following periods; 4) depending on different economic and social factors and strategies at the household and state levels, differences in material wealth fluctuated from one chronological period to another. In the Patron-Client model (Santley 1993: 82), the factors affecting unequal access to basic resources in Loma Torremote, occurred early in the archaeological sequence and led very rapidly to an economy that treated land as a private good and emphasized the downward flow of resources from households with access to more productive land to those experiencing a greater incidence of production shortfalls. Economic advantage was reflected in the types of ceramics used, in the size of the residence, and in a location closer to the main civic-administrative area.

The levels of wealth determined by individual, household unit, and area, were the means to determine the differences between one social class with relation to another. Once we had a measure of wealth, we compared these differences by period along those three levels of analysis. The degree of wealth reflected in the archaeological

record by period indicated if these differences were more gradually developed based more in quantity, or if the differences were more qualitative in a punctuated process.

CHAPTER 3

METHODOLOGY

Chronology

The chronological sequence at Monte Albán and the Valley of Oaxaca was first postulated by Alfonso Caso and associates in five segments from I to V, which are related to the three major Mesoamerican Periods: Formative, Classic, and Postclassic, and its Phases: Early, Middle, Late, and Terminal, which are the smallest units of time recognized by archaeological indicators. They considered the foundation of Monte Albán to be the first settlement in the Valley (Caso 1928, 1965; Caso and Bernal 1952, 1965; Caso, Bernal and Acosta 1967). In this sense, periods I (500-100 B.C.), and II (100 B.C. - A.D. 250) corresponds to the Late and Terminal Formative respectively. Periods IIIa (A.D. 250-650) and IIIb (A.D. 650-800) correspond to the Early and Late Classic respectively. Periods IV (A.D. 800-1350) and V (A.D. 1350-1521) corresponds to the Early and Late Postclassic respectively also. More recent investigation developed a long occupational sequence at the Valley beginning with the arrival of small bands of hunters and gatherers at least 10,000 years before present (Flannery 1986). Four periods were added to the ceramic sequence in the Valley prior to the foundation of Monte Albán: Tierras Largas (1500-1200 B.C.), San José (1200-800 B.C.), Guadalupe (800-700 B.C.), and Rosario 700-500 B.C.), (Blanton, Feinman, Kowalewski, and Nicholas 1999: 7; Flannery 1970, 1976; Flannery and Marcus 1994; Flannery, Marcus, and Kowalewski 1981; Marcus 1998; Marcus and Flannery 1996). Some authors have attempted alternative classifications suggesting Zapotec names for the same periods (Lind 1994), but I do not

think that these effort are providing a better understanding of the chronology of the Valley of Oaxaca, and for that reason I used the more widely accepted.

Table 3.1: Valley of Oaxaca Chronology *

Date	Phase	Period
1500		Late Postclassic
	Monte Albán V	
1100		Early Postclassic
	Monte Albán IV	
700		Late Classic
	Monte Albán IIIb	
500		Early Classic
	Monte Albán IIIa	
300		
A.D.	Monte Albán II	
B.C		Late Formative
100		
	Monte Albán Late I	
300		
	Monte Albán Early I	
500		Middle Formative
	Rosario	
700		
	Guadalupe	
900		
	San José	
1100		Early Formative
1300	Tierras Largas	

*Blanton, Feinman, Kowalewski, and Nicholas 1999: 7

Archaeological Indicators

The social structure of Monte Albán's inhabitants needs to be interpreted from the archaeological record. The reconstruction of Zapotec society at Monte Albán, to answer the questions stated at the beginning of this chapter, depends on how well we can detect its hierarchical systems, its social structure, symbolized in material culture, and how each one of those social strata were established and/or modified through time. Using archaeological data to answer these questions will be a way to evaluate the degree of social differentiation developed in the Monte Albán population through time. Also, as I mentioned above, I will frame these differences in a broader context, with political, social, and economic changes in the Valley of Oaxaca and Mesoamerica as well.

In this study the degree of social inequality is considered as the difference between social classes. In that sense, we try to identify, quantify, and compare in each social class the quantity, quality, variety, and context of artifacts, architectural features, trade goods and prestige markers. The degree of difference gives the range of inequality. Following this methodology, the range of inequality in an egalitarian society will be small, but in a complex stratified society, differences between each social class are expected to be greater. One aspect used in order to evaluate the levels of inequality in a society is the economic (besides the political and social). Human behavior leaves a fossilized record in the form of spatial patterns of variation and covariation of artifacts and features in a site. At that point, it is necessary to associate the levels of nutritional

conditions, wealth, and prestige indicators with each social class, which sometimes is not an easy task to accomplish.

In Chalcatzingo, David Grove (1984: 72) used variables such as the elaborateness of the grave (labor expenditure), and artifacts placed with the body at the time of the interment (common, exotic, etc.) to differentiate three basic levels of elite and non-elite categories. Architecture is considered the strongest and most consistent expression of wealth and rank in agrarian societies (Unwin 1997). In Xochicalco, Kenneth Hirth (1989) used residential architecture to evaluate differences in social and economic rank. The size and quality of residential architecture usually covaries with the quantity and frequency of the goods and services that a household controls. Architectural remains were identified and classified in five types according to the kind, design, and organization of their spatial components. The correspondence between typological categories and probable social rank was evaluated subsequently by examining correlations with the size, quantity, and quality of architectural construction.

Differences in social rank were identified using information on the floor plan, degree of ornamentation, and quality of construction associated with the five architectural classes. The working hypothesis was that elite residences would be more similar to administrative buildings in both ornamentation and the quality of construction than would non-elite residences. The use of all those variables together was a better means of estimating the social rank than any of these criteria alone.

In the archaeological record, high-status individuals are measured in terms of personal wealth, through their association with certain kinds of luxury items, more elaborate residential architecture, and more complex funerary treatment (Chase and

Chase 1992: 4). To evaluate wealth differences at the Monte Albán domestic units, I used three main indicators: 1) architecture, or the location, size and characteristics of the residential structure; 2) the associated material goods, and 3) variability in the funerary pattern among individuals of the same sex and age (Chase and Chase 1992: 4-6; Earle 1987: 290-291; Feinman and Neitzel 1984: 75; Spencer 1987: 371-372 in Grove and Gillespi 1992: 191; Kowalewski et al. 1992; M. E. Smith 1987: 301-302). Nevertheless, it is important to consider that none of the indicators proposed here as evidence of social inequality and elite status exists in isolation.

As mentioned before, one of the main aspects to look for in household studies is architectural remains. To Pendergast, residential architecture allows identification of classes of elite domestic buildings. It also offer the additional advantage of association with refuse, a link that embodies specific meaning in and of itself and also yields a variety of evidence that complements and amplifies the architectural information (1992: 64). In this sense, considering location, size, and form (construction type) of our excavated households sample plus the two other indicators mentioned above, I tried to quantify first the level of wealth in each excavated house, and, when possible, the wealth level of each skeleton unearthed; and second, to compare the range of inequality among different individuals, household units, and household clusters. Specifically, each one of these indicators is integrated as follows:

Architecture

Residential architecture has been used frequently to evaluate wealth differences within a society and how social groups express residence patterns, kinship, and status. Elite residences, as a specific manifestation of economic power, may reflect unequal relationships among people. Like language, architecture is not static; both are subject to evolutionary change and cultural adaptation (Unwin 1997).

The place where people live is related to the fundamental aspects of life: keeping warm and dry, cooking, sitting, eating, worshipping, performing ritual and so on (Unwin 1997). Architectural analysis is more related to social groups and reflects residence patterns, and these are indicators of kinship and status levels (McGuire 1983: 124). It is one of the most used variables to evaluate levels of wealth in pre-Hispanic societies, because it has great variation in location, house size and characteristics as indicators of the economic and social position of their inhabitants (Blanton 1978: 30, 67, 1994; Feinman and Neitzel 1984: 75; M. E. Smith 1987: 301; Winter 1974: 983; see de Montmollin 1989: 63-65). There are three main aspects to consider here: location, size, and form (which include construction type and occasionally specific elements of plan).

Location

It is often the first basis on which elite residences can be identified. It is frequently assumed that high-status elite residences will be those that are located on the Main Plazas. In correspondence, following a concentric model (Marcus 1983),

residences closest to the main plaza temples, or close to the barrio ceremonial-administrative centers, were occupied by those of highest rank, and that grading of rank and status is reflected in fairly direct fashion by distance from such major buildings. However, considering the topographical conditions of the site, and once outside ceremonial area, the location criterion is more difficult to follow, and identification must rest on size and form.

In Monte Albán, Blanton (1978) found a positive correlation between proximity to the Main Plaza and civic-ceremonial centers, with average terrace area as an indicator of wealth. This correlation will be tested in the excavated household units. Spatial distribution will also be used to determine the household unit clusters, to study differences between household units, and by areas.

House size

It refers to the area physically occupied by the structure, the total size of the house, but also the size of the central patio (as a potential working-productive area) has been used as a status marker. Number and size of rooms and secondary patios has been used to estimate resident population. Elites in economically stratified societies tend to live in larger dwellings, which are often constructed of qualitatively better materials: hewn stone vs. mud brick for example. Thus, if status level is associated with economic wealth, then elites should live in larger residences or have more roofed-over space at their disposal, and their dwellings should be more costly to build (Santley 1993: 80).

The number of rooms or secondary patios has also been used in estimating a household's unit size. The inconvenience with this variable is that you need to excavate the total area of the residence to get that figure, which rarely is accomplished. Santley (1993: 80) at Loma Torremote estimated house size by the amount of space covered by *tepetate* floors. He mentions that "variations in residence size, can be greatly influenced by the number of occupants", and considered the amount of space available per individual as a better comparative measure, although this is difficult to determine (see Haviland 1988; Winter 1972). In a similar method, Grove estimated for Chalcatzingo a figure of 10 m² of floor area per person (1984: 76), which is also an arbitrary measure. In Chachoapan, Mixteca Alta, Michael Lind (1979), identified houses placed on piedmont hills as of higher status than those on the valley floor. Elite houses also have more than one room, arranged around a courtyard or patio.

In this study I used the total area of the house in squared meters. For several reasons, in most of the cases not all the houses were excavated completely. The total area of the residential unit will be estimated from the excavated area. That is, if the central patio and north side of the house were excavated and we know its dimensions, but the south part was not excavated or eroded, I assumed that the house layout was symmetrical and had the same size as the already known north side. In all the cases, both measurements were registered. Instead of quantity of rooms, I used the mean of room area. Although we lack analysis of activity areas (Barba 1986; Barba and Manzanilla 1987; Manzanilla 1986; Manzanilla and Barba 1990), and cannot assign a specific activity to each room, to compare the mean of room area will be more accurate than just the roofed area which has the same drawbacks as the number of rooms.

Another important element in the domestic units is the size of the patio, not only because it is frequently assumed that the household patio was the foci of production and distribution, but also because the size of the patio is more easily preserved and measurable than the total area of the house. Both figures were compared with available data from previous excavations.

Form

This is the general plan or layout of the house. It is related to household composition, family structure, and environmental adaptation (see Bermann 1994 for a detailed description of forms associated to social complexity and environment). In this study, besides the general form of the domestic unit, I used the type of construction and material used on it, such as finishing on floors and walls, paint or other decorative features, house access, and thickness of walls to estimate roof types.

Other aspects related to form that were also used, when available are drainage, special furnishing in floors such as mica inlays, and funerary facilities. (see Hirth 1989 at Xochicalco; Sanders 1982, Widmer 1987, and Manzanilla 1993 at Teotihuacan; Grove 1981 at Chalcatzingo; Whalen 1981, 1983, 1988a, at Santo Domingo Tomaltepec; Drennan 1976, at Fábrica San José; Winter 1974, 1986; Blanton 1978, at Monte Albán). Form can reveal differences from houses that look similar and similarities between those that seem different.

Funerary Practices

In the Valley of Oaxaca, the Zapotec used to bury their dead beneath their house floors. This practice was linked to the idea of an afterlife and honoring one's ancestors. Based on ethnohistorical sources we know that through ancestor veneration, resources, privileges and political power were transmitted between generations, with ancestors representing jural authority. In the Valley of Oaxaca, ancestor veneration played a key social role, and ancestors were honored in an important architectonic addition, the tomb. The strong ideological connection between living people and their ancestors is reflected in their houses where they invested considerable effort in the construction and decoration of the family tomb, and use it for several generations within kin groups. In doing this, the Zapotec maintained not only a symbolic and ritual connection with their ancestors, but a physical interaction between the house of the living and the house of the dead. In some of the best examples known from the Valley of Oaxaca, the tomb, as the residence of the dead, was built so as to recreate a living house. In this way, the Zapotec incorporated in the tomb construction several of the common elements used in their everyday houses. Stairs from the house's central patio to a small vestibule in front of the tomb connected the world and the underworld. Façade decoration, an antechamber, carved lintels, stone doors, and mural painting were other common features of tombs (González Licón y Márquez 1990).

The long-standing focus on tombs relates strongly to political, ideological, and genealogical legitimization. Offerings in tombs also relate to wealth, as does residential architecture, and there is a rich vein of complementary information about the economic

and political aspects of the Zapotec society in the analysis of formal and functional aspects of the residences and tombs in the Valley of Oaxaca.

Burials give one of the best information sources to assign class or status differences and individuals' occupation because funerary context is made by the community with all intentionality. It is generally accepted (after Binford 1971) that mortuary rituals function as systems of symbolic communication that convey information about the social standing or status of the living and the deceased; and the size and composition of the groups recognizing social obligations to the deceased. Middle Range theory has been applied successfully as a complement in the search for the relationship between status and social organization to variability in burial treatment. As I discuss below, there has been in most of the cases a positive correlation between wealth and a large and rich funerary offering, which, in turn, is also used to determine stratification levels. The analysis of funerary practices is an important aspect of building connections between the systemic and archaeological context, in other words, to create correlations between the archaeological data and the social system that produced it. Human beings, like the rest of living creatures on earth, are linked to three fundamental processes: birth, marriage-reproduction, and death. All are perhaps equally important to them and to their society, and individuals living each one of these stages are participating (in one way or in other) in several cultural and status-related ceremonies and rituals. Death, however, is the universal process that leaves more impact on the archaeological record because the cultural reaction to death is not random but "expressive and with significance" (Huntinton and Metcalf 1979: 1). Human beings always manifested a special cult for the after-life and the limit between them, the death. In agricultural

societies, funerary practices were linked to a magic-religious cosmovision that also reflected the social, political and economic structure of each culture. This means that, behavioral patterns in the presence of death, what we call funerary practices, changed depending the status and role of the deceased within its own community, and the degree of social complexity of that culture (Binford 1971). We also have to keep in mind that not all members of a society were receiving the same treatment. The relationship between the level of social complexity and the type of funerary ceremony that is performed is not accidental but directly associated with its levels of development and an individual's position in his/her community. To Binford, the principal dimensions of a social persona that can be recognized in funerary rituals are age, sex, social position, social affiliation, and the place and conditions of death. He also concludes that the form and structure that characterizes funerary practices in a society are related to the form and complexity of the society itself (Binford 1971: 17).

The variables used in the study of funerary contexts are divided in two groups: a) the first gives the opportunity to evaluate the level of energy or used resources in the burial (Tainter 1978) which is a reflection of social divisions, classes or hierarchies in a vertical sense; b) the second group of variables yields information related to social or structural aspects, social class, descendent groups, memberships, or in other words the heterogeneity of social identities that the individual had in his/her own social strata, in horizontal sense. In this model, known as the dimensional approach, social organization is considered as comprised of multidimensional social spaces (social positions and identities or roles) that are assigned to each person based on the specific criteria that any society creates to differentiate those positions.

To look for vertical dimensions, I used qualitative indicators of status hierarchies and levels of authority: a) location, size, and type of the burial facility, such as in a tomb, a cist, a pit, or the earth; b) methods and techniques of corpse processing; c) type of associated grave goods classified by number, type, quality, precedence and chronology of objects (Ravesloot 1988: 3). In the archaeological record one expects to find several classes of prestige or sumptuary goods, and these objects are characterized for several traits indicating the level of effort, high energy or labor investment in their production, and procurement. This includes the use of distinctive rare or exotic objects (jade, shell, turquoise, tecalli, stingray spines, and others) of high quality and very well elaborated. Prestige goods are qualitatively different than utilitarian goods with equivalent non-prestige functions used by other segments of the society (Sinopoli 1991: 126).

To look for horizontal dimension, related quantitatively to the respective roles that any individual had in his/her own socioeconomic group or strata (horizontal differentiation, heterogeneity), I used as indicators: a) burial form, being individual or collective; b) type of burial, either primary or secondary; c) characteristics of the individual, including body position, sex, and age; d) spatial location of the burial, for example main or secondary room or patio, or outside the house and its associated elements (McGuire 1983; Tainter 1978, but see Hodder 1982, 1986a, 1986b).

In the archaeological record one expects to find style variation that serves to distinguish between functionally similar goods, with no big differences in their cost of production or procurement. These changes might include the introduction of new decorative motifs; new ways of distributing existing motifs, or differences in vessel form.

Ceramic serving vessels may be important for high-ranking individuals, in public ceremonies or to high status visitors (Sinopoli 1991: 126, 128).

Funerary practices yield information about social and political organization at the time of death. The type, size and interment characteristics; the position, orientation and corps treatment; the spatial location of the burial; and the amount and quality of the objects associated all are important indicators of symbolic, social, political and technological levels of development along with others reached by that community, both internally and in association with other communities.

Although it seems logical to assume that when an elite, high status individual dies, his/her relatives will offer a great funerary ceremony and his/her body will be buried in a place deserving of that person's sociopolitical level. An elaborate tomb, revealed through, for example, the number, variety and characteristics of offerings or the kinds of objects given to high-rank individuals will be different than the ones associated with low-ranking individuals, and serves as a reflection of class differences.

Nevertheless, to detect social hierarchical differences in a population is more easy than to find horizontal differences within the same class (Chapman and Randsborg 1981: 9; Goldstein 1981), and following Tainter (1978: 131) some of the latter differences can be more evident during the ceremony performed before the burial as the particular body is prepared and food is consumed.

Funerary indicators were classified in four main groups (Wason 1994: 71), as follows:

1. Preparation of the facility in which the body is placed
 - 1.1. Area location

- 1.2. Household unit location
- 1.3. Location within the domestic unit
- 1.4. Form of the facility (tomb, cist, pit, earth, kiln), architectural variability
2. Treatment of the body
 - 2.1. Type of burial (grade of skeletal articulation (primary, secondary))
 - 2.2. Position of the burial (extended, flexed, lateral, etc.)
 - 2.3. Number of individuals per burial (individual, collective, or ossuary)
 - 2.4. Orientation of the body (skull-feet)
 - 2.5. Mutilation, trepanation, or anatomical modifications
3. Biological dimensions
 - 3.1. Age
 - 3.2. Sex
 - 3.3. Wealth conditions
4. Burial context within grave. Offering
 - 4.1. Chronology
 - 4.2. Wares, forms, and frequencies (same as in ceramic assemblages)
 - 4.3. Quantity of objects (number)
 - 4.4. Variety of objects (by raw material)
 - 4.5. Quality of objects (local, imported, technique of manufacture, etc.)

An intrinsic aspect of any analysis of funerary patterns is its classification. The intention of classifying mortuary data is to look for clusters of burials, which can be interpreted as socially distinctive. Here we face several methods of classification: (A)

Formal analysis is one possibility (Brown J. 1971; Saxe 1970), but a problem with this method is that when applied to archaeological data, formal keys tend to focus the classification process on variables that reflect idiosyncratic variations peculiar to individual burials. The resultant classifications often yield burial types represented by only one individual each. When formal classification procedures isolate individual burials, it is difficult to gain information concerning the structure and the organizing principles of social systems. Social positions that existed in past societies can be identified archaeologically by isolating sets of burials manifesting similar social personae, not by keying out individual burials. (B) Multidimensional analysis. We have to consider funerary practices as complex and integrated by the interaction of economic, ideological and social variables. For this reason, we need to evaluate different groups of indicators in a multidimensional analysis as a way to reconstruct patterns of social inequality.

The grave goods were also analyzed separately, for methodological comparative purposes, following the method of Sempowski (1987: 117-118; Sempowski and M. W. Spence 1994), and M. E. Smith (1987) to estimate a measurement of wealth, considering quantity, diversity and quality of the offering. The main reason to do it in this way is based on the assumption that the aspect most likely to be affected by the status of the deceased is the form and quantity of the goods associated with the burial. According to Tainter (1977, 1978), more grave goods (quantity) means greater investment in energy and wealth by the relatives and people related to the buried person, which may be interpreted as a reflection of his/her social position. Elite households not only may have more goods, but also more elaborate and using different

types of materials. Quality is the last aspect to consider: if some object has been imported from a distant site, a bigger cost is involved. Then quality is also a factor, given that the item is rare or non-existent in the area where it was used. Thus, diversity and quality are a good complement to quantity.

Material Goods

Although less reliable than architecture because of its mobility and relatively low cost, in many studies a positive correlation has been demonstrated between amount and variety of the objects recovered in households and their wealth levels (M. E. Smith 1987: 301-302). In this research, we find just a few artifacts over the stucco floors of the excavated houses. For that reason, most of the non-funerary artifact assemblages analyzed in this dissertation come from a limited number of stratigraphic pits, ritual deposits, and features. Some of the reasons for the absence of artifacts over the stucco floors are more or less the same as in other sites. As an example, I selected Tlajinga 33, a southern Teotihuacán compound where artifacts were not produced, utilized, or consumed at the same locations where they were ultimately discarded due to: a) the high occupation frequency and density, b) the partitioning of space into rooms and patios which appear to have been completely enclosed, and c) the use of plastered surfaces on rooms and patios (Storey and Widmer 1989: 409; see also Grove and Gillespie 1992; Hirth 1989; Santley 1989). Thus, as suggested by Feinman and Neitzel, to overcome those difficulties, it will be necessary to use the broadest range of analytical indicators available (1984: 76).

Ceramic assemblages will be classified following the well known and multi-tested system for the Valley of Oaxaca (Caso, Bernal and Acosta 1967; Blanton 1978) regarding wares by paste attributes (Gris, Crema, Amarillo, and Café), and a functional classification by general form attributes (bowl, jar, bottle, and comal); surface finish attributes (unburnished, burnished, slipped, smudging, and fire-clouding); and decoration attributes (incising, carving, scratching, applique, modeling and painting) (Appendixes D and E). Vessel form has been used as the best method to see changes through time (see Cyphers 1992; Flannery and Marcus 1996), and also a good indicator of function, which, as in the case of serving vessels, is the best indicator to evaluate levels of wealth. Wealthier households are expected to have had more feasting or meetings, and as a result of that, a great amount of these type of vessels (outleaned-wall bowl). This is the reason why polychrome ceramic is also used as wealth marker (M. G. Smith 1987: 316).

This analysis is organized by chronological periods and based only on non-funerary contexts such as ritual deposits, features, and stratigraphic excavations. In each period, all the houses occupied at that time are individually listed. Therefore, initially two correlated tabulated data were processed: a) one for sherds or ceramic fragments, and b) one for complete vessels. Both data sets will be organized based on the attributes described above including provenience, chronology, and frequencies.

Stone and obsidian assemblages will be classified from macroscopic observations considering manufacture techniques, (carved, percussion, percussion edging, rough trimming, percussion thinning, fine retouch, etc.), and functional attributes (core, flake, blade, drill, scraper, hammer, projectile point).

In order to explore the dimensional structure of household activities, it will be necessary to define variability in artifact assemblages. The most important attributes have been delineated above. Descriptions of the variability found in artifact assemblages will be listed. Cross-tabulations of artifact assemblages and the other indicators with the variables of location, age, and gender will be explored. The strength of the relationship, or the lack of it, between these variables and the variables of mortuary practices that have been suggested as symbols of rank, is of particular interest (see Ravesloot 1988: 51).

PART II, BACKGROUND / OVERVIEW

CHAPTER 4

THE PHYSICAL SETTING

Oaxaca Region and the Valley of Oaxaca

The Oaxaca region is one of the five great Mesoamerican cultural regions. Its extension is close to 100,000 km², and includes almost all of the actual state of Oaxaca, and parts of Puebla and Guerrero. It is one of the most diverse regions in Mexico with great environmental variation, especially in terms of altitude and rainfall. Vast mountain chains such as the Sierra Madre Oriental and the Sierra Madre Occidental dominate the landscape, and they also join here forming the Nudo Mixteco that ends at the Isthmus of Tehuantepec, the narrowest part of Mexico. There are also large flat alluvial valleys as the Valleys of Oaxaca, Nochixtlán, and Tehuacán, formed by the major rivers and home to dense settlements. (C. E. Smith 1983: 13-15). The Oaxaca region can be divided geographically and culturally in the following six sub-regions: Mixteca, Sierra Juárez, Cañada, Coast, Isthmus and the Valley of Oaxaca also known as the Central Valleys (hereafter called Valley of Oaxaca), (see Kowalewski et al. 1989: 3-5 for region and sub region definitions).

The Mixteca

The Mixteca is located in the western part of the Oaxaca region. It includes the Miahuatlán valley, the Almoloyas-Sosola region, and some parts of the states of Puebla and Guerrero with an extension of about 40,000 km². Most of its extension is rugged

and hilly, making the few valleys in the area of key importance for the development of agriculture and cities. The Mixtec region has been divided geographically in three parts: a) Mixteca Alta, up to 1500 m over the sea level, b) Mixteca Baja, below 1500 m over the sea level, and c) Coastal Mixteca.

In the Mixteca Alta, some of the most important valleys are Nochixtlán, Tlaxiaco, Coixtlahuaca, Teposcolula and Juxtlahuaca, with an average altitude of 2,000 m over sea level and an annual rainfall of 700-1000 mm. The Nochixtlán Valley, the second largest flat area in the Oaxaca region with 250 km² (Kirkby 1972: 54 in Kowalewski et al. 1989: 12), is located only 40 km west of the Etna arm of the Valley of Oaxaca. The Mixteca Alta has been divided as follows: The Mixteca Alta or *Ñuszaviuzuhu* and the Chuchón Mixteca *tocui jñuhu o tocuijnudzyui* that was inhabited by chocho-popoloca groups, and the Mixtec Valley or *tocuisi ñuhu*, which is the Mixtec area with influence from the Valley of Oaxaca. The Mixteca Baja or *Ñuiñe*, (which means hot land), located to the west and northwest of the state of Oaxaca and extends to the east of Guerrero and south of Puebla states.

The Mixteca Baja is comprised of lower elevation hills, numerous small valleys, and higher temperatures, and the land is less fertile and more arid than in the Mixteca Alta.

The Mixteca de la Costa is located to the south and includes the southwest of the Oaxaca lowlands. It is warmer and more arid than the Mixteca Alta, a low and hilly region as is the rest of the Mixteca. It has been divided in the Coastal zone and the *Ñuñuma* (meaning cloudland) (Moser 1977: 5; Spores 1967: 4-5).

The Sierra Juárez

Located north to the Valley of Oaxaca, it is formed by the Sierra Zapoteca or Juárez, the Sierra Mazateca, and the Chinantla; to the east is the Sierra Mixe. It is one of the most isolated areas in the Oaxaca region.

The Cañada

It is located between the Mixteca Alta and the Sierra Zapoteca. It is a great gorge of almost 150 km in length and 1 to 10 km in width where the rivers Salado and Grande join to form the Santo Domingo. Further downstream, in the state of Veracruz, the Santo Domingo joins the Río Papaloapan, which empties into the Gulf of Mexico. This gorge is flanked by two high mountain chains with peaks over 3,000 m over sea level, the Sierra Madre Oriental to the east and the Sierra Mixteca to the west. The Cañada of the Río Santo Domingo constitutes the northern limit.

The Cañada is strategically located between the Tehuacán and Oaxaca valleys. Because of its low altitude (500-600 meters above sea level), permanent rivers and good quality land, it was settled since the Middle Formative (Spencer 1982) and was also an important route of communication.

The Cuicatec settled the floor of the Cañada, while the villages in the highlands to the west of the Cañada were Mixtec. To the south, the Cuicatec region bounded that of the Zapotec, just short of the watershed between the Río de las Vueltas and the Valley of Oaxaca. The Mazatec in the sierra and Nahuatl speakers in the lower Valley of

Tehuacán borders the Cuicatec to the north. To the south, the Chinantec begin at Atlatlauca (Hopkins 1984: 2, 7). Its annual rainfall is between 250 to 800 mm and the climate is template sub-humid. The heaviest rainfall is usually in June, while January and February are the driest months of the year. The soil is red or brown clay (luvisol) that turns hard when is dry. The rocks are metamorphic and sedimentary. Vegetation is not dense and adapted to grow under dry conditions (xerophytic). The average annual temperature is 24.5°C, with a maximum of 43°C and a minimum of 6°C. The hottest time is in April and May before the rain begins, and the coolest months are from October to February (Hopkins 1984: 5).

One of the most important sites in the Terminal Formative (MA II phase) is Quiotepec. The site covers an extension of 44.3 ha, with the civic-ceremonial center is located on a hilltop, at the left bank of the Río Grande, two kilometers before it joins the Salado River. Quiotepec is considered the northern frontier of the Zapotec state that expanded to the Cañada in this period (Redmond 1983).

The Coastal area

With an elevation range from 0 to 800 m. over the sea level and tropical forests vegetation, most of the coastal region is hilly, and there are many steep ravines and several sizable rivers. The typical vegetation is xerophytic thorn bush and cacti (Brockington et al. 1974: 10; Joyce 1993; Joyce et al. 1995).

The Isthmus region

It is a large flat area, which separate the Oaxaca Highlands from the Chiapas Highlands. It is bounded on the north by the Gulf of Mexico and on the south by the Pacific Ocean. The climate of the south coastal plain is tropical and dry. The rainy season goes from May through October (Peterson and Mac Dougall 1974: 1). In the Isthmus region, the Chimalapas are one of the richest rainforest areas in the world in terms of biodiversity (Zeitlin 1990, 1993).

The Valley of Oaxaca

The Valley of Oaxaca is located at the center of the Oaxaca region, between 16°40'-17°20' N and 96°15'-96°55' W with altitudes ranging from 1420 to 1740 meters above sea level, and 1540m at Oaxaca City, the state capital. It is the largest flat highland in the entire region, approximately 100 km in length and 25 km in width (1400 km²), and it forms the upper drainage basin of the Río Atoyac with its southern (downstream) limit defined by the entry of the river into a gorge. The Valley of Oaxaca is composed of three arms: the Etla arm to the northwest, the Tlacolula arm to the east and the Zaachila-Zimatlán arm, also known (and hereafter) as the Valle Grande, to the south. In the Valle Grande, the Atoyac River reaches its lowest and widest course. To the east of Zimatlán village, there is the Ocotlán Valley, which is formed by a major ephemeral stream from the east and sometimes is not considered part of the Valle Grande (Kirkby 1973: 7). At the conjunction of these three arms, several hills rise about

400 m above the valley floor. Monte Albán was founded atop these hills. On the Valley floor lays the modern Oaxaca City founded in the Sixteenth century. The Río Atoyac runs all year round from north to south, although its stream is very low in the dry season. It forms the southern outlet for the Valley of Oaxaca and further downstream joins the Río Verde in the Pacific Coastal area.

The Río Salado remains dry for most of the year, its path stretching from the eastern part of the Tlacolula arm to join the Atoyac close to Oaxaca City. The existence of both rivers and other small perennial tributaries, such as the Díaz Ordaz and Teotitlán del Valle stream in the Tlacolula Valley, (although temporary and erratic in occurrence), allowed the inhabitants of the Valley to irrigate extensive areas, increase their food production and concentrate in many urban centers. Dependence on these tributaries lead to dispersed rather than centralized water use (Kirkby 1973: 21). The climate of the region is semiarid, and frost is infrequent, with 600-800 mm of annual rainfall occurring during the summer-wet season. The land is flat, well-watered alluvium, good for agriculture.

The Valley is flanked by piedmont zones and surrounded by mountains rising to more than 3000 meters, the Sierra Madre on the east, the Mixteca Alta to the north with less altitude than the eastern ridges. To the west, in the Mixteca Baja and the Pacific Coast, the mountains give way to flatlands. According to C. E. Smith (1983: 13), these mountainous edges of the Valley of Oaxaca are a mixture of metamorphic rocks (gneiss predominantly), Cretaceous limestone, and Miocene ignimbrite (volcanic tuff) formations, which is favorable for the development of alluvial deposits. Out of the Valle Grande, south of Ocotlán are the valleys of Ejutla (300 km²) and Miahuatlán (500 km²)

that "... resemble the Valley of Oaxaca and are more accessible to the Valley than any other nearby of adjacent area. From Monte Albán, Miahuatlán is half the distance to the Pacific Coast (Kowalewski et al. 1989: 17; see Flannery 1986).

The rainy season for the Valley of Oaxaca is roughly May through September when the trade winds, blowing inland from the Gulf of Mexico are most active (usually stopped at the high ridges of the Sierra Madre del Sur loosing their moisture before reaching the Valley of Oaxaca). Due to the fact that potential evapotranspiration is greater than the mean rainfall in the Valley, water is a scarce resource with an annual moisture deficit and a constant need for irrigation (Kirkby 1973: 7). In general, rainfall in Oaxaca City ranges between 420 and 896 mm. In the Tlacolula arm the average rainfall is less than in the state capital (382 to 840 mm), although it is 100 m higher (C. E. Smith 1983: 14). Water for agriculture is obtained from three main sources: directly from rainfall, from streams, and from the water table (Kirkby 1973: 15).

Two distinct zones may be defined in terms of agricultural potential of the alluvial valley floor: a) a higher, cooler zone including all of the Etna and Tlacolula Valleys and b) a lower, warmer zone including all of the Valle Grande. Temperature in the Valley of Oaxaca seldom drops to freezing in the Valle Grande, but in the Etna Valley and the higher elevation of the Tlacolula Valley (with a lowest record of -8.5°C) increases the danger of frost. The mean temperature at the City of Oaxaca is 20.6°C . The probability of air frosts in the Etna and Tlacolula valleys is once every 3 years, and ground frosts are likely every year so the average length of the frost-free period is 10 months, whereas in the Valle Grande with absolute minimum temperatures about $+1^{\circ}\text{C}$, the probability of air frost is less than 1 in 20 to 40 years, and there are not reports of

ground frost; hence the average length of the frost-free period is 12 months (Kirkby 1973: 13). Therefore, even though water might be available for irrigation in December and January, crops such as beans and maize suffer from frost damage in the Tlacolula, Mitla, and Matatlán region. The situation is the same for those crops on the piedmont or mountains surrounding the valley (C. E. Smith 1983: 14).

Original vegetation in the Valley of Oaxaca has been cleared during thousands of years of human occupation. All woody vegetation has been cut many times to furnish tools, buildings, and fuel for the population. Reconstruction of the original vegetation indicates that the water table was only slightly below the ground near the Río Atoyac and it remains within the reach of the roots of trees for some distance back from the river. A fully developed evergreen tropical forest would have covered the valley, with a large amount of *Ficus* and representatives of Lauracea such as *Persea americana*, *Ocotea* spp., *Nectandra* spp., and *Litsea* spp. Also some Annonaceae including *Anona purpurea*, which now grows along watercourses higher on the valley sides, and any number of other tropical trees which prefer mesic cool habitats. The primary forest must have consisted of individual trees as large as 1.5 m in diameter at breast height and 30 m or taller, growing 10-20 m apart. Away from the alluvial plain of the river valley, the water table would have been (and still is) inaccessible to many plants. This is precisely the best habitat for mesquite (*Prosopis juliflora*) to flourish. Prior to human disturbance, a band of mesquite forest fringed the evergreen valley, which is still present today near Mitla. On the upper alluvial area (to about 1700 m.), which quickly exceeds the water table depth to which even mesquite roots can reach, the vegetation becomes a thorn

scrub forest with many leguminous trees accented by columnar cacti (*Lemaireocereus* and *Myrtillocactus*) and prickly pear (*Opuntia* spp.) (C. E. Smith 1983: 14).

In terms of agricultural possibilities, and taking into account gradient, altitude and soil, the Valley of Oaxaca was divided by Kirkby (1973) into four physiographic zones: mountains, piedmont, high alluvium, and low alluvium. With its lower temperatures and steep slopes, mountains were not as important for agriculture as they were a gathering area for wood and wild fruits. They are covered with high pine and oak forests which show a zone of dominant species with increasing altitude from broad-leafed oak woodland at 2,000 to 2,500 m to a mixed pine-oak forest at 2,500 to 2,700 m, to a pine forest at altitudes above 2,700 m. The piedmont zone is an area of transition from the mountains to the valley floor. Perennial streams flowing down from the mountains can be first diverted to a gentle enough slope to provide irrigation in the piedmont. Without this element, the piedmont is only marginal agricultural land, since its slopes are steeper and soils poorer than those of the valley floor. Despite its lower agricultural aptitudes compared with the valley alluvium, the piedmont is extensively cultivated. Between 1,800 to 2,000 m, the mesquite grassland turns into a thorn forest with several species of cactus and *Agave*. Above 2,000 m, piedmont is more open with the thorny species giving way to narrow- and broad-leafed oaks which are easy to clear and not as well developed as the oak zone in the mountains proper (Kirkby 1973: 11).

The major part of the valley floor is formed by high alluvium, which is the most productive land for agriculture. In contrast with the mountain and piedmont zones, the high alluvium soils are always greater than 1 m in depth. The alluvial soils are always alkaline and low in humus and nutrients. Soil color is generally brown and tends toward

red-brown on the better-drained gravels and gray-brown in the more arid parts of the valley. The low alluvium is located mainly on the riverbeds and in the most recent areas of deposition, such as below dams where a new flood plain is presently forming. This flood plain or low alluvium is very restricted in area, occurring as a distinct geomorphic unit along less than 50 percent of the courses of the Río Atoyac and Río Salado and with a maximum width of only 2.5 km in the Valle Grande. The low alluvium are usually pure sand and gravel, and its value for agriculture depends primarily on its water resources rather than on its land characteristics since it is restricted in area, has poor soils, and is liable to crop damage from flooding during the summer growing season (Kirkby 1973: 15).

CHAPTER 5

THE CITY OF MONTE ALBÁN

Monte Albán is the largest archaeological site in Oaxaca and one of the most impressive of Mexico. It was one of the first cities in the continent, and the largest urban center of southern Mesoamerica during the Classic period. Since 1987, UNESCO declared Monte Albán, in conjunction with the city of Oaxaca, as a World Cultural Heritage site.

Monte Albán was planned, since its foundation, as a power center, where chiefs or leaders of the previous Valley settlements created a confederation (Blanton 1978). Organized and grouped at Monte Albán, the leading elite would control agriculture production and trade. Carved-stone monuments known as "dancers" have been interpreted as evidence of opposition and military struggle to the ruling elite by other chiefs in the Valley. Long distance trade of products manufactured or not, was an important feature in the process of knowledge exchange among Mesoamericans. In the Oaxaca region, exchange between the Central Valley to the Isthmus, the Pacific Coast, the Cañada or the Mixtec were important. The longest significant trade routes stretched to the Gulf Coast, Highland Chiapas, Guatemala, and Teotihuacan.

The leveling of the central plaza began with the city foundation at MA Early I. Surrounding the central plaza (300 by 200 m), there are 20 pyramid platforms for several administrative and political functions where government concentrated. At the north and south edges there are the largest structures in the site with temples and elite residences on its top.

The North Platform bounds the central plaza on that side and it rises as an important point between the residential zone of the north and the main plaza as the ceremonial center. It has a base of 50,000 m² (250 meters directed north-south and 200 meters east-west), corresponding to MA IIIb, but according to the excavations conducted there, there are substructures which were built during the first occupation of the city at MA Ia (Caso, Bernal, and Acosta 1967: 89-106).

The city was founded by the year 500 B.C. (Phase Ia) and continued growing until ends of Period IIIb. Most of the population, due to Monte Albán's hilly location, built their housings in terraces. These terraces covered the whole hill almost completely by the end of the Classic period. When the population diminished, they ended construction of administrative and religious buildings. Most of the remains that today can be observed belong to Period III and in many cases they contain, in its interior, evidences of previous constructions.

In the first centuries of their foundation, the water of the ravines and small springs in the hillsides supplied the inhabitants during a great part of the year. But the population's growth and the deforestation that accompanied it, led undoubtedly to a decrease of these resources. During the rainy season (May-September) the inhabitants were able to gather water for their domestic consumption from small drainages or deposits in their patios. With the purpose of storing bigger quantities of water, they built a complicated system of drainages that channeled the rain water to a ravine and a great dam or *jagüey* at the bottom of it. Another water container existed on the East side of the Main Plaza during Period II. Nevertheless, in the later periods, a great part of the water consumed in Monte Albán during the dry season (October-April) was transported

uphill in pots from the bottom of the valley. The cutting of trees to dedicate more and more area to housing had the long-term effect of causing strong erosion, as abandoned houses and terraces would break and spill down the slope. This was evident in the archaeological record, as some of the excavated houses (from the Carretera Area) were covered by many meters of earth from the hillside above them. In the Parking Area, a section of houses were lost when the hill broke-apart, terraces, structures, and all.

Monte Albán and Teotihuacan are considered the first cities of the New World, where residential spaces can be differentiated from others dedicated to administrative and religious functions. The first founders of Monte Albán came from other communities in the Valley of Oaxaca and they settled down in the beginning in small establishments along the hillsides and on top of the hill of Monte Albán.

The center of the whole city was the Great Plaza that was also the place to concentrate the goods that were produced in the extensive valley of Oaxaca and to erect stone stelae, based on its ritual calendar of 260 days that commemorates the most important events of the city.

The end of the domain of Monte Albán, around A.D. 800, is marked by the abandonment of the city by most of its inhabitants and the ceasing of construction and maintenance of the civic and religious buildings. The end and abandonment of Monte Albán was certainly not the result of a single cause, but the sum of several. In all of Mesoamerica, important changes took place at that time. In the Valley of Oaxaca, an ethnic and cultural unity was preserved during 1300 years. However, in a given moment, the state of Monte Albán, as a regional system, had a political crisis.

After its partial abandonment, Monte Albán continued as sacred place to where many people went to carry out offerings and to bury their ancestors. One of the most remarkable examples of this is tomb 7. Originally built and used by the Zapotec from period IIIb, it was reused around A.D. 1400 by the Mixtec that deposited in it the remains of nine important individuals after emptying what was in the interior. These skeletal remains were accompanied by a rich offering composed by diverse prestige objects made in gold, turquoise, silver and rock glass, among others, that indicates their high social status.

The Monte Albán Barrios

To the northern part of the main plaza, the hill is less abrupt than in other directions, which enabled its inhabitants to built terraces for their homes. By the Late Classic or MA IIIb, nearly all terraces that surround Monte Albán were inhabited, many of them since the Late Formative period.

Based on the analysis of ceramic collections, distribution of civic and elite residential buildings, and the number of households and terraces at the site, Blanton (1978: 19-24) identified several neighborhoods or barrios. These barrios "...are identified by regularly spaced clusters of civic/elite structures and plazas, surrounded by non-elite residences" (Kowalewski et al. 1989: 96), although the pattern that we see today dates to MA IIIb.

Apparently the city was organized since its foundation in three neighborhoods or barrios, and each one of these barrios was related to chiefdoms in the Valley (Blanton

1978). Toward the year 200 B.C. Monte Albán was already the biggest and most important community in southern Mesoamerica.

Its central location in the Valley of Oaxaca was favorable to exercise effective political control of the other communities, as well as for the concentration and redistribution of goods. Its position above the hills was very defensible and symbolically dominant. Merchants and pilgrims of other regions recognized the importance of Monte Albán and there are stylistic prints of their influence in distant regions as Chiapas, Veracruz and Puebla.

Architecture and Domestic Units

Temples and residences are the most common constructions in Monte Albán. The temples were generally built on high and stepped platforms made of stone and covered with stucco. Often they consisted of two galleries of rooms. In the front there is a lobby with wide entrance, and behind a room with a more narrow entrance. Short walls and circular columns frequently define the entrances. The walls were made of adobe, built on a stone foundation to give them bigger stability. Thanks to some of the better-preserved remains, we know that the walls were stuccoed and colored. The roofs were plane, and they consisted of a structure formed by wood beams supported in the walls. Over this structure, an embowered of reed or palm was made, and over this, a compact layer of earth and stone was placed that, finally, was covered by a thick layer of finely planed stucco with a certain slope to channel the rain water off the roof.

One of the most characteristic architectural elements in Monte Albán for the Classic period (250-800 B.C.), was the use of the “Zapotec tablero” or “double scapular” in almost ninety percent of basements and temples. This element frames the wide *alfardas* and lateral bodies of the buildings and seems to have been a local adaptation of the *talud-tablero* used in Teotihuacán during the same time. The walls were always made observing horizontal arrays of stone ashlar alternating with insertions of rectangular flagstones. The stones were placed so as to form mosaics, making it easy to distinguish reworking or restoration of the original walls.

In the case of domestic architecture, most of the residences now exposed are from periods IIIa and IIIb. Almost all consist of a square patio with adjacent rooms to the sides and the corners. The occupants were buried in tombs built under the patios or the rooms' floor. The entrances to the residences were closed and narrow. The elaborated residences, for example “The Palace” in the East side of the Main Plaza, have an entrance with a vestibule, blocking the view to the interior from the exterior.

