Early Monumental Constructions in the Maya Lowlands and their

Implications for the Theory of the State

INOMATA Takeshi

School of Anthropology, University of Arizona, Tucson, Arizona 85721, USA (inomata@arizona.edu)

Abstract

Their discovery of a preceramic temple at the Peruvian site of Kotosh in 1960 led Japanese

Andeanists to suggest that repeated temple constructions played a driving role in the development of

Andean civilization. More recent finds of ceremonial constructions dating to the preceramic and early

ceramic periods in other parts of the world allow us to re-evaluate their proposal from a cross-cultural

perspective and to re-examine the concept of the state critically. Whereas early ceremonial constructions

in some areas do not appear to have led directly to state formation, monumental constructions built

between 1100 and 750 BC in the Maya lowlands triggered a social trajectory toward the emergence of

dynasties. Early organizers of ceremonies may have provided a prototype of later Maya rulership, which

was closely tied to public performance. Early buildings probably facilitated collaboration among many

people without pronounced inequality, but this process likely produced a basis for later hierarchical

organization by creating political subjects who willingly accept communal obligations. Those

observations encourage us to move beyond the restrictive approach to the state and to examine different

dimensions of broad social processes.

KEYWORDS: Maya, Olmec, Andes, early monumental architecture, social inequality, collective action,

state formation

1. Introduction

In 1960 the Japanese Andean Expedition directed by Seiichi Izumi and colleagues discovered the Temple of Crossed Arms built around 2000 BC during the preceramic period at the site of Kotosh in the Peruvian highlands (Izumi and Sono 1963). Since then, even older ceremonial constructions have been found on the Peruvian coast, including Sechin Bajo, Huaricanga, and Bandurria, dating to around 3500-3200 BC, and large constructions at Caral, dating to 2600-1800 BC (Shady Solis et al. 2001). The discovery of the Temple of Crossed Arms led the Japanese scholars to argue that the repeated constructions of temples played a driving role in the development of Andean civilization (Onuki 1995; Terada and Onuki 1988). Their insight, originally made in the 1960s, was ahead of their time. It touched on the theoretical issues, such as religion, ritual, and practice, which would enter the mainstream archaeological literature in English decades later. The implications of ceremonial constructions during the preceramic and early ceramic periods have only recently become an important subject of debate among scholars beyond Andean archaeology, stimulated by the finds of such buildings in other parts of the world (Burger and Rosenswig 2012; Graeber and Wengrow 2021; Sassaman 2004; Stanish 2017).

Although the discovery of the Kotosh temples and subsequent achievements by the Japanese researchers are well respected by international scholars of Andean archaeology, I do not think that they are receiving the credit that they deserve for their pioneering theoretical contribution. For example, the recent book by Graeber and Wengrow (2021) is an admirable effort to compile data on early constructions and related events, but it does not include the work by the Japanese team and only passingly mentions Andean sites earlier than Chavín de Huántar. I suspect that this neglect is the ironic result of the innovativeness of their theoretical insight. Under the strong influence of materialism and environmental determinism during the 1960s and 1970s, many Anglophone scholars disregarded the explanation emphasizing temples and religion. It may also be because Japanese scholars did not publish their theoretical views in a way easily accessible to Western scholars. Now that religion, ritual, and construction activity have become well-established themes of archaeological discussion and that there is a

growing interest in early ceremonial construction across the world, the theoretical contribution of those Japanese scholars should be re-evaluated.

I was originally trained in New World archaeology by Yoshio Onuki and Shozo Masuda and had the privilege of participating in the excavation of the early Peruvian temple site of Kuntur Wasi in 1988. Since then, their argument about the centrality of temple construction has fascinated me. In the Maya area, which I chose as my main field, however, scholars have long thought that comparable early constructions are absent. This perception now needs to be revised. Recent investigations by my colleagues and I revealed early monumental constructions in the Maya lowlands, which add to the growing dataset on monumental ceremonial buildings constructed by hunter-gatherers and incipient farmers in various parts of the world. By highlighting preceramic temples, the researchers of the Japanese Andean Expedition originally emphasized the uniqueness of Andean civilization. Nonetheless, recent finds from the Maya area and other parts of the world suggest that similar processes may have happened outside the Andes.

2. Search for Early Maya Buildings

Our understanding of political processes in the Maya lowlands has been changing substantially. Until the 1970s, the common perception was that Maya society reached the height of political development during the Classic period (AD 250-950) with numerous dynasties prospering across the Maya lowlands. Elaborate temple pyramids and palaces marked the center of each city, and a sophisticated writing system recorded the deeds of rulers and dynastic histories.

