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Caches, Memory, and Ritual at the Maya City of Cival

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Abstract

This article examines Middle and Late Preclassic period ritual activity and caches discovered in the Central E Group complex at the ancient Maya site of Cival, which is located in northeastern Peten, Guatemala. It focuses on a series of excavations conducted in 2013 and 2014 at Structure 9, the E Group's western radial pyramid and uses theories of social memory and sacred place to provide insight into the recently discovered caches, termination rituals, and the deliberate destruction of architectural features found there. It also draws on previous ritual activity conducted in the Central E Group plaza and the site's broader history to obtain a more comprehensive understanding of the role of this complex as a sacred place and hub of memory at Cival for more than 1,000 years.

Resumen

Este artículo examina la actividad ritual del período Preclásico Medio y Tardío de los escondites descubiertos en el complejo del Grupo Tipo-E Central en el antiguo sitio Maya de Cival, que se encuentra en el noreste de Petén, Guatemala. Haciendo énfasis en una serie de excavaciones realizadas entre los años 2013 y 2014 en la Estructura 9, que es la Pirámide radial al oeste del Grupo. Las teorías de la memoria social y el lugar sagrado son aplicadas para dar una idea de los hallazgos mencionados recientemente, los rituales de terminación y la destrucción deliberada de las características arquitectónicas que se encuentran en dicha estructura. También se basa en la actividad ritual realizada anteriormente en la plaza del mismo complejo para obtener una comprensión más amplia y completa de su historia y del papel de este grupo como lugar sagrado y centro de la memoria en Cival durante más de 1000 años.

Keywords: Maya; social memory; ritual; architecture

Palabras clave: Maya; memoria social; ritual; arquitectura

Archaeologists have applied a variety of techniques to build an understanding of ancient Maya ritual and commemorative practices through various social memory–based approaches. Research has focused on termination rituals (Brown and Garber 2003; Mixter 2017; Mock 1998; Pagliaro et al. 2003; Stanton et al. 2008; Tsukamoto 2017), the ritual abandonment of structures (Brown and Garber 2008; Hansen et al. 2008; Stanton and Magnoni 2008), and ritual deposits of a different kind known collectively as caches (Kunen et al. 2002; Schwake and Iannone 2010). The examination of caches is particularly valuable because they are often the physical remains of ritual events and thus provide insight into the larger activities that occurred in a location. The material found in these deposits can shed light on potential beliefs and ideologies important to the ancient Maya. Caches can also reflect specific cosmological and religious concepts expressed in the choice of artifacts, their spatial arrangement, and the sequence of disposition, such as seen in Cache 4 found in the Central E Group plaza at Cival (Estrada-Belli 2006) and the substantial caching associated with the E Group plaza at Ceibal (Aoyama et al. 2017; Inomata 2014; Inomata and Triadan 2015; Inomata et al. 2015; Smith 1982). The interment of a cache in a plaza or architecture can also serve to create and preserve social memories.
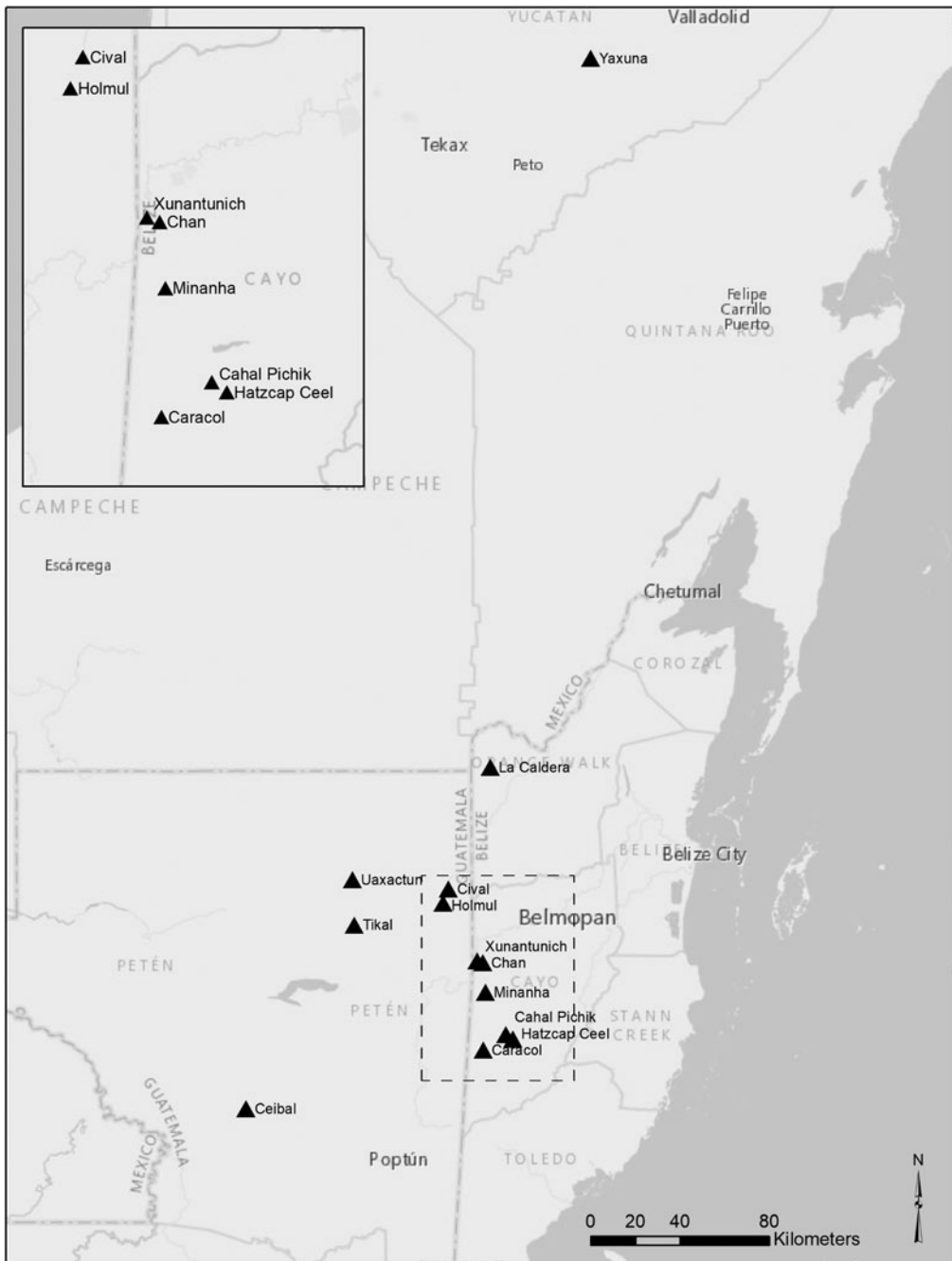
Figure 1. Map of Belize, Guatemala, and the Yucatán Peninsula indicating the archaeological sites mentioned in the text.