Palaces are the most magnificent examples of domestic architecture and since there are only six known in the whole area, it is thought that it was a numerically restricted ruling elite.

Besides the elite houses or palaces, there are others of lesser dimensions that would be inhabited by a middle class. The smallest houses, from which we do not know much, were inhabited by peasants and workers, perhaps including, as well, some slaves that were authorized to live independently.

To be able to estimate population, Blanton assumed that all the Monte Albán terraces were occupied during MA IIIb, and all the residences exposed on the surface date

to the same period (occupation during MA V was minimal, so most of the terraces had MA IIIb related materials). He mapped 2,073 terraces, 2006 were identified as residential. Of this total, only 37 had rooms, or even whole residences (referred as elaborate residences). From the others 1969 terraces lacking elaborated residences, only 19 had some architectural remains that were preserved or excavated in such a way to calculate the terrace area taken per house (311.9 m²). Then he estimates a total number of non-elaborated households of 2895. Assuming an average of 10 to 20 people per household, the total maximum population of Monte Albán at its height was about 15,000 to 30,000 (Blanton 1978: 29-30). As this author pointed out, the same proportions were obtained using the method developed by Sanders (1965: 50) for the Valley of Mexico, given to a settlement as Monte Albán a population density of 25-50 per hectare, yielding a total population of 16,250 to 32,500.

At the household level, during MA I, and in accordance with the Monte Albán Survey and Mapping Project, several changes took place: (1) changing patterns of migration (Blanton et al.1982: 55-61), (2) demographic growth, (3) increase in the rate of household formation, (4) gradual shift from wattle and daub to adobe or masonry house construction, (5) adoption of tortilla making, (6) long term shift in grinding technology, (7) increased reliance on craft specialists and marketing, (8) more tribute demands in food and labor, and (9) perhaps even more participation in military and associated ritual affairs than in Rosario phase (Kowalewski et al. 1989: 111).

There is great variability in the domestic residences at Monte Albán suggesting a complex socioeconomic arrangement. In terms of the patio surface area, Blanton's survey identified "... at least six modes, at just over 10m², at roughly 16 m², at 80-100 m², at 280-

520 m², at 580-780 m² and nine examples in the over 1000 m² category" (Blanton 1978: 97). The single conclusion derived from these size-groups is that there is a broad variation in the extension of the houses as a reflection of the diverse characteristics of the population of Monte Albán.

In general the simplest houses are one-room structures, frequently made of wattle-and-daub; others could have several rooms around a patio, often a mixed construction with stone foundations and wattle-and-daub walls.

In the houses of certain importance, rooms were also constructed surrounding the patio, but they extended to form small cells that, when they met in corners, would form a closed unit. The patio and the rooms had stuccoed walls and floors, which also served for the recollection and distribution of rainwater.

There are some features that we can observe, besides the construction itself, such as storage pits, middens, ovens, activity or handicraft zones, one tomb and several burials.

For MA IIIb there is a great amount of variability not only in the size of the patios and rooms but also in house distribution. The size of the house as a living space may change with number of occupants, types of activities, wealth and ostentation (Blanton 1978: 96-98). Where greater variation was found was in the construction of the tombs. In each one of the houses excavated, a different orientation, size and form was found.

Previous Archaeological Projects

Historical Review

Many have been the investigators that have dedicated their time to the study of such an important city. In a very brief and schematic way, we will mention some of the most important ones. At the beginning of the XIX century, the captain Guillermo Dupaix, of Austrian origin, carried out three expeditions (1805, 1806, and 1807) to recognize and to describe the archaeological places of the New Spain, visiting Mitla and Monte Albán among other cities. *Antiquités Mexicaines* was the written result of this work, published in 1830-48 by Kingsborough, being the first written account of Monte Albán, and including magnificent illustrations of José Luciano Castañeda that showed, in addition to some buildings, five bas-reliefs of the so-call “dancers” and other archaeological objects. Towards 1830 the first map of Monte Albán was made and by 1863 there were discussions about the funeral function of its buildings. William H. Holmes, curator of the Field Columbian Museum of Chicago, visited Oaxaca in 1895 and two years later (1897) published a detailed description of Monte Albán. Toward the end of the century, doctor Sologuren and licenciado Belmar, both from Oaxaca, discovered eight more “dancers”, from where originated this name to describe these bas-reliefs with human figures. Around the same time, Marshall Saville, excavated some tombs in Xoxo and Monte Albán.

Between 1885 and 1910, the Mexican Leopoldo Batres, who was named by Porfirio Díaz as General Inspector and conservator of the archaeological monuments,

carried out exploration and reconstruction in Monte Albán, discovering more representations of dancers and exploring the North Platform and the South Platform partially, as well as the “L” building. Between 1931 and 1949, Dr. Alfonso Caso directed the most extensive and intensive research project carried out at Monte Albán to the present date, and in the Oaxaca region in general. The investigations of Dr. Caso, supported by an important team of collaborators including Ignacio Bernal and Jorge Acosta among many others, defined, through numerous publications, the most representative aspects of the Zapotec and Mixtec cultures.

Based on a detailed study of stratigraphic contexts, Caso and associates produced one of the best well-known cultural sequences in all Mesoamerica. They also explored and consolidated most of the buildings that make up the great Main Plaza of Monte Albán. They also discovered a great quantity of tombs and burials from where skeletons and offerings would allow them to complete the detailed ceramic analyses and to deepen in the knowledge of their religion and more important deities. In this dissertation I base myself thoroughly on their ceramic typology and cultural sequence.

In 1965 Dr. Kent Flannery begins the Prehistory and Human Ecology of the Valley of Oaxaca Project, which produced valuable information in two aspects: the study of the transitions from nomadic hunter-gather bands to sedentary agriculture and the rise of ranked society (Flannery 1968, 1976, 1986). The project is successful at elaborating on pre-Monte Albán phases by digging in the valley of ETLA like at San José Mogote and Tierras Largas among others, allowing these researchers to illustrate the process through which a less developed and more economically leveled society became a more developed and unequal intermediate society, and eventually a much more complex

state society with social stratification (Flannery 1968, 1972; Flannery and Marcus 1976, 1983, 1994; Flannery, Marcus, and Kowalewski 1981; Marcus 1989, 1998; Marcus and Flannery 1996).

In 1971, Richard Blanton and collaborators began the study of the settlement patterns in the Valley of Oaxaca, publishing first the settlement patterns of Monte Albán (Blanton 1978) and later, with others the complete surface survey and the mapping of all sites in the valley of Oaxaca (Blanton et al. 1982; Kowalewski et al. 1989). Other important studies derived from those of Flannery and Blanton which are focused in other archaeological sites in the Valley are: Fábrica San José (Drennan 1976), Santo Domingo Tomaltepec (Whalen 1981), Barrio del Rosario in San Pablo Huitzo (Flannery 1970), and Tierras Largas (Winter 1972). In addition to the information about the city of Monte Albán itself and many other related sites, now we have a substantial amount of data and research done about numerous specific aspects of cultural evolution and social differentiation.

Of considerable relevance is the research directed towards evaluating the degree of internal integration of the Valley of Oaxaca as a whole region, taking into account the study, throughout a long chronological sequence, of the spatial patterns of settlement, ceramics, obsidian and other artifacts, public architecture and public places (Kowalewski et al. 1989); nevertheless, the process of social stratification hasn't been studied as much as the political and the economic processes.

A few other studies have attempted to relate cultural processes to the population itself. Denise Hodges (1989) analyzed 465 skeletons from different sites and periods from the Valley of Oaxaca, including Monte Albán, and found no dietary, diseases, or dental

differences between individuals living before and after the founding of Monte Albán. Despite the interesting intention to evaluate changes in populations with transition economies, the treatment of the sample and their classification in great chronological periods did not consider social class as a variable. The result was a description of health conditions through time of the studied population as a whole, which obviously was not (this sentence doesn't read quite right, but I'm not sure what you intent do say here). The same can be said for the study of Wilkinson and Norelli (1981). They were looking for social inequality and its biological impact in the population; unfortunately, they considered all skeletons found in tombs as members of the elite and all others as non-elite. They found no significant differences between the two groups, but this was not due to the absence of them but to the fact that in any residential unit, no matter their social level, there exists a tomb, with some family members buried in it and others buried below the room floors. These internal family hierarchies are not related to the social position of each family, and because of that, this study was not able to really distinguish among social classes.

Other studies have focused on a combination of chemical element analysis and stable isotope in skeletal remains: Brown (1973) for Tierras Largas and Huitzo; and Arthur Joyce (1991) for Río Verde in the Oaxacan Pacific Coast. In this line of research Jennifer Blitz (1995) attempted to relate dietary variability to social stratification using a skeletal sample from different parts of Monte Albán related to Formative and Classic periods. Blitz was unable to determine significant social differences, which she felt was related to deficiencies in the data recollection with the probable contamination of the samples. Lately, Márquez and González Licón have been studying the relationships between social stratification, health conditions and demography (Márquez, Camargo, González Licón, and

Prado 1994; Márquez, Hernández, and González Licón 2000; Márquez and González Licón 2001) as a way to evaluate the impact that major socio-political changes have on the population of each social class throughout time.

Dietary Analysis

The basic assumption of these studies is that living organisms absorb strontium (Sr) in amounts that varies proportionally inverse to its position in the food chain. That is, plants absorb this element directly from their environment; herbivorous animals obtain it from the plants but in fewer amounts those plants. Carnivores get less strontium than herbivores and omnivores are in the middle of them (Brito 2000: 34). Analysis is based on the basic premise established by Schoeninger (1979) that strontium was chemically stable in the skeleton even after death, and that it was possible to use it as a reliable indicator of vegetables consumption. The next premise is that individuals from a high social class were eating more meat than vegetables in their diets. In her study at Chalcatzingo, Schoeninger found that those individuals with lower strontium levels (diet based more in meat) had jade objects as part of their offerings, while those individuals with higher strontium levels had only ceramic objects as offering with no jade at all. Her conclusions are that high-class individuals were eating more meat than the rest of the population. Brown (1973) arrived at similar conclusions after the quantification of strontium levels in skeletal samples from Tierras Largas and Huitzo in the Valley of Oaxaca. His results indicated that those individuals considered from a higher social level had a diet more integrated with animal proteins.

These studies received some criticism due to the biological and chemical changes that an organism suffers after death and the possible contamination of the corps depending on their final confinement. In the last decade of the twentieth century, researcher were looking for a multivariable approach combining several minerals to the analysis, such as strontium (Sr) and calcium (Ca) as indicators of vegetable resources, and zinc (Zn), selenium (Se), and copper (Cu) as indicator of animal consumption (Brito 2000: 38-45).

Based on the premises outlined above, and using the archaeological materials excavated by González Licón in Monte Albán in the 1990-1991 field season, Leticia Brito (2000) conducted research for her doctoral dissertation looking for dietary variability and their social implications. Brito used multifactor analysis considering 22 minerals to determine diet in a skeletal sample of 41 individuals with strontium (Sr) as a major indicator of vegetables consumption, and zinc (Zn) as a major indicator of meat consumption. The sample studied by Brito can be classified as follow: a) by areas, 3 skeletons were from the Pitayo, 6 from Carretera, and 32 from Estacionamiento, b) by chronological periods 10 skeletons were dated from MA II, 23 from MA IIIa, 6 from MA IIIb, and two with no date assigned, c) nineteen skeletons were found in burials and 22 into tombs, d) most of them (39) were adults between 21 to 40 years of age and two children to be used as comparison with the adults, e) by sex, 22 were males, 4 females, and 15 undetermined (Brito 2000: 118).

She arrived at the following conclusions: by place of interment, those individuals from tombs had the higher values (53.9%) of total alimentary resources (they ate more) than those from other burials (46.1%). The individuals from tombs also had higher

values of meat consumption (23.57) than those from other burials (15.27). Considering the whole sample, when these two values are compared by periods, as it is shown in table 5.1, the vegetables were an important and constant factor in the diet through time, but there is a clear difference in the percentages of meat consumption between individuals from burials and tombs. There is also a negative correlation between individuals from burials in relation to meat consumption through time (Brito 2000: 205).

Table 5.1: Percentage of Diet Variability by Periods *

	<i>Burials</i>		<i>Tombs</i>		<i>Total resources</i>
	<i>Vegetables</i>	<i>Meat</i>	<i>Vegetables</i>	<i>Meat</i>	
MA II	72.9	27.1	67.9	32.1	38.0
MA IIIa	74.6	25.4	65.2	34.8	31.5
MA IIIb	83.3	16.7	62.2	37.8	30.5

* Data from Brito 2000: 204-207

It is also interesting to note the reduction of the total resources by period, which indicates that demographic growth was not equivalent to food production or that food cost were increasing, implying a general food intake reduction. Here it is important to mention again that this sample is not representative of the whole Monte Albán population but more of a middle sector, which does not allow making a comparison with the ruling elite and the peasants.

Table 5.2 shows an unequal distribution of alimentary resources among individuals from different areas by period. These results suggest that for period MA II the individuals from Estacionamiento-Este and Estacionamiento areas close to the Central Plaza were having the higher percentage of resources while those from the

Carretera area, had less. Unfortunately there are no data for the Pitayo area for this period. For period IIIa the highest alimentary resource levels for those individuals from the Estacionamiento area, followed by those from the Pitayo and Carretera areas respectively. For period IIIb the individuals from the Estacionamiento area have also higher levels than those from the Carretera (Brito 2000: 211-212).

Table 5.2: Chemical Quantification by Period and Domestic Unit *

	<i>Strontium (Sr)</i>			<i>Zinc (Zn(-10))</i>	
	Burials	Tombs		Burials	Tombs
<u>MA II</u>					
Est	67.5	40.0		10.0	20.0
E-E	nd	62.5		nd	31.2
Car	40	nd		15	nd
Pit	nd	nd		nd	nd
<u>MA IIIa</u>					
Est	43.7	48.9		13.2	26.1
E-E	nd	nd		nd	nd
Car	40.0	nd		10.0	nd
Pit	41.6	nd		20.0	nd
<u>MA IIIb</u>					
Est	5.0	35.0		15.0	20.0
E-E	nd	nd		nd	nd
Car	nd	35.0		22.5	nd
Pit	nd	nd		nd	nd

* Brito 2000: 211. Est= Estacionamiento Area; E-E= Estacionamiento Este Area; Car= Carretera Area; Pit= Pitayo Area; nd=no data

Even with fragmentary data, this table indicates that individuals buried in tombs had greater quantities of meat in their diets compared with those from burials. At this point this study shows that at Monte Albán, without regard to social class, area, or period, residential units suggest differences within family members. It has been suggested that those individuals placed into the tomb were the family patriarchs or

matriarchs, or youngsters in direct line with them (González Licón 1990), in any case, this funerary treatment to the leading members of the household are a reflection of how some members of each family had better access to the family alimentary and material resources.

It is important to mention that this internal hierarchical arrangement in each household were depending on many factors as ancestors descendent line closeness, sex, age, and personal skills among others but it is not related to any social class. That is, within each family, independently of their social position, existed individuals with more privilege than others, who ate more and better, lived and slept in larger rooms, dressed in better cloths and, among other, things accumulated more wealth than their relatives. How much wealth, meat or cloths they had it would depend of the social position of the family as a unit in relation to the social structure of Monte Albán through time. These considerations are necessary due to the general misconception of treating individuals from tombs as elite and those from burials as non-elite.

Biological and Demographic Analysis

The present data comes from on-going research conducted by Dr. Lourdes Márquez focused in determinate health conditions at Monte Albán during periods II, IIIa, and IIIb. The methodology for the selection of health and nutrition indicators was standardized as part of a larger database with several Mesoamerican populations (Márquez and Jaén 1997) as well as with several dozens of populations of different regions of American Continent (Steckel and Rose 2002).

For this study the health indicators that are shown in Table 5.3 are only of two types: Hipoplasias of the dental enamel, and criba and espongy hyperostosis that are related to bad nutrition and both with anemia for iron deficiency, or for gastrointestinal infectious problems that impede the correct absorption of the nutrients.

Table 5.3: Health and Nutrition Indicators

<i>Health indicators</i>	<i>Monte Albán II</i>		<i>Monte Albán IIIa</i>		<i>Monte Albán IIIb</i>	
Hipoplasia incisors	no cases		2/17	11.7%	no cases	
Hipoplasia canines	0/10	0.0%	0/15	0.0%	0/14	0.0%
Criba orbitalia	1/21	4.7%	1/30	3.3%	0/6	0.0%
Espongy hyperostosis	1/21	4.7%	2/31	6.45%	0/6	0.0%
Infection in tibia	0/15	0.0%	9/30	30.0%	0/3	0.0%
Systemic Infection	0/20	0.0%	7/38	18.4%	0/3	0.0%
Periodontal Infection	3/15	20.0%	8/27	29.6	3/6	50.0%
Abscess	5/21	23.8%	3/39	7.6%	2/6	33.3%
Dental attrition	3/16	18.7%	6/27	22.2%	2/5	40.0%

The results show very low percentages of dietary problems with relationship to other Mesoamerican populations with whom the same indicators were used (Márquez, McCaa, Storey, and del Angel 2002: 307-340; Storey, Márquez, and Smith 2002: 281-306). Taking into consideration the differential incidence according to the different cultural periods, the only exception is the case of the hipoplasia in the incisive tooth in Monte Albán IIIa, where it seems that there was an increase.

From period II to period IIIb, there is a considerable increase in infections. This could be associated with the increase in demographic density that is also reflected in

demographic profiles. A growth in occupation density may be associated with problems of hygiene: contact, handling, and discarding of organic waste; and the proliferation of infectious problems.

The dental attrition or wearing away of the occlusal part of the crown in several populations is thought to be related to the high consumption of carbohydrates and to the way in which food was prepared; foods like the metate-grounded corn for example, which has very small earth and stone particles produced dental attrition through the mastication of these particles.

PART III, DATA RECOVERY

CHAPTER 6

DATA COLLECTION

Location and Delimitation of Domestic Units

The archaeological data used in this dissertation were obtained during the Monte Albán Project 1990-1991 directed by the author and the participation of an enthusiastic group of colleagues and specialists in several fields. This project operated as a salvage intervention in response to the possible destruction of 12 domestic units for the construction of a new road to the site. The first surveys at the area where the road was to be built, were conducted in early October 1990. Archaeological excavations lasted ten months, from February to November 1991. Centro INAH Oaxaca provided almost all the project funding, with a small contribution from the Secretaría de Comunicaciones y Transportes (SCT).

Based on a detailed topographic map made by the SCT, and the one published by Blanton in 1978, all archaeological remains and architectonic elements on the surface were registered. From the original path of the road, we presented the SCT with an alternative to preserve most of the houses; only two of them, in the Pitayo area were impossible to save from destruction. The houses from the Carretera were not affected, but the surface of the houses at the Estacionamiento was bulldozed before our project commenced. We lost in the Estacionamiento area information relating at least to the last occupation.

Most of what we know about Monte Albán is derived from surface surveys and excavations at the main buildings in the Central Plaza. In contrast, our knowledge about

the common people is scarce and limited (Autry 1973; Blanton 1978; Caso 1932, 1933, 1935, 1938, 1939, 1942, 1969; Caso and Bernal 1952; Caso, Bernal and Acosta 1967; González Licón, Márquez, and Matadamas 1994; Winter 1974, 1986). In this sense, the road construction gave us a great opportunity to explore a set of domestic structures and look for similarities and differences between their inhabitants.

The sector of the site affected by the road construction and used for this research was divided in four areas with an approximate extension of 2 km. From north to south, and at the periphery of the Central Plaza, the areas were: Pitayo, Carretera, Estacionamiento, and Estacionamiento-Este (Figure 6.1).

Due to the reasons mentioned above, the 12 houses that comprise this sample were not fully excavated. As a result, we do not know the exact size of these houses. To estimate their total area, I used, as a reference, the excavated area. Measurements from the central patio were taken to the rooms and patios uncovered in order to get the length and width of each house element. From the house plan obtained, I assumed that the non-excavated part (looted, eroded or even destroyed), had more or less a symmetric distribution with the part we know, and then I estimated an approximate total constructed area of the house.

Another measurement was obtained from the central patios including corridors or sidewalks. Due to their smaller size and less diversity in design, I consider patio area surfaces to be more accurate than house sizes.

Table 6.1: House Sizes

Domestic Unit	Excavated Area	Total Area*	Patio Area	% of House Area used for Patio
Pit-A	10 x 10 m 100 m ²	10 x 10 m 100 m ²	5 x 5.5 m 27.5 m ²	27.5%
Pit-B	13 x 14 m 182 m ²	15 x 15 m 225 m ²	5.5 x 6.5 m 35.75 m ²	15.8%
Carr-A	13.5 x 12 m 162 m ²	16 x 11 m 176 m ²	4.5 x 4.3 m 19.35 m ²	11.0%
Carr-B	7.1 x 9.7 m 69 m ²	10.1 x 9.7 m	4.4 x 4.1 m 98 m ²	18.3% 18.0 m ²
Carr-C	6.7 x 10 m 67 m ²	10.5 x 10 m	3.2 x 3.7 m 105 m ²	11.3% 11.85 m ²
Est-A	12 x 18 m 216 m ²	18 x 18 m 324 m ²	6 x 6 m 36 m ²	11.1%
Est-A'	12 x 12 m 144 m ²	14.5 x 18 m 261 m ²	6 x 7 m 42 m ²	16.1%
Est-B	13 x 14 m 182 m ²	22 x 24 m 528 m ²	9 x 9 m 81 m ²	18.3%
Est-C	12 x 12 m 144 m ²	12 x 18 m 216 m ²	5 x 5 m 25 m ²	11.6%
Est-D	16.5 x 12 m 198 m ²	16.5 x 15 m 247.5 m ²	8.5 x 7 m 59.5 m ²	24.1%
EE-A	19 x 11 m 209 m ²	25 x 25 m 625 m ²	6 x 7 m 42 m ²	6.7%
EE-B	16 x 20 m 320 m ²	16 x 26 m 416 m ²	5 x 8.5 m 42.5 m ²	10.2%
North Platform	25x22+48 598 m ²	25 x 30 m 750m ²	8 x 8 m	8.5% 64.0 m ²
Average Area	199 m ²	313 m ²	41 m ²	14.6%

* Total area is estimated

As shown in Table 6.1, the percentage of the house that is used for the Central Patio is not always the same. In our sample, patio area goes from 6.7% to 27.5% of the total house area.

On average, we estimate that in this sample, central patios are 14.6% of the total house area. There are exceptions, however; for example, in larger houses, central

patios are a smaller percentage of the house. This is because rooms are frequently added to the house increasing its total size, while the central patio remains the same size.

In most of these houses the total surface area, number of rooms, and patio distribution, changed from one period to another and even within the same chronological period. Identification and description of any partial house modification attached to a specific date it is not only a difficult task, but is mostly impossible. In all the cases, we considered the same house and patio area for the periods that each house was in use.

Comparing house and patio areas from our sample (Table 2.3) and previous studies in the area, we can reach the following conclusions: Carretera houses are similar to Winter's (1986), (Table 2.1) and Blanton's (1978), (Table 2.2) Types I and II. Pitayo houses are more or less into the Blanton's type II, and Winter's type II in total area, but central patios are larger in Pitayo.

Estacionamiento houses do not fit into any of Winter's types. Blanton's typology is more representative of house size variability at Monte Albán, although in houses type 4 and larger the size of the patio tends to be larger than the total surface area which it cannot be. Estacionamiento houses are between Blanton's 2 to 5 types.

Other scholars have stated that there is not always a positive correlation between house size and socioeconomic level of its inhabitants, in particular when these houses are distant from the ceremonial center (Pendergast 1992). In Monte Albán, not all the houses in the same barrio have the same sizes, and based on the associated artifacts and burial offerings from our sample, the largest house in a barrio is not always the one

with the greatest wealth. So it is important to use several indicators to measure wealth and evaluate degrees of social inequality.

Using Blanton's typology, and based on total house area from our sample, we determined that houses Pit-A, Carr-A, Carr-B, and Carr-C are type 1. Houses Pit-B, Est-C, Est-D, and Est-A' are type 2. Houses Est-A and EE-B are type 3. House Est-B is type 4. House EE-A is type 5. The house from the North Platform is type 6. The only barrio where all the houses belongs to the same type is Carretera, while in Pitayo and Estacionamiento, houses fits into two and even four distinct types respectively. In other words, at the Estacionamiento barrio we found the greatest house size variability.

Excavation Methods

Prior to any disturbance of sites, each residential unit was photographed and mapped. After vegetation was removed, we tried to make a visual identification of the major rooms and central patio. When this was not possible we started the excavation with two trenches from outside to inside, from at least two perpendicular points. To control the entire excavation, the whole area was divided into 1 m by 1 m Grid Square with letters and numbers for an identification system. In most of the cases we tried to follow a horizontal excavation method, this allowed us to visualize and better control the recollection of data and features. Each house received the area and particular letters as identification. Every part of the house was identified by a house name and number. Also every room, patio or associated feature received an individual number as part of the control system. Features were significant findings relating to the house or its inhabitants when no funerary evidence

was present. A feature can be a kiln, drainage or tlecuil. A tlecuil was made with stones forming a box-like depository with the upper edge at the floor level. It was used to keep a fire in the house or for ritual offerings. Tombs and burials have an independent but continuous identification number related to their sequence in the excavation. All the archaeological material coming from tombs and/or burials are mentioned in text and tables as funerary. Other materials, coming from stratigraphic pits, between floors, or from ritual deposits are considered in the text and tables as non-funerary.

After the initial surface inspection and location of visible architectural remains, we proceeded to the removal of all vegetation, rubble and earth, registering any archaeological loose features as sherds, shell, obsidian, and chipped stone tools among others. With the location and mapping of the major architectural elements of each residential unit visible as the central patio, or rooms –most of them paved with stucco— we used a subsurface radar system to detect evidences of walls, drainages, tombs, burials or offerings. After we had non-detailed plan drawings of each house established through the visible and radar information gathered, we proceed to excavate them.

Subsurface Radar Survey

Specific literature exists about this type of underground system for archaeological survey. I want to mention briefly the characteristics of the radar system used in Monte Albán, the main problems that we faced with its use, and also the results obtained.

In its operation, the subsurface radar is similar to the magnetometer of protons, but the use of the radar is much more agile, more practical in its application and easier

to interpret the results. The use of radar is a time and money saving system. Before any excavation, the radar gives to the archaeologists a certain idea of what they will find underground, and it is of great help in these cases when residential units have been used for many decades with endless modifications including the burial of their inhabitants.

For this Project we used a brand new SIR SYSTEM 3, manufactured by Geophysical Survey Systems with an approximate cost of \$40,000 dollars, kindly donated to INAH-Oaxaca by Robert Wooley. The radar system, as a geophysical instrument, consists basically of a sender-receiver of profiles (transducer) that is the brain of the system. The antenna emits and receives dielectric impulses. An operator following the grid square in a previously established direction and trying to maintain the same speed, drags the antenna, connected to the transducer by a cable. The operator has to press a button in the antenna handle to send the signal at predetermined points. This system is, in principle, the same one employed in airplanes and ships, and it can be considered equivalent to the electromagnetic system of acoustic sonar used to obtain profiles of the marine bottom. The time that the signal takes to go and return through the different layers or densities in the ground are shown as a stratigraphic profile that can be printed in electrostatic paper specially treated with a graphite layer. This way the time of signal reflection can be transformed into a scale of depth when the propagation speed is known. Because the propagation speed in solid contexts and earth will depend strongly on the content of humidity, you can also determine the content of humidity in earth and rocks. We also had a special unit that converts the information to video, so we were able to appreciate the data on a color monitor, as well

as to filter and combine in multiple ways the colors and the tones to have a clearer spectrum. The image is divided in 10 sectors so depending on the previous selection of the range of wave width and the nanoseconds that it takes in repeating the impulse, the depth and thickness of the surveyed strata can be calculated. The equipment works with a portable energy source, such as a 12-volt car battery or an electric generator.

A small antenna was used for most of the surveys (model 3102) that has a center of frequency of 500 MHz and a wave longitude of 2 nanoseconds. This high-resolution antenna allowed us to reliably register the residential units of Monte Albán to a depth of 3 meters, which was enough for the purposes of our study.

Once the profile patterns for the type of sediments and floors that we were at were established, the radar allowed us to know, from the surface, the presence of offerings, ceremonial or funerary features, or architectural remains under the rooms that we were about to excavate. After some features were detected on the first survey, then we pass the radar closely above these features a second time to determinate more accurately their depth and size.

An advantage of the antenna used here was its reduced size, which gives great mobility into reduced areas such as secondary patios or rooms. When the antenna was not dragged perpendicular to the ground, due to surface alterations or vegetation remains, the reading of the graphs was less precise. The slight movement of the antenna caused by the land alterations produced distortion in the signal sending-receiving process. An ideal surface for radar survey was the stucco floors, which are flat and smooth, obtaining non-distorted readings.

With the aid of the square grid of the excavation area, numbered survey lines at five meters each were marked in all the houses to pass the radar north-south (numbers) and east-west (letters). The first survey following these lines used ranges of 300-500 nanoseconds which gave us in all the cases an approximation of the distribution of the houses. Any alteration in the radar graphs were marked and double-checked. A second survey was done specifically in the marked areas and, depending on the radar readings, some of them were selected to be excavated.

Site Area Excavations

Pitayo Area

Pitayo is the most distant area, located approximately at 2 kilometers north of the Central Plaza (Figures 6.1 and 6.2). The road that enters the site from Oaxaca city separates the Pitayo area to the right, and the Cerro del Plumaje to the left (barrios 8 and 5 respectively to Blanton (1978). The name of Pitayo (Pitahayo) was given by Caso (1935: 26), and it refers to a desert plant that produces a juicy fruit named “pitaya,” much appreciated by the ancient Zapotec. The Pitayo area is located on a hill and has its own civic-administrative area, which covers approximately 2.2 ha. It is relatively open but combines extended lower platforms with several higher buildings, in particular two of them in a parallel position (marked buildings E and F by Blanton 1978).

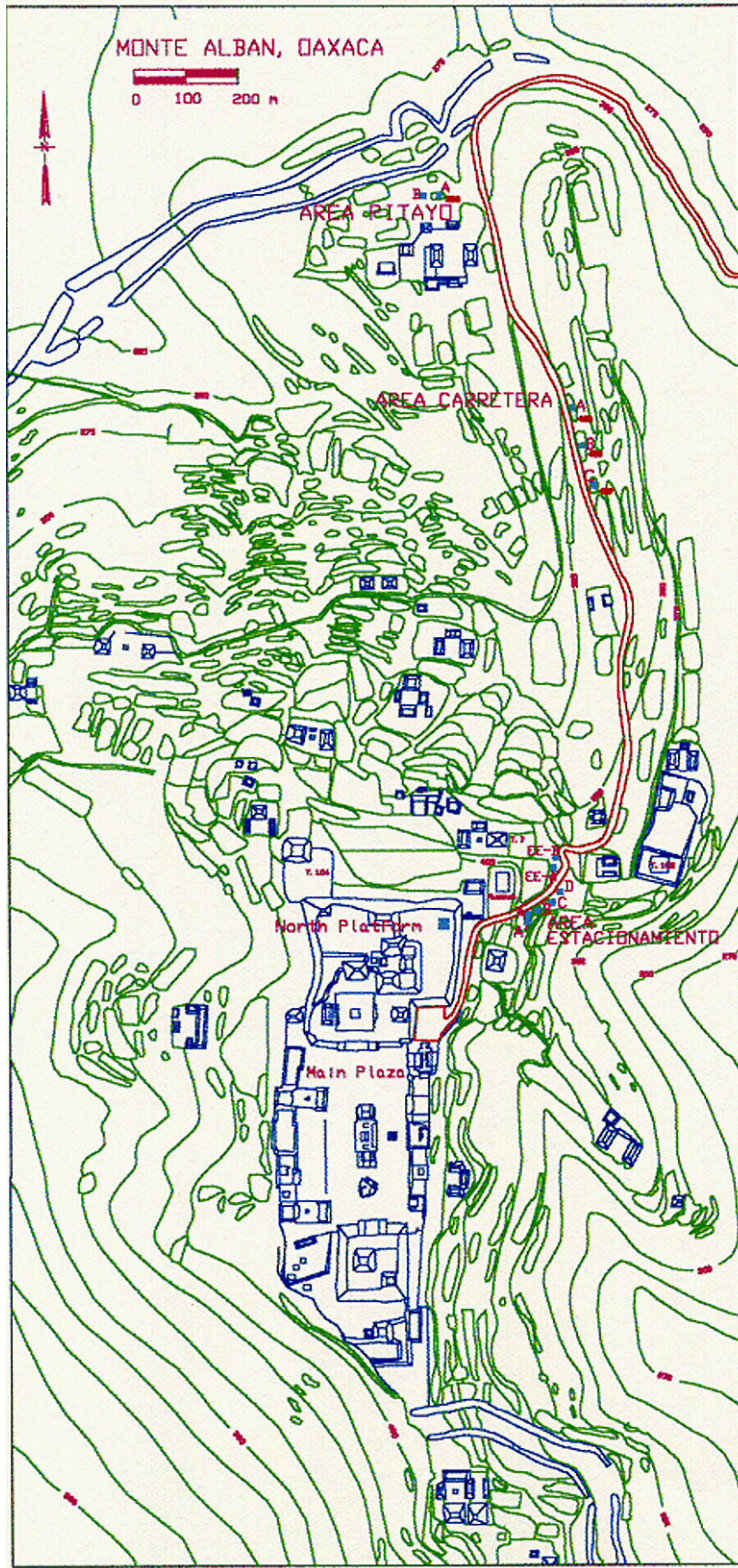


Figure 6.1: Monte Albán: Excavated Areas (after Blanton 1978)

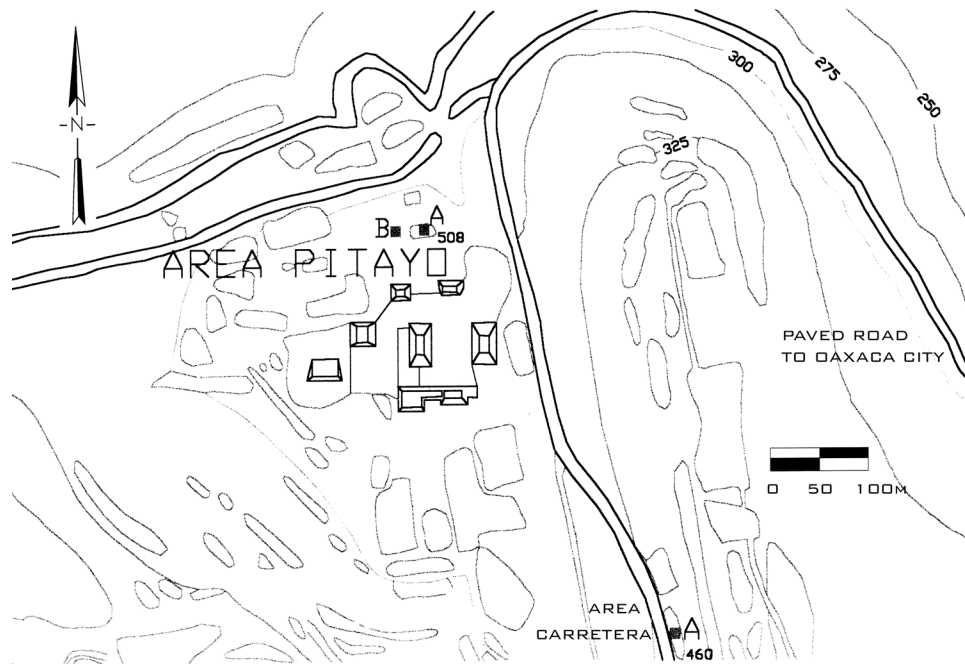


Figure 6.2: The Pitayo Area (after Blanton 1978)

Alfonso Caso, in his fourth field season publication, reports the Pitayo area as “Mixtec” and related to other small villages in the Valley as Xoxo, Cuilapan and Nazareno although he recognizes the presence of Mixtec ceramics as a later occupation (1935: 30). Caso also reports during the fourth field season that the only discovery of metal objects so far –copper bells— were found in the Pitayo area associated with a burial (1935: 31). Caso mentions the discovery of 8 tombs in the area during that field season, numbered as 59, 62, 63, 64, 70, 75, 77, and 78, with tombs 70 and 78 being important (Caso 1935: 23; Caso 1938: 32; Caso 1965b: 898; Caso, Bernal, and Acosta 1967: Table VII, Plano 8), but in particular the tomb 77 (Caso 1935: 23-27, Figures 45,46, 48) as the richest after tomb 7, with several urns, and one of them considered as “the most beautiful urn known from Monte Albán” which indicates the importance of the individual buried there (Caso 1935: 26; Caso and Bernal 1952, Figures 249, 251, 252, 341; Marquina 1951, Lámina 94, Foto

152; Caso, Bernal, and Acosta 1967: Tabla VII, Plano 8); These last three tombs –70, 77, and 78— were dated to period II. Blanton (1978: 156) also reports a huge cruciform tomb. This tomb is located on the western side of the eastern central building. Jorge Acosta, in his unpublished report to INAH from the XVII field season at Monte Albán, includes the offering N. 2 in the Pitayo area: “...one cucharon, one tecomate, and two pot stands dated from period late I or II” (1949: Lámina 1).

To Richard Blanton, the Pitayo area corresponds to Barrio 8 in Monte Albán with its civic administrative center as terrace 453 (1978: 439, Figure A.X-30), occupied since period I, but with the heaviest density during period V, and a report of abundant evidence of craft production, including “...ground stone, specially manos or metates” and celts (1978: 87, 156).

Judging by their architectural layout, the amount and quality of the tombs discovered, and its extensive occupation, it seems clear that the Pitayo Area was of certain prestige outside the Central Plaza hill. The amount of terraces situated on the gradual slopes of this Pitayo hill indicates also that a group of high class Monte Albán inhabitants were able to build larger residential units there.

As mentioned in the introduction, the two houses that we excavated in the Pitayo area were since covered by the road construction (Figures 6.1 and 6.2). These houses, named Pitayo-A and Pitayo-B, were located on artificially made terraces.

One of them (Pitayo-A) is the largest and was first partially explored by Caso (1935) and identified by Blanton (1978) as terrace 508 (see general map), located at the kilometer 4+500.47 and dated from period IIIa to V. Pitayo-B, located on kilometer 4+543.47 on the

road to Monte Albán, 50 meters west to Pitayo-A, had no number or previous explorations, and has been dated from period II to V.

Pitayo-A

House Pitayo-A was built on the terrace marked 508 by Blanton in his survey and mapping of the site (1978). Pitayo-A had at least six rooms built around a central patio. Its walls (including foundations) were made of stone (Figure 6.3). Its general condition was poor due to intensive cultivation in the area, and evidence of looting in at least four points inside the house. To the north side of the central patio there was an empty, previously excavated tomb, probably by Alfonso Caso (1935, 1969) but with no identification number. Due to the construction style the tomb was dated from Period IIIb. House excavation was partial and consisted of two trenches (Figure 6.2), yielding five burials and an offering of human skulls with female figurines. By the associated ceramic, the house was built during MA-IIIa and occupied until period MA V (González Licón et al. 1999).

The house plan is square, the total area of the house is 10 x 10 m (100 m²), the patio had an area of 27.5 m² (5 x 5.50 m), and is framed by a corridor of about 80 cm wide, and the patio proper, which was a step below the corridor and the rooms. The corridor was also the connection to the rooms. Five rooms were identified at the north, northeast, east, south and west. The excavation of the west wall of the house, five meters long, revealed an orientation of 165 grades.

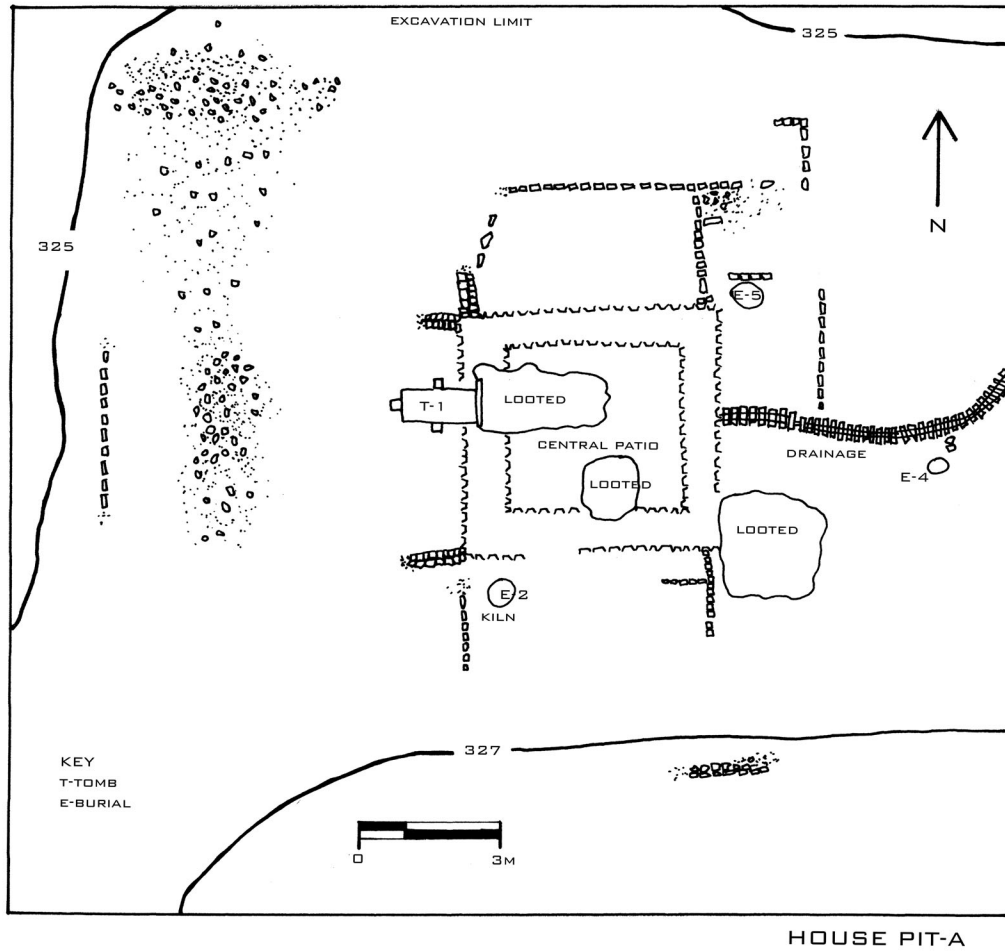


Figure 6.3: General Plan of House Pitayo-A

Pitayo-B

House Pitayo-B was built in a smaller terrace than Pitayo-A during Period MA-II and had different occupation stages with architectural modification from the original plan until period MA-V (Figure 6.4). Two burials were explored here (burial 3 and 6). House preservation was bad due to extensive plowing and stone removal from local farmers.

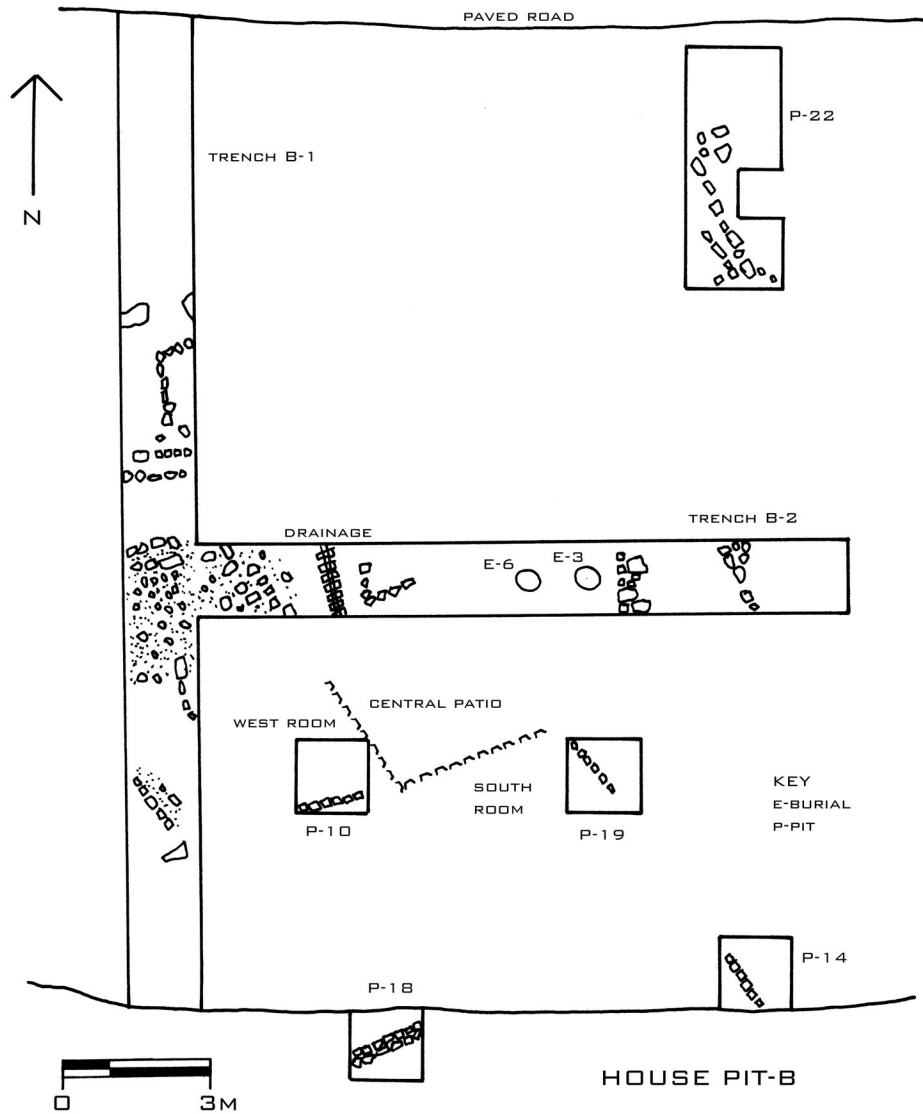


Figure 6.4: General Plan of House Pitayo-B

On the surface it was visible a small alignment of stones. We applied the subsurface radar several times over all possible remains in the area and at the end we selected a surface of 13 x 14 m that was excavated (182 m²), although the size of the house is considered to be 225 m² (15 x 15 m). The patio has a surface of 35.75 m² (5.5 x 6.5 m).

