# Time Reckoning and Memorials in Mesoamerica

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Mesoamerica was the time-place[1] in the New World where the memory arts of writing and calendrical notation achieved their highest forms. Both had long histories going back at least to the first millennium BC and were part of an even longer and wider history of memorials and commemorations dating millennia earlier. In this essay we consider time and memorials as social constructs and forms of practice (Jones 2003, 69; Melion & Küchler 1991; Van Dyke & Alcock 2003) and provide data for sequential changes in both. As commonly deployed and materialized, history and memorials are about the evolving 'now' and future aspirations rather than a fixed past — but they are communicated by re-presenting supposed pasts. In Mesoamerica, the things remembered, the manner of remembering them, and the reasons for doing so evolved with changing social and political institutions and circumstances (see Houston *et al*. 2006).

Anything can trigger memories, convey information, or be meaningful, but this does not make them memorials in any non-trivial sense. We are not concerned here with the meaning of all things or of memories of 'small things forgotten' (Deetz 1977). For current purposes of dealing with a long archaeological record, we consider as special memorials objects made to last, to be seen, and to be meaningful to groups of people transgenerationally. We begin with two notorious examples of the social construction and manipulation of history and then consider briefly some of the transformed practices that led up to the creation of histories and their uses in political life.[2]

## Making history

By the Spanish Conquest in the 1520s Mesoamerican peoples were keeping calendrically-indexed chronicles and promoting a sense of time that stretched from heroic exploits of recent kings and their legendary predecessors back to mythic beginnings and the birth of humanity and the gods. In Mesoamerica, time was thought to be cyclical, so past events portended those to come. Histories, legends, and myths were kept on painted screen-fold paper books, and some were even chiselled in stone. This had not been the case 3000 years earlier. The means of preserving, making, and manipulating memories, and presumably the content of memories as well, evolved from pre-Neolithic beginnings until they were on par in the sixteenth century with those of their Iberian conquerors. With books and writing, history could be made through actual deeds or royal fiat, as evident in a pivotal event in Aztec history.

About AD 1430 one of first Aztec kings with real power, Iztcoatl (Fig. 1a), commanded the gathering of all painted books from his and neighbouring cities in the Basin of Mexico to be burned. This censorship consumed unfavourable histories and cleared the way for a writing a new past as it should have happened, and it is the official history that survives today (Marcus 1992, 146). As the past was thought to determine the future, historical narratives became a resource for moulding destiny. For Iztcoatl and his advisors, state events and cultural legacy were more easily modified through burning histories than conquest, although they engaged in both.

Book burning, book repainting, and iconoclasm were venerable Mesoamerican practices. Each means of commemoration had its own undoing, a way to erase events and officially forget, so recorded memory was constantly being made or altered as individuals, factions, and peoples promoted rival memories and histories. Iztcoatl's scribes replaced burned books containing deep, local histories of the city states rimming the lake in the Valley of Mexico with manuscripts portraying the Aztecs' own rags-to-riches story. The Aztecs began as rude tribesmen who, over a 200-year peregrination, wandered through tribulations from the northwest into the Valley of Mexico. Godly omens and signs showed the way to the Valley, where the Aztecs were quickly banished to a viper-infested island in Lake Texcoco, their new promised land. Starting as savage outcasts, and learning civilized arts by hiring out as mercenaries to competing city despots, an Aztec lineage leader eventually married into one of the royal houses of an adjacent city, started a cadet royal line, went to war, and subjugated neighbouring cities (Townsend 2000). This new history became a charter for Aztec conquest, and their empire really took off with Iztcoatl's revisionism.

