CHAPTER SIX: INTRODUCTION TO LATE PRECLASSIC LOWLAND MAYA EARLY CIVILISATION

6.1: Introduction

This chapter starts the analysis of the Late Preclassic lowland Maya case by outlining its key characteristics as an early civilisation.[291] As such, its structure is similar to its Mycenaean counterpart of chapter three, having the same dual purpose of introducing both the means available for interpretation and the overall interpretations of this case that have been formulated. The main sections will follow the sequence of chapter three, starting with section 6.2 on terminology and chronology. This is followed by section 6.3 on sources, which together with 6.2 will be used not only to introduce the Maya case but also to evaluate its comparability with the Mycenaean one in chapter nine. Section 6.4 then discusses the general interpretations of the LPC lowland Maya early civilisation, following the framework established in section 2.4. The purpose of this is threefold. Not only is the case itself hereby introduced, but the overall interpretations also serve to facilitate the analysis of the agency of art in section 8.3. Furthermore, this section also forms the basis of the general comparison of the Mycenaean and LPC lowland Maya early civilisations in section 9.2.

6.2: Terminology and chronology of the Late Preclassic lowland Maya

In order to grasp the terminology and chronology of the Late Preclassic lowland Maya it is necessary to consider the broader terminology of Mesoamerican archaeology as well (see figure 47 for its geographical outline). Although the area stretching from Northwest Mexico to western Honduras was implicitly recognised as a cultural macro-region from the late 19th century onwards, the first explicit and coherent formulations had to wait until the 1940s. In that period Paul Kirchhoff put forward a conceptualisation of the area as a region with a coherent set of cultural traits shaped by a common long-term historical trajectory (Willey & Sabloff 1980, 165, 167).[292] This was also the time when the interpretation of Mesoamerica in anthropological and sociological terms started to be carried out in a more systematic manner (Wolf 1994, 2-4). More recent definitions have refined this group of shared and long-lived social and cultural practices, as listed in table 6.1, though linguistic and geographic factors also play a role in defining the macro-region (Joyce 2004, 3-12).

[291] Hereafter the term Late Preclassic will be abbreviated to LPC and Middle Preclassic to MPC, except in the titles of chapters and sections where they will be written in full. In absolute dates the range of the MPC is 700/600-250 BC, and that of the LPC 250 BC – AD 100/150, see further below.

[292] Other early researchers such as Pedro Armillas (1948) argued for limiting the terms to those periods and areas with early civilisations only, but this argument has by and large not been followed.

Practice	Examples
agricultural production	basic crops maize, beans and squash
	intensification though raised fields (Aztec *chinampas*)
	specialized use cacao, amaranth and *maguey*
long-distance exchange	trading obsidian, cacao and jade
ontology and ritual	vigesimal number systems
	basic divinatory calendar
	different kinds of writing systems
	ritual warfare pattern
	related forms of religious architecture
socio-political structures	social distinctions in dress
	distinctions in personal ornaments and accessories

Table 6.1: Shared Mesoamerican practices as adapted from (Joyce 2004, fig. 1.2, p. 4).

Together with the formulation of the concept of Mesoamerica as a cultural macro-region, a chronological framework was developed as well. Ultimately the work of Willey and Philips (1958, 3-4) proved most influential in this regard, as they used a descriptive culture-historical approach in such a way that it could facilitate processual explanation. They outlined a scheme that could link together the components from individual sites to the 'integrative units' of tradition (local temporal sequences, mainly of ceramics) and horizon (shorter-term geographically extensive spreads of specific artefacts). This allowed them to link the entire archaeological record of the Americas in a single terminological framework (Willey & Phillips 1958, fig. 1, p. 41). As fleshed out in empirical terms, this entailed a developmental scheme comprised of the Lithic, Archaic, Formative, Classic, and Postclassic stages, each with distinct characteristics (Willey & Phillips 1958 , 200-205). In principle this scheme was used to make sense of all of the archaeology of the Americas, but with the Classic and Postclassic periods being limited to the early civilisations of Mesoamerica and the Andes.[293] Yet the further development of archaeology has led to a more pragmatic consideration of the specifics of the long-term Mesoamerican trajectory, even if the terminology is retained (Evans 2012), though not without misgivings (Sabloff 2004, 17).

One thing that can be learned from the culture-historical approach outlined above is that the definition of Mesoamerica is bound up with the terminology of cultural development. Whereas the archaeology of human dispersal in the Americas is best viewed on a continental scale, research specific to Mesoamerica starts with a special focus on the process of the development of a food-producing economy through domestication, especially of maize (Blanton et al. 1993, 35-49). It can

[293] Both in Mesoamerica and Peru the Classic period was seen as the 'climax' of development (Willey & Philips 1958, 39-40), which carried with it certain Winckelmann-like connotations. For example, the change from Classic to Postclassic in both areas is seen as a decline in aesthetics and religion, and a shift to secularisation and militarism (Willey & Philips 1958, 204-205). As with many culture-historical schemes there is a tendency to overemphasise qualitative differences between periods, which have been almost invariably qualified and nuanced by later data.

be argued that after about 2000 BC the development of a food-producing mode of subsistence went hand in hand with the establishment of village life and new social relations, which are expressed also in distinct artistic ways (Joyce 2004, 4-5). Most of the elements discussed in table 6.1 derive from this development. Also highly important for the specific character of Mesoamerica as a distinct macro-region is the development of a 'metaphysics': a set of interrelated ideas, artefacts, and practices (Clark 2004). These developments had a crucial impact on the subsequent development of Mesoamerica as a macro-region. Developments in the Maya lowlands were somewhat later, as only at the start of the MPC period (about 1000 BC) the first substantial, longer-occupied sites can be recognised. The reasons for this slower development are as of yet not well-understood (Houston & Inomata 2009, 74).

Despite the uneasiness with the more theoretical biases of culture-history and the discovery of considerable overlap in cultural features between periods, terms such as 'Preclassic',[294] 'Classic', and 'Postclassic' are retained in Maya archaeology as chronological signifiers, even if their content has been greatly modified (Houston & Inomata 2009, 16-17). This is especially true for the LPC period, which previously had been defined mostly by the emergence of village life and agriculture. Willey and Philips (1958, 149-151) had acknowledged the existence of some trends toward ceremonial centres and other elements of the Classic stage in the later phases of their Formative stage (which corresponds roughly to the Preclassic) in different parts of Mesoamerica. Yet they also argued that there was insufficient concentration of these elements to achieve a true transformation into a Classic-type culture. In the past decades Maya archaeologists have disproved this through discovering a relatively dense concentration of larger LPC sites in the lowlands, and much the same can be observed for other Mesoamerican regions. The implication is that the first urban and state societies have to be pushed back into the LPC period (Estrada-Belli 2011, 53).

The focus here lies on the Maya lowlands, an area which itself is divided into a number of specific regions. Primary is a division between the northern and the southern parts, owing to differences in terrain and vegetation (Houston & Inomata 2009, 9), but within these parts a variety of different regions can be recognised as well. Examples of these are the Petén and the Usumacinta river basin, but there are no very clear-cut topographical boundaries to divide them from the overall area. The high biodiversity and differences in soils and hydrology rather make for a mosaic of subtly different regions, which offer different agricultural potentialities. In the LPC period the densest concentration of important sites can be found in the Petén and Belize, as shown in figure 48. Many important sites for this period have been found in the southern Maya area, incorporating both the Guatemalan highlands, especially the site of Kaminaljuyu, and the Pacific coast. Here what has been described as a city-state culture flourished during this period (Love 2011). The impact of the developments in this area, as well as from those of the Gulf coast Olmec centres, on the Maya lowlands is much debated (e.g. Hansen 2005). A recent discovery at Seibal has revealed, however, that an important architectural feature characteristic of the lowland Maya, the so-called E-group, was already present in the early MPC period (Inomata et al. 2013). This implies that the relation between the Maya lowlands and other areas of Mesoamerica have to be grasped more from an interactive perspective than as an imposition from the outside.

With regard to the internal chronological subdivision of the lowland Maya Preclassic, this is divided into the familiar tripartite scheme of Early, Middle, and Late. Starting with the Early Preclassic, sometimes called Archaic, this period is aceramic and is conventionally dated to c. 2000-1000 BC

[294] The term Preclassic is most commonly used in Maya archaeology, whereas in other regions of Mesoamerica the term Formative remains in use. Confusingly, in Belizean archaeology the term Formative is still used as well (e.g. McAnany 2004a, 3). Here the term Preclassic will be used consistently for the lowland Maya, including Belize, and the term Formative will be used for the rest of Mesoamerica.