Carretera Area

Carretera Area is located at the lower western slope of the Cerro del Plumaje complex, approximately 1.5 km from the Central Plaza (Figures 6.1 and 6.5.). Cerro del Plumaje is a slim and tall hill oriented south-north. The south limit is the elite residence where Caso (1938) found tomb 105, relatively close to the Central Plaza; in the middle there is a complex structure (Blanton's terrace 1460) with four temples around a central patio including an altar. The north limit is Blanton's terrace 503, and all of these elements are connected with long rectangular terraces. It corresponds to Barrio 5 in Blanton's site subdivisions where he does not find elite items or evidence of craft production (1978: 85). At the top of this hill, the size of the terraces and the remaining constructions are with no doubt elite related. The northern and eastern slopes of the hill have a slight inclination and offer better possibilities for residential terrace construction. On the other side, the western slope is very steep, making difficult to even climb that side. As a consequence, terraces here are small, 35 meters below the main terraces and buildings at the top of this complex and somewhat isolated from the elite area. In sum, if we accept the Blanton Barrio divisions, the Carretera Area houses are in a peripheral area with respect to the administrative structures atop in its Barrio core. Even if we do not want to consider the Blanton divisions, these Carretera Area houses are located far from any other civic-administrative area of the city and 1.5 km from the Central Plaza.

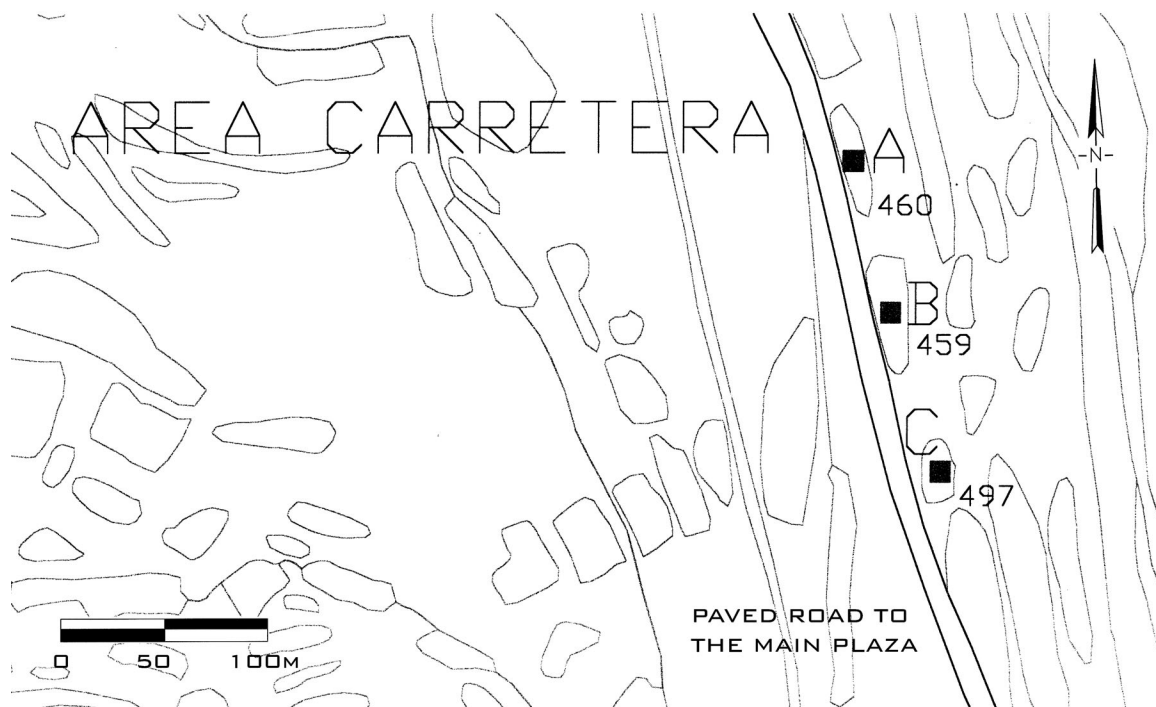


Figure 6.5: The Carretera Area (after Blanton 1978)

In the Carretera Area we excavated three residential units; all three were built on artificially made terraces a few meters above the road that leads to the Central Plaza. The terraces where these houses were built are numbered in Blanton's map as follows: house A in terrace 460; house B in terrace 459; and house C in terrace 497. In these houses, we used the subsurface radar system prior to excavation. With the intention of saving time and resources we selected for excavation those areas where the radar detected the possible presence of features, burials or ritual deposits, while constantly comparing the radar images with the archaeological findings.

During the exploration of the Carretera houses, we discovered 6 tombs (numbers 2 to 7), one of those previously plundered. All the archaeological materials related to the tombs or burials were classified as funerary objects. From their location, the materials

used in their construction and the recovered archaeological elements, we can suggest that the inhabitants of these three houses belonged to some sort of lower middle class; the presence of a kiln for making ceramic vessels is an indicator of an artisan activity. Two of the recovered skeletons presented a trepanned skull, which has allowed us to advance slightly more in the study of this practice (Márquez and González Licón 1992). The ceramic analysis allows us to date these houses from period II to IIIb. As mentioned before, we use the term feature to classify the presence of any activity area; architectonic detail as a drainage, kiln, or tlecuil; or ritual offerings not related with human skeletons. Ritual deposits and features recovered during the excavation were registered as non-funerary materials.

Carretera-A

It is located to the east of the highway between kilometers 4+992 and 5+069 marked in the SCT map, and on terrace 460 of Blanton's map. An area of 13.50 x 12 m was excavated (Figure 6.6). The total extension of the house is calculated at 176 m². The central patio had an area of 19.35 m² (4.5 x 4.3 m). The exploration began with two trenches designated as B-1 and B-2 to learn the house extension. Part of the house was destroyed during the construction of the first road to enter Monte Albán in the early '30s. We explored 2 tombs (T-2 and T-4), 6 features and 3 burials (E-8, E-17 and E-18).

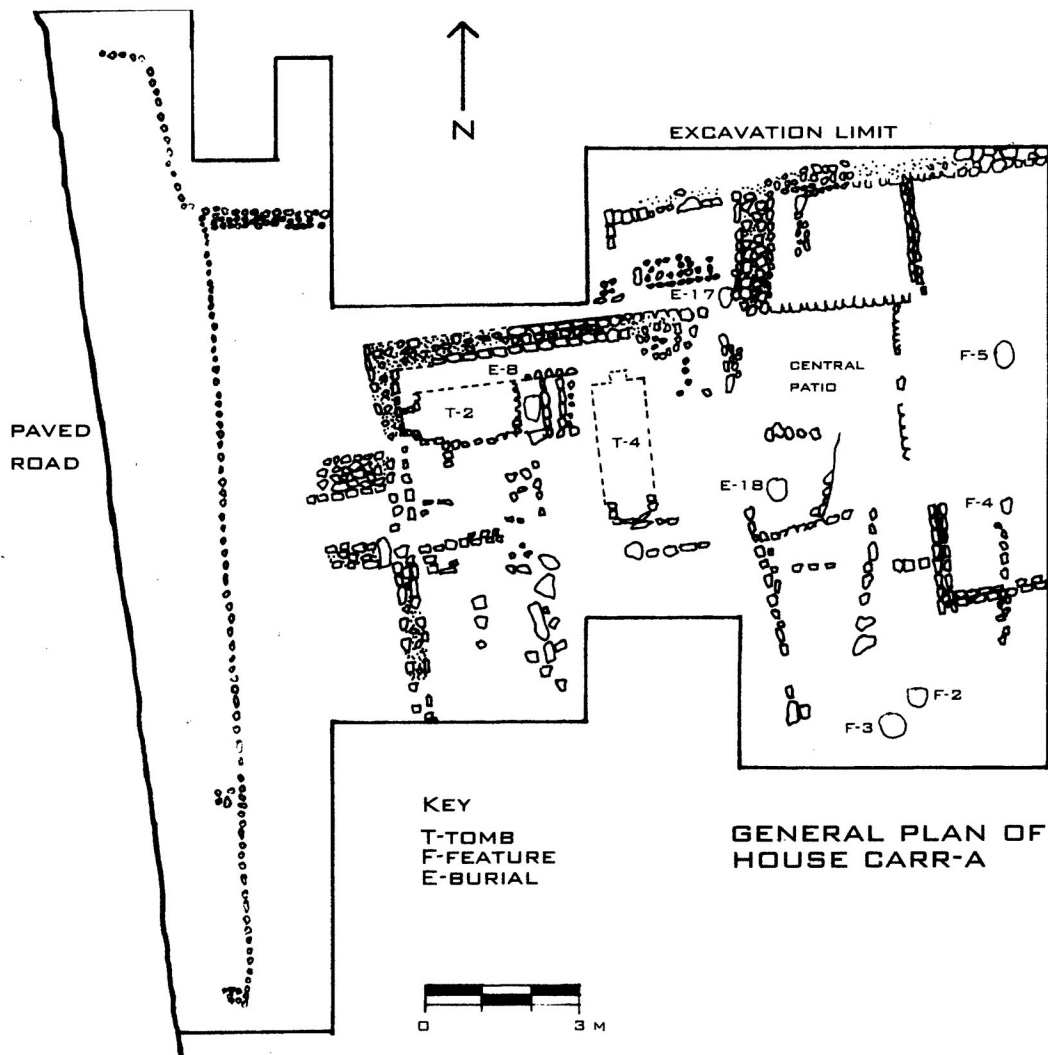


Figure 6.6: General Plan of House Carr-A

The trenches revealed the presence of a kiln, approximately 8 meters south of the house, close to the road cut. Ceramic associated to the house has been dated from period II to IIIb. Occupation was intensive with many architectural modifications –some of them just repairing a plastered floor-- which makes difficult its identification and chronological determination.

Two tombs were excavated below the floor of the west room with different orientations. A stone drainage channeled rainwater from the central patio downhill passing beneath the west room. The house was built on an artificial terrace made with a mixture of stone slabs, rubbish and earth. External stones were well cut and placed to provide more strength. Into the platform we found sherds from Periods I and II. After they fill up the terrace to a certain level, they compacted the earth, and at this point they built the wall foundations that define and form the house during period II. Above this mud layer they placed small to medium slabs and stones fixed with mud and finally covering all this with the stucco floors. Tomb 2 was built at the same time as the house, but the kiln corresponds to Period IIIa.

In this residential unit, we were able to identify and explore between 8 and 10 rooms. The architectural plan of the house is not complex, with only one room in its north and south side, while in the west side there is a room that joins the other two. The east side was not excavated due to the excessive amount of debris accumulated from the hill above. The house has an orientation 5-185 grade. The access and communication with the outside seems to have been from the east (see general plan from B to D).

The construction materials used were blocks and slabs of local limestone, lime, limestone gravel, river sand, mud, adobes, and rubbish (including fragments of ceramic, slabs, ash, bone, coal, mica and obsidian). The floors were of three types: rammed earth, stone mosaic, and stucco. The walls were built with local limestone of different sizes according their use. For foundations, the stone blocks had a length of 10-30 cm and a width of 8-30 cm. The blocks were placed together with mud leaving a groove

from 2-10 cm. The stone blocks used in the construction of the walls had a length of 10-35 cm by 10-30 cm in width, also secured with mud leaving a groove of 2-6 cm. We do not know the height of the walls because we only found remains that varied from 20-50 cm.

The platform was defined on its west side by a wall of 19 m long and 1.16 m high. 2.80 m from the north side of the wall there is a special constructive technique that continues for 12.80 m, with stone blocks that show the widest face from 10-54 cm of height and with a length of 20-48 cm, alternating with columns of flagstones 4-30 cm long and 2-6 cm thick with grooves of 2 cm. This wall, at its base, is finished with a stucco floor, and apparently both were built on the rock to support the platform. Based on data from House Estacionamiento-A, where the constructive technique of using slab columns inserted with stone blocks dates to Period II-IIIa, the walls of house Carretera-A were probably first made in the same period and restored later in other periods, explaining the differences in the construction method.

Carretera-B

It is located 74 meters to the southeast of domestic unit Carretera-A (Figure 6.7). A surface of 7.10 x 9.70 m was dug, estimating that the dimensions of the house would be 10.10 x 9.70 m (98 m²), with a patio of 4.40 x 4.10 m (18 m²). This residence is the smallest of all the excavated in this field season, and it has a simple plan with a central square stucco patio and limited by a stucco corridor or sidewalk also 15 cm high and 80 cm wide. At the north and south sides of the house, there is only one room, while on the

east side they built three rooms of smaller sizes. During the construction of the first road to the Central Plaza, all the west side of this domestic unit was gone, but if we consider some symmetry in the construction, we can assume that three more rooms were on the west side to make a total of eight rooms. In the cut made by this first road, it is possible to appreciate that this house was built on a terrace made on a small natural elevation. The remains of the west side of this house are very altered, but in the terrace profiles there is still evidence of two drainages running west-east, one at one meter above the bedrock and the other 1.6 meters, both associated with stucco floors.

The drainages were made with rectangular slabs on its four sides. The first slab placed was that at the bottom that supports the entire system, then the two at the sides, and these are covered by one last flat slab at the top. Average dimensions are 40 cm wide and 14 cm high. The drainages correspond to two different occupational moments of the house, but both in period IIIb. We found one offering associated with the terrace construction (N. Cat 148) from period II that could be evidence of an early occupation or just the reutilization of a vessel considered a relic or heirloom. In this Carretera-B unit we explored the tombs 6 and 7; and burials 10, 14a, 14b, 15a, 15b, and 16. All the recovered materials correspond to Period IIIb.

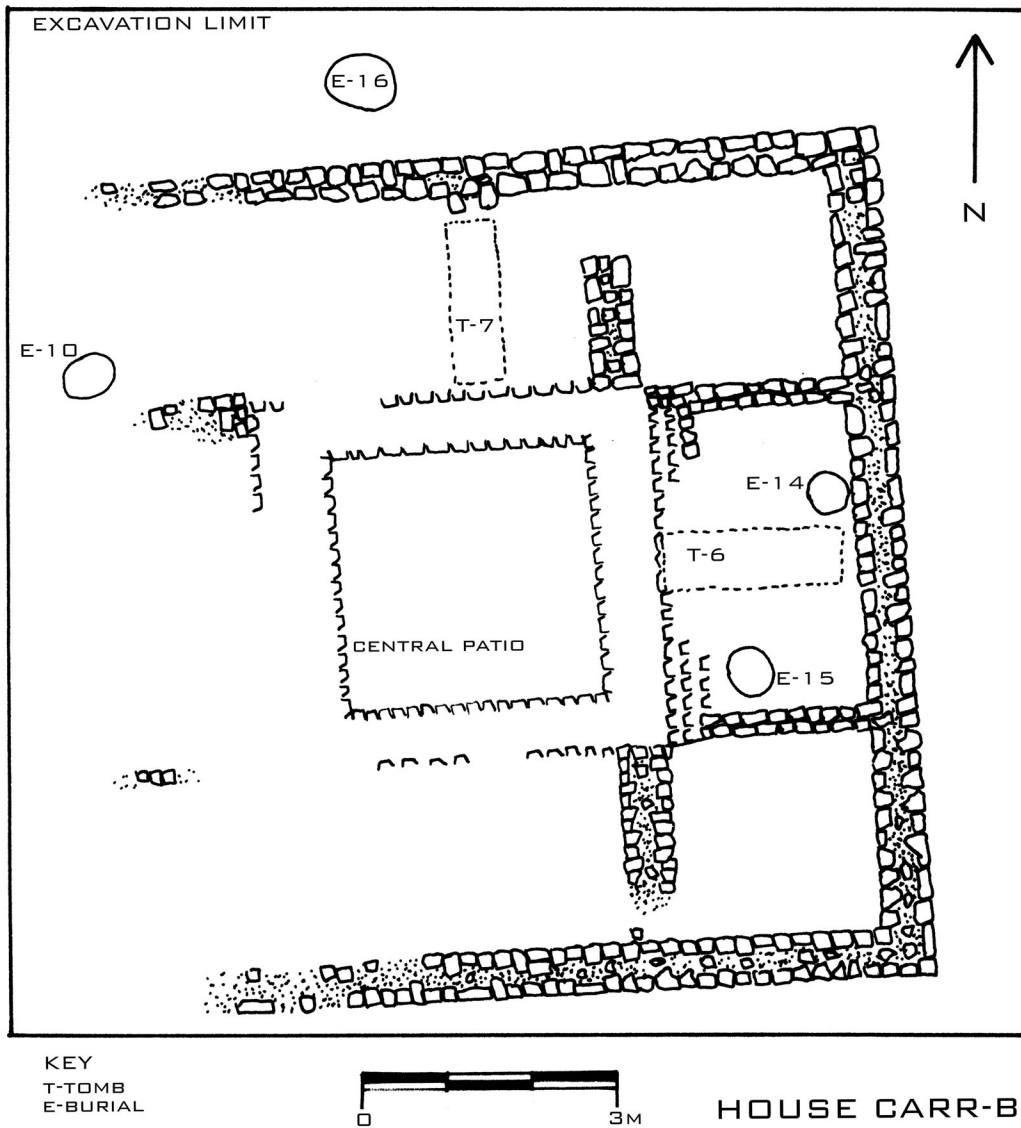


Figure 6.7: General Plan of House Carretera-B

Carretera-C

This house was also affected by the construction of the original road to Monte Albán. Together with Pitayo-A and Carretera B it has a small size (Figure 6.8). Around a

central patio, we found evidence of five rooms, three were fully excavated (north, northeast, east, southeast), and the other two (southeast and south) only partially. The entire west part of the house and some of the south part were gone since the first road was constructed.

The central patio has an area of 3.20 x 3.70 meters (11.85 m²). The estimated total area of this house would be approximately of 10.50 x 10 m (105 m²). The constructive system is similar to the other two houses in this area, with stone foundations; stone and adobe walls; and stucco floors. We explored altogether 2 tombs and 13 burials as follows: a) in the north room tomb 3 and burials 7, 9.A, and 9.B were discovered, b) in the east room, we excavated tomb 5, and burials 12, 13, 19, 20.A, 20.B, 20.C, and 21, c) in the central patio, an offering of two skulls were discovered, d) outside of the house, east of the east room, we found a burial with three individuals with no offering at all (a two year old child marked as 11.A; a nine year old child marked as 11.B; and an adult male marked as 11.C).

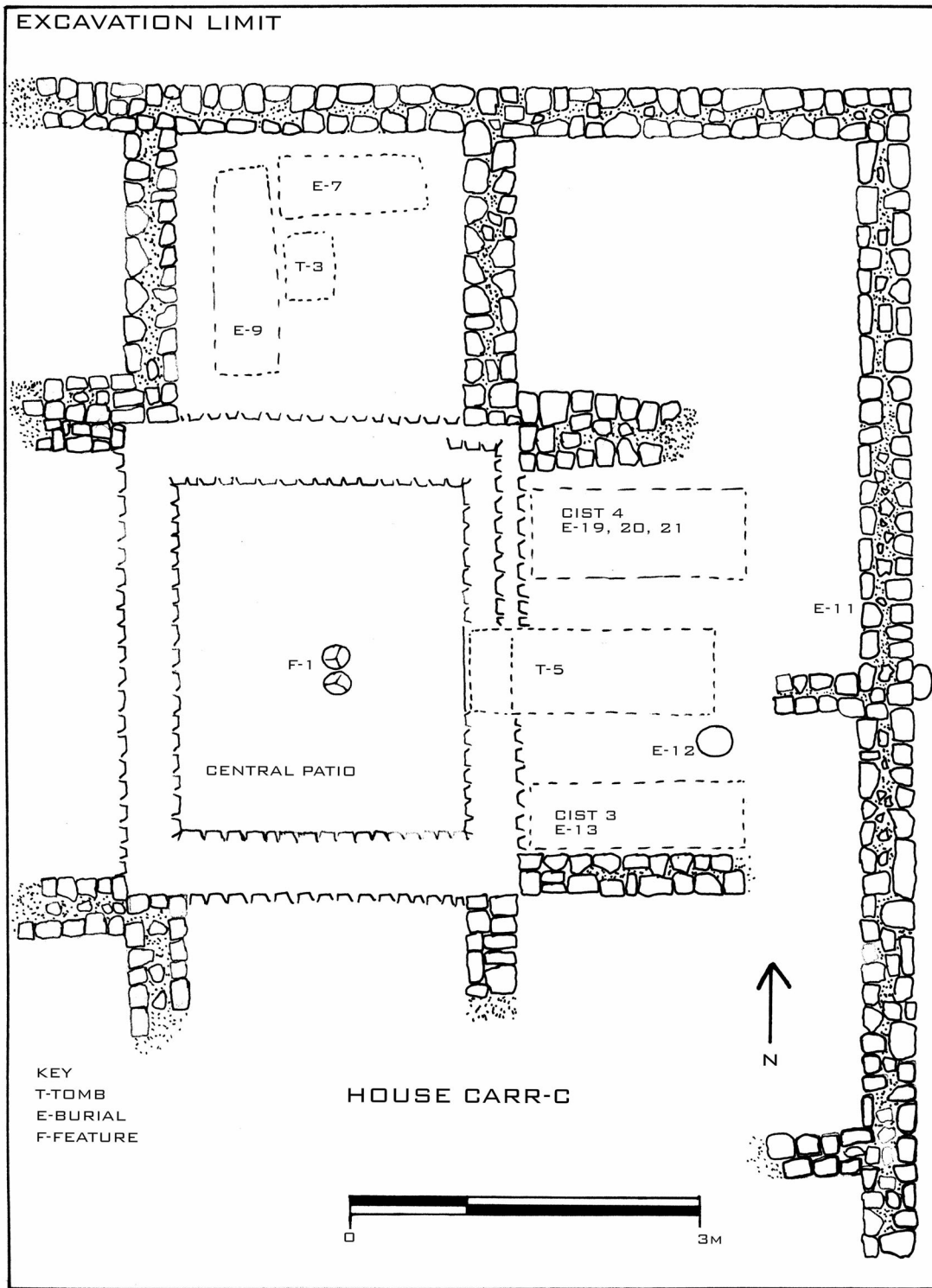


Figure 6.8: General Plan of House Carretera-C

Estacionamiento Area

North-east from the Central Plaza, just about 250 m, from the North Platform we excavated an area named "Estacionamiento", because some of these houses were near or located within the modern parking area (Figure 6.1 and 6.9). Here we excavated six residence units and one civic structure. There is a high probability that this civic structure was related to the ball court in front of the House of the tomb 105. Even when the inhabitants of these houses were not of the highest social class, this was still the richest area of all those excavated. With the use of the subsurface radar system in all the cases, under the floors of these six residence units we discovered 9 tombs, 63 burials, and many features and non-funerary related ritual deposits. Following Richard Blanton's site subdivision (1978: 76-83) the Estacionamiento Area can be assigned to Barrio 2 that includes the Central Plaza with all the administrative buildings and some elite residences. This barrio was the core of the city and where top elite families chose to live.

The detailed and extensive excavation of this area offered the opportunity to study more precisely the distribution, organization and residence density of a sector of Monte Albán. The houses were built with stone foundations and masonry walls, the rooms were wide and constantly had repairs in their floors, some of them covered with mica. The central patios were also stucco and with good maintenance to conduct the flow and storage of rainwater in specifically constructed cisterns. Other very well constructed drainages allowed rainwater to be channeled and stored in small dams built on the hillside down the mountain. In the Estacionamiento Area, the houses were built

so close to each other that in some parts there was no open space between them. Small stairs connected houses in these inclined areas. The mountain slope was a natural limitation and Monte Albán inhabitants were forced to first build a terrace to prevent erosion and to create a horizontal surface to erect their houses.

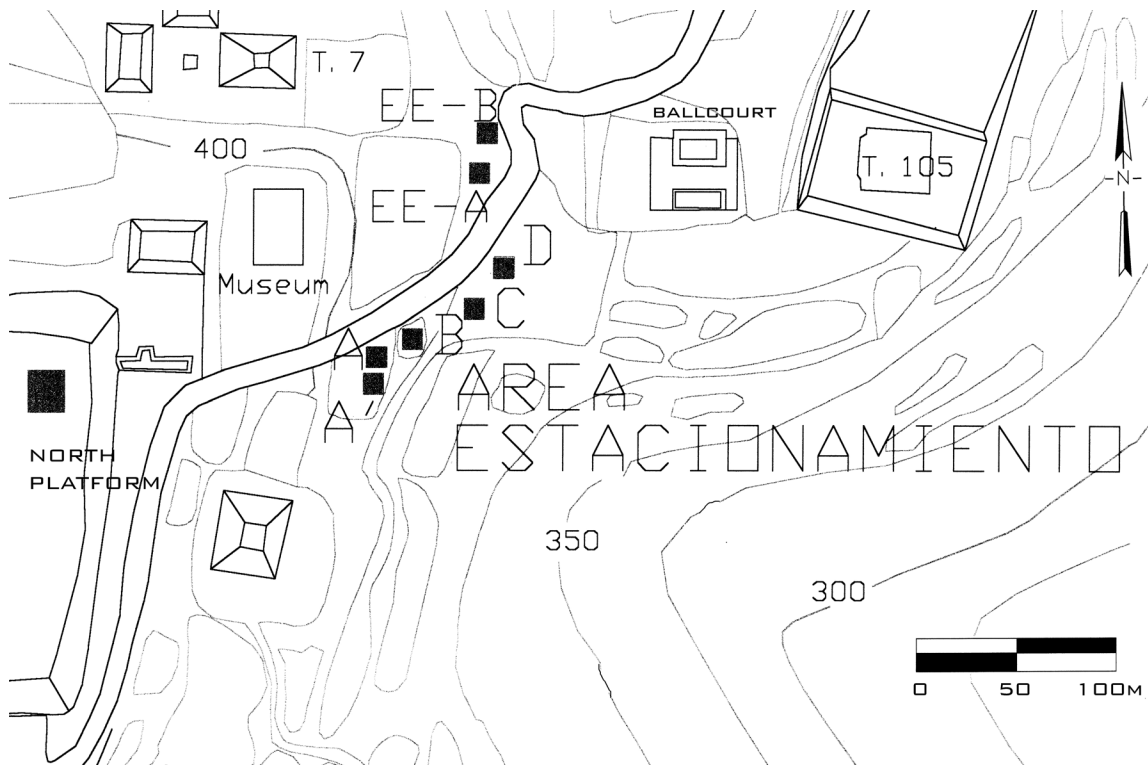


Figure 6.9: The Estacionamiento Area (after Blanton 1978)

The architectural layout of these Estacionamiento Area houses is more complex than the Pitayo or Carretera Areas. The presence of a central patio with four main rooms is a constant but here there are also many other rooms attached and interconnected. Numerous variations exist, for example in terms of the size of the patio and to the presence of "corner patios" that allows the construction of other rooms connected with the central area. Perhaps where the architectural variation was largest

was it in the construction of tombs. In each house studied, compared to the standard house layout, tombs always had different size, orientation, facade and inner wall decoration, among other things. The fact that tomb size, form and decoration was not the same in all case gives the idea that mortuary ceremony was an aspect related to social position and ideology, that had as much variations as levels in the Monte Albán social structure. As for the materials recovered from their interior, we find a range from a single skeleton with four or five vessels to several skeletons accompanied by more than forty objects. Urns with representations of ancestors and deities were an important part of the Zapotec funerary ritual but especially in Monte Albán where the presence of urns in the tombs was almost a constant.

The Estacionamiento Area includes five domestic units (A, A', B, C, and D). In the Blanton survey (1978) they identified three terraces from uphill in the west to downhill in the east (numbers 102, 103, and 99). The Estacionamiento Area is between the points Pc 6+042.46 and 5.840 in the SCT map. We excavated two more domestic units across the road in what we named Estacionamiento Este-A rea (A and B), which corresponds to terrace 28 in Blanton's survey (Figure 6.1 and 6.9). Only the entrance road to the site separates these areas, but during the excavation I had two crews working at the same time and I did this to differentiate their work. In this area there was no intention to make the road wider, but only the parking area, and before our work began, SCT passed a bulldozer over the zone that we named the Estacionamiento Area affecting the surface and late occupation of it. We started the exploration of this area destroyed by the bulldozer. After the removal of all loose material and detection of

unaltered walls and floors, with the use of subsurface radar, we were able to identify each domestic unit.

In general, these residential units from Estacionamiento Area have a similar pattern or distribution. For instance the house Estacionamiento A (Figure 6.10.) is similar to the house Estacionamiento A' (Figure 6.11.). The same can we say for Estacionamiento B (Figure 6.12.) and the famous House of the tomb 7 discovered by Caso (1969), where the rooms of the west side of the patio and the tombs were located at a higher level with regards to the patio and to the other units.

It seems that in this residential area there are structures that, judging from their size, complexity and association with other architectural elements, may have served functions other than residential or domestic, perhaps instead more commemorative in nature. This it would be the case of the House-tomb 105 that could have been erected as a funerary palace for a ruler of Monte Albán (Flannery 1983d).

These residence units, together with the Estacionamiento D (Figure 6.14.) and the Conjunto-Plaza 1, form part of a residential area consisting of the houses where Caso discovered tombs numbered 4, 7, 56, and 105.

All these residences were built on a slope, modifying it with staggered artificial platforms. Their occupation was from period II until IIIb. The residential units Estacionamiento A and A' were built on the same platform and at the same level. Both have archaeological evidence of a dense occupation during periods II and IIIa. In the explored tombs from these houses we detected that they were used for more than one inhumation, which indicates a house occupation for more than two generations. With the use of the subsurface radar we found below patios and rooms the presence of different

kinds of features, sometimes it was a ritual deposit in a tlecuil; a huge concentration of ceramic objects; and even burials, most of them children usually oriented east-west, but also secondary burials of adults with a few objects (shell, bone and lithic) as offering.

The house Estacionamiento B was built on a platform located 1 m below the platform used for Estacionamiento A and A'. Communication between the inhabitants of Estacionamiento A and A' with those from Estacionamiento B was possible by using a narrow staircase located in the Southwest corner. Both have the same layout as the elite house from tomb 105. Patios are at lower levels than rooms, with inner stairs and corners. The access to the rooms from the patio was by stairs decorated in a Teotihuacan style talud-tablero.

Both Estacionamiento C and structure Estacionamiento D were built on a platform at a lower level than house Estacionamiento B. Estacionamiento C is the smallest house and has the most basic architectural layout with four rooms around a central patio (Figure 6.13). It is contemporary with all the other houses. On the other hand, structure D (Figure 6.14.) had a different distribution and its function was related to the Conjunto Plaza-1. It seems to have more an administrative rather than a domestic function. Most of the associated ceramic types were dated from period IIIa. The Conjunto Plaza-1 built in period Late II is an open area that most likely had an administrative function. The location, form, and dimensions of this square allow us to think that it may have been used as a ceremonial area related to the ballcourt or as a secondary market area, although we do not have evidence of that.

Estacionamiento-A

It is located south of the actual parking area, at point Pc 6+042.46 on the SCT map. We estimate that the bulldozer removed a 50 cm to 1 meter layer of this house including the total removal of the east part of the house. In the northeast of the house, bedrock was visible. On the west part, an old road from the parking area to the bodega also affected the structure (Figure 6.10).

We were able to identify the central patio and five rooms. In this house we explored 2 tombs, 34 burials, 3 drainages, one stairwell, and 23 features. Apparently the house had an occupation span from Period II to IIIa to IIIb and probably IV. It had an extension of 18 x 18 m (324 m²).

The house was built during Period II on an artificial platform, on the East slope of the same hill where Central Plaza was built. The platform had from 30-100 cm filler made of slabs, river stones, gravel, rubbish, and ash, in an earthen base of sandy texture and brown color. The terrace ended to the east with a containment wall 10.50 m long by 1 m wide and 1 m high. This wall also worked as the western limit of the house Estacionamiento-B although at a little lower level. After the terrace was made, it was finished with a rammed of mud floor. At this level they built the walls (with stone foundations) and slab floors. Later on, in Period IIIa, modifications were made, elevating the terrace wall, covering some walls from period II, and building others.

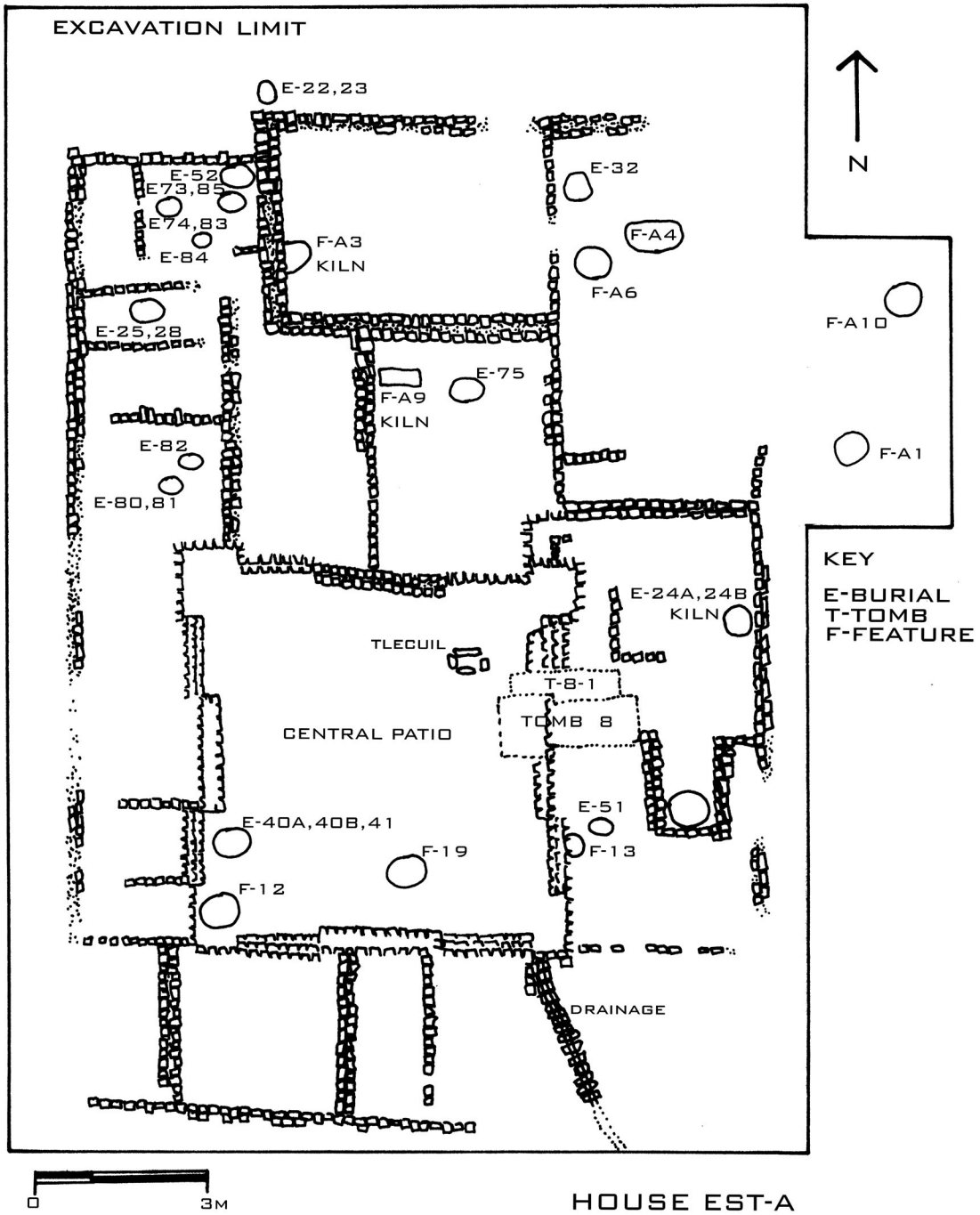


Figure 6.10: General Plan of House Estacionamiento-A

The central patio of the house is 6 x 6 m squared limited by a sidewalk or corridor of 40 cm wide that joins the four main rooms, the access to each one of them it is from

the patio by a staircase with alfardas. The sidewalk is 40 cm above the patio, and the main rooms are 40 cm above the sidewalk and 80 cm from the patio. The patio corners go into the corner rooms making an interesting architectural detail. From these corner rooms it is possible to enter other secondary rooms built behind the main rooms like those described by Flannery at Tetimpa, most likely added to satisfy the need for extra space and probably used as storage rooms (Flannery 2002: 417-433). The ceramic found in the rubbish of the rooms and the patio corresponds to Periods II, IIIa, IIIb and IV.

Access to this house was through a 60 cm wide corridor located in the southeast corner. It was also the sidewalk to House A'. In this corner there was a stone drainage 3 meters long and 30 cm wide that channeled rain water from the central patio to the east slope.

Floors in rooms, patios and even in tombs were well made with a thick layer of stepped earth over the rubble; over this was placed a layer of slabs covered with an equally thick layer of stucco. Constructive materials were slabs and blocks of local limestone, powdered limestone, gravel, river sand, ash, adobes and mud.

Estacionamiento-A'

It is located south of Estacionamiento A and east of the road to the bodega. The bulldozer affected the north part of this residential unit; the south side was gone by erosion of the terrace, and the west side was not explored (Figure 6.11). We explored mainly the central patio and the east side, although it was also altered by vegetation

and erosion. The house was built on an artificial platform taking advantage of the natural topography, filling just the lower side on the east to level the surface; on the west the bedrock is 40 cm below the patio floor. The house floor plan is basically a central patio with four main rooms that surround it. It was built in period II and continued to be used until period IIIb. The total area of the house is estimated in 261 m², (14.50 x 18 m), while the patio surface has an area of 42 m² (6 x 7 m). The patio is 30 cm below the steps that lead to the rooms and their surface was covered by stone. The sidewalk linking the northeast rooms is through a corridor 25 cm wide. Due to poor preservation, we only excavated three rooms, although obviously the house had more than that. In this residential unit we identified a central patio and five rooms, containing 3 tombs (10, 15 and 16), 11 burials (50, 53A, 53b, 61A, 61b, 62, 63, 66, 67, 69, 70, 71, 72 and 76) and 6 features. The east side of the house is simple, with a single room (E-1) with direct access from the patio and where the tomb 15 was located.

North of room E-1 we located the rooms E-2 and E-3 with no direct link to the patio, and due to their size they seem to be rooms for storage and not for living (Flannery 2002). The remaining walls in room E-2 had a layer of stucco painted in red. Below these rooms we found tomb 16 with orientation to east. The floors in rooms, tombs and the patio were made of stucco and flagstones.

Access to this domestic unit was possible by the northwest corner, close to the house Estacionamiento A and forming a narrow corridor that seems to extend to the corner and the Main Plaza. The constructive materials used consisted of local rock in blocks and slab stones, lime, gravel, sand, mud, adobes and recycled cultural debris as stone flakes, ash, bone, sherds, coal, mica and obsidian.

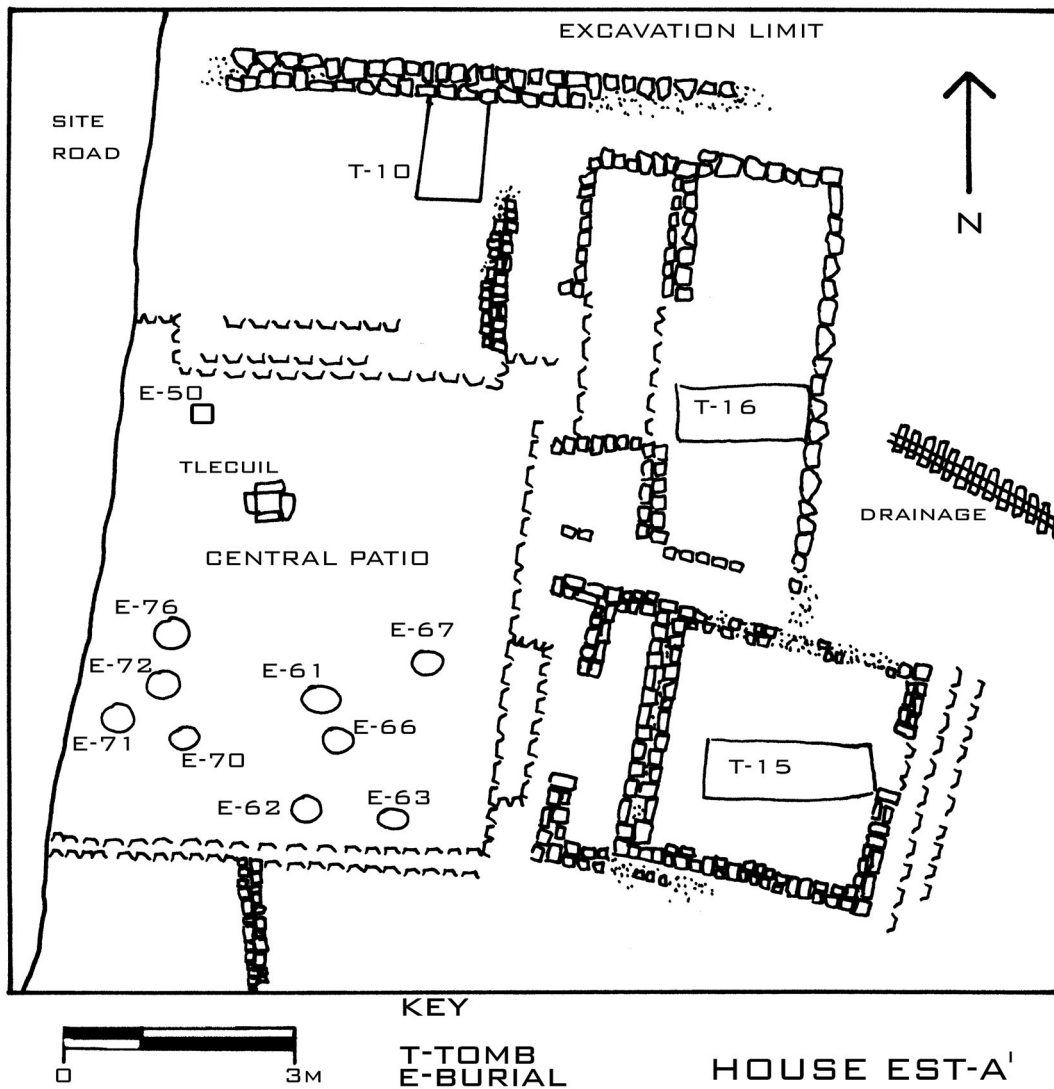


Figure 6.11: General Plan of House Estacionamiento-A'

Estacionamiento-B

It is located to the east of residential unit A, west of house C and south of the current highway and the Estacionamiento-Este area. The patio level of Est-B is 1.50 m

below the patio of houses A and A' (Figure 6.12). The whole house is not preserved, as it was affected by the bulldozer that razed the east side and by the construction of the first road to access the site, affecting the north half of the house. The excavation began with two trenches located to the west and in the middle of the house, extending to the east where the bulldozer exposed slab stone floors and remains of drainage. The house has an estimated total area of 528 m² (22 x 24 m), and a central patio of 81 m² (9 x 9 m). During the excavation of layer I of trench 2 we identified sherds from periods II, IIIa, and IIIb which means that it was built during Period II and used until at least period IIIb.

It was a complex house with a central patio of replaced corners, and seven rooms distributed to the west and south. It was built on an artificial platform of approximately 18 x 18 m and 1 m below the level of the platforms of the houses A and A'. The central patio is 35 cm below the rooms. The Southwest corner of the patio is replaced and the access to the rooms is direct. The west and south walls that define the patio form right angles. In the west side of the house, we explored six rooms and tomb 9. The rooms have a more complex access, in particular the room SW and W-1, since they are linked to the patio through the room W-3; room W-2 is likewise linked through room W-4. The size of each room varies from 3-4 m long by 1.70-2.70 wide with slab stone floors.

