



Figure 1. Olmec-style figurine head from Cache 125.

Maya Archaeology Reports

## Middle Preclassic Caches from Ceibal, Guatemala

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The lowland Maya site of Ceibal (also spelled Seibal), Guatemala, is well known for the landmark exploration conducted by Harvard University from 1964 through 1968 (Sabloff 1975; Willey et al. 1975). Harvard researchers recognized that there was substantial Preclassic occupation at the site. However, their investigations focused primarily on the Classic-period buildings, and Preclassic layers remained largely unexplored (Tourtellot and Hammond 2007; Willey 1990). We initiated the Ceibal-Petexbatun Archaeological Project in 2005 to reexamine this important site, focusing on the Preclassic period.

Our working hypothesis was that Ceibal was established as a ceremonial center at the beginning of its occupation with a spatial plan similar to those of contemporaneous Chiapas centers. Following Gareth Lowe (1977, 1989) and Andrew McDonald (1983), John Clark (Clark and Hansen 2001) has pointed out that a standardized spatial plan which he called the Middle Formative Chiapas (MFC) pattern was shared by

various Chiapas centers, including Mirador, Chiapa de Corzo, Finca Acapulco, San Isidro, Ocozocoautla, and La Libertad in the Grijalva River basin, as well as Tzutzuculi on the southern Pacific Coast (see map, page 7 of this volume). Lowe and Clark have also noted a similar spatial pattern at La Venta, and suggested that the standardized plan originated from this Olmec center. The center of a MFC pattern was marked by an E-Group assemblage consisting of a square or round pyramid on the west and an elongated mound on the east, and large platforms which may have supported elite residences were arranged along the north-south axis of the E Group. Excavations at San Isidro and Chiapa de Corzo have shown that numerous caches with greenstone axes and other objects were placed along the east-west axis of the E-Group assemblage at some MFC centers (Bachand and Lowe 2012; Lowe 1981). At La Venta, numerous caches with greenstone axes, jade ornaments, and other artifacts have been uncovered in its Complex A; its probable E-Group assemblage is mostly