(Sharer & Traxler 2006, table 2.2, p. 98).[295] Recent evidence suggests farming populations may already have been present by 2400 BC in the Maya lowlands (Estrada-Belli 2011, 38-39). Lacking ceramics and other substantial remains of communities, little can be said as of yet about the particulars of this period. By contrast, with the beginning of the earlier part of the MPC period (c. 1000-700/600 BC) a number of different regional ceramic complexes can be observed.[296] Collectively these are known under the rubric pre-Mamom, but can be recognised separately as the Ek, Ox, Eb, Cunil, Xe, and Swasey spheres (Houston & Inomata 2009, fig. 3.1, p. 67). One puzzle remains the later adoption of ceramics in the Maya lowlands, although the earliest ceramics may date to somewhat before 1000 BC (Hansen 1998, 55). It may be that the Early Preclassic farmers were less sedentary or used containers made of perishable materials, but another possibility is that the development of ceramics can be linked with changes in social structures and diet. Different hypotheses have been proposed, including the use of pots as markers of status (Estrada-Belli 2011, 43-44), and as evidence of food-sharing between nuclear families (Cheetham 2010).

For the later MPC period (c. 700/600-250 BC) and the LPC itself (c. 250 BC – AD 100/150), it is possible to recognise ceramic spheres, respectively called Mamom and Chicanel, whose geographic reach spans the Maya lowlands as a whole, and even can be found in the northern lowlands (Ringle 1999, 198). The trajectories of different sites within these broad Mamom and Chicanel ceramic spheres can be traced using a combination of stratigraphy, architectural phases, and scientific dating techniques. Following these periods, a more tentative, transitory phase is the so-called Protoclassic or Terminal Preclassic period, usually dated to AD 100/150 – 250. The ceramic basis on which this period is defined is more problematic, however, as there is a mixture of continuity and new innovations like mammiform supports and polychrome decoration, which are not found at all sites (Estrada-Belli 2011, 118-119).[297] The state of research for the later Preclassic phases is such that it is not possible to develop the more fine-grained chronologies, as they have been outlined for the Late Classic Maya period where resolutions as fine-grained as 20-30 years can sometimes be achieved (Demarest 2009, 260). Given the absence of the ubiquitous Long Count dates of the Classic period that allow for tracing some royal dynasties over centuries (Martin & Grube 2008), the LPC period is essentially devoid of a substantial historical record.[298]

In terms of analysis at the site level, there is a reliance on a combination of stratigraphy, scientific dating techniques, and architectural phases, as well as the development of site-based pottery typologies.[299] The result is that cultural developments can be broadly traced, and that more weight should be given to the substance of the archaeological record than to the precise meanings of terms like Preclassic and Protoclassic. On the basis of this other subdivisions can be made, some of which are based on the Long Count cycles of the Maya calendar. For example, the most important LPC

[295] It should be noted that all the dates used here are highly approximate and can vary quite a bit according to different researchers and different sites, and thus blankets much of the underlying site-based complexities. Note for example the differences here with Cheetham (2005, fig. 3.2, p. 29).

[296] As part of the nomenclature of the 'type : variety-mode' system used by most Maya ceramic analysts, the different phases at sites are referred to as complexes, which are further subdivided into facets such as early, middle, and late, see for definitions (Powis 2002, 20-21). The sphere is then defined by a number of complexes that share most types, as with the Sierra Red type vessels found widely in the different sites belonging to the Chichanel sphere.

[297] A rather different order was proposed on the basis of a ceramic reanalysis of the transitory phases of the Protoclassic, proposing two phases of a 'ceramic protoclassic' dated to 75 BC – AD 150 and AD 150-400 (Brady et al. 1999, 35).

[298] Based on Classic period retrospective texts there is some, but very limited, information on earlier kingship. It can be inferred that the first king of Tikal, Yax Ehb'Xook?, likely founded his dynasty between AD 63-138 (Martin 2003, 5). As such it has been connected to the rich burial 85 at the site, dated to AD 75 (Estrada-Belli 2011, 56), but solely on logical grounds, as there is no direct evidence to that effect from the burial itself (Coe 1990, 217-220).

[299] As part of the nomenclature of the 'type : variety-mode' system used by most Maya ceramic analysts, the different phases at sites are referred to as complexes, which are further subdivided into facets such as early, middle, and late, see for definitions Powis (2002, 20-21). The sphere is then defined by a number of complexes that share most types, as with the Sierra Red type vessels found widely in the different sites belonging to the Chichanel sphere.

developments can be framed temporally from the start of the Cycle 7 *bak'tun* into the Cycle 8 *bak'tun*, more pragmatically subdivided in the periods 354-58 BC and 58 BC – AD 159 (Reese-Taylor & Walker 2002, 88-99). Here this temporal division will be accepted based on the substance of the archaeological record, but no use will be made of the Long Count terminology. There are two reasons for this, the first being the continuing uncertainty whether the Long Count was used in the LPC lowland Maya area. The second reason is that, as will be discussed in section 6.4.3, the use of such period markers can be associated too closely with certain models interpretive models.

6.3: Sources for the interpretation of the Late Preclassic lowland Maya

The current state of work in Maya archaeology, especially with regard to its sources, has been described as a 'golden age' in a recent overview (Houston & Inomata 2009, 3). This is true both for 'dirt archaeology' and textual approaches. To start with the former, the conditions for surface survey in the Maya area are difficult because of the terrain and vegetation, especially in the more densely forested parts of the southern lowlands.[300] Initial work by explorers such as Stephens and Catherwood in the first half of the 19th century was mostly concerned with finding and drawing the major monumental centres. With the advent of excavations in the first half of the 20th century, more attention was paid to mapping the structures surrounding the central monuments. But it was not until Willey's Belize River Valley survey of the 1950s (Willey et al. 1965) that survey techniques were introduced to fulfil the aims of studying settlement patterns as a worthwhile research goal in itself. One particular feature of the regional projects in which these surveys were carried out is that they almost always incorporate some form of excavation, as is characteristic for settlement pattern studies in the Americas in general (Stanish 2003).

Due to the difficulties of the terrain in the Maya lowlands, survey areas are often limited to only a few or at most tens of square kilometres. What is recorded are primarily structures, rather than the surface distribution of ceramics (which are largely obscured by the density of vegetation), but these are sampled and sometimes excavated as well. This has resulted in a varied dataset from different regions (Blanton et al. 1993, table 5.2, p. 182), but since greatly expanded. These data have allowed scholars to question the view of Maya monumental structures as 'vacant centres' devoid of urban surroundings and with a sparse population supported by swidden farming, a view which predominated until the end of the 1960s (Becker 1979; Dunning & Beach 2004, 112-114). Based upon evidence from both near the monumental 'cores' and transects in their hinterlands, a new picture has emerged of relatively dense populations spread over large areas: both in the 'urban' and 'rural' areas, which are not always easy to distinguish. Survey work has also allowed a better understanding of the causeways that connected different Maya centres with each other or with their hinterlands (J. Shaw 2001). This work has a great impact on the understanding of urbanism in the Maya area, as discussed in the next section, and is further facilitated by new technologies such as airborne LiDAR surveying that can provide a very important additional dataset (Chase et al. 2011).

Excavations in the Maya area were put on a sound footing after World War One when a number of projects were started, most prominent among them a series of excavations by the Carnegie Institute (McKillop 2004, 47-51; Black 1990). A significant number of excavations is on-going, carried out both by universities and national agencies such as Mexico's INAH and IDAEH of Guatemala. Initially, most information on the LPC period came from excavations of the Carnegie at the site of Uaxactún in the 1920s and 1930s, where monumental art from this period was first discovered (Ricketson & Ricketson 1937). The later discovery that the very large site of El Mirador was dated

[300] This can be seen in one epic account of the 1966 season of the 'brecha survey' at Tikal (Parsons 2010). Despite these limitations, which vary between different regions, recent work shows that through survey transects it is possible to trace settlement trajectories over the *longue durée* beyond the major centres (Garrison & Dunning 2009, 535).

to the LPC period, after some initial scepticism, can be seen as a watershed for the perception of the period. Today there exists a large record of excavations of dozens of sites, with much work remaining to be done, that were either abandoned after the end of the LPC period or subsumed under later constructions (Estrada-Belli 2011, 52, 67). As in the Aegean area, the full range of scientific techniques are applied to enhance the information that can be derived from excavations, from environmental studies to the analysis of the craft-work involved in the creation of LPC art, as will be shown in section 7.3.2 of the next chapter.

Despite early insights into the calendrical and historical properties of the Maya hieroglyphic script, its decipherment was made possible by the work of Knorosov (Coe 2011). Through his comparative knowledge of ancient writing systems, he determined in 1958 that the Maya script used phonetic signs.[301] It is now established that it is in fact a logosyllabic script, based on a combination of logographic and phonetic signs (Grube 2012, 847-850), much like those from the early civilisations of China, Egypt, and Mesopotamia (Coe 1992, 146-148). The language in which the Classical period texts were written constitutes a special 'elite' form of the Cholan branch of the Maya language (Houston et al. 2000). Studies from the 1970s onwards have been successful in deciphering about 75% of the surviving texts from the Classic period (Grube 2012, 845), and discoveries have pushed back the emergence of writing back to at least 300 BC (Saturno et al. 2006). A further challenge is to interpret the texts not just as deciphered blocks of information, but as literature in its own right, and part of a tradition that has evolved into present-day Maya alphabetic writing and culture (Tedlock 2010, 1-3). The continuity of this tradition is indicated not only by similar subject matter, such as elements from the colonial era Popol Vuh, but also by the use of the same poetic techniques, in particular the use of parallelisms (Carrasco & Hull 2012, 1-5). This poetic form, also known as hendiadys or *difrasismo*, is also known in other Mesoamerican representative modes like Mixtec semasiography (Jansen & Pérez Jiménez 2011, 10).

