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The Maya Materialization of Time

An Introduction

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Prologue

The Popol Vuh describes a time before human beings were created, when there was only sea and sky, before there was sun and moon and before there was a calendar (Tedlock 1996). The narrator of the story tells us that human beings were eventually created by the gods and given an elevated status over animals so that they would praise and worship the gods.

Time was something independent of human beings. It was something the gods created and expressed through celestial majesty, and ultimately they gave it to human beings via the Tzolk'in, Haab, and Venus calendars. The calendars helped the Maya cultivate the land, know when to make decisions, and schedule prophecy. Most important, it assisted them in worshipping and praising the gods.

So what was the Maya materialization of time? We believe that the answer to that question was central to their civilization. Almost all architecture, from villages to citadels, was intentionally designed to fulfill the requirements of worshipping the gods and centering their world in an effort to create a sustainable future.

Having walked along ancient causeways, we often have felt a connection to the sky and the rituals that commemorated those alignments. In our modern social experience, time is linear and has one-way directionality. We use economic metaphors to describe it: it can be bought, spent, saved, lost, stolen, salvaged, and wasted. But none of these modern terms are helpful for

understanding Maya cosmological and cyclical concepts of time. Because Native American views of time and temporality are often at odds with western scholarship (e.g., Killsback 2013; Reid and Sieber 2015), modern notions of time and Maya notions of time may have no common ground, with the exception of the use of bookkeeping.

Over 100 years ago Albert Einstein gave us a new way to perceive time as space-time (e.g., Rigden 2005). Perhaps as long as 4,000 years ago (or possibly much longer), the Maya created a cosmological sense of time that was interconnected with the underworld, the terrestrial world, and celestial space. Metaphorically we call their concept “Maya space-time,” and like Einstein’s version, we see it principally as a fusing of the dimensions of space and time in which time is not a stand-alone idea, as Newton perceived it (e.g., DiSalle 2006), but rather a medium for the flow of energy and information. Specifically, the Maya ritually bundled and unbundled space and time with objects made sacred by the process. Thus, activities such as communication with and veneration of ancestors, which involved planting intention-infused objects (such as caches, bundles, and burials) into the landscape, were aspirational seeds that could be accessed in the future or influence future events.

Maya materialization of time incorporated notions of cyclicity and expanded dimensionality into the built environment. In the world of the Maya, time had “agents” that may also have functioned as forerunners for celestial deities, such as Venus, the sun, and the moon, which at a minimum could be used to instruct about when to plant, when to express reciprocity (sacrifice), and when to harvest.

Time was something to be commemorated, to be vocationally derived through divination, or to be promulgated by leaders as prophecy. Perhaps for the Maya delineating cycles of time was a way to anticipate future change and bring useful change into the present. If so, could time have functioned as a culturally sanctioned tool for managing change that priests and leaders used to exert influence or control over the community?

Being in sync with time may also have been an aspirational activity that was part and parcel of being in balance with or centered within the universe, as exemplified by “walking in the path of the sun.” Perhaps the Maya used calendrical computations as referential guides for individual or institutional decision-making to keep the community and its members on the path.

When the artist Paul Gauguin created his Tahitian-inspired art works in the period 1891 and 1901, he not only recast his own life (e.g., Mathews 2001), he also memorialized basic human questions as keys to understanding the people he painted (Thomson 2011). Time for the Tahitians, as for the Maya, may also have been expressed as “storied knowledge” that helped answer

cosmological questions such as Who are we? Where do we come from? Where are we going?

Time for the Maya, in our view, appears to be a source of contextual information that gave meaning to being Maya. Finally, Maya space-time may have been a directly perceivable attribute of the divine through its many guises and manifestations. This may have been the inspiration for the obsessive efforts of the Maya to materialize time.

The path of the sun, in which we include celestial objects that intersect and move thru the ecliptic, may be synonymous with the path of life through time. Activities such as those associated with the centering of the Maya landscape may have been intended to create harmony with the night sky and specifically with the tree of life, thereby ensuring rebirth and renewal for generations.

What remains today of the formerly vast and complex culture collectively known as “the Maya” are disparate groups that are still living a myth so powerful that it has survived the collapse and abandonment of palaces, temples, kingship, and conquest to echo in the consciousness of a people as unique as the myth they created.

Background

The pre-Hispanic Maya civilization captured the imagination of Americans in the nineteenth century with the 1841 publication of John L. Stephens’s *Incidents of Travel in Central America, Chiapas and Yucatan*. Frederick Catherwood’s (1844) *camera lucida* illustrations of carved stone monuments at the site of Copán in Honduras displayed the beautiful and enigmatic hieroglyphic writing of the Classic period (250–900 CE) Maya and inspired generations of amateur scholars to study them. By the early twentieth century, these autodidacts had cracked the code of Maya mathematics and calendar calculations (e.g., Morley 1915) and we knew that the Maya were among ancient world’s foremost adepts in the study of celestial movements in accord with a count of days carefully bundled like sacred relics into units approximating years and bundles of those years.

By the end of the twentieth century, epigraphers of glyphic Mayan (e.g., Martin and Grube 2008) had firmly established that the Classic Maya dynasts of the southern lowlands, a territory that stretched from the site of Cancuén in the south to Calakmul in the north, from Palenque in the west to Copán in the east, were writing history, embedding salient events in the lives of ruling men and women into a count of days beginning on creation day, August 11 (or 13), 3114 BCE in the famous Long Count calendar. Between the second and ninth centuries CE, over generations of observation and study, Maya

courtiers situated royal policy and performance in what David Stuart (2011) felicitously has called the “Order of Days.”

Perhaps because the ancient sages appeared to anchor their history in the past through calendar reckoning, modern Maya scholars have been seduced into thinking that they were primarily looking backward for inspiration about how to comport themselves instead of seeing in their study of the stars ways to inspirationally chart the future course of their realms, to anchor events on auspicious dates, and to insert themselves within the broader cosmos. Did the ancestral Maya ever aspire to the greatness they surely achieved? We think the answer is yes—perhaps sometimes modestly and incrementally but always with the potential of remarkable scale. The resilient reproduction of traditional knowledge and ritual practice among many contemporary Maya is sustained through mindful lifelong education by elders of the youth who care to listen. This has been accomplished through syncretic *costumbre*, customary negotiation between people and both the divine and the ancestral that Maya have integrated into Catholic religious tenets as they perceive them (Oakes 1951). So the past, to paraphrase William Faulkner (1951), is neither dead nor past but rather, as Markus Eberl (2017) has shown in his study of Classic Maya creativity and innovation, even now conditions how Maya people respond to challenges and opportunities in their world.