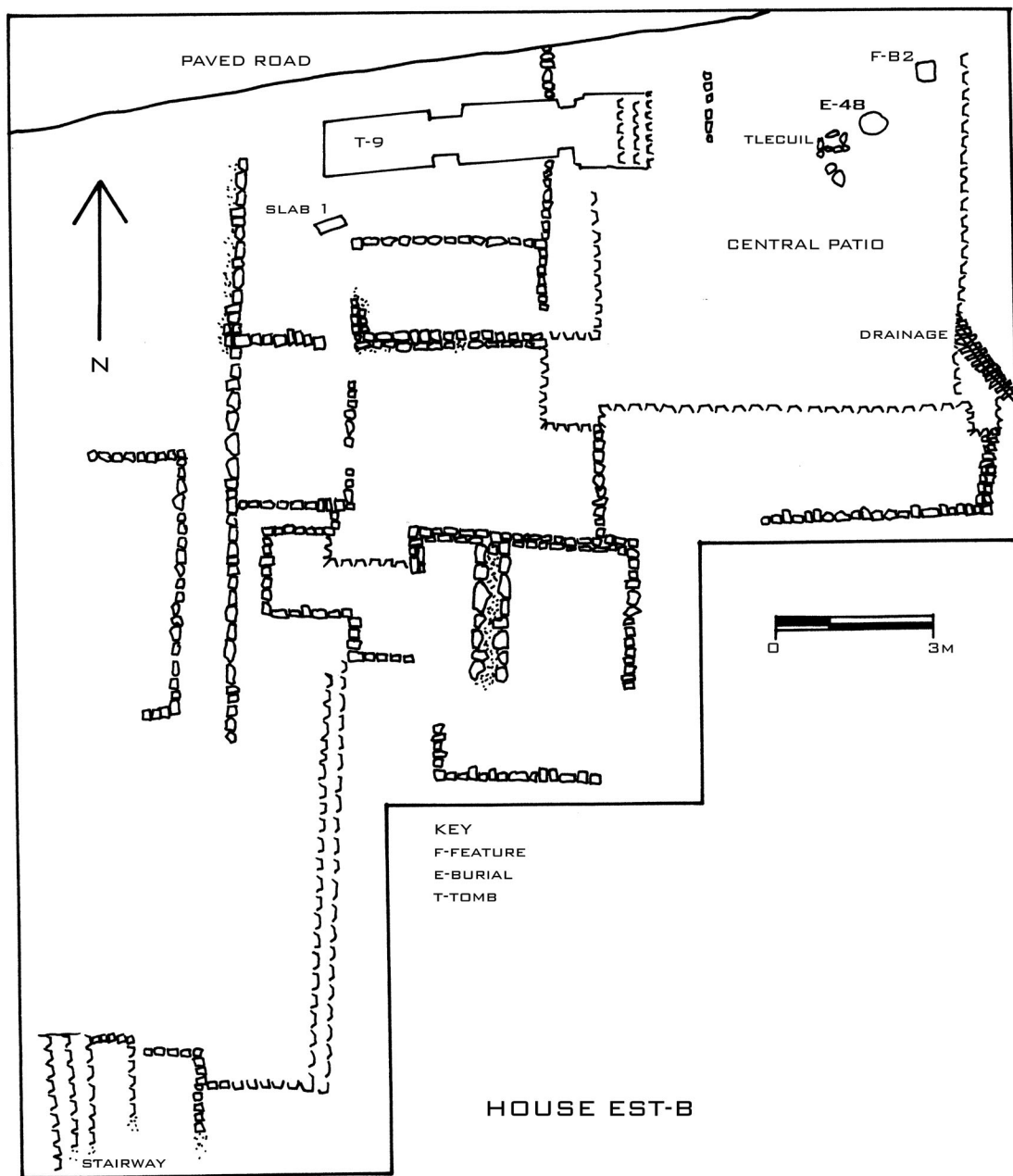


Figure 6.12: General Plan of House Estacionamiento-B

Below the rooms W-2 and W-5, the tomb 9 was located with a west orientation, with their entrance toward the patio. The tomb has a main chamber, antechamber and

vestibule. In the East side of this house we located a drainage 80 cm below a slab stone floor dated from period IIIa. The drainage was built with slab stone itself, 30 cm wide and 3 m long oriented to the southeast, starting from the central patio to the natural slope of the hill.

The house entrance was possibly located in the southeast corner. Which allowed them to communicate with house C and, through a corridor located to the south, to arrive to staircase 1 that joins with units A and A'. The thickness and wall finish depends on its function. For the foundations, almost square blocks of limestone of 10-30 cm by side fixed with mud were used. For the walls they used square blocks of 10-40 cm by side.

The floors in the rooms were made with flagstones and covered with stucco. The constructive materials used were limestone blocks and flagstones, powdered limestone, gravel, sands, adobes and mud.

Estacionamiento-C

Estacionamiento C is located to the west and at a lower level than the residential unit B, to the east of structure D and to the south of the road. After the removal of all the loose materials we identified the central patio with three rooms, one tomb and eight burials (Figure 6.13). The house extension is estimated to be 216 m² (12 x 18 m) and a central patio of 25 m² (5 x 5 m). The house was built on an artificial platform together with structure D. The platform was built in the same way as the previously mentioned ones, having an extension of 19 m wide by 17 m long. A compact earth floor was placed

atop the filler, from where they built the foundations of the house, rising to a greater height than structure D. Two walls one after the other, separated only by 12 cm from the platform.

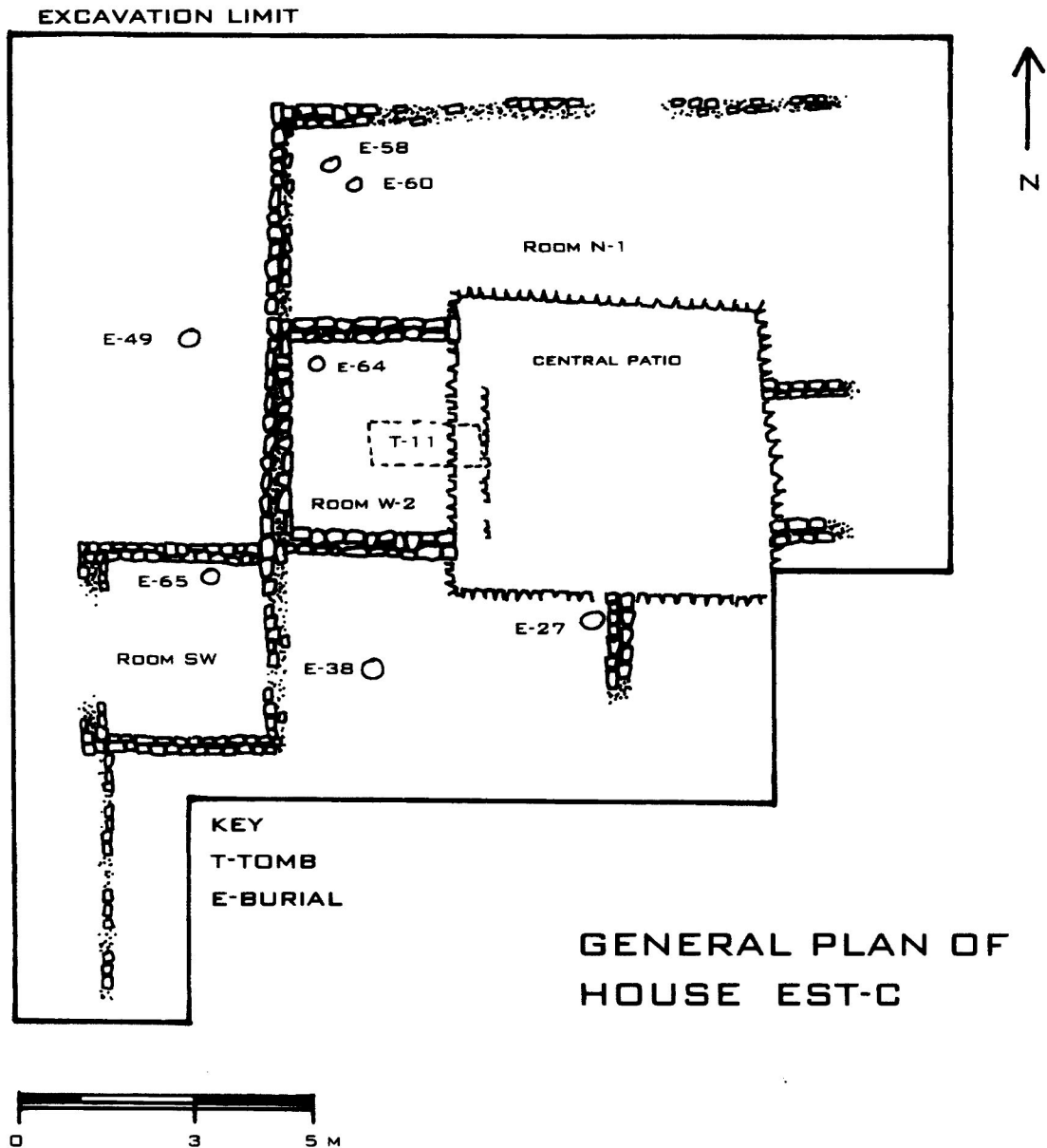


Figure 6.13: General Plan of House Estacionamiento-C

The block sizes are 20-40 cm long with a height of 25 cm. The south side of this house is gone due to erosion. We could not define rooms, although by the floor and wall remains we know that they existed.

This side was one of those more affected by the bulldozer, which left many cultural remains exposed and subject to deterioration. Here we explored burial 33 from period II. The east side was also very severely affected; we just found some sherds from period II. In the west side we identified evidence of rooms, the main one was named W-2 with an approximate extension of 3.10 x 2.10 m. This is the part of the house that was the most preserved. Here we explored burials 49, 58, 64, and 65 from period II and burials 31 and 60 from period IIIa.

The walls were made with double stone alignment and measure 45 cm wide. We found evidence in this room of two stucco floors, the first one over flagstones and the second, 25 cm below without flagstones. We identify with this and the associated ceramic two constructive phases in the patio and in rooms W-2 and W-3.

The first constructive phase corresponds to period II and IIIa, and the latter from IIIb, 25 cm above the former. In the central patio, we found evidence of a cut into the stucco floors that, following excavation, turned out to be the entrance to tomb 11 oriented east-west and 1.15 m below the room W-2.

Estacionamiento-D

It is located to the northeast of domestic unit Estacionamiento C. It was not complete, and neither does it clearly illustrate a distribution of rooms around a central patio as the other excavated houses (Figure 6.14).

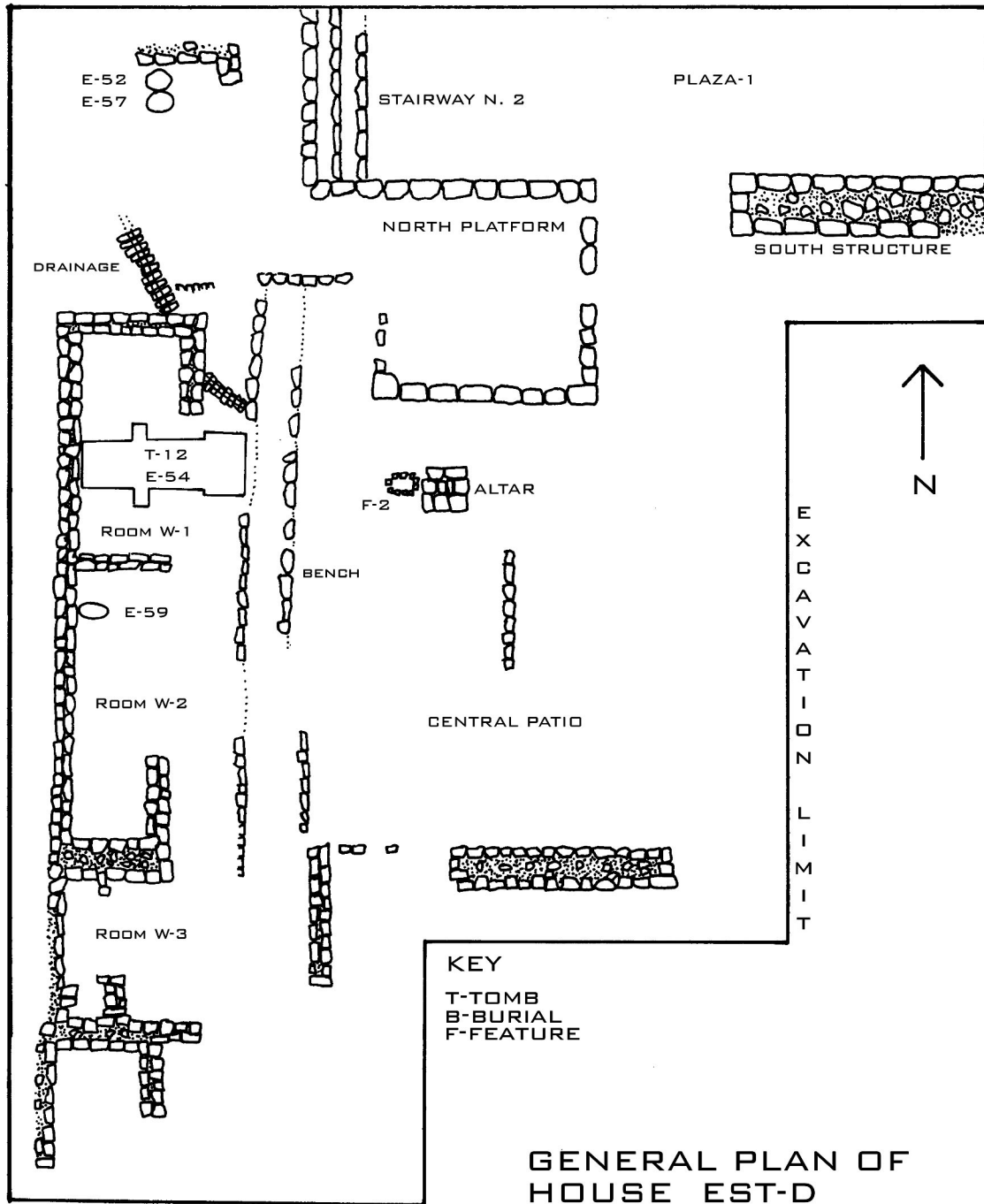


Figure 6.14: General Plan of House Estacionamiento-D

The explored area was 198 m² (16.50 x 12 m) and the total area of the house is approximately 247 m² (16.50 x 15 m), with a main orientation north to south. Equally, we estimate that the central patio should have had an approximate area of 59.50 m², (8.50 x 7 m). This domestic unit was occupied during periods II, IIIa, and IIIb. The two main rooms of structure D, identified as W-1 and W-2, were built on the same bedrock used for House Estacionamiento C, although they are approximately 50 cm below the level of unit C.

The dimensions of the southern room W-1 are 4.65 for 1.40-1.50 m. This room had remains of a mica floor (60 x 35 cm) covered later by an earth floor. Below of the mica floor we found a fragmented skeleton of a child (burial 59) with ashes and associated ceramic from period II. The room W-2 is 14.50 for 2.10 m. The stonewall between these two rooms is 44 cm wide presenting a constructive technique of double walls with earth and stones in the interior. Below the stucco floor of room W-2 we found a tomb (number 12). In front of these two rooms there is a lower platform of 1.40-1.20 by 13 meters long.

To the southeast of structure D there is an open space that seemed to be a plaza-patio. Halfway to the bench 1, 2.65 m to the east, there was a small altar of 88 by 66 cm. The orientation of Tomb 12 formed a direct line with the altar and an offering box or tlecuil. In the plaza-patio, wall remains were dug that could not be defined by the preserved characteristics. To the end of the plaza-patio and at a distance of approximately 15 m from the terrace of the west room, a wall oriented north-south was dug with a length of 12.50 m that defined the area on this side. This open area limited to the north by the platform of structure D and to the south side of the south platform of the

patio, forming a step (2.50 m of wide) that united both groups. The limits to the south side could not be defined.

Estacionamiento Este Area

Two residence units link it: EE-A and EE-B (Figures 6.1 and 6.9). They are located among the points 5 + 840 and 5 + 952.29 in the SCT topographic map on a large plateau to the east of the site parking area. In this plateau we found important site elements such as tomb 4, the famous tomb 7, the palace or elite residence of the tomb 105, and the second ball court of the site, all of them excavated by Alfonso Caso. This is an area that has been affected on several occasions by their central location and the facilities made for tourist accommodations, such as the parking area, restaurant and museum. In this area, the bulldozer modified and destroyed the later. levels of occupation.

Estacionamiento Este-A

House Estacionamiento Este-A is located at the northern part of this area and limited to the east by the road to access the site at the points 5 + 840 and 5 + 952. To the north is a steep slope and to the west is the parking area (Figure 6.15). We excavated a total of 209 m² (19 x 11 m) and estimate that the total house surface was approximately 625 m² (25 x 25 m), with a central patio also estimated of 42 m² (6 x 7 m).

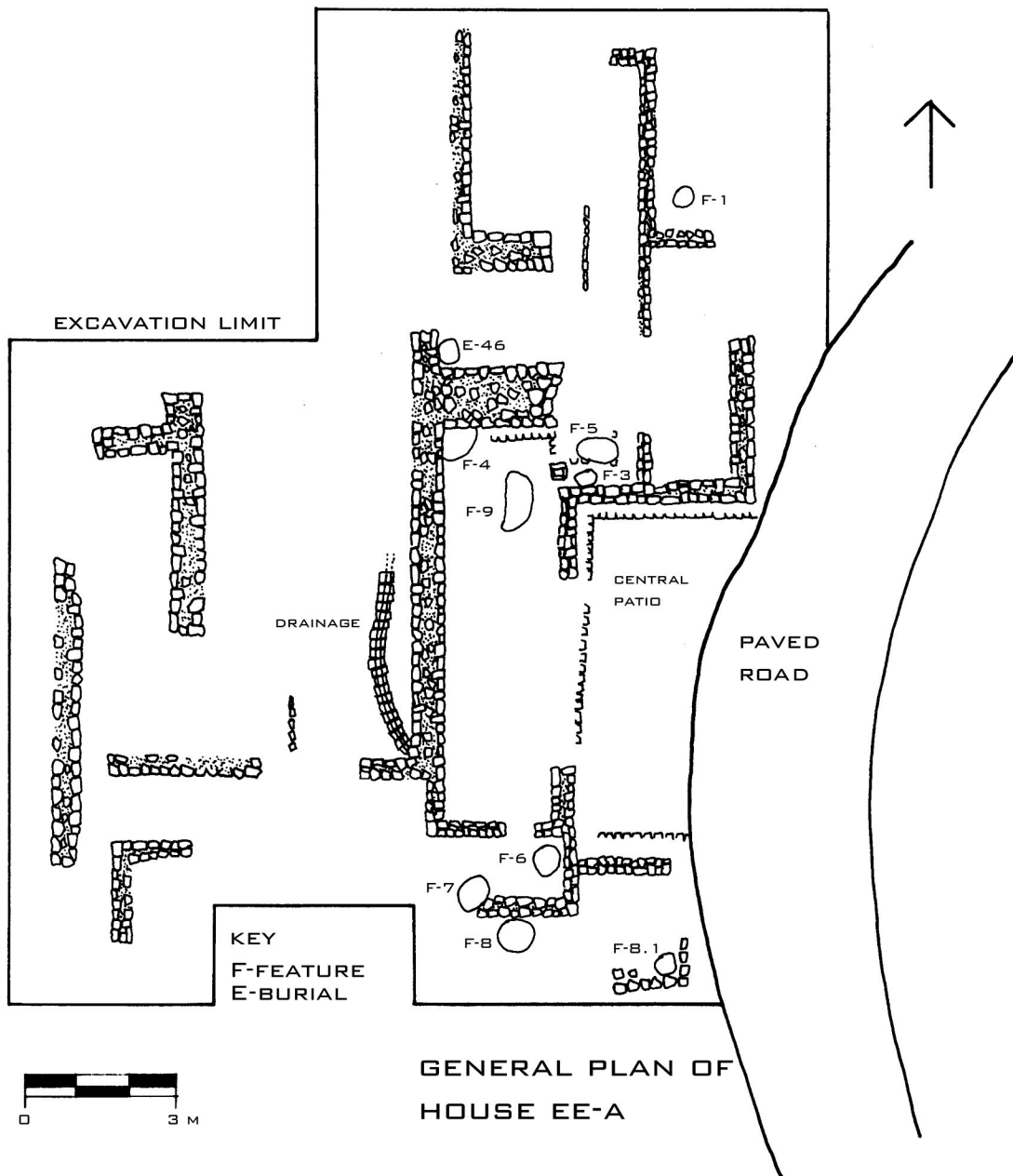


Figure 6.15: General Plan of House Estacionamiento Este-A

This unit has a central patio with rooms to the sides. Their general layout is similar to the house Estacionamiento A'. Both have in their west side a very narrow but

long rectangular room with direct links to the patio through a staircase. It was occupied during the periods II and IIIa (A.D. 200-500). The whole eastern part of this house was cut by the construction of the first road to the site. It was built on a platform embedded in a natural elevation in the west. Inside we found 9 elements and the burial 46. From the last restoration of the patio floor to the bedrock there are 1.10 meters of earth and debris. As in many other excavated houses, this one had a drain from the central patio to the southwest corner of the room W-1, with a length of 3.10 m, a width of 80 cm and a depth 40 cm.

The patio, which is 50 cm below room level, has evidence of been finished with stucco over a stone floor. The only way to get to room W was through a single door with a one step stairway similar to the house Estacionamiento A'.

The West room is the only one that has direct access to the patio and it is also larger (7.20 for 2.10-2.60 m). In the central part of this room there are parts of a flagstone floor covered with stucco.

This stucco surface has evidence of fire. In the northeast corner of the room we found a tlecuil, used to keep a fire into the room. Excavations in the southwest corner of this room found evidence of adobe walls exposed to intense fire. It was probably an oven to cook food built on the bedrock and filled with ashes and sherds from period II, similar to the ones located at the houses Estacionamiento A and Estacionamiento Este-B. South of this west room, there is a small room of 2.50 x 1.10 m (named the south room) which was probably a storage room (Flannery 2002). Excavation below the room floor exposed a circular pit of 80-120 cm in diameter and 62 cm depth filled with animal

bones some middle size mammals, some of birds, two human long bones and three human ribs, all mixed with sherds from period II.

The rooms N-1 and N-2 were difficult to define, because only their south side was preserved. We estimate the area of room N-1 as 3.20 x 5.50 m and the room N-2 as 1.90 x 5.50 m. Outside of the room N-1, on the west wall, we found the extended skeleton of an adult individual (burial 46) associated to ceramics from period I and II and two obsidian blades.

Estacionamiento Este-B

This area is located south of house Estacionamiento Este-A between the points 5+867 and 5+952 in the SCT topographic map. It is located along the front and east of the Complex Plaza-1 and the small ballcourt, and is associated with the elite house of tomb 105. This domestic unit was built using the natural plateau as part of the foundation for the house Estacionamiento Este-A and a terrace system between periods I and II.

It has a central patio surrounded by rooms (Figure 6.16). Its south side has a large retention wall 19.30 m long (east-west oriented) and 2.10 m high in average. We just excavated the central patio and partially some areas north and west of the house. The total estimated constructed area was 416 m² (16 x 26 m) with a patio area of 42.5 m² (5 x 8.5 m). The house layout is complex with many restorations and modifications from different periods. Ceramics from different pits, trenches and elements indicates a long occupation from period II to period IIIb. We explored in this part of the house two

tombs (T-13 and T-14), four burials (numbers 55, 56, 68, and 86), and one skull (number 4), all of them from period II but we do not know about the eastern side. Most of the later occupational layers were affected by bulldozing.

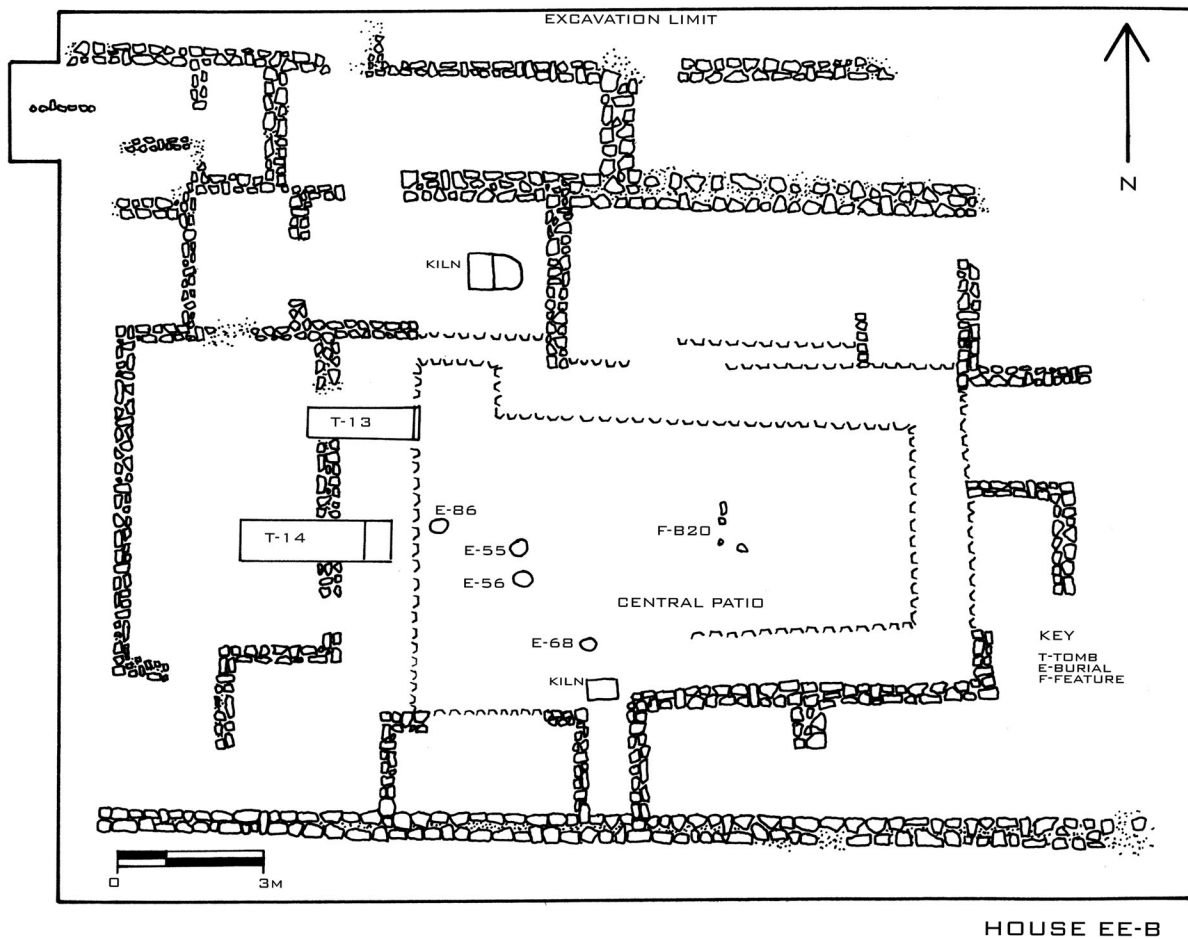


Figure 6.16: General Plan of House Estacionamiento Este-B

Due to the natural slope of the hill to the east, the west rooms were built at a higher level than the central patio. For the house construction in period II this level difference was of 1.50 m but for the period IIIa was increased to 2 meters. Between the patio and the rooms they built a corridor. On the west side (the side we excavated,

these were connected by staircases. In the southwest corner of the central patio, below of the stone floor, we found a kiln with a diameter of 1.40 m and 80 cm depth filled with stones, charcoal and sherds with evidence of firing from period II and IIIa. A subadult skeleton (burial 68) was found so close to the kiln that parts of the skull and some hand bones are burnt. As an offering it had a zoomorphic vessel, probably a toy, from period II that is also an indication of a continuous use of the kiln at least until period IIIa.

The room W-1 was the largest on this side; it contains the tomb 14 from period II. Tomb 14 was one of the tombs with a more abundant offering, and many other offerings were made around and on top of the tomb after its closure. In the tomb we identified the remains of 4 adult individuals with 13 objects from period II. As part of the offerings there were two urns. The “principal” urn was the representation of a seated male, with a mask on his mouth and cylindrical headdress with fringes, all painted with red pigment (catalog N. 137). The secondary urn was an “acompañante” with the representation of a seated male with necklace and earrings and a similar cylindrical headdress with fringes (catalog N. 135), both from period II.

On the surface of room W-2, in a primary deposition, we found evidence of cooking activity with burnt clay surfaces and three objects: a metate made of basaltic stone, a fragment of an unidentified stone instrument, and a metate mano. Besides room W-2, to the west, and with the use of the subsurface radar, we found below an unidentified floor a huge concentration of almost complete ceramic objects: cajetes and urns of types G-2 and G-35 from periods IIIa and IIIb.

In the room W-3 which is in front of room W-1 we found tomb 13 from the same period, and just below the floor level we found among the debris, several molded

figurines with representations of elderly people from period IIIb. This provides some indication of a later occupational period. In tomb 13 we found two skeletons, one adult male and one adult female in a secondary inhumation with two cajetes, one jar, and two urns, one the “principal” and the other “acompañante” all from period II. The principal urn was the figure of a seated male with necklace, earrings, bracelets, and an elaborated headdress with the flower glyph, all covered with red pigment (catalog N. 136). The “acompañante” urn was the representation of a standing male with a small necklace and also red pigment (catalog N. 134).

In the south part of the house, it was difficult to recognize a clear pattern of rooms or floors due to erosion and the damage caused by the bulldozer.

The northern part of the house is complex and also difficult to recognize a general distribution of rooms due to many modifications in their occupational time. In the N-1 room we found a rectangular kiln, 38 cm below to the floor. The kiln was made with adobe bricks and a layer of mud with evidence of intense firing; their dimensions were 80 x 50 cm and 1 meter in depth. Inside the kiln we found mainly burned red earth and just a few sherds from period II.

PART IV, ANALYSIS AND RESULTS

CHAPTER 7

THE LATE FORMATIVE PERIOD (PHASE I)

Introduction

The Late Formative is related to the foundation of Monte Albán (500-200 B.C.) and the basis of their integration as a state level society. Period I was interpreted by Alfonso Caso and collaborators as the earliest period but later research projects push back that date and defined five pre-Monte Albán phases.

Today, we benefit from an extensive and detailed archaeological surface survey of the entire Valley (Blanton 1978; Blanton et al. 1982; Kowalewski et al. 1983; Kowalewski et al. 1989), and many careful archaeological excavations have been done in several sites such as San José Mogote (Flannery 1976-1983; Flannery and Marcus 1983; 1994); Fábrica San José, (Drennan 1976); Santo Domingo Tomaltepec (Whalen 1981); Barrio del Rosario in San Pablo Huitzo (Flannery 1970); Tierras Largas (Winter 1972); Monte Albán (Caso 1932, 1933, 1935, 1938, 1939, 1969; Caso and Bernal 1952, 1965; Acosta n.d., 1947, 1958-59), among others, which yield information vital to understanding the process of social differentiation in time and space in the Valley of Oaxaca (Figure 7.1).

In order to frame the foundation of Monte Albán chronologically and spatially, it is necessary to take a quick look to the previous periods. Instead of a simple description of each period, which has been made in almost any book about Zapotec archaeology, I want to focus more on the development of social structure, forms of inequality, levels of wealth, prestige, and living standards. Doing that I will be in a position to establish a

framework in terms of the degree of social inequality that existed before Monte Albán to support and compare with my data.



Figure 7.1: Valley of Oaxaca (after Kirkby 1973)

Pre-Monte Albán Phases

Espiridión Complex (1900-1400 B.C.)

It is the earliest stratigraphic level in the Valley of Oaxaca with ceramic evidence (ceramic shapes are reproductions of gourd vessels), and it yielded a sample of 262 sherds and one figurine head excavated from a single wattle-and-daub house in San José Mogote (Flannery and Marcus 1994: 45-47, 103; Marcus and Flannery 1996: 75), but our knowledge about this phase is very limited.

Tierras Largas Phase (Early Formative Period 1400-1150 B.C.)

The Tierras Largas phase began around 1400 B.C., and it corresponds with the domestication of some plants, the origin to agriculture, and the settlement of the first villages; the period lasts until about 1150 B.C. (Flannery, 1973: 287-301; 1986: 5-6; Flannery, Marcus, and Kowalewski 1981: 65). The most investigated villages for this phase are Tierras Largas, San José Mogote, and Santo Domingo Tomaltepec, but in all 26 settlements have been identified with a total population of 188-463 people (Feinman 1991: 239; Marcus and Flannery 1996: 78).

One of the characteristics of this phase is its relative lack of social inequality within and between these communities, with the only exception being San José, Mogote which, with 2 ha in size, was twice as big as the others. More than half of the population was settled in nine hamlets at the Etna arm, near good alluvial land (Feinman et al.

1985; Nicholas et al. 1986 in Feinman 1991: 241), four hamlets in the Zaachila-Zimatlán valley and less in the Tlacolula valley (Marcus and Flannery 1996: 78-79).

In this phase, the existence of some non-residential structures is registered at San José Mogote. A well-leveled and stepped surface with no debris on it has been interpreted as a place to perform certain ritual ceremonies, as well as in the construction of 8 one-room structures with walls plastered with stucco (Flannery and Marcus 1976b; Drennan 1983a). Nevertheless, there seems to be no evidence of social differentiation among the inhabitants.

Ceramic from this phase is domestic utilitarian red on buff, similar to other Mesoamerican regions. The same is true for the amount and types of obsidian found in each house, even though all are imported, indicating that there is no restriction imposed upon their acquisition. To Winter and Pires-Ferreira (1976) this is an indication that each household had its own extra regional reciprocal trading relationships, but it can be also that trade routes were not yet regionally controlled.

Marcus and Flannery offer us an extraordinary description of every day life in these Zapotec villages: diet was diverse, including birds, small mammals, domestic dogs, deer, peccary; they collected wild plants such as black walnuts, pods, agaves, and organ cactus, but also grew maize, teosinte, squashes, common beans, chile peppers, and avocados.

One of the most representative sites for this phase is Tierras Largas itself, which consisted of five to ten small wattle-and-daub households (each one with a family of 4-5 members). Walls had a thin layer of lime to protect them from animals and erosion. House dimensions were on average 4 x 6 meters with several outdoor storage pits with

a capacity of 1.5 m³. Although there is not yet a clear funerary pattern, they used to buried their dead near the house, sometimes using the storage pits as funerary depository and seems that prestigious people were buried in a seated position (1996: 82-88).

Even for such a small community, there is evidence that some ritual activities were performed related to ancestors and hereditary rights. Clay figurines, most of them females, may be representations of ancestors associated to household activities. Males may have had a ritual structure used for several purposes including spiritual communication. This evidence is an indicator of prestige differences (Marcus 1998: 45-46, 79-92; Marcus and Flannery 1996: 85-88).

San José Phase (Early and Middle Formative Period 1150-850 B.C.)

By this phase the most relevant features are the emergence of hereditary inequality or a ranked social structure and the great population growth registered in San José, Mogote until it reached 70 ha (Flannery, Marcus, and Kowalewski 1981). The surface artifacts and on the houses floors indicate the existence of part-time specialists who manufacture iron ore mirrors, shell adornments and mica, and utilized other exotic raw materials. The iron ore mirrors manufactured at San José Mogote were exported via interregional exchange networks to other regions (Pires-Ferreira 1975: 31-35, 1976). The presence of jade and greenstone ornaments with a limited number of burials suggests differential access to goods, which is an indication of social ranking (Grove 1981: 380). During this phase we see the presence of the "Early" or "Olmec" horizon objects (San

Lorenzo phase), best documented at San José Mogote. These objects apparently reflected the involvement of individuals from the Valley in a pan-Mesoamerican exchange sphere and not the one-way intrusion of people or ideas from the Gulf coast (Flannery 1970: 97).

In San José Mogote ceramic decorative motifs such as Earth and Sky have been found, representing supernatural forces or references from patrilineal descent groups considered as pan-Mesoamerican (Flannery and Marcus 1994: 136-149; Marcus and Flannery 1996: 95-96). Although in this phase evidence of social inequality can be appreciated in residential architecture and funerary patterns (Flannery and Marcus 1983), there is not a clear-cut social hierarchy but social inequality lies along a gradual. Evidence of social differentiation is also revealed through figurines and burials with some individuals adopting positions of authority, and others positions of submission or subordination (Marcus and Flannery 1996: 96). To Flannery and Marcus these "...differences among households are differences of degree rather than differences of kind" (1994: 329). High-status households were not only better made, but also had differential access to deer meat, mica, and marine shell. Low-status houses were relatively small one-room wattle-and-daub structures (3 x 5 m) with corners that were slightly rounded rather than squared (Marcus and Flannery 1996: 103).

Settlement system development was more rapid in the Etla branch where the regional center of San José Mogote was located. Flannery and Marcus (1983: 53-54) define several categories of Early Formative community size, although they do not see this as representing an administrative hierarchy. Instead, they argue that relations between San José Mogote and second-level sites as Huitzo were competitive rather than

hierarchical. Relations between San José Mogote and the small, rural communities in the valley are not well understood, although it has been argued (Fisch 1982: 36) that there was no valley wide sociopolitical organization at this time (Whalen 1988a: 251). The region was integrated internally into a single system, though not necessarily in all activities. A key feature is the centralization of functions, including boundary functions at San José Mogote as the leading community in the region.

By this phase, San José Mogote was the largest settlement, accounting for 35-50% of the Valley's population, covering 70 ha with a population of 700. It has the only carved stone monuments and the most elaborated architecture, with buildings which have been interpreted as public functions since ca. 1350 B.C. (Flannery and Marcus 1976: 380). It is the most internally complex site, with barrio subdivisions and high and low status areas. It has more and a greater variety of exotic items like magnetite, shell, and obsidian than any other known contemporary site in Oaxaca.

The Tierras Largas and San José phase settlements have no particular propensity to cluster into distinct subregional units. Etla is most heavily occupied. Etla sites tend to be near San José Mogote in the Tierras Largas Phase, in the rest of the Valley settlements are sparse and sub-groupings are doubtful (Kowalewski et al. 1989). All San José, Guadalupe, and Rosario phase villages recorded in the Valle Grande and Tlacolula branches are small sites of 2 ha or less (Whalen 1988a: 250).

In San José Mogote, a detailed study on the materials used to build these “administrative-ritual” structures (limestone, travertine, earth from alluvial, piedmont and hilly areas, and adobe bricks among others) revealed that they were moved from other villages, which implies regional mobilization, labor coordination, and in sum the control

from the San José Mogote leaders beyond their own village. Several lines of evidence strongly suggest that for this period there is hereditary ranking and that San José Mogote achieved the status of chiefdom (Marcus and Flannery 1996: 93-110).

Guadalupe Phase (850-700 B.C.)

According to Marcus and Flannery (1996: 111-114) for this phase other competing centers such as Huitzo were rivals of San José Mogote, and these centers engaged in a variety of strategies which included raiding, alliance building, resulting in constant shifts in power relationships. Ceramic types used in Huitzo are more stylistically close with Yucuita, located in the Valley of Nochixtlán and different from those used in San José Mogote. Due to the fact that Huitzo ceramic types are restricted geographically to the Valley of ETLA, it is difficult to identify this phase in the other two valleys and therefore there is some controversy about the pertinence of this phase at the level of the Valley of Oaxaca.

At San José Mogote, social inequality among rich and poor families grew and some of the processes seen in San José phase continued. Elite families in San José Mogote are exchanging brides (hypogamy) to expand their network with secondary center leaders. At Fábrica San José, Robert D. Drennan (1976) found that the richest burials were of females who may have been women from San José Mogote. He also found the presence of several descent lines, with the founder's line having the higher status. At this site, it was more common to find burials of couples, assumed to be a husband-and-wife, departing from the old tradition of single male burials associated with Earth or Sky vessels.

Presence of the same Earth and Sky designs in ceramics, exchange of magnetite mirrors, obsidian, jade, ceramic vessels, and other exotic items between distant chiefdoms' head villages such as San José Mogote in Oaxaca, Tlapacoya and Tlatilco in the Basin of Mexico, San Lorenzo in the Gulf Coast, and Chalcatzingo in the Valley of Morelos, indicate a contemporaneous development and interaction of emerging elites and ranked differences in those sites (Flannery and Marcus 1994: 381; Marcus and Flannery 1996: 117-120).

Rosario Phase (700-500 B.C.) - Middle Formative Period

By this phase the Etna valley continued to have the greatest population density, with almost half of the entire population of the Valley, and San José Mogote as the biggest site, with around 700 people and more and bigger public structures in an area of 70 ha. In San José Mogote the change from an egalitarian to hierarchical system is more evident (Blanton et al. 1981; Spencer 1990).

The largest houses found are located in Mound I (Structures 25, 26, and 30), built over a burned temple at a height of 15 m. The residence had adobe rooms around a patio. Beneath the patio floor a tomb was found. It was also the only one that had elaborate architecture and a carved monument that can be interpreted as one chief defeating another (Flannery and Marcus 1976: 380).

The site was more complex, with a barrio subdivision and areas of high and low status. At the site there were many other objects that are regarded as exotic, such as magnetite, shell and obsidian, than in any other contemporaneous site in the Valley. By

the end of this phase, a hierarchical three-level system was already developed with San José Mogote at the top. The population at San José Mogote, estimated to have been ten times larger than second rank sites, reflects this hierarchy. At this point it can be considered a complex chiefdom.

Ceramic types further indicate major social inequality where poor families had only utilitarian vessels, while elite families had utilitarian but also better crafted and decorated vessels which were used for feasting or attending visitors (Marcus and Flannery 1996: 121).

The movement of luxury objects such as iron ore mirrors, jade figurines and pendants, among others, and the wide distribution of the so call Olmec style through wide Mesoamerican regions (La Venta horizon) are indicating intense amount of exchange of goods and information between leaders separated by hundreds of kilometers (Drennan 1991: 266).

To Flannery and Marcus, the San José Mogote chiefs had constant raw exotic materials exchange including jade, magnetite mother pearl, and *Spondylus*, among other products, with chiefs in the Tehuacán Valley, La Venta in the Gulf Coast and the Basin of Mexico (1994: 389). The presence of Olmec elements in the Valley of Oaxaca does not necessarily imply diffusion, migration or conquest of any kind by the Olmec, as was previously considered to be the case (Flannery 1968), but instead was more likely the result of trade and information exchange between leaders from societies with more or less similar level of development competing among them (Drennan 1991: 264-265; Flannery and Marcus 1994: 389).

The available information indicates that during the phases previous to founding Monte Albán, the San José Mogote elite were performing at the same time an exchange network strategy and a corporate strategy as ways to get more power (Drennan 1991). The first and most important is illustrated through public works construction, well-trimmed stone basements and plazas delimited by structure complexes made with adobe walls plastered with stucco, maybe used for ceremonial or religious activities.

The second strategy, which was of secondary importance in the process of San José Mogote elite consolidation, was supported by the existence of specialized artisans (at least part time) and the exchange of goods between distant regions such as Valley of Oaxaca, Basin of Mexico and Gulf Coast, implying rivalry among the elites (Drennan 1991: 283; Feinman 1995: 267).

By the end of this Middle Formative period, most of the farming and irrigation techniques recorded ethnohistorically by the Zapotec were in use. At this time, in each of the Valleys there was a major chiefly center (San Martín Tilcajete in the Zaachila-Zimatlán Valley with 700-1000 people; Yegüih in the Tlacolula Valley with 700-1000 people).

Neither of the other two was as populated and influential as San José Mogote (with 2000 people), which also had an important administrative and economic role, and they were competing to gain followers and expand their power and control. Some of the clearer changes that it will be evident during Monte Albán I were foreshadowed in these earlier Rosario phase.

Monte Albán in Early I (MA-Ia) (500-300 B.C.) - Middle Formative Period

The foundation of Monte Albán as the Zapotec state capital, on top of a previous uninhabited mountain, 400 meters above the valley floor, is the defining characteristic of this period. Important changes took place in the internal population dynamics of the Valley, creating a qualitative change in the region's internal organization, political control and social stratification. During the previous phases, settlements were focused more around the dominant center of San José Mogote, but with the foundation of Monte Albán the former lost almost all of its population and a new level of hierarchy was created and centered in Monte Albán.

A four-tier hierarchy was formed and up to 155 settlements were located around the new city that led to extensive demographic and political centralization, as Monte Albán had almost half of the total Valley population. An inter-regional exchange and market system was also developed (Blanton 1978; Blanton et al. 1982, Feinman 1991; Kowalewski et al. 1989). According to Spencer (1990), the increase and variety of public buildings provides evidence of internal differentiation. These public buildings are related to the organization of the central decision-making of the state. In Early I, only two public buildings were built, the Danzantes and one below building K, with a total population of about 5,280 people (Flannery and Marcus 1983: 87-91).

Important ideological, defensive, administrative, political, and economic reasons gave advantage to the city on a hilltop location. This process also created a greater economic and political integration of the population, economic specialization, and the practice of intensive agriculture (Blanton et al. 1990 Kowalewski et al. 1989). After the

foundation of Monte Albán, people lived on artificially leveled terraces on the hill, apparently organized in three barrios, which according to Blanton may indicate activities other than agriculture (1978). Main secondary centers were San José Mogote and Cuilapan. Tertiary sites were Fábrica San José and Tomaltepec with only one public building and at the bottom were the villages with no public architecture.