Unfortunately, only a few texts survive from the LPC period and those that do are less well-understood than those from the Classic period (Houston & Inomata 2009, 91-92). Nevertheless, the handful of texts that are known do show quite some variation in the material forms on which they have been written, which include stelae, wall-paintings, a relief sculpture from a cave, as well as a number of portable objects.[302] There is also evidence that bark paper may have been made as early as the MPC period (Hammond 2006; McAnany & Ebersole 2004, 318), though it is far from certain that it was actually used specifically for making books in this period (Houston & Inomata 2009, 77).[303] Remains of painted gesto found in a LPC tomb at Tikal may indicate the original presence of a codex here (Estrada-Belli 2011, 56). The properties of the record, as it stands, conform to that of the Classic period in the focus on the religious and political functions of writing rather than on administrative tasks. One interesting difference is the lack of monumentality of most LPC period texts, which tend to be rather small and deployed in more intimate contexts (Houston 2011). Their may have been less emphasis on the monumental articulation of the historiography of different dynasties in the LPC period compared to the Classic era, despite the archaisms seen in the latter period. At any rate, the notion that pre-Columbian Maya texts functioned as 'containers of

[301] Decipherment of scripts is one area in which comparative research has made a greater impact that in many other areas, which may at least be partially due to the great technical rigour with which the subject can be pursued, as can be seen in one recent account (Trigger 1998b). More recently work of similarly great sophistication has emerged for number systems as well (Chrisomalis 2010).

[302] Writing can also be inferred indirectly for other media through their representation in art, as for the tattoos of day signs, among many other designs, on human heads (Houston et al. 2006, 19-21), a practice also known from the early Colonial period. No depictions of this have yet been found for the LPC period.

[303] Bark paper may also have been used for making mats (cf. Herring 2005, 234). Mats are known from incised designs on early MPC period ceramics already (Estrada-Belli 2011, 43).

propaganda' ignores the structuring role of poetic techniques (Carrasco & Hull 2012, 3).[304] The challenge, to be taken up in section 7.4.3 of the next chapter, is to situate the limited record from the LPC Maya lowlands instead in its proper cultural context.

To some extent the evidence from contemporary and earlier sites outside the Maya lowlands may be connected not only to better understand the connections between sites and areas, but also to facilitate the interpretation of the LPC lowland Maya. This is particularly true for the preceding Olmec sites on the Gulf coast and both preceding and contemporary sites in the southern Maya area of the Guatemalan highlands and the Pacific coast of that country and of Chiapas. As noted in section 6.2, the specifics of the Maya lowland area should not be seen as completely derivative from these areas, but rather follow a trajectory of their own that intersects with these regions. Such longer-distance connections are quite common in Mesoamerican archaeology, despite the limits of land-based transportation that depended primarily on human carriers (Drennan 1984). A good example of this are the widespread examples of direct interventions of Teotihuacan in Early Classic Maya polities, as well as a Maya presence in that site (Demarest 2004, 103-104; Taube 2003a). The outside influences on the LPC Maya lowlands can be less directly traced. Through the demonstrated existence of long-distance exchange and the presence of similar stylistic features, they can be used to clarify the interpretation of particular elements, if not supersede their specific context.

Finally, an important source for the interpretation of LPC lowland Maya early civilisation is the evidence from the succeeding Classic, Postclassic, and Colonial periods, as well as from ethnography. The fact that a variety of sizeable social and linguistic Maya groups exist today in the modern countries that encompass Mesoamerica, with a history that is directly rooted in the area itself despite the enormous upheavals of the Spanish conquest, presents the possibility of connecting the present with the past. Furthermore, the social issues facing these groups, the lingering impact of colonialism, and the stewardship of their culture and its heritage, makes these groups active agents in this (Jansen 2004; McAnany 1995, 167-168). For the present purposes it is important to stress that the use of later sources to interpret the Late Classic period has to be evaluated using the 'direct historical approach' (Trigger 2006a, 509-510). This method is used to establish a homology between similar traits of the same culture in different periods, but should be handled with care to avoid a proliferation of fuzzy analogies. A clear example of how this method can be misleading can be seen in the misinterpretation of the terms *k'ax*, which due to different conceptions of agricultural fields in Maya and Western thought led to a highly distorted view of Maya agricultural practices (McAnany 1995, 66-67). Another case is that of the impact of post-conquest ideas of cosmology, deriving from European sources, on an elaborate model of the Mesoamerican cosmos (Nielsen & Reunert 2009). However, as will be discussed in the next two chapters for art this method can certainly be of some use, in particular when the causal reasons behind continuities are considered.

The sources available to allow for more rigorous applications of the direct historical method are significant. For comparison with the LPC period archaeological record there are not only the Classic and Postclassic sources, but also the ethnohistoric and ethnographic ones. These are particularly insightful for interpreting cultural and linguistic meaning. Sources include the rich Classic and Postclassic artistic and textual records, four books (codices) from the Postclassic period, Maya (alphabetic) and Spanish colonial sources,[305] and a body of ethnographic fieldwork that has

[304] This is not to deny that the record of Maya writing does show manipulation for political purposes. The point made by Marcus (1992, xviii) in her book on Mesoamerican writing systems, that for them modern concepts of propaganda, myth, and history cannot be considered separately, is well-taken. However, here the role played by Maya ontology and conceptions of narration in shaping and constraining such messages over their more generic function is emphasised over conscious manipulation. These questions will be further addressed in section 7.4.3 of the next chapter.

[305] Most important among these ethnohistoric sources in the *Relación* of Diego de Landa, although analysis has shown that not all the work was in fact his (Restall & Chuchiak 2002). In the analysis here the ethnohistoric literature will only

accumulated since the end of the 19th century. For ethnography there is also the possibility for gaining, through dialogue, an indigenous perspective on phenomena. This can be seen in Barbara's Tedlock's (1992, 3-6) initiation as a 'day-keeper' in the Guatemalan community of Momostenango, through 'human intersubjectivity'. Finally, debates have raged between those who see more disjunction between periods, such as George Kubler (1969, 8, 1973), and those who argue for continuity and interconnections at the level of Mesoamerica as a whole (Willey 1973). The latter perspective dominates in Maya archaeology, and this is true for the study of LPC lowland Maya art as well, as will be explored in the next two chapters.

6.4: Interpretations of the Late Preclassic lowland Maya

6.4.1: Introduction

As befits a major player in world archaeology, the interpretation of the Maya has been influenced by the dichotomy between processual and interpretive approaches. The caveat in the Maya cases is that, unlike in almost all other cases, the sources for political and ritual patterns are actually better than that for more mundane issues of economic management (Demarest 2004, 172-174). This ran to some degree against the overall post-1945 trend in Mesoamerican studies to focus on economic questions (Wolf 1994), but key figures in Maya archaeology have long advocated a more integrative approach in which art and architecture were not seen as mere epiphenomena.[306] This kind of holistic perspective has remained a strong current in Maya archaeology, even as it takes in the latest scientific techniques that overturn older ideas and theories (Marcus 2003, 71-72). Of course there is still a tendency for data from surface surveys and scientific studies of artefacts to cluster in ecological and functionalist interpretations, while art and writing point to political and culturalist ones. Given this situation, the notion of political economy is wedged in quite uncomfortably in between these opposite poles, but concepts like the 'ritual economy' (McAnany & Wells 2008) provide ways to bring together different elements in a more coherent and holistic framework.

In terms of its institutional context, Maya archaeology involves all three of Trigger's categories of imperial, nationalist, and colonial archaeology, sometimes mixed in ways that are confusing for outside observers. For example, the concept of *indigenismo* in Mexican archaeology has more strongly nationalist connotations, although this concerns a nationalism quite different from that of modern Europe and one that should be seen in its Latin American context (Patterson 1995). By contrast the work of foreign archaeologists in Mexico fits more the imperialist mode, while the notion of 'internal colonisation' as the imposition of outside categories on Maya communities, in varying degrees, fits both. However, under these broad covering blankets there exists a clear recognition on the part of archaeologists of many different stripes of the close relation between the ethics of the self-determination of indigenous communities in relation to their past (McAnany 1995; Jansen 2004). As such, the basic conditions for a more cosmopolitan, post-colonial world archaeology exist for Maya and Mesoamerican archaeology. To some degree this is also reflected in a keen interest in comparative studies by scholars working in this field (e.g. Blanton 2004; Coe 1961; Graña-Behrens 2009; Marcus & Flannery 1996; Smith 2012).

---

occasionally be referred to, seeking first to connect the LPC period to the succeeding Classic one, and through that to the long-term trajectory of the Maya lowland area.