The manipulation of deep time and memorials for personal benefit or purposes of state is also evident

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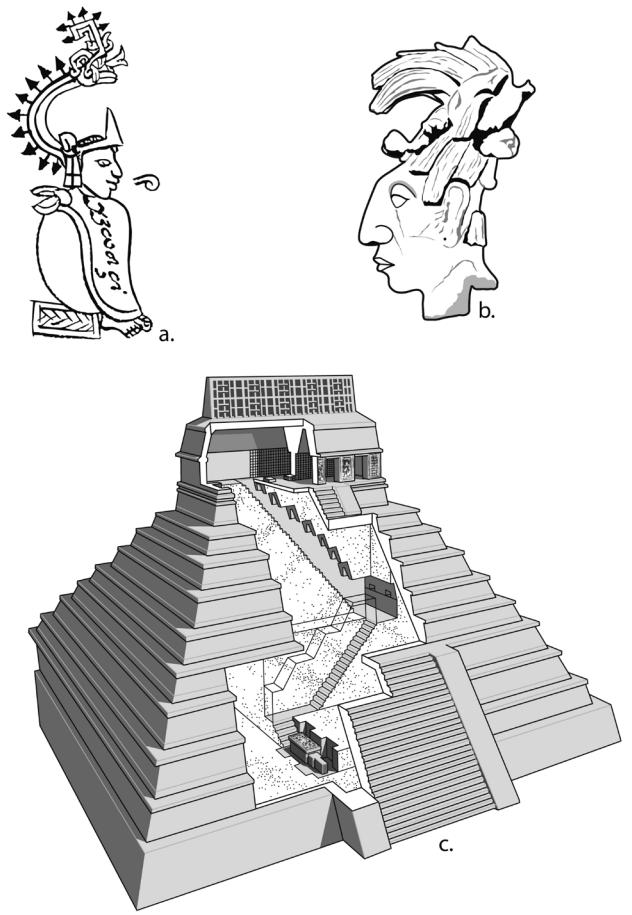



**Figure 1.** *a) Itzcoatl; b) K'inich Janaab' Pakal; c) Temple of Inscriptions and Pakal's burial chamber.*

in our second example, that of K'inich Janaab' Pakal I (Great Sun Janaab' Shield), the most famous Maya king (Fig. 1b). His burial crypt beneath the Temple of the Inscriptions at Palenque (Fig. 1c) is the nearest analogue to a King Tut discovery in Mesoamerica (for Pakal's history, see Martin & Grube 2000; Tiesler & Cucina 2006). Besides his spectacular burial chamber and mortuary offerings, Pakal had a presumptuous, politically-incorrect genealogy carved on his sarcophagus and on an inscribed tablet in the temple above his tomb. Pakal became king with three strikes against him. He assumed the throne from his living mother at the age of 12; his city had been sacked twice in the previous four years; and, his bloodlines were questionable (Martin & Grube 2000). Pakal traced his lineage through his mother and great grandmother, not his father, back to the birth of Palenque's patron goddess at 3122 BC, just nine years before the dawn of time (Fig. 2), and then through her descendant, U-Kix-Chan, who supposedly acceded to the throne on March 28, 967 BC (Schele & Freidel 1990, 219–28), centuries before any Maya city existed. Tenuous blood ties to legitimate authority, political necessity, opportunity, mythology, and reworked history coalesced in Pakal's presentation of genealogy and deep time. This was apparently successful; he ruled for 68 years until his death.

Many categories of physical memorial are still evident in Pakal's mausoleum for us to appreciate today. The message of his elevated status was made with great redundancy during life and death. His own living body had been a public sign and memorial, as evident in his cranial deformation (Fig. 1b) and filed front teeth mimicking the bite of the sun god. Items of personal apparel and royal insignia were also ostentatiously present, from his jade death mask, forehead diadem, jade celt and trophy-head belt ornaments, earspools, pearls, jade rings and beads, to jade figurines of gods. Some of these items were heirlooms or copies of them and linked him to past kings. As for formal history, images and written names of ancestors were carved on all four sides of Pakal's sarcophagus, modelled in stucco on the walls of the burial chamber, and on the large tablet in the summit temple from which the 'temple of inscriptions' takes its name. A life-sized image of Pakal as the maize god was carved on the lid of his sarcophagus, and a realistic stucco bust (Fig. 1b) was placed beneath his sarcophagus along with a bust of his wife. Many more ephemeral items were probably also part of Pakal's memorialization.