There were some indications that important social formations happened during the preceding Preclassic period, but it was not until the 1980s that substantial data on Preclassic Maya society began to emerge. At the site of El Mirador in the northern part of Guatemala, pyramidal complexes far larger than those of the Classic period were built during the Late Preclassic (350-75 BC) and Terminal Preclassic (75 BC-AD 250) periods (Hansen and Suyuc Ley 2016). Nonetheless, it was not clear whether political

systems comparable to those of the Classic era existed during these periods. Our knowledge of earlier periods was limited until recently. Maya archaeologists knew that the Middle Preclassic period (1000-350 BC) was the period when the occupants of the Maya lowlands, who were probably speakers of Maya languages, began to use ceramics and to live in permanent settlements (Hammond 1991; McAnany 2004; Willey 1990). These data led many scholars to believe that the development of Maya society was gradual, starting with small villages and slowly developing larger settlements (Adams 1977).

This perception framed the debate among Mesoamerican archaeologists about whether political changes in lowland Maya society were caused or stimulated by influence from the Olmecs living on the southern Gulf Coast. The Olmec center of San Lorenzo reached its apogee in the latter part of the Early Preclassic period (1900-1000 BC). This center boasted a large plateau-like construction, dotted by colossal head sculptures, which likely depicted rulers (Coe and Diehl 1980; Cyphers 2016). After the decline of San Lorenzo, another Olmec center of La Venta developed between 800 and 400 BC.

New data emerged during the 2000s and 2010s. Investigations at San Bartolo revealed elaborate murals depicting a scene of the coronation of a probable ruler dating to around 100 BC and early Maya texts painted around 300 BC (Saturno et al. 2006). Our research at Ceibal, Guatemala, and Aguada Fénix, Mexico, have uncovered enormous constructions, which started around 1100-950 BC (Figure 1). These new findings force us to rethink the process of social change in the Maya lowlands. Instead of the previous perception of gradualism, we need to consider the possibility of profound social transformation occurring during the transition from the Early Preclassic to the Middle Preclassic. Although recognizable dynasties did not emerge until centuries later, these early monumental constructions may signal that some elements of later political practices and institutions began to form during these early periods.

<Insert Figure 1 here>

3. Question of the State

The growing data on early monumental constructions force us to re-examine the concept of the state critically. Although state formation has long been an important theme in archaeology, there is growing criticism of this approach. At issue is whether the concept of state is appropriate or useful and whether we are asking the right question by addressing state formation. More broadly, this problem concerns the critique of the neo-evolutionary stage model consisting of band, tribe, chiefdom, and state. Although a significant number of scholars have come to reject the concepts of tribe and chiefdom as precursors of the state (McGuire 1983; Yoffee 2004), most archaeologists are probably not ready to abandon the concept of the state. This is because we now live in a political system that we call the state. As long as the primary purpose of archaeology is to understand how we got here, the question of the state continues to be important. Critics, however, argue that any concepts or definitions of the state fail to capture its historical diversity or they impose restrictive conceptual frames to something that may not exist as a bounded objective reality (Abrams 1988; Mitchell 1991; Smith 2003).

Like many of my colleagues, I think that the concept of the state still has some validity.

Nonetheless, trying to impose a tight definition or debating whether Preclassic Maya society was a state is counterproductive. The definition of the state remains elusive. Instead of trying to identify the moment of state formation, we need to examine the dynamics of political systems in their historical contexts, including the early emergence of certain modes of political practices that share common characteristics with what may be identified generally as states. In this regard, Graeber and Wengrow (2021:507) argue that different elements of the state, including sovereignty, bureaucracy, and a competitive political field, have separate origins. We also need to pay attention to the processes in which certain political and organizational strategies of states may develop through interaction and competition with other states or non-state groups. Other groups that surround a state may also develop different social organization as they actively resist incorporation in the state. These social forms, then, do not represent evolutionary stages preceding the state but result from their interaction with the state (Clastres 1977; Scott 2017). In other

words, the concept of the state remains inherently loose and serves mainly for heuristic purposes. Our goal is to understand broader social processes, including social trajectories over long time spans and relations among multiple groups with different forms of political organization.

As a heuristic starting point, we can assume that at least some Classic Maya polities were states in a broad sense. They had well-established dynasties with charismatic rulers, a sophisticated writing system, populations as large as 60,000, frequent wars involving attacks on rival cities, and bodies of administrative specialists, although it is not clear whether they had developed bureaucratic organization (Inomata and Houston 2001). In this paper, I examine social processes in earlier periods to see which types of political practices led to those of the Classic period and which ones were modified or abandoned. The discoveries of early monumental architecture at Ceibal and Aguada Fénix have encouraged me to explore two dimensions of such political processes. One is the development of social inequality, accompanied by certain forms of domination and violence. The other is the coordination and ordering of a large population (Blanton and Fargher 2008; Carballo et al. 2014). Those two dimensions are co-existing in every state, and we need to examine their configurations in specific historical contexts.