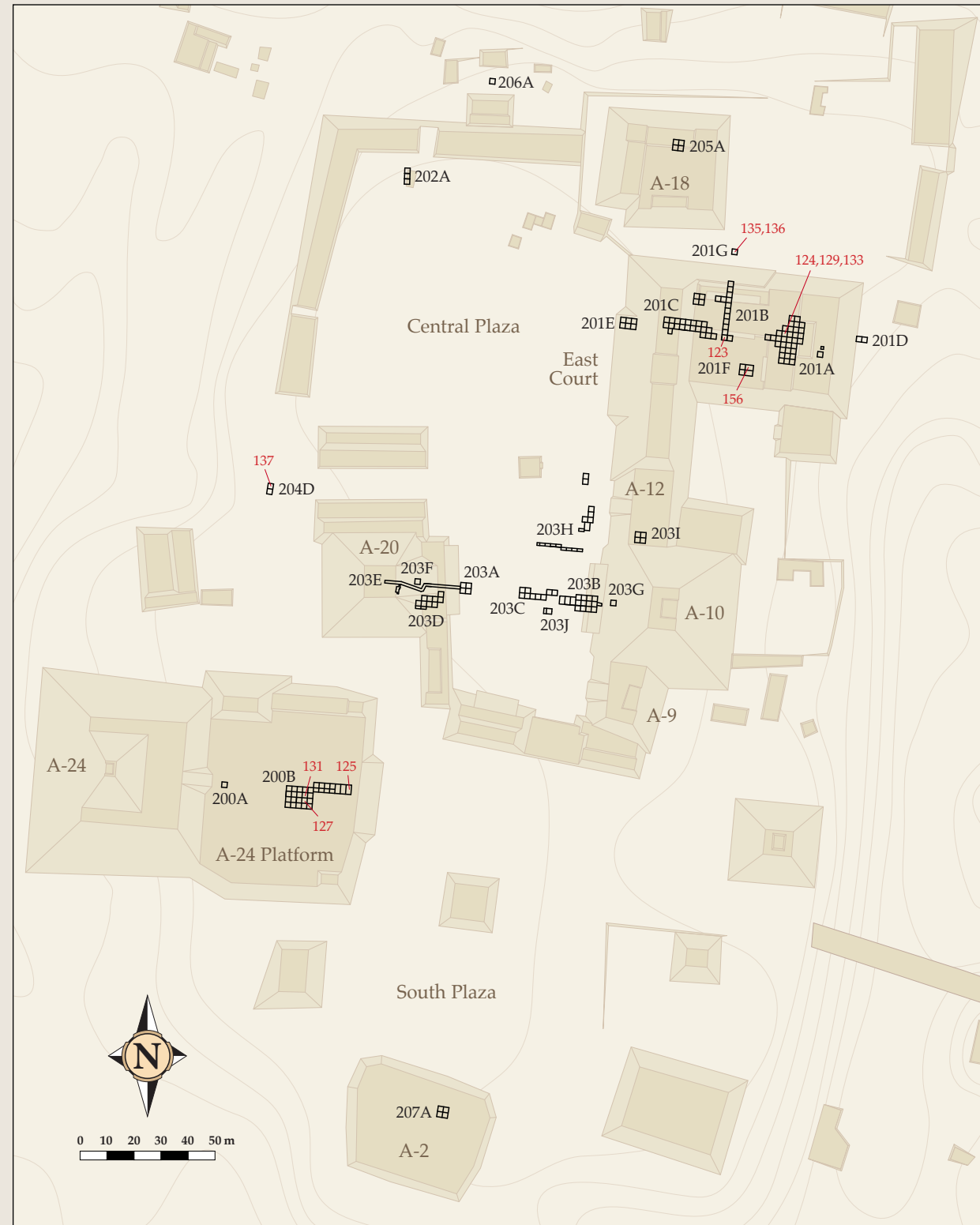


Figure 2. Map of Group A, Ceibal, with the locations of operations (black) and caches (red). See Figure 2 for a close-up of the central part.

