

Chapter 3

Caracol

The site of Caracol, the context for my research, has been the focus of several archaeological projects since it was first reported to the Belizean government in 1927. Linton Satterthwaite of the University Museum (University of Pennsylvania) carried out the initial investigations, and after a 30 year research hiatus at the site, Drs. Arlen and Diane Chase initiated the first long-term intensive research program at the site in 1983. During their tenure, interpretations about the site have challenged some traditional conceptions of Maya society and the site has become the center of some controversy concerning demographic, social, political, and economic interpretations of the Classic Maya. This chapter reviews the history of the Caracol polity as it has been reconstructed from archaeology and epigraphy. While I do introduce many of the debated interpretations during this review, I summarize and address only those relating to agricultural terracing at the end of the chapter.

Overview

Caracol, located on the Vaca Plateau and adjacent to the western border of Belize (*figure 3.1*), was a Maya site occupied from the Late Preclassic (roughly 600 BC) until the early Postclassic (roughly AD 1050 – 1100) (Chase and Chase 1987; Chase and Chase 1994b). Its main occupation and florescence was during the Late Classic Period (AD 500 – 850). Caracol's epicenter is composed of more than 150 structures (*figure 3.2*), centered upon a large palace called Caana ('Sky House'), which stands more than 40 meters tall (*figure 3.3*). Radiating outward from the site center are causeways that extend as far as 12 kilometers from Caana (*figure 3.4*) (Chase and Chase 2001). Although the exact function of the causeways has not been determined, it is clear that they are important ritual, political and economic features (Chase and Chase 2001). Each causeway terminates with large plazas and sometimes monumental constructions, some clearly ritual, and all with clearly elite or palatial constructions^{vi} (Chase and Chase 2001).

One function of the causeways must have been to integrate the thousands of residential remains that are dispersed throughout the region. Caracol has a somewhat unique settlement pattern. Unlike other Maya sites such as Palenque, Copan or Piedras Negras, there is no clear, dense pocket of settlement located around the epicenter (*table 3.1^{vii}*) and no real drop-off in settlement density outside what is considered to be the core of the site^{viii} (*figure 3.5*). Thus, high densities of residential remains can be found even far from the epicenter, (e.g. at least 25 residential units per square kilometer near Roundhole Bank to the southeast of Caracol and roughly the same in my survey area, i.e., between Cohune

and Chaquistero). Surrounding all residential remains (whether located adjacent to the epicenter or 10 kilometers distant) are systems of agricultural terracing. The terracing, which in my opinion is the most important feature identified at Caracol to date, has been identified throughout the entire plateau.

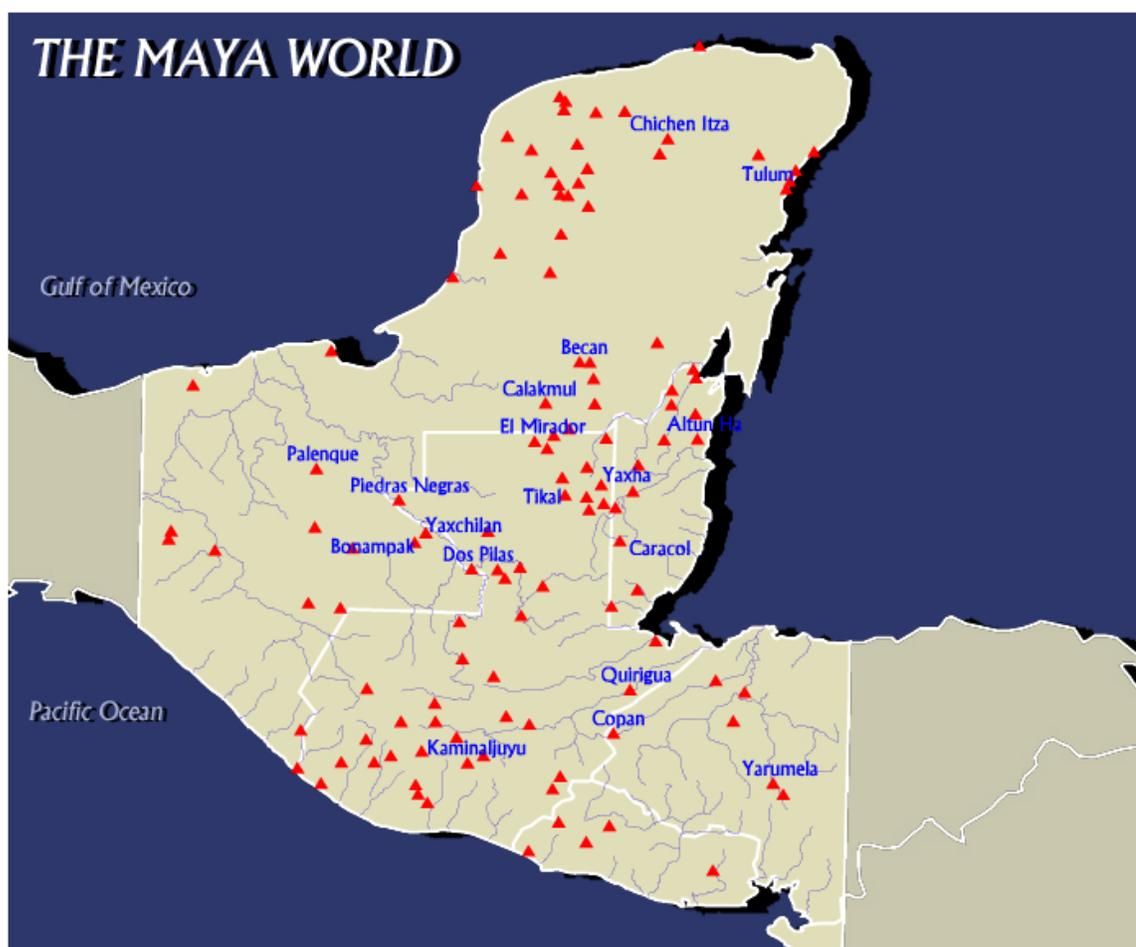


Figure 3.1. The Maya world illustrating the location of Caracol and other well known Maya sites.