4. Ceibal

Ceibal is located on top of an escarpment overlooking the Pasión River. Willey directed the Harvard University Project at this site in the 1960s (Willey 1990). We revisited this site in 2005 as the Ceibal-Petexbatun Archaeological Project and continued our field research until 2017. Our excavations revealed the earliest formal ceremonial complex called the E Group known then in the Maya lowlands, dating to 950 BC. The E Group consists of a western pyramid and an eastern long platform, and this format spread across the Maya lowlands in later periods. With large platforms placed along the north-south axis of the E Group, the overall site plan of early Ceibal followed the format that Clark (Clark and Hansen 2001) called the Middle Formative Chiapas (MFC) pattern. This spatial configuration is found at La Venta and various Middle Preclassic centers located in central and southern Chiapas. The presence of

numerous caches containing greenstone axes indicates that the E-Group complex was a focus of communal ceremonies (Inomata and Triadan 2016).

In 2015, we acquired airborne lidar data over an area of 470 km² around Ceibal. Harvard researchers produced an excellent map of Ceibal, which showed the central part of the site as a raised terrain in an amorphous shape. Lidar revealed that this area was an artificial plateau in a roughly rectangular shape, measuring 600 x 340 m horizontally and 6 to 15 m in height (Inomata et al. 2019) (Figure 2). The Preclassic component of this plateau was by far the largest construction of all periods at this site. Despite this large-scale construction activity, evidence of residential buildings dating to the early Middle Preclassic period was scarce. In some areas, we found scatters of artifacts on exposed bedrock and small postholes dug into these surfaces. We hypothesized that between 1000 and 600 BC a substantial portion of the Ceibal population still maintained a certain level of residential mobility, living in ephemeral structures and moving seasonally or every few years (Inomata et al. 2015).

<Insert Figure 2 here>

5. Aguada Fénix and the Southern Gulf Coast

After our work at Ceibal, we decided to investigate the Middle Usumacinta region in the Mexican state of Tabasco. We began the Middle Usumacinta Archaeological Project in 2017. A high-resolution lidar survey identified a previously unknown site, which we named Aguada Fénix. It has an artificial plateau, measuring 1400 x 400 m horizontally and 10 to 15 m in height and having an E Group in the central part (Inomata et al. 2020) (Figure 3). Ten causeways and corridors extend from the Main Plateau, with the longest one reaching roughly 6 km. The shape of the Main Plateau resembles that of the MFC pattern, but its rectangular form distinguished it. We decided to call this configuration, the Middle Formative Usumancinta (MFU) pattern. This artificial plateau of Aguada Fénix appears to have originally

had 20 platforms along its edges. The number 20 is a base unit of Mesoamerican calendars, and the placement of 20 platforms possibly represents the cosmology held by the builders.

<Insert Figure 3 here>

Our excavations showed that this construction began probably around 1100 BC and building activity ceased around 750 BC. The construction volume of the Middle Preclassic portion of this plateau reached roughly 3,600,000 m³, which makes it the largest and oldest monumental construction in the Maya lowlands, surpassing the pyramidal complexes at El Mirador. Remarkably, this enormous site was not known before our research. Like the case of the artificial plateau of Ceibal, horizontally large buildings are difficult to recognize from the ground level in this environment. Their overall shapes became clear only through lidar.

In addition to our high-resolution lidar of the Middle Usumacinta region, we analyzed the low-resolution lidar obtained by the Mexican governmental agency, Instituto Nacional de Estadístic y Geografía (INEGI), to examine the distribution of related sites. The INEGI lidar provided continuous coverage over an area of 85,000 km², including the western Maya lowlands and the entire Gulf Olmec region. This analysis identified 478 formal ceremonial complexes of the late Early Preclassic and Middle Preclassic periods, including MFU and MFC sites and closely related complexes.

We also analyzed the INEGI lidar data of San Lorenzo. This is an intensively studied site, and detailed maps of the site have been made (Coe and Diehl 1980). These maps showed slightly elevated areas in amorphous shapes along the eastern and western edges of the plateau, which researchers called ridges. The lidar showed that they were 20 rectangular platforms divided by narrow allies (Figure 4). Their edges facing the central part of the plateau, in particular, formed well-defined straight lines, defining what appears to be an extensive plaza of a rectangular shape, measuring 1030 x 280 m, with a small eastern projection. The shapes of the San Lorenzo plateau and the Aguada Fénix plateau are similar, though the former lacks an E Group. Although Cyphers (Cyphers and Murtha 2014) has argued that the

central part of the San Lorenzo plateau was occupied by elite residential complexes, this similarity to Aguada Fénix suggests to me that this area was more likely an open plaza. Elite architectural complexes confirmed by Cyphers's excavations, including the Red Palace and Group E (not to be confused with the E Group), are located on the western edge platforms (Cyphers 2016).