Pakal built several temples at Palenque as well as the palace next door to his final resting place. Among other things, his palace displays images of royal captives. The stepped pyramid encasing his tomb was his last building project. Planned and started by Pakal and erected to his memory, this temple pyramid was finished by his eldest son and successor. Its most arresting feature is the stairway that descends from the summit temple to the tomb, thereby allowing posterior placement of Pakal's corpse and multiple entries into the tomb (Fig. 1c). There is no evidence, however, that Pakal's tomb was reopened after his interment or that he was remembered by handling his bones. Shortly after the tomb was closed, five adults were sacrificed and crammed into a stone offering box outside the tomb door to commemorate Pakal's death, and the stairway was filled with rubble (Tiesler & Cucina 2006). About the only expected durable memorials not seen in Pakal's tomb are bones of ancestors. However, ancestors were depicted in nine life-size figures that grace the walls of the crypt and as sprouting fruit (metaphorical of resurrected beings) on the sides of his sarcophagus.



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## A brief history of Mesoamerican time-keeping

The chronometric precision of Pakal's genealogical claims and conquests (Fig. 2) were made possible by the Maya count of time elapsed since August 13, 3113 BC, counted forward in 20-year (*katun*) and 400-year (*baktun*) increments (for Maya calendar details, see Aveni 2001; Coe 2005; Marcus 1992; Sharer & Traxler 2006). By Pakal's time, the Maya script and calendar computation and notation were fully developed, and he and his heirs used both to great advantage. The Maya designated their days by number and name. For individual days they permutated 13 numbers with 20 day names for a count of 260 days known as the sacred almanac. Among Mesoamericans, this ritual cycle was especially important because there were good and bad days, and one's fate was largely sealed by the day of birth, sometimes taken as one's personal name.

The Maya had different names and glyphs for months in a solar calendar of 365 days known as the *Haab*. This was divided into 18 months of 20 numbered days, with five 'unlucky' days left over each year. The ritual almanac and *Haab* counts combined in a longer cycle of 18,980 days — the Calendar Round of 52 years. Because of the way calendar cycles were coordinated and counted, the Maya long count calendar had logical pre-requisites. The Calendar Round necessarily presupposed 260-day and 365-day counts, and all three were necessary for long counts based on *baktuns*. Scattered archaeological finds of early calendar notations support the logical sequence (Fig. 2). The earliest representations of dates from 1100 to 500 BC are from the 260-day ritual calendar, with the first 365-day counts dating to about 400 BC, and with the earliest currently known long-count date being Dec. 8, 35 BC (Marcus 1992; Van Laningham 2008). The first carved stone monument with long-count dates, written texts, and portrait images dates to AD 156.

This is not much to go on, but the general history of Mesoamerican calendar notion leading up to Classic Maya practices went from ritual counts to solar counts and then to long-counts. The earliest 260-day notations appear on roller stamps and on stone monuments of warriors engaged in bloodletting rituals and most likely were used as name tags and markers of personal identity rather than as historical indicators. Identity in later monuments was conveyed by portraiture and writing, with dates meant to anchor individuals in time. Calendar dates became an integral part of memorializing Maya kings and queens in the Classic period (AD 300–900) and of linking them to powerful progenitors. The earliest texts are short and, because of a preponderance of logographic signs, have not been deciphered (Houston 2004, 295). The trend through the Classic period was towards greater phoneticism. Stephen Houston (2004, 308) argues that the earliest texts carried a 'heavy theological content' and privileged gods rather than mortals. If so, the temporal trend was towards longer texts concerned with royal persons rather than theology. Eventually, kings were thought to embody time itself (Houston *et al*. 2006, 87). Given the placement of dated royal monuments in plazas and in front of commissioned and named buildings, the messages conveyed of powerful kings and their subjects became super-redundant, even for the growing illiterati. Each of these commemorative techniques had its own history, with all of them coming together by the time Pakal had his accomplishments carved in stone.