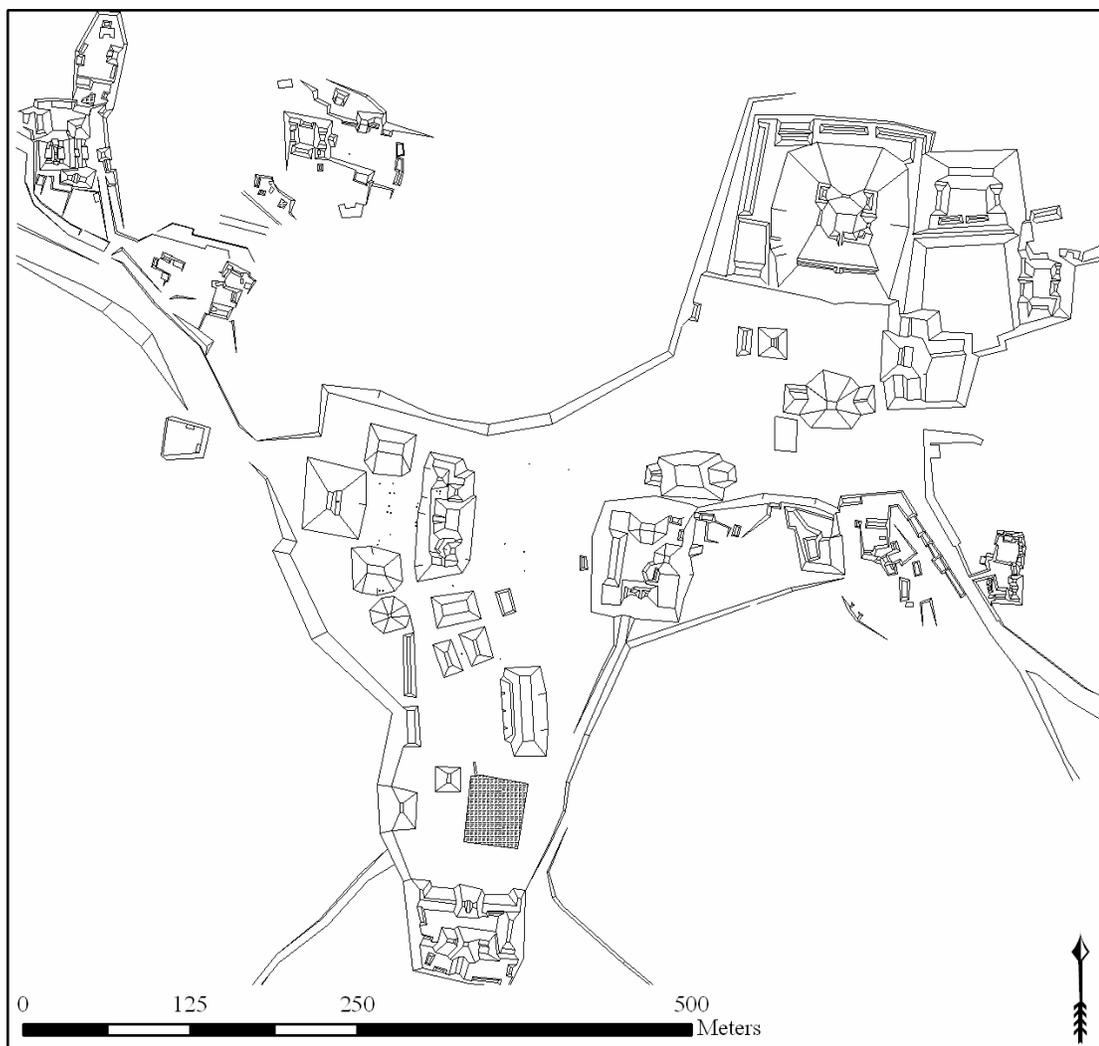


Figure 3.2. Map of the Caracol epicenter. (Map digitized by Barry and Murtha, after (Chase and Chase 1987)).

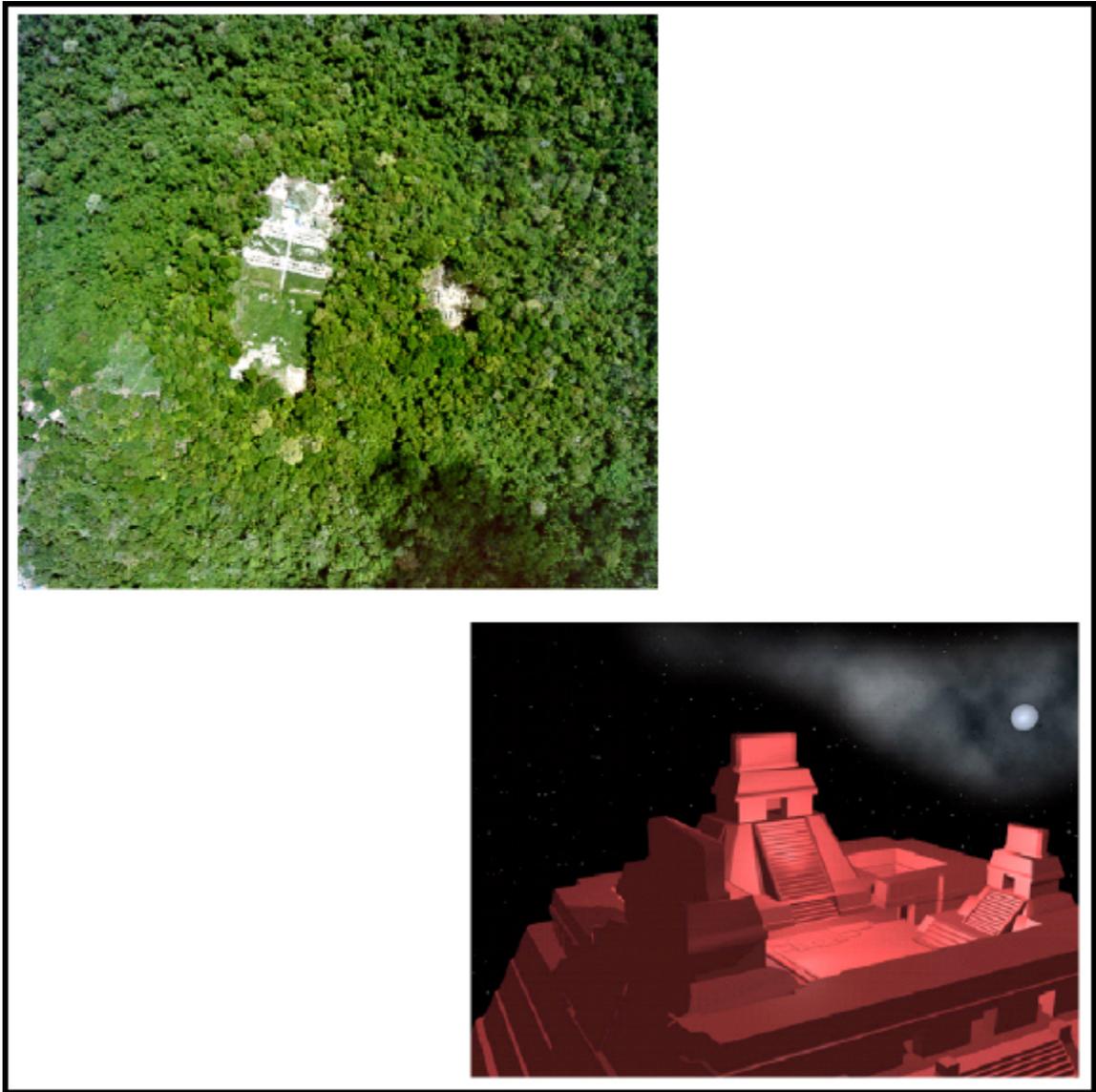


Figure 3.3. Images of the 'sky palace' Caana.