<Insert Figure 4 here>

Similarities between San Lorenzo and Aguada Fénix are also found in their access patterns, consisting of two from the north, two from the south, and two from the west. These access ways imply that processions were important components of rituals held at those places. We hypothesize that the prototype of the MFU pattern with 20 edge platforms representing calendrical symbolism was first established at San Lorenzo around 1400-1100 BC. This format was further formalized after 1100 BC in MFU and MFC complexes with the addition of the E Group. Aguada Fénix likely played an important role in this process.

As we noted for Ceibal, the builders of these complexes may have retained certain degrees of residential mobility (Arnold 2009). Around many of the early ceremonial complexes, the lidar data do not show residential mounds or other forms of landscape modifications. It is probable that the builders lived in ephemeral structures and moved their residences frequently. These patterns were shaped partly by the unique subsistence conditions of Mesoamerica. Although maize was domesticated around 7000 BC, it took a long time of genetic change for this plant to become a productive crop. Even the residents of San Lorenzo appear to have relied heavily on wild resources (Cyphers and Zurita-Noguera 2012). The inhabitants of various parts of Mesoamerica began to rely more on maize between 2000 and 1000 BC, but some groups possibly continued mobile lifeways for some centuries after 1000 BC to use aquatic food and other wild resources along with maize. The spread of standardized ceremonial complexes over broad areas happened during this time of profound change in subsistence and lifestyle.

6. Discussion

Comparable early monumental constructions have been reported from across the world. In the American Southeast, the site of Poverty Point, built by hunter-gatherers between 1700 and 1100 BC, has long been known, but it has received renewed interest recently (Kidder 2011). In the same area, the even older site of Watson Brake is dated to around 3400-3000 BC (Saunders et al. 1997). In Florida and other parts of the Southeastern Coast, shell mounds of monumental proportions, created mainly between 4500 and 3000 BC, were probably not simple accumulations of food refuse but monumental constructions intentionally built by hunter-gatherers (Sassaman 2004). Comparable monumental shell mounds are also found in Brazil (Fish et al. 2013), and Clark and Hodgson (2021) argue that large shell mounds on the Pacific Coast of southern Mexico, dating as early as 5000 or 6000 BC, were comparable monumental buildings. Particularly striking examples are the site of Göbekli Tepe and related Neolithic remains in Turkey with elaborately carved stone monuments, dating to 9500-8000 BC (Schmidt 2010). Moreover, the large wooden buildings at Sannai-Maruyama and other Jomon sites in Japan represent monumental constructions by hunter-gatherers (Habu 2008), and Stonehenge and megalithic constructions in Neolithic Europe were built by early farmers or mixed subsistence practitioners (Pearson 2012).

Comparison of these examples from various parts of the world allows us to evaluate the argument made by the researchers of the Japanese Andean Expedition from a cross-cultural perspective by examining their commonalities and differences. Those examples make it clear that large constructions could be built without a state or a hierarchical polity. Many of those early monuments, particularly Göbekli Tepe, Watson Brake, Poverty Point, and Stonehenge, were most likely places of gathering in certain periods of the year, for which some participants appear to have traveled long distances. This pattern probably applies to Aguada Fénix, early Ceibal, and related sites in southern Mesoamerica. Although settlements at Aguada Fénix are poorly understood, we do not have any indication that a large number of people required for its constructions lived there on a permanent basis. Mobile hunter-gathers and horticulturalists commonly gather in larger groups at certain times of the year, which often represent

occasions for elaborate rituals. The construction of Aguada Fénix may have developed from an earlier tradition of seasonal gathering and ceremony. Those possible predecessors may have built ephemeral ceremonial buildings, which did not leave archaeologically-recognizable traces. The builders of Aguada Fénix may have decided to transform the earlier ephemeral form of ceremonial construction into a permanent and prominent landmark.

Early monumental buildings do not always lead directly to the formation of states. In the Near East, it took roughly five millennia from monument erections at Göbekli Tepe to the emergence of dynasties. In the American Southeast, the large polity of Cahokia did not develop until more than two millennia after the constructions at Poverty Point, and it is questionable whether Cahokia can be called a state even in the broadest definition. In Japan, Sannai-Maruyama was abandoned around 2300 BC, long before the emergence of the Yamato state. In those cases, it is difficult to argue that early monumental constructions contributed to later state formation in any meaningful ways. They may be better viewed as examples of people experimenting with diverse forms of social organization in various historical moments, as discussed by Graeber and Wengrow (2021).