In this article, the concept of social memory is applied to the Preclassic period Maya site of Cival located in the Peten region of Guatemala (Figure 1). It focuses on several ritual events associated with the architectural phases of Structure 9, which is part of the Central E Group plaza complex at the site. Excavations conducted between 2013 and 2014 revealed not only a series of caches associated with the last two phases of construction for Structure 9 but also a series of deliberate episodes of mutilation made to the architecture. I use the concept of social memory as a strategic tool to provide new insights into understanding ritual practices undertaken within E Group complexes. I also draw on social

memory and the larger site history at Cival to explain the deliberate destruction of architecture seen at Structure 9.

Memory, Ritual, and Commemoration

The use of memory studies in archaeology is challenging yet rewarding: it provides archaeologists with an interpretive tool to examine how multiple levels of society viewed the past (Borgstede 2010). Additionally, the concept of social memory allows archaeologists to study how historic and prehistoric groups engaged with their past and how they actively constructed and shaped that past (Mills and Walker 2008; Van Dyke and Alcock 2003).

I use here the term "social memory" rather than "collective memory" because it places greater emphasis on the social. This term was adopted in anthropology as a way to divorce memory from the collectivist overtones associated with Maurice Halbwachs's academic background (Fentress and Wickham 1992; Olick and Robbins 1998). Social memory is also viewed as an expansion of Halbwachs's (1992) concept of collective memory with the specific goal of incorporating the conflicting and opposing memories shared by a group or community (Gillespie 2010; Hendon 2010).

Memory is a "social practice intimately bound up in the relations people develop with one another and with the world around them through what they do, where and how they do it, and with whom or what—and results in physical traces that make up the archaeological record" (Hendon 2010:2). Social memory is a lived memory that is held by any number of individuals and is commonly shared by a group. It is an active, ongoing process that is social but is also tied to materiality; thus, it is constructed, shaped, and mediated by its social and historical context (Assmann 1995; Halbwachs 1992; Schudson 1997). Additionally, it transcends the life span of any individual (Hendon 2010).

Social memories are formed through the social negotiation of individual memories; this process is often assisted when the individuals sharing the memory acculturate similarly (Stanton and Magnoni 2008). These memories are also produced through rituals and everyday practices (Hendon 2010) and are transferred through means such as oral communications, bodily practices, and commemorative ceremonies (Connerton 1989). Social memory is also selective because only specific dominant memories are reconstructed, which can result in contention and the coexistence of multiple conflicting views. It is also vulnerable to manipulation because it can be used to legitimate authority, identity, and ancestry, regardless of whether it reflects reality (Nora 1989; Schudson 1997; Van Dyke and Alcock 2003).

Social memories are expressed and engaged with through performances, embodiment, and objectified or inscribed media, such as writing (Gillespie 2010). It is often performative and can emerge through rituals and commemoration ceremonies (Connerton 1989). Miguel Angel Astor-Aguilera (2011:17) defines ritual as incorporating "a notion of nonroutine solidarity production, situational to specific circumstances, that relates personal experiences through cultural activities, as manifest in individual agency, practice, and interpretation that seek to transform and generate specific outcomes." The term "ceremony" generally refers to a larger event that can incorporate multiple rituals. As mentioned above, commemorative ceremonies can serve as acts of transfer for social memory. However, rituals can transcend the physical ceremony by permeating nonritual behavior, thus providing significance to the entire community (Connerton 1989). Rituals and commemorative ceremonies also enable the alteration and conservation of social memories.

Maya archaeologists have obtained insight into social memory through examining its material traces in portable objects, architecture, text, and other forms of media (Golden 2010; Hendon 2000, 2010; Joyce 2000, 2003; McAnany 1995; Stanton and Magnoni 2008; Tokovinine and Estrada-Belli 2015). This article focuses on the examination of social memory through the deposition of caches in ritually important places.

Memory and Place-Making

The theory of place is a useful tool in identifying the existence of social memory in the archaeological record. Place refers to socially constructed locales that are embedded with personal and collective significance and consist of the lived experiences of individuals and communities located in the past and

present (Preucel and Meskell 2004; Rodman 1992; Tuan 1975). These places are formed through individual and community interaction and engagement with a locale, which results in the attachment of meaning to a specific space (Cresswell 2009). Additionally, places are dynamic because a single place can contain multiple meanings for various individuals, groups, and communities.

Place-making is an active process through which space is intentionally taken to be modified into a place that contains meaning and significance for its creators. This process typically occurs through human-made construction or modification of natural features in the landscape, such as cenotes, hilltops, caves, springs, and rock outcrops. The creation of place can also enable individuals and communities to modify specific places to legitimize their authority or claims to them (Cyphers and Castro 2009). Sacred places emerge through the active process of place-making and result in a socially constructed place or landscape. A place is made sacred through repeated ceremonial activities (Borgstede 2010). Once sacred, a place remains meaningful as long as the actions performed there remain in the social memory (Reese-Taylor 2012).

Archaeologists have established a basic understanding of ancient Maya rituals and commemorative practices by drawing on epigraphy, iconography, and archaeological evidence. Although each of these three types of evidence has been used in a conjunctive approach to examine Classic period practices, archaeological evidence is the most applicable to the Preclassic period because of the limited number of surviving texts and iconographic programs. One of the clearest archaeological examples of ancient Maya ritual programs comes from plazas and monumental structures located in these ancient cities.

The ancient Maya designed monumental architecture to serve as a visible expression of social memory and of cosmological and religious beliefs, achieved through merging the natural and supernatural landscapes to create a sacred place. The transformation of structures into visible and dominant aspects of the social landscape fostered the integration of diverse groups into a community of place (Brown and Garber 2008) as people came together to commemorate its significance. The permanence of monumental structures also anchored local narratives and identities to a concrete place and deep time-scales. These sacred places functioned as locales that provided a moral continuity of traditions, beliefs, and a shared common past (Schudson 1997). Thus, the alteration and expansion of monumental structures allowed for the renewal of sacred places and the meanings associated therein. It also enabled continuation of the social memory, which was maintained through active engagement with the sacred place through each generation.

These sacred places emerged through formalized sets of behavior, practice, and interaction with the landscape. They also developed through ritual offerings, during which active social participation imbued the constructed place and landscape with life, memory, and meaning (Brown and Garber 2008). The creation of these places can result in the formation of memories that reflect multiple significances and ideologies imbued through continuous interaction with a location by the surrounding human agents (Gillespie 2010; Schwake and Iannone 2010). Place can also serve as a location where memories are activity shaped, remembered, or forgotten. The malleable nature of these memories meant that they were frequently altered through the placement of caches and ritual performances. Therefore, these sacred places functioned as influential centers where social memory was constantly renewed through ritual activity.