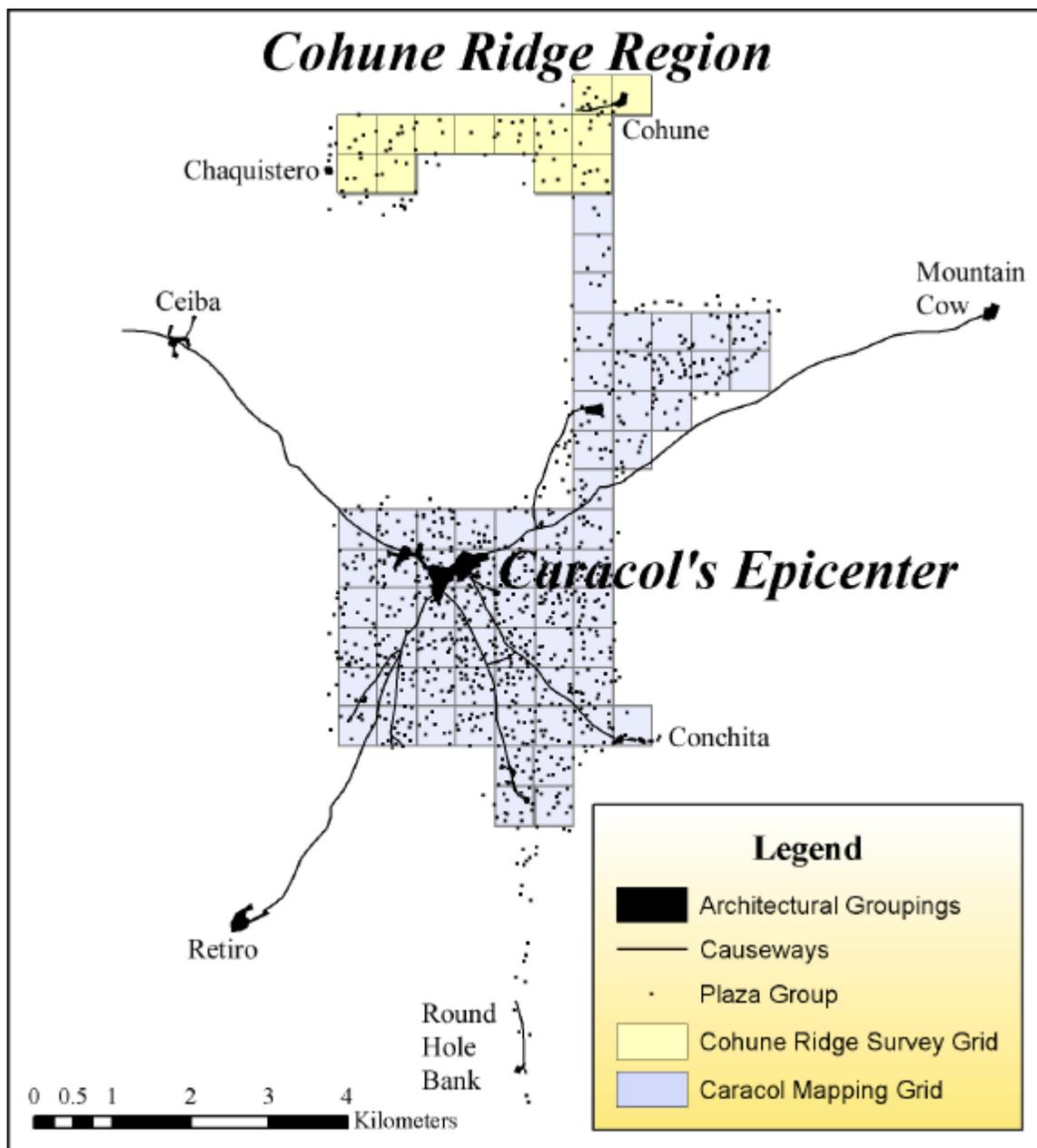


Figure 3.4. Map of the Caracol settlement, illustrating known causeways. Each dot represents a residential unit. The light blue shaded polygons refer to known clusters of large architectural groupings. Digitized and produced by Murtha, after (Chase, et al. 2002).

Much of what we know about Caracol comes from a very detailed epigraphic history. The majority of the monuments date to the early Late Classic – Late Classic, i.e., at Caracol between AD 500 and 859 (only one monument, i.e. Altar 4, was dedicated prior to AD 500 (Grube 1994; Houston 1987; Martin and Grube 2000). The monuments detail a series of warfare events, births, marriages, accessions and deaths of rulers, and perhaps the establishment of political alliances with sites such as Calakmul (Grube 1994; Martin and Grube 2000; Schele and Freidel 1990). One monument in particular aided critical interpretations of the major political actions carried out by Caracol's ruling elite during the early Late Classic period. This ball court marker, found in 1986, records the defeat of Tikal in AD 562 (Houston 1987). The specific actors and events recorded on the monument have been hotly debated. For example, Martin and Grube (Martin and Grube 2000) suggest that the primary actor initiating warfare with Tikal is the Calakmul lord, and Caracol is simply acting on his behalf. Whether Caracol is the primary or secondary actor is of no real concern to my dissertation; however, it is clear that Caracol's rulers are actively engaged in greater regional and supra-regional political actions during the early Late Classic.

The Chases (Chase 1992; Chase and Chase 1987; Chase and Chase 1989, 1996a, 1998a, b; Chase and Chase 1994b) argue that these warfare events had a profound impact on the settlement of Caracol^{ix}. In fact, they estimate a roughly 500% population increase within 100 years of the defeat of Tikal. They also suggest that many of the settlement features,

including the terracing, date to this span of time (Chase 1992; Chase and Chase 1987; Chase and Chase 1989, 1996a, 1998a, b; Chase and Chase 1994b). After a hiatus of stone monument erection, between AD 652 and AD 798, the Caracol rulers renewed their politically active campaigns of warfare and captive-taking until the Terminal Classic (roughly AD 790 – 1050/1100). During the Terminal Classic major changes occurred in the Caracol epicenter as well as in the settlement. After AD 890 populations declined and large epicentral construction terminated. The last inscription records a date of AD 859. Although small populations are estimated to have occupied the region until at least AD 1100 (Chase and Chase 2000; Chase and Chase 1994b), clear demographic transformations occurred by this time.