Examples of the importance of past materiality can be found in both modern-day and ancient Maya customs. Evangelicals, who despise traditional ritual practice as idolatrous, desecrated and defaced a stone effigy named Pascual Abaj on a hilltop shrine near the town of Chichicastenango in highland Guatemala (Hart 2008, 82). K’iche’ day keepers, healers, and officials of the town responded by building fragments of the effigy’s visage into a protective wall around the place of the god’s altar. Did they know that Maya in the seventeenth century built their idols into chapels behind the Catholic altars, like the one in Mopila in Yucatán (Freidel et al. 1993)? Or that Classic Maya people of the lowlands built fragments of royal stelae that had been shattered in war into the walls of a renewed temple at El Perú-Waka’ in Petén, Guatemala, or placed fragments in the cores of buildings as offerings at Caracol in Belize? Probably not. The past, however constituted and constructed, is important to all modern Maya communities; some highland K’iche’ Maya travel to the lowland site of Tikal to carry out annual rituals there currently. What all Maya people generally do know is that effigies, endowed with enduring animate soul force, are not so easily exorcised by defacement or destruction (O’Neil 2013; Harrison-Buck 2016). Thus they have, over long periods of time, reinvented and innovated new uses that help ensure their continued beneficence into the future.

The Materialization of Time

Innovation and aspiration, a key focus of our contemplation of the Maya, mark some of the earliest collective efforts of the Maya, especially as exemplified by their construction of E Groups (e.g., Freidel et al. 2017). During the Preclassic period (1000 BCE–250 CE), lowland Maya peoples of the Guatemalan Petén and adjacent areas established E Groups as the founding buildings in their centers, no doubt originally emulating neighbors to the west (see Inomata 2017b; Inomata, Pinzón, Palomo, et al. 2017); other lowland Maya communities emulated those pioneers. But all of them were departing from previous understandings of why people gathered in centers, why they coordinated their efforts, and why—and under what—circumstances they deferred to leaders. In their local areas and in the context of their local knowledge they were all pioneers in the creation of the initial Maya centers. Lowland Maya E Groups of the Middle Preclassic period (1000–350 BCE) were solar commemorative monuments and with their construction Maya people formally materialized time in a new way. From the beginning—and throughout subsequent eras of florescence, decline, and renewal—lowland Maya peoples sought to materialize through their public buildings and places visions of their coordinated relationship with their gods, propitiating the celestial avatars traveling the sky (e.g., Aveni 2001). Maya architecture was always aspirational and sometimes it was truly innovative. In the case of discoveries Takeshi Inomata has made building on evidence of calendar intervals expressed in Group E– type complexes (Aveni et al. 2003; Dowd 2017c; Freidel et al. 2017; Inomata et al. 2020, 2021; Šprajc et al. 2023; chapter 3, this volume), early Maya architecture may have been innovative and reflective of the way that all Mesoamericans conceived of time and calendars.

Throughout the Classic period, the people who occupied the lower San Pedro Mártir and Usumacinta Rivers (Middle Usumacinta region) were lowland Maya and were likely Mayan speakers in the Preclassic period before that. In the Middle Preclassic period, as related by Takeshi Inomata and Daniela Triadan in chapter 3 of this book, they created ceremonial plazas and platforms of stunning, unprecedented size. As detected by lidar and provisionally ground-truthed through test excavation, these vast, rectangular spaces were oriented north-south, angled slightly to the east of north in a fashion later Maya cities emulated (Maya north was about 15 to 18 degrees east of north), an orientation that is probably reflective of broader cosmological principles. Over the course of the night at this latitude, the star field barrel rolls across the sky. Are these remarkable innovative monumental plazas meant to mark the north-south pivot of the cosmos? As Linda Schele has observed (1992a; see also

Freidel et al. 1993), at dawn in the second week of August (August 11–13), the Milky Way stretches across the center of the sky in a north-south alignment, angled to the east. Most of the huge rectangular Middle Formative spaces located in the lower Usumacinta River area of Tabasco, Mexico, have E Groups at their center. Early lowland Maya E Groups are generally interpreted as solar commemorative buildings originally designed in the Middle Preclassic period to observe sunrise and movement across the eastern horizon over the course of the year. As Inomata (2017b) has described, the north-south axis is important in the original E Groups of Chiapas to the west of Petén, where large monumental buildings regularly dominate the northern end of these plazas. However, in the Maya lowlands of Petén adjacent to parts of Campeche and Belize, the east-west path of the sun and of the stars and constellations along the ecliptic dominated the architecture of these complexes, even at salient centers such as Yaxuná in Yucatán (Stanton 2017). The new discoveries of Inomata's team in the lower Usumacinta River and lower San Pedro Mártir River area, with their broadly "Maya North" orientation, combine early Mesoamerican architectural groupings in an innovative and creative way.

The lower Usumacinta and San Pedro Mártir Rivers are in lowland Maya territory some distance east of the heartland of Olman, the land of the Olmecs, in present-day Tabasco and Veracruz (more than 200 kilometers west of La Venta, more than 150 kilometers northwest of Chiapa de Corzo in Chiapas). But the peoples to the west of this Usumacinta area were no doubt in contact with each other both over land and by canoe along the coast of the Gulf of Mexico (Inomata et al. 2021). We think that the sages and leaders of the lowland Maya in this cultural frontier zone (who evidently arrived at this cosmographic coordination of celestial and earthly cycles) were forward looking and aspired to portray their cosmological beliefs on the landscape (Šprajc et al. 2023). Their celestial template became influential in the Mexican highlands and in the lowlands of Mesoamerica. By the beginning of the third century CE, the "Maya North" orientation, specifically fifteen degrees, five minutes east of north, guided the layout of Teotihuacan's Street of the Dead and the grand gridded plan of that city where the Pyramid of the Sun faces the setting sun on August 12 and on April 29 (S. Sugiyama 2014). Saburo Sugiyama (1993, 2014), in accord with arguments made for Maya E Groups (e.g., Freidel et al. 2017), sees these dates as dividing the solar year into 105 and 260 days, intervals that were important to both the ritual sacred almanac and the agrarian cycle.