## Making and unmaking memories

Mesoamerican history, of course, extended beyond written and dated memory, and for those times and places other memorials are available. What was memorialized, how, and for whom? Figure 2 lists different classes of permanent memorials, including writing and calendar notation, and the earliest known occurrence of each within the territory that became Mesoamerica. This evidence represents current archaeological luck in finding and publishing the first occurrence of things. In contrast to the individual histories of kings, the dated items in Figure 2 represent a wider canvas of memory and memorial. Memories, as communicated narratives linked with specific memorials, are distributed phenomena and have a half-life dependent on the size and viability of the group involved in making the memorials, observing the associated performances, and/or talking about them afterwards.

The earliest evidence of what could pass for memorials and public rituals in proto-Mesoamerica are burials from the Middle Archaic period. Several multiple graves are known in rockshelters dating to about 8000 years ago, and these were associated with ritual killing and cannibalism or with post-mortem ritual that involved head removal of infants and partial burning of their bodies (Anderson 1967, 93–6; Fowler & MacNeish 1972, 267–70). These practices do not appear to have persisted into Mesoamerican times. After 1500 BC, burial of kin was a particularly effective way for living offspring to lay claim to space or transform it into place. Cemeteries and simple burials placed around residences are known for early villages in the highlands of Mexico and Oaxaca about 1300–1100 BC. Trends through time in mortuary memo-



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rials were the increased disparities in burial offerings, in the energy invested in burial facilities, and in the placement of burials within cityscapes — with Pakal's tomb evincing high-end investment in person, place, and citizenry.

Another way to stake claims to space and places was to make mounds, ceremonial centres, and stone monuments. These appeared in Mesoamerica in this order, with the earliest deliberate mounds being constructed of shell and predating sedentary villages by 2000 years. Bigger and more complex mounds millennia older are known for both North and South America (see Clark & Knoll 2005). As with early burials, the Late Archaic practice of early mound building was not continued, and this activity and its social meanings had to be reinvented centuries later. The earliest ceremonial centre with formal mounds around a plaza currently known in Mesoamerica is Paso de la Amada, constructed about 1650 BC. San Lorenzo, the first true city, was built by 1300 BC and appears to have been concurrent with a new sculptural program (Clark 1997; 2007). These constructed sites memorialized and helped create group identity and changing notions of self (Hill & Clark 2001). The earliest memorials appear to have been corporate rather than individualistic.

Representations of human beings go back to Late Archaic paintings and unfired and fired clay figurines (Gutiérrez 2008; Niederberger 1979; cf. Shady Solis 2005, 44–5). By Early Formative times (*c.* 1700 BC), clay figurines were consistently fired and were accompanied by representations of animals. Portrait-like images of men and women were carved in wood and stone by 1350 BC among the Olmecs of the Gulf Coast. Colossal stone heads, for which the Olmecs are famous, are thought to be portraits of kings, with individualized helmets that identified each one by name or title. Placement of this nominal information in the headdresses of sculptures became a popular practice by Classic Maya times (Houston *et al*. 2006). Early Olmec monuments were carved in the round, some in dynamic poses. The trend through time was towards low-relief carving of stiff figures on prepared flat slabs of stone, and a trend from individual portraits to complex narrative scenes of multiple individuals and entities. With the advent of Maya writing, visual narratives were pared back to allow room for calligraphic recitations of royal deeds, protagonists, times, and places. Classic Maya monuments clearly memorialized individual kings such as Pakal, but perhaps as the embodiment of the collective body politic.

Olmec kings had themselves represented by colossal stone heads, massive thrones, and full-figure statuary. Some of these were displayed within courtyards, perhaps the living quarters of the leaders represented (Cyphers *et al*. 2006, 23). Most portrait monuments were later defaced or beheaded and removed from public view to de-memorialize the individuals portrayed.[3] Such public un-remembering opened the way for redacted histories and fresh memorials to successful contenders for power. Busting up sculpture was an early version of book-burning, and for the same effect: to rearrange history and memory. Iconoclasm in Mesoamerica predates evidence of public timekeeping by many centuries. In some cases, early stone monuments were recarved into new images and objects. One king's throne could be transformed into a successor's portrait (Porter 1989). The advent of time keeping and notation carved in stone only made the claims more specific, not more memorable or durable — as the thousands of broken stone monuments from Mesoamerica attest.