Caches and Termination Rituals

Caches, consecration rituals, and termination rituals are all examples of social memory that archaeologists can explore. These rituals functioned as ancient Maya acts of establishing, renewing, or terminating sacred places (Brown and Garber 2008; Mock 1998). They also served as examples of cultural remembering by either creating a shared sense of solidarity or maintaining elite unification and identity.

Social memory can be embedded in material remains, such as caches. Maya archaeologists have defined caches in a variety of ways to refer to many different activities. William Coe (1959:77) defined caches as "one or more objects found together, but apart from burials, whose grouping and situation point to intentional interment as an offering." He emphasized their concealment and recognized three types of offerings: dedicatory caches, terminal offerings, and intrusive offerings (Coe 1965). Because

terminal offerings, now known as termination ritual deposits, are not inherently concealed, Coe (1965) did not view them as caches.

The discourse surrounding caches has changed over time so that all three types are frequently referred to as caches. Archaeologists such as Marshall Becker (1992) noted issues with standard archaeological typology regarding ancient Maya ritual depositional practices and emphasized it is not possible to separate caches containing human remains from burials. This earlier division is now understood as more of a continuum (Becker 1992; Kunen et al. 2002). Recent attempts to deal with the ambiguity of the term "cache" have focused on the deposition processes and deposit context of ritual deposits (MacLellan 2019).

Because of the variety of definitions of caches, let me explain how I use the term "cache" in this article. It refers to the grouping of objects that were intentionally interred as an offering. Caches are also the material remains that accompanied rituals involving the consecrating of space (Kunen et al. 2002). Additionally, caches serve as an essential component in the life cycle of structures: animation (birth), deanimation (death), and sometimes reanimation (rebirth). Dedication rituals served to animate new structures, whereas termination rituals deanimated them (Lucero 2008, 2010).

The ancient Maya participated in a tradition of interring ritual deposits into previous phases of construction, including plaza floors. Because of their location, these caches are largely invisible to archaeologists and are mostly discovered through excavation. The interment of caches frequently accompanied the construction of new phases of architecture, such as the remodeling, repair, and expansion of a structure or plaza. The construction and modification of these buildings served as ritual activities and forms of commemoration that corresponded to the sacred place and the maintenance of social memory. They also promoted legitimate claims to the sacred place.

Ritual caches were commonly placed in several contexts—public plazas, plazas with restricted access, and ceremonial structures—and were occasionally placed in domestic buildings. They were offered and interred to serve a wide variety of ritual traditions, customs, and practices (Kunen et al. 2002). Although there is some overlap between ceremonial and domestic caches in the selection of artifacts and their associated functions, ceremonial deposits were generally more elaborate and often served to sanctify the ritual place (Chase and Chase 1998). Archaeologists have identified certain caches as representing an ideational landscape (Brown and Garber 2008) and as linking the external world with the underworld to establish pathways of sacred place (Chase and Chase 1998). Caches and offerings placed in monumental architecture also served as acts of dedication to the ancestors and imbued life into the structure (Brown and Garber 2008; Lucero 2010; Stanton et al. 2008).

Social memory can be a useful tool to examine monumental architecture and the caches placed within them over an extended period of time. More recent research has focused on caches and their role in long-term memory (Kunen et al. 2002; Schwake and Iannone 2010) and in selective memory (Collins 2023).

Termination rituals associated with the ancient Maya can also be viewed through the lens of social memory. A termination ritual deposit was the intentional destruction of architecture, ceramics, and material goods, and it often incorporated burned and broken objects. A termination ritual occurred when a building was (1) first constructed, (2) periodically reanimated, (3) experienced a new phase of architecture, or (4) ritually abandoned (Rice 2009; Stanton et al. 2008). These ritual offerings contained whole, broken, or burned artifacts that were typically located in buildings. The act of ritual burning was an important ritual activity and component in the cycle of death and rebirth for a structure and was carried out on cache objects, floors, specific architecture, or the entire building (Chase and Chase 1998).

Termination rituals have been understood to be the symbolic killing of architecture or objects as reverential acts that simultaneously end and dedicate a particular phase of architecture and as desecrating acts associated with conflict and warfare (Brown and Garber 2003; Pagliaro et al. 2003; Rice 2009). Additionally, they can serve to destroy or restore social memories associated with architecture and provide respect to a structure's dynastic and ancestral memory (Stanton and Magnoni 2008). I primarily use the term "termination ritual" to describe the final ritual activities conducted on architectural structures, thereby providing better insight into the range of rituals conducted by the ancient Maya.
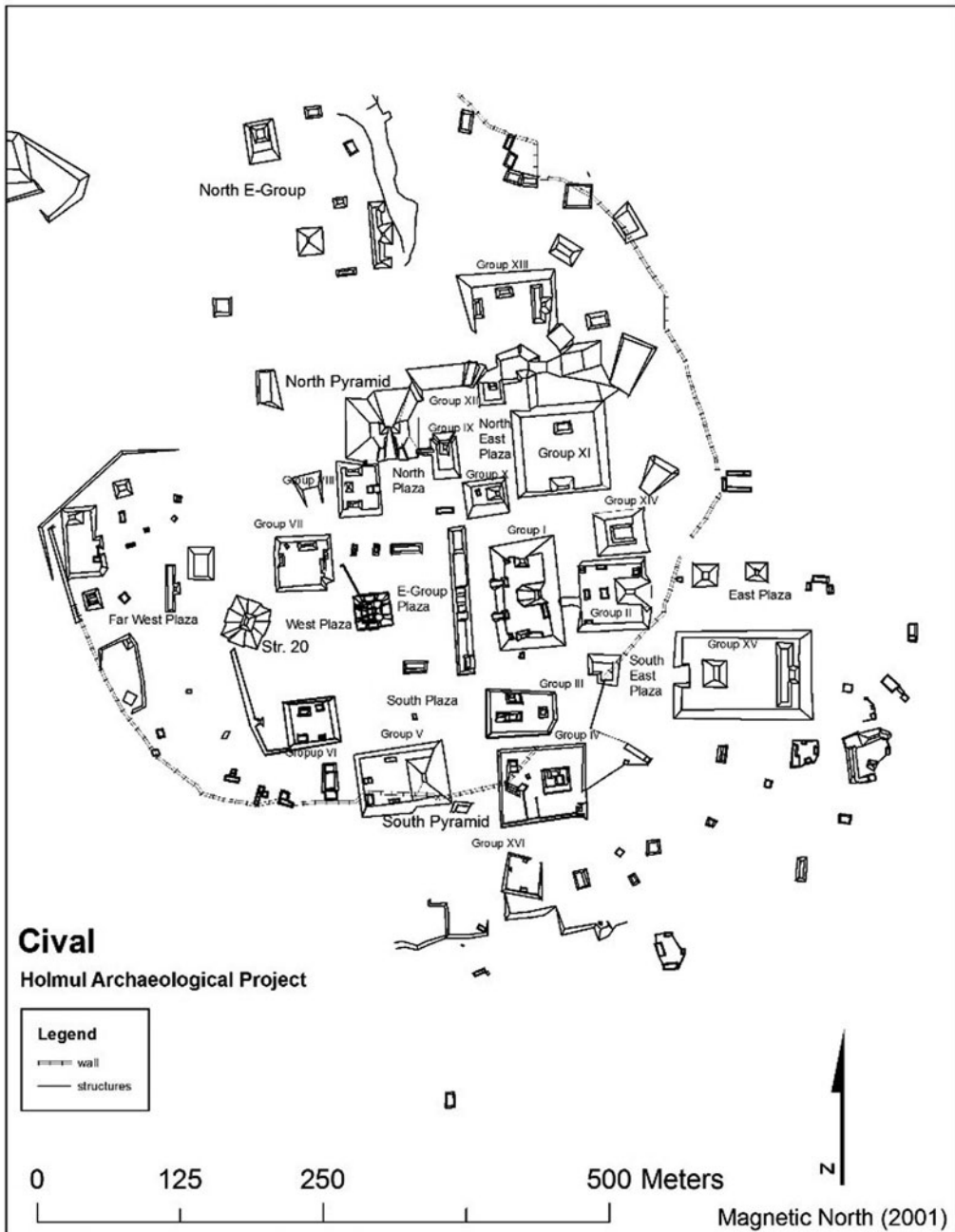
Figure 2. Map of Cival (drawn by Francisco Estrada-Belli, Holmul Archaeological Project).