Sugiyama (2014) notes that August 12 is, give a day on either side, creation day in the Long Count, a calendar innovated somewhere in the lowlands before the Late Preclassic period (350 BCE–0 CE), when scribes began

to carve dates on stone monuments in both Olman and the Maya area. Inomata and his colleagues (chapter 3, this volume) are justifiably cautious about the possible implications of his team's discoveries pending further field testing and ground-truthing. But we are prompted to wonder if the interval between 1000 and 800 BCE—which Sugiyama has identified as the time when people of Chiapas, Petén, and the Usumacinta–San Pedro Mártir riverine lowlands interacted intensively and first innovated E Groups—constituted a first Mesoamerican Renaissance following the collapse of Early Formative (1500–1000 BCE) San Lorenzo Tenochtitlan in Olman by 1000 BCE. To us, these broadly distributed early architectural complexes represent the materialization of time in conjunction with the adoption of maize as a staple and the planting and harvesting cycles of that grain. The analogy is appropriate, given that the San Lorenzo Olmec were surely “Classic” in their establishment of a center of political and religious power. It was at San Lorenzo between 1500 and 1000 BCE that craftsmen innovated the exaltation of rulers in monumental stone images, dragging and barging the multi-ton stones from more than 40 kilometers away and placing them on a massive effigy clay platform oriented slightly west of north (Coe and Diehl 1980). From the time of their establishment after 1000 BCE, monumental Maya centers expressed the intention of both leaders and communities of ordinary people to create places in which to materialize time. The notion of “centering,” as Freidel, Schele, and Parker (1993) defined it in *Maya Cosmos*, is part of what Evon Vogt (1964) called the “genetic” cultural code of the Maya—enduring sensibilities and ways of thinking that lay behind all their efforts from the earliest times. Recently, Markus Eberl (2017) formulated arguments regarding creativity and innovation among the Maya, reviewing concepts such as structure, rules, paradigms, and schemes as the cultural frames ancient Maya agents, individuals, and collective groups used to adapt to changing circumstances and to innovate. Eberl (2017) emphasized the use of innovation, contrasting the view of structures as enduring outside agents with structures as “sticky” and subject to creative change, even as the core code remained intact. We regard the establishment of lowland Maya monumental centers as a clear example of this process.

Change implies flexibility and variability, and that is clearly evident in the ways early Maya communities designed their centers. The leaders and workers had a tendency to build E Groups out of or on bedrock when they were first constructed (see Dowd 2015b, 211; 2017b, 552 for the idea of planting E Groups in communities like planting milpas). This is true both for the sites of Cenote in the central Petén (A. Chase and D. Chase 2017a) and Cival in the northeastern Petén of Guatemala. At Cival, the people also built a massive level platform out from this central group, all placed on the highest point

of a hill (Estrada-Belli 2017). Unlike the builders in the Middle Usumacinta region, the Cival platform is decisively oriented east-west, although there are remnants of a longer north-south axis. At Yaxuná, Mexico, Travis Stanton and his team are still working on the E Group and adjacent buildings, but it is clear that the east-west axis was also important from the beginning and remained important into the Late Classic period. Yet the northern side of the Yaxuná E Group is occupied by an enormous acropolis that dates to the Preclassic period. Future research at Yaxuná may be able to determine if this complex dominated the early E Group, as is the case with early Chiapas E Groups. In chapter 5 of this book, Stanton, Taube, and Collins focus on the foundation of Yaxuná and the laying out of the north-south and east-west axes of Yaxuná, demonstrating that the city materialized cruciform alignments throughout its long history.

The cruciform civic plan oriented north-south and east-west, as shown for Yaxuná (chapter 5, this volume), illustrates the penchant of the ancient Maya for centering. At Yaxuná, the monumental center and its ambient space—defined as both cultural and human—can be contrasted with the space outside the center and the community—defined as natural and wild. Stanton and his team discovered an incised cross with rectilinear arms roughly extending in the four cardinal directions that was buried within the Yaxuná E Group plaza and drawn into an early floor. This symbol, the Kan cross, is normally bound by a round or square cartouche and is a symbol for early centering, already expressed on the famous Olmec-style Humboldt Celt (Campbell 1992). This celt is framed by four “ground lines,” possibly toponymic symbols according to David Stuart (2015) and Kent Reilly (1996). A royal crown surmounts one of the symbols.

The use of the Kan cross at Yaxuná clearly has symbolic significance. While the binding of the cross in a cartouche might reflect the two distinct spaces Stanton and Taube are proposing, it is likely that a broader meaning is implied. In Classic Mayan glyphic writing, *kan* means yellow, ripe, precious. These latter connotations can refer to ripe maize, which was central to Maya iconographic portraiture (Taube 1985, 2009). In the corpus of Classic period Maya painted ceramics, a turtle carapace that the maize god resurrects from is also marked with the Kan cross (e.g., Schele and Miller 1986; Taube 2009, fig. 5e). At Yaxuná, at the far eastern end of the east-west axis, there are two remarkable performance platforms with quatrefoil plans. Dating from the transition between the Middle and Late Preclassic periods, they appear to be effigy turtles designed to facilitate emergence during resurrection from trap doors in their summits (Stanton and Freidel 2003, 2005).

Explicit depictions of origin narratives start in the Maya lowlands with the

Late Preclassic Pinturas building murals at San Bartolo (see chapter 5, this volume). On the west wall of this building, four young lords offer sacrifices before four trees and the maize god offers a sacrifice at a fifth tree. A convincing argument has been made that this scene represents the establishing of the four quarters and center of the Maya cosmos in linear form—rolled out in the absence of the principle of perspective in the drawing (Taube et al. 2010). Indeed, this scene probably presages the New Years' pages of the Postclassic (900–1519 CE) Dresden Codex, which refers to four Year Bearers. These are the days in the cycles of Maya calendars that rotate to start the New Year. The point here is that Maya centering, performed in the San Bartolo narrative by the human-form divine youths, not only crafts human space but also fixes the reckoning of calendar time. The cruciform symbol, whether it is Kan (as at Yaxuná) or a quincunx (as represented linearly at San Bartolo), is also found in the Middle Preclassic southern lowlands, carved as pits in the plazas of Ceibal and Cival that contained cached offerings (Estrada-Belli 2011). In actuality the quadripartite conception of the cosmos is a central belief that is pervasive throughout the Maya and Mesoamerica region (e.g., Mathews and Garber 2004; chapter 5, this volume).