In considering time-keeping in Mesoamerica, one should distinguish history from chronicle, and both from changing uses and perceptions of time. The longest-lived Olmec cities had been abandoned a thousand years before Pakal the Great assumed his throne, yet he reached through history to 967 BC to claim what must have been an Olmec king as his first mortal progenitor, and he modelled his sarcophagus after early Olmec thrones he could personally have observed at the nearby Olmec ruin of La Venta. Given the absence of monuments with inscribed long counts for most of that era, we find Pakal's claim a remarkable feat. Of course, his ultimate royal ancestor may have been a convenient fabrication, but maybe not. Either way, we appreciate the labile utility of a deep past coupled with a malleable future. In Mesoamerica, the past was a social resource for kings such as Pakal and Iztcoatl. The evolving techniques of recording person, time, place, and event only deepened that resource without affecting traditional ways in which history was used. Cyclical time was accorded causal and fatal force, but the past was not really immutable for those who embodied or controlled time, so neither was their future. For this reason Joyce Marcus (1992, 7) argues that 'Mesoamerican rulers ... had a monopoly on truth', meaning exclusive access to make and remake history and official memory.

## Concluding remarks

Our purpose in this essay has been to provide an overview of data pertinent to issues of an evolving sense of history in Mesoamerica. From a perspective of long-term change we see a developmental