Along with the examples from the Andes, Aguada Fénix, Ceibal, and related sites in southern Mesoamerica may have led to the formation of states in a more direct way. Those Maya sites are substantially later than examples from other parts of the world. As discussed before, this is partly due to the genetic history of maize. In the Andes, the earlier development of productive maize in South America and extremely rich marine resources may have allowed the earlier emergence of monumental constructions. After the early constructions at Aguada Fénix and Ceibal, Maya society (although it is not clear whether the builders of Aguada Fénix can be called the Maya) showed a fairly steady and straightforward trajectory toward the formation of states, with the full establishment of sedentism in a few centuries, the growth of large settlements that may be called cities in six centuries or so, and the emergence of dynasties in roughly thousand years.

As to the two dimensions of social change tied to state formation, the constructions at Aguada Fénix and Ceibal clearly represent a profound transformation in terms of collective cooperation and coordination on a large scale. As to social inequality, however, they do not appear to show noticeable change from the preceding period. Like many other examples of early monuments, Aguada Fénix and the initial stage of Ceibal were probably built by groups without marked social inequality, which contrasts with the Olmec centers of San Lorenzo and La Venta where the presence of rulers are indicated by stone sculptures. The builders of Aguada Fénxi and Ceibal may even have activity resisted the hierarchical organization. Those of Aguada Fénix, in particular, possibly had direct contact with San Lorenzo. While they adopted the spatial template of a plateau and its symbolism developed at the Olmec center, they did not accept the Olmec sculptural style tied to elite ideology. The only sculpture found at Aguada Fénix so far shows a naturalistic representation of a peccary.

Similar processes probably happened at Ceibal, where the MFC pattern reflects the builders' close contact with the inhabitants of central Chiapas. Although the western pyramid of the E Group at Chiapa de Corzo contained tombs of rulers or high elites (Bachand and Lowe 2012), our tunnel excavation through the core of the western pyramid at Ceibal did not reveal any interment. Nor did the intensive investigations by the Harvard project and our team uncover any Olmec-style sculptures. The horizontally extensive forms of the plateaus at Aguada Fénix and Ceibal also reflect organization without marked inequality. In contrast to the emphasis on pyramids in later periods, which allowed only a small number of privileged individuals to access their summits, the horizontal monumentality of early buildings provided inclusive spaces, in which community members could gather on the same level.

It is, however, a mistake to think that the builders of Aguada Fénix and Ceibal had egalitarian organization. The presence of caches with portable objects, including personal ornaments, suggests that there were some individuals with higher authority, who played a central role in organizing construction and ceremony. In addition, Graeber and Wengrow (2021) point out that some ethnographically-known groups, including the Crow in the American Plains, had seasonally-shifting political organization, in which certain individuals or groups were vested with stronger power during the periods of gathering and ceremony. They go on to suggest that such seasonally-shifting power structures may have existed among

the builders of early monuments. Although such temporal political structures would be difficult to detect archaeologically, they present an intriguing possibility for Aguada Fénix and Ceibal.

A comparable pattern may apply to San Lorenzo. In this case, we may need to consider the possibility that the level of social inequality at San Lorenzo was lower than commonly assumed. If our interpretation that the flat area on the San Lorenzo plateau was an open plaza is correct, it may represent an inclusive space where community members, including lower-status individuals, could gather. This view contrast with that of Cyphers (2016:96; Cyphers and Murtha 2014), which suggests that the summit of the San Lorenzo plateau was a more exclusive space for the elites. If so, the power of San Lorenzo rulers may have fluctuated according to the ritual cycle of gathering and dispersal. During the time of ritual and construction, people followed the orders given by the rulers and their advisors, but after they return to their villages, the authority of the rulers may have made little effect on their lives.

We may hypothesize that the organizers of public ceremonies and ritual specialists at Aguada Fénix and early Ceibal provided a prototype for later Maya rulership. Ceremonial events and public performance were closely tied to the nature of Maya elite power during the Classic period (Demarest 1992; Inomata 2006a, 2021; Inomata and Coben 2006). Maya rulers not only sponsored large public ceremonies but also acted as the main protagonists, through oral performance, dance, and processions, which were recorded on stelae and lintels. The importance of public events suggests that the temporally-shifting nature of royal power persisted even in the Classic period to a certain degree. Such public events were the occasions on which numerous participants could witness and experience their relations with the rulers and other community members, thus constituting and renewing royal power. Once non-elites returned to their daily routine, the perceived tie to the sovereign and thus the effects of royal power on people's lives may have diminished (Inomata 2006a). I should also note that, while public ceremonies were the primary occasions for the expression of royal power, they presented dangerous moments for the elites. In those events, aberrant behavior and discourse were possibly permitted or even encouraged as suggested by the representations of ritual humor in figurines and paintings (Inomata 2006b; Taube 1989). It appears that the strong connection of royal power with public events represented a precarious balance

between the glorification of rulers and the presentation of elite ideology on the one hand and the subversion of the ordinary order on the other.