At the site of Yaxnohcah in Campeche, Mexico, Kathryn Reese-Taylor and her team (chapter 4, this volume) have shown that some of the largest structures date to the Middle Preclassic, including the E Group, triadic groups, and a massive acropolis at the northern end of the community's quadripartite design. In terms of its civic-religious buildings, this city is five times as large as Yaxuná to the north of it. It dwarfs Nakbe, the city south of El Mirador that is a Middle Preclassic harbinger of the Late Preclassic Mirador realm. The northern acropolis at Yaxnohcah rivals the size of buildings at El Mirador. All of these early sites manifest the enormous social energy inspired by innovative ideas that were apparent in the Usumacinta–San Pedro Mártir area at the beginning of the Middle Preclassic. Skewed east of north, Yaxnohcah presents a quadrilateral ground plan. The center has a formalized north-south axis in which one causeway links the central monumental architecture to a southern concentration of buildings. A second iteration of the north-south axis occurs in two other massive complexes farther south. Finally, monumental building complexes to the east and west of the site center form an east-west axis. Using lidar data, Reese-Taylor and her team (chapter 4, this volume) have shown that the two axes extend far beyond the center to tie into large building complexes at the outer edges of the Yaxnohcah community, defining jurisdiction more than community.

Freidel has used the term “landesque cosmography” to describe this kind of polity integration where outlying religious edifices mark the four quarters and

define the ambient territory as belonging to the community, its ancestors, and its gods. Reese-Taylor and colleagues (chapter 4, this volume) show how this schema served to materialize time at Middle Preclassic Yaxnohcah and was used in later eras to chart the processional routes of calendar festivals. Freidel, Rice, and Rich have provided further details on the concept of *landesque cosmography* in chapter 2 of this volume. Rice (2018, 2021) has previously identified the layout of the extraordinary early site of Nixtun Ch'ich', which is situated on a western peninsula jutting into Lake Petén Itzá, as representing a great effigy cosmic crocodile. Freidel and colleagues combine this example of *landesque cosmography* with Freidel's interpretation of El Mirador hill at the site of El Perú-Waka' as an effigy cosmic turtle to argue that in both cases, gods of the Maya creation era were materialized as centers to provide an enduring basis for the prosperity of their communities.

In northeastern Petén, Guatemala, a Middle Preclassic E Group was established on top of an enormous platform at Cival. An estimated 1.4 million cubic meters of earth and stone were quarried and deposited to create that structure (chapter 6, this volume). The innovation and aspiration employed in the founding of Maya centers often required massive social commitment. This early platform was apparently roughly square in shape and aligned to the cardinal directions. Its cosmic orientation was subsequently reinforced by the centered E Group focused on the sun path. So it is not an emulation of the Middle Formative Usumacinta centers but rather its own distinct pattern that nevertheless referenced the sky and hence materialized the passage of time. Into the Late Preclassic period, the people of Cival added structures on the north, south, and west sides of the platform through construction and rebuilding. Additionally, a large acropolis covered the eastern range of the E Group.

Thus, the quadripartite plan at Cival continued to materially manifest the community's relationship with the cosmos through centering and materializing calendar time in a pivotal place that people of the community and realm would regularly convene. In the case of Cival and its ambient realm, lidar hillshades have permitted the identification of newly discovered E Groups along the escarpment at some distance west of the center. These and the many other E Groups centered on Cival (Estrada-Belli 2017) likely helped people coordinate calendar time and processional movement. This is another good example of "*landesque cosmography*" that demonstrates investment in the engineering and construction of a sacred landscape to define the larger community.

As in the case of the E Group plaza at Ceibal, the E Group plaza at Cival contains elaborate buried—or "planted"—offerings. One recovered Cival offering was in a pit carved into bedrock that was cruciform in shape and contained

jadeite celts and water jars that surely referenced maize and the agrarian cycle of the rains. Directly above this bedrock deposit, a large posthole was found that might have originally held a large wooden post. The people placing this offering were likely guided by the same centering belief seen in the incised cross in the center of the Yaxuná E Group plaza but with the significant variation of a centered post and a central recessed pit in the shape of a quinqux. Estrada-Belli (2007, 2011) identified this innovation as a symbolic World Tree, making it a Middle Preclassic concept that presaged the Late Preclassic mural scene of five trees on the west wall of the Pinturas building at San Bartolo north Cival. Additionally, the central post may have functioned as a gnomon; its shadow perhaps marked the solar zenith at other times in the year. The Late Preclassic people of Cival later set three large posts that formed a triangle into a floor immediately above the earlier post and offering. Estrada-Belli (2007) has observed that tall posts were raised in centers in many parts of Mesoamerica for flying and descending performers attached to the top with cords, suggesting that perhaps these three posts had been used in this way. The triangular pattern of the postholes at Cival forms a striking contrast to the four trees defining the perimeter of the cosmos in the San Bartolo scene and the quinqux arrangement of the earlier Cival deposit. However, the three postholes likely manifest the “three-stone place” or “hearth of creation” that can also be seen in hearths built into the torsos of sacrificial animals in the San Bartolo murals.

Freidel et al. (1993, 65–75) proposed that the three-stone hearth is celestially represented by a triangular arrangement of stars attached to the constellation of Orion. On creation eve, August 11–13, the three-stone hearth stars and the belt stars of Orion (which represent the cosmic turtle out of which the maize god emerges in resurrection) converge with the center of the Milky Way at dawn, when it is in its north-south configuration. While one might suppose that this referencing of creation day constitutes a backward look to a legendary past, we suggest that it celebrates the perpetual return of the human world to a state of harmony with the divine world, with the aspiration that this state should always endure. Estrada-Belli’s exegesis on the remarkable Classic period preserved temple and its frieze that his team discovered at nearby Holmul (Estrada-Belli and Tokovine 2016), which depicts a king apotheosizing as the sun, affirms this hope and the notion that immortality of the soul can be human as well as solar.

The plazas and buildings of lowland Maya centers were regularly renewed to enhance the ability of the people who built them to situate themselves within their cosmos and carry out rituals, many of which constituted calendar-scheduled performances associated with public spectacle. For the most part,

participants in these ceremonies are now long absent from their stages. However, some are still present in the form of the famous carved stelae, called “banner stones” in Mayan, that portray rulers who often materialized time. As Stephen Houston and David Stuart (1996; Stuart 1996) showed in landmark papers, these remarkable carved sculptures were not cenotaphs but embodiments of the animate essence of the portrayed. The presence of stelae on plazas, in front of or on grand stairways, made the rulers’ materializations of time a future-oriented perpetual presence, a promised immortality such as that envisioned on the Classic temple at Holmul mentioned above. The extension of the principle of historical animation into buildings became a widespread innovation in the southern lowlands. The Classic Maya, who inscribed stones with the portraits and histories of rulers, built these carved monuments into stairways, doorway jambs, and lintels, thereby endowing those buildings with the spirit and soul force of the rulers. In regions of the Maya lowlands where people raised few stelae, they seemingly went to great lengths to make animate beings out of their buildings, constructing great masks surrounding doorways and rulers floating in great nimbus cartouches. While the deeds inscribed or depicted on buildings were fixed in historical calendar time, the presence of animate personas guided future events.