[306] This is not to say that Maya archaeology remained closed-off from the impact of the New Archaeology, as both methods and models were increasingly being applied throughout the 1970s, including more complex system-based models to account for the Classic Maya collapse (Sabloff 1990). But in the Maya case it proved possible to connect the new insights into human ecology to the rich iconographic record, as can be seen in one study from the 1970s that links the new models of agriculture based on raised fields and canal-use to various aquatic aspects of Maya art (Puleston 1977). Since the decipherment of the Maya script, however, more attention has been paid to historical and dynastic aspects and their ideology, but the connection of these with water and agriculture is not neglected (e.g. Lucero 2006).

6.4.2: Elements of Late Preclassic lowland Maya early civilisation

The discussion of the LPC lowland Maya starts with the element of the ecological and agricultural basis. As noted in section 6.3, it is clear that certain ethnohistoric sources had played a misleading role earlier, as these had resulted in a very influential and dominant theory that all Maya farming was of a swidden, slash-and-burn kind (e.g. Meggers 1954). This would have placed severe limitations on the population levels that could be supported in the area, and was one of the reasons for the idea of the Maya having been a city-less early civilisation. But the steady accumulation of data from survey and excavation led to a major reconsideration of the issue, and it is now accepted that a form of urbanism was already present in the later Preclassic period (Sharer & Traxler 2006, 279). This means, however, that swidden farming cannot be seen as a stable long-term strategy. Indeed, recent studies have stressed the variety of farming techniques, as well as arboriculture and the use of marine food sources, creating what can be seen as a 'managed mosaic' of land-use strategies in the Maya lowlands (Demarest 2004, 130-146; Houston & Inomata 2009, 237-239). In principle, a 25 kilometre radius around most Maya sites would yield all the material resources, including for building and craft, required for a community to perpetuate itself (Demarest 2004, 149-152). This did not include special materials such as salt, obsidian, and semiprecious stones like jadeite, among others, that could only be acquired through long-distance exchange. Even if there were no stable long-term techniques, there were two factors present throughout the *longue durée* of Maya agriculture: maize as the key staple food and the need for an adequate water supply.[307]

Described by Fernand Braudel (1981, 158-163) as a ‘miraculous plant’, the productivity and labour input requirements of maize cultivation were such that they could easily sustain cities and early civilisations. One important characteristic of maize was that its productivity was gradually improved after its initial domestication, and that yields varied considerably according to the degree of irrigation (Blanton 2004, 211-212). Research in recent decades has resulted in the recognition of a more diverse set of possible strategies to achieve suitable conditions for water-management from the Preclassic onwards (Marcus 2003, 80-81). These can be observed for the LPC lowland Maya as well, where both the construction of terrace systems by small-holders in smaller communities (Wyatt 2012) and larger-scale water-management systems as at El Mirador (Hansen 2012, 151) have been discovered. The use of a diversity of water resources has been seen as a key both for the ability to produce larger surpluses to sustain urbanism and as a factor for the hypothesized Terminal Preclassic decline (Dunning et al. 2002; Hansen et al. 2002). In overall terms, it has been argued that this kind of intensification can be understood as part of a 'labour-tasking' economic logic, in which various tasks to sustain intensive cultivation are parcelled out to different agricultural workers (Scarborough 2003, 13-16). Even with a stone-based technology, the properties of maize and the other available resources allow for the potential to sustain large populations in the 'managed mosaic' of the Maya lowlands.

These ecological and agricultural parameters also shaped the formation of a particular kind of urban and rural landscape, which has been analysed in general terms as 'low-density urbanism' (Fletcher 2011; Smith & Isendahl 2012). It has been argued that this can be seen as a general mode of adaptation to tropical forest environments such as those of the lowland Maya and the Khmer in Cambodia (Fletcher 2012, 302-310).[308] It allows for the replication of a fairly homogeneous kind of

[307] Maize was the prime staple of Maya diet, but is not sufficient due to the lack of amino acids which would cause health problems, and a large variety of different plant, animal, and marine sources were used by the Late Classic Maya (Houston & Inomata 2009: 220-224). Maize also requires a process called nixtamalisation, soaking the kernels in lime water, to prevent serious disease and prenatal deformations, which can already be recognised at 1500 BC (Tate 2012, 88). Scientific studies such as isotopic research are providing significant new insights into maize consumption, allowing insights into how it was consumed by the different social groups of the Maya world (White et al. 2006).

[308] An important early comparative study of the same two cases had focused on the same connection between tropical

settlement pattern over very large areas, with larger urban foci of monumental structures. Such a settlement system is characterised both by spread-out cities and relatively high non-urban densities. This can be seen for many Maya sites of different periods, where the distinction in density of structures between site core, periphery, and rural areas follows a smoother fall-off curve rather than a sharp break-off (Blanton et al. 1993, table 5.2, p. 182). Such sites could become very large, for example Tikal, Calakmul, and Caracol in the Classic period, the first of which had a population of 65,000–80,000 persons spread over an 120.5 km² area that included a 9 km² core (Blanton et al. 1993, 177). The polity of Tikal as a whole could have included as much as 425,000 people, but likely most Classic Maya city-states were more in the range of Copan with 5,797 – 9,214 people in its core and 18,417 – 24,828 persons in the surrounding valley it dominated (Grube 2000, 556).

With regard to the LPC period it is possible to recognise a range from the 196-330 people living at the community of Chan with its small monumental core (Robin et al. 2012, 30), to larger sites with substantial monuments and art such as Cival at 2,000 – 5,000 persons (Estrada-Belli 2011, 77), and Seibal at 10,000 (Sharer & Traxler 2006, 688). Of course there was also the super-site of El Mirador with its core area estimated at 16 km² and with a peripheral density of structures that is comparable to that of Classic Tikal (Dahlin 1984). Another feature El Mirador shared with its largest Classic counterparts was the presence of *sacbeob* (literally: white road) or causeways of monumental scale. These were several metres high and tens of metres in width, extending from the central core of the site to Tintal and Nakbé, and may also have been connected with water-management for agricultural purposes (Hansen 2012, 155). LPC period *sacbeob* have also been documented at smaller sites like Cahal Pech, Cerros, and San Bartolo, as well as at Komchén in the northern Maya lowlands. Apart from their more mundane functions, *sacbeob* likely also were important in facilitating processional movement and pilgrimage (Ringle 1999, 204-209), as can be seen very well in the use of one in the civic-ceremonial core of LPC Tikal (Laporte 2003, 288).

Turning now to urban function, here it is necessary to refer to the influential model put forward by Sanders and Webster (1988), who argued that Mesoamerican cities in general could be termed 'regal-ritual', as all except the greatest of them lacked the functions of economic and administrative central places. Instead they would act as foci for ritual action in a more dispersed landscape of settlement. This model has received considerable criticism for its typological schematics, with recent work instead emphasising a multi-scalar approach that looks at the ways different urban functions played out in the landscape (Blanton 2012, 713-714). To do so also requires grasping in more detail the internal layout of cities. For this an 'ideal type' has been proposed for 2,000 years of Maya urbanism, composed of a civic-ceremonial core that was surrounded by clusters of residential households, which themselves would focus on minor civic-ceremonial structures (Isendahl 2012, 1119). The evidence of smaller temples associated with residential areas (Ringle 1999, 195-198), suggests that in very broad outlines this pattern may be discerned in the LPC period as well. Finally, there is the notion of Mesoamerican cities as 'moral communities', which would be reflected in the layout of sites analogous to a cosmogram (Blanton 2012, 716), a notion that is not uncontroversial, as will be discussed in section 8.2.1.

environments and the lack of conventional urbanism, creating an impact on the structural properties of both early civilisations in contrast to those in other kinds of environments (Coe 1961, 81-84).Comparisons have also been made between the agricultural regimes of the lowland Maya and Bali, based on a similar dependence on a 'labour-tasking' adaptation to tropical environments (Scarborough 2008). Yet, there are more subtle differences here in that the use of oxen at Bali (Mohamad et al. 2009) would allow labour-saving as well. Furthermore, the tropical environment in which the Yoruba early civilisation developed gave rise to very different conditions compared to those of the Maya, as the overall analysis of these cases shows (*Understanding*, 279-314). The upshot is that such comparisons demand more attention to the specifics of land-use and its relation to urbanism in each individual case.