Memory and the Central E Group at Cival

Cival was a Preclassic period ancient Maya ceremonial center that flourished between about 800 BC and AD 300 (Figure 2). It is in the northern Peten region of Guatemala along the border with Belize. The ceremonial center was established on a modified hill and is situated near multiple large *civales* (perennially wet marshes) and two large *bajos* (swampy depressions). It is in walking distance to the Holmul River (Estrada-Belli 2011) and is 45 km east of Tikal. Before 900 BC, the land surrounding Cival was inhabited by seminomadic and sedentary, sparsely distributed agriculturalist groups

(Estrada-Belli 2016). By 850–800 BC, the site experienced its first phase of monumental construction, which included the massive project of modifying the land to create a level area of 500 m^2 between two hills. The creation of this leveled surface required laborers to fill in the area between these two hills with an average of 4–7 m of material that consisted of boulders, dirt, and smaller rocks (Estrada-Belli 2011). This task could only be conducted by a population dispersed in a wide region surrounding Cival, well beyond the surrounding small hilltop villages. Eventually, these nearby communities began to construct two platforms, known as Structure 7 and 9, in the soft limestone bedrock; these platforms were located on either side of a large plaza and were arranged along an east–west axis (Estrada-Belli 2011). They formed the first and central E Group complex at Cival.

E Groups are an architectural pattern found in the Maya Lowlands that contain a western radial pyramid, a central public plaza, and an eastern elongated platform aligned along an east–west axis. During the Middle and Late Preclassic periods, E Group plazas served a significant role as early ceremonial centers in the Maya Lowlands (Ahern 2020; Estrada-Belli 2011, 2017; Freidel et al. 2017).

Both structures of the Central E Group were placed on top of modified hill knolls that were carved into the natural rise in the bedrock (Estrada-Belli 2004, 2011, 2014). Their specific positions on these knolls may indicate that the platforms were viewed as integral parts of the natural landscape (Estrada-Belli 2004, 2014). Given that the later phases of expansion for Structure 7 and Structure 9 were built directly over the initial platforms, it is likely that these new stages of construction were designed to symbolically link with the earlier structures. This deliberate choice in continuing to build over previous phases of architecture demonstrated the importance of preserving and renewing social memory and sacred place for more than 1,200 years.

The Central E Group Plaza remained the same size throughout all the construction phases, even as Structure 7 and 9 were frequently enlarged (Ahern 2020; Estrada-Belli 2014); this indicated the significance of maintaining its original boundaries. It also highlights the original dimensions of the plaza as having been fixed at inception and remaining an immutable aspect of the sacred place. Preservation of the original plaza size required that each structural renovation partially mutilate the previous phase of construction to prevent any outward expansion onto the Central E Group Plaza. For Structure 9, this restricted growth was only limited to its eastern side and resulted in multiple phases being built directly on top of each other.

Excavations at Cival's Central E Group revealed evidence of a plethora of rituals in both the plaza and Structure 9. The next subsection briefly highlights previously documented findings in the plaza to provide a better understanding of the newer discoveries associated with Structure 9. These rituals demonstrated how the complex was an elaborate display of place-making and essential locale of social memory that remained significant throughout the site's history.

Central E Group Plaza

One of the clearest examples of a ritual cache that ties together the theories of sacred place and social memory is the Middle Preclassic period cruciform cache discovered in the Central E Group Plaza at Cival. Similar cruciform caches have been identified at Ceibal (Inomata 2014; Inomata and Triadan 2015; Smith 1982) and at Middle Formative Chiapas sites like San Isidro and La Venta (Drucker et al. 1959; Lowe 1981). The Cival cruciform cache was spatially arranged into a cruciform pit with four tiers that were carved into the soft bedrock of the plaza. It contained 114 greenstone pebbles, five jars, four greenstone celts, and a single green-blue jadeite celt (Estrada-Belli 2006, 2011; Morgan and Bauer 2004). During the final act of this ritual, the five jars were smashed, and the liquid inside them filled the cache. Afterward, the plaza and deposit were coated in a layer of plaster, and a wooden post was erected above the offering (Estrada-Belli 2011).

Francisco Estrada-Belli (2006) provides a thorough interpretation of the cruciform cache and its connection to early political ideology. In particular, he discusses the cache as representing the quadripartite shape of the Maya universe and its axis mundi. The ancient Maya perceived their world as containing a horizontal division that was composed of four quarters and a center (Ashmore 1991; Chase and Chase 1998; Coggins 1980; Houston 1998). Thus, the arrangement of the five jars and five greenstone celts in the cruciform cache represented this quadripartite division. The interment

of the cache was part of a ritual event that centered the ancient Maya universe and the site of Cival around the cruciform cache. This offering was placed along the centerline of the plaza and was positioned in front of the eastern elongated platform of Cival's Central E Group complex. This act of ritual centering in the initial deposition of this extraordinary cache, along with repeated ceremonial activity conducted at the plaza, transformed it into a sacred place and an essential locale for maintaining and transforming social memory.