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| Pakal's genealogy | Writing & calendar | Burial practices | Mound building | Human representations | Body as memorial | Human bones & representations |
|---|---|---|---|---|---|---|
| **K'inich Janaab' Pakal I**<br>*death: AD 28 August 683*<br>*accession: AD 26 July 615*<br>*born: AD 23 March 603*<br><br>**Muwaan Mat**<br>*accession: AD 19 Oct. 612*<br><br>**Aj Ne' Ohl Mat**<br>*accession: AD 8 Aug. 612*<br><br>**Lady Yohl Ik'nal**<br>*accession: AD 21 Dec. 583*<br><br>**Kan B'alam I**<br>*accession: AD 6 April 572*<br><br>**Ahkal Mo' Naab' II**<br>*accession: AD 2 May 565*<br><br>**K'an Joy Chitam I**<br>*accession: AD 23 Feb. 529*<br><br>**Ahkal Mo' Naab' I**<br>*accession: AD 3 June 501*<br><br>**B'utz'aj Sak Chik**<br>*accession: AD 28 July 487*<br><br>**Casper**<br>*accession: AD 9 Aug. 435*<br><br>**K'uk' B'alam I**<br>*accession: AD 10 Mar. 431*<br><br>**U-Kix-Chan**<br>*accession: 967 BC*<br>*born: 993 BC*<br><br>**Hunahpu**<br>*born: 2360 BC*<br><br>**Muwaan Mat**<br>*accession: 2305 BC*<br>*born: 3121 BC* | **AD 300**<br>First long count dates in Maya Lowlands<br><br>**AD 160**<br>*La Mojarra, Veracruz:* long count dates, long texts, and profile image of ruler on same bas-relief monument<br><br>**40 BC–AD 150**<br>*Veracruz, Chiapas, & Guatemala:* first long count dates<br><br>**400–200 BC**<br>*San Bartolo, Guatemala:* row of glyphs painted on wall, Maya Lowlands<br><br>**400–300 BC**<br>*Oaxaca & Guatemala:* rows of glyphs carved on stone monuments, without calendar notation<br><br>**500–400 BC**<br>*Monte Albán, Oaxaca:* calendar notation of 365-day year<br><br>**900–800 BC**<br>*Cascajal Block, Veracruz:* rows of glyphs and evidence of syntax<br><br>**1100–1000 BC**<br>*Chiapas & Mexico:* roller stamps with possible sacred almanac dates of 260-day calendar | **AD 683**<br>*Palenque:* Pakal's sarcophagus, burial chamber, human sacrifices, jade valuables, pyramid burial<br><br>**300–100 BC**<br>*Monte Albán:* burial crypts<br><br>**500–400 BC**<br>*Chiapas & Guatemala:* burials in mounds and with human sacrifices<br><br>**800–600 BC**<br>*La Venta & Chiapa de Corzo:* mound and pyramid burials<br><br>**1100 BC**<br>*Tomaltepec, Oaxaca:* secondary burials<br><br>**1250 BC**<br>*Cantón Corralito, Chiapas:* child burial with jade axe offerings<br><br>**1300 BC**<br>*Hacienta Blanca, Oaxaca:* burial with figurines<br><br>**1350 BC**<br>*Paso de la Amada, Chiapas:* burial with iron disk ear ornaments and mortar and pestle offering<br><br>**1600 BC**<br>*El Vivero, Chiapas:* child burial with mica forehead mirror<br><br>*Chilo, Chiapas:* burial with ceramic pots<br><br>**2500 BC**<br>*Chantuto shell midden, Chiapas:* burial<br><br>**3500 BC**<br>*Santa Marta Rockshelter, Chiapas:* multiple burial<br><br>**3900 BC**<br>*Purron Cave, Tehuacan:* possible secondary burials<br><br>**6500–5000 BC**<br>*Purron:* first burials, found in caves | **AD 683**<br>*Palenque, Chiapas:* Pakal's Temple of Inscriptions, palace, other pyramids<br><br>**100 BC**<br>*Teotihuacan, Mexico:* Pyramid of the Sun & Pyramid of the Moon<br><br>**200 BC**<br>*El Mirdor, Guatemala:* largest pyramid in Maya area<br><br>**800 BC**<br>*La Venta, Tabasco:* pyramid, plaza centre with monumental sculpture in association.<br><br>**1000 BC**<br>*La Blanca, Guatemala:* tall pyramid and associated plaza<br><br>**1200 BC**<br>*Ojo de Agua, Chiapas:* small pyramids and long, broad mounds, plazas<br><br>**4000 BC**<br>*Alvarez del Torro, Chiapas:* deliberate platform built of shell | **AD 683**<br>*Palenque:* Pakal's jade death mask, stucco bust, stucco figures of ancestors, bas-relief sculpture on sarcophagus of Pakal and ancestors, carved panels in summit temple<br><br>**200 BC**<br>*San Bartolo:* painted murals of coronation ceremony<br><br>**850–600 BC**<br>*La Venta:* jade figurines, bas-relief stone monuments<br><br>**1300 BC**<br>*El Manatí, Veracruz:* carved wooden busts<br><br>**1350–1000 BC**<br>*San Lorenzo, Veracruz:* monumental stone sculpture, Colossal Heads, 3-D figures, thrones<br><br>**1750–1600 BC**<br>*San Carlos, Chiapas:* hollow clay figurines and effigy pots<br><br>**2300 BC**<br>*Zohapilco, Mexico:* fired clay female figurine<br><br>**2500 BC**<br>*Guerro:* wall paintings of human figures | **AD 683**<br>*Palenque:* Pakal's death mask, cranial deformation, dental mutilation<br><br>**100 BC**<br>*El Cerrito, Chiapas:* burials with cranial deformation in Maya style<br><br>**500–400 BC**<br>*El Mirador:* tooth with jade inlay<br><br>**800–600 BC**<br>*San Isidro, Chiapas & La Venta:* large, jade ear spools<br><br>**900–800 BC**<br>*Pajón & Huanacastal, Chiapas:* deformed skulls in Olmec style<br><br>**900–700 BC**<br>*Tabasco:* tatoos and/or scarification shown on Olmec jade figurines & masks<br><br>**1100–1000 BC**<br>*Tlatilco, Mexico:* burials with dental mutilation<br><br>**1300 BC**<br>*El Manatí:* cranial deformation shown on wooden busts<br><br>**1400–1000 BC**<br>*San Lorenzo:* tabular-erect cranial deformation shown on ceramic figurines<br><br>**1600–1500 BC**<br>*Chiapas:* body painting shown on female figurines | **AD 683**<br>*Palenque:* no evidence of curated human bone in Pakal's tomb<br><br>**AD 500**<br>*Kaminaljuyu, Guatemala:* carved human skull<br><br>**AD 200–300**<br>*Teotihuacan:* Quetzalcoatl Temple, human mandible necklaces with sacrificial victims<br><br>**AD 100**<br>*Chiapa de Corzo, Chiapas:* carved human femurs with royal burial<br><br>**800–600 BC**<br>*La Venta:* small jade skull, ceramic skull in pot<br><br>**1150 BC**<br>*Tomaltepec:* secondary burials<br><br>**1300 BC**<br>*Cantón Corralito:* ceramic mask representation of trophy skull with mandible shown tied to skull |