The third element to be explored here is that of surplus mobilisation, craft specialisation, and economic relations in their broadest sense. With regard to the first aspect, the evidence is highly limited, making it almost impossible to infer directly whether and how surplus was mobilised through elite or state agency.[309] Certainly, the scale of monumental architecture and of the *sacbeob* indicates the ability to mobilise labour, which may also have been used for the water-related works at El Mirador. The seeming lack of clear central economic control, perhaps reflected in the prosperity of smaller sites, has led some Maya scholars to develop interesting models that distinguish between the political economy of states and social economy of households (Sharer & Traxler 2006, 631). It should be stressed that this distinction is not just based on the negative evidence of a lack of information on central economic control, but also on the positive recognition of the independence of craft activity from central management. Research at various sites, such as the Belizean sites of K'axob (McAnany & Peterson 2004), Chan (Meierhoff et al. 2012), Colha (Brown et al. 2004), and Cuello (MacSwain et al. 1991), show that both craft production and the consumption of those products can be understood within the contexts of the social economy.[310] The distinction can be grasped well in the following quotation:

"Nevertheless, the dualistic economy is primarily based on the proximity of a sizeable constellation of small communities that play their own ballgames and honor their own agricultural rituals detached from the formalized marketplace centers. They interact with one another under the shadows of the largest centers and participate in the latter's grand activities through negotiation, rather than coercion. Other populations within the immediate orbit of the largest civic centers are attached to the highly 'visible' political economy as identified by the tribute mode of production, but even these populations have latitude in defining their own economic well-being." (Scarborough & Valdez 2009, 221)

Different mechanisms can be argued to relate the two spheres, ranging from the familiar opposed categories of redistribution by the state to marketplace exchange,[311] but also including newer ideas such as that of 'ritual economy' (McAnany 2008; Wells 2007). Following the discussion of Mycenaean economic relations in section 3.4.2, the concern here will lie not so much with providing a typological definition of the LPC lowland Maya economy but rather with investigating the means of exchange. Because of this the exchange patterns in the LPC period will here be

[309] Unlike in central Mexico, no large-scale, centrally located storage facilities have been discovered for the lowland Maya, and there are few indications for staple-finance on a significant scale (Houston & Inomata 2009, 240-243). Ethnographic work on storage in the Puuc region of the northern lowlands suggests a focus on the mobilisation of outside labour to create larger surpluses (Smyth 1991, 69, 71). Although there are clear differences with the pre-colonial Maya in terms of the presence of livestock and the over-arching role of the modern economy, the emphasis on labour mobilisation rather than on labour-saving capital is similar. It may well be that the redistribution of staples was limited to extended households, something which can be inferred from the food-sharing between larger groups known from early MPC period ceramics (Cheetham 2010, 361-363). At the same time, this allows for considerable differences between households, as will be explored below for the element of class and inequality.

[310] It may be that the political economy facilitated exchange between different communities, so that it would be possible for communities to acquire materials and products from beyond their immediate hinterlands (Sharer & Traxler 2006, 635). On the other hand, as noted below for long-distance exchange, such materials were already exchanged before the emergence of the first states in the Maya lowlands.

[311] Hirth (2012, 640-641) notes that marketplace exchange should be seen as an institution, to be distinguished from the economic activities of the household. Whether this institution can be recognised for the Preclassic period remains a contentious point, although there is some linguistic evidence to suggest that this kind of exchange could be traced this far back (Tokovinine & Beliaev 2013, 171-172). In his study of the long-term trajectory of marketplaces in the lowland Maya area, Braswell (2010, 132-135) argues that initial exchange would have been either an open system based on reciprocal relations or a polyadic one bound to high-status individuals. Given that little analysis of this kind has yet been done for the Mirador Basin sites, it would seem prudent not to jump to conclusions on the presence or absence of marketplace exchange. Yet, the point that marketplaces expanded and contracted based on the fortunes of the states within which they were embedded seems to hold until the Postclassic, implying greater state control in the periods preceding the Postclassic (Braswell 2010, 138-139),

characterised more as 'open-loop' (indicating the absence of direct central control) rather than as market-based. Even so, further work may well reveal markets. In this regard, it is important to take note of important recent work on the role of bundles in exchanges of various kinds, which can be recognised both for the Classic and Preclassic periods. The evidence for the Classic period is more extensive, even if actual accounting records are lacking (Stuart 1995, 352-354).[312] In general, the Classic Maya state seems to have focused on the collection of five specific items: quetzal feathers, spondylus shells, jadeite, textiles, and cacao beans (McAnany 2010, 286). From artistic depictions it seems that a distinction can be made between *ikatz* bundles of jadeite objects and *pih* bundles of quantified amounts of goods such as cacao beans (Stuart 2006, 141-142).

There is some textual evidence linking bundles to 'payment' (Stuart 1995, 358-359), but the differences between those that contained objects that could be quantified and those that could not points to important differences. One further aspect of the Classic period evidence is that one form of tribute payment was closely related to warfare, including possibly as ransom for captives (McAnany 2010, 278-283; Stuart 1995, 359-363). The evidence for the LPC lowland Maya is more limited due to the properties of the iconographic and textual records, but some aspects of the use of bundles can still be recognised. Recent data from El Achiotal points to the presence there of a so-called 'bundle house', with a conflation of the economic, political, and ritual roles of bundles at this site (Acuña 2013, 358-359). In particular the depiction on a mural of a bundle with a trefoil Jester God motif can be noted (Acuña 2013, fig. 6.7, p. 260), which will be discussed for its iconography in section 7.4.2. Most important here is that it bears the closest resemblance to the Classic period *ikatz* bundle of jadeite objects, based on a shared metaphorical concern with maize. This can also be recognised for an Olmec depiction of a bundle (Freidel & Reilly 2010, fig. 9, p. 651). Whether or not the term *ikatz* can be projected back into the Preclassic period, the overall relation between bundles of jadeite objects and maize symbols appears to have been present.

This also brings up the question of the role of jadeite and related stones in exchange, which for the Olmec has been variously interpreted as treasure to be used in ceremonial exchange (Taube 2004a, 18), or as a currency used in marketplace exchange (Freidel & Reilly 2010, 641-642).[313] Little can be said about bundles of quantifiable objects in the Preclassic, even if there is some evidence for the use of cacao in feasting contexts, as will be discussed below for the element of public ritual and feasting. As such, they may be related to the notion of feasting as a redistributive event, either in a household context or in a more public sense. There is a generic relation here with Monaghan's notion of liturgical economic allocations', as it can be seen in the cargo system of the contemporary Mixteca Alta and the liturgies of Classical period Athens (Monaghan 2008). Also, it may be that spondylus shells were used as valuable or currency in the later part of the LPC period, based on their use together with jadeite at Cerros and other Belizean sites (Freidel et al. 2002, 68-77). But in the absence of clear iconographic and textual evidence, little can be said about the actual uses of these objects, and this holds true for other materials known from the Classic period as well. Instead, it is possible to point to the relation of bundles of jadeite objects to maize symbols, and the further

[312] Some indications of accounting figures can be seen in Classic Maya courtly art, in contexts that seem to suggest a higher status at the court (McAnany 2010, 284-286).

[313] Taube notes how celts served as standard shapes and as the basis for carving special objects, but argues that there is no standardisation based on size and weight and that therefore they are better described as treasure, while Freidel and Reilly discount the importance of standardisation. All refer back to an early study for Formative Oaxaca (Flannery & Schoenwetter 1970), that argued that early farmers would have used such objects both to store wealth and to establish ritually-charged relations between communities, both to mitigate cases of crop failures. The difference between the use of the terms of treasure and currency is that in the first case the inter-community (or inter-elite) relations are held as being more important, while for currency the notion of convertibility of wealth and staple items is paramount. Neither can be directly inferred for the Olmec and Preclassic lowland Maya cases, although the lack of standardisation would seem not to fit very well with notions of convertibility according to marketplace exchange, while the bundles would be more supportive of the notion of treasure.

relation of both to the office of kingship. The further interpretation of this depends mostly on grasping the iconography and contexts of art objects, and therefore will be addressed following the analysis of LPC lowland Maya art, in the synthetic section 8.3.

Extending from the discussion of economic relations, and bundles in particular, is the element of long-distance exchange.[314] It is possible to note not only the physical importation of certain rare materials from far-flung sources, but alongside them also ideas. The exchange of such materials as jadeite, obsidian, and volcanic ash can be observed already in the Early Preclassic period (Cheetham 2005, 34). Important in this were also the ubiquitous spread throughout Mesoamerica of specific symbols that are found on the ceramics of the different pre-Mamom complexes of the Maya lowlands in the Early Preclassic (Estrada-Belli 2011, 41-44). These widespread symbols point to the interaction of communities across larger distances, which is linked with elite groups (Estrada-Belli 2011, 43-44). This may well be the context in which materials were exchanged as well, as is known for the Classic period (Demarest 2004, 160-162). In the LPC period another feature emerged: that of community-based specialisation such as the production of salt at Komchen in the northern lowlands (Sharer & Traxler 2006, 275), and of obsidian and chert at Colha in Belize (Santone 1997; Brown et al. 2004). As noted, it is hard to ascertain what kind of exchange mechanism existed in the LPC period, but it is notable that many smaller sites had access not only to basic materials but to materials and objects that could only have been acquired through long-distance contacts, as at Chan, Cuello, and K'axob, among many other examples.

Another element to be discussed is state form. The size and monuments of El Mirador, as well as the *sacbeob* that extend far from it to other sites, can be used to make an argument that it was the core of a larger territorial state that encompassed at least the 2,200 km² Mirador basin (Marcus 2012, 96-97). However, in the LPC period the basin was densely settled and evidence for kingship can be found at different sites, including stelae and large-scale architecture (Hansen 2012, 154-159). There are also artistic representations and other indications of kingship at many sites outside the Mirador basin proper, for example at Cival (Estrada-Belli 2011, 85) and San Bartolo (Saturno 2009). This indicates that the LPC political landscape in the Maya lowlands would have been much like that in the Classic period, consisting of a network of city-states. In such a constellation of polities a few much larger states can act as hegemonic powers, without having the ability to create a true territorial state.[315] In this sense it fits the *cacicazgo* model often used in ethnohistoric work, including for the northern Maya lowland area (Redmond & Spencer 1994). Unfortunately, such an inference can only be made on the basis of indirect evidence, as the Preclassic lacks the 'Emblem Glyphs' (referring to either specific locations or ruling lineages) that have been so useful in delineating Classic period city-states and their potential territories (Grube 2000, 549-550).