The Central E Group Plaza continued to be ritually recentered throughout the site's history with the interment of additional caches and the placement of stelae. There were five ritual deposits placed in proximity to the cruciform cache between 850 BC and AD 150 (Estrada-Belli et al. 2003; Morgan and Bauer 2004). Despite the substantial time difference between the interment of these deposits, they were all placed within 1 m of each other. Continued ritual activity in the plaza indicated that the sacredness of the place was preserved though social memory. The ritual act of centering even extended to the site layout of Cival. During the early Late Preclassic period, new construction continued to center, both literally and symbolically, the Central E Group Plaza with the erection of four new pyramids positioned in the four cardinal directions around the complex (Estrada-Belli 2011).

Rituals, Caches, and Structure 9

Structure 9 was one of the first monumental structures erected at Cival, and it was the most prominent building of the Central E Group complex. Between 2013 and 2014, excavation units were opened on its east and north sides halfway up Structure 9. Additionally, a tunnel was dug into the pyramid along the centerline of the eastern side. These investigations revealed five major phases of development. At its final stage, it was a radial pyramid with a height of 18 m (Estrada-Belli 2011).

Construction of Structure 9 began by stripping the topsoil and carving the natural limestone bedrock. This modified bedrock sloped upward to approximately 1.5 m in height and was coated in a thin layer of lime plaster. It also had secondary notches carved into it, which may have served as steps. Structure 9 was next transformed into a radial pyramid that was greater than 2 m in height and had at least six terraces (Estrada-Belli 2014). The pyramid underwent its largest expansion in its third phase of construction, which dated to the beginning of the Late Preclassic period. During the fourth and fifth stages, it was a radial pyramid that had at least two masks on each side of the structure. My investigation focuses on the fourth and fifth phase of construction because they contained several caches and evidence of termination rituals.

Fourth Phase of Structure 9. In 2013, the east side of the pyramid was excavated. Investigation into the fourth phase of Structure 9 revealed a heavily mutilated mask and floor that contained evidence of fire damage (Calvo 2014). An emptied cache was located to the west of the mask. During 2014, the fourth phase of construction was examined again, but this time the excavation unit was on the north side of the structure. It revealed another mask that was burned and completely destroyed (Figure 3). Based on the destruction on the east and north sides, it was concluded that both masks were severely mutilated to make room for the fifth phase of construction (Ahern and Colindres Díaz 2015).

A cache was discovered in a circular cut located on the east side of the structure, measuring approximately 1.5 × 1.0 m. The offering contained a small intact ceramic bowl, which held a small greenstone bead (Figure 4). Toward the north side of the cut was found a 0.75 × 0.75 m hexagonal slab that had a hole in the center of it. Once the slab was removed, it revealed a vertical shaft that was full of loose dirt and ceramic fragments; this shaft extended approximately 3 m down through several phases of architecture to the first construction phase of Structure 9 (Calvo 2014). The bottom of the cache was several meters south of the pyramid's center line, which meant that the 2013 tunnel into Structure 9 had missed it. At the base of the deposit was a leveled bedrock surface that had a line of limestone blocks measuring 40 cm in height along its western edge, with an orientation of 305° (Figure 5). To the east was a carved depression in the bedrock, which potentially served as part of a foundation ritual (Calvo 2014); it was later emptied.

Fifth Phase of Structure 9. The fifth phase of construction was also uncovered in both 2013 and 2014. During the field season of 2013, a heavily eroded and mutilated mask was discovered on the
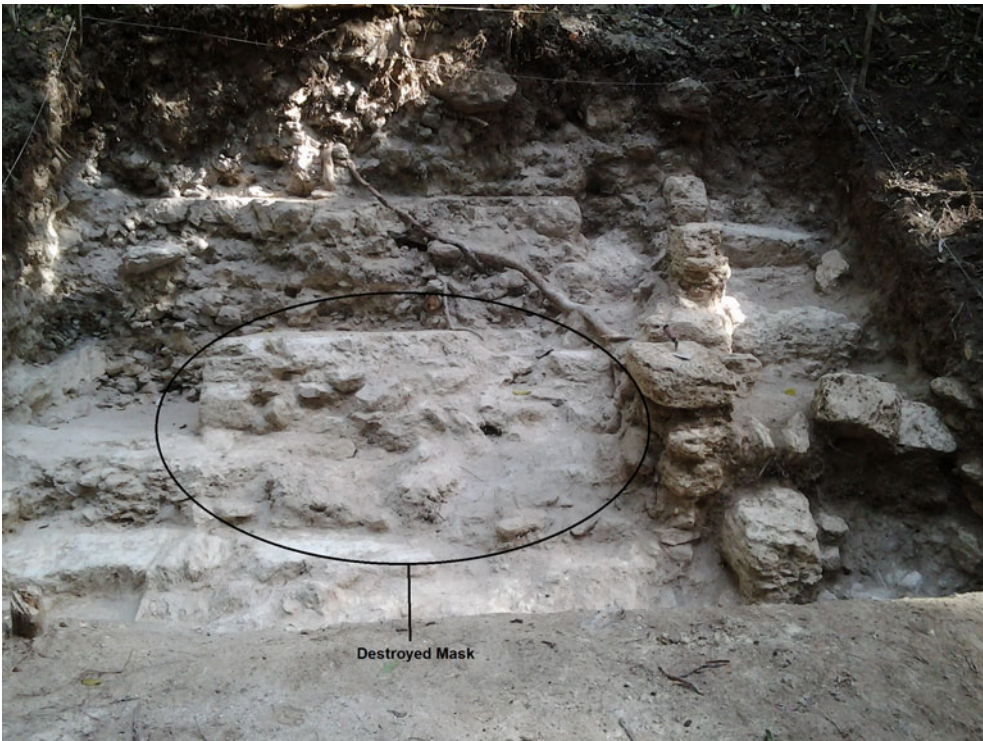
Figure 3. Destroyed mask on the north side of the fourth phase of Structure 9 (photograph by Kaitlin R. Ahern).
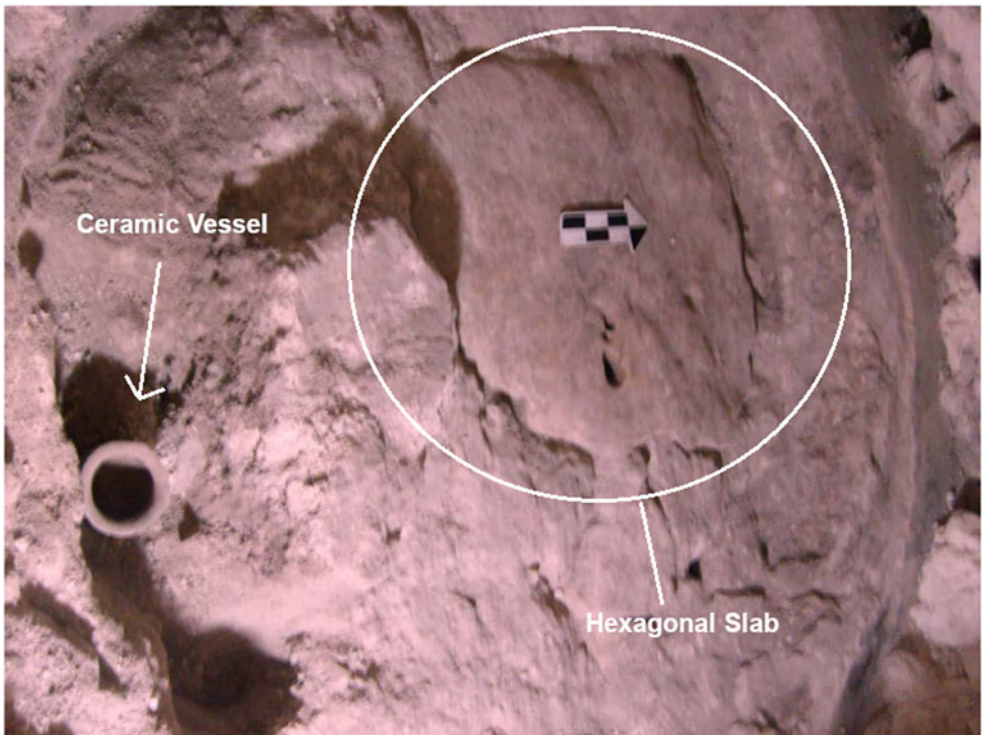