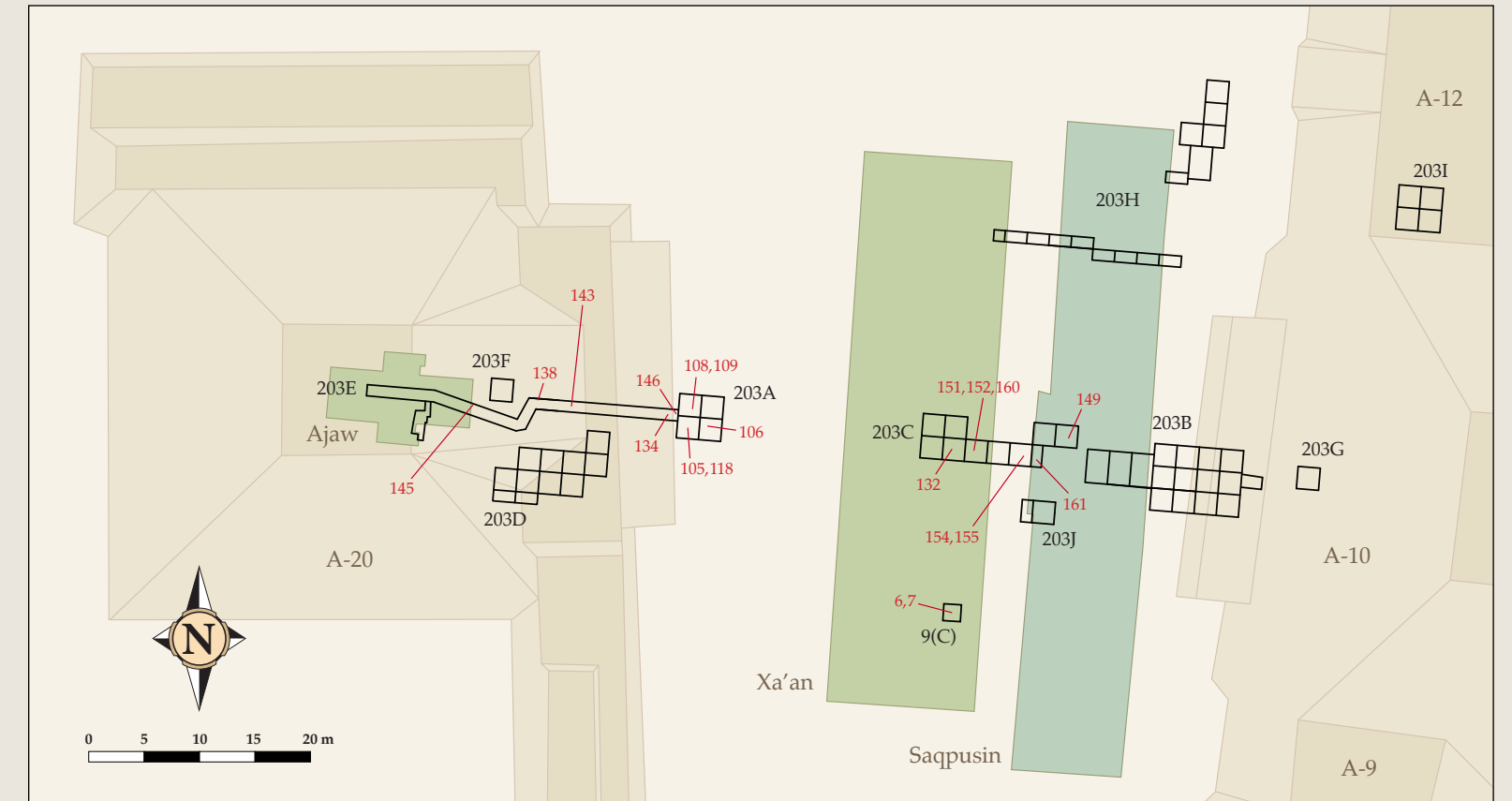


Figure 3. Map of the E-Group plaza, Group A, Ceibal, with the locations of operations (black) and caches (red). Structures Ajaw and Xa'an constitute the original version of the E-Group assemblage dating to the Real 1 phase (1000–850 BC), and Structure Saqqusin is the Real 3-phase (800–700 BC) version of the eastern building.

unexplored (Drucker 1952; Drucker et al. 1959). At Ceibal, the discovery of Caches 6 and 7 with greenstone axes in the southern part of the E-Group plaza by the Harvard team suggested that there might be more caches in this ceremonial space (Smith 1982:242–243).

To examine the presence of comparable deposits and the development of a MFC pattern in Group A of Ceibal, our excavations focused on the east-west axis of the probable E-Group assemblage (consisting of Structures A-9, A-10, A-12, and A-20) and on large platforms (Figures 1–3). As expected, the excavations revealed numerous ritual deposits and have shown that the beginning of occupation at Ceibal and its MFC construction date to around 1000 or 950 BC (Inomata et al. 2013, 2015). This date appears to be earlier than the development of La Venta as a major center. The MFC pattern and associated ritual practices probably developed through close interactions among diverse groups in what may be called the Isthmian Interaction sphere, including the southern Gulf Coast, Chiapas, the southern