With regards to the structural properties of the state, such as administration and bureaucracy, little can be said, which may be due to the focus of the surviving record. Even for the Classic Maya, where the textual sources are admittedly biased toward historical and religious matters, there are only limited insights into the role of nobles in the functioning of the royal court (Houston & Inomata 2009, 168-176). For the LPC lowland Maya only the office of kingship seems to have significant interpretive potential, based especially on artistic representations. One problematic feature of kingship for this period, however, concerns the role of burials. For the Classic Maya there

[314] An early model by Rathje (1971) emphasised the role of long-distance exchange in the emergence of lowland Maya early civilisation, based on the fact that the core regions in which it developed, in particular the Petén, lacked several important resources. Even today, however, the model cannot be confirmed by the limited evidence.

[315] The jury is still out as to whether, and if so how much, the impact of El Mirador can be equated with a direct political impact on different sites outside the Mirador Basin heartland (Houston & Inomata 2009, 102). Unfortunately, these kinds of problems are very difficult to resolve based only on the archaeological record, and textual references that shed light on this question are unlikely to be forthcoming.

exists an abundant funerary record related to royal ancestors, as part of a well-defined ideology (Fitzsimmons 2009, 170-183). But this ideology cannot be simply projected back in time to a less sophisticated LPC burial record, as this record seems to have been qualitatively different with regard to kingship. Not only are LPC burials that could be interpreted as royal rarer (Houston & Inomata 2009, 92-94), they were also not placed in the same centrally located pyramids as their counterparts of the Classic period, even in the case of Tikal burial 85 (Estrada-Belli 2011, 55-57).[316]

But as new discoveries add to the LPC lowland Maya archaeological record, more insights emerge into the patterns characteristic of royal burials in this period. Recent finds from the sites of K'o and San Bartolo indicate the presence of royal tombs here, if again not located in central pyramids (Estrada-Belli 2011, 62-63). One hypothesis that has been put forward by Acuña (2013) focuses on the role of funerary bundles to grasp the relation between royal funerary ritual and architecture in the Preclassic period. As was noted for the element of economic relations, bundles were very important in the LPC period for economic reasons as well as ritual ones, while their relation to burial can be seen in Tikal burial 85 (Coe 1990, 218). Acuña (2013, 352-354) argues that the 'bundle houses' she recognises at El Achiotal and Uaxactún could have acted as alternative places to gather ancestors, rather than in dedicated pyramids of the Classic period. The function of these buildings needs to be established with more evidence, but the emphasis on bundles is a promising avenue to further investigate royal funerary ritual, as will be discussed in chapter eight. Another strand of evidence where more progress can be achieved lies in the recognition and investigation of buildings that may have functioned as palaces. Although palatial structures are hard to define even for the Classic period, it does seem clear that in terms of function the LPC period evidence shows them to be qualitatively different from chiefly houses (Runggaldier 2009, 326).[317]

Closely related to state form is the presence of the element of organised means of coercion, that is: the physical ability to project political power. There is substantial evidence for the LPC period both for various defensive works like walls and moats and for the sacrifice of captives (Houston & Inomata 2009, 96). In particular it is important to note the defensive works at El Mirador (Medina 2012).[318] In broader terms the Preclassic Maya seem to have conformed to more general Mesoamerican notions of ritualised warfare, in which physical acts of war go hand in hand with spiritual battle (Reilly & Garber 2003). This can potentially be observed in so-called desecration deposits, in which the 'power' inherent in architectural features is terminated through ritual action, a phenomenon that has been linked to warfare events for Blackman Eddy and Cuello in the MPC period (Brown & Garber 2003, 98-103). It would be misguided to counterpoise this ritual aspect of war to its practical uses, however, for both would have been inseparably linked in the specific Maya conception of status rivalry (O'Mansky & Demarest 2007, 17-18, 20). Finally, it has been proposed that a ritual template for the relation between warfare and kingship can be traced back to the Olmec, and also involved the Jester God image (Reilly & Garber 2003, 146-148). At present this cannot be recognised in the LPC lowland Maya record, as the discussion of the Jester God in section 7.4.2

[316] More continuity between royal burials in the LPC and Early Classic periods can be seen in the offerings deposited in the graves (Krejci & Culbert 1999, 109). McAnany (2010, 146-148) argues that the lack of royal burials in the Preclassic pyramids may have had something to do with a more communally-focused ritual framework, elements of which can still be recognised in the Classic period.

[317] Such chiefly houses have been proposed for some MPC sites in the Maya lowlands, but are here recognised as related to the later emergence of temples rather than of palatial structures (Powis & Cheetham 2008). At the sites of K'axob, to be discussed in section 8.2.5, the same shift from house to temple can be observed in great detail. Palaces, then, may have emerged as a secondary phenomenon of state formation, rather than as the initial central focus of it, even if the available data on them remains too thin to make anything but the most generic statement on them.

[318] However, the wall at this site was admittedly construct late in the LPC period (Medina 2012, 61), making it hard to square with the notion that warfare would have played an important role in the initial emergence of the state (O'Mansky & Demarest 2007, 19). This pattern can be observed at many lowland Maya sites, for example at Cival where provisional defensive works were constructed at the end of the LPC period (Estrada-Belli 2011, 131-132).

below shows no relation to war.

The element of class and (semi-)institutionalised inequality is a very difficult one for Mesoamerican archaeology, and, given the lack of substantial information from texts, for the LPC period in particular. The problem is twofold, involving both the evidence itself and conceptions of class as they are held by archaeologists and by the Maya themselves. As noted for the Mycenaean case, one important strand of evidence for inequality can be found in mortuary ritual. However, viewed from a straightforward class perspective the burial record of the LPC Maya lowlands appears highly puzzling. Leaving aside the royal burials discussed earlier, the evidence from sites such as Cuello (Hammond 1999), Chan (Novotny 2012), and K'axob (Storey 2004), seems to suggest that the concern seems to be more related to the 'curation' of the ancestors than with the articulation of so-called 'aggrandising' individuals, even if over time the male segment of the population becomes more articulated. This articulation should not necessarily be construed as dominance, however, and the selection of ancestors would have been according to criteria based on the organisation of the lineage, rather than of class (McAnany 1995, 60-61). As will be discussed in section 8.2.1, there were no formal cemeteries, and at any rate the number of burials recovered is insufficient to constitute any significant social stratum.[319]

The focus on ancestors and, by implication, the lineage in mortuary ritual can be placed alongside the observation that, on the basis of the available evidence, economic production remained within household contexts (Hendon 1999, 118). Lineages, then, occupied a central position in Maya society, acting as a 'crucible of inequality' for both internal inequality and between different lineages (McAnany 1995, 111).[320] A related but distinct model focuses on houses as corporate entities rather than lineages as descent groups, as can be seen in the application of the notion of 'house societies' derived from Levi-Strauss (Gillespie 2000). It is very hard to decide on this matter for the LPC period, given the meagre evidence, but the notion of 'house societies' as a social type would seem to be too constrictive,[321] especially in the face of the large labour mobilisation to construct monumental-scale civic-ceremonial centres. The implication of all of this is that a simple dichotomous model opposing a well-defined upper class to a generic mass of commoners, seems no longer tenable (Brumfiel & Robin 2012, 674; Marcus 2004; Lohse & Gonlin 2007, xxiv-xxv). In their analysis of the Classic Maya, Houston and Inomata (2009, 28) have used the duality of moral community and divided society to capture the complexity of the situation. Of particular interest with regards to the former is the notion of the 'covenant' that involves not only different human groups and individuals, but all that serves to sustain the community, including the landscape and deities.

The notion of the covenant is therefore very important for a better understanding of the way in which the Maya conceptualised human relations within their cosmic context. Originally derived from ethnographic studies (Monaghan 2000, 36-39), the basic premise of this concept is that of a phagohierarchy in which different orders of being such as the landscape, animals, humans,

[319] Much the same pattern can be seen in Formative central Mexico for the site of Tetimpa, and by extension for early Teotihuacan as well, as here the number of burials relative to the population and occupation span of the site was so low that it would average one burial per generation (Uruñuela & Plunket 2007, 39-41).

[320] The two economic factors in this are that lineages would have retained rights both for working land and for receiving labour services from others, the latter also being adapted by states (McAnany 1995, 112-113, 136-139). Clearly this needs to be further explored in terms of recognising such patterns in the archaeological record. Some recent work for the Classic period site of Isla de Los Cerros (Ensor 2013, 95-113) suggests that this is possible, including for relating class, gender, and kinship to each other in a comprehensive perspective.