At the household level, in this period a lot of changes are registered according to Blanton (1978): 1- change of migration patterns (Blanton et al. 1982: 55-61); 2- fertility rise; 3- increase in household construction; 4- gradual shift in construction materials from adobe to stone walls; 5- adoption of tortilla consumption; 6- long term change in maize grinding; 7- more dependence on specialized artisans and trade; 8- more taxation on food and work; 9- maybe a greater participation in ritual ceremonies and military activities than in Rosario phase (Kowalewski et al. 1989: 111).

Monte Albán in Late I (MA-Ic) (300-150/100 B.C.) - Late Formative Period

By this period Monte Albán's population reached 17,000 inhabitants spread over almost 4 square kilometers. The state consolidated a greater political complexity and reinforced economic integration combined with population expansion and nucleation. There were deep changes in production and distribution of some products, such as the production of ceramic vessels that shifted from household manufacture with great variety in style and decoration motifs to its production in just a few specialized workshops. The same two public buildings from the previous phase continue to be used, and were perhaps enlarged (Spencer 1990). More than 320 carved stones depicting

human figures in different positions known as "dancers", were decorating Building "L" walls (García Moll et al. 1986). Demographic growth outside Monte Albán also continued in this phase with up to 50,000 inhabitants distributed over 744 communities, but almost 35% of that population was concentrated in Monte Albán. Proximity with the new capital was a more important reason for the establishment of new settlements than the availability of good agricultural land, therefore 20% of the Valley settlements were in a radius of 10 km of Monte Albán, spreading more and more toward marginal areas of the piedmont once the alluvial land was totally populated (Marcus and Flannery 1996: 144-146).

Proliferation of administrative centers of Late-I and non-residential construction in the Valley pays witness to the administrative activity growing and at least one new intermediate administrative level was created. At this point, the Monte Albán state was well-established with a stratified social structure. Due to the increment of rural population in the zones nearest Monte Albán, food production in the area produced great surpluses. In sum, greater political complexity was achieved and economic integration was reinforced, combined with nucleation and expansion of the population. This made deep changes in distribution and production of ceramic objects. By the end of Late I, the Valley of Oaxaca as a regional system was reaching its limits.

Analysis by Domestic Unit

For this period, the only archaeological evidence that we have are sherds from stratigraphic pits where some of them were mixed with sherds from later periods or

located in the lower levels at the bottom of earthen fills with no other architectural reference. We did not excavate houses or find any tombs or burials belonging only to this period, but we will use other published data for comparison. We do not have registered artifacts or blades made on stone, silex or obsidian; neither shell nor bone objects due to the difficulty to date these items from Monte Albán I with certain accuracy.

As we can observe from this period (Table 7.1), non-decorated sherds are the most common type of ceramics with 77.7% of the sample. Decorated sherds are 16.9% and ceremonial sherds 5.4%.

Table 7.1: Frequency and Percentage of Sherds in all Houses from Period I

	<i>Decorated</i>	<i>%</i>	<i>Nondecorated</i>	<i>%</i>	<i>Ceremonial</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Pit-A	0	0.0	0	0.0	0	0.0	0	0.0
Pit-B	1	11.1	8	88.9	0	0.0	9	100.0
Carr-A	130	29.3	312	70.5	1	0.2	443	100.0
Carr-B	14	20.6	54	79.4	0	0.0	68	100.0
Carr-C	2	12.5	14	87.5	0	0.0	16	100.0
Est-A	64	10.0	571	89.2	5	0.8	640	100.0
Est-B	0	0.0	15	100.0	0	0.0	15	100.0
Est-C	3	100.0	0	0.0	0	0.0	3	100.0
Est-D	0	0.0	0	0.0	0	0.0	0	100.0
Est-A'	35	35.4	62	62.6	2	0.0	99	100.0
EE-A	0	0.0	0	0.0	0	0.0	0	0.0
EE-B	4	2.0	124	62.0	72	36.0	200	100.0
Average	253	16.9	1160	77.6	80	5.4	1493	100.0

Analysis by Area

In the Pitayo area we have just a few sherds from House B. In the Carretera area we have a larger sample with 527 sherds. The group of domestic sherds is abundant with a percentage that goes from 70.5 in Carretera A to 87.5% in Carretera C. with a mean of 79.1%. The only object considered to be ceremonial was a figurine fragment in Carretera A. This fragment was made in ceramic type K-2 and located in the surface of kiln 1. All these materials are from non-funerary contexts.

At the Estacionamiento area, 11% of the ceramics are decorated, 80% nondecorated, with the addition of ceremonial ceramics making up 9% of the ceramic sample. But the presence of ceremonial ceramics is restricted to only three domestic units.

Est-A with 5 sherds: one figurine fragment in type A-1 and fragments of a brazier made in type C-2. At Est-A' we registered only 2 ceremonial sherds: a fragment of C-2 brazier and a fragment of a vase with Cociyo face in G-17, but also one piece of mica and three obsidian blades. Most of the ceremonial pieces were found at Estacionamiento Este-B with 72 sherds: here we registered fragments of urns A-1; cylindrical bowls A-9 and C-20; bowls G-18; and tripod bowl K-3.

Analysis between Areas

Although the sample is small (Table 7.2), it indicates that domestic ceramics constitutes the major part of it. Domestic ceramics are 89% in Pitayo, 72% in Carretera,

and 80% in Estacionamiento, which yields a mean of 80%. Houses from the Pitayo area had a majority of domestic types.

Where we see more difference is in the presence of ceramics considered as ceremonial or ritual. At the Pitayo area we have no evidence at all; at the Carretera area there is only one figurine fragment; but at the Estacionamiento area, although restricted to only three houses, ceramic or ritual sherds constitute 8.2% of the ceramics. This indicates that at this time, the inhabitants of the Estacionamiento area were more involved in ritual and ceremonial activities than the rest of the population. Figurines, braziers, urns, and Cociyo face vases are part of the objects used to perform these ritual activities. The pieces registered as ceremonial were fragments of two small solid figurines, braziers, urns and Cociyo-face vases. According to Joyce Marcus, the almost non-existence in this Period I and later of small solid figurines (which in previous periods were hand-made in each household, individually, and realistic), and used by the commoners as means to communicate with their recent ancestors, would be evidence of the changes in ceremonial and divination as a consequence of Monte Albán's foundation (1998: 301-306). It is assumed that by Period I and later, with the consolidation of the Zapotec State and a stratified society, public ceremonies were performed by government-related, full-time priests replacing domestic ritual.

Table 7.2: Percentage of Non-funerary Ceramic Types by Areas from Period I

<i>Area</i>	<i>Decorated</i>	<i>Nondecorated</i>	<i>Ceremonial</i>	<i>Total</i>
Pitayo	11.1	88.9	0.0	100.0
Carr	27.7	72.1	0.2	100.0
Est	11.0	80.6	8.2	100.0
Average	16.6	80.5	2.8	100.0

Basis of Social Stratification

Available archaeological data for this Period is scarce. During Alfonso Caso's excavations (Caso 1932, 1933, 1935, 1938, 1939, 1942, 1969; Caso and Bernal 1952; Caso, Bernal, and Acosta 1967), seven tombs were explored and registered with the numbers 29, 33, 43, 94, 107, 111, and 152, with the possible addition of tomb 101 that was previously looted. Two burials were reported from this period (Burial V-19, and VI-12). From these tombs we have individuals from both sexes and different ages at death, with also large differences in quantity and quality of the offering.

Marcus Winter (1974: 985) mentions the excavation of some other tombs during 1972-1973, including one dated to Period Ib, made in the bedrock with an adult male and 11 vessels, 33 beads and an unspecified number of marine shell ornaments as offering. This tomb was associated to a single, rectangular house structure.

Monte Albán as a city was still under construction, and as mentioned at the beginning of this chapter, settlement pattern changed in the Valley after the founding of Monte Albán, and most of their inhabitants were moving in from neighboring sites. The population had good life expectancies, in general, but even at that initial developmental stage we detect social differences among the areas excavated. These social differences are an indication of a well-developed political structure that organizes city areas with respect to the Central Plaza as the major ceremonial center and core of the settlement. Proximity to this main plaza was related to prestige and probably to political influence too.

CHAPTER 8

THE TERMINAL FORMATIVE (PHASE II)

Introduction

During this phase (100/150 BC-AD 200), the Zapotec state expanded its dominion to places outside the Valley and there was a considerable population decline at Monte Albán and neighboring areas. Changes in the settlement pattern in the Valley indicate that in secondary sites, population increased while in Monte Albán was the opposite occurred. More highly decorated ceramic types were apparently produced and equitably distributed. Elaboration and diversification of ceramic production reflects a more open and less centralized exchange system as a result of the increased involvement of Monte Albán rulers in their outside ventures, which might reduce their direct influence within the Valley, permitting a population increase in second level sites. The territorial expansion outside the limits of the Valley to the Cañada among other sites is revealed by the distribution of some cream paste wares that were made near Monte Albán and found at distant places such as Cuicatlán, 100 km northeast of Monte Albán (Redmon 1983; Spencer 1982). Other evidence is in the Building J. The structure “J” contains up to 40 stone reliefs with military themes, which to Joyce Marcus represents the sites defeated by the Zapotec outside the Valley (Marcus 1983: 106-108).

New administrative controls and government were developed, increasing the internal specialization and functional differentiation with the consequent delegation of authority. Phase II at Monte Albán marks the appearance of a whole series of clearly recognizable and functionally distinct public buildings (Marcus 1976) that are related to a

state level. Among these specialized temple structures there are arrowhead-shaped building likes Mound J and ball courts. Also the first palace or royal residence can be recognized. To Sanders (1974) the appearance of true palaces (residences that would have required large amounts of *corveé* for their construction) would be diagnostic of state societies. All these indicate both external specialization and vastly more internal specialization than in phase I. Such architectural complexity is one archaeological manifestation of state organization (Flannery and Marcus 1976: 221).

In this phase II an estimated 24 buildings were erected, which exemplifies the internal administrative diversification of the Monte Albán government, now as a state. This is also manifested in the appearance of administrative facilities related to specialized components of the regional decision-making organization at sites other than the regional capital. In phase II they built "a rectangular temple with a main chamber, vestibule and columns to either side of the doorway" (Flannery and Marcus 1976: 217). Temples of this type have been reported in Mound X at Monte Albán, San José Mogote with four of these, and Cuilapan. In sum, state emergence would have occurred between the end of phase Late I and the beginning of phase II (Spencer 1990: 15-19).

The elite residences at this time were built on stone foundations, and their adobe walls were plastered with stucco. The evidence from the tombs discovered by Caso and associates indicates an increment in social stratification. Based on the location of the residences within the city, the patio area will be different. Residences located far from administrative barrio centers have only one relatively small patio. Close to the Central Plaza the residences tend to have larger patios, with secondary patios and multiple rooms. In 1990 an elite residence was excavated at the northeast corner of the North

Platform by this author (González Licón 1997). With a central patio of 64 m², four main rooms face the central patio, and the west room is on a higher level. The central patio had an altar below which a young male was buried in a seated position. Secondary patios were built on the corners to allow access to other rooms. The total house area is 750 m² dated to phases II and IIIa (Terminal Formative and Early Classic). The excavation revealed a high percentage of imported items from Teotihuacán such as ceramics, jade beads and marine shell. The floors of several of the room had mica inlays. Outside the house, on the east side, the entire surface was plastered up to the edge of the structure. The house drainage was connected to the larger drainage, which collected all the rainwater in that section of the North Platform. No tomb was found but the associated imported goods indicate the high social position of their inhabitants.

By the end of this phase Monte Albán contained at least two dozen morphologically diverse public buildings arranged around its central plaza, while the capital of an earlier and apparently chiefly system in the Oaxaca Valley, San José Mogote, had just two public buildings. In the Basin of Mexico, Teotihuacán contained about 75 public buildings of various kinds, in contrast with the earlier site of Cuicuilco, thought to have been a paramount chiefdom center, which appears to have had but a single large pyramidal structure. This public architecture present is good evidence of state formation in the Valley of Oaxaca by that phase (Spencer 1990).

Population levels were far below potential capacities everywhere. The end of this phase could be marked by some internal contradictions between the central Monte Albán state and elite from secondary sites. Also the militarily expansion of Teotihuacan, from the

Basin of Mexico, could be an external factor that also changed the Mesoamerican universe.

Analysis by Domestic Unit

For period II we have a larger sample than for period I, and it is composed on the one hand by objects from funerary contexts from eight domestic units excluding Pitayo A, Carretera B, Carretera C, and Estacionamiento B (Tables 8.1, 8.2, and Appendix A). On the other hand, non-funerary ceramic and artifact samples and architectural information from all the houses except Pitayo A (Appendixes A and B). It is worth mentioning that while the data from funerary and non-funerary contexts were analyzed separately, the information yielded was an important aspect for comparison and richer than when only one source is used. In all the cases, the mention of funerary is related only to objects excavated in association with a human skeleton as offering. These skeletons may be buried in a tomb or a burial. In contrast, when we mention ceramic assemblages, it is related to non-funerary context and it may be excavated in a stratigraphic pit, between stucco floors, in a feature or a ritual deposit.

There are some terms and abbreviations that I use in the tables, charts, and descriptions and deserve a definition: *Area* is related to the spatial location of each domestic unit including a capital letter for individual identification; where “Pi” stands for Pitayo, “Ca” stands for Carretera, “Es” stands for Estacionamiento, and “EE” stands for Estacionamiento-Este. *Unit* refers to a specific burial (E) or tomb (T). *Loc* refers to the location within the household where 1 is central patio, 2 central rooms, 3 lateral patios, 4 lateral room, 5 outside, and 6 other.

Table 8.1: Individuals from Burials in Period II

<i>Area</i>	<i>Unit</i>	<i>Loc</i>	<i>Form</i>	<i>Age</i>	<i>Sex</i>	<i>Type</i>	<i>Pos</i>	<i>Orient</i>	<i>Health</i>	<i>Modif</i>	<i>Quan</i>	<i>Variety</i>	<i>Dec</i>	<i>No dec</i>
Pi-B	E-06	1	4	6	0	1	8	4	1	0	9	4	0	1
Ca-A	E-08	2	3	1	0	1	1	2	1	0	10	2	6	2
Es-A	E-24.A	2	4	1	0	2	2	2	1	0	6	2	0	1
Es-A	E-24.B	2	4	2	0	2	2	2	1	0	0	0	0	0
Es-A	E-25	4	3	2	0	1	1	3	2	0	0	0	0	0
Es-A	E-38	1	3	5	1	3	0	0	2	5	14	3	1	2
Es-A	E-40.A	1	3	7	0	2	1	2	1	0	13	3	1	1
Es-A	E-40.B	1	3	2	0	2	3	2	1	0	0	0	0	0
Es-A	E-41	1	3	7	0	1	4	2	1	0	1	1	1	0
Es-A	E-51	2	3	2	0	1	0	2	1	0	4	4	1	0
Es-A	E-80	4	3	2	0	1	1	2	1	0	34	3	2	2
Es-A	E-81	4	3	2	0	1	5	2	0	0	2	2	1	0
Es-A	E-82	4	3	2	0	1	0	0	1	0	0	0	0	0
Es-A	E-83	4	3	5	0	1	5	2	2	3	25	7	5	2
Es-A	E-84	4	3	2	0	0	0	0	1	0	3	3	1	0
Es-A	E-85	4	3	6	1	3	0	0	1	0	2	2	0	1
Es-C	E-27	2	2	5	1	1	1	3	2	0	3	2	0	2
Es-C	E-33	4	2	2	0	1	5	4	2	0	1	1	1	0
Es-C	E-49	5	3	1	0	1	4	3	1	0	0	0	0	0
Es-C	E-58	4	3	7	0	1	5	2	1	0	0	0	0	0
Es-C	E-64	2	3	3	0	1	4	2	1	0	1	1	0	1
Es-C	E-65	4	3	4	2	3	0	0	1	0	0	0	0	0
Es-D	E-54	2	3	5	0	3	0	0	1	0	2	2	0	0
Es-D	E-59	2	3	5	0	3	0	0	0	0	0	0	0	0
Es-A'	E-61.A	1	3	1	0	1	2	2	1	0	17	2	0	0
Es-A'	E-61.B	1	3	7	0	0	0	0	1	0	0	0	0	0
Es-A'	E-62	1	3	1	0	1	3	1	0	0	2	2	0	0
Es-A'	E-63	1	3	1	0	1	2	4	1	0	2	1	0	0
Es-A'	E-70	1	3	2	0	1	5	1	1	0	2	2	0	0
Es-A'	E-71	1	3	5	1	3	0	0	1	0	2	2	0	0
EE-A	E-46	4	3	6	1	1	5	1	3	0	3	2	0	1
EE-B	E-55	1	3	2	0	1	3	1	1	0	2	1	1	1
EE-B	E-56	1	3	7	0	1	5	3	1	0	1	1	1	0
EE-B	E-68	1	4	2	0	1	5	1	1	5	1	1	0	0
EE-B	E-86	1	3	7	0	0	0	1	0	0	0	0	0	0

Table 8.2: Individuals from Tombs in Period II

<i>Area</i>	<i>Unit</i>	<i>Loc</i>	<i>Form</i>	<i>Age</i>	<i>Sex</i>	<i>Type</i>	<i>Pos</i>	<i>Orient</i>	<i>Health</i>	<i>Modif</i>	<i>Quan</i>	<i>Variety</i>	<i>Dec</i>	<i>No dec</i>
Ca-A	T-2.A	2	1	5	1	4	0	1	2	0	9	1	3	5
Ca-A	T-2.B	2	1	2	0	4	0	1	0	0	0	0	0	0
Es-A	T-8-1.A	2	1	5	0	2	4	1	3	0	12	5	1	1
Es-A	T-8-1.B	2	2	3	0	4	0	0	1	0	0	0	0	0
Es-A	T-8-1.C	2	1	5	1	2	1	2	0	0	2	2	1	0
EE-B	T-13.A	2	1	5	1	4	0	1	3	0	7	3	3	0
EE-B	T-13.B	2	1	5	2	4	0	1	0	0	0	0	0	0
EE-B	T-14.A	2	1	5	1	4	0	0	3	7	14	4	4	4
EE-B	T-14.B	2	1	5	0	4	0	0	0	0	0	0	0	0
EE-B	T-14.C	2	1	5	0	4	0	0	0	5	0	0	0	0
EE-B	T-14.D	2	1	5	1	4	0	0	0	0	0	0	0	0

Form refers to the form or disposal facility, where 1 is tomb, 2 is cist, 3 is a simple pit in the earth, 4 is a kiln, and 5 is other. *Age* is divided as 0 unknown, 1 infant (0-2 years old), 2 child (3-10 years old), 3 young (11-15 years old), 4 young adult (16-20 years old), 5 adult (21-40 years old), 6 old (41-60 years old), 7 new born. *Sex* is classified as 0 for undetermined, 1 male, and 2 female. *Type* refers to the kind of inhumation, and it may be 0 unknown, 1 primary individual, 2 primaries collective, 3 secondary individual, and 4 secondary collective.

Pos refers to the position of the body in the grave, 0 undetermined, 1 extended face up, 2 extended face down, 3 right side flexed, 4 left side flexed, 5 flexed face up, 6 right side extended, 7 left side extended, 8 face up, lower body extended, arms flexed, 9 seated, 10 face up, lower body flexed, arms extended. *Orient* refers to the position of

the body (head-feet) with respect to the magnetic North where 0 is undetermined, 1 east-west, 2 west-east, 3 north-south, 4 south-north, and 5 other. *Health* refers to the general health condition of the individual, 0 means unknown, 1 good health, 2 presence of disease or infections, 3 poor condition. *Modif* refers to anatomical modifications where 0 is undetermined, 1 trephination, 2 cranial modification, 3 dental mutilation/bone fracture, 4 red paint, 5 burned, 6 crania/dental mutilation and red paint, and 7 burned and red paint. *Quan* refers to the amount of objects it has as offering. *Variety* refers to the diversity in materials used in the offering. *Dec* refers to decorated ceramics. *No dec* refers to non-decorated ceramics. *Other ceramics* refers to ceremonial or ritual objects such as urns, incense burners, figurines, pipes, earplugs, beads, potstands, and musical instruments.

Pitayo-A

This domestic unit was not inhabited in this period, and therefore we have associated no archaeological material.

Pitayo-B

Only one burial (Burial 6) was found in this house. It was a mature to old individual, of indeterminate sex, oriented north-south, with 9 objects as an offering. It was deposited in a rectangular kiln of 1.20 x .70 m and at a depth of 1.10 m below the central patio floor. The walls of the kiln were built with stones and smoothed with earth

that was cooked through exposure to fire. As an offering the skeleton had a semispherical cajete, 2 shells, 1 snail, 3 obsidian blades, 1 obsidian flake and 1 mica fragment. Also we discovered fragments of two semispherical cajetes type G-3, one normal and another miniature, a pot border with red painting of type K-3 and a body of vessel type K-4.

Sherd evidence from the house indicates that 90% of the ceramics were non-decorated and 10% decorated. There is no evidence of ceremonial activities for this period.

Carretera-A

In this house we found one tomb with two individuals (T-2), and one burial (E-8). The individuals in the tomb were secondary depositions, one young male (T-2.A) and a subadult of undetermined sex (T-2.B), and as an offering they have 3 decorated ceramic vessels, 6 non-decorated bowls, and 1 incense burner.

Tomb 2 was located west of the patio, below the central room and close to tomb 4 which belongs to period IIIa. It has an east-west orientation, simple, rectangular floor, door and niches. In the east niche there was a red pigmented effigy urn with two posterior vases, representing a seated man with large headdress and a necklace with a human head as pectoral. Tomb dimension was 2 m long by 1 m wide; the height of the walls is 1 m and 1.50 m with the roof an angular vault. The floor is made of rammed mud. The façade is simple, with a vertical wall finishing off with lintel. From the patio surface, the access to the tomb was through three steps. As part of the funerary

ceremony, after the sealing of the tomb with two big slabs they placed two offerings. The first was close to the entrance on the first step and was comprised of three vessels covered with earth and rubble. At the tomb's roof level, they placed the second offering of two more vessels, and one incense burner which probably was used as part of the ceremony. This incense burner has a big pan, perforated and united to the open handle. It has dark stains in both sides, apparently a result of its use. Alfonso Caso (1967: 249) mentions that this type K-1 incense burner is not common in Period II and they were really used and not simply symbolic, which explains its presence as part of a funerary offering.

Burial 8 was a child of no more of two years of age, primary deposited with 9 miniature ceramic objects (6 decorated vessels, 1 non-decorated vessel, 1 ceramic earplug, and 1 trumpet shell pendant), located in a shallow pit near the patio surface and above T-2.

Considering the total number of individuals studied in this house and the total number of objects left as offerings, we have an average of 6.3 obj/ind. Non-funerary objects found in a ritual deposit were a decorated bowl, 5 obsidian blades, 5 shell pendants, and 2 bone pendants for a total of 13 objects (Table 8.3).

As an associated feature we explored a subterranean, two-chambered kiln very well preserved, located 7 meters south of this house. The main chamber has a diameter of 1.50 m and a depth of 1.80, and both chambers are divided by a stonewall. All their walls were made of stone and coated with clay which was hardened by extensive fire exposure. The fuel chamber is 40 x 70 cm and 50 cm deep, and it was filled with earth

and rubble. The reducing atmosphere that these types of kiln have was the one needed to make the gray ware of Late Monte Albán I and Monte Albán II.

Carretera-B

There were no tombs or burials associated with this house in this period, but 20 objects were excavated in non-funerary contexts as follows: 2 decorated ceramic vessels, 8 non-decorated vessels, 2 ceremonial objects (1 figurine, and 1 Cociyo bridge-spout jar), 7 obsidian blades and 1 shell (Table 8.3).

Carretera-C

In this house no burials or tombs were found associated with this period. 6 objects were registered in other contexts, 2 ceremonial (1 figurine and 1 brazier), 2 obsidian blades, 1 whole shell and 1 stingray spine (Table 8.3).

Table 8.3: Artifact Frequencies and Percentages by house, Carretera Area

	<i>Decorated</i>	<i>No decor</i>	<i>Cerem</i>	<i>Obsid</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Total</i>
Carr-A	1 / 7.7	0 / 0	0 / 0	5 / 38.5	5 / 38.5	0 / 0	2 / 15.3	13 / 100
Carr-B	2 / 10	8 / 40	2 / 10	7 / 35	1 / 5	0 / 0	0 / 0	20 / 100
Carr-C	0 / 0	0 / 0	2 / 33.4	2 / 33.4	1 / 16.6	0 / 0	1 / 16.6	6 / 100
Average	3 / 20.3	8 / 20.4	4 / 10.2	14 / 36	7 / 18	0 / 0	3 / 7.7	39 / 100

Estacionamiento-A

A total of 17 skeletons were excavated with 117 objects associated and an average of 6.9 obj/ind. By age groups they are: 7 adults with 69 objects (9.8 obj/ind). 10 subadults with 49 objects (4.9 obj/ind), and from them, one burial E-80 had 34 objects, the other 9 subadults have in total 15 objects for an average of 1.6 obj/ind. Two children were buried in a kiln 50 cm in diameter, located at the east side of the house with 6 objects as an offering (E-24.A and E-24.B). Another kiln reused as a funerary depository of 90-115 cm in diameter and 70 cm depth was located at the Room N-2 with an infant skeleton (E-84) and two objects.

The richest adult, of undetermined sex (E-83) had 25 objects. It was the only one with dental modification, and also the only one with an anthropomorphic jade figurine. Also associated with this individual, we found a bird bone painted in red, a bone awl and 2 stone artifacts (one mano). Because of the type of associated artifacts it may have been a woman; it was buried in a secondary room, northwest from the central patio (Table 8.4).

Table 8.4: Wealthy Individuals in House Estacionamiento-A. Period II

	<i>Age</i>	<i>Sex</i>	<i>Jade</i>	<i>Shell</i>	<i>Total objects</i>
E-80	Subadult	Under age	10	20	34
E-83	Adult	Non specified	2	0	25
E-40A,B	Adult	Non specified	2	9	13
T-8.1A	Adult	Non specified	1	1	12

Besides burials 80 and 83 with 34 and 25 objects respectively, there is a group of 3 adult individuals (one male and 2 unspecified) with 11 to 20 objects.

Only 2 subadults have no offerings (E-25 and E-82), nevertheless it is noticeably a different mortuary treatment by age: adults have more offering than subadults, with the exception of E-80 which has a necklace with 15 shell beads, 10 jade beads, 2 shell pendants, and 3 shell plates. This subadult was buried in a secondary room north from central patio.

By sex we can classify the adults as 3 males, one with 14 objects (E-38), and 2 objects each with one of the other two males. There are no female skeletons, but 4 skeletons of undetermined sex with 51 objects; one of them is E-83 mentioned before as the richest adult in the house. The other three adults of undetermined sex are T-8.1A with 12 objects (one jade, one shell, seven obsidian among them), E-40A with 13 objects (9 shell and 2 jade), and E-41 with only one object.

As part of the offerings, the only ceremonial objects are related to the tomb 8.1 and they are a ceramic pipe 45 cm long and 13 in diameter, an anthropomorphic urn with the representation of a seated male with a cape, wearing two necklaces of cylindrical beads. The head of this figure is covered, and his face appears as if emerging from the wide-open mouth of a serpent depicted as a helmet more than a headdress. Additionally we found the presence of a skull and mandible of two unidentified animals. Non-decorated ceramic is much more abundant in adults than in subadults. This house is the only one with jade objects for this period. Jade is present only in the wealthiest offerings, associated mainly to adult individuals (with exception of

E-80). Although shell is not as exclusive as jade, its use also seems to be limited to wealthy people.

There is no silex for this period. Four mica “books” were found associated with offerings in this period, 3 of them in this house, associated with 2 adults and 1 subadult. In this sample, no objects were made of mica. The only mica found in the entire sample, were unmodified, irregular pieces (5-30 cm diameter) of several to many thin layers of this material, known as mica “books”. Hereafter we refer to these books only as mica.

Artifact assemblages include 66 objects: 3 decorated vessels, 4 ceremonial pieces (3 figurines and one broken urn), 39 obsidian blades, 4 bone objects (3 awls and 1 drill), 13 shell objects and 3 micas. As special features we can mention a kiln not used as a funerary depository located in the room N-1 (Feature A-9). This kiln was partially destroyed; along the south and east adobe walls, we registered evidence of long fire exposure, and these areas were filled with ashes and sherds from this period II. The estimated dimensions of this kiln were 60 x 80 cm and 74 cm deep. Another feature was a “ceremonial box” or niche made of stone slabs 37 x 34 cm and 25 cm deep just below the stucco floor of the central patio. Into this niche we found a well-preserved conical cajete of a domestic type.

Inhabitants of this house accumulated considerable wealth during this period. They are the only ones in the sample who have prestige goods such as jade. With respect to the presence of funerary urns, for this period we found only one in tomb 8.1 in this house and two more in each of the two tombs of house EE-B. On the other hand, the almost total absence of ceremonial objects, indicate a group of people more focused

on personal adornment and benefits than involved in the acquisition of ritual paraphernalia.

The use of long-distance trade objects as prestige symbols for several individuals in this house may be an indication of high social position although we lack information related to the movement of these luxury items from distant locations to Monte Albán. Inhabitants from other houses, even in the same barrio, do not have the same wealth as those from Est-A.

Estacionamiento-A'

With the use of subsurface radar we detected and excavated 6 skeletons with 25 associated objects for an average of 4.2 obj/ind. One double burial (E-61) with an adult of undetermined sex and one subadult has 17 objects (7 obsidian blades and 10 shell objects). The other 4 skeletons were 1 male adult (E-71) and 3 subadults (E-62-63, 70) each one of them with 2 objects. None of these skeletons had ceramic, shell or jade, but obsidian and one dog. In any case, all individuals from this house have some kind of offering.

In this house, one individual concentrated a lot of wealth compared with the rest of the inhabitants, in particular obsidian and shell. There are no ceremonial objects in funerary contexts and only 2 objects in the whole house.

Twenty five (25) objects were recovered from non-funerary contexts, 9 decorated ceramic vessels, 4 non-decorated, 2 ceremonial (1 figurine and 1 urn fragment), 8 obsidian blades, 1 mica, and 1 stone for burnishing vessel surfaces.

Estacionamiento-B

No burials or tombs were found for this period. In non-funerary contexts we registered 38 artifacts classified as follows: 5 decorated ceramic vessels, 4 non-decorated, 3 ceremonial (2 figurines and 1 anthropomorphic jar), 22 obsidian prismatic blade fragments, and 4 mica books.

Estacionamiento-C

Six skeletons were excavated: 1 male, adult (E-27) with 3 objects (2 non-decorated vessels and 1 obsidian blade); 2 subadults (E-33, E-64) with one object each one; 1 subadult (E-49), 1 adult of unspecified sex (E-58), and a young female (E-65) with no offering. The average objects per individual is just 0.83. In general the amount of wealth for the whole house is low, but still, adults received more offerings than subadults. The only obsidian object is associated to a male. There is no shell in funerary contexts.

From artifact assemblages we uncovered 21 objects: 2 decorated vessels, 3 non-decorated, 1 ceremonial (figurine), 7 obsidian blade fragments, 2 micas, and 1 necklace with 4 pieces of shell and one whole shell. This necklace was in the same room as the young female described above, but in no direct association with her.

Estacionamiento-D

With the use of subsurface radar we excavated only one burial that correspond to an adult of unspecified sex (E-54), with an offering of 2 objects, 1 incense burner and 1 small dog. In non-funerary contexts, 6 obsidian blades, 1 shell, 1 stone chisel, and 7 micas were found.

Estacionamiento Este-A

In this house we excavated only one adult male with three objects as an offering: 1 non-decorated vessel and 2 obsidian blades. In non-funerary contexts we registered 9 objects: 1 obsidian blade, 3 micas, 1 bone drill, and 4 shells.

Estacionamiento Este-B

In this house 10 skeletons were excavated with a total of 25 objects for an average of 2.5 obj/ind. A special element in this house is the presence of two tombs (T-13, T-14), one aside the other. Tomb 13 had two adult individuals, one male and one female with five objects as an offering. From the objects, it is worth mentioning the presence of two effigy urns, one “principal” and other “acompañante”. The principal is the representation of a seated male with a necklace, wristlets, and bracelets of spherical beads; discoid ear spools, and an elaborate headdress with the flower glyph as main motive. The “acompañante” urn also represents a male with a necklace of spherical

beads attached to the figure and a cylindrical headdress. Both urns had red pigment on them. The rest of the offering is 2 bowls and 1 undecorated jar. One mica book was also found in the tomb. Tomb 14 had 4 skeletons, all adults (2 males and 2 of undetermined sex), and 14 objects (3.5 obj/ind). One of the males (T-14.A) was burned and red pigmented, and one of the adults of undetermined sex (T-14.C) was also burned. Inside the tomb we also found 2 effigy urns, one “principal” and other “acompañante”, 2 used and broken fine grained basalt axes, and 1 shell pendant. One obsidian flake and 4 ceramic vessels: 2 decorated and 2 undecorated. The “principal” urn was also the representation of a seated male with necklace, wristlets, and bracelets of spherical beads; discoid ear spools; mouth mask and cylindrical headdress. Both urns had red pigment on them. Almost in front of tomb 14 we found the burial of a child (E-86) with no offering and traces of having been exposed to fire before the inhumation.

The other 3 burials are one subadult with 2 vessels (E-55) and 1 adult of unspecified sex with one vessel (E-56) . No jade was found, and only a few shell and obsidian objects. Burial 68 (E-68) was partially burned by the use of a kiln that sometime after the burial was constructed near the skeleton’s resting place. It was a child with a zoomorphic miniature vase made in gray paste, probably a toy.

Non-funerary artifact assemblages consisted of 87 objects: 4 decorated vessels; 8 non-decorated; 2 ceremonials (1 brazier and 1 figurine); 48 obsidian pieces, mostly blade fragments and a few flakes; 25 objects considered to be exotic: 2 shell pieces, 1 human bone (humerus) carved and perforated; 22 mica pieces, the largest concentration of mica for this period. Also this house has more obsidian than any other house.

As relevant features we can include the presence of six ceramic objects between two stucco floors of the central patio. The objects were two cajetes, one vase, one miniature jar, one miniature vase, and one tecalli or alabaster cylindrical tube. In the southwest corner of room W-2, over the stucco floor we located three grinding objects: a metate and mano made on basaltic stone and a stone for the molcajete. Below the floor of room N-1 we found a rectangular kiln of 80 x 50 cm and 1 m depth, with their stone walls showing evidence of extensive use and firing.

Analysis by area

In the Pitayo area we just have data from Pitayo B. It is interesting that the kilns were reused for mortuary purposes. In this house as in Estacionamiento A, and Estacionamiento-Este B we found burials in kilns. The mere presence of kilns in some of these houses is an indicator of ceramic production, which would have provided their inhabitants another source of income. By the associated offering associated with the individual buried in Pitayo B, nine objects manufactured with the use of 4 types of material (ceramic, shell, obsidian, and mica) indicates certain prestige and wealth.

In the Carretera area we found in Carr-A a large and well-preserved kiln. As mentioned above, it is a good indication of ceramic production. We do not have enough data to know if ceramic manufacture was a part-time job, considered as household production just to produce their own pottery, a household industry, still a part-time job made mainly by women but more frequently and focused on the sale or part-time trade of the produced pottery, or even a workshop industry where mainly men worked full-

time which would imply a higher level of output than household production. We did not record a significant amount of what are called production implements (tools and items for ceramic production besides the kiln) or product residues (fragments of vessels with some errors in their manufacture) or production results that would indicate mass production of singular pottery types (Arnold III 1991: 92). This lack of evidence may suggest production for domestic use, which would not produce too much waste. Another explanation would be that the evidence that we needed to determine the level of pottery production was destroyed during the construction of the first access road to the site. In any case what we do know is that, based in funerary indicators, architecture and non-funerary ceramic assemblages, (Table 8.5) the inhabitants of this household were the wealthiest and with best health conditions in the Carretera area (Table 8.2).

Table 8.5: Frequencies and Percentages of Sherds, Carretera Area in Period II

	<i>Decorated</i>	<i>%</i>	<i>Non-decorated</i>	<i>%</i>	<i>Ceremonial</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Carr-A	122	18.8	518	79.9	8	1.3	648	100.0
Carr-B	46	31.1	101	68.2	1	0.7	148	100.0
Carr-C	20	36.4	32	58.2	3	5.4	55	100.0
Average	188	22.1	651	76.5	12	1.4	851	100.0

In the Estacionamiento area we have the wealthiest houses and also the most abundant presence of ceremonial activities. In the Estacionamiento barrio, considering both funerary and non-funerary assemblages, Est-A' has the greatest percentage of decorated ceramics. Est-C has, in contrast, the greatest percentage of non-decorated ceramics. The sample of ceremonial ceramics is small, but it is larger in Est-B. It is

interesting to note that many of the figurines, not only in this period but also in IIIa and IIIb, come from non-funerary contexts that may be related to domestic ceremonial activities (Table 8.6).

Table 8.6: Frequencies and Percentages of Sherds, Est. Area in Period II

	<i>Decorated</i>	<i>%</i>	<i>Non-decorated</i>	<i>%</i>	<i>Ceremonial</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Est-A	523	43.4	635	52.6	49	4.0	1207	100.0
Est-B	61	46.9	69	53.1	0	0.0	130	100.0
Est-C	6	26.1	17	73.9	0	0.0	23	100.0
Est-D	0	0.0	0	0.0	0	0.0	0	0.0
Est-A'	290	34.4	551	65.4	2	0.2	843	100.0
EE-A	0	0.0	0	0.0	0	0.0	0	0.0
EE-B	118	50.8	96	41.4	18	7.8	232	100.0
Average	998	41.0	1368	56.2	69	2.8	2435	100.0

Obsidian is well-represented in all the houses, but Est-B has the largest percentage. By its nature and color, its origin seems to be Highland Central Mexico, but we lack information about long distance trade of this imported material into Monte Albán. Shell does not have the same distribution as obsidian, but in houses E-A, E-A', and EE-A, it is an important part of their assemblages (Tables 8.7 and 8.8).

Jade is an imported prestige, high-status material with a restricted distribution (Table 8.7 and 8.8). In this period, it is found only in the funerary contexts of house Est-A. We do not have sufficient information nor a reason to imply a control of any kind in long distance trade or manufacture of these types of objects by the inhabitants of this house.

Mica is a local product but its use is not common in all houses. Est-D presents an important amount of mica, but, in contrast, lacks any kind of ceramic remains for this period.

Table 8.7: Frequencies of Funerary Objects by House in the Est. Area. Period II

	<i>Decor</i>	<i>No decor</i>	<i>Cerem</i>	<i>Obsid</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Faunal</i>	<i>Mica</i>	<i>Stone</i>	<i>Total</i>
Est-A	18	10	4	74	44	15	7	4	6	2	184
Est-B	5	4	3	22	0	0	0	0	4	0	38
Est-C	3	6	1	8	5	0	0	0	2	0	25
Est-D	0	0	0	6	1	0	0	0	7	1	15
Est-A'	9	4	2	19	11	0	1	1	1	2	50
EE-A	0	1	0	3	4	0	1	0	3	0	12
EE-B	13	13	7	50	3	0	1	0	23	2	112
Total	48	38	17	182	68	15	10	5	46	7	436

Table 8.8: Percentage of Funerary Objects by House in the Est. Area. Period II

	<i>Decor</i>	<i>No decor</i>	<i>Cerem</i>	<i>Obs</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Faun</i>	<i>Mic</i>	<i>Ston</i>	<i>Total</i>
Est-A	9.8	5.4	2.2	40.2	23.9	8.2	3.8	2.2	3.3	1.1	100
Est-B	13.1	10.5	7.9	57.9	0	0	0	0	10.5	0	100
Est-C	12	24	4	32	20	0	0	0	8	0	100
Est-D	0	0	0	40	6.7	0	0	0	46.6	6.7	100
Est-A'	18	8	4	38	22	0	2	2	2	4	100
EE-A	0	8.3	0	25	33.4	0	8.3	0	25	0	100
EE-B	11.6	11.6	6.2	44.6	2.7	0	0.9	0	20.5	1.8	100
Aver	11	8.7	3.9	41.7	15.6	3.4	2.3	1.2	10.5	1.6	100

From the Estacionamiento barrio, Est-D was the house with the largest excavated area (320 m²); also its closeness with the plaza south of the East ballcourt is

an aspect that needs more detailed examination. Even more, the possibility that Est-D was not only used as a domestic unit but for ceremonial purposes also deserves attention (Tables 8.7 and 8.8).

In sum, considering on the one hand, the exclusive use of jade objects and its high percentages of shell and obsidian, and on the other hand, the amount and variety of the offering associated with the skeletons excavated, house Est-A seems to be the residence of the wealthiest individuals in this period.

Houses Est-A', EE-B, and Est-B are close but secondary. Although this house hierarchy is not in direct association with relative house sizes, we can say that at least these 4 houses are among the 5 largest houses in the Estacionamiento. An additional element to support this classification is that at Est-A, the central patio is the only one with enhanced corners, and the entrance to each one of the main rooms is by four wide steps inset into the structure.

Analysis between Areas

For this period we will compare wealth levels between houses from Pitayo, Carretera, and Estacionamiento. To do so, we are including both funerary and non-funerary assemblages (Appendixes A and B). Carr-A is the house in Carretera barrio with the largest percentage of decorated ceramics and shell that can be considered as a reflection of higher status or wealth level. In contrast, Carr-B has greater percentage of domestic, non-decorated ceramics. Meanwhile, Carr-C has by far, the greatest percentage of ceremonial ceramics, obsidian, and bone objects.

None of these houses have jade or turquoise. Carr-A is the largest in Carretera area but all of the Estacionamiento houses are larger. For this period II we only registered tombs in three houses Carr-A, Est-A and EE-B, this last one containing two tombs. In all of these tombs we registered the presence of urns as probable representations of ancestors (Marcus 1994).

By the percentages and characteristics of artifact assemblages in the Estacionamiento houses, it seems that their inhabitants had significant wealth and enjoyed the use of long-distance, prestigious trade objects. In this case, the burial of a subadult with the largest and wealthiest offering in house Est-A is not only evidence of an inherited status, but also of the great social differences among houses within and between barrios.

It is also evident that between areas, Estacionamiento has larger houses with wealthier inhabitants than Carretera and Pitayo.

Basis of Social Stratification

The first conclusion is that in the interior of each domestic unit there existed marked hierarchical differences. In all the houses we found individuals with more wealth than others, probably related to achieved status or labor specialization.

The major internal division is based on sex and age: males have more offering than females, and adults are wealthier than subadults and children. Those buried in tombs were also accompanied by greater offerings than in burials. Besides the amount

of objects, their quality and material composition are also ways of seeing these differences (Table 8.3).

For this period, there are a total of 45 skeletons and 206 associated objects (4.6 obj/ind). Two thirds of the individuals (66.6%) had at least one object as an offering. Nineteen of them (42%) are adults and 26 subadults (58%). Analyzing the distribution of associated objects to the skeletons, there is a notable difference based on age (Table 8.9). With the exception of burial E-80, it is common to find adults with more offering than subadults. Also, from 10 individuals located in tombs, 9 were adults and only one was a child; but of those found in burials, only 10 individuals out of 45 were adults, which is an indication that adults received better funerary treatment probably related to greater prestige into the domestic group.

Table 8.9: Distribution of Funerary Objects by Sex, Age and Type of Interment

	<i>Males (N=10)</i>		<i>Females N=2</i>		<i>Unknown N=7</i>		<i>Subadults (N=26)</i>	<i>Total (N=45)</i>
	<i>tomb</i>	<i>burial</i>	<i>tomb</i>	<i>burial</i>	<i>tomb</i>	<i>burial</i>		
Obsidian	3	12	0	0	7	15	18	55
Shell	1	0	0	0	1	3	42	47
Jade	1	0	0	0	0	2	12	15
Decor	11	1	0	0	6	0	16	34
Non-dec	9	6	0	0	1	4	7	27
Cerem	5	0	0	0	0	1	2	8
Total	30	19	0	0	15	25	97	186

To evaluate differences based on sex was not easy due to the fact that 33 individuals from this period (73.3%) were not sexed, 14 of them were subadults, and 19 more were adults in such poor preservation conditions, lacking the bones used for sex

determination, or both. Considering only the 28 individuals of whom sex was determined, 5 males and one female were buried in tombs, while the same proportion (5 males and 1 female) was found in burials. Males had 4.1 objects per individual on average, while females had only 1.7 obj/ind. This unequal treatment in death between males and females may be a reflection of gender differences in Monte Albán families in this period.

Studies of social inequality at Monte Albán have encountered problems when the population was divided depending on place of interment (Wilkinson and Norelli 1981; Blitz 1995). Their inferences were not in terms of the social structure but instead of the internal differences within each residential unit (González Licón and Márquez 1990; González Licón 1997). Elsewhere we presented an analysis about the correlation between health, nutrition, and social stratification at Monte Albán, including a comparison with other Mesoamerican populations including Tlatilco, Cuicuilco, and Tlajinga 33 at Teotihuacán among others (Márquez and González Licón 2001). Here I include the most relevant issues in comparing only Monte Albán II, Tlatilco, and Cuicuilco.