The History of Caracol

Early Caracol, the ‘Sleeping Giant’

The Preclassic and Early Classic are probably the most poorly understood periods in Caracol’s history (as is this case for many lowland sites). Preclassic components have been recovered from a few excavations and a smaller percentage of features or artifacts date to the Early Classic as compared to the Late Classic. Many of the data collected for these periods comes from epicentral and elite contexts. For example, the earliest monumental construction in Caracol’s epicenter is found in the A Plaza (*figure 3.2*). Wood samples from the eastern temple, the ‘Temple of the Wooden Lintel’, date to AD 70. Tombs dating

to these early periods were excavated in the A plaza and South Acropolis. But these data are just a fraction of that found for later periods.

The Chases estimate Caracol's population between 9,000 and 19,000 persons (Chase 1997) from the Preclassic through the Early Classic (*figure 3.5*). Recent regional projects, including my own research, suggest that Caracol may have been a part of a larger political, economic and settlement pattern during at least the Preclassic. Large sites existed throughout the region. For example, Mountain Cow shows evidence of construction and occupation in the Pre- and Early Classic periods (Thompson 1931). These other regional centers are not only large, but also show architectural similarity to Caracol's earliest constructions in the A Plaza, i.e. an imposing east building centered on a large plaza, with an attached or adjacent ball court (*figure 3.6*). It is difficult to ascertain the true political and economic relationships among these minor centers because there are no contemporary monuments. Their even distribution, however, may suggest an emerging regional pattern connected by causeways and terracing with no real *primate* center.

The Chases (Chase and Chase 2000) suggest that Caracol's importance in the region surges during the Late Preclassic and beginning of the Early Classic, primarily on the basis of its epicentral architecture and burials, such as one burial accompanied by 32 pottery vessels and over 7,000 jadeite and shell beads. They have also documented other ritual deposits dating to these early periods in epicentral Caracol, but to date no comparable research has been completed at the other regional centers. In order to achieve a better understanding of

the Pre- and Early Classic periods, other regional centers will have to be investigated. Also, it would be beneficial to have data from the distant households and settlement near those centers. Then we will be able to better understand the social, political and economic relationships that may have existed in the region. Regardless of the formal relationships present, the details of this period are overshadowed by the significant transformations that occurred at Caracol beginning in the sixth century.

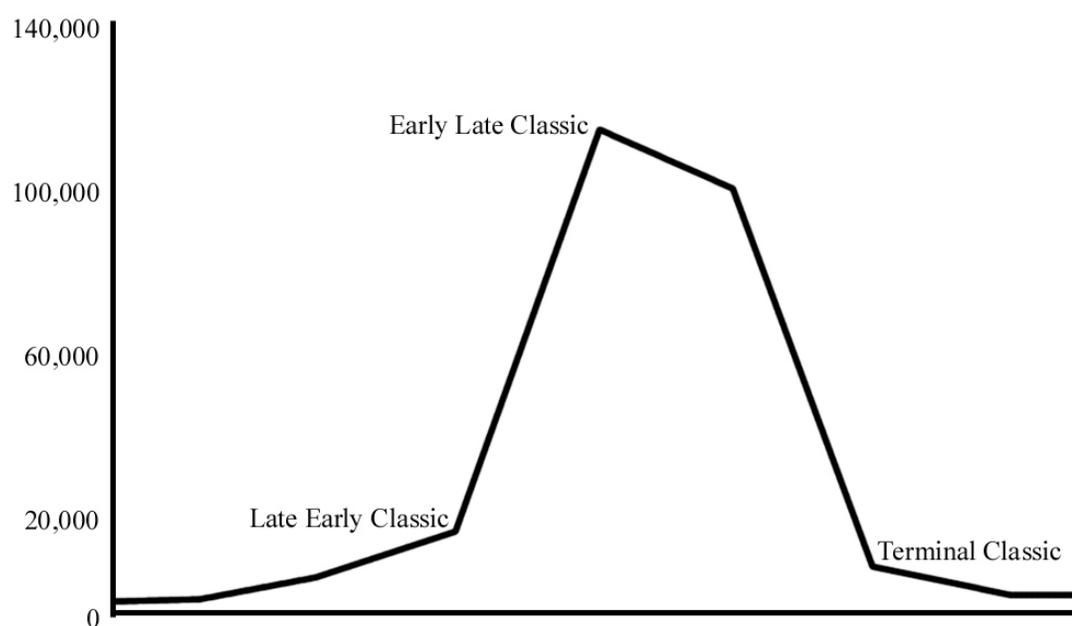


Figure 3.5. Graph illustrating the estimated demographic history of Caracol. Based upon estimates reported by D. Chase (Chase 1997).

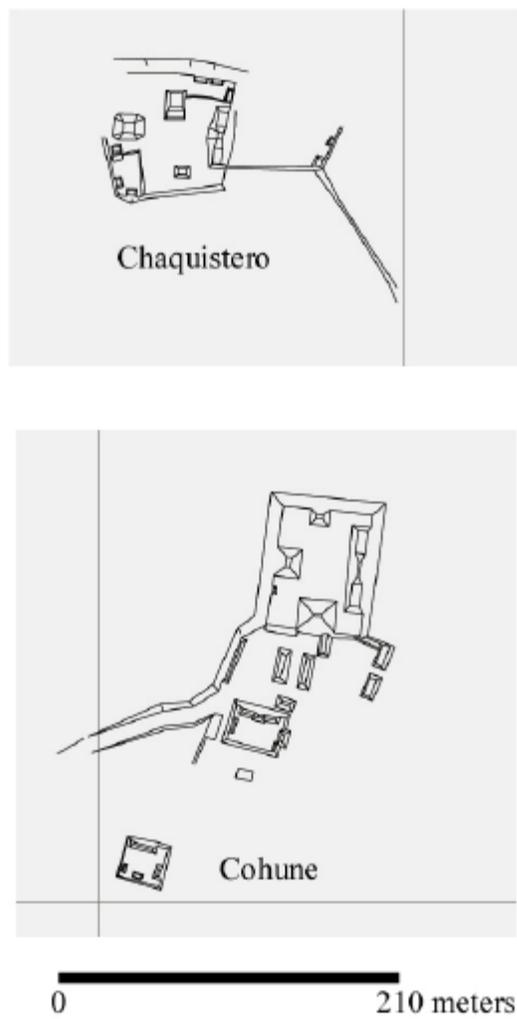


Figure 3.6. Maps of two elite groups on the Cohune Ridge. Both of these groups have an imposing eastern building, among others.