[321] In the discussion of agriculture earlier the argument of Cheetham (2010) was noted, which held that early MPC period pottery shows that extended households shared food, a pattern that continued into the LPC period. But it is impossible to infer whether this implies lineages or the corporate groups favoured by the 'house society' model. The evidence from the better known Classic period seems to run counter to the socially constructionist views of kinship in corporate groups, as proposed in the 'house society' model (Houston & McAnany 2003).

ancestors, and deities stand in a reciprocal yet hierarchical relation to each other. Debts have to be paid to the orders of the ancestors and deities, and this takes the form of 'feeding' them through offerings made in specific locales in a landscape that is itself conceived of as an animate order of being (McAnany 2010, 70-79). This conception of a 'covenant' has proven quite influential for interpreting pre-Columbian Maya history, even if here the term moral community will be used instead.[322] One implication of it is that carrying out elite tasks can be viewed through the indigenous concept of taking on a 'burden' for the community, thus ensuring the debt repayment to the orders of the ancestors and deities (Houston & Inomata 2009, 62; McAnany 2010, 90-95). At the same time it has been pointed out for the Classic period that within such a moral community there is nevertheless much scope for inequality along the lines of what may be termed a timocracy. In this kind of arrangement power is based on individual strife for honour, especially in the warfare-related status rivalries discussed earlier (cf. Houston & Inomata 2009, 48).

Given that it is the primary subject of the thesis, the element of monumental architecture and art will be extensively discussed in the next two chapters. The only feature to be, briefly, discussed here is the issue of labour mobilisation involved in the building of the various monumental constructions in the LPC Maya lowlands. One interesting feature of Preclassic lowland Maya architecture is that it tends to favour solidity and mass, in contrast to the Classic period with its veneer-like use of stone in monumental constructions (Houston & Inomata 2009, 87), which maximised the labour that went into the preparation and application of stones (Hansen 1998, 103). The construction of the Danta pyramid at El Mirador alone has been estimated to have involved the equivalent of 10-12 million working days (Hansen & Guenter 2005, 60). Although as the largest known Mesoamerican pyramid it is an outlier, the numerous other cases of monumental architecture at the site, as well as the *sacbeob* and monuments at other sites, point once again to the relation of labour mobilisation to state formation. In principle, though at a much lesser scale, this capability was present in the MPC period in the Mirador basin (Hansen 1998, 60-61), and such labour mobilisation has been recognised in many other regions of early Formative Mesoamerica (Rosenswig 2012).

The penultimate element to be discussed here is that of specialised knowledge, in which the calendrical systems and astronomical knowledge stand out for their importance. It is unfortunate that at present no Long Count dates have been found in the Preclassic Maya lowlands archaeological record.[323] However, it is very likely that the basic elements of the Calendar Round, the *tzolkin* 260-day calendar and the *haab* solar year, were already present in the Preclassic period. This can be inferred from a number of sources. The first concerns a wall-painting from San Bartolo, on which the day sign (3) *Ik'* (wind) of the *tzolkin* calendar can be recognised (Taube et al. 2010, 20).[324] Another important indication of calendar use can be seen in the spatial orientation of the so-called E-groups, named after Group E at Uaxactún (Aveni 2012), in relation to the movement of the sun.[325] This can be seen especially with regard to the importance of 20-day intervals and the seasons

[322] The problem with the term 'covenant' is that it derives from the Biblical notion of a formal agreement between an individual deity and a religious community. There are no indications whatsoever that in Mesoamerica there existed a clear parallel to this. In this sense, the term 'moral community' is commendable for its vagueness, and is best specified further only when sufficient evidence is available.

[323] There are Long Count dates from the Formative sites of El Baul and Tak'alik Ab'aj (Sharer & Traxler 2006, 246), but the earliest one from the lowland Maya area (Tikal Stela 29) is dated to AD 292 (Houston & Inomata 2009, 105).

[324] The association of this sign with one of the four world-directional trees and associated self-sacrificing figures, has led to the interpretation of these figures as 'Year Bearers' (Taube et al. 2010, 19-22). This scene will be explored further in sections 7.4.2 and 8.2.4, but of significance here is that these year-bearers are a strong indication of the use of the Calendar Round. The interaction between the *tzolkin* and *haab* calendars is mathematically structured so that only four of the *tzolkin* day signs coincide with the start of the solar year, and one of these year-bearing day signs has been traditionally defined as *Ik'* (Tedlock 1992, 89-92).

[325] In its basic form the E-group consists of a rectangular platform with three smaller platforms build upon it, which is aligned with a larger pyramid to its west.

as they relate to agricultural activities (Aveni et al. 2003, 162-163). The 20-day time unit or *uinal/winik* is also recognised in artistic representations of the Preclassic Maya lowlands (Coggins 2007, 221-228). Although there are variations in the alignments across the different sites of the Maya lowlands, the cases of the E-group at Cival (Estrada-Belli 2011, 78-79) and a variety of buildings at El Mirador (Šprajc et al. 2009) do point to the agricultural importance of such alignments. As such they would have had both a practical, observational role, together with their commemorative, ritual function (Šprajc et al. 2009, 88-92).

Important in this regard is also the tendency of E-groups to be placed in the centre of sites, as well as a focus of burials and caches within their structures and the plaza area partially bounded by them (Estrada-Belli 2011, 79-83). The quadripartite layout of the cosmos is reflected in many of these finds as well as in representative art, as will be explored in the next two chapters. This reflects the relation between the physical shape of the cosmos and time, and the dependence of spatial form on temporality.[326] The calendrical and astronomical aspects of the E-groups, as well as the even more extensive alignments at El Mirador, indicate the presence of specialised knowledge from the MPC period onwards. In its basic elements this recalls the interconnections between calendrics, astronomy, ritual work, and divination known from ethnographic fieldwork in the Guatemalan highlands (Tedlock 1992). Important in this were ritual specialists called day-keepers, who were trained and initiated for divination and associated rituals and can be found throughout recent and contemporary highland Guatemala (Tedlock 1992, 84-85). This is not to say that the specifics of recent Maya specialists can be literally transposed back to the LPC period,[327] but it is possible to posit the existence of specialists concerned with the same conceptual nexus. Furthermore, the chronological primacy and wide distribution of E-groups prior to state formation proper, points to the origin and continued broad distribution of such knowledge beyond elites.

Turning now to the final element of a cycle of festivals of public ritual and feasting, it should be clear from the discussion of the previous element and the notion of the moral community discussed earlier, that this played a crucial role in LPC lowland Maya society. Unfortunately the written and artistic records of this period do not allow for a reconstruction of a particular cycle and the names of feasts and ritual events, but the archaeological record clearly indicates that they were present. This can be seen in a large number of deposits, which may have been ritually charged in themselves as well, containing the remains of such activities, as for example the jute shell deposits at Chan that indicate communal feasting in the MPC to LPC periods (Keller 2012, 257-258, 269). Also important in this is the consumption of cacao in beverages that were associated with ritual and feasting, which seem to have already been present at the site of Colha in Belize by 600 BC (Powis et al. 2002).[328] As noted in the discussion of urbanism the *sacbeob* at El Mirador and other sites have also been connected with processional ritual and pilgrimage.[329] Unfortunately, the LPC record

[326] The focus on intervals of time has been much explored for the surviving Maya codices, where notions of astronomy and divination are often hard to separate (Aveni 2011). This means that cosmology should be grasped differently. Rather than as a mapping of the heavens in terms of its geography, as in the Western astronomical tradition that goes back to Mesopotamia it is the intervals of time that provide the basic template (Bricker & Bricker 2011, 842).

[327] So far little direct information for the practice of divination has been found in the LPC lowland Maya record. For the Classic period the community building of the site of Chan has yielded a set of artefacts that strongly indicate that divination took place there, paralleling a similar set found at Cerén (Robin et al. 2012b, 145-147).

[328] It may be that some of these beverages were alcoholic in nature, for which there exist broad parallels for this from other Mesoamerican regions and periods (Henderson & Joyce 2006, 147-153). As cacao does not grow well in many areas of the Maya lowlands certain areas may have been favoured for cultivating it, thereby creating inter-regional specialisation. Proposals for this have been made for the Xibun river valley in Belize (McAnany et al. 2002) and the Soconusco region on the Pacific coast (Kaplan 2008), but in neither region can such regional specialisation be directly recognised for the Preclassic period.

[329] It may also be that the Loltun cave in the northern Maya lowlands, with art dating from the later part of the LPC (Stone 1995, 59), was the focus of longer-distance pilgrimages. Such pilgrimages are well-known both from the Classic

lacked the Classic period artistic depictions and other kinds of evidence that would have allowed further insights into the role of feasting and public ritual.

6.4.3: Late Preclassic lowland Maya early civilisation in its *longue durée* context

After the consideration each of the ten elements separately, it is now time to consider their interaction within the framework of LPC lowland Maya early civilisation. This can be achieved by taking into account the *longue durée* context in which this interaction played itself out. First of all, it is of great significance that the shared Mesoamerican practices listed in table 6.1 above can be recognised in broad terms for the specific LPC lowland Maya case discussed here as well. This points to the strength of the recognition of continuity rather than disjunctions between different regions and periods of Mesoamerica, thereby providing some support for the use of the direct historical method discussed in section 6.3. Naturally, the more detailed specifics of the elements are determined by the particular regional and period context, but the overall context is clear. This does not necessarily imply the notion that there was a singular 'mother culture' that accounts for these similarities, rather it can be imagined as taking shape in the exchange of materials and ideas, and to some degree people as well, over long distances. In this way the notion of Mesoamerica as a coherent macro-region that transcended regional, linguistic, and other kinds of differences (Wolf 1994) seems to be reinforced.