David Freidel and Olivia Navarro-Farr (chapter 7, this volume) segue from the theme of plazas, buildings, and communities to that of historical time in their study of stelae raised in front of, and eventually built into, the principal city temple at El Perú-Waka’ in the northwestern Petén of Guatemala. El Perú-Waka’ was a citadel city founded on a steep 100-meter-high escarpment overlooking a strategic river, the Rio San Juan, 5 kilometers east of its confluence with the San Pedro Mártir, the same river discussed earlier but in this case deep in the interior of Guatemala’s Petén. At 600, CE a Wak (centipede) dynasty king, whose name is not preserved, declared himself to be the twenty-fourth ruler in the dynastic succession. Calculating the likely average lengths (ca. 20 years per ruler) of individual reigns, the Wak dynasty was likely founded in the second century CE, making it the second-oldest dynasty known after that of Tikal (also founded in the first century CE, see Martin and Grube 2008). The present count of stelae at El Perú-Waka’ is forty-five. All but a few were carved with portraits and inscriptions that date between 416 CE and 801 CE. Because the city played a strategic role in regional geopolitics of the southern lowlands, its rulers were valued vassals and allies to hegemons.

El Perú-Waka’ was repeatedly attacked and its stelae shattered, scattered, defaced, and erased. Freidel and Navarro-Farr (chapter 7, this volume) argue that the intention of the desecraters was to ruin the animate power of the monuments and to intervene in the forward projection of the historical

trajectory that their original “planting” promised. Freidel and Navarro-Farr offer explanations for perplexing features of the stelae and their contexts in relation to a central temple. Historical inscriptions play a key role in this study, as they do elsewhere in the archaeology of the southern lowlands (e.g., A. Chase and D. Chase 2020a; Martin 2020). Not all lowland Maya regularly wrote on stones, although it is very likely that literate elite lived throughout the lowlands. But writing, in association with calendar calculations, made the Classic period royal materialization of time in the Maya southern lowlands (including adjacent parts of Chiapas, Campeche, Quintana Roo, Belize, and Honduras) distinct in the pre-Hispanic western hemisphere.

Scribes emerged toward the end of the first millennium BCE in several parts of Mesoamerica, including the Oaxaca Valley, Olman, Chiapas, and the Pacific Slope of Guatemala (to list areas where they wrote calendar names). The discovery of very early Maya inscriptions at San Bartolo in Petén radiocarbon dated to around 400 BCE puts the lowland Maya innovators in this same era (Saturno et al. 2006). Although bar-and-dot numeration does not accompany the texts, it is very likely that the Maya individuals who wrote these texts were numerate as well as literate. As William Saturno and colleagues (Saturno, Rossi, et al. 2017) have described, these inscriptions were painted on the walls of a demolished building that was part of the eastern range of an E Group at the site. Writing and portraiture on walls and more broadly materializing time inside the rooms of buildings constitutes a major theme in this book, particularly during the Classic period, when stela erection proliferated in the southern lowlands after 300 CE. But even where no writing or portraits on walls appear, the materialization of time can be discerned.

Chan is a small agrarian community in Belize with a history of quotidian hard work and modest ceremonial activity. Its occupation spans 1,200 years from the Middle Preclassic through the ninth-century era of social chaos in the southern lowlands. Cynthia Robin and her team have focused on what she calls “ordinary life” there (Robin 2012) as part of a larger challenge to her colleagues in Maya archaeology to expand their epistemological inquiry into the lives of what we today would term “the 99 percent” (Sabloff 2019), the people who do not figure in written history. In chapter 10 of this volume, Robin describes in detail the vaulted community building made of masonry on the south side of the E Group at Chan that has an extraordinarily well-preserved and complex interior. The back room of this building was divided into three parts and each section had a different elevation and different features and artifacts. The western room had a quincunx pattern of holes cut into its plaster floor, an explicit reference to centering, as discussed above. A patolli board was incised in the high bench area in the western room. Patolli was played

with tokens and various kinds of dice across Mesoamerica; it was likely used in divination (e.g., Smith 1977; Walden and Voorhies 2017). Finally, vertical and horizontal lines were incised into the south wall. We will return shortly to the matter of incised patterns and images on walls—“graffiti.” The central room had a pile of 550 jute snail shells on a low bench area along with other artifacts suggesting divination. While jute snails were no doubt eaten (Healy et al. 1990), the concentration of shells here possibly points to their use as calculating tokens, as is documented elsewhere in ritual settings. Thousands of olive and other shell tokens were discovered in a ninth-century royal tomb at Ek’ Balam in Yucatán, for example (Vargas de la Peña and Castillo Borges 2000). Jute shells have shown up in other ritual contexts in Belize, particularly in Middle to Late Preclassic contexts in the Belize Valley (e.g., Chase 2020, 202). Researchers with the Cerro Maya project in the Corozal district also discovered thousands of jute shells in a test excavation at the center of a Terminal Preclassic (0–250 CE) pyramid summit plaza in the 1970s. This kind of snail shell is the home of an important aged god called Mam, a grandfather or ancestor—or Bacab, first of the land. The use of jute as both a comestible and as a possible divinatory tool is significant. Much like the highly symbolic contents of early caches (A. Chase and D. Chase 2006; D. Chase and A. Chase 1998), it is likely that such shells were used to calculate time and to divine. Robin (chapter 10, this volume) cogently suggests that the elders of the community sat on benches in the front room to hear the prophecies being conjured in the back room. Like elites using texts and calendar inscriptions, ordinary people looked to the future and aspired to balance their lives with the divine forces of their local places. Robin compares the Chan building to another modest Classic Maya community, Joya de Cerén in El Salvador (Simmons and Sheets 2002), that has a similarly designed shaman’s room and building. Archaeologists should be on the alert for more examples.