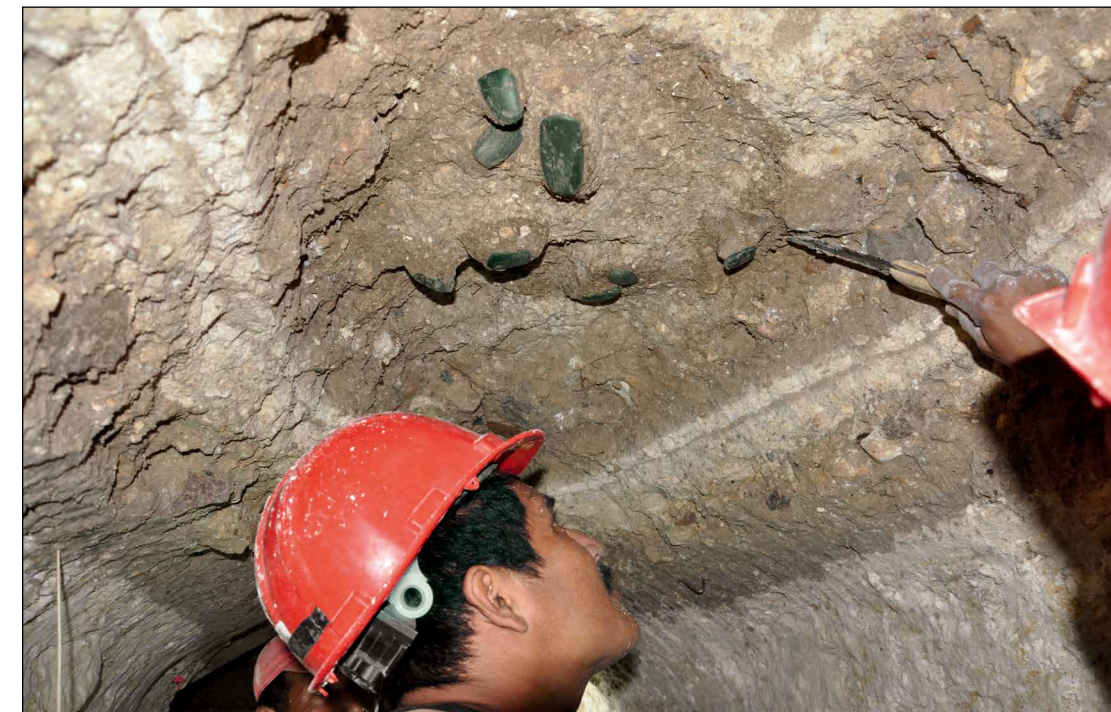
Pacific Coast, and the southwestern end of the Maya lowlands. Ceibal was not a passive recipient of influence from La Venta and Chiapas, but an active contributor to the development of a new social order reflected in the standardized spatial plan.

The following discussion is based on a refined chronology of Ceibal, in which the early Middle Preclassic period is subdivided into three phases: Real 1 (1000–850 BC), Real 2 (850–800 BC), and Real 3 (800–700 BC), and the late Middle Preclassic into Escoba 1 (700–600 BC), Escoba 2 (600–500 BC), and Escoba 3 (500–400 BC). In our excavations, floors were numbered sequentially in a reverse chronological order in each suboperation or within a set of units, and floor numbers in different areas do not necessarily correspond with each other. In this paper, we focus on Middle Preclassic caches found in Group A during the first phase of the Ceibal-Petexbatun Project (2005–2012); burials with human remains, caches from later periods, and those found outside of Group A are described in separate publications (Inomata 2014; Palomo 2013).





**Figure 4.** Operations at Ceibal: (this page) Operation 203B in the western part of the E-Group plaza, viewed from the west, with the back wall and ramp of Structure Xa'an and the front face of Structure Saqpusin visible; (facing page, top) area to the east of Structure Xa'an and underneath the fill of Structure Saqpusin in Operation 203B after excavators turned Monument 1; (facing page, bottom) excavation of Cache 143 in the tunnel dug into Structure A-20 (Operation 203E).