**Figure 2.** *History of memorials in Mesoamerica.*

sequence from burial memorials that marked territorial space, to public earthworks associated with social constructions of group identity, to memorials of royal individuals such as Pakal. Technologies for keeping track of time, place, persons, events, and relationships became more sophisticated and precise through time; thus, the means of making and keeping history and memories offered greater opportunities for message specificity and redundancy. Specific meanings and uses of memory have to be worked out for each group of Mesoamerican peoples in time and space, but issues of self-identity rather than chronicle appear to have been the paramount concern at the beginning of formal time-keeping. The major shift was the creation of a sense of history itself after centuries of recording events in different time cycles.

Considering 3000 years of memorial-making and historic manipulations by myriad Mesoamerican kings, it appears clear that recorded history was both burden and opportunity. Millions of people in Mesoamerica fashioned deliberate memorials over its three millennial run, and many of these were in durable media not easily undone. Even for individual communities, cities, or peoples, however, the quantum of recorded and/or narrated past events may have become unmanageable. Interesting events needed to be sorted from viable history (decisions requiring situated agents with agendas). Memories and history could be ignored or, depending on the structural position of different agents, they could also be repackaged for the advantage of empowered agents. The histories that got carried forward depended on the agents involved, their perceptions of opportunities and utilities, and favourable demographic and social circumstances. The variety of available memories, memorials, and cultural practices in each region of Mesoamerica provided a rich resource for those seeking alternative routes to power, with the case in point being Pakal's fusing of his maternal genealogy to that of the original mother goddess of Palenque as an avenue to political legitimacy. Given his youth, this strategy was probably his mother's; she assisted him during the first 25 years of his reign. Pakal's subsequent high-profile building activity to re-dress Palenque did the rest. We suggest that Pakal's spectacular memorialization was not atypical. For Mesoamericans with access, memories were always available for making history, and history could always serve the purposes of state.

## Notes

1. Mesoamerica is a culture history term commonly confused for a geographic one. Mesoamerica represents a package of cultural practices that arose in Middle America among complex societies. Thus, Mesoamerica denotes the distribution of peoples with these cultural practices in time and space, a notion we capture by hyphenating 'time-space' to characterize the fluid boundaries of Mesoamerica in space and through time. Mesoamerica ended with the Spanish Conquest in the 1520s, and it began in the Gulf Coast lowlands of modern Veracruz and Tabasco, Mexico, by 1300 BC with the rise of early Olmec civilization.
2. The types of memorials and memories, and their uses, certainly extend well beyond our narrow focus here. Space limitations preclude detailed discussion, so we limit our focus to durable memorials, with an emphasis on their uses in political life.
3. Some of the defacement of Olmec monuments, such as the cupping on colossal heads, may have been reverential rather than iconoclastic. John Graham (1989, 234) suggests that powder was obtained from these monuments in this manner and ingested as a source of power and connection to the kings represented on the monuments. The monuments would have to have been in view and accessible for such periodic ceremonial pulverization and ingestion to occur.

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