We should now return to the other dimension of social change, that is, collective collaboration and coordination. We need to explore how those large constructions became possible without a state or even pronounced social inequality. If our hypothesis that there was a pre-existing tradition of seasonal gatherings and ceremonies is correct, the collective action required for the construction of artificial plateaus may have developed from these earlier practices. Still, these constructions probably involved substantially larger numbers of people for more prolonged periods. These large building projects meant unprecedented experiments for those who were involved. This level of collaboration may have become possible through a growing sense of communal obligations, which may have been stimulated by an increased reliance on maize cultivation. We should also consider the potential effect that construction projects have on people's dispositions. It is difficult for social agents to conceptualize abstract ideas about new social organization, and it is even more difficult to persuade others to work toward a new social form. Buildings, in contrast, can give a concrete image that many people can share and work on even before they were built. The construction plan of a public building that would represent a cosmological view and offer a communal space for gathering and ritual possibly presented a common goal toward which many people could work together. In this sense, change in social relations was probably not a precondition for a large construction project but an unintended consequence of working together toward this goal. Likewise, large public ceremonies held in those locations provided attractions for many people by presenting religious persuasion, the excitement of festivity and feasting, opportunities to meet potential mates, and settings for economic exchange. Such attractions were strong enough to bring people from distant places and to encourage them to endure hard physical work for the construction of ceremonial spaces.

An important effect of this process was probably the creation of political subjects who are willing to accept such communal obligations at the expense of personal liberty, which brings us back to the issue of social inequality. As practice and performance theories explain (Bell 1992; Bourdieu 1977), the

specific work that people perform and the way it is performed in relation to other individuals create the reality of social relations, and the understanding of their positions in this web of social relations become internalized in their minds. It follows that, as much as society makes a building, a building makes society. Although the large constructions at Aguada Fénix and Ceibal may have started without pronounced social inequality, they created a basis on which more hierarchical organization could be accepted or tolerated by the mass in later periods.

7. Conclusion

The growing dataset of early monumental constructions in the Maya area and other parts of the world underscore the importance of the pioneering contribution made by the researchers of the Japanese Andean Expedition. Although the Japanese Andeanists originally emphasized the uniqueness of Andean civilization, recent finds suggest that their thesis may be applicable to other areas of the world and encourage us to explore diversity in social processes tied to early monumental constructions. In some areas, early monumental constructions made by hunter-gatherers or incipient farmers do not appear to have led directly to the formation of states, which contrasts with the prevalence of preceramic temples and the persistent centrality of temple construction in the Andes through its history. In the Maya area, monumental constructions appeared later than many other areas of the world, but those at Aguada Fénix and Ceibal were built probably by groups with certain levels of residential mobility and without pronounced social inequality. These constructions likely triggered a social process toward the development of hierarchical polities in the Maya area.

These finds of early ceremonial constructions also compel us to move beyond the restrictive approach to the state and to examine broader social processes, including those of social inequality and collective action. In the Maya lowlands, the organizers of early monumental constructions and ceremonies may have provided a prototype for later Maya rulers, whose power was closely tied to ceremonial events and public performance. In this regard, those early predecessors may have conditioned

the nature of later Maya royal power, including its temporal fluctuation and the conflicting dimensions of political negotiation through public events, that is, the expression of elite ideology on the one hand and the subversion of the ordinary order on the other.

Early monumental buildings probably provided concrete images that many people could share and a common goal toward which they could work together. While the builders of Aguada Fénix and Ceibal adopted the building templates developed by those of San Lorenzo and other hierarchical groups, they appear to have originally resisted the hierarchical organization of the Olmec center. The acts of working together, however, probably created political subjects who are willing to accept communal obligations and their positions in the broader structure of social relations. In this regard, those early construction projects possibly produced a social basis on which more hierarchical relations were accepted or tolerated in later periods.

Acknowledgements

An early version of this paper was presented online at the 87th Annual Meeting of the Japanese Archaeological Association in 2021. I thank Professor SASAKI Ken'ichi for the kind invitation. My research in the Ceibal and Middle Usumacinta regions was carried out under permits granted by the Instituto de Antropología e Historia de Guatemala and the Instituto Nacional de Antropología e Historia with support from the Alphawood Foundation, the National Science Foundation of the USA (BCS-0750808, BCS-1826909, and BCS-1950988), the National Endowment for the Humanities of the USA (RZ-51209-10), and the National Geographic Society.

References

Abrams, P. 1988. Notes on the difficulty of studying the state (1977). *Journal of historical sociology* 1(1): 58-89.

Adams, R.E.W. 1977. *The origins of Maya civilization*. Albuquerque: University of New Mexico Press. Arnold, P.J., III. 2009. Settlement and subsistence among the Early Formative Gulf Olmec. *Journal of Anthropological Archaeology* 28: 397-411.