Table 3.1: Important events in Caracol's history, largely from epigraphic data^x. See http://www.caracol.org/maya_prehistory.htm for a more detailed table from which this table was derived.

Date	Event
Ca. A.D. 70	Structure A6-1st, "Temple of the Wooden Lintel," constructed
A.D. 331	Caracol Royal dynasty "officially" founded.
A.D. 531	Accession of <i>Yajaw Te' K'inich II's</i> predecessor.
A.D. 553	Accession of Caracol Ruler <i>Yajaw Te' K'inich II</i> .
A.D. 556	Axe-Event involving Tikal.
A.D. 562	Star-War defeat of Tikal by Caracol.
A.D. 588	Birth of Caracol Ruler <i>Kan II</i> .
A.D. 618	Accession of <i>Kan II</i> .
A.D. 626-636	Caracol defeats Naranjo in a series of wars.
A.D. 658	Accession of Caracol Ruler Smoke Skull; Death of <i>Kan II</i> .
A.D. 680	Naranjo's war of independence as recorded at Caracol.
A.D. 702	Capture of Ixkun lord noted on Stela 21.
A.D. 800	Capture of 2 prisoners, including Ucanal lord, by Caracol Ruler <i>K'inich Joy K'awil</i> or his father.
A.D. 859	Last recorded date at Caracol on Stela 10.
ca. A.D. 1050	Last use of Caracol Structure A6; Caracol epicenter is abandoned.

Middle Caracol History, the Giant Awakens

A Late Classic monument retrospectively records the founding of the Caracol dynasty in AD 331, when *Te' K'ab' Chaak* ('Tree Branch Rain God') takes the throne (Martin and Grube 2000; A. Chase et al. 1991). No monuments were in fact dedicated until AD 495 (for a list of important dates, refer to table 3.2). *Yajaw Te' K'inich I* accedes to the throne in AD 484 and becomes the first Caracol lord to erect a monument (Grube 1994; Houston

1987; Martin and Grube 2000). Beginning in the sixth century, Caracol asserted itself not only throughout the Vaca plateau but also on the political landscape of the greater Maya lowlands. Within 151 years of that first monument, Caracol carried out successful warfare campaigns against Tikal and Naranjo. *Yajaw Te' K'inich II*, the first dominant ruler in Caracol's history, acceded to the throne in AD 553. Within ten years of his accession, Caracol engaged in a series of war events with Tikal. Tikal first attacks Caracol in AD 556; and this event was followed by a "star war" defeat of Tikal by Caracol in AD 562. The actual events and what role Caracol played in the defeat of Tikal has been the topic of much debate. For example, Martin and Grube (2000) suggest that Caracol is merely working under the guise of the Calakmul polity. They write, (Martin and Grube 2000: 90):

The impact of this reverse [the 'Star-War' event] is reflected in the immediate onset of Tikal's 130-year silence, a period during which Caracol undoubtedly prospered, but Calakmul rose to regional supremacy.

For purposes of my dissertation, it makes no difference if Caracol acted on its own or as part of a larger Calakmul coalition. The 'Star-War' is still a critical point in the history of Caracol's ruling elite and perhaps much of Caracol's population.

Lord *K'an II*, the second son of *Yajaw Te' K'inich II*, acceded to the throne in AD 618 (Grube 1994; Houston 1987; Martin and Grube 2000). He established himself in the same fashion as his father did, through warfare. Between AD 626 – 636, Caracol embarked on a series of warfare events against Naranjo (Chase and Chase 2000). *K'an II* first attacked the Naranjo territory in AD 626 and carried out a devastating attack in AD 631. The events are even recorded on a hieroglyphic stairway constructed in the center of

Naranjo, likely commissioned by *K'an II*. But the warfare did not only affect the ruling elite of Caracol. Martin and Grube (2000: 91) write:

Perhaps the most successful of all Caracol rulers, K'an II's 40-year reign saw a surge of growth at Oxwitzá' [a Caracol place name], with a burgeoning of the surrounding settlement and corresponding expansion of the road network. It is clear that this new wealth was not restricted to the leading elite, but spread among a much broader section of society. Even some distance outside the city centre, building quality is high and tombs well stocked with valuables.

The Chases (Chase and Chase 1996a, 1998a), who first suggested these patterns, argue that these militaristic endeavors resulted in massive construction and most importantly, population growth at Caracol. Essentially, the Chases suggest that massive numbers of people were exploited by the Caracol elite as the 'fruits' of warfare. Additionally, some portion of the overall settlement may have benefited from these events (Jaeger 1991; Liepins 1994).

Using the Chases' estimates (Chase and Chase 1987; Chase and Chase 1989, 1996a; Chase and Chase 1994b), within 100 years of Caracol's defeat of Tikal, its population grows by over 500% from roughly 19,000 to well over 100,000 persons. They report that nearly 95% of the over 100 plaza groups tested exhibit clear evidence of early Late Classic occupation (Chase and Chase 2000). They write,

In the century following the victory over Tikal, Caracol's population swelled from some 19,000 to more than 120,000 – nearly double the estimated population for Tikal or Calakmul. Even four to five miles from the city center, as many as 2,500 people inhabited each square mile, a population density unparalleled in the ancient Maya world (Chase and Chase 1996a: 68).

According to Chase and Chase (Chase and Chase 1996b), the population growth of the early Late Classic is accompanied by the formation of an administrative bureaucracy, marked in the settlement by planned plaza group placement, causeway and causeway terminus construction as well as terrace construction (Chase and Chase 2001).

Construction in epicentral Caracol also surged during this period and focus shifted from the A Plaza to the B Plaza, where Caana is located. According to the Chases (Chase and Chase 1994b), construction on Caana begins at least in the second century; however, a series of tombs found with hieroglyphic texts on the summit of Caana clearly illustrates significant construction and modification beginning in the sixth century. From the many elaborate elite tombs and massive epicentral constructions, it appears that the Caracol elite prospered greatly during this period. But according to the Chases, this prosperity was not reserved solely for the elite. They (Chase and Chase 1996a: 71) write,

While differences in material culture and life-styles surely separated the upper and lower levels of Maya society, the gap between them seems to have been substantially bridged at Caracol. The distribution of vaulted masonry tombs and the presence of luxury items in the simplest residential units suggest that the people here were somehow sharing the wealth. Moreover, as the Late Classic period progressed more and more of the site's inhabitants appear to have enjoyed the "good life." Any gap in quality of life that may have existed between elites and commoners rapidly closed as a sizeable "middle class" developed.