The case of the shaman’s room at Chan moved our consideration of the materialization of time from exterior to interior space, from sky-gazing and public performance to contemplation, discussion, numerical calculation, divination, and prophecy based on calendar cycles, counting, and casting. The Los Sabios building at Xultun in northeastern Petén reveals how a Late Classic ruler collaborated with members of a priestly sodality of bookmakers, mathematicians, and astrologers called Tah, or “obsidian” (chapter 9, this volume). We know that the Maya, like other Mesoamericans, gazed into mirrors made of obsidian, hematite, and pyrite in order to see themselves, the sky, and, presumably, the supernatural otherworld. Painted Late Classic vases show rulers gazing into black mirrors accompanied by their adepts and scribes (Reents-Budet 1994). Obsidian artifacts—chipped eccentrics in the shape of gods and

animals, small unifacially flaked pieces with the moon goddess, the maize god, the rain god, and other deities etched or painted on them—were ultimately placed as offerings under stelae and in other caches (Moholy-Nagy 2008; Hruby and Ware 2009). At Xultun, specialists made lunar count calculations on the walls of the Sabios building. A mural in the same building depicts the king and his close Tah advisers.

Additionally, a female member of the sodality was buried under the bench in the building. Rossi (chapter 9, this volume) shows how these specialists may have not only observed the sky and reflected on the past but also shaped their interpretations to address the patterns of time and deal with issues of importance to the ruler and to the future of his realm.

While the Los Sabios rooms were at some distance from the center of Xultun, another building with writing on its walls existed in the very center of its city. An Early Classic public building that has evidence of writing on the walls of its interior rooms was wonderfully preserved by ritual burial in antiquity at the center of Balamkú (north of Calakmul) in Campeche, Mexico, a site of imposing pyramids and plazas. Anne Dowd has been studying the façade of this building—a celebration of the rebirth of kingship, triumph over underworld supernatural beings, and divine communion of kings with the sun god—for many years. In Chapter 8, Dowd and Vail focus on the priestly sodality members who worked and perhaps lived in such places. The writing is not well preserved like the writing in the Xultun building, but its very presence shows that what the Tah adepts were doing was not unique. More examples will likely emerge. The activities of the Balamkú sages took place in a very important central place: the building was a cosmogram (Dowd 1998a). On the building at Balamkú, four rulers resurrect out of frogs or toads (Freidel 2000), another Maya metaphor for rebirth, as the Maya words for birth and frog are near-homophones. The four rulers thus set out the four quarters of the human world. In the heavenly center and in the building interior, sages and perhaps their ruler contemplated the past, present, and future.

In chapter 11, M. Kathryn Brown and her colleagues describe excavations in a suite of buried rooms in the colossal pyramid-palace complex at Xunantunich in Belize known as “the Castillo.” This building anchors the southern end of a north-south primary axis for the monumental constructions of the Classic center. A palace complex with a throne room anchors the northern end. Intriguingly, the axis is west of north in alignment with the Milky Way when it is the World Tree at sunset on August 13 (Schele 1992a). There is independent reason to think that the people who designed and built this center had cosmology in mind: the summit of the Castillo was at one time decorated with an elaborate modeled stucco frieze depicting rulers seated inside

rectilinear spaces whose uprights and horizontal beams are decorated with woven knots of royal majesty and twisted cords. Virginia Fields (2004) interpreted the portraiture in this frieze as an axis mundi representing the creation of the world, a depiction of what Linda Schele (1992a; see also Freidel et al. 1993; Vilella and Schele 1996) identified as “Nah Ho Chan,” The Five Sky place—the womb of the cosmos where the maize god and other gods destined for rebirth gestate before emergence. Whatever way one might interpret the symbolism, the Castillo was deeply sacred space for the people of the realm. The rooms Brown and her colleagues (chapter 11, this volume) report about are on the southeastern end of the complex and had an obscured entryway. Once Brown and her team removed the carefully packed construction material inside these ritually interred interior spaces, they discovered an amazing proliferation of incised graffiti on the walls. While the meaning of the graffiti is still elusive, Brown and her team argue that there is so much of it that these places must have served to teach neophytes to both envision and inscribe images as part of their training in the calculating arts. Incising as a means of writing and calculating numbers is attracting the attention of other researchers, especially as they discover evidence of writing boards that may have been coated with wax and written on with bone styluses (chapter 15, this volume). In chapter 6, Estrada-Belli and Freidel describe an elegant text that was inscribed in wet plaster along the base of the Holmul apotheosis building.

Classic period interior spaces were often designed with cord holders for curtains, perhaps to make activities in them even more distant and private from spectacles found in public plazas, but a room may also have been darkened for purposes of communion with the gods and ancestors. Sometimes contemporary Maya shamans practice this way. An elegant ancient Maya trope for conjuring gods can be glossed as “his (her) creation (in) his (her) darkness” (Houston and Stuart 1998, 88; see also Knowlton 2012). Conjuring gods and materializing agentive time are closely related concepts, as Arlen and Diane Chase point out in chapter 14 of this volume. But light and dark are also part of this process of materialization. The Pinturas Shrine at San Bartolo would have seen the light of dawn sweep into it, illuminating both the death and resurrection of the maize god declared in the rotation of the Milky Way and the first centering of human-form gods sacrificing before the world trees. As Susan Milbrath (chapter 12, this volume) notes, all of the activities in these Preclassic murals are occurring in the heavens, as denoted by the sky band that frames their baseline. This is a celestial story translated beautifully in painting to celebrate the future of divine rulership.

The mural scene of the four sacrificing lords before four trees on the west wall at San Bartolo is remarkably similar to a codex New Year scene from the

Postclassic period. Susan Milbrath (chapter 12, this volume), acknowledging David Stuart's identification of a Year Bearer date on that mural, 3 Ik', boldly argues that the calendar pattern of four Year Bearer days manifested in the sacred 260-day calendar and coinciding with the inauguration of the 365-day year (approximating the solar year) was innovated in the first millennium BCE to mark the 260-day agrarian season of subsistence maize. This builds on Milbrath's (2017b) previous arguments regarding the function of E Groups to commemorate the agrarian year as linked to the solar year. In chapter 12, Milbrath proposes that the Year Bearers were important in the Preclassic era, faded from view in the Classic (when the focus was on Long Count inscriptions on stelae and other public monuments), and then resurfaced in the Postclassic.