Here, however, the concern is with the interplay of temporalities within the Maya lowlands. Given the recurrent pattern of the growth and collapse of Maya states from the Preclassic through Postclassic periods, it is not surprising that models have been developed to account for this. One important example is the 'dynamic model' developed by Joyce Marcus (1998a), initially to account for the lowland Maya but later extended to include the dynamics of other early civilisations. This particular model explores the tension between the centrifugal role of kinship and centripetal forces of kingship as they shaped the structure and dynamics of Maya polities, a well-recognised tendency which has also been explored in the work of others (McAnany 1995, 163-165). More recently, Marcus has suggested that it may be possible to trace the trajectory of a particular state, in this case the Kaan ('Snake Head') polity, which actually may have moved from different sites, possibly starting in Nakbé, moving through El Mirador to end at the Classic period super-site of Calakmul (Marcus 2012, 106-108).[330] In one way this is an appealing model, but by only focusing on the fortunes of states, it effectively subsumes communities and households under their umbrella and thereby somewhat neglects the dynamic properties of these forms of social organisation.

period evidence and ethnographic research of contemporary Maya groups (Vogt & Stuart 2005).

[330] One model proposes to project back the notion of the *may* cycle of 13 *k'atun* periods (256 years) as a temporal structuring device, known through ethnohistoric sources, all the way back to the Preclassic. According to the model, after the end of each cycle the 'seating' of the *may* would shift from one capital to another, with states competing to take over this role (Rice 2013, 687). The shift from Nakbé to El Mirador would also have taken place based on this model (Rice 2007, table 8.3, p. 186). The problem is that this model based on ethnohistory does not even work well for the better-known Classic period (Grube 2013), let alone for the LPC record that is without substantial deciphered texts.

	El Mirador	Chan
Element		
agriculture	large-scale water-management	small-holder based terraces
urbanism	very large (16 km²)	less than 400 persons
	extensive ceremonial core	small E-group ceremonial core
	sacbeob	
economic relations	large-scale labour mobilisation	household-based
	tribute?	
long-distance contacts	rare goods imported	rare goods imported
state form	kingship	community-based
	hegemonic power?	
physical means coercion	large-scale defensive works	no conclusive evidence
	captive-taking?	
class, inequality	larger compounds as foci	small differences, lineage-based
monumental architecture	multiple large pyramids	small plaza-focused core
specialised knowledge	astronomical orientation	astronomical orientation
	writing, artistic expression	
public ritual, feasting	large-scale processions	community-based feasting

Table 6.2: A comparison of the presence of key elements of the Preclassic Maya at El Mirador and Chan.

A more multi-faceted approach has been proposed by Iannone (2002, 74-76) in his use of the *Annales* scheme of different temporalities to account not only for the cycles of state formation and dissolution, but also for the relation between the state on the one hand and communities and households on the other. He recognises the same interplay between kinship and kingship as does Marcus, but allows for a more complex interplay between the different elements, thereby breaking down the more general categories of states, communities, and households into their constituent elements (Iannone 2002, table 1, p. 75). One problem with this breakdown, however, is that it over-emphasises the differences between *longue durée* features and their *conjoncture* counterparts in an almost dichotomous way, although they would always be conflated together within *événements*. This reinforces notions such as the distinction between the Great and Little Traditions, which has been questioned for Maya archaeology (McAnany 2002). Rather than simply adopting the models of Iannone and Marcus, therefore, they can be used as the basis for further considerations of the contexts and temporalities of the elements of the LPC Maya lowlands discussed in the previous section. To structure this, it is useful to consider the contrast between the small site of Chan and the super-site of El Mirador, which are outlined in table 6.2 above.

First of all, the temporalities of both sites need to be taken into account. Even though Chan was by no means a static site, it did function as a coherent community focused on a small civic-ceremonial core, for which coherent ceramic complexes can be recognised from the MPC through the Terminal Classic periods (Kosakowsky 2012, table 3.1, p. 44). This involves a period of more than 1,500 years and can be compared with the maximum 450 year LPC period focused *conjoncture* of El Mirador (Hansen 2012, 154-159). However, if the theory that the Kaan polity was a long-term

political structure holds true, then it would be misleading to contrast community and state as belonging to different temporalities. Instead they would follow distinct, if not completely separated, *longue durée* trajectories, based on their own characteristics.[331] The key question, then, is how Chan and El Mirador were different, and what the implications of this are for the understanding of the relations between households, communities, and states in the LPC lowland Maya case. Focusing first of all on the ten elements outlined in table 6.2, it can be seen that for many of the elements El Mirador was similar to Chan, or if different more in terms of scale rather than in kind.

Similarities include agricultural intensification based on water-management, the presence of a civic-ceremonial core, basic economic relations that are focused on the household, the importation of goods through long-distance exchange, specialised knowledge related to astronomy and calendrical systems, and public ritual. This is not to say that the difference in scale was completely unimportant for these elements, as can be grasped for the difference between the communal feasting at Chan and the large-scale public ritual that would have taken place at El Mirador. But the presence of elements usually associated with state formation itself or its ramifications in the hinterland at a site like Chan, estimated at less than 400 inhabitants, is already significant. Deriving from initial development during the MPC period, they also pre-date the emergence of states in the LPC period and therefore cannot be seen as state-based impositions. However, there are also clear differences, starting with the larger scale of El Mirador and the consequent need for greater organisation and control in the mobilisation of labour. Given that basic production remained organised at the household level, this can be seen as the vertical appropriation of labour from the social economy to the political one, to borrow the terms from the dualistic model discussed in the previous section.

The existence of the larger compounds suggests that there may have been other forms of appropriation as well.[332] The question of appropriation also brings us to the question of wealth. For the element of economic relations the role of bundles of precious materials was notable in this regard, especially those containing jadeite, known as *ikatz* in the Classic period. Small quantities of jadeite have been found in the caches and burials of Chan, while the evidence for this from El Mirador has not yet been published in sufficient detail. However, based on the data from other larger sites, it seems fairly clear that jadeite objects with complex iconography and writing would belong more exclusively to the larger sites.[333] As such, the specialist knowledge required for making them would be paralleled by the monumental art and also the archaeoastronomical orientations that can be seen at El Mirador. The question how the uses of jadeite and specialist knowledge differed between small and large sites cannot be answered here yet, as it depends upon the analysis of the agency of art that will be addressed in section 8.3. With regard to elements like the richer, royal burials and the Jester God motif, there is little doubt that they belonged to the larger sites, as part of the institution of kingship.

[331] Another long-term aspect of some of the larger sites can be seen in the ritual activities at abandoned structures, as can be seen at different sites in the Classic period Mirador Basin, which was also emphasised by epigraphic references to the Kaan kingdom (Hansen et al. 2008). Another case for which this can be observed is the Tigrillo 'palatial' complex of Preclassic San Bartolo, which was a focus of Late Classic (re)building activity that seems to have focused on the social memory of the structure, acting as an 'architectural heirloom' (Runggaldier 2009, 288-293).

[332] This is based mostly on the evidence from similar compounds at Nakbé, which are better known and will be discussed in more detail in section 8.2.2. As noted in the previous sections, labour could be appropriated for many of the services of elites, ranging from house chores, to agricultural and artisanal work. Unfortunately, even if well-documented from ethnohistory and ethnography (McAnany 1995, 136-139), it is also very hard to recognise archaeologically.

[333] Unfortunately, this argument is not as tight in terms of the evidence as it is in terms of plausibility. The main reason for this is that many portable art objects of jadeite and related greenstones have not been found in secure contexts, and hence cannot be directly linked to the bigger sites. There are, however, close iconographic parallels between these portable art objects and monumental art, to be discussed in section 7.4.2 and elsewhere, the latter of which is exclusively found at the larger sites.

In fact there is no evidence at all for either kingship or warfare at Chan. Both can be recognised in a basic sense at El Mirador, even if there are still many unresolved questions such as the makeup of the internal administrative structure of the state, the scope and character of its regional hegemony, as well as the possibility of captive-taking. As argued in the previous section, the site most likely acted as a hegemonic power within a network of city-states or *cacicazgos*. These state-related aspects of El Mirador show that, despite the many commonalities with Chan, it was a qualitatively different beast. That is, it was not merely a super-sized collection of many Chan communities cobbled together, but integrated many of the same elements together in a different framework. Yet at the same time, the elements in common between the two have some coherence as well. Elements like maize agriculture, lineage-based inequality, and a focus on civic-ceremonial centres can be seen as intersecting in the notion of the moral community, which can be extended to the ideological foundations of states. As such it forms an important key to the 'social world of knowledge' of the LPC lowland Maya, and the analysis of art provided in the next two chapter is, in the absence of ethnographic sources, the best available source to interpret it.