Associated with this proposed increase in prosperity was a solidified administrative bureaucracy, managing what the Chases' envision as Caracol's 'administered economy'. Based upon the causeways, termini, terraces and even distribution of plaza groups, the Chases (Chase and Chase 1996a, 2001) suggest that a shift from kin oriented social

organization present at least during the Preclassic to an administered economy occurred in the Late Classic (Chase and Chase 1996b, 2001; Chase, et al. 2002).

According to the Chases (Chase and Chase 2001), the causeways terminate in groups of either two types, most with associated specialized administrative features (Chase and Chase 2001). Sites such as Mountain Cow, Cohune and Ceiba to the northeast and northwest are argued to be minor centers engulfed by the Caracol polity^{xi}. The Chases indicate that specialized administrative constructions are added to many of these centers in direct association with the causeways, thus providing administered or at least highly managed market opportunities (Chase and Chase 2001). Additionally, they suggest that the Caracol polity wholly constructed causeway termini such as Puchituk, Conchita and Ramonal with specialized administrative features at the beginning of the Late Classic era. The Chases argue that the centralized polity of Caracol carried out its 'administered economy', through these 'nodes' (Chase and Chase 2001). Caracol becomes a regional and supra-regional player during the sixth and early seventh centuries.

In AD 658 *K'an II's* death is recorded and according to epigraphic interpretations, Caracol's elite culture begins to exhibit some signs of decline (Martin and Grube 2000). There are however, a series of stucco texts found for the early part of this period. In AD 680 Caracol is attacked by Naranjo, likely in retaliation for the earlier events. According to Martin and Grube (2000) The AD 680 event is devastating to the ruling elite, and sends the polity into a 118-year decline (Martin and Grube 2000). Very few monuments, in either

stucco or stone, are recorded for this period (Martin and Grube 2000); however, the Chases indicate that the settlement shows no signs of similar decline.

Late – Terminal Classic Caracol, the Giant Reemerges only to Sleep

Caracol revives its military career in the early eighth and ninth centuries, with the accession of *K'inich Joy K'awil*. *K'awil* recorded some of these events on the 'bound captive altar' (Altar 19), which was dedicated in AD 800 (*figure 3.7*). Interestingly, *K'awil* tells of the exploits of another individual, perhaps his father, *Tum Yohl K'inich*, who embarked on a series of aggressive regional campaigns with Ucanal and B'ital. According to Martin and Grube (2000; (Chase, et al. 1991), members of the ruling elite from both Ucanal and B'ital were taken captive by *Tum Yohl K'inich* and held at Caracol during the reign of *K'awil*. But *K'awil's* revival was not long lived. The next recorded Caracol ruler, *K'an III*, is listed on a monument dated to AD 835 at the site of Mountain Cow (Martin and Grube 2000).

The florescence of the Late Classic can be contrasted with the decline in the Terminal Classic. After AD 890 much of the construction in epicentral Caracol ceases, and population in the settlement declines rapidly. Garbage and refuse has been found in some Classic palaces, with the last use of any monumental construction dated to roughly AD 1050. As at many other Maya sites, the Terminal Classic can best be described as a collapse of elite culture (Webster 2002). Small populations likely reside in the settlement until about AD 1100, but there is no evidence for political centralization.



Figure 3.3. Photos of the 'bound captive' altar, which details the late Late Classic warfare of Caracol with Ucanal and B'ital.

Based on the past 18 years of research, the Chases argue that Caracol is one of the largest 'cities' in the Maya lowlands (Chase 1990; Culbert and Rice 1990) and that it is also one of the most politically active Maya polities. They argue that Caracol built a Late Classic empire encompassing over 12,000 km² (Chase and Chase 1996a). Such interpretations established the 'uniqueness' of Caracol not only in terms of the size and form of the polity, but also in terms of the timing of the events. The site certainly has much to contribute from

the data gathered and collected by the Chases; however, many of their interpretations are hotly debated, such as:

1. Caracol extends its political control well beyond the Vaca Plateau and created an empire spanning roughly 12,000 km² (Chase and Chase 1996a, 1998a);
2. Caracol contains a site or central polity population well of at least 115,000 persons (within an area of 177 km²), which is based on the standard methodology and is discussed in chapter 4 (Chase and Chase 1994b);
3. Caracol exhibits evidence for an administrative bureaucracy, which may have supplanted the site rulers (Chase and Chase 1996b, c, 1998a, 2001; Chase, et al. 2002);
4. Caracol contains a variety of social classes, including a possible burgeoning middle class or at least middle status level group (Chase 1992; Chase, et al. 2002; Chase and Chase 1992b; Chase, et al. 1998).

Major Interpretations about Caracol

Demography

The Chases (Chase and Chase 1998b, 2000) argue that Caracol is one of the largest Maya sites, estimating that it had minimally 115,000 people living in the central 177 km² of the polity during the Late Classic (Chase and Chase 1994b: 5). Several population estimates have been put forward for Caracol based on a method commonly used in Maya

archaeology, which depends on structure counts and estimates of structure density. They write,

Some 4,404 structures were mapped within Caracol's central 16 km²; this translates into an uncorrected settlement density of 275 structures/km² for the site. Transects to the north and south show no settlement drop-off at distances of 7 linear kilometers from the epicenter. Intensive mapping of square kilometer blocks reveals a density of approximately 900 people/km² at a distance of 5 to 6 km from the epicenter (Chase and Chase 1996b:fig. 4). Some 150,000 people may be postulated to have occupied the 177 km² that formed the ancient city of Caracol (Chase and Chase 1996b:805) (Chase and Chase 1998a: 17).

While population estimates have been on the rise for many Maya sites, these estimates put forward for Caracol are two to three times greater than those for other large, well documented sites within an equal area of land, such as Tikal (*table 3.3*).

From my own experiences surveying over 8 km² of the site, (while performing a variety of functions), I acknowledge that Caracol was at one time very densely occupied. However, I question the methodology used to obtain absolute population estimates at Caracol and perhaps, throughout the southern Maya lowlands. I believe that there are two problems with the estimates. First, all estimates rely on *structure* counts or estimates, as opposed to *plaza groups*, which according to Becker (Becker 1982) are the likely basic organizational units for Classic Maya. Second, no independent estimates have ever been derived for Caracol, as they have at Copan, where researchers based their estimates on multiple lines of evidence, such as structure counts and productivity simulations (Webster and Freter 1990; Webster, et al. 2000; Webster, et al. 1992; Wingard 1992, 1996). I address this issue fully in chapters four and six, using the survey completed for my dissertation and agricultural simulations.