Tlatilco was one of the first permanent settlements in the Basin of Mexico with very low population densities during Early and Middle Formative. Tlatilco (1400-900 B.C.) was located on the west shore of the Lake of Mexico. The subsistence system was based on agriculture and the exploitation of lacustrine and terrestrial resources: maize, squash, bean, and pepper cultigens were part of their diet, as well as some species of fishes, small rodents, deer, peccary, and rabbit. Population estimates are about a few hundred inhabitants; unfortunately the number of houses and their floor plans are

unknown. Evaluation of wealth and prestige differences has been attempted by the quantity and quality of the associated offerings to females, concluding that it was possibly a matrilineal kin-ranked society (Tolstoy 1989). Chronologically Tlatilco is more related to San José Mogote (Tierras Largas and San José phases), but we do not have the data needed to make such a comparison for Period II.

Cuicuilco (1200-400 B.C.) is located in the southeast of the Basin of Mexico and at its developmental peak reached 5,000-10,000 inhabitants with a great level of sociopolitical centralization. In the Basin of Mexico, between 300 B.C. to A.D. 1, Cuicuilco and Teotihuacan were competing chiefdoms until the emergence of the latter as a state society, due in part to the volcanic eruption of Xitle, which almost completely covered Cuicuilco with lava. The Cuicuilco economy was based on intensive agriculture using simple irrigation through canals and terracing. Artisan production and internal and external trade was also important. Cuicuilco had a permanent ruling elite, and economic surplus was extracted from neighboring dominated villages. There is not much information about Cuicuilco's settlement pattern, number and floor plans of the houses, or daily life. Social differences have been assumed by the offerings associated to the excavated burials, most of them deposited in bell-shaped pits in different positions (Márquez et al 2002b: 314-315; Tolstoy 1989). Again, chronologically Cuicuilco corresponds to pre-Monte Albán phases, but due to the same lack of demographic data we use it to compare with Period II.

For period II or the Late Formative we have percentages of Criba orbitalia and porotic hyperostosis in Monte Albán, related to iron-deficiency anemia, at 4.7%, while at Tlatilco rates were 11%, and at Cuicuilco 34%. Hipoplasia in incisors, related to

malnutrition occur at a rate of 11.7% in Monte Albán, 30% in Tlatilco, and 26% in Cuicuilco. Systemic infections at Monte Albán for this period were non-existent, while in Tlatilco were found in 7.5% of cases, and 6.8% at Cuicuilco. In contrast we have at Monte Albán 23.8% of abscesses, and only 3% in Tlatilco and Cuicuilco. Although the economy in Tlatilco included lacustrine resources and their social differences were still incipient, there were significantly greater health problems there than in Monte Albán for period II. The same can be said for Tlatilco, whose economy and social development were more or less similar to those at Monte Albán. But in comparison, Monte Albán inhabitants had less infections, parasites and malnutrition.

CHAPTER 9

THE EARLY CLASSIC (PHASE IIIa)

Introduction

By the Early Classic (A.D. 200-500), Monte Albán was the political center of the Valley with a civic and elite residential area (Blanton 1978: 63). The population at Monte Albán grew, reaching 16,500 people. The leveling of the Main Plaza continued and more buildings were erected along the sides of the plaza. Military themes persisted on Monte Albán monuments, which were now freestanding stelae, but the extent of Monte Albán's military conquests decreased drastically. The Monte Albán state apparently lost territory and influence as the powerful central Mexican state of Teotihuacan expanded. Although the Monte Albán polity apparently was unable to compete with Teotihuacan for political and economic access to most other regions, special ties linked both states. Even though there is no evidence of war between the two states, they had special arrangements among them, including the presence of a Oaxaca barrio in Teotihuacán since the end of phase II and beginning of phase IIIa (Rattray 1987, Spence 1992). At Monte Alban, however, there is no evidence of a permanent Teotihuacan presence, although there is a clear influence in architecture, mural painting, tomb decoration, stelae inscriptions, and ceramic forms and decorations. Nevertheless, the number of imported items from Teotihuacan that have been found at Monte Albán is small (González Licón 1997, Paddock 1978: 46).

Monte Albán's population growth was minor compared to the much more rapid expansion that occurred at secondary and tertiary centers in the region. Unlike the three

prior phases, the region was not dominated demographically by a single center in Monte Albán IIIa. Jalieza was an impressive second level center with a total population of 12,835 people, settled on 408 ha over a mountain ridge in the Zaachila-Zimatlán Valley with more than 676 artificial terraces and at least twenty public buildings (Marcus and Flannery 1996: 226). During this time, Monte Albán retained its preeminent political position in the Valley and the region's population was more integrated than it had been in Monte Albán II. In other words, there was more economic interaction and dependence among families. The available information gives an idea about social and urban complexity accomplished by the Monte Albán inhabitants by the Terminal Formative and Early Classic periods.

Elsewhere (Márquez et al. 2001) we compared populations from four Mesoamerican urban centers from the Classic period: (1) Tlajinga 33 at Teotihuacán with 50 skeletons; (2) 151 individuals from period II and IIIa of Monte Albán; (3) a sample of 201 individuals from various temples and palaces from Palenque; and (4) a sample of 239 skeletons from House of the Bacab at Copán.

Presence of Spongy hyperostosis and Criba orbitalia are higher in tropical, humid environments at the Maya cities analyzed, and are related to the presence of parasites and diseases. Infections are also more frequent in the Maya cities than in Monte Albán or Tlajinga 33 and are a reflection of living conditions and health. Hipoplasia in incisors and canines, related to malnutrition, are higher in Palenque and Copán, followed by Tlajinga 33 with 55.2%. In Monte Albán we registered 11.7% for period IIIa. Individuals at Palenque exhibited higher levels of infections, malnutrition, and diseases, but their life expectancy at birth was 26.9 years (Márquez et al. 2002b).

This is not as low as in Tlajinga 33, which is 20 years of age (Storey 1992: 157), and indicates a population adapted to this environment and the respiratory and gastrointestinal infections present. Individuals from Monte Albán, with a life expectancy at birth of 26.2 years, and better ranges than the other sites of mean-age-at-death, and fertility (Márquez et al. 1994: 29), exhibited the better environmental living conditions and their adaptation to it in their skeletons. Still the Monte Albán population faced infections and hygiene problems due to open-air defecation, and contamination during storage, preparation, and food preservation.

For period IIIa we observe in Monte Albán a percentage of 3.7% of *Criba orbitalia* and porotic hyperostosis, while in Tlajinga 33 it is 6%. Hipoplasia in incisors is 11.7% at Monte Albán, and 81% at Tlajinga 33. Systemic infections at Monte Albán for this period IIIa were 18.4%, and 14% at Tlajinga 33. In Monte Albán we observed 7.6% of abscesses, while at Tlajinga 33 at abscesses were only 1%.

Tlajinga 33 is one of the many Teotihuacan compounds, located in the southern edge of the city. It was occupied during the Middle Horizon (A.D. 150-750), and it is a good example for comparison because it is not an elite compound but a neighborhood specializing in ceramic craft-working, and lapidary working. A total of 104 rooms, several patios, and central rooms have been identified in the Tlajinga 33 compound, which would have housed around 100 inhabitants, or between 15 to 20 families living at the same time. The inhabitants would have made their living by craft specialization and would have been dependent upon some form of market exchange to acquire most of their food. In terms of architectural layout, the Tlajinga 33 compound is smaller and more poorly built than any of the other excavated compounds, with maybe the exception

of La Ventilla B. It is representative of the lower social strata of Teotihuacan society (Storey 1992), and therefore provides a good comparison with the Monte Alban data, in order to highlight how the health and nutritional conditions were better at Monte Albán than at Tlajinga 33 in period IIIa.

Analysis by Domestic Unit

For this period we have data from all the houses with the exception of Estacionamiento D, Estacionamiento Este-A, and Estacionamiento Este-B (Appendixes A, B and C). As funerary indicators we recovered 43 individuals from burials (Table 9.1, parts I and II) and 30 individuals from tombs (Table 9.2). It is interesting to mention that all the tombs but one (T-10) had more than one individual. The Zapotec gave special importance to the house tomb, which was reserved for the family head. Prestigious members of the household that had been buried before were moved aside to allow the last corpse, and its offerings, to be placed in the center of the main chamber.

Pitayo A

For this period we appreciated at least two constructive stages that ended with the house as we have it in the architectural plan. With the use of subsurface radar we located a kiln in the west side of the south room. Later, in period V, the kiln was used as a funerary depository (E-2). The kiln was 80 x 110 cm and 80 cm deep, with ashes at its bottom. Their walls were hardened and reddened by fire.

Table 9.1: Burials from Period IIIa, Part I

<i>Area</i>	<i>Unit</i>	<i>Lo</i>	<i>Fo</i>	<i>Ag</i>	<i>Sex</i>	<i>Ty</i>	<i>Pos</i>	<i>Orie</i>	<i>Heal</i>	<i>Mod</i>	<i>Qua</i>	<i>Vari</i>	<i>Dec</i>	<i>Nde</i>	<i>othe</i>	<i>Obs</i>	<i>She</i>	<i>Jad</i>	<i>Bon</i>	<i>Fau</i>	<i>Tur</i>	<i>Mic</i>	<i>Sile</i>	<i>Sto</i>	<i>Exo</i>
Pi-A	E-05	4	3	5	1	1	1	1	1	0	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0
Pi-B	E-03	1	3	6	1	1	3	3	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Ca-A	E-17	2	3	4	1	1	6	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-A	E-18	1	3	5	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-C	E-19	2	2	5	2	1	1	2	2	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Ca-C	E-20.A	2	2	1	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-C	E-20.B	2	2	3	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-C	E-20.C	2	2	4	1	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-C	E-21	2	3	5	1	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-22.A	5	3	2	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-22.B	5	3	5	2	2	8	1	2	4	15	2	2	0	0	13	0	0	0	0	0	0	0	0	0
Es-A	E-23	5	3	2	0	1	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-26.A	2	2	4	2	2	1	4	2	0	5	1	1	4	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-26.B	2	2	5	1	2	2	4	2	3	6	4	0	1	1	0	1	0	1	0	0	0	0	2	4
Es-A	E-28	4	3	2	0	1	4	2	2	2	2	2	0	1	0	0	0	0	0	0	0	1	0	0	1
Es-A	E-34	1	3	5	1	1	3	4	2	0	5	1	4	1	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-35	1	3	7	0	1	0	3	1	0	12	1	4	8	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-36	1	3	7	0	1	1	2	1	0	5	2	2	2	0	0	0	0	1	0	0	0	0	0	1
Es-A	E-37	1	3	1	0	1	5	1	1	0	4	1	2	2	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-38	1	3	5	1	3	0	0	2	5	14	3	1	2	0	9	0	0	0	2	0	0	0	0	2
Es-A	E-39	1	3	1	0	1	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 9.1: Burials from Period IIIa, Part II

<i>Area</i>	<i>Unit</i>	<i>Lo</i>	<i>Fo</i>	<i>Ag</i>	<i>Sex</i>	<i>Ty</i>	<i>Pos</i>	<i>Orie</i>	<i>Heal</i>	<i>Mod</i>	<i>Qua</i>	<i>Vari</i>	<i>Dec</i>	<i>Nde</i>	<i>othe</i>	<i>Obs</i>	<i>She</i>	<i>Jad</i>	<i>Bon</i>	<i>Fau</i>	<i>Tur</i>	<i>Mic</i>	<i>Sile</i>	<i>Sto</i>	<i>Exo</i>
Es-A	E-42.A	1	3	5	1	2	9	0	2	0	9	2	2	3	1	0	0	0	0	0	0	0	3	0	3
Es-A	E-42.B	1	3	5	1	2	9	0	1	0	9	1	6	3	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-43.A	1	3	7	0	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-43.B	1	3	1	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-43.C	1	3	1	0	4	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-44.A	1	3	7	0	1	7	0	1	0	3	1	0	3	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-44.B	1	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-45.A	1	3	1	0	1	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-45.B	1	3	7	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-47	1	3	1	0	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A	E-73	4	3	2	0	1	6	1	1	0	26	7	0	0	6	10	3	2	1	1	0	3	0	0	10
Es-A	E-74	4	3	6	1	1	6	2	1	0	4	4	0	1	0	0	1	0	0	1	0	1	0	0	3
Es-A	E-75	2	3	5	2	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-B	E-32	2	3	1	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-B	E-48	1	3	5	0	3	0	0	1	0	4	2	0	1	1	0	2	0	0	0	0	0	0	0	2
Es-C	E-31	1	3	5	2	3	0	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Es-C	E-60	4	3	5	0	4	0	0	0	0	7	3	1	2	0	3	1	0	0	0	0	0	0	0	1
Es-A'	E-53.A	4	3	5	0	2	1	3	1	0	8	2	0	3	1	0	0	0	4	0	0	0	0	0	4
Es-A'	E-53.B	4	3	5	1	2	1	4	2	0	20	5	0	4	2	9	3	0	1	1	0	0	0	0	5
Es-A'	E-66	1	3	7	0	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A'	E-67	1	3	1	0	1	10	3	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Es-A'	E-72	1	3	1	0	1	6	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 9.2: Individuals in Tombs for period IIIa

<i>Area Unit</i>	<i>Loc</i>	<i>For</i>	<i>Age</i>	<i>Sex</i>	<i>Pos</i>	<i>Orien</i>	<i>Heal</i>	<i>Modif</i>	<i>Quan</i>	<i>Dec</i>	<i>Ndec</i>	<i>other</i>	<i>Obsid</i>	<i>Shell</i>	<i>Bon</i>	<i>Fau</i>	<i>Turq</i>	<i>Mica</i>	<i>Sile</i>	<i>Exot</i>	
Ca-A T-4.A	2		5	1	0	0	4	0	8	3	1	4	1	0	0	1	0	0	0	0	1
Ca-A T-4.B	2	1	6	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-A T-4.C	2	1	5	1		0	4	0	0		0	0	0	0	0	0	0	0	0	0	0
Ca-A T-4.D	2	1	7	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-B T-7.A	2	1	5	1	2	1	4	3	0	5	2	1	2	0	0	0	0	0	0	0	2
Ca-B T-7.B	2	1	5	0	4	0	4	0	0	2	1	0	2	0	0	0	0	0	0	0	0
Es-A T-8		1	0	0	0	0	0	0		3	0	4	2	0	1	0	0	0	1	2	4
Es-A T-8.A	2	1	5	1	2	1	2	3	0	4	1	0	4	0	0	0	0	0	0	0	0
Es-A T-8.B	2	1	5	2	2	1	2	3	0	6	1	3	3	0	0	0	0	0	0	0	0
Es-A T-8.C	2	1	5	1	4	1	4	3	0	4	1	0	4	0	0	0	0	0	0	0	0
Es-B T-9.A	2	1	5	1	4	0	0	3	0	16	6	0	3	4	1	2	0	0	4	2	9
Es-B T-9.B	2	1	5	1	4	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-B T-9.C	2	1	5	2	4	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
Es-B T-9.D	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-B T-9.E	2	1	5	0		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Es-B T-9.F	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-B T-9.G	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-10	2	1	5	1	1	3	1	3	0	7	3	0	2	1	0	3	1	0	0	0	4
Es-A' T-15.A	2	1	5	1	1	5	1	2	0	41	7	2	7	2	15	3	7	0	0	2	15
Es-A' T-15.B	2	1	5	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-15.C	2	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-15.D	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-15.E	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-15.F	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-16.A	4	1	1	0	4	0	0	3	4	31	7	8	12	3	2	1	1	1	0	2	6
Es-A' T-16.B	4	1	5	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-16.C	4	1	5	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-16.D	4	1	5	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-16.E	4	1	5	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
Es-A' T-16.F	4	1	5	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0

We excavated a burial below the stucco floor of the East room of an adult male (E-5) who had enjoyed good health conditions. Three objects, as offerings, were recovered: a conical cajete of gray paste, with divergent high walls; a miniature tecomate of globular body with two small vertical solid handles; and a brazier with a human face of almost 20 cm in height broken into fragments.

In non-funerary contexts 2 non-decorated vessels, 4 obsidian blades, and 4 exotic objects (2 tecalli cylinders and 2 stone axes) were found, for a total of 10 objects.

Pitayo B

Below the central patio we excavated one adult male individual from a burial that also contained an offering of a non-decorated vessel (E-3). He exhibited good health in life. In non-funerary contexts, 3 obsidian blades, 3 shell and 1 silex objects were unearthed for a total of 7 objects.

Carretera A

From this period, 6 skeletons were excavated, 4 in a tomb with 8 objects (T-4), and 2 skeletons in single burials with no offerings: a young male of 11-15 years old (E-17) and an adult female (E-18). The tomb had 4 adult individuals, 2 males, 1 female, and 1 unspecified. Of the associated objects, the most important is an effigy urn with two small vessels. Also included were 4 non-decorated vessels, 1 decorated bowl, 1 carved animal bone, and an obsidian flake. The tomb is of rectangular plan, with well

cut stone walls coated with lime plaster, niches, an entrance door, and access hall. The tomb was 2.35 m in length, 1 m wide and 1.75 m in height. The roof has angular vault, leaving intervals between the stones. It has two niches in the lateral walls, one in front of the other. The niches are 20-25 cm height, with a depth of 20 cm and width of 25 cm.

In non-funerary contexts, a decorated vessel, 1 non-decorated vessel, 1 cylindrical bowl, 41 obsidian fragments and 3 shell pendants were recovered. Of the 3 shell pendants, one was made of five pieces of shell and bone, another was made of 3 circular plaques of shell and the last one was made of two pieces of trumpet shell.

In the Southwest room, we excavated a feature of two small cavities or holes. They were two clay-plastered cooking pits incorporated into the floor. Average dimensions for them are a diameter of 40 cm by 25 cm deep. They were partially filled with small boulders with strong evidence for firing, ashes, and broken jar bottoms. Also the two chambered kiln reported for period II was still in use during this period.

Carretera B

Below the center of the north room we explored one tomb with two individuals. The tomb was clearly used twice. The first deposit was an adult of undetermined sex (T-7.B) with one conical cajete and one bridgespout jar. Latter the first skeleton was moved aside with its offering and the second individual (T-7.A) was placed in the middle of the tomb. The second individual was an adult male with an offering of five objects: a tripod conical bowl, a miniature vase, a Cociyo effigy bridgespout jar, a bone needle and a bone graver. After the use of the tomb for the second time, the tomb filled with earth and

rubble and sealed with the stucco floor, rather than covered on top with stone slabs. The decomposition of the corpse and compaction of the earth produced a sinking floor which was repaired three times. Over these stucco floors we found evidence of intense firing, which may be evidence that some ceremonies were carried out in commemoration of the deceased.

We also recovered 18 artifacts in non-funerary contexts and were classified as: 1 decorated vessel, 5 non-decorated vessels, 6 ceremonial items (3 incense burners, 2 figurines, 1 incomplete effigy urn), 5 obsidian blades, and 1 bone pendant.

Carretera C

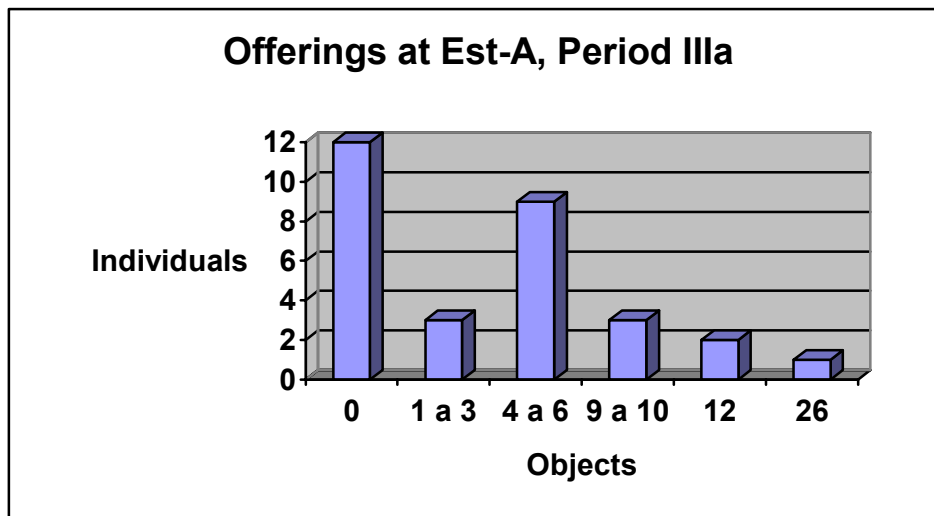
Five skeletons were recovered from 3 burials: 2 single burials and 1 collective burial containing three individuals. One of the single burials was primary, adult female with an obsidian blade (E-19), the only obsidian blade associated with a female in this period. The other single burial was an old male (E-21), and the collective burial contained 1 young male (E-20.C), one infant (E-20.A), and one subadult (E-20.B) all secondary, and none contained offerings. In non-funerary contexts only 1 decorated vessel was found.

Estacionamiento A

In this house we used subsurface radar over the entire house area before excavation, and marked any anomaly detected. In total we explored 30 skeletons with

127 associated objects for an average of 4.2 objects per individual, for this period. From this sample, 5 skeletons (17%) were buried in one tomb (T-8 and T-8.1) with 36 objects (28%) for an average of 7.2 obj/ind. 25 skeletons were buried in 19 burials with 91 objects (72%) with an average of 3.6 obj/ind. In sum, individuals deposited in tombs had an average of twice as many offerings than individuals from burials (Table 9.3).

Table 9.3: Funerary Offerings at Estacionamiento A, Period IIIa



Analyzing the skeletons from period IIIa at the house Estacionamiento A by age, we found 18 adults with 84 objects (4.6 obj/ind), and 12 subadults with 43 objects (3.6 obj/ind). In other words, 60% are adults and have 66% of the total offerings, while 40% are subadults with 34% of the total offerings. From the 18 adults, 4 were buried in a tomb (22%) with 26 objects (6.5 obj/ind); 14 of the adults (78%) were buried in burials with 58 objects (4.1 obj/ind). From the 12 subadults, 1 was buried in a tomb (8.3%) with 10 objects, and the other 11 subadults (91.7%) were buried in burials with 33 objects (3 obj/ind). In other words, adults have, in general, almost twice the amount of offerings

than subadults, and adults from tombs also have 50% more offerings than the adults from burials. In general, it is more common to find adults in tombs, but in the few cases of subadults buried in tombs, they also have more offerings than the subadults from burials. This percentage indicates a clear funerary pattern: Independently of age, those individuals buried in a tomb, received a larger offering, which indicates a more expensive treatment and a higher status into the household. This conclusion is extensive during this period for all the sampled houses.

For an analysis of gender we classified them as 8 males (27%), 4 females (13%), 6 adults with non-defined sex due to poor preservation conditions (20%) and 12 subadults (40%). The 8 males had 41 associated objects (5.1 obj/ind); two of the individuals were deposited in tombs with 8 objects (4 obj/ind) and the other 6 in burials with 33 objects (5.5 obj/ind). The 4 females had a total of 11 associated objects (2.7 obj/ind); one individual recovered from a tomb with 6 objects and the other 3 females in burials with 5 objects. From the 6 adults with undetermined sex, one was in a tomb with 12 objects and the other 5 adult individuals were from burials with 20 objects, for a total of 32 objects; an average of 5.3 objects per individual. The 12 subadults had 43 objects in total (3.6 obj/ind), one individual from a tomb with 10 objects and 11 other individuals in burials with 33 objects.

Based on the above information we can infer that in this domestic unit the male adults had a greater amount of objects as offerings. In this analysis we also include the adults with undetermined sex. At this scale, subadults were in the middle and women were the group with the lowest average quantity of associated offerings. Males in burials were accompanied with more objects than males found in tombs, which is not common.

A possible explanation for this pattern may be that males in burials were accumulating more wealth than hierarchy in the household, which would indicate that being buried in a tomb was more the result of kinship or prestige than wealth. In other cases, those deposited in tombs had greater offerings than in burials.

The individual with larger quantity of offerings is, as in period II, a child of 3-10 years old (E-73) of undetermined sex, with 26 objects which include a necklace of 12 beads (counted individually due to the nature of the beads: 7 of them made with clay, 3 of shell, one of jade, and one of bone), 1 fish bone, 9 green obsidian blades, and 3 mica books. The total amount of offerings from this tomb 8, 8.1 was 36 objects, but 5 individuals were inside it (one subadult, two male adults, one female adult, and one adult with undetermined sex). From this tomb, which starts to be used in period II, the individual registered as T-8.1B, an adult with undetermined sex had 12 objects among them, including an effigy funerary urn with the representation of a seated male with cape and serpent headdress. The rest of the offering contained 4 decorated vessels and 2 non-decorated vessels. There are no jade or shell and just one obsidian flake and one blade. The same amount of objects had E-35, an old individual with sex undetermined but its offering was only ceramic vessels, 4 decorated and 8 non-decorated.

What we see is that during period II and also in period IIIa, the death of these subadults indicates the existence of achieved social status by birth (Saxe 1970: 8), probably a direct heir/heirress of the family head. The fact is that it had a great impact on the household and they were buried with the largest offering in each period.

Interesting is the fact that these important subadults were not buried in the family tomb. The reasons for that behavior are not known, but we do know that in general the tomb of each house was reserved for prestigious adults and this may be the case here. Another aspect that deserves attention is the apparent inequality among members of the same domestic unit. In Table 9.4, funerary offering distribution by sex and age indicates that 12 individuals received no offerings at all and are in the same proportion of adults and subadults. On the other side, 3 individuals (10%) received 40% of the offerings. We have also an intermediate group of 15 individuals (50%) that received the other 60% of the offerings.

Table 9.4: Funerary Offering Distribution by Sex and Age, Est-A, Period IIIa

<i>Number of Objects</i>	<i>Number of Individuals</i>	<i>Males</i>	<i>Females</i>	<i>Adult sex unspecified</i>	<i>Subadult</i>
26	1	0	0	0	1
12	2	0	0	2	0
9-10	3	2	0	0	1
4-6	9	5	2	1	1
1-3	3	0	0	1	2
0	12	2	2	2	6
Total 127	30	9	4	6	11

As for other features the subsurface radar detected below the central patio floor, in an area of 3.20 x 2.20 m and 20-45 cm deep, a large number of children skeletons associated with the tombs and with a Tlecuil or “ceremonial box”, were identified. We registered 15 skeletons (12 children and 3 adults), 1 skull, a ceremonial box, and 33 associated objects. Most of the objects were broken ceramic vessels: 30 bowls (4

carved bowls, 1 conical bowl stuccoed in its exterior wall, 1 tripod conical bowl, 20 conical bowls, and 4 semispherical bowls), one effigy urn fragment, and two silex projectile points. The ceremonial box was located 50 cm in front of tomb 8 and was 50 x 28 cm in size, and 20 cm deep. In this box we found two conical bowls facing each other.

Another feature in the central patio consisted of an assemblage of vessels and bones located below the stucco floor of the southwest corner. We located this non-funerary ritual deposit in an area 1.10 x 1.80 m in size, and 10 cm deep. It contained 2 domestic non-decorated bowls, 1 domestic jar type C-2, 1 incense burner type G-3, 1 stone percussion instrument, fragmented human bones (left femur, fragment of clavicle, and skull fragment), fish bones, and animal bones probably from a middle-size mammal. We also excavated a kiln in the northeast corner of room N-2. It was 1.40 x 0.65 m in size, and 1.30 m deep. It was filled with abundant sherds and ashes. At the bottom we found 6 broken domestic vessels (jars and vases) and mid-size boulders with evidence of intensive firing. Its adobe wall was reddened and hardened by long fire exposure and high temperatures.

In non-funerary contexts, we registered 112 objects. They were classified as 4 decorated vessels, 11 non-decorated vessels, 10 ceremonial ceramics (2 vases with anthropomorphic faces, 2 braziers, 5 figurines, and 1 clay pipe), 51 obsidian pieces, and 36 exotic objects (5 shell pieces, 2 bone objects and 29 mica books).

Estacionamiento A'

In this house, with the use of subsurface radar, we detected and excavated 18 skeletons with 108 associated objects, for an average of 6.3 objects per individual. 13 skeletons were explored in 3 tombs: one individual in one tomb with 7 associated objects (T-10), the other two tombs had 6 individuals, each one with 31 (T-16) and 41 objects (T-15), with an average of 5.1 and 6.8 per individual, respectively.

We excavated five skeletons from burials, three of them single burials, containing: one newborn with no objects (E-66); one child with one object (E-67); and another child with no objects (E-72). The other burial contained two individuals (E-53), which also contained 28 objects: one adult male (E-53.B) with 20 objects and the other adult, of undefined sex (E-53.A), with 8 objects.

In this Estacionamiento A' house, artifact groupings by sex equal: 3 males with 68 objects, 14 adults of undefined sex with 40 objects and no females. Only one of the males comes from a tomb and the other two from burials. The age categories for these individuals are: 14 adults and 3 subadults.

We obtained a large sample of the amount and variety of offering. Tomb 15 contained 6 individuals and 41 objects (6.8 obj/ind), of which a necklace with 7 jade beads, a shell pectoral, two trumpet shells and 15 obsidian pieces stand out. From the other tomb (T-16) with 6 individuals and 31 objects we classified 20 ceramic vessels, 8 of them decorated; incense burners, clay pipes, a jade bead, a shell bead, two obsidian pieces and a quartz polisher.

The offering associated with the adult male in tomb 10 had one domestic bowl, one ceramic vase, one jade bead, one shell bead, an effigy urn and two shell armlets. Burial 53 (E-53), with two individuals, had 28 objects. From this burial, the male (E-53.B) had 20 objects as an offering, 9 pieces of obsidian including one core, a bone point, a clay pipe and four non-decorated vessels among them. In this same burial, the individual of undefined sex had 8 objects, including a funerary effigy urn with the representation of an individual wearing a serpent mask, four bone needles and three non-decorated bowls.

In this house just two individuals had no offerings and they were children. The individuals from the tombs contained 73% of the offerings. Wealth was not equally distributed among the inhabitants of this domestic unit, but the two adult individuals from the double burial (E-53) had 28 objects, more than the adult male from Tomb 10. This indicates a clear difference by age, where adult people received more offerings and attention than young individuals as a reflection of their social position into the house.

In the southeast corner of the central patio we located a ritual deposit in a *tlecuil*, with a human skull and three domestic vessels.

Additionally, 103 non-funerary objects were excavated: 3 decorated vessels, 16 non-decorated vessels, 6 ceremonial ceramics (4 figurines, 1 brazier, and 1 clay pipe), 65 obsidian fragments, and 13 exotic objects (6 shell objects and 7 mica books).

Estacionamiento B

In this house we excavated a tomb with 7 individuals and 16 associated objects (T-9), and two single burials: one subadult with no offering (E-32), and one adult of undetermined sex with 4 associated objects (E-48).

Tomb 9 is one of the longest explored, it is 6 x 1.30 m. and it is divided into a main chamber (2.50 x 1m) with three niches, an antechamber (2.40 x 1.10 m) with two niches, and a vestibule (1 x 1.30 m). The roof is a combination of angular vault in the main chamber and flat-roofed in the antechamber. All the walls are stone, coated with stucco with the remnants of red paint on them. All the individuals from tomb 9 are adults, and all in secondary deposition. Due to their poor preservation conditions we could only identify two males and one female.

As for offerings, there was one pipe-like, one jade bead, one jade plaque, three dog-like figurines, three obsidian blades, one obsidian flake, one shell, two mica books, and the only four fragments of turquoise recovered in this sample. Turquoise is a scarce good in Monte Albán and it was generally used to make objects associated with ritual, religion, or ceremony. The fragments found in this tomb were not modified. Although the sample for this tomb is small, it indicates a great variation and value in the objects deposited. Certainly the presence of the turquoise and the two jade objects confer exceptional value to it. These are objects obtained through long distance trade and their possession conveys high prestige. However, we lack any information related to their importation to Monte Albán.

The offering associated with the adult of undetermined sex (E-48) is not common, since it contained an ear spool and a shell pectoral, besides a decorated vessel and another without decoration. There were only 4 ear spools recovered in this field season.

As other non-funerary ritual deposits we excavated, an “offering box” in the northeast corner of the central patio was found, close to burial 48. This offering box was 28 x 32 cm and 22 cm deep. It contained a ceramic figurine with the representation of an old man holding an atlatl and necklace; a stone hammer; one vase of vertical walls; and 9 domestic bowls.

From this house, a total of 110 non-funerary objects were found: 5 decorated vessels, 22 non-decorated vessels, 4 ceremonial ceramics (1 Teotihuacan-style candelero, and 3 figurines), 64 obsidian pieces, and 15 mica books.

Estacionamiento C

Here we explored two single burials, one adult female, associated with a ceramic figurine (E-31), and one adult of undetermined sex and 7 associated objects (E-60): one shell pendant, 3 obsidian blades with no use marks, 2 domestic bowls, and one effigy vase with the representation of a human head.

Twenty eight (28) objects from non-funerary contexts were classified as follows: 3 non-decorated vessels, 2 figurines registered as ceremonial, 15 obsidian fragments and 8 mica books.

Analysis by Area

Pitayo Area

Differences of artifact assemblages between Pit-A and Pit-B seem not too big when we consider that the latter is almost twice the size of the former. It is not possible to say that any of them have a level of high status (Tables 9.5 and 9.6). Nevertheless at Pit-B, besides the fact that it is larger than Pit-A, we found prestige-related materials (bone, shell, mica), which are lacking in Pit-A.

Table 9.5: Non-funerary Artifact Frequencies by House, Pitayo. Period IIIa

	<i>Decor</i>	<i>No-dec</i>	<i>Cerem</i>	<i>Obs</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Mica</i>	<i>Silex</i>	<i>Ston</i>	<i>Tot</i>
Pit-A	0	2	0	4	0	0	0	0	0	4	10
Pit-B	0	0	0	3	3	0	0	0	1	0	7
Total	0	2	0	7	3	0	0	0	1	4	17

Table 9.6: Non-funerary Artifact Percentages by House, Pitayo. Period IIIa

	<i>Decor</i>	<i>No-dec</i>	<i>Cerem</i>	<i>Obs</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Mica</i>	<i>Silex</i>	<i>Ston</i>	<i>Total</i>
Pit-A	0	20	0	40	0	0	0	0	0	40	100
Pit-B	0	0	0	43	43	0	0	0	14	0	100
Aver	0	12	0	41	18	0	0	0	6	23	100

In both houses, decorated and ceremonial ceramics are absent. Based on these data, it is possible to say that the inhabitants of Pit-B were wealthy enough to use long-distance trade objects, but we have no information regarding their acquisition.

Carretera Area

In Carretera houses there was no jade, silex, or mica (Tables 9.7 and 9.8), which has been considered as a prestige marker for the inhabitants of houses in other areas. In this sense they have less variety than the Pitayo houses. Carr-A is the largest and the only one with shell and a great percentage of obsidian. In contrast, Carr-B has greater percentages of ceremonial ceramics in funerary and non-funerary contexts, and Carr-C, the smallest in size, is also the house with the lowest percentages of material goods.

Table 9.7: Non-funerary Artifact Frequencies in Carretera Area. Period IIIa

	<i>Decor</i>	<i>Nondec</i>	<i>Cerem</i>	<i>Obsid</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Total</i>
Carr-A	2	5	1	42	3	0	1	54
Carr-B	1	5	6	5	0	0	1	18
Carr-C	0	0	1	2	0	0	0	3
Total	3	10	8	49	3	0	2	75

Table 9.8: Non-funerary Artifact Percentages in Carretera Area. Period IIIa

	<i>Decor</i>	<i>Nondec</i>	<i>Cerem</i>	<i>Obsid</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Total</i>
Carr-A	3.7	9.3	1.8	77.8	5.6	0	1.8	100
Carr-B	5.6	27.7	33.4	27.7	0	0	5.6	100
Carr-C	0	0	33.3	66.7	0	0	0	100
Average	4	13.3	10.7	65.3	4	0	2.7	100

Burials recovered from Carr-C had no offerings at all, with the exception of the uncommon case of a female with an obsidian blade, which was an item only related to males during period II and IIIa.

In general, regardless of the activity of Carretera inhabitants they are not in possession of imported luxury, prestigious objects. On the contrary, there is an emphasis on domestic, non-decorated ceramics and objects related to collective ritual and ancestor's cult, such as urns and incense burners.

Estacionamiento Area

For this period IIIa (Tables 9.9 and 9.10), the house Est-A' is the richest of all. The individuals from tombs 15 and 16 had a large quantity and variety of offerings (41 and 31 objects, respectively), including jade, shell, obsidian and decorated ceramics.

Table 9.9: Non-funerary Artifact Frequencies in Estacionamiento. Period IIIa

	<i>Deco</i>	<i>No dec</i>	<i>Cere</i>	<i>Obs</i>	<i>Shell</i>	<i>Jad</i>	<i>Bon</i>	<i>Fau</i>	<i>Turq</i>	<i>Mica</i>	<i>Sile</i>	<i>Stone</i>	<i>Total</i>
Est-A	32	58	22	63	11	2	5	4	0	35	5	2	239
Est-B	5	23	8	68	3	2	0	0	4	17	0	0	130
Est-C	1	5	3	18	1	0	0	0	0	8	0	0	36
Est-D	0	1	0	12	4	0	0	0	0	12	0	0	29
Est-A'	13	44	15	92	16	9	6	1	0	11	2	2	211
EE-A	0	0	0	0	0	0	0	0	0	0	0	0	0
EE-B	0	2	2	19	1	0	1	0	0	4	1	2	32
Total	51	133	50	272	36	13	12	5	4	87	8	6	677

Table 9.10: Non-funerary Artifact Percentages in Estacionamiento. Period IIIa

	<i>Deco</i>	<i>No dec</i>	<i>Cere</i>	<i>Obs</i>	<i>Shell</i>	<i>Jad</i>	<i>Bon</i>	<i>Fau</i>	<i>Turq</i>	<i>Mica</i>	<i>Sile</i>	<i>Stone</i>	<i>Total</i>
Est-A	13.4	24.2	9.2	26.3	4.6	0.8	2.1	1.7	0	14.6	2.1	0.8	100
Est-B	3.8	17.7	6.2	52.3	2.3	1.5	0	0	3.1	13.1	0	0	100
Est-C	2.8	13.9	8.3	50	2.8	0	0	0	0	22.3	0	0	100
Est-D	0	3.5	0	41.4	13.8	0	0	0	0	41.4	0	0	100
Est-A'	6.7	21	7.1	43.6	7.6	4.3	2.8	0.5	0	5.2	0.9	0.9	100
EE-A	0	0	0	0	0	0	0	0	0	0	0	0	0
EE-B	0	6.3	6.3	59.4	3.1	0	3.1	0	0	12.5	3.1		100
Aver	7.5	19.6	7.4	40.2	5.3	1.9	1.8	0.7	0.6	12.8	1.2	0.9	100

It is worth mentioning the absence of urns in these tombs. Effigy urns have been associated with ancestor veneration in Monte Albán and it has been suggested that there is a possible correlation between tomb, effigy urn and noble origin. In this house we found an effigy urn related to an adult of unidentified sex (E-53.A) in a double burial, and another effigy urn related to a male adult buried in tomb 10 which is one of the smallest tombs in this sample.

The fact that tombs 15 and 16 have a majority of secondary skeletons is related to their utilization for many generations. Analyzing the percentages of objects we appreciate that the inhabitants of this house have the highest percentage of jade objects. As for obsidian and shell, it is also one of the houses that had relatively high numbers of these objects.

In this period, the house Est-A maintains an important position in the area. The individuals deposited in Tomb 8, 8.1 had 36 objects. Here we found an urn as part of the offering, however there were no jade or associated shell objects. The richest

individual funeral in this house corresponded to a subadult with 26 objects, among which there were jade, shell and obsidian. Seeing the percentages of objects we can appreciate that inhabitants in this house display the highest values in decorated and nondecorated ceramics, and also the ones identified as ceremonial, such as anthropomorphic vases, braziers, figurines and a clay pipe, in this case.

The inhabitants of house Est-B share similar levels of wealth and prestige during this period, because the individuals deposited in tomb 9 were associated with 16 objects, some of which were the only 4 fragments of turquoise, more jade pieces, shell and obsidian. Together with the houses Est-A and Est-A' they comprise the only 3 houses that have jade objects. This house also had a bigger proportion of obsidian, but a smaller proportion of shell.

It is also notable that these three houses are located together, one next to the other. Although the interior of each houses, reflect important differences among their members, in general each house seems to share similar levels of wealth.

In contrast, house Est-C does not have jade and very few shells, however the sample is small compared with the other houses. We could say that it is similar to the opposing one in the house of the Carretera A and Pitayo B.

Estacionamiento Este-A

We found no evidence of occupation of this house in this period.

Estacionamiento Este-B

No tombs or burials were found in this period, but 32 objects were recovered in non-funerary contexts: 2 non-decorated vessels, 2 ceremonial ceramics (figurines), 19 obsidian fragments, and 9 exotic items (1 shell objects, 1 incised bone, 1 tecalli cylinder, 1 quartz stone, 1 silex stone, and 4 mica books).

Analysis between Areas

The first point to emphasize is the differences of artifact assemblages between areas. Domestic ceramics are more or less the same for the three barrios. At Pitayo area there are no decorated or ceremonial ceramics, at Carretera, only one house lacks decorated ceramics, and at Estacionamiento area only is present in four houses. The sherd analysis for Carretera houses revealed that both Carr-A and Carr-C have low levels of decorated and ceremonial types, with 95% being domestic, non-decorated ware. But Carr-B is different because it has 63% of domestic wares, and 32% of ceremonial types (Table 9.11).

Table 9.11: Frequencies and Percentages of Sherds, Carretera. Period IIIa

	<i>Decorated</i>	<i>%</i>	<i>Non-decorated</i>	<i>%</i>	<i>Ceremonial</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Carr-A	8	2.8	268	94.7	7	2.5	283	100
Carr-B	2	1.6	77	63.1	43	32.3	122	100
Carr-C	0	0.0	37	95.0	2	5.0	39	100
Average	10	2.3	382	86.0	52	11.7	444	100

Obsidian is still one of the most abundant and constant resources in the 3 areas and its distribution and use seems to be independent of wealth or status levels. A very different situation is with jade, turquoise, shell or mica. Jade is an imported, expensive, and high-class use item.

Jade objects are only located in three Estacionamiento houses and always in funerary contexts. The only turquoise pieces in the whole sample were found in Est-B as part of an offering, and its use is even more restricted than jade. Shell is also an imported item, but its use, although prestige-related, is not as restricted as jade or turquoise. Shell can be found in the wealthier houses of Pitayo and Carretera, while present at all Estacionamiento houses, which indicates that the Estacionamiento barrio in general, has a higher status than Carretera or Pitayo. Even though mica is locally available, its distribution is restricted to Pit-B and Estacionamiento houses.

By areas, Estacionamiento seems to be the one with a greater concentration of artifact assemblages related to prestige and wealth. However, within each area there are also differences. At Pitayo and Carretera, Pit-B and Carr-A, respectively, seem to be the wealthier houses, with the Pitayo area higher than Carretera. At Estacionamiento, houses Est-A, Est-B and Est-A' are the wealthiest. Results from sherd analysis revealed that in Estacionamiento houses the domestic types constitute 85%, thus are more represented. The percentages of decorated and ceremonial ceramic types are low in general, but in Est-A and Est-A' comprise 13% and 8% of decorated types respectively. Ceremonial sherds are low, but in Est-B is 9% and Est-C they comprise 20% although in this last one the sample was small (Table 9.12).

Table 9.12: Frequencies and Percentages of Sherds in Est. Area. Period IIIa

	<i>Decorated</i>	<i>%</i>	<i>Non-decorated</i>	<i>%</i>	<i>Ceremonial</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Est-A	51	13.6	317	84.5	7	1.9	375	100
Est-B	1	1.9	48	88.9	5	9.2	54	100
Est-C	0	0.0	8	80.0	2	20.0	10	100
Est-D	0	0.0	0	0.0	0	0.0	0	0
Est-A'	26	7.9			23	7.0	328	100
EE-A	0	0.0	0	0.0	0	0.0	0	0
EE-B	0	0.0	30	96.8	1	3.2	31	100
Average	78	9.7	682	85.5	38	4.8	798	100

In this period in general, there were 72 skeletons with 284 associated objects (3.9 obj/ind) excavated. 29 individuals (40%) were buried in 6 tombs with 139 objects (49%) and an average of 4.8 obj/ind, while 43 individuals (60%) were buried in 34 burials with 145 objects (51%) and an average of 3.4 obj/ind. In other words, individuals in tombs have more offerings (Tables 9.1 and 9.2).

By age, the sample is classified as 54 adult skeletons (75%) with 209 objects (73%) and average of 3.9 obj/ind. 18 subadult skeletons (25%) associated with 75 objects (27%) and an average of 4.1 obj/ind. In other words, subadults have slightly more objects on average, than adult ones.

Considering only the adult skeletons, 26 of them (48%) were buried in tombs with 98 objects (34.5%) with an average of 3.7 obj/ind, and the other 28 adults (52%) in burials with 111 objects (39%) with an average of 3.9 obj/ind. In other words, adults in burials received more offerings than those in tombs.