Bachand, B.R., and L.S. Lowe. 2012. Chiapa de Corzo's Mound 11 tomb and the Middle Formative Olmec, in L.S. Lowe, and M.E. Pye (ed.) *Arqueología reciente de Chiapas: contribuciones del encuentro celebrado en el 60º aniversario de la Fundación Arqueológica Nuevo Mundo*: 45-68. Provo, Utah: Brigham Young University.

Bell, C.M. 1992. Ritual Theory, Ritual Practice. Oxford: Oxford University Press.

Blanton, R.E., and L. Fargher. 2008. *Collective action in the formation of pre-modern states*. New York: Springer.

Bourdieu, P. 1977. Outline of a Theory of Practice. Cambridge: Cambridge University Press.

Burger, R.L., and R.M. Rosenswig (ed.) 2012. *Early New World monumentality*. Gainsville: University Press of Florida.

Carballo, D.M., P. Roscoe, and G.M. Feinman. 2014. Cooperation and collective action in the cultural evolution of complex societies. *Journal of Archaeological Method and Theory* 21(1): 98-133.

Clark, J.E., and R.D. Hansen. 2001. Architecture of early kingship: comparative perspectives on the origins of the Maya royal court, in T. Inomata, and S.D. Houston (ed.) *Royal courts of the ancient Maya, Volume 2: data and case studies*: 1-45. Boulder: Westview Press.

Clark, J.E., and J.G. Hodgson 2021. Wetland villages in Soconusco, 6000-2000 BCE: a new interpretation of Archaic shell mounds, in J.C. Lohse, A. Borejsza, and A.A. Joyce (ed.) *Preceramic Mesoamerica*: 420-447. New York: Routledge.

Clastres, P. 1977. Society against the state. Oxford: Blackwell.

Coe, M.D., and R.A. Diehl. 1980. In the land of the Olmec. Austin: University of Texas Press.

Cyphers, A. 2016. The Early Preclassic Olmec: an overview, in L.P. Traxler, and R.J. Sharer (ed.) *The origins of Maya states*: 83-122. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.

Cyphers, A., and T. Murtha. 2014. Early Olmec open spaces at San Lorenzo, Veracruz, in K. Tsukamoto, and T. Inomata (ed.) *Mesoamerican plazas: arenas of community and power*: 71-89. Tucson: University of Arizona Press.

Cyphers, A., and J. Zurita-Noguera. 2012. Early Olmec wetland mounds: investing energy to produce energy, in R.L. Burger, and R.M. Rosenswig (ed.) *Early New World Monumentality*: 138-173. Gainsville: University Press of Florida.

Demarest, A.A. 1992. Ideology in acient Maya cultural evolution: the dynamics of galactic polities, in A.A. Demarest, and G.W. Conrad (ed.) *Ideology and Pre-Colombian civilizations*: 135-158. Santa Fe: School of American Research Press.

Fish, P.R., S.K. Fish, P. DeBlasis, and M.D. Gaspar. 2013. Monumental shell mounds as persistent places in southern coastal Brazil, in V.D. Thompson, and J.C. Waggoner, Jr. (ed.) *The archaeology and historical ecology of small scale economies*: 120-140. Gainesville: University Press of Florida.

Graeber, D., and D. Wengrow. 2021. *The dawn of everything: a new history of humanity*. New York: Farrar, Straus, and Giroux.

Habu, J. 2008. Growth and decline in complex hunter-gatherer societies: a case study from the Jomon period Sannai Maruyama site, Japan. *Antiquity* 82(317): 571-584.

Hammond, N. 1991. *Cuello: an early Maya community in Belize*. Cambridge: Cambridge University Press.

Hansen, R.D., and E. Suyuc Ley. 2016. Mirador. Guatemala City: FARES Guatemala.

INOMATA Takeshi 2006a. Plazas, Performers, and Spectators: Political Theaters of the Classic Maya. *Current anthropology* 47: 805-842.

INOMATA Takeshi 2006b. Politics and theatricality in Maya society, in T. Inomata, and L.S. Coben (ed.) Archaeology of performance: theaters of power, community, and politics: 187-222. Lanham: AltaMira Press.

INOMATA Takeshi 2021. Public Architecture in Ancient Mesoamerica, in M. Aldenderfer (ed.) *Oxford research encyclopedia of anthropology*. Oxford: Oxford University Press.

INOMATA Takeshi and L.S. Coben. 2006. *Archaeology of performance: theaters of power, community, and politics*. Lanham: AltaMira Press.

INOMATA Takeshi and S. Houston. 2001. Royal courts of the ancient Maya, Volume 1: theory, comparison, and synthesis. Boulder: Westview.