Table 3.2: Late Classic Populations of other well documented Maya sites.

<i>Site</i>	<i>Site Area</i>	<i>Estimated Total Population</i>	<i>Reference</i>
Copan	500 km ²	18 – 25,000	(Culbert and Rice 1990)
Tikal	120 km ²	62,000	(Culbert and Rice 1990)
Tikal with rural	316 km ²	91,696	(Culbert and Rice 1990)
Seibal	15.2 km ²	9,618	(Culbert and Rice 1990)
Yaxha (Realm)	237 km ²	42,047	(Culbert and Rice 1990)
Tayasal	90 km ²	21,951 – 32,272	(Culbert and Rice 1990)
Caracol	177 km²	120 – 150,000	

Urbanism

Early on, the aforementioned population estimates along with descriptions of the site layout were used to establish the ‘urban’ character of Caracol. Countering a comparative analysis of Mesoamerican urbanism put forward by Sanders and Webster (Sanders and Webster 1988), Chase, Chase and Haviland (Chase, et al. 1990: 501) wrote,

It is now well known that many Maya centers were seats of powerful ruling dynasties controlling polities that encompassed other smaller centers and even occasionally brought larger ones under their control. Substantial populations were incorporated into both center and polity, far more than could be administered effectively under the conditions presented by Sanders and Webster.

Using descriptive data from Tikal and Caracol, Chase, Chase and Haviland (Chase, et al. 1990: 501) argue that Maya cities were in fact very *urban* in a traditional administrative sense, and did not resemble *regal-ritual* cities as proposed by Sanders and Webster. They suggest that Maya central places contained dense populations, “...a variety of status groups and not merely a limited group of rulers and associated kin, servants, and specialists (Chase et. al 1990: 503).” Moreover, the Chases and Haviland (Chase, et al. 1990: 501) suggest that Sanders and Webster’s approach resurrects ‘progress oriented’

evolutionary typologies and ethnocentric conceptions of less advanced cities. While the 'ideal' types that Sanders and Webster borrow from Fox may not encompass the diversity of Maya site forms, Chase, Chase and Haviland's overly harsh criticism was unwarranted and misguided. By analyzing several city types, Sanders and Webster attempted to classify the diversity of Mesoamerican central places, into some meaningful cross-cultural categories. Sanders and Webster (Sanders and Webster 1988: 544-545) wrote,

At one level all cities are unique, and have characteristics that must be explained by variables that are unique, namely, their own environmental settings and culture histories. But on another level we must compare and generalize, and Fox reminds us that we can do so productively, so long as we bear in mind the fundamental processes that affect urban development in larger sociocultural settings.

Clearly, Chase and others (Chase, et al. 1990) simply did not agree with the models Sanders and Webster used as a basis for cross cultural comparison, even on a regional level. Countering Sanders and Webster (1998, 2001), the Chases (Chase and Chase 2001) recently chose to employ a modern and historic western city model presented by Garreau (Garreau 1991). While I have previously acknowledged the importance in using models for reconstructing past behavior, I believe that the use of traditional historic or modern western models is misguided. Models do provide a simplistic framework to understand a complex process, but they carry with them a series of assumptions about human behavior. This is especially true when considering traditional historic or modern western models, which have specifically industrial and post-industrial assumptions about human behavior.

In retrospect, Chase, Chase and Haviland (Chase, et al. 1990) conflated discussions of complexity with a very direct approach by Sanders and Webster to compare various forms of Mesoamerican central places. And while Maya centers may exhibit dense populations and socioeconomic diversity, they are clearly different kinds of centers than those found in highland Mexico, such as Teotihuacan and Tenochtitlan. They also contrast strikingly with most early prehistoric urban centers of the Old World and even more with present day urban centers. If we turn to Louis Wirth's oft-cited definition of a city (Wirth 1999: 142), which states, "...a city may be defined as a relatively large, dense, and permanent settlement of socially heterogeneous individuals," it should be clear that Maya central places are not 'cities' in his traditional use of the concept. Wirth emphasized nucleation of populations more so than any other characteristic, in part because he was most interested in the behavioral effects of heterogeneous individuals living in close proximity. I agree that Maya central places were large and may have contained heterogeneous groups of individuals, but most sites were not as dense (or nucleated) as modern cities or even ancient Teotihuacan.

The Maya are, in my opinion, not 'urban' in a traditional western sense, and I believe it is problematic to use such concepts, when discussing prehistoric central places (Bairoch 1990). There has been a lot of discussion about whether Maya central places can be considered urban and furthermore the issue has been conflated with studies of complexity. This has created a scenario where various schemes are applied to see if Maya central places measure up to traditional and modern conceptions of urbanism.

Such comparisons tend to polarize the debate, further obscuring the adaptive system of the Classic Maya from site to site. For example the somewhat even dispersal of residential remains in the Caracol settlement could be misrepresented as a process of suburbanization, which involves western ideals about space, transportation, shopping and work.

I believe that ‘measuring up’ Maya centers to such modern patterns ignores the adaptive agricultural system developed by the Maya, which at Caracol might not have prospered under conditions of dense nucleation found in prehistoric highland cities and modern cities (see chapter six). From a settlement and agricultural perspective, I will argue that the continuous and somewhat even distribution of households provided most inhabitants with sufficient land to carry out agricultural production for the household economy, ultimately a smallholder adaptation. Under conditions of extreme nucleation, such as at Teotihuacán, such a system of agricultural production could not have flourished. This subject is more adequately addressed in chapters six and seven, using the Cohune Ridge data.

Administered Economy

Citing demographic estimates, settlement pattern data, the distribution of elite architecture, causeways, terraces and burial data, the Chases (Chase and Chase 1996a, 1998b, 2000) argue for an administered economy. They (Chase 1992: 33) write,

Clearly the elites were not restricted to the site epicenter, nor were the commoners living in the site core and presumably, the site mantle (see A. Chase and D. Chase 1987 for a definition of settlement terms for Caracol). The complexity of the recovered remains also suggests the existence not only of a central dynasty, but also of administrative bureaucrats who were necessary to keep the extensive terraced fields of Caracol operational and presumably may have occupied the fields they managed...When the Caracol data are combined with those for outlying settlements, the complexity of the situation becomes clear and tiers within the administrative and social system are clearly evident.