In these oscillating patterns, we see two Maya ways of thinking about time. The first aspires to create and sustain harmony between the long-term calendric materialization of time (and cosmic forces witnessed in the celestial cycles) and the shorter-term seasons that were vital to farming success (and were apparent in human life cycles). Milbrath (chapter 12, this volume) cogently shows how contemporary K'iche' plan their agrarian cycles and the inauguration of the 365-day year through the appearance of the full moon, an exemplary symbol of human fertility and fecundity. It is no coincidence that the 260-day Tzolk'in also marks human pregnancy from first identification to birth. The second way of thinking about time manifests in the famous Maya Long Count of days, established on a creation day and ultimately cyclical but for all intents and purposes linear with the potential for the reincarnation of events. In posthispanic (after 1492 CE) Maya culture (and likely also present in prehispanic belief systems), this cyclical reincarnation was analogous to the reincarnation of human souls. For Classic period Maya peoples whose rulers regularly installed historical monuments in public places and in buildings—for example, in the southern lowlands between Palenque's realm on the west, Copán's to the east, Cancuén's to the south, and Calakmul's to the north—this second temporal sensibility dominated public discourse and policy.

It is probable that all ancestral Maya understood and acted on these two modes of thought regarding time. In 1991, anthropologist Robert Carlsen and poet Martin Prechtel published a benchmark discussion about these ways of materializing time, articulating the luminous philosophy that was inherent in the beliefs and practices of contemporary Ateteco sages in highland Guatemala. Their Ateteco informants explained that there are two kinds of change that they together call *jalolkexol*. *Jal* denotes the generational cycle from birth to death and back to birth. It is the cycle manifest in the Tzolk'in. *Kex* is the

manifestation of succession, of substitution, what Carlsen and Prechtel (1991, 26) call “making the new out of the old. At the same time, just as a single plant produces multiple offspring, *k'ex* is change from one into many. Together *jal* and *k'ex* form a concentric system of change within change, a single system of transformation and renewal.” *Kex* is the principle we see as intrinsic to the Long Count, a means not just of anticipating the cyclical return of events and conditions but also of acknowledging and celebrating innovation and a future different from the past, one worth aspiring to achieve.

The present-day fame of Maya calendar calculations as materializations of time is largely attributable to the practice of including the Long Count on many carved monuments during the Classic era, although the Postclassic codices are also remarkable for their temporal calculations. Following the social chaos of the ninth century, the southern lowland Maya stopped raising stelae and in many cases abandoned their cities. When this happened, the use of the Long Count largely disappeared along with the institution of dynastic kingship and the many court sodalities that sustained governments (Okoshi et al. 2021). But as Prudence Rice ably argues in chapter 17, Maya who were resilient continued to flourish and kept a Short Count of katuns, units integral to the Long Count composed of twenty approximate years of 360 days. They also kept a count of 260 tuns (through tagging each katun with its associated numbered ajaw day), merging a pattern from the Tzolk'in cycle into historical accounting. The Short Count is predicated on this innovative “single system.” Rice (chapter 17, this volume) proposes that in 771 CE, the Itzá nation founded new realms in a Katun 11 Ajaw, in the center of the Petén to the south and at Chichén Itzá in the north (see also Boot 2019). In Rice’s view, Chichén Itzá fell at the beginning of a Katun 11 ajaw and the post-conquest books of Chilam Balam underscore the historical power of Katun 11 ajaw in the destiny of the Itzá. The overlap between how the Maya thought about and acted upon their materializations of time and how we as scientists can detect and evaluate its impact on the material record is terrain we are now collectively exploring in this book. It is especially challenging and worthwhile when addressing great events in their history such as the founding and fall of Chichén Itzá. But this materialization can also be seen in a variety of venues in the southern lowlands, where increasingly robust calendar-anchored text-based chronicles and advancing field discoveries require us to address how the Maya thought about cyclicity in their historical trajectories.

Diane and Arlen Chase (chapter 14) have had a career-long preoccupation with the materialization of time, first at Santa Rita Corozal, Belize (D. Chase 1985a, 1985b; D. Chase and A. Chase 1988, 2008), and then at Caracol, Belize (A. Chase 1991; D. Chase and A. Chase 2004, 2011, 2017; A. Chase and

D. Chase 2013a; A. Chase et al. 2020). They have also written about their thoughts on Tikal, Guatemala (A. Chase and D. Chase 2020a; A. Chase et al. 2022). Their programmatic marshaling of archaeological evidence for Maya time practice affirms the premise of this book that all Maya people actively materialized time, always moving their quotidian rhythms of work into the sacred craft of “nurturing the gods.” Creation was their collective enterprise and remains so among living Maya. The Chases (chapter 14, this volume) show how the 20-year Maya temporal unit of the *katun* was an armature of thought and practice for both the great Classic city of Caracol and the prosperous and cosmopolitan Postclassic capital of Santa Rita Corozal. Significantly, they amplify Prudence Rice’s work on the impact of *katun* prophecy relating to the Short Count by demonstrating the importance of this unit of time in the Classic era. The theme of *katun* celebration is found at Tikal, Guatemala, in the form of twin-pyramid complexes, a Late Classic innovation of that powerful city. *Katun* celebrations were of great importance to the rulers and courtiers of Caracol with their giant *ajaw* altars. Those celebrations were also carried out by family units in most residential groups at the metropolis of Caracol through the deposition of special cache containers in association with residential shrines. They show how paired incensarios were used to manifest time in public buildings and later in residential units at Postclassic Santa Rita Corozal. Timekeeping coordinated and integrated the scales of Maya complex society. Ritual integrated Maya communities both internally and externally, as illustrated in the prospect that the two greatest kings of Caracol are actually entombed at Tikal in its most sacred ancestor shrine, the North Acropolis (Chase and Chase 2020).

In Chapter 14, the Chases make a philosophical and epistemological proposition that time and its apparitions were sentient and agentive. We have well-known examples of time personified in beautiful full-figure calendar glyphs on Stela D at Copán in Honduras. But these are metaphors of the burden—and the responsibility—that timekeepers, like kings and queens and their sages, have to know the past and to discern the best way to the future for their peoples. Gods and their effigies are associated with particular calendar cycles and jubilees. They are of time and in it, as James Doyle argues in chapter 16. Could the Maya adepts negotiate destiny with the days manifest in the sun? Or remember creation stories with that were manifested in the moon and stars? We think it was likely the case, especially as sun, moon, and stars are incarnated, and materialization was always a matter of conjuring time and not just counting it but also negotiating with it through its godly forms. Clearly some Mesoamericans, most famously the Aztec, regarded their relationship with a sentient sun as critical to the survival of the world (e.g., Pérez Aguilera

2017, 216). Divine death and resurrection are not syncretic contributions of Christianity to post-conquest (1519 CE) Maya notions of godhood. They were fundamental and pervasive pre-Hispanic tenets that are well documented in ancient Maya art, including the San Bartolo murals. The gods thus experienced generational time, in Carlsen and Prechtel's (1991) terms.