From the subadult sample for this period, 3 skeletons (16%) were buried in tombs with 41 objects (54%) with an average of 13.6 obj/ind. 15 subadults more (84%) were buried in burials with 34 objects (46%) with an average of 2.3 obj/ind. In other words subadults in tombs were accompanied with more offerings than in burials, and with greater offerings than adults, on average.

Classifying the sample by sex we have to subtract 18 subadults from the total of 72. From the 54 adults, 20 are males (37%), 9 are females (16%) and 25 (46%) are not specified. From the males, 8 were buried in tombs with 80 objects (6.6 obj/ind) and 12 in burials with 56 objects (4.6 obj/ind), while 3 females were buried in tombs with 6 objects (2 obj/ind) and 6 more were buried in burials with 7 objects (1.2 obj/ind), (Table 9.13).

Table 9.13: Average of Objects by Individual by Sex. Period IIIa

	<i>Males (N=20)</i>	<i>Females (N=9)</i>	<i>Unspecified sex (N=25)</i>	<i>Subadult (N=18)</i>	<i>Total (N=72)</i>
Obsidian	1.5	0.1	0.4	0.7	0.7
Shell	0.6	0.0	0.2	0.4	0.3
Jade	0.5	0.0	0.0	0.2	0.2
Decorated ceramic	0.8	0.4	0.4	0.2	0.5
Non-decorated cer	1.9	0.7	0.9	1.1	1.2
Ceremonial ceramic	0.6	0.1	0.2	0.6	0.4

Males and females in tombs had more offering than those in burials. Males both in tombs or burials had more than three times the offerings than females.

The characteristics of the offerings are classified as follows: 52 objects (18% are obsidian, 29 of them associated with 4 males, 1 blade with a female and 22 more

obsidian objects associated with adults of unspecified sexes (9 with 3 adults, and 13 with 3 subadults). 23 objects are shell (8%), 12 are associated with 6 males, none with a female, and 11 are associated with individuals of unspecified sex (5 objects with 2 adults, 8 objects with 4 subadults). There are 13 jade objects (4.6%), 10 are associated with 3 males, none with a female, and 3 with 2 subadults (Table 9.13).

Of the ceramic vessels, there are 40 decorated vessels (14%), 15 of which are associated with 7 males, 4 objects with 2 females and 21 more objects associated with individuals of unspecified sex (11 objects with 4 adults, 3 objects with subadults). There were 86 (30%) non-decorated ceramics, of which 37 were associated with 13 males, 7 with 2 females, and 42 more vessels associated with unspecified sex individuals (22 objects with 8 adults, and 20 objects with 4 subadults). 27 objects were ceremonial ceramics (9%), 11 of them associated with 7 males, 1 with a female, and 15 more with individuals of unspecified sex (4 objects with 3 adults, and 11 objects with 3 subadults).

In sum, we can appreciate a noticeable difference between funerary treatment in males and females. Also with the exception of only one obsidian blade associated to a female burial, all obsidian was male related. Jade and shell also are only associated with males.

In decorated or ceremonial ceramics, males had greater amounts. It is only in domestic, non-decorated vessels where females had more than males, indicating more household related activities. Subadults had more ceremonial and non-decorated ceramics, while male adults, on average, had more shell and decorated ceramics than subadults.

Males had on average more jade and obsidian, while individuals of unspecified sex had more shell and decorated ceramics, on average.

Basis of Social Stratification

In this period, Monte Albán elite achieved better state consolidation and engaged in long distance trade with Teotihuacan. Evidence of this exchange, at least in Monte Albán, is present in its obsidian, architectural style and in many other features already described above and elsewhere.

Distribution of imported items at the household level would be organized by a complex set of rules and conditions that reveal a rigid social structure, as well as clear differences among the members of each social class. Vessels from Teotihuacan had been reported in some tombs located in elite residences and offerings in the Central Plaza. In our sample, we did not recover any imported ceramics from Teotihuacan, but rather Zapotec vessels made with local clay and decorated with Teotihuacan motifs. We also recovered the presence of other foreign materials, such as turquoise and jade, located only in three houses, which are considered as being occupied by the wealthiest individuals of our sample. Shell also is an imported feature, but its distribution was not as restricted as turquoise or jade. Obsidian, in contrast with the other imported items already mentioned, has a large distribution range which includes all the excavated houses.

At each household there is also evident differences. These differences are given by the age and sex of each household member. Adult males had a better position and

received a more expensive funerary treatment than females and subadults or children. Those males of greatest prestige or authority in the household were buried in the house tomb with the richest offering. All this is a reflection of a rigid household structure, and a well defined and organized social structure.

CHAPTER 10

THE LATE CLASSIC (PHASE IIIb)

Introduction

By the Late Classic (A.D. 500-700/750), population in the Valley of Oaxaca declined drastically, with most of the residents of the valley clustered at Monte Albán or within 15 km of the city. Monte Albán grew to its largest size during this phase, and a lot of monumental construction occurred in the city. Population estimation by Richard Blanton in this period IIIb is between 15,000-30,000, which would represent a 27% increment from period IIIa (1978: 58). Lower order administrative centers decreased in number and scale, and state control appears to have been quite restricted, as considerable regional autonomy emerged. Even Jalieza which had been the second largest city in the Valley during IIIa was now almost abandoned (Blanton et al. 1990: 92). There has been a long and unfinished debate about the length of period IIIb and the beginnings of period IV, and for some authors, both periods have even been considered as one. In this dissertation, I recognize the period IIIb as one of maximum expansion and architecture construction, and separated from period IV. The end of Monte Albán's growth is marked by demographic declination and changes in the regional administrative and political site hierarchies. This situation by no means implies the abandonment of Monte Albán but only a strong decrement in its population. The emergence of other settlements in the Valley contributes to important changes in the settlement pattern of the entire region. This situation characterizes the following period

(Phase IV) and the beginning of the Early Postclassic (Flannery and Marcus 1983: 183-184; Paddock 1966).

During the Early Postclassic period (phase IV, A.D. 600/700-1200), Monte Albán was no longer the largest settlement, and no single administrative center had emerged to replace it. The valley settlement pattern changes turning into a several minor polities organization. This pattern continues until phase V.

Analysis by Domestic Unit

Pitayo A

In this house we explored 3 individuals: one subadult associated to T-1, with no offering and sex unspecified, and 2 skulls from adults in a double burial with 8 associated artifacts, from which 6 were ceramic figurines with the representation of “Diosa con tocado trenzado” (Caso and Bernal 1952: 294) and two domestic vessels (Table 10.1). In this case, in contrast to the common practice, a subadult skeleton is deposited in a tomb and two adults in a burial. Still, adults get more offerings.

Table 10.1: Individuals in Burials and Tombs for Period IIIb *

<i>Area</i>	<i>Unit</i>	<i>Loc</i>	<i>Form</i>	<i>Age</i>	<i>Sex</i>	<i>Type</i>	<i>Pos</i>	<i>Ori</i>	<i>Healt</i>	<i>Anat</i>	<i>Quan</i>	<i>Var</i>	<i>Dec</i>	<i>Nodec</i>	<i>Cerem</i>	<i>Obsid</i>	<i>Shell</i>	<i>Faun</i>	<i>Mica</i>	<i>Silex</i>	<i>Exot</i>
Pi-A	E-04.A	5	3	5	1	4	0	0	1	0	8	1	0	2	6	0	0	0	0	0	0
Pi-A	E-04.B	5	3	6	1	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Ca-C	E-07	2	2	6	2	1	1	2	1	1	2	2	0	1	0	0	0	1	0	0	1
Ca-C	E-09.A	2	2	5	1	2	1	4	1	1	1	1	0	1	0	0	0	0	0	0	0
Ca-C	E-09.B	2	2	1	0	2	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0
Ca-C	E-13	2	2	5	1	1	1	1	3	0	3	2	0	1	1	0	0	1	0	0	1
Ca-B	E-14.A	2	3	1	0	1	4	4	1	0	1	1	0	1	0	0	0	0	0	0	0
Ca-B	E-14.B	2	3	1	0	1	6	4	2	0	1	1	0	1	0	0	0	0	0	0	0
Ca-B	E-15.A	2	3	5	1	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Ca-B	E-15.B	2	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-B	E-16	5	3	6	2	1	6	2	3	0	2	1	0	0	0	0	2	0	0	0	2
Pi-A	T-1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-C	T-11.A	2	1	6	1	4	0	2	2	0	39	2	0	16	22	0	0	0	1	0	1
Es-C	T-11.B	2	1	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-C	T-11.C	2	1	5	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Es-D	T-12	2	1	0	0	4	0	0	1	0	21	5	2	0	1	11	1	0	2	4	7
Ca-C	T-3	2	1	6	2	3	0	4	3	6	7	2	0	0	0	6	1	0	0	0	1
Ca-C	T-5	2	1	0	0	0	0	2	0	0	1	1	0	1	0	0	0	0	0	0	0
Ca-B	T-6.A	2	1	5	0	4	0	0	0	4	30	2	1	19	9	0	1	0	0	0	1
Ca-B	T-6.B	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-B	T-6.C	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-B	T-6.D	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ca-B	T-6.E	2	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* Indicators as jade, bone, turquoise, and stone were eliminated from the table because there were no such materials.

This Period IIIb was the last constructive stage for Pitayo A, and is better preserved and more extensive. It has more visible architectural elements. It is possible that in this last time period they have also been making some modifications to the internal and external parts of the house. Evidence of these smaller arrangements are the alignments that appear in the south side of the pits 4-A and I6-A and possibly the wall in the north of pit 21-A. The ceramic assemblages and other data analyzed in this dissertation are limited to periods II to IIIb, but this house continued to be used until Period V. The vessel forms and decoration styles of Period V ceramics are related to the Mixtec occupation in the north side of Monte Albán and some villages in the Valley of Oaxaca.

Below the west room we located a tomb that seems to be the largest in the house with access from the central patio. Unfortunately the tomb was empty due to relatively recent looting, however the use of abundant stone and architectonic details indicates a great effort in its construction. The tomb is rectangular (1.60 x 70 cm and 1 m of total height) with stonewalls, three niches, and floor made of slabs 6-8 cm thick. It was facing east, and had a façade made of well-cut stones. The interior walls were built with well cut rectangular stones illustrating the careful construction technique with stones of same size. The roof was flat, made with stone slabs 10 cm thick and 1.20 m long.

In Pit 9-A we discovered two human skulls, each placed on a domestic gray paste bowl with a diameter of 20 cm and with three figurines. One of the bowls was broken and incomplete. The skulls were facing east. They were registered as Burial 4.A and 4.B, and identified as adult males. Both sets of three molded figurines were placed

one in front of another. The three figurines from burial 4.A still kept their original position and it was possible to appreciate that the heads of these figurines were intentionally removed from the body in both groups. This fact is interesting and closely related to the secondary interment of the skulls.

The first possible meaning of this burial was related to decapitation as a central element, emphasized by the intentional fracture of the figurines. But neither skull has the first occipital vertebra which is a good indicator of head removal when the individual is alive. The absence of this vertebra indicates a post-mortem exhumation of the skulls and their use as part of a later ceremony. The jaws in both skulls were placed in its interior. One of the skulls presents clear marks of a circular cut made at the level of the occipital bone, perhaps to introduce the jaw in the cranial vault and to deposit it in the bowls. Another interesting aspect of the offering is that in each group of figurines, one represents an old woman and the other two young females.

In non-funerary contexts 3 obsidian blades, a domestic miniature glass of type G-4, and a vessel decorated with a bird design were recovered (Table 10.2).

Table 10.2: Non-funerary Artifact Frequencies and Percentages in Pitayo. Period IIIb

	<i>Decor</i>	<i>Nondec</i>	<i>Cerem</i>	<i>Obs</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Faunal</i>	<i>Mica</i>	<i>Stone</i>	<i>Total</i>
Freq	1	1	0	3	0	0	0	0	0	0	5
Percen	20	20	0	60	0	0	0	0	0	0	100

Pitayo B

There is no evidence of occupation of this house in this period.

Carretera A

As described in Carretera A in period II (Chapter 8), a two-chambered kiln was still in use. This kiln is similar to modern kilns used by potters in pottery productive centers near modern Oaxaca City such as San Bartolo Coyotepec and Atzompa. Close to this kiln we located a domestic conical bowl. We found no burials or tombs for this period, but in non-funerary contexts we registered 5 decorated sherds and 85 non-decorated sherds (Table 10.3).

Table 10.3: Non-funerary Artifact Frequencies by House in Carretera Area. Period IIIb

	<i>Decor</i>	<i>Nondec</i>	<i>Cerem</i>	<i>Obs</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Fauna</i>	<i>Mica</i>	<i>Stone</i>	<i>Total</i>
Carr-B	3	32	11	5	3	0	2	0	0	1	57
Carr-C	1	4	1	8	2	0	1	2	0	0	19
Total	4	36	12	13	5	0	3	2	0	1	76

Carretera B

In this habitational unit we recovered 10 skeletons with 34 associated objects (3.4 obj/ind). One tomb was explored (T-6) and contained 5 individuals and 30 objects (6 obj/ind). The tomb was located at the center of East room. It had a rectangular shape

(2 m x 70 cm, and 80 cm deep), flat roof, stucco coated stone walls and only one niche. The other 5 individuals come from three burials. Burial 14 with 2 children and 2 associated objects. Burial 15 with one adult male and one child and no objects. The last burial (E-16) was and old woman with two shell objects (Table 10.1).

By age all individuals from the tomb are adults, but sex was undefined. From burials we had three children, one adult male and one old woman

The characteristics of the offerings were: 2 objects from the burials are non-decorated vessels, and 2 shell objects, while in tomb 6 (5 adults), 1 decorated vessel, 19 non-decorated vessels, 9 incense burners type K-14, and 1 shell pendant. There are no obsidian or jade (Table 10.1).

Although the sample is small, in this habitational unit one can observe a differential mortuary treatment. Adults in tombs had more objects than subadults in burials but as I mentioned before, this proportion may be more related to the type of interment than age.

Considering both funerary and non-funerary artifacts, 56% of them were domestic non-decorated vessels, another important percentage are incense burners and figurines considered ceremonial. Obsidian is relatively below the average, but shell is above average (Tables 10.3 and 10.4).

Table 10.4: Non-funerary Artifact Percentages by House in Carretera. Period IIIb

	<i>Decor</i>	<i>Nondec</i>	<i>Cerem</i>	<i>Obs</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Faun</i>	<i>Mica</i>	<i>Stone</i>	<i>Total</i>
Carr-B	5.3	56.1	19.3	8.8	5.3	0	3.5	0	0	1.7	100
Carr-C	5.3	21.1	5.3	42.1	10.5	0	5.3	10.5	0	0	100
Averag	5.3	47.4	15.8	17.1	6.6	0	3.9	2.6	0		100

In Carr-B the percentage of obsidian is just 8.8%, while ceremonial ceramics are 19.3%. Nevertheless, non-decorated ceramics is 56.1%. The artifacts recovered in both funerary and non-funerary contexts are more related to domestic and ceremonial activities, although shell is well represented in this period. Artifact assemblages includes 18 objects, 1 decorated vessel, 7 non-decorated, 2 figurines, 5 obsidian fragments, 3 shell objects, 2 bone pieces, and 1 tecalli vessel.

Carretera C

In this habitational unit we recovered 6 skeletons, two individuals from two tombs (T-3 and T-5), and 4 individuals from three burials (E-7, E-9.A, E-9.B, E-13), (Table 10.1).

Tomb 3 was of small size (1 m x 51 cm), located below the floor of the North room, between burials 7 and 9. The walls and vaulted roof were made of flagstones. Into the tomb was an old female skeleton, her skull and jaw were painted in red. As an offering we registered 6 obsidian blades and a fragment of gastropod shell.

In the same North room we located burials 7 and 9. Burial 7 was an old female with a bowl type G-35 covering her face, close to her left hip was the skeleton of a small mammal, probably a dog. Burial 9 had an adult male (E-9.A), extended facing up, with a conical bowl type G-35 as offering. An interesting feature was that we found that the skull of this man had 5 trephinations (Márquez and González Licón 1992: 25-50). To his left side there was a child of 2-4 years old E-9.B), with no associated objects.

Below the East room we located tomb 5 and burial 13. Tomb 5 was of rectangular shape (1.50 m x 70 cm and 70 cm deep), with flat roof. Walls and floor were stone made and stucco coated, with no niches. The tomb was empty but 50 cm west of its entrance we located two skulls facing east toward the tomb. The skulls were deposited over a bowl type G-35, and had no cervical vertebrae.

Burial 13 was an adult male with a G-35 bowl over his face. Two fragmented figurines, a human rib, and some bones from a foot were also associated.

In non-funerary contexts found 5 more objects were found: three conical bowls type G-35 and one miniature conical bowl of the same G-35 type; one small trumpet shell, one shell, and one spine ray; one semi-spherical bowl type K-14; one bone ring, and one shell pendant. 1 decorated vessel, 2 obsidian blades, 1 bone objects and 1 shell were also found. Comparing non-funerary artifact percentages we see that in this house 42% of them are obsidian while in Carr-B it is only 8.8%. Shell and bone percentages are also higher in Carr-C. Percentages of non-decorated and ceremonial ceramics are lower (Tables 10.3 and 10.4).

Estacionamiento A

There are no data from burials or tombs for this period. Non-funerary artifact assemblages yielded 4 decorated vessels, 8 non-decorated, 1 figurine, 1 jaguar or bat claw vase (Caso and Bernal 1952: 61; Blanton 1978: 400), 30 obsidian fragments, and 1 shell (Table 10.5). In this house, 66.6% of their artifacts were obsidian, twice the average for this period. In contrast, shell was only 2.2% and ceremonial vessels 4.5%

as the lowest percentages among all houses for this period. Domestic vessels are also low, making up 17.8 percent of the total. As a difference from earlier periods, this house does not have jade, mica, or bone (Table 10.6).

Table 10.5: Non-funerary Artifact Frequency by House in Est. Area. Period IIIb

	<i>Decor</i>	<i>Nondec</i>	<i>Cerem</i>	<i>Obsid</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Faun</i>	<i>Mica</i>	<i>Stone</i>	<i>Total</i>
Est-A	4	8	2	30	1	0	0	0	0	0	45
Est-C	0	0	0	0	0	0	0	0	0	0	0
Est-D	0	0	0	5	0	0	0	0	2	0	7
Total	4	8	2	35	1	0	0	0	2	0	52

Table 10.6: Non-funerary Artifact Percentage by House in Est. Area. Period IIIb

	<i>Decor</i>	<i>Nondec</i>	<i>Cerem</i>	<i>Obsid</i>	<i>Shell</i>	<i>Jade</i>	<i>Bone</i>	<i>Faun</i>	<i>Mica</i>	<i>Stone</i>	<i>Total</i>
Est-A	8.9	17.8	4.5	66.6	2.2	0	0	0	0	0	100
Est-C	0	0	0	0	0	0	0	0	0	0	0
Est-D	0	0	0	71	0	0	0	0	29	0	100
Averag	7.6	15.4	3.8	67.3	2	0	0	0	3.8	0	100

Estacionamiento A'

The only data that we have for this house in this period comes from non-funerary sherd analysis. There are no tombs or burials nor artifact assemblages. We registered a total of 31 domestic, non-decorated sherds as the only evidence of occupation (Table 10.7). This may also be due to destruction the bulldozer caused to the latter layers.

Estacionamiento B

As in house Estacionamiento A', in this period we do not have tombs, burials, or artifact assemblages. Non-funerary sherd analysis yielded a total of 6 sherds, 2 decorated and 4 non-decorated or domestic (Table 10.7). Again the cause for this may be the same as in the previous house.

Table 10.7: Frequencies and Percentages of Non-funerary Sherds in Estacionamiento Area. Period IIIb

	<i>Decorated</i>	<i>%</i>	<i>Non-decorated</i>	<i>%</i>	<i>Ceremonial</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Est-A	0	0.0	218	87.9	30	12.1	248	100
Est-B	2	33.4	4	66.6	0	0.0	6	100
Est-C	1	9.1	9	81.8	1	9.1	11	100
Est-D	0	0.0	0	0.0	0	0.0	0	0
Est-A'	0	0.0	31	100.0	0	0.0	31	100
EE-A	0	0.0	0	0.0	0	0.0	0	0
EE-B	14	77.8	4	22.2	0	0.0	18	100
Average	17	5.4	266	84.7	31	9.9	314	100

Estacionamiento C

In this unit we explored one tomb (T-11) with 3 skeletons and 39 objects (13 obj/ind). There were 2 adults, one old male (T-11.A) and other adult of unspecified sex (T-11.C); the third skeleton was of a child of 2-4 years old (T-11.B). The offering consisted of 16 non-decorated vessels, 22 incense burners and 1 mica. It is the largest amount of incense burners associated with a tomb in the whole sample. The type of objects in the tomb may be an indication of either a ceremonial and domestic intention.

There are no urns or other kind of prestige objects besides those in the offering (Table 10.1).

The tomb was located under the West room, but its access was by steps from the central patio. The stairway was filled with rubbish and many sherds of domestic types. The façade had a cornice over the lintel, and a large stone sealed the entrance door. The tomb had rectangular shape (1.82 m x 65 cm and 87 cm deep) with no niches and an angular vault roof. All the skeletons were painted red. As mentioned above, we locate into the tomb 3 individuals with 39 objects as offering. These objects were registered as 16 domestic vessels, most of them G-35 type (1 tripod bowl, 2 conical bowls, 2 semispherical bowls, 6 miniature bowls, 1 jar, and 4 miniature jars), 22 incense burners, 20 of them K-14 and 2 G-1 types (14 of them miniature), and 1 mica book.

We did not register non-funerary artifact assemblages for this period (Tables 10.5 and 10.6).

Estacionamiento D

With the use of the subsurface radar we detected and excavated one tomb (T-12) with a secondary skeleton of a subadult with 21 objects as offering: 11 obsidian blades, 1 shell plaque, 2 micas, 4 silex flakes, 1 incised exterior decorated bowl, a molded figurine, and an incomplete bat claw vase. The tomb was located under the Southwest room. It has a rectangular shape (2.57 m x 85 cm and 1.45 m deep) with three niches and angular vault. The whole tomb was stone made and stucco coated.

The access to the tomb was by a stairway from the central patio that was filled with rubbish. The sample is small but it is interesting to notice that in this period, as well, subadults are buried with such amount of objects.

In non-funerary contexts were recovered 5 obsidian fragments and 2 micas (Tables 10.5 and 10.6). No sherds were registered in this house (Table 10.7).

Analysis by Area

Pitayo Area

The sample for this area is small, not only in frequency, but also because only Pitayo-A was inhabited in this period. In Pitayo-A, the objects are more related to ceremonial activities. Obsidian is an important part of the assemblage, making up 27.3 percent, and there is no shell, jade, mica or any other material related to prestige. Only 3 non-decorated sherds were recovered from this house (Table 10.8).

Table 10.8: Frequency and Percentage of Non-funerary Sherds, Pitayo. Period IIIb

	<i>Decorated</i>	<i>%</i>	<i>Non-decorated</i>	<i>%</i>	<i>Ceremonial</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Pit-A	0	0	3	100	0	0	3	100
Pit-B	0	0	0	0	0	0	0	0
Average	0	0	3	100	0	0	3	100

Carretera Area

For this period we have data from the three habitational units but from different contexts, including funerary offerings, non-funerary artifact assemblages and sherds. In Carretera A, pottery manufacture is indicated by the two-chambered kiln made in Period II, but we did not find enough data to determine if this activity was just limited to the domestic realm or if they produced to sell or trade some of its vessels in the modalities discussed for period II.

Sherds registered in this house were almost all domestic (94.4%), which is almost the same percentage registered for Carretera B, although in the latter there are a small percentage of ceremonial sherds (Table 10.9).

Table 10.9: Frequencies and Percentages of Non-funerary Sherds in Carretera Area. Period IIIb

	<i>Decorated</i>	<i>%</i>	<i>Non-decorated</i>	<i>%</i>	<i>Ceremonial</i>	<i>%</i>	<i>Total</i>	<i>%</i>
Carr-A	5	5.6	85	94.4	0	0.0	90	100
Carr-B	6	3.9	143	93.5	4	2.6	153	100
Carr-C	4	44.5	5	55.5	0	0.0	9	100
Average	15	6.0	233	92.4	4	1.6	252	100

In Carretera B we registered the wealthiest tomb in the Area and also the largest amount of individuals buried for this period with 10, compared with 6 buried in Carretera C and none in Carretera A (Table 10.1). Non-funerary artifact assemblages are more diverse in Carretera C with obsidian as the most abundant (42.1% of the total), shell and animal bones are also high with 10.5% each.

Domestic wares are below the average making up only 21.1% of the total. We may say that the inhabitants of Carretera C are more focused on local work having obsidian as their main source of artifacts. Carretera B has much less obsidian, 8.8%, and shell, 5.3%, but more presence of ceremonial objects, 19.3%, and domestic and non-decorated vessels are 56.1% of the total (Tables 10.3 and 10.4).

Analysis of sherds also revealed some ceremonial presence in Carretera B (Table 10.9). It seems that inhabitants of Carretera B were less focused on personal adornments and a little more in ritual and ceremonial than Carretera C.

Estacionamiento Area

Compared with earlier periods, the sample is smaller. We have tombs in Estacionamiento C and Estacionamiento D. Both tombs had large offerings, Tomb 11 from Est-C has the largest offering from the entire sample from all periods, but tomb 12 from Est-D has more variety with 5 different kind of objects, yet without the presence of jade or turquoise (Table 10.1).

Estacionamiento-A has a good percentage of obsidian in their non-funerary artifact assemblages (66.6%) even greater than the percentage of domestic non-decorated ceramics; it also has shell in its assemblage. On the other side, Est-C does not have obsidian or shell, but it does have a great percentage of ceremonial objects, in particular incense burners from a single tomb. Est-A does not have jade or mica in this period. A larger percentage of the funerary objects for this period are ceramic vessels but obsidian is still important. As expected, non-decorated vessels are the most

common ceramic type (Tables 10.5 and 10.6). The analysis of non-funerary sherds revealed a large presence of domestic ceramics with an average of 84.7%, but it is interesting also that the percentage of ceremonial sherds at Est-A and Est-C are approximately 10% of the total (Table 10.7).

Analysis between Areas

In general we have for this period 24 skeletons with 136 objects for an average of 5.6 obj/ind. 7 tombs were explored with 14 skeletons and 105 objects (7.5 obj/ind), and 6 burials with 10 skeletons and 31 objects (3.1 obj/ind). Individuals in tombs had more than twice the quantity of offerings than burials (Table 10.1, and Appendixes A, B and C).

By age, the individuals are classified as 16 adults with 112 objects (7 obj/ind) and 8 subadults with 24 objects (3 obj/ind). There are twice as many adults as subadults, and the adults have a little more than double the offering. From the adults, 10 come from tombs with 83 objects (2 males with 44 objects, 1 female with 7 objects, and 7 of unspecified sex with 7 objects). The other 6 adults come from burials with 29 objects). For the subadults, 3 were in tombs with only 1 object, and 5 subadults were in burials with 23 objects. More adults than subadults were buried in tombs, and adults in tombs have more offering than adults in burials. Subadults from burials had more offering than those from tombs.

By sex we have 6 males (2 in tombs with 44 objects and 4 in burials with 12 objects), 3 females (1 in a tomb with 7 objects, and 2 in one burial with 17 objects), 7

adults unspecified sex (the 7 in a tomb with 32 objects), and 8 subadults (4 in tomb with 22 objects, and 4 in burial with 2 objects). As we see in Table 10.10, males were buried with domestic, non-decorated and ceremonial objects (22 of which are incense burners in a collective tomb), and females with obsidian (just one old woman had 6 pieces), and shell. As a contrast with previous periods females are not as associated with domestic, non-decorated vessels which may be indicative of changes in the household internal organization.

Table 10.10: Funerary Offering Distribution by Sex and Age. Period IIIb

	<i>Obsidian</i>	<i>Shell</i>	<i>Jade</i>	<i>Decorated</i>	<i>Nondecorated</i>	<i>Ceremonial</i>	<i>Bone</i>
Males	0	0	0	2	21	29	2
Females	19	1	0	2	1	0	0
Adult/sex ?	0	1	0	1	21	9	0
Subadult	11	1	0	2	3	1	0
Total	30	3	0	7	46	39	2

In Pit-A, 54% of the non-funerary artifact assemblages are ceremonial ceramics, and decorated and non-decorated in lower percentages. At Estacionamiento, ceremonial ceramics are 22.3%, while at Carretera non-decorated ceramic is most highly represented. At Carr-B and Carr-C we found shell for the first time, maybe because of the abandonment of Carr-A in this period.

Obsidian is represented in the three areas with 27.3% at Pitayo, 17.1% at Carretera, and 67.3% in Estacionamiento. We have shell in Carretera and Estacionamiento, representing 6.6% and 2% respectively. Mica is present only in

Estacionamiento D. There is no jade or turquoise at all. Decorated ceramics are scarce in the three areas with 9.1% at Pitayo, 5.3% at Carretera and 7.6% at Estacionamiento.

With the absence of jade and turquoise, and with the percentages mentioned above, we arrive at the conclusion that, in general, there was less social inequality between areas. Pit-A is the only one in that barrio; at Carretera both houses share similar percentages, and at Estacionamiento, Est-C seems to be the lowest.

There are only 3 micras associated with 2 skeletons and only one skeleton had 4 silex fragments. In other words, within houses, hierarchies were important. Only 2 individuals were buried with no offering (8.4%). Estacionamiento houses were wealthier than those of Carretera or Pitayo.

Basis of Social Stratification

Much of what is visible nowadays in Monte Albán was built during this period IIIb. Monte Albán registered its maximum population growth and constructive expansion. Based in our indicators, the social segment represented in the excavated sample experienced changes in this period. Funerary practices are still indicating a more prestigious position for males than females, and for adults than subadults or children, but females are no longer strongly related to domestic, non- decorated ceramics, as was more the case in period IIIa. In this period, obsidian is still an abundant resource, but in funerary contexts it appears only with females instead of males. In contrast, males are buried with more ceremonial objects, but also domestic wares.

An important change in this period is that we did not register the presence of turquoise or jade, and there is shell, but its distribution is restricted.

From this data we can conclude that for this period the inhabitants of the explored habitational residences were not able to obtain some of the imported items related to prestige that they had in period IIIa. This fact does not mean that long distance trade of these materials ceased, as we know this was not the case from other published data. In fact, elite burials from this period have, in many cases, jade and turquoise as offering.

The accelerated demographic increment experienced for this period in Monte Albán may have also produced an increase in living expenses, and therefore people had to eliminate the acquisition of long distance imported items. Changes in materials deposited as offerings in tombs and burials for males and females could also be an indication of changes in the household chores. Productive activities may change in relation to gender and ages within the household, as well as prestige and authority positions among their members.

PART V, CONCLUSIONS

CHAPTER 11

CONCLUSIONS

We begin this concluding chapter with a summary of our three main questions which sought to reconstruct patterns of social organization and degrees of social inequality through time at the household level at Monte Albán. This is followed by a synthetic discussion of each period, considering all indicators, and answers the research questions using our data, the available information about Monte Albán, the Valley of Oaxaca, and Mesoamerica as a whole. At the end, I include a comparison between periods.

Our first research question dealt with the degree of social stratification at Monte Albán. We do have evidences of the existence of social inequalities among the inhabitants of Monte Albán. As discussed in Chapters 7-10, these social inequalities were not the same through time, and for the analysis I separated them into the following categories: differences within the single domestic unit; between houses in the same area; and between different areas. The second research question was closely related to the first one because we tried to evaluate the extent of social stratification detected at Monte Albán using the same categories of analysis. The last question was about the nature of social stratification at Monte Albán. Were the bases of social inequality related to the economic or ideological realm, with tradition, ideology, or religion?

Period I

The foundation of Monte Albán was an important event for the inhabitants of the Valley of Oaxaca. This situation introduced many social, economic and political changes to the whole Valley. It developed a regional hierarchy of settlements with at least four levels. Monte Albán was the major civic-ceremonial center and had a population of over 5,000 people (Blanton 1978; Blanton et al. 1982: 55-61). Most of the construction was concentrated in the Central Plaza, due to its magnitude, extent and its overall symbolic significance. It is difficult to establish how much of the city was designed at the beginning of urban development (the three excavated areas in this research are not the same as the three early residential areas or Barrios considered by Blanton [1978: 37-40] as the first ones in the city), but what is clear is that even while the area of the Central Plaza was still being leveled, it was reserved for those who had more prestige, economic possibilities, as well as probable political influence. Also, their daily activities were not related to food production.

Many, but not all, of the houses built in Monte Albán adopted a previously restricted construction technique: the use of adobe brick walls. The replacement of houses made of wattle-and-daub with adobe bricks walls and clay coating was advantageous since it delayed deterioration due to weathering but it was also much more expensive (Kowalewski et al.1989: 111). The houses were, therefore, carefully restored and preserved by their inhabitants. Through time houses received many modifications or alterations according to their needs but always kept the basic elements such as the central patio and main rooms. The distribution of ceramic types in these

areas indicates a predominance of domestic, utilitarian, and non-decorated ceramics, rather than more expensive, decorated wares.

As discussed in Chapter 7, considering all of the available data, and as a direct answer to our first and second research questions, we do have clear evidence that social inequality existed at Monte Albán in this period but these differences were less pronounced than in later periods. We have individuals buried with more offerings than others, which is a good indicator of social differences. Within the households there do not appear to be differences by sex since we have both prestigious males and females. Age was also not a factor since we have adults and a young girl with abundant offerings as well. Differences among households of the same area are not clear due to the fact that individuals with more offerings are not necessarily associated with larger structures.

The objects used as part of the offering were mainly ceramic vessels, shell beads and ornaments, and ceramic figures with representations of animals such as frogs, ducks or fishes, and the face of Cociyo, the god of lightning and rain. There is no evidence of jade or turquoise at all. The greatest differences were between areas, especially the presence of more symbolic elements in the Estacionamiento Area, which is an indicator of the performance of ceremonies and rituals (Appendixes A, B and C). As an answer to our third question, we can say that at the household level the archaeological evidence indicates that in some households (such as those excavated in the Estacionamiento Area dating to this period) the inhabitants were participating and keeping more symbolic and ritual objects than in other areas. Ideology was an important element in the construction of a new city, as a result of the creation of a new social, political, and economic order. Households closer to the main plaza celebrated more

rituals and ceremonies than others located in areas at a greater distance from the main plaza. These families, more involved in ritual and ceremonies, probably also had “new occupations” as a result of the development of an urban way of life.

In sum, for Period I, social inequality existed, but these differences were not as great as in later periods. The nature of social stratification in this period was related more to the ideological realm.

Period II

The ruling elite, as a major component of the noble class, is well established and engaged in ventures outside the Valley. Structure “J” in the Central Plaza of Monte Albán commemorates this “expansionist” position. The Monte Albán state is well consolidated and economic regulations are looser than in Period I, but social inequalities are still present in Zapotec society.

As a direct answer to our first research question we can be sure about the existence of social stratification at Monte Albán. Inequalities within each household are clear because almost all of the households have members who were treated differently at death, as discussed in the preceding chapters. For example, just a few of the household members are buried in the house tomb while the majority are buried in a more modest way, directly into the earth or in pits delimited with flagstones. As a constant, individuals buried in tombs received more offerings than those in burials, which is indicative of a more prestigious position in the family group. This situation is also present in data from dietary analysis (Table 5.1) which revealed that people buried

in tombs had a higher meat consumption than those in burials. Considering age, adults were buried with more offerings than youngsters; the one exception is a subadult who received the largest offering in this period indicating ascribed ranking (ranking assigned at birth). We see strong differences between males and females. The proportion of male-female buried in tombs is 5-1 and the difference is also obvious in the amount and quality of the offerings. But not all of the males received the same mortuary treatment, indicative of a well-defined household hierarchy in which each male family member knew his position and role to play. Males had a majority of all of the shell and jade funerary objects, while obsidian was found with males and subadults, but not females (Appendixes A, B and C).

In terms of the differences between households of the same area we can be sure that differences also existed during this period, as is exemplified in the Estacionamiento area as follows: one house of 324 m² (Est-A) had the majority of all of the jade and shell found for this period. These prestigious items, obtained from different sources by long distance trade, were probably monopolized by the inhabitants of this house. In this house we excavated 19 individuals, the largest for this period. We do not want to use excavated number of individuals as a direct correlation to people living at the same time in the household, or engaged in a productive activity; but if we consider: a) the same ratio of destruction, alteration or removal of skeletal material in all of the excavated houses; and b) a household with more members could be more productive than others with lesser members; then we may use the figure of buried individuals as an explanatory variable for wealth concentration. In the other two areas we do not see these differences.

Trying to evaluate differences between areas, we found the presence of kilns in the three excavated areas, which is indicative of pottery production. We are in no position to evaluate the level of pottery production, as in the case of the two chambered kiln located at Carr-A, but we can consider that the size and characteristics of this kiln were enough to produce all of their domestic ceramic needs. This is an interesting point since it indicates that the State was not in control of ceramic production and that each family was able to produce enough pottery for their own purposes. It is also evidence that independent of the family group occupation, the construction of ceramic wares was still part of their chores. It remains to be investigated whether the production level exceeded their own needs and was used for production in trade or sale, which in that case it would be considered as a sort of income. Some of the kilns, regardless of the number of chambers they had, changed their function through time and were instead used as funerary depositories, but none of these burials were of much importance to the household structure.

In this period the inhabitants of Monte Albán did not grow at the same rate as in secondary sites which may be an indication that the elites in secondary level sites had a greater access to resources. Nevertheless, according to our data, this situation did not have negative repercussions for the people of Monte Albán in terms of health conditions. As is shown in Table 5.3, there is a very low incidence of anemia or alimentary problems for period II which indicates that even though there are clear differences among site areas, or in each residence group, food production and distribution was enough for all of the population to achieve good living conditions.

The inhabitants of houses in the Estacionamiento area had better living standards, followed by the Carretera area, and then the Pitayo area as the lowest. Houses in the Estacionamiento area are larger than in the other areas, and are clustered in a relatively small area of no more than two ha between the North Platform and the elite residence of Tomb-105. These results suggest that for this period, those living close to the Central Plaza had better living standards, the highest percentage of resources, and were more involved in ceremonial and ritual activities.

Period IIIa

This period represents abundance, development, and growth, but also greater social inequalities than before. Population at Monte Albán reached 16,500 inhabitants. Evidence of contacts between Monte Albán and the primate center of Teotihuacan in the central Highlands is abundant. Teotihuacan influence in Monte Albán is visible in the architecture, mural painting, ceramic styles, and hieroglyphic inscriptions that permeated the public, private, and funerary levels. Some of the largest elite residences were built during this period, such as those with tombs 103, 104 and 105. A comparison of the size, architectural layout, magnificent effigy urns, and other associated materials found in these top elite tombs (Caso 1938, 1939, 1965: 904-905; Caso and Bernal 1952, 1965: 889; Caso, Bernal, and Acosta 1967: 365-378; Marquina 1964: 352) with those excavated by us for this dissertation (Appendixes A, B and C), reveals that large social differences existed during this time. There are no specific studies focused on the evaluation of diseases, diet and health conditions for the ruling elite such as those we

have for our excavated sample. However, based on the archaeological data, we can assume that the ruling elite, who lived in large residences or palaces and were buried in elaborate tombs with a rich quantity and quality of offerings, enjoyed much better life conditions than the rest of the population. We also can be sure that there are strong differences between this ruling elite and the inhabitants of the houses analyzed here.

Through answering our research questions we have provided evidence about the existence of social differences in this period. From the analysis of the interior of each household we concluded that males were often buried with better and more abundant offerings. Decorated ceramics are more often associated with males and domestic wares are found with females, which can be interpreted as males performing more ceremonies, feasting and ritual, while females were engaged in a daily routine of domestic activities. In terms of the number of skeletons excavated by house, for this period we have 29 individuals in Est-A, 18 individuals in Est-A', and nine individuals in Est-B.

Considering alimentary resources, those individuals buried in tombs had consumed more meat. In this period, individuals from tombs eat more meat than in period II, while individuals from burials had less meat in their diet than in period II (Table 5.1); this pattern indicates that differences within the household were greater than before. As mentioned in Chapter 5, individuals from the Estacionamiento area had a greater percentage of meat consumption, followed by those from the Pitayo and Carretera areas, respectively. These data have a positive correlation with the total constructed area mentioned above.

In terms of health conditions (Table 5.3), as I fully explained in Chapter 5, we can see an increase from Period II to IIIa in some nutrition related problems such as Espongy hyperostosis and Periodontal infection, which in general are related to malnutrition, anemia and infections (Márquez et al. 2002: 320). There is a significant decrease in abscesses related to bucal infections. We can also see a strong presence of infection problems (tibial and systemic). All these data suggest that the demographic increase had costs in terms of general health conditions for Monte Albán inhabitants. More infection problems are in direct correlation with this population growth and lack of sanitary conditions. The wealthiest people of the middle social strata had more meat consumption than in period II, and we can assume that this was the same for the elite members, although we have no data for this.

For the analysis between houses in the same area we use the architectural extent or size of the houses as an indicator of status, considering all of the available data. On one side, upper elite residences were classified by Blanton as Type 6 with more than 1000 m² (Table 2.2) and on the other side we have a range of domestic units of 98-625 m² (Table 2.1). This range of sizes, from 98 to 625 m², is an indicator of the great variability that exists in what we consider to be a middle sector of the population. In total estimated area we have a mean surface of 162 m² in the Pitayo area, 125 m² in the Carretera area, and 374 m² in the Estacionamiento area. This variation in constructed surface is an indication of a stratified society with a differentiated social structure made up of several strata, and above all, that differences also exist within each social strata. Larger house area offers better living conditions for the inhabitants but also has greater construction and maintenance expenses. With these

considerations, we can estimate that the inhabitants of the houses from the Estacionamiento area had the best living conditions and wealth, followed by the inhabitants of the Pitayo and Carretera areas respectively.

In the analysis between areas, in period II we identified the house Est-A as the wealthiest residence. For period IIIa, in addition to this house, we also have identified Est-B and Est-A' houses as those with better living conditions and larger quantities of goods. These three houses are the only ones that have jade, although turquoise is only associated with the inhabitants of house Est-B. Both materials are imported and their use was limited to males only. Obsidian is also an imported item, but its distribution is wider; nevertheless, in funerary contexts obsidian is related to males with only one exception. Wealth is now concentrated in not just one household, but three, all from the Estacionamiento area.

To answer the third research question we need to use all of the available information. Large economic differences existed not only between social strata but also within each of them. For the ruling elite we see a strong presence of ideological elements in both public and private activities. The stelae construction and tomb decoration, such as tombs 103, 104, and 105, are an indication of the importance of the ideological aspects.

The indicators used for this period and the available published data describe a stratified society. In our studied sample, I also found differences between the studied areas since different wealth indices, living conditions as indicated by health, and nutritional problems were present. In addition, within each domestic unit, I identified strong differences related to family hierarchy in terms of prestige, gender, and age.

Period IIIb

During this period Monte Albán was an attractive place to live. The settlement pattern changed throughout the Oaxaca Valley. In the Zaachila-Zimatlán Valley population decrease was around 95%, including the almost total abandonment of Jalieza. The magnitude of population concentration that Monte Albán had during this period was similar to that experienced by Teotihuacan during the Early Classic or Middle Horizon (A.D. 200-700). Monte Albán reached 25,000 people, ten times the size of the next largest village in the valley (Blanton et al. 1981: 94). The North Platform was completed in Monte Albán during this period. It is considered to be the living headquarters of the ruling elite and several residential units have been explored within this great structure (González Licón 1998).

As a direct answer to our first research question we have strong evidence of the existence of social inequalities among the inhabitants of Monte Albán during this period. Within individual domestic units some changes can be seen from period IIIa to IIIb. The mortuary ceremonies, the forms of interment, and the amount and quality of the offerings indicate that each house continued to have a well established hierarchical organization. Within this system adult males had greater prestige, some held leadership positions, and at their death, received the privilege of being buried in the family tomb with abundant offerings. Obsidian as an imported artifact is still well distributed in all houses but now is found associated only with females. This may be related to a role change in the residential units, with females involved in a wider range of productive

activities, including those that required the use of obsidian artifacts, such as cutting, drilling, and scraping wood, bone, or leather.

The analysis between households of the same area revealed that differences existed but these were not as large as in preceding periods. Within the studied areas we found that one house did not have a higher concentration of wealth than the others. Wealth amounts were consistent between households instead of one acquiring more richness. For example, imported items such as jade and turquoise are now absent in the funerary inventories (Appendixes A, B and C).

Between different areas we detected differences in terms of wealth, living standards, and health problems. The inhabitants of the Estacionamiento area had better life conditions and wealth levels. The residents of the Carretera area were still making pottery as part of their productive activities. The inhabitants of the Pitayo area were in the worst position. Shell is the only imported item related to prestige for this period and it is restricted to just a few houses but not to a specific area.

In answer to our second question we observed that the dietary analysis shows the same tendency reported between period II and IIIa: individuals buried in tombs had the highest meat consumption, the highest of all of the compared periods. On the other hand, individuals from burials had reduced significantly their meat intake during this period (Table 5.1). As shown in Table 5.2, individuals from the Estacionamiento area had more alimentary resources than those from the Carretera area. A general reduction in total alimentary resources is observed from period II to period IIIb which indicates that agricultural intensification did not correspond to demographic increase, at least not for the population as a whole. We cannot say that meat at this time was more difficult to

get, but the evidence suggests that meat consumption was restricted to the ruling elite and just a few of the middle sector. Less people were eating more meat.