The administered economy would have had a direct effect on the household economy of the thousands of farmers that occupied Caracol's settlement region. The Chases argue that while each residential household may have been agriculturally sustainable, they were dependent on a system of nodes (causeway termini) for the exchange of other goods and services. The elite or in Caracol's case some administrative bureaucracy, controlled or benefited from the market exchanges of goods at the causeway termini. Based upon the settlement data, they also argue that residential groups produced specific items to be exchanged in these nodes. While I am uncertain about the degree to which this behavior was carried out, it corresponds to one of the basic tenants of the smallholder model, that households were not isolated. This is not to say that I would argue that a great deal of agricultural staples was exchanged at these nodes. In fact, I am certain little if any agricultural staples were exchanged at these nodes, and this topic is discussed thoroughly in chapters six and seven.

Middle Class

Many of the interpretations put forward for Caracol rely on a rich set of burial and other archaeological data that the Chases' have recovered over the past 18 years. They have excavated 255 burials throughout the site center and the greater settlement. On the basis of the type, size and contents of internments, household architecture and more recently analysis of the paleo-diet, the Chases have argued that the site clearly exhibits evidence of the growth of a middle class or middle status level of organization (Chase 1992; Chase and Chase 1994b; Chase, et al. 1998). Chase (Chase and Chase 1992a: 40) writes,

A review of tomb sizes in conjunction with associated features and objects suggests that, while the elite may have clustered in the epicenter and in the areas about the causeway termini, they were also located in other areas of the core...Given the large number of tombs, they cannot all be elite; yet some special status seems denoted. Thus it would appear that the existence of a middle group is suggested by the data, with tomb use being limited to these elite and middle groups.

Such a notion has direct implications for intensive agriculture and land tenure, because it suggests that there are at least three identifiable groups of households in the settlement, each with markedly differential access to basic resources (at Caracol the most basic of all resources is land) as a middle-class concept implies. Recent dietary evidence illustrates a variety of diets from the burials. However, recent analysis of similar data from Copan illustrates the difficulties with making interpretations about diet and socio-economic status (Reed and Zeleznik 2002). Reed and Zeleznik quantified burial status and dietary status, yet found no true correlation between the two variables.

While consumption differences may be visible in the paleo-dietary record, production differences, i.e., access to land based on the settlement data and analyses presented here, seems tenuous at best for the Cohune Ridge. The interments, tombs and other ritual or ceremonial contexts from other areas of the site do exhibit a diversity of objects and a complex pattern, but there are several plausible alternative explanations for their presence, as researchers from Copan have quantitatively illustrated (Reed and Zeleznik 2002; Zeleznik 2002). One general conclusion, however, can be garnered from the Chases' burial work; that the internments served as meaningful symbols of land use rights and possibly ownership (McAnany 1995). Repeated burials and adornments could have been carried out to emphasize firm household ties to the landscape.

The use of the term 'middle-class' also complicates the issue and in my opinion should be quantitatively addressed using a variety of evidentiary lines, and eventually discarded. The concept itself usually refers in sociological terms to specific ownership and consumption behaviors developed during and after the Industrial Revolution. If applied to the Classic Maya, it must be stripped of these meanings. If, during the Late Classic, there existed three, five or ten identifiable socioeconomic groupings of households, the last thing we want to do is conflate these groups with Industrial or post-Industrial notions of ownership, production, and consumption.

Much like the comparison of Maya sites to modern cities, I believe such a characterization of the Maya obscures some of the real processes occurring at sites and

relegates them to our own social and economic perceptions. In chapter seven, I quantitatively evaluate this proposition, by testing whether there is identifiable differential access to basic resources, so implied by a 'middle class' concept and whether the differences are associated with access to the means of production or the consumption of goods and services.

Terraced Administration

The final interpretation that I would like to address is the Chases' assertion that terrace construction may have occurred under the guise of the elite administrative bureaucracy. They suggest that the distribution and layout of the terraces clearly represents at least some management by bureaucratic elite, at least after the initial construction of the terraces by households. Chase and Chase (Chase, et al. 1998) write,

The Caracol terrace systems represent massive landscape modifications and required substantial investments of time, labor and upkeep...The scale and organization of these terrace systems, especially when placed within Caracol's dated settlement history, suggests that some level of administrative control or, minimally, intervention existed with regard to the creation and management of the combined settlement and agricultural systems. The Caracol terrace systems were key elements in the subsistence support of a large and dense population between 115,000 to 150,000 people. We believe the occurrence of these features at Caracol was fostered by the site's attempts at self-sustainability as an imperial capital.

Cyrus Lundell, one of the first researchers to record the terraces on the plateau, was shocked by their scale and quality of construction (Lundell 1937). I too was taken aback by the 'massive' and well organized systems of terracing throughout the region. But we cannot allow initial impressions to substitute for evidence of the need for some

administrative control. Numerous anthropologists have documented intensive agro-engineering systems just as ‘beautiful’ and just as ‘complex’ that did not require centralized administration, such as Ifugao terrace construction in the Phillipines (Conklin 1980). These propositions need to be tested, not assumed. In my opinion, we often conflate what Turner and Harrison (Harrison 1978) call agricultural *type* and *intensity*, or the primary dilemma Brookfield (Brookfield 1972, 1984) identified with *landesque* capital improvements. The terraces as we observe them today are likely the end result of centuries of intensification, not a single event or short interval.

As land became more scarce on the plateau, towards the end of the Late Classic, elite management in the form of conflict resolution may have emerged for small portions of Caracol, but I will argue in the following chapters that terracing was adopted early on (the Early Classic) in Caracol’s history, out of necessity and declining yields by householders and managed almost entirely by those households. I will argue that even latter terraces on the Vaca Plateau represent less abrupt administrative planning and construction, but instead a continuing process of regional adaptation to the environment and response to declining yields associated with population growth and pressure. This point will become even clearer in chapter six, through simulation and quantitative analysis of productivity.

Interpreting the Interpretations

From my perspective, one problem underlies all of the various interpretations summarized above. That problem results from a lack of data concerning households and settlement at Caracol. Clearly much of the site has been mapped and recorded, but to date no real intensive household archaeology, like that reported for Copan (Webster, Freter and Gonlin 2000; Gonlin 1999) has been carried out. Many, if not all of the interpretations, from demography to the distributed economy, rely on burial and ceremonial contexts, as opposed to middens and structure refuse. It should also be clear that all of the above interpretations of Caracol suggest how complex Maya centers were as compared with highland Mexican and modern cities. And while I acknowledge and admire the complexity and diversity of Maya centers, qualitative assumptions simply obscure the diverse reality of Maya sites. Therefore, I argue that while a great deal of insight can be gained from these interpretations, we must evaluate many of these ideas quantitatively and from the level of the household.