Figure 4. Circular cut in the floor of Structure 9, associated with Cache 93 (photograph by Josué Calvo, Holmul Archaeological Project).
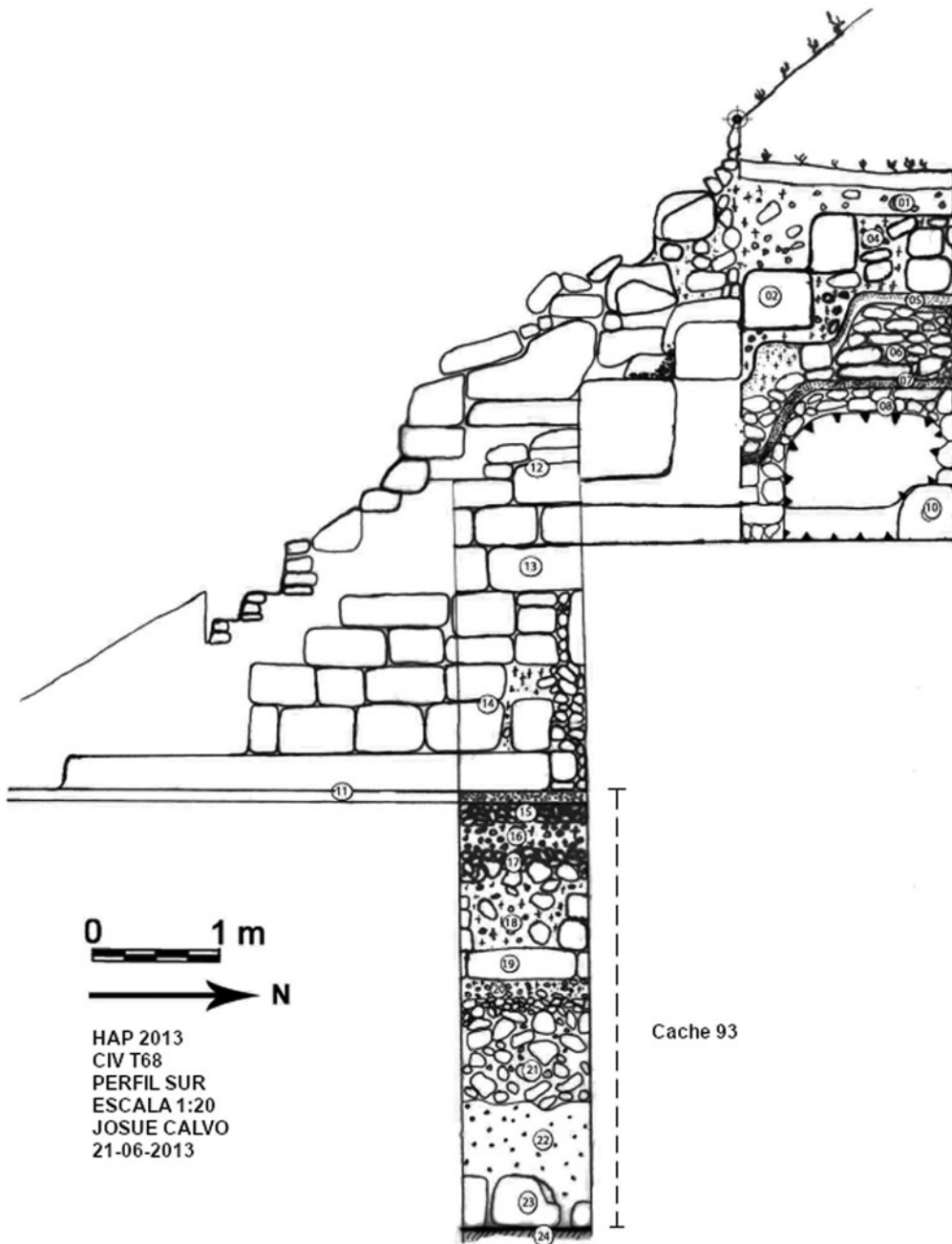
Figure 5. South profile of Structure 9, showing the location of Cache 93 (drawing by Josué Calvo, Holmul Archaeological Project).

east side of the structure (Figure 6). Both the floor and the stucco covering the mask were burned (Calvo 2014). Two caches were discovered near the remains of the mask. The first deposit was found next to a retaining wall and consisted of two poorly preserved human bones, two teeth, and the fragments of a plate. It was concluded that the bones were part of the dedicatory offering, rather than a burial (Estrada-Belli 2014). The second cache was found in a cut in the floor; it contained charcoal, several burned and broken ceramics, a ceramic bead, and four greenstone beads.

Figure 6. Destroyed mask on the east side of the fifth phase of Structure 9 (photograph by Kaitlin R. Ahern).