INOMATA Takeshi, J. MacLellan, D. Triadan, J. Munson, M. Burham, K. Aoyama, H. Nasu, F. Pinzon, and H. Yonenobu. 2015. Development of sedentary communities in the Maya lowlands: coexisting mobile groups and public ceremonies at Ceibal, Guatemala. *Proceedings of the National Academy of Sciences of the United States of America* 112(14): 4268-4273.

INOMATA Takeshi and D. Triadan. 2016. Middle Preclassic Caches from Ceibal, Guatemala. *Maya Archaeology* 3: 56-91.

INOMATA Takeshi, D. Triadan, F. Pinzón, and K. Aoyama. 2019. Large plateau construction during the Preclassic period at the Maya site of Ceibal, Guatemala. *PLoS ONE* 14(8): e0221943.

INOMATA Takeshi, D. Triadan, V.A. Vázquez López, J.C. Fernandez-Diaz, T. Omori, M.B. Méndez Bauer, M. García Hernández, T. Beach, C. Cagnato, K. Aoyama, and H. Nasu. 2020. Monumental architecture at Aguada Fénix and the rise of Maya civilization. *Nature* 582: 530-533.

IZUMI Seiichi and SONO Toshihiko. 1963. *Andes 2: excavations at Kotosh, Peru*. Tokyo: Kadokawa. Kidder, T.R. 2011. Transforming hunter-gatherer history at Poverty Point, in K.E. Sassaman, and D.H. Holly (ed.) *Hunter-gatherer archaeology as historical process*: 95-119. Tucson: University of Arizona Press.

McAnany, P.A. 2004. *K'axob: ritual, work and family in an ancient Maya village*. Los Angeles: University of California Los Angeles, Cotsen Institute of Archaeology.

McGuire, R.H. 1983. Breaking down cultural complexity: inequality and heterogeneity. *Advances in Archaeological Method and Theory* 6: 91-141.

Mitchell, T. 1991. The limits of the state: beyond statist approaches and their critics. *American Political Science Review* 85(1): 77-96.

ONUKI Yoshio 1995. Kuntur Wasi y Cerro Blanco. Tokyo: Hokusen-sha.

Parker Pearson, M. 2012. *Stonehenge: exploring the greatest Stone Age mystery*. New York: Simon and Schuster.

Sassaman, K.E. 2004. Complex hunter-gatherers in evolution and history: a North American perspective. *Journal of Archaeological Research* 12: 227-280.

Saturno, W.A., D. Stuart, and B. Beltrán. 2006. Early Maya writing at San Bartolo, Guatemala. *Science*: 1281-1283.

Saunders, J.W., R.D. Mandel, R.T. Saucier, E.T. Allen, C.T. Hallmark, J.K. Johnson, E.H. Jackson, C.M. Allen, G.L. Stringer, D.S. Frink, J.K. Feathers, S. Williams, K.J. Gremillion, M.F. Vidrine, and R. Jones. 1997. A mound complex in Louisiana at 5400-5000 years before the present. *Science* 277(5333): 1796-1799.

Schmidt, K. 2010. Göbekli Tepe--the Stone Age sanctuaries: new results of ongoing excavations with a special focus on sculptures and high reliefs. *Documenta Praehistorica* 37: 239-255.

Scott, J.C. 2017. *Against the grain: a deep history of the earliest states*. New Haven: Yale University Press.

Shady Solis, R., J. Haas, and W. Creamer. 2001. Dating Caral, a preceramic site in the Supe Valley on the Central Coast of Peru. *Science* 292(5517): 723-726.

Smith, A.T. 2003. The political landscape: Constellations of authority in early complex polities.

Berkeley: University of California Press.

Stanish, C. 2017. *The evolution of human co-operation: ritual and social complexity in stateless societies*. Cambridge: Cambridge University Press.

Taube, K. 1989. Ritual Humor in Classic Maya Religion, in W.F. Hanks, and D.S. Rice (ed.) *Word and image in Maya culture: explorations in language, writing, and representation*: 351-382. Salt Lake City: University of Utah Press.

TERADA Kazuo and ONUKI Yoshio. 1988. *Las excavaciones en Cerro Blanco y Huacaloma, Cajamarca, Perú, 1985*. Tokyo: Universidad de Tokio.

Willey, G.R. 1990. Excavations at Seibal, Department of Peten, Guatemala: general summary and conclusions. Cambridge, MA: Harvard University.

Yoffee, N. 2004. Myths of the archaic state: Evolution of the earliest cities, states and civilizations.

Cambridge: Cambridge University Press.

Figure captions

Figure 1. Map of southern Mesoamerica showing the locations of the sites mentioned in the text.

Figure 2. Lidar-based image of the artificial plateau at Ceibal.

Figure 3. Lidar-based image of Aguada Fénix.

Figure 4. Comparison of the San Lorenzo and Aguada Fénix plateaus on the same scale. Numbers indicate 20 edge platforms. Arrows show the main access ways to the plateaus.