James Doyle's (chapter 16, this volume) study of the codex-style Late Classic vases that were interred with the dead in the old Mirador-area heartland of Preclassic civilization show episodes of myths recounting the birth, death, and resurrection of gods. The codex style is a beautiful innovation by artists living in the shadowed ruins of some of the largest sacred centers ever built in Mesoamerica. Their choice to make their homes among the spirits and memories of those buildings was no doubt quite deliberate. In the famous colonial-era (1519–1697 CE) Book of Council of the K'iche', it is the combined efforts of successive generations of human-form gods, fearless in the face of death and trusting in the reality of resurrection and rebirth, that defeats the deadly denizens of the otherworld (Tedlock 1996). It seems likely that the artists who painted these vases (and perhaps the individuals who used them) displayed their stories, recounted them to each other, celebrated the resiliency of the gods, and hoped for their own ability to trick fate and forge destiny despite the future reality of death.

Patricia McAnany has been contemplating evolving Maya beliefs about ancestors, the generative cycle, rebirth, and resiliency for most of her career. In chapter 13, she argues that it is not the gods or the stars but rather the people who manifest the pivotal cycles of time. She shows that for the Maya, the future is not shaped by the finality of death but rather by the transcendence of memory and the certainty of renewal, pointing to cycles of reincarnation of souls in contemporary Maya communities of Chiapas, the careful memorialization of the deceased in Preclassic and Classic Maya southern lowland practices in anticipation of their agency in the otherworld and their rebirth into this one, and the renewal of the saint in the Yucatec community of Tahcabo, where she now works. Now that she is working in the northern lowlands, McAnany finds herself wondering why the Long Count was never popular there. The great expert scholar of Maya stela iconography, Tatiana Proskouriakoff (1950), noted that Classic period inscribed stela are relatively rare above the eighteenth parallel north. In recent years, more inscribed stone stairways and eroded carved monuments have been discovered in the central lowlands of Campeche and Quintana Roo (e.g., Tsukamoto et al. 2015; Šprajc 2020), but the use of stela to identify and celebrate dynasts in succession is not readily apparent in this central area or to the north of it (but see Graña-Behrens 2009).

Freidel (2018) has concluded that the Maya of the central and northern lowlands elected their divine rulers from qualified elite candidates and initiated them into a brotherhood and sisterhood of divine beings. While the northern and southern lowlands of the Classic period shared many gods and beliefs—and the 365-day calendar, the 260-day sacred almanac, and in the Terminal Classic (800–900 CE) and Postclassic a penchant for katun calendar calculations converted to a semblance of the sacred almanac writ large—the northerners did not use the Long Count very much. Freidel (2018) has suggested that this is because the Long Count served particularly to anchor successions of rulers counting from dynastic founders and to legitimate them by pedigree more than by initiation. Thus, ancient Maya northerners differed from Maya southerners in their focus on generational time over lineal succession. McAnany argues that the architectural monumentality in northern centers focused on groups, whereas southern monumentality focused on dynastic lineages. That difference may have taken on the dimensions of a religious schism in the minds of many, fueling protracted episodes of warfare.

In chapter 18, David Freidel, Saburo Sugiyama, and Nawa Sugiyama consider the theme of materializing time in light of alliance building and factional disputes involving the rulers of Teotihuacan and those of lowland Maya kingdoms spanning the Early Classic period (200–550 CE). On the basis of Saburo Sugiyama's (1993, 2014) identification of the calendar-bound design of Teotihuacan's monumental core, his and Nawa Sugiyama's documentation and analyses of the complex offerings in buildings there (Sugiyama and López Luján 2007; N. Sugiyama, S. Sugiyama, et al. 2013; N. Sugiyama et al. 2014), and Freidel's hypotheses regarding the origins of the Classic calendar-recording stelae of the lowland Maya, they propose that Teotihuacan and Tikal collaborated in the innovation of lineal-descent dynastic government. Whatever the eventual fate of this proposal, it is now clear that both the New Order southern lowland kingdoms of the late fourth through early sixth centuries, partisans of Kaloomte' Sihyaj K'ahk' and the Dzibanché-based rulers of sixth-century Kaanul, had allies in Teotihuacan. In their summary thoughts, they argue that the principles of dynasty and sodality played out across Classic Mesoamerica. In Freidel's (2018) view, some great historical leaders of the Late Classic period (550–800 CE) strove to bridge the differences between kinds of Maya governmental systems but eventually failed, leaving the wide swaths of the Maya world to descend into chaos. Whether or not this view is empirically sustained, the materialization of time was central to the destiny of the Classic Maya and ultimately key to their resilience and cultural survival.

In the epilogue, Anne Dowd reviews the concept of zero or null in Maya conceptual thought and numeration as a theme. Notions of absence and

totality are brought into a discussion of architecture and spatial planning in the design of cosmograms. The contributions of the Santa Fe Institute working groups over the last decade have conclusively shown that communities came together to materialize calendar and timekeeping well before cities developed in the region, likely even before sedentism was fully established. Religion was one way disparate groups were brought together, resulting in the emergence and increase of monumental constructions oriented with the sun, moon, and stars.

Summary

The participants in this volume have challenged themselves individually and now collectively to address and rethink the most famous intellectual feature of ancestral Maya civilization. The eminent twentieth-century scholar of the Maya, J. Eric Thompson (1950), devoted an entire book to the proposition that the Maya worshipped time. Reflecting on the past of our discipline, the archaeologists assembled here aspire to chart some new paths forward into the future of considering the nature and use of Maya time. We see time as having infused almost all aspects of ancient Maya being, and thus this volume concerns itself with accounting for the manifestation of a Maya space-time that defined their interconnected worldview and cosmology. We believe that this book forms a coherent whole that begins with regional interaction; then focuses on public places of gathering, spectacle, and ceremony; moves closer to interior spaces of practice and learning; proceeds to the outward manifestation of mind in writing words, numbers, and calendars; and, finally, considers the inward manifestation of human beings in spirit as the source of renewal. Other archaeologists and Maya scholars are also charting new paths as well. Like the Maya, those who study their world with them aspire to an illuminated future.