In 2014, the excavation unit on the north side of Structure 9 uncovered a weathered mask of the ancient Maya god Chaak (Figure 7). Despite heavy erosion, enough of the mask remained to reveal a shell-shaped ear and long nose, diagnostic traits of the Preclassic rain deity (Estrada-Belli 2017). A potential cache was located 1 m to the left of the mask, but due to time constraints, it was left unexplored. On both sides of the northern mask were a set of stairs, and the whole unit had been burned by fire. Surprisingly, after ritually burning the mask, stairs, and floor, the ancient Maya began to carefully stack 3 m of stones around the mask and adjacent architecture (Ahern and Colindres Díaz 2015). This preservation served to protect the mask and allowed the ancient Maya to begin a new phase of construction only 1 m above the previous architecture.

After this intentional act of preservation, the ancient Maya destroyed the lower half of the fifth phase of Structure 9. Additionally, a vertical cut was made 1 m to the north of the mask, penetrating

Figure 7. Chaak mask on the north side of the fifth phase of Structure 9 (photograph by Kaitlin R. Ahern).

down to the fourth phase of construction. This intentional destruction, which was only found on the north side of the structure, served to create more space for future construction (Ahern and Colindres Díaz 2015). The discovery of several makeshift steps may indicate that work began on building a sixth phase for Structure 9, but it was never completed.

Discussion

Interpretation of Cache 93

The construction history of Structure 9 provides additional insight into the ceremonial rituals that occurred in Cival's Central E Group complex. The vertical cache discovered in the fourth phase of Structure 9 is particularly intriguing. No formal name was given to this cache, but I refer to it here as "Cache 93" because it was the third cache found on Structure 9. It is theorized that the ancient Maya dug down through several architectural phases to recover a cache item from the carved depression in the otherwise level bedrock associated with the initial phase of construction. This act implies extensive memory and remembrance, given that the two phases were separated by approximately 780 years.

After completing this ritual, the shaft was filled with loose dirt mixed with Middle Preclassic period ceramics and sealed with a stone slab that only partially covered the cut in the floor (Calvo 2014). Finally, a small ceramic bowl containing a single greenstone bead was placed on top of the cut. Other examples of social memory from Cival's Central E Group complex were the six ritual deposits placed in the plaza between 850 BC and AD 150 (Estrada-Belli et al. 2003; Morgan and Bauer 2004). All six caches were placed within a meter of each other along a vertical axis and included the cruciform cache.

The interment of caches was a ritual activity that served to create place and solidify and alter social memory. Because these ritual offerings were subsequently covered by a new floor or phase of

architecture, caches were physically invisible, and their specific location only existed in the memory of the community, which was passed down through oral tradition and ceremony. Additionally, the site and the specific ritual practices associated with the placement of these caches were potentially part of a body of knowledge kept by elite religious specialists (Inomata 2014). Together, Cache 93 and the multiple caches within the plaza provide an example of how the physical placement of certain deposits was remembered for hundreds of years.

A similar set of caches was found by Sonja Schwake and Gyles Iannone (2010) during their examination of the site of Minanha in Belize. Their excavations focused on Structure 3A at Minanha where they discovered three termination and dedicatory caches deposited during three phases of construction. Located between stone monuments and a building, these caches were directly positioned on the same vertical axis, despite having plenty of fill located between them and being temporally separated by a range of 425–750 years (Schwake and Iannone 2010). Additionally, it is believed that the material remains within the caches functioned to create a material connection between all three ritual events. Thus, like Cache 93 in Structure 9, these three caches represented an example of long-term social memory that Schwake and Iannone (2010) consider to be a feat of memory.

A comparable discovery was made at Structure 3-F-10 at the site of La Caldera in Belize (Kunen et al. 2002). This find was a 2 m deep vertical cache positioned above a large capped pit, which also contained a ritual deposit. The pit was carved into the bedrock and filled in with cultural material before it was sealed. It was, however, not located along the central axis of the structure. Toward the end of the Late Classic period, the vertical cache was filled in with 2 m of cultural material that contained three human interments. Julie Kunen and colleagues (2002) theorized that the ritual deposits and the pit formed a vertical axis that represented a locus of ritual. They proposed that the vertical axis symbolized the connection between the upper world, the terrestrial world, and the underworld. This finding highlighted the ritual importance of vertical axes and provided an additional explanation for Cival's Cache 93 in Structure 9.

These two examples were used in comparison to Cival because they were also arranged along a vertical axis and displayed active remembrance in their placements: each vertical cache provided a connection between the sacred place and social memory that spanned hundreds of years. The placement of these deposits also served to create ritual pathways where the supernatural world overlapped with the natural world. Additionally, Cache 93, the Central E Group plaza caches at Cival, and the comparable findings at Minanha and La Caldera illustrated the intergenerational nature of social memory.

Preservation and Mutilation of Structure 9

Despite the differences in the ritual caches discovered in Structure 9, each accompanied the termination of a specific phase of architecture. Both the fourth and fifth phase of construction contained masks on the east and north sides of Structure 9. The final events associated with the fourth phase of construction included mutilation of the architecture and the placement of Cache 93. The mask on the east side was heavily mutilated, whereas on the north side, the mask was completely destroyed. At the end of the fifth phase, the structure was ritually burned and experienced selective acts of preservation and destruction. The mask on the east side of Structure 9 was again heavily mutilated and ritually burned. On the north side, the Chaak mask and adjacent stairs were carefully preserved but burned, whereas portions of the structure below the mask were completely destroyed. Additionally, there were at least two dedicatory or termination caches associated with the fifth phase.

This puzzling combination of preservation and destruction associated with the fifth phase of Structure 9 was likely connected to a reverential practice. Although the ancient Maya destroyed a portion of the fifth phase and mutilated the mask on the eastern side of Structure 9, they also took great care to prevent any further destruction to the northern mask and its adjacent staircases after they were ritually burned and terminated. A similar act of selective destruction and preservation occurred on the San Bartolo murals at Sub-1A within the Las Pinturas architectural complex during the Late Preclassic period. Later construction led to the ritual destruction of the murals only on the east and south walls.

Portions of the destroyed murals were preserved and deliberately placed in the construction fill and cached (Hurst et al. 2008).

The rituals associated with both phases of Structure 9 resemble termination rituals because they corresponded with the end of an architectural phase. The deliberate mutilation found on the eastern side of Structure 9 was not intended to eliminate the sacredness imbued in the structure but instead to serve both a ritual and practical purpose. It is apparent that maintaining the initial size of the Central E Group plaza and the eastern edge of Structure 9 was more important to the preservation of the sacred place and social memory at Cival than the destruction of sections of the pyramid. It is less clear why the northern side of the structure also experienced deliberate mutilation, because excavation revealed that there was little outward growth of the pyramid along its northern side between the fourth and fifth phases of construction (Ahern and Colindres Díaz 2015). It is possible that during the Late Preclassic period, there was a decision to maintain the current size of Structure 9. This act was part of a reverential ritual and was likely tied to the preservation of the pyramid as a sacred place, rather than to a lack of resources.