Health and nutrition indicators reveal a reduction in iron-deficiency anemia, which is related to malnutrition, but an important increase in periodontal infections and abscesses which are related to the type of diet and bucal hygiene. The increase of dental attrition documented from period II (18.7%), period IIIa (22.2%), and period IIIb (40%) is directly related to food preparation and a diet higher in carbohydrates. A diet based mainly on stone-ground maize is in part responsible for the wearing away of the oclusal part of the crown.

Our third research question was about the nature of social stratification and for this period we documented evidence of ceremonial activities in the three excavated areas. These ceremonies were performed in the patios of each household and included the deposition of figurines and skulls. Although it is difficult to be sure about the nature of trephination, we identified an individual with no evidence of disease or trauma who had endured the trephination procedure five times. No large effigy urns are present in the elite burials but incense burners were included as part of the funerary offerings. People in the three studied areas were involved in ceremonies and rituals but they could not afford more expensive items.

In this period, Monte Albán inhabitants were attracted to a cosmopolitan way of life. Elite residences were impressive in size and in the wealth of their occupants. The construction plan of these houses was always with main rooms around a central patio and only one access. Middle-sized domestic units were built in the same fashion but close together, sometimes with narrow corridors between them as the only way to

access them. The Estacionamiento area is a good example of how the residents of Monte Albán constructed as many houses as possible on the available level land close to the Main Plaza. As mentioned before, marked differences existed between one area and another in house size and house infrastructure. In addition, within each house strong differences based on age, gender and family prestige were detected. The people living in the Estacionamiento area were the wealthiest for this period, although these people were not allowed to acquire any jade or turquoise, and just a few were able to obtain shell as a prestige item. Living conditions for the entire population were attractive in terms of what a great city can offer, but when we compare living standards from one period to another, there was a decrease in living conditions and an increase in social inequality.

Summary and Final Comments

Our data indicates that this analyzed segment of the population is located in a middle social position in terms of the social structure. I want to delineate the difference between at least three easily recognizable social positions for the Monte Albán inhabitants: a) The ruling elite in the upper social scale, living in palaces and large residences close to the Central Plaza, buried in well made tombs with decorated façades and mural painted walls, with abundant offerings including local and imported items; b) Our sample, distributed in three areas of the city, living in middle-small sized stone wall houses, built on terraces over the hill, buried in tombs or burials with some offerings; c) The peasants and other low-income artisans or workers, living in small

wattle-and-daub houses over earth platforms in the lower piedmont and the valley floor. The fact that our sample is placed in this position on the social scale, instead of being a problem in terms of lack of representation of the whole society, provides an opportunity to look for patterns of social organization and social inequality in a wide although not well defined segment of the population. For this research it was also advantageous to be able to study a single sector of the population with all of its diversity and change through time. I think that state policies, levels of wealth and living conditions are more archaeologically detectable in this middle segment than in others, since the upper elite have it all and the peasants have little. In any case, it has not been easy to identify and study the top nobility or lower social levels of Monte Albán's society.

The patterns in sociopolitical organization and degrees of social inequality analyzed here give us a good idea about the development of a sector of Zapotec society through time, which was our main objective in this dissertation. Considering our three research questions, a final synthesis can be discussed at this point. The degree of social inequality between the inhabitants of Monte Albán was not the same from one period to another. In Period I, based on diet and health indicators, we believe that all of the population was enjoying good living conditions and social inequalities were not as pronounced as in later periods. The city was in its early stages of construction, but closeness to the Central Plaza either affected, or was a result of, the prestige and social position of their inhabitants. Differences in the family groups were modest and all households in the same area were at the same social level as well. Only in the area close to the Central Plaza was evidence of ceremonies and rituals detected.

In Period II we documented more social differences. Within each single domestic unit a marked hierarchy is present and adult males had more benefits than females, youngsters or children. Being buried in the family tomb is reserved almost exclusively to certain adult males. Although the people have kilns and produce pottery in all of the areas, there are clear differences between houses from one area to another. Proximity to the Central Plaza is related to prestige and the larger and wealthiest houses are close to the core of the city. But even within the same area we found differences. Only the inhabitants of one house in the Estacionamiento area had shell and jade as evidence of their prestige and social position. Health conditions are still good for all the population. There is evidence of the performance of ceremonial and ritual activities in all of the areas.

Period IIIa was a time of abundance for the ruling elite but not for the common people. Social inequality was greater than ever and a decrease in living conditions and health deterioration was evident in the sector analyzed. Within each family group there is also a strong hierarchy, with adult males eating more meat and being buried with more offerings. Inhumation in the family tomb was still a male privilege. Females were restricted to their domestic chores while males were participating more in rituals and ceremonies. A Teotihuacan influence was evident in public and private areas, and in mortuary ceremonies as well. Differences between areas are larger and pottery is produced only in the Carretera area. Differences among households are more evident. In the Estacionamiento area there are now three houses that had a concentration of wealth and prestige items such as jade, shell, and turquoise.

During Period IIIb social inequality is strong. For the population studied in this research, living conditions decline, with an increase in health problems, and a diet of mainly maize and almost no meat. We have no data for the ruling elite but we can assume that they, as well as the prestigious people identified in this sample (adult males buried in tombs), were eating more meat than ever and had better living conditions. Social stratification was more evident and imported items were restricted to the ruling elite only. In the segment analyzed, no shell, jade, or turquoise is present. The family group hierarchy continues but females are participating for the first time in other types of activities and are buried with obsidian blades or obsidian artifacts that in earlier periods were associated only with males. Performance of ritual ceremonies is extensive, with almost all of the households using ceramic figurines and incense burners.

Considering the nature of social stratification at Monte Albán we may use the presence of effigy urns as an indicator of an ancestor cult. In Period II we explored four tombs with a total of 11 individuals (Table 8.2) and found urns in all of them. As described in Chapter 8, in House Carr-A, Tomb-2A we found one effigy urn; in House Est-A, Tomb-8.1B we found one effigy urn; and in House EE-B, we found two effigy urns in each of the two tombs located there (T-13 and T-14), one “principal” and one “acompañante” urn, respectively. Besides the individuals in tombs (most of them adults, three males and two of unknown sex), we did not find urns in burials or ritual deposits.

It also is interesting to note that the individuals buried in tombs with urns do not have the most abundant offerings. In each of the houses with tombs and urns, there are other individuals in burials with more offerings. For example, burials E-80 and E-83 from House Est-A had 34 and 25 objects, respectively (Tables 8.2 and 8.4). This would

suggest that being buried in a tomb was related more to nobility privileges that were passed through the generations within kin groups and not due to material wealth. The existence of wealthier individuals in the same household but interred in burials would also indicate that regardless of the amount of wealth that a single individual can accumulate in life, if he/she was not member of the elite group, they had no chance of receiving inhumation in the house's tomb. This evidence suggests at least the possibility that three of the excavated houses in Period II may have been inhabited by some sort of lesser nobility, and supports the idea of a two class division discussed in Chapter 3.

In Period IIIa, using the presence of effigy urns as an indicator of nobility membership, we explored a total of seven tombs and found urns in just two of them. We also found two burials (E-42 and E-53) with one urn each as part of the offering (Table 11.1). These data at first seem to contradict the Period II findings but, on closer inspection, they do not. In the Carretera Area the same House-A had individuals buried in tombs with effigy urns in both periods. In the Estacionamiento Area there was more diversity. In House Est-A, during Period II, we have three individuals in a tomb with an urn (T-8.1), and for period IIIa we have two individuals in a burial with an urn (-53). In House Est-A', which is located adjacent to Est-A, for Period IIIa a single adult male was buried in T-10 with an urn as part of his offering, and a double burial (E-53) with two adults, one male and another of undetermined sex, and an urn as part of the offering.

Table 11.1: Effigy Urns Presence in Periods II and IIIa

<i>Area and House</i>	<i>Tomb or Burial</i>	<i>Period</i>	<i>No of indiv</i>	<i>Total offering</i>	<i>Effigy urns</i>	<i>Jade</i>	<i>Shell</i>	<i>Turquoise</i>
Ca-A	T-2	II	2	9	1	0	0	0
Est-A	T-8.1	II	3	15	1	1	0	0
EE-B	T-13	II	2	5	2	0	0	0
EE-B	T-14	II	4	13	2	0	1	0
Ca-A	T-4	IIIa	4	7	1	0	0	0
Ca-B	T-7	IIIa	2	7	0	0	0	0
Est-A	T-8	IIIa	3	24	0	0	1	0
Est-A	E-42	IIIa	2	16	1	0	0	0
Est-B	T-9	IIIa	7	10	0	2	1	4
Est-A'	T-10	IIIa	1	7	1	1	3	0
Est-A'	T-15	IIIa	6	21	0	7	3	0
Est-A'	T-16	IIIa	6	29	0	1	1	0
Est-A'		IIIa	2	19	1	0	3	0

The presence of effigy urns in both tombs and burials and the existence of tombs with no effigy urns during Period IIIa, show that there is not a positive correlation between urns and tombs. That is, not all of the urns found were located in tombs but also some were found in burials. In this sense, if the mere presence of an effigy urn is indicative of ancestor veneration, and possibly as a member of the noble class, we have no proof to the contrary. What these data suggest is that there is no evidence that individuals buried in a tomb were related to only the noble strata.

In Period IIIb we excavated 5 tombs in the Estacionamiento and Carretera areas but found no urns at all. In the Pitayo Area we explored two more tombs but one was looted and the other was probably explored by Alfonso Caso in the mid-40's. However, I

have found no information about the latter. For period IIIb, as mentioned before, there is no jade or turquoise present, and shell distribution is restricted.

What I can conclude about the use of effigy urns as an indicator of nobility membership is that we need more data. Based on my excavated sample it is not easy to explain why some individuals were buried in burials with urns and not in a tomb or vice versa. It could be related to a number of reasons that we cannot yet detect, much less explain. As documented in this dissertation, many changes occur from one period to another. One aspect that may be considered an indicator for one period could no longer be one in the next period. Due to this I find it necessary to emphasize the need for the development of better methodology and indicators to describe social structure. We cannot base our interpretations on one indicator only such as the mere presence-absence of effigy urns. I have to insist on the use of a multivariate analysis in order to have a broader spectrum. While I have not proved or disproved any of these perspectives, I know in what direction research must continue.

To conclude, it is important to make a final mention regarding the nature of social stratification at Monte Albán. Evidence for the performance of ritual ceremonies was found for all of the periods, from the foundation of the city in Period Early I, to the end of Period IV. Even though I detected changes in the ritual, it is clear that the ideological realm was important not only to the ruling elite but also to the common people. This middle sector of the population was participating in public ceremonies and rituals but also was involved in ceremonies within their own family group. It is interesting that for the elite, the development of the symbolic and ideological world was a way to increase their power. Based on the use of ideology, the ruling elite consolidated their power. As a

corporate society, they focused more on the internal production. The cohesion needed to achieve this internal wealth, was given by the ideology and materialized in ritual and ceremony.

In this dissertation I had the opportunity to detect, analyze, and evaluate changes in patterns of social organization and levels of inequality for the inhabitants of Monte Albán through time. It is important to emphasize the results obtained in this holistic view of an ancient society. This view was possible due to the methodology used here that integrates information and data from many sources.

A lot has been said about the Zapotec civilization and the strategies followed by their leaders to consolidate their power. Temples, administrative and ceremonial structures, ballcourts, and hieroglyphic inscriptions are impressive and are the material representation of one of the earliest Mesoamerican stratified state societies that managed to survive for many centuries. Nevertheless, most of the Monte Albán structures were residential units built on artificially leveled terraces around the hill, and housed a population of 25,000-30,000 during the maximum development. A still undetermined percentage of these people belonged to the middle segment of the Zapotec society. The sample studied here, with all of its diversity and change through time, is a reflection of how these people, the common people lived. Much less has been said about the common people than about the rulers. I hope that this dissertation has contributed a step forward in that direction.

APPENDIXES

APPENDIX A

Funerary Objects by Period in all the Houses

Pit-A					Pit-B					Carr-A				
	II	IIIa	IIIb	Tot		II	IIIa	IIIb	Tot		II	IIIa	IIIb	Tot
Decor	0	0	1	1	Decor	0	0	0	0	Decor	9	1	0	10
Nondec	0	2	1	3	Nodec	0	2	0	2	Nondec	7	4	0	11
Cerem	0	0	6	6	Cerem	0	0	0	0	Cerem	2	1	0	3
Obsid	0	0	0	0	Obsid	0	4	0	4	Obsid	0	1	0	1
Exotic	0	0	0	0	Exotic	0	4	0	4	Exotic	1	1	0	2
Total	0	2	8	10	Total	0	10	0	10	Total	19	8	0	27

Carr-B					Carr-C					Est-A				
	II	IIIa	IIIb	Tot		II	IIIa	IIIb	Tot		II	IIIa	IIIb	Tot
Decor	0	1	1	2	Decor	0	0	0	0	Decor	15	28	2	45
Nondec	0	4	22	26	Nodec	0	0	4	4	Nondec	10	47	0	57
Cerem	0	0	9	9	Cerem	0	0	1	1	Cerem	0	12	0	12
Obsid	0	0	0	0	Obsid	0	1	6	7	Obsid	35	12	13	60
Exotic	0	1	1	2	Exotic	0	0	3	3	Exotic	58	28	0	86
Total	0	6	33	39	Total	0	1	14	15	Total	118	127	15	260

Est-B					Est-C					Est-D				
	II	IIIa	IIIb	Tot		II	IIIa	IIIb	Tot		II	IIIa	IIIb	Tot
Decor	0	0	0	0	Decor	1	1	0	2	Decor	0	0	2	2
Nondec	0	1	0	1	Nodec	3	2	16	21	Nondec	0	0	0	0
Cerem	0	4	0	4	Cerem	0	1	22	23	Cerem	1	0	1	2
Obsid	0	4	0	4	Obsid	1	3	0	4	Obsid	0	0	11	11
Exotic	0	11	0	11	Exotic	0	1	1	2	Exotic	1	0	7	8
Total	0	20	0	20	Total	5	8	39	52	Total	2	0	21	23

Est-A'					EEste-A					EEste-B				
	II	IIIa	IIIb	Tot		II	IIIa	IIIb	Tot		II	IIIa	IIIb	Tot
Decor	0	10	0	10	Decor	0	0	0	0	Decor	9	0	0	9
Nondec	0	28	0	28	Nodec	1	0	0	1	Nondec	5	0	0	5
Cerem	0	9	0	9	Cerem	0	0	0	0	Cerem	5	0	0	5
Obsid	11	27	0	38	Obsid	2	0	0	2	Obsid	2	0	0	2
Exotic	14	34	0	48	Exotic	0	0	0	0	Exotic	4	0	0	4
Total	25	108	0	133	Total	3	0	0	3	Total	25	0	0	25

APPENDIX B

Non-funerary Artifacts by Period in all the Houses

Pit-A						Pit-B						Carr-A					
	I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot
Decor	0	0	0	0	0	Decor	0	0	0	0	0	Decor	0	1	1	0	2
Nodec	0	0	0	0	0	Nodec	0	0	0	0	0	Nodec	0	0	1	0	1
Cerem	0	0	0	0	0	Cerem	0	0	0	0	0	Cerem	0	0	0	0	0
Obsid	0	0	1	3	4	Obsid	0	0	3	0	3	Obsid	0	5	41	0	46
Exotic	0	0	4	0	4	Exotic	0	0	4	0	4	Exotic	0	7	3	0	10
Total	0	0	5	3	11	Total	0	0	7	0	7	Total	0	13	46	0	59
Carr-B						Carr-C						Est-A					
	I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot
Decor	0	2	1	1	4	Decor	0	0	0	1	1	Decor	3	3	4	2	12
Nodec	2	8	5	7	22	Nodec	0	0	0	0	0	Nodec	1	0	11	8	20
Cerem	0	2	6	2	10	Cerem	0	2	1	0	3	Cerem	0	4	10	2	16
Obsid	0	7	5	5	17	Obsid	0	2	1	2	5	Obsid	0	39	51	17	107
Exotic	0	1	1	3	5	Exotic	0	2	0	2	4	Exotic	0	20	36	1	57
Total	2	20	18	18	58	Total	0	6	2	5	13	Total	4	66	112	30	212
Est-B						Est-C						Est-D					
	I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot
Decor	1	5	5	0	11	Decor	1	2	0	0	3	Decor	0	0	0	0	0
Nodec	0	4	22	0	26	Nodec	1	3	3	0	7	Nodec	0	0	1	0	1
Cerem	0	3	4	0	7	Cerem	0	1	2	0	3	Cerem	0	0	0	0	0
Obsid	0	22	64	0	86	Obsid	0	7	15	0	22	Obsid	0	6	12	5	23
Exotic	0	4	15	0	19	Exotic	0	8	8	0	16	Exotic	0	9	16	2	27
Total	1	38	110	0	149	Total	2	21	28	0	51	Total	0	15	29	7	51
Est-A'						EE-A						EE-B					
	I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot
Decor	2	9	3	0	14	Decor	0	0	0	0	0	Decor	0	4	0	0	4
Nodec	7	4	16	0	27	Nodec	0	0	0	0	0	Nodec	0	8	2	0	10
Cerem	1	2	6	0	9	Cerem	0	0	0	0	0	Cerem	1	2	2	0	5
Obsid	3	8	65	0	76	Obsid	0	1	0	0	1	Obsid	2	48	19	0	69
Exotic	1	2	13	0	16	Exotic	0	8	0	0	8	Exotic	1	25	9	0	35
Total	14	25	103	0	142	Total	0	9	0	0	9	Total	4	87	32	0	123
All						Percentage by period (columns)											
	I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	tot						
Decor	7	26	14	4	51	Decor	25.9	8.6	2.8	6.4	6.0						
Nodec	11	27	61	15	114	Nodec	40.8	9.0	12.4	23.8	12.8						
Cerem	2	16	31	4	53	Cerem	7.4	5.3	6.3	6.3	6.0						
Obsid	5	145	277	32	459	Obsid	18.5	48.3	56.3	50.8	52.2						
Exotic	2	86	109	8	205	Exotic	7.4	28.7	22.1	12.7	23.0						
Total	27	300	492	63	882	Total	100	100	100	100	100						
						%	3.0	33.7	55.3	7.1	100						

APPENDIX C

Non-funerary Sherds by Period in all the Houses

Pit-A						Pit-B						Carr-A					
	I	II	IIIa	IIIb	Total		I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot
Decor	0	9	0	0	9	Decor	1	18	0	0	19	Decor	130	122	8	5	265
Nodec	0	56	0	3	59	Nodec	8	12	0	0	20	Nodec	312	518	268	85	1183
Cerem	0	0	0	0	0	Cerem	0	0	0	0		Cerem	1	8	7	0	16
Total	0	65	0	3	68	Total	9	30	0	0	39	Total	443	648	283	90	1464
Carr-B						Carr-C						Est-A					
	I	II	IIIa	IIIb	Total		I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot
Decor	14	46	2	6	68	Decor	2	20	0	4	26	Decor	64	523	51	0	638
Nodec	54	101	77	143	375	Nodec	14	32	37	5	88	Nodec	571	635	317	218	1741
Cerem	0	1	43	4	48	Cerem	0	3	2	0	5	Cerem	5	49	7	30	91
Total	68	148	122	153	491	Total	16	55	39	9	119	Total	640	1207	375	248	2470
Est-B						Est-C						Est-D					
	I	II	IIIa	IIIb	Total		I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot
Decor	0	61	1	2	64	Decor	3	6	0	1	10	Decor	0	0	0	0	0
Nodec	15	69	48	4	136	Nodec	0	17	8	9	34	Nodec	0	0	0	0	0
Cerem	0	0	5	0	5	Cerem	0	0	2	1	3	Cerem	0	0	0	0	0
Total	15	130	54	6	205	Total	3	23	10	11	47	Total	0	0	0	0	0
Est-A'						EE-A						EE-B					
	I	II	IIIa	IIIb	Total		I	II	IIIa	IIIb	Tot		I	II	IIIa	IIIb	Tot
Decor	35	290	26	0	351	Decor	0	0	0	0	0	Decor	4	118	0	14	136
Nodec	62	551	279	31	923	Nodec	0	0	0	0	0	Nodec	124	96	30	4	254
Cerem	2	2	23	0	27	Cerem	0	0	0	0	0	Cerem	72	18	1	0	91
Total	99	843	328	31	1301	Total	0	0	0	0	0	Total	200	232	31	18	481
All houses																	
	I	II	IIIa	IIIb	total												
Decor	253	1213	88	32	1586												
Nodec	1160	2087	1064	502	4813												
Cerem	80	81	90	35	286												
Total	1493	3381	1242	569	6685												

APPENDIX D

Coding for all Variables

N. Variables

01 Area association

- 01 Pitayo-A
- 02 Pitayo-B
- 03 Carretera-A
- 04 Carretera-B
- 05 Carretera-C
- 06 Estacionamiento-A
- 07 Estacionamiento-B
- 08 Estacionamiento-C
- 09 Estacionamiento-D
- 10 Estacionamiento-A'
- 11 Estacionamiento-East-A
- 12 Estacionamiento-East-B
- 13 North Platform

02 Unit association

- 01 Tomb number
- 02 Burial number
- 03 Element

03 Phase association

- 01 I
- 02 II
- 03 IIIa
- 04 IIIb-IV
- 05 V

04 Location within the household

- 01 central patio
- 02 central rooms
- 03 lateral patio
- 04 lateral room
- 05 outside
- 06 other

05 Form of disposal facility

- 01 tomb
- 02 cist
- 03 pit

- 04 kiln
- 05 other

06 Age

- 00 indeterminate
- 01 newborn
- 02 infant (0-2 years)
- 03 child (3-10 ears)
- 04 young (11-15 years)
- 05 young adult (16-20)
- 06 adult (21-40 years)
- 07 old (41-60 years)

07 Sex

- 01 male
- 02 female
- 03 subadult
- 04 adult unspecified

08 Type of inhumation

- 01 primary individual
- 02 primary collective
- 03 secondary individual
- 04 secondary collective

09 Position of the body

- 01 face-up extended
- 02 face-down extended
- 03 right side flexed
- 04 left side flexed
- 05 face-up flexed
- 06 right side extended
- 07 left side extended
- 08 face-up ext sup flex
- 09 seated
- 10 face-down ext inf flex

10 Orientation

- 01 east-west
- 02 west-east
- 03 north-south
- 04 south-north
- 05 other

11 Health index

- 0 good health
- 01 criba orbitalia
- 02 criba & porothic hiperostosis
- 03 criba, hiperostosis, and periostitis
- 04 criba, hiperos, perios, and hipoplasia

12 Anatomical modifications

- 01 trephination
- 02 cranial modification
- 03 dental mutilation/bone fracture
- 04 red paint
- 05 burned
- 06 cranial/dental mutilation & red paint
- 07 burned and red paint

13 Quantity

14 Variety

15 decorated vessels(ceremonial)

- 01 plates-bowls
- 02 jars/zoomorphic, effigies
- 03 vases/ zoomorphic, effigies
- 04 botellones/floreros-bottles

16 nondecorated vessels domestic?

- 01 plates-bowls
- 02 jars
- 03 vase
- 04 botellones/floreros-bottles
- 05 comales
- 06 apaxtles

17 Other ceramics

- 01 urns
- 02 incense burners
- 03 pipes/tubes
- 04 figurines
- 05 ear plugs
- 06 beads
- 07 candeleros
- 08 flutes
- 09 potstands

18 Obsidian

- 01 blades
- 02 points
- 03 flakes
- 04 fragments
- 05 cores
- 06 beads
- 07 other

19 Shell

- 01 whole, unworked
- 02 perforated
- 03 beads
- 04 bracelets
- 05 pendants
- 06 ornaments/plaques and discs

20 Jadeite

- 01 beads
- 02 pendants
- 03 rings/disks
- 04 figurines
- 05 fragments/chunks

21 Bone

- 01 needles
- 02 graver/drill
- 03 beads
- 04 disk/pendant
- 05 carved/incised
- 06 fragments

22 Fauna remains

- 01 dog
- 02 bird
- 03 stingray spine
- 04 unspecified

23 Turquoise

- 01 fragments

24 Mica

- 01 books
- 02 pendant

25 Silex

- 01 points
- 02 flakes

26 Unspecified stone

- 01 mano/metate (grinding stone)
- 02 axes
- 03 beads
- 04 plaster smoothers(white stone)
- 05 other

27 Tecalli

- 01 cylinders

APPENDIX E

Description of Ceramic Types

Type	Phase	Forms, surface treatment, and decoration.
G-1	I	Daily use, thick walls and unburnished.
G-1	I-II	Plate, shallow, miniature, burnished. Period I everted rims.
G-1	II	Macetas, pipes. Unburnished zoomorphical vessels. Conic bowl, flat bottom, everted walls and single rim
G-1	I-IV	Globular tecomate, wiped, some rims burnished, deep bowl, medium thick.
G-1	IIIa	Jar w/double bridge-spout and cones as decoration. Cylindrical jar w/flat bottom. Globular jar. floreros. Vase, pipes.
G-1	IIIb-IV	Large jar, thick, globular jar. incense burner; domestic conical or outleaned walls bowl, medium thick, bottom decorated.
G-1,3	IIIb	Cylindrical bowls: flat bottom, tall walls; espheric bottom, lower walls
G-1,3	IIIb	Tall bowls. Tall and low espheric bowls. tecomates are rare.
G-1,3	IIIb	Vase with bat-jaguar paw spider vase w/spout , composite silhouette conic walls, cylindrical with cover
G-1,3	IIIb	Florero w/direct rim. Cylindrical jar tall neck, everted rim. florero
G-1,3	IIIb	Jars w/bridge-spout. Globular jar: open neck, of conical everted neck with or without spout, vertical neck
G-1,3	IIIb	Abundant incense burners, ceremonial use, status marker CBA:435.in K-14, K-19
G-1M	V	Thin walls jar, globular, neck and variable rim
G-2	I*	Only domestic apaxtles
G-3	I	Burnished in one or both sides sometimes with red powder. Domestic and ceremonial.
G-3	I-IIIb	Jars w spout (II-IIIa); thick conical or cylindrical bowl (I-IV),
G-3	cont	Period I: bowl, composite silhouette, direct rim, int-ext burnished
G-3	II	Cylindrical jars, flat bottom, direct and short neck, bridges in form of belts, others with decoration close to the rim.
G-3	II	Conical bowl: flat bottom, everted walls and single rim. Cylindrical bowl w/direct rim or everted.
G-3	II	Tetrapode, breast feet. Bowl composite silhouette cylindrical vases. potstands.
G-3	IIIa	It was used for more than 40% of all vessels and all forms. Jar single or double bridge-spout and small cones decoration
G-3	IIIa	Biconical jars. floreros. Conical or semiespherical bowls. Vases w/ bridge-spout and spider forms.
G-3M	V*	Conical bowls, hemispherical or composite silhouette, tripod feet or no feet bowl. composite silhouette jars.
G-4	II-IIIa*	Outleaned bowl, thick, flat rim, outleaned wall.
G-5	I*	Burnished internal walls with incised lines. Few samples, domestic use.
G-5	Ia-Ic	Conical bowl, flat bottom, direct, flaring rim; jars everted rim. apaxtles
G-7	II-IIIa	More in period IIIa: Vases incised lines in exterior rim. biconical and spherical jars. floreros. Vases.
G-7	II	Cylindric bowl w/ direct or everted rim. Apaxtles. Cylindrical vases.
G-7	IIIa*	Conical bowl w/without feet, small and solid. vases w/bridge-spout and

		spider foot
G-9	IIIa*	Bowl w/incised horizontal lines as decoration. Teotihuacan style jar. Spherical vase w/3 hollow feet.
G-10	I*	Extended plates, w/without feet, rim decorated w/animal motives, some w/brown paste.
G-11	II*	Period II marker, cont in IIIb. Conical bowl, flat bottom, direct rim
G-11	II-IIIb	Stucco and fresco painted. Period II: conical bowl, flat bottom, int-ext burnished.
G-12	Ib-II*	Rim decorated w/two incised lines before firing at the bottom
G-12	Ib-II	Everted bowl or flaring, Ib-II; serving vessel; assoc. Monte Negro
G-12	I	Conic bowls, 3 decorations: rim and bottom or bottom only, combined lines. all rim flaring or outcurving
G-13	Ia*	Parallel incised lines in exterior wall
G-13	Ia	Conical bowl; vases, jars, spherical tecomates; potstand, anular base int-ext burnished
G-15	I*	Non-domestic. Plate w/lower walls is abundant, flaring rim. int-ext decorat
G-15	I	Cylindrical/conical bowl; plates low walls, flaring rim. Miniature incense burner, hollow handle, everted rim, burnished
G-15	cont.	Cylindrical bowl, thin walls, burnished int-ext, wide line incising below ext rim. Bowl composite silhouette, tripod, rounded feet
G-15	cont.	Tecomate, small, thin, burnished Wide exterior incised parallel lines below rim. jar neckless, small. Potstand, basal rim
G-16	Ia*	Similar to G-15. No domestic, exterior very decorated.
G-16	Ia	Conical, composite silhouette, cylindrical bowls, everted rim; plate w/scalloped and incised rim. Plate everted rim.
G-16	cont.	Jar, medium size, curved-back rim, burnished ext, some w/red paint in incised areas. jar neckless, small, incising ext.
G-17	I*	Ceremonial. Carved decoration: flaring rim combined; flaring rim, parallel triple line w/scallops, flaring rim w/animal figures.
G-17	I	Miniature bottle w/cocijo face, exterior burnished. human/animal carved figures, same to G-18. jars, bowls, plates,
G-17	I	Low bowl w/everted rim and scalloped, burnished, lines interior. "fish plate" low, everted, outcurved rim. vases
G-18	Ia*	Ceremonial, decorated. Composite silhouette bowl, tripod, breast form, hollow with one or more incised lines in the rim.
G-18	cont.	combined lines in body, joybed wavy line, vertical or curls "s" in spherical cylindrical and tripod bowls
G-18	cont.	Globular jars, seem patojos, w/human figures. Bottle w/cocijo face. Vases w/animal forms.
G-21	II*	Rare decoration in IIIa. Thick wall bowl, conical, flat bottom, direct rim. burnished, 2 crude incised lines in interior rim. maceta
G-22	II-	Starts in II; conical bowl, flat bottom, everted walls, direct rim
G-23	IIIa*	Marker of II/IIIa period. Conical bowl w/spherical feet. Spherical bowls w/two parallel incise line, cross-hatching or with a glyph
G-23	IIIa	Carved decoration: teotihuacan jar and vase. Biconical jar w/globular spout
G-24	I-IIIb	Starts in II, more abundant in IIIb. Conical bowl, flat bottom, outleaned walls and direct rim. Cross-hatching decoration in bottom, starts in period I until IIIb.
G-25	II*	Period II marker, composite silhouette vases, w basal band. Carved parallel lines in exterior walls.
G-26	II*	Marker, composite silhouette vases with band attached in rim

G-29	II*	Intrusive, vases and maybe comales; CBA:67
G-30	I-?	Gris paste well burnished, light incised lines CBA:44.
G-31	II	Starts in period II.
G-32	I*	Different from G-1 by stick decoration, seems K-3 variant. Mat impression at the bottom
G-33	Ic	Decorated w/plant impressions at bowl bottoms.
G-34	II*	Decorated jars. Exclusive from Period II.
G-35	IIIa/IIIb	Domestic. More from IIIb. Conical bowl, flat bottom, direct thick rim (IIIa). Plates lower rim. Incense burner III-IV
G-35	IIIa	Bowl G-35: conical, large, domestic use, all pastes, interior burnished, with or without foot. urns
G-35	IIIb	Conical bowl, low height, flat bottom: direct flat bottom, w/shallow base, w/semi-espherical or solid feet
G-35	IIIb	5 cm height, 15 cm diam. Aver diam in base 13 cm and y rim 30 cm.
G-36	II-	Begin in II; Bowl conical: flat bottom, outleaned walls and direct rim
G-37	II-	Begin in II;
C-1	I	Domestic bowl low with or not conical or coffee bean foot. Anular base CBA:45 jars w/straight, curved neck;
C-1	I	bowls outleaned; potstand. Patojo with no bridges.
C-1	II	Macetas. Bowl conical: bottom flat, wall divergent, direct rim. Bowl spherical, walls curved bottom spherical.
C-1	II	Cylindrical vases. incense burners.
C-2	I*	Domestic. globular jar open or outleaned mouth w/decor of red lines no slip. brazier w/potstand
C-2	I	Comal, top wiped, painted (solid or red bands) bottom plain; brazier outleaned, thick, burnished, red bands
C-2	I	Small conic bowl; jars, wiped surface, red paint ext.rims: neckless, outcurved, outleaned neck. tecomates
C-2	II	Bowl cilindric w/direct rim or outleaned. Spheric bowl, curved walls, bottom spherical.
C-3	I	Domestic. Conical wall bowls, outleaned rim, flat bottom.
C-3	II	Jar globular body, flat bottom, short outcurved neck. Conical bowl: flat bottom, outleaned wall, direct rim.
C-3	II	Patojos.
C-4	I*	Ceremonial. potstand; jars w/neck or narrow neck, burnished, incised; thick wall conical bowl. Whistle and zoomorphical figures.
C-4	I	Outleaned bowl, wide or narrow everted rim, burnished int-ext paint. shallow bowl suchilquitongo, conical feet
C-4	I	Tall bottle cylindrical neck, everted direct rim. Low bowl, flat rim, red painted in rim. Miniature tripod bowl
C-5	I*	Ceremonial; bowls: narrow, wide everted, outcurving rims; outleaned, direct rim, burnished. Figurines (I-II)
C-5	I	Apaxtle, low, flat bottom, divergent rim, tecomate. Cylindrical vase w/cover. Olmec style brazier.
C-6	II*	Begin I but marker in II. Convex and outleaned wall bowls(Ia-II), cylindrical bowl (II).int-ext burnished. Bowls zoomorphical
C-6	II	Bottles with different body forms. Outleaned. conical bowl, flat bottom, wall outleaned, rim direct. patojos.
C-6	II	Bowl spherical, walls curved bottom spherical. bowl tripod, big hollow foot, big spherical bowl, tetrapod breast form
C-6	II	bowl w/duck peak spout; w/spider feet hollows. Cylindrical vase w/cover

		tecomates. potstands.
C-7	II*	Rare in Late I and IIIa. Outleaned bowls. flaring rim int.ext burnished. CBA:47.cylinder shapes. bowl tetrapod breast form
C-7	II	Bowl conical: flat bottom, outleaned wall, direct rim. Bowl spherical walls curved bottom spherical. Apaxtles
C-7	cont.	Conic, cylindrical bowls w/narrow everted rim, tripods w/hollow feet. Int-ext burnished rim and ext painted red decorated
C-7	cont.	Bowl, convex walls, int and ext burnished. comal. Bowl composite silhouette. Incense burner (II-IIIa)
C-8	II*	Intrusive, fine texture, both sides burnished, rare.
C-10	IIIa*	Bowls outleaned walls, flat bottom w/foot but unknown form
C-11	II*	Grand bowls wall vertical, w/3 or 4 feet globular/breast form. Scratch post-firing and slipped surfaces with grecas or xicalcolihquis
C-11	cont.	Outleaned bowls, flaring rim, int and ext burnished, fine-line scratching on ext. int and Ext rim w/red paint
C-11	cont.	Cylindrical bowl, thin walls, w/hollow feet. All vessel paint streaky red and scratching on ext.
C-12	II*	Comes from C-20, forms as C-11; bowl cylindrical, hollow feet; carved or incised xicalcolihquis. Used for food serving.
C-12	II	Bowl tripod, big foot hollow, spherical. bowl tetrapod breast form
C-13	Ic*	Marker of I; similar to C-7 but more coarse. w/red paint. Very rare. CBA:47
C-17	IIIa*	Intrusive CBA:82. Ivory or white fine paste.
C-20	I	Ceremonial marker for period II. In period I: conical bowl flat bottom; cylindrical bowl, flaring rim; tripod bowl; conical walls vase flat bottom.
C-20	II*	Ceremonial bowls, several shapes, int-ext burnished, tripods. Jar globular body, flat bottom, short everted neck.
C-20	II	Jars composite silhouette, globular body and conical neck. Bottles with different body forms. Cylindrical vases.
C-20	II	Tetrapod breast form bowl. bowl w/duck peak spout; vases w/spider feet. Vases with cover, tecomates.
C-20	II	Potstands.
K-1	I-IV	Domestic en I, II y IIIa, abundant. in IV was used for urns. Curved-back or straight-neck jars (II/IIIa)
K-1	I	Bowls conical, unburnished, mat impression in exterior. Anular base, solid foot, bowls.
K-1	II	Jar body globular, bottom flat, short everted neck. Conical bowl: flat bottom, outleaned wall, direct rim.
K-1	II	Bowl spherical walls, curved bottom spherical. patojos. Incense burners.
K-2	Ib yIV	Rare. Jars only w/deep carved lines in exterior neck. Appears again in period V.
K-3	Ia-Ic*	Domestic. grand bowls, bowl conical, flaring, outcurved rim w/mat impression, jars, apaxtles. dark red interior paint
K-3	cont.	Miniature tripod ceremonial bowls. Low wall bowls or Suchiquiltongo plate, flat or beveled rim.
K3a	I*	Variant of K-3. This have slipped black surfaces instead of red or brown; CBA:50; macetas flat bottom.
K-4	II*	Good marker, CBA:69. Thick to medium bowls. tetrapod breast form. One or several incised lines in interior rim
K-5	Ic-II	Several form bowls, graphite slip on int and sometimes ext. period II: bowl tripod, big spherical hollow feet.
K-6	Ib*	Intrusive, decorated, very rare; CBA:52. Are bowls w/internal incising w/

- parallel lines close to the rim.
- K-6 cont. Period Ib: bowl conical, flaring, narrow everted rim; interior burnished, lines incised through black or dark brown slip. bowls w/frog shape.
- K-7 I-? Intrusive?, very rare. Bowls w/two parallel lines close to the rim. Exterior unburnished. CBA:52
- K-8 I-II More abundant in II. For period I: conical bowl, bottom flat, direct rim, spherical bowl. Shells, spherical sunken bowl
- K-8 cont. Large bowl w/3-4 feet, breast forms. Conical bowl, thin, direct rim, burnished. Cylindrical bowl. jars, thin, ext burnished.
- K-8 II Jar body globular, flat bottom, short everted neck. Composite silhouette jars and globular body, globular and conical neck.
- K-8 II Bowl cilindric w/rim direct or everted. Tripod bowl, big hollow spherical feet. Composite silhouette bowl.
- K-8 II Bowl w/duck peak spout; w/spider feet hollows. vases cylindrical. tecomates. incense burners.
- K-11 IV* It was used in urns
- K-12 Ic-II It was used in apaxtles w/everted rim and bowls w/direct rim flat. tecomates. CBA:51.
- K-13 Ib-II? Maybe continues till period II, intrusive; CBA:53.
- K-14 IIIb-IV* More from IIIb; tripod bowls, solid foot, conical bowls CBA:85,367. Figurines (I-II)
- K-14 IIIb-IV Miniature jar w/conical bridges w/appliqué, bowls w/finger impressions; bowl w/rim; spherical bowl. incense burners, paw form vases.
- K-14 IIIb-IV Conical bowl, low walls, bottom flat = G-35: direct bottom flat, w/incipient base w/spherical solid feet.
- K-17 Ic* Intrusive, regional variation from C-20. CBA:53. Conical bowls, flat bottom and vertical walls. Jars
- K-17 II Bowl spherical, walls curved bottom spherical.
- K-19 Ib-II Comales, jars, straight, thick neck; cylindrical vases. Incense burners. conical and cylindrical bowls in period II.
- K-20 II Very rare, similar to G-11, café paste with painted stucco, CBA:69. Potstand, cylindrical vases.
- K-22 IIIb-IV* More from IIIb; braziers or large bowls, conical bowls. Appliqué decoration. CBA:85.
- A-1 Ib* Bowl conical de bottom flat CBA: 59,tabla IV.
- A-2 Ic-II In period I tall vase. More abundant in II, miniature zoomorphical plate. bowl with hollow foot, burnished ext.
- A-3 IIIa* Thin orange. Begins in II/IIIa. Good marker, imported (thin orange) abundant in IIIa. Several forms
- A-3 IIIa Jar teotihuacan body, open conical neck, bottom flat, non-decorated bowls, curved bottom. Cups.
- A-4 I-II In Ia: Vases and jars open neck. CBA:59. Bowl conical in period II. With anular base, direct or flaring rim.
- A-4 II Jar body globular, flat bottom, short everted neck. Bowl conical: bottom flat, wall outleaned, rim direct.
- A-5 Ic, II More abundant in Ic; CBA:60
- A-6 Ia* Marker CBA:60. bowl tripod, bottom flat, outleaned body, almost cylindrical, direct rim. incense burners
- A-7 IIIb-IV* Decorated bowl for serving. Jaguar paw vases are from IV; jar w/ bridge-spout CBA:86
- A-7 cont. Imitation of fine orange. Cylindrical bowl, outleaned walls and vases. Int-ext

		burnished
A-8	IIIa*	Same to G-23. Decoration of fine carved lines. Local. Tecomate?, outleaned, conical, cylindrical, and spherical bowls.
A-8	IIIa	Jar and teotihuacan vase w/carved decoration.
A-9	II*	Good marker. Painted Xicalcolihquis. Conical, outleaned bowls, flat bottom flat no foot. int-ext burnished
A-9	II	Jars with spout. Tetrapod bowl, breast form . Apaxtles. Vases cylindrical potstands.
A-10	Ib*	Good marker. CBA:60
A-11	II*	Intrusive CBA:70. Bowls forms varies, incises, red paint, int-ext burnished potstands.
A-13	Ib*	Good marker CBA:60. bowls and jars, carved lines in rim or base
A-14	IIIb*	Apaxtles and large urns. Good marker.
A-17	I*	
A-18	I*	Human head form whistle bowl. Miniature composite silhouette bowl.

		FORMS with no specific ceramic type by Phase
I		Whistle vases. Globular bottle, tall neck and cylindrical rim, direct and outcurved. Jars: flat bottom, globular, vertical neck and 3 bridges, some w/incised lines in the body. Miniature jars, spherical body, small neck and direct rim, flat bottom Composite silhouette bowls: conical, spherical, cylindrical and tripods. Cup, plates, potstands, tecomates, incense burners, vases in gris paste. The feet are small, solid or hollow, tripod, big and breasted form at the end of this period I.
II		In period II 4 feet, hollow, big, spherical, cylindrical, conical or pochote
II		Whistle vases, zoomorphical bowls low and conical walls Effigy urn "acompañante" just one form. In IIIa and IIIb are several. The vase is cylindrical and the figure is attached.

BOWL FORMS AND TYPES, PERIOD II

Conical bowl: flat bottom, everted walls, direct rim CBA:223; common
 Conical bowl: G-1,2,3,11,22,24,36; C-1,3,6,7,20;K-1,8,17,19; A-4,9.
 Cylindrical bowl: vertical walls direct rim, wall and bottom are curved, everted rim, CBA:229; G-3,7; C-2,6; K-3,8.
 espheric bowl flat bottom: curved inner walls CBA:225; common use
 Bowl w/espheric body and bottom/curved walls:225; C-1,2,6,7; K-1,3,17,19
 Bowls w/anular base:CBA:224.C-1;K-1. w/notch:G-1,36;K-1,17;C-1;A-2,5;
 Bowl tripod: hollow feet, spherical, breast or fruit form CBA:230 in C-6,20,K-8, w/no decor
 Tripod bowl, decorated in C-7,11,12, K-5,G-3; Tetrapod bowls: almost all breast form CBA:231; in C-6,7,11,12,20;G-3;K-4,8; A-9
 Composite silhouette bowl CBA:230; curved bottom, everted walls and outcurved rim, K-8,C-7,G-3
 Bowl w/spout CBA:234.w/duck peak. Spider feet, 3 hollow feet, in C-6,20;K-8.

IIIa		BOWL FORMS AND TYPES, PERIOD IIIa Teotihuacan bottles
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IIIa Dog figurines. Candeleros. Tejos (discs).

BOWL FORMS AND TYPES, PERIOD IIIb
IIIb Bowls type G-35; plates w/everted, outleaned, conical, and spherical walls.
CBA:395. Tall bowls in G-1
Spherical bowls, flat bottom and tall walls; curved bottom low walls.
tecomates are rare. Spherical bowls w/ tall and low walls.
Miniature bowls, some in fine orange or plumbate. K-14. apaxtles.
Vases jaguar/bat paw; spider foot w/bridge-spout, composite silhouette,
conical ,cylindrical with cover
Bottle and florero with direct rim
Florero w/spherical body tall neck outleaned rim. Jar and florero derived
from these forms.
Jars: w/pipe or peak spout. Globular jar: neckless, everted with or without
bridges, direct rim
Incense burners very common for ceremonial use, status marker,
CBA:435.in K-14, K-19
Tejos (discs to CBA:436) in G-1,3,K-14

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