It is significant that the ancient Maya residents of Cival chose to preserve the northern mask in the fifth phase of architecture, especially after mutilating the earlier masks. This mystery is even more fascinating when considering the broader context of Cival. Between AD 150 and 300, the city experienced conflict, which was part of a larger pattern of political and population collapse across the Maya area during the Terminal Preclassic (Inomata, Triadan, et al. 2017). This conflict drove the residents of the city to build a wall with stone taken from nearby structures. The wall formed three-quarters of a circle around the site clockwise from north to southwest and measured 2 m in height (Estrada-Belli 2011). Interestingly, it only incorporated the monumental core of the city and the largest elite residential groups. The Central E Group was located in the center of the enclosed area, which showed that it continued to be the ceremonial core of the site. Estrada-Belli (2011) proposed that the residents of Cival were attacked while constructing these defenses and may never have completed the wall. Evidently, the city was raided, and it is possible that this event coincided with the burning of the masks on the fifth phase of Structure 9. It is also plausible that the eastern mask was mutilated by the invaders during this raid.

In the years following the conflict, the ruler and elites of Cival began the final phase of construction on the Central E Group complex (Estrada-Belli 2011). Thus, the preservation of the northern mask on the fifth phase of Structure 9 was likely a direct attempt to reestablish a connection with Cival's monumental past after a disruptive event. If the eastern mask had been damaged by the raid, it is possible that the residents decided to terminate it, rather than preserve it. The elite selected the Central E Group complex because of its political and religious significance dating back to the site's formation.

The sixth phase of the Central E Group complex was not well constructed, and the renovation of Structure 9 was never finished, which indicated that the elite did not possess the same level of power they had before the conflict. The last of the six plaza caches was ritually deposited in the Central E Group plaza at this time (Estrada-Belli 2011), which may have served to reestablish the complex as a sacred place of social memory. This attempt to rejuvenate Cival was mildly successful: the site remained occupied for approximately another 100–200 years. However, the size of the population begun to diminish around AD 250 as the nearby ceremonial center of Holmul was gaining prominence. When Cival was completely abandoned around AD 300, the city of Holmul was flourishing under a Teotihuacan-affiliated dynasty (Estrada-Belli et al. 2009).

Preclassic Rituals in the E Group Complex

Most of the information on rituals associated with Preclassic-period E Group complexes comes from the excavation of plazas (Estrada-Belli 2006, 2017; Inomata and Triadan 2015; Inomata et al. 2013). These offerings or caches found in various E Group plazas included ceramics, obsidian, greenstone, and other precious materials. During the Middle Preclassic period, cruciform caches were carved into the bedrock with greenstone artifacts placed inside and were situated along the east–west axis of E Group complexes at the ancient Maya centers of Cival (Estrada-Belli 2011) and Ceibal (Inomata 2014; Inomata and Triadan 2015; Smith 1982). The site of Cival contained a single cruciform

cache. Middle Preclassic rituals in the E Group plaza at Ceibal included multiple cruciform caches carved into the bedrock (Inomata and Triadan 2015), and caches consisting of greenstone and obsidian artifacts were frequently positioned in a cruciform arrangement (Aoyama et al. 2017). Occasionally burials and ceramics were interred into Middle Preclassic period E Group plazas. Both the plazas at Chan and Xunantunich contained burials dating to this period (Brown 2017). Chan also had five over-lapping caches placed in the center of the plaza, which contained obsidian, ceramics, shell, and green-stone (Kosakowsky et al. 2012). Ceramic caches were identified at Cival (Estrada-Belli et al. 2003; Morgan and Bauer 2004) and Yaxuná (Collins 2023).

By the end of the Middle Preclassic period, the type of offerings left in specific E Groups assemblages shifted from greenstone caches to sacrificial burials and deposits of ceramics and obsidian, as seen at Ceibal (Aoyama et al. 2017; Inomata, Pinzón, et al. 2017). Mass graves consisting of sacrificed individuals and placed in E Group plazas were identified at Ceibal (Inomata, Pinzón, et al. 2017), Tikal (Laporte and Fialko 1995), and Uaxactún (Aveni et al. 2003). Late Preclassic ceramic caches were also deposited in the western radial pyramid and eastern elongated structure, as seen at Cahal Pichik and Hatzcap Ceel (Thompson 1931) and at Caracol (Chase and Chase 1995, 2006).

The excavations at Cival on the eastern side of Structure 9 revealed several ceramic caches associated with both the fourth and fifth phases of construction. One of these caches was Cache 93, which connected the fourth stage to the first phase of construction. The 2013 excavation of the eastern side of Structure 9 also identified the intentional mutilation of previous phases of construction with the goal of preserving the initial plaza size. Previous excavations at Cival had revealed similar mutilation on the eastern elongated platform of the Central E Group complex. A similar phenomenon occurred at the site of Chan: excavations focusing on the western radial pyramid of the site's E Group complex identified deliberate mutilation across several phases of expansion that continued until the Late Classic period. The mutilation at Chan only occurred on the eastern side of the western radial pyramid and involved the removal of facade and staircases (Robin 2017). This discovery differs from that at Cival, because at Chan, the eastern elongated platform continued to expand into the E Group plaza.

Conclusion

Excavations conducted at the Central E Group complex at Cival have revealed a wealth of information regarding its extensive ritual and ceremonial use. The cruciform cache and repeated caching found in the Central E Group plaza demonstrate its importance as a sacred place and site of social memory. This new research on Structure 9 reveals that these sacred elements extended throughout the Central E Group complex. Cache 93 consisted of a ritual offering on a stone slab that covered a vertical shaft connecting the fourth phase of construction with the original structure. The discovery of an empty carved depression at the bottom of the cache indicates that Cache 93 likely involved the recovery of a ritual deposit from the initial phase of Structure 9. Together, Cache 93 and the six caches in the plaza demonstrate the extensive intergenerational memory associated with the Central E Group complex.

Both the fourth and fifth phases of Structure 9 experienced termination rituals that involved ritual burning and the mutilation of architecture. Interestingly, the ritual activity associated with the fourth architectural phase served both to terminate the structure and to limit the outward growth of the pyramid. This restriction was particularly important on the eastern side of Structure 9 because it maintained the initial size of the Central E Group plaza, given its role as a sacred place. The termination rituals associated with the fifth phase of Structure 9 involved both ritual destruction and the preservation of certain architectural features. Together these ritual practices demonstrated that the Central E Group complex served as a sacred place and hub of social memory for more than 1,000 years.

Data Availability Statement. All data are available in the published sources cited within. Project reports for the Holmul Archaeological Project are available at https://liberalarts.tulane.edu/mari/research-education/holmul/research.

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