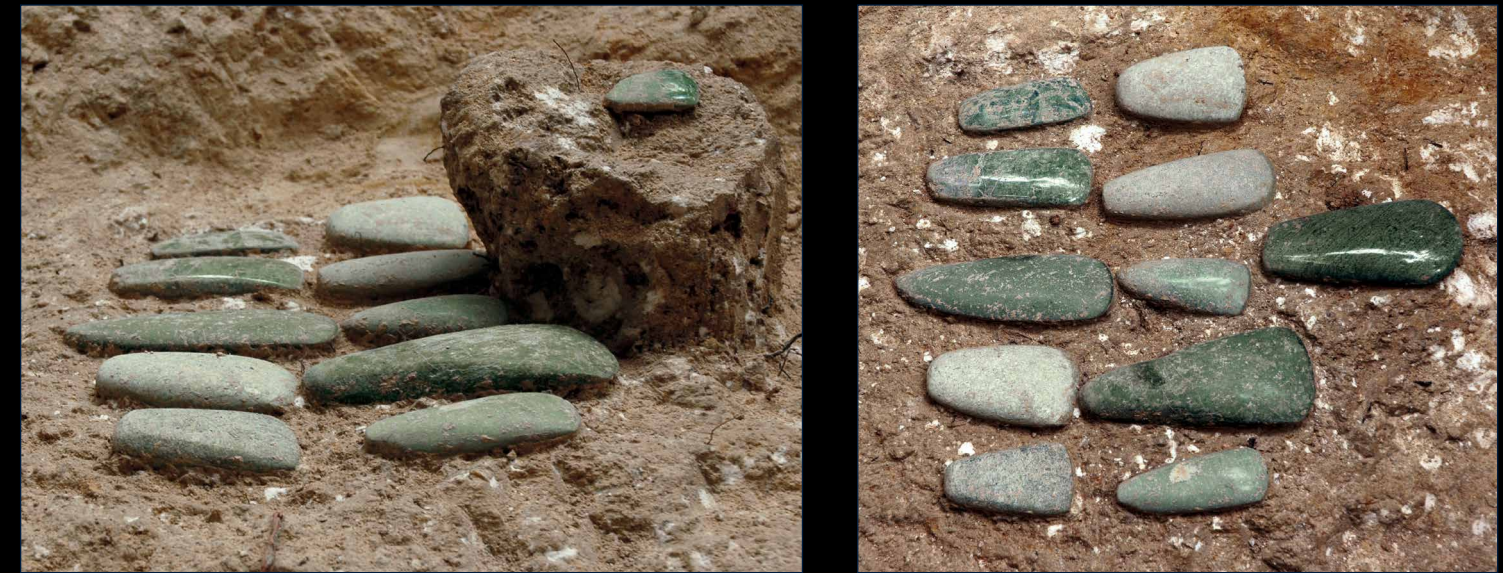


Cache no. (lot) phase	Catalog no.	Artifact type	Length (cm)	Width (cm)	Thickness (cm)	Weight (g)
118 (203A1-9-3) Real 1	354-1	Axe	5.5	3.0	1.2	38.1
	355-1	Axe	9.7	5.8	2.8	261.8
	356-1	Axe	12.8	5.3	2.7	292.7
	357-1	Axe	10.1	4.2	2.5	183.2
	358-1	Axe	16.5	7.3	3.1	484.8
	359-1	Axe	10.5	4.0	2.5	182.6
	360-1	Axe	9.8	3.9	1.8	150.2
	361-1	Axe	12.2	4.7	2.1	246.5
	362-1	Axe	15.8	5.3	2.3	290.8
	363-1	Axe	10.8	6.2	3.0	347.9
	364-1	Axe	8.9	5.2	2.6	188.7
	365-1	Axe	14.2	6.9	2.4	400.5
	134 (203E1-9-1) Real 1	109-1	Axe	10.1	4.9	2.6
138 (203E1-9-2) Real 1	127-1	Axe	6.7	3.4	1.7	70.0
	128-1	Axe	6.6	4.4	2.4	113.1
	129-1	Axe	5.9	3.5	1.5	53.6
	130-1	Axe	6.9	3.7	1.4	62.9
131 (200B19-10-2) Real 2	1232-1	Axe preform	8.3	4.2	2.5	132.8
127 (200B16-9-6) Real 2	1079-1	Axe	5.6	3.8	2.3	89.7
	1080-1	Axe	7.3	4.0	1.6	86.3
	1081-1	Axe	5.0	2.8	1.3	36.2
109 (203A2-8-2) Real 2?	283-1	Pseudo-axe	6.1	2.8	2.7	93.9
	284-1	Axe	6.0	4.7	2.5	114.4
	285-1	Axe (broken)	2.2	2.4	0.9	8.7
	286-1	Axe (broken)	6.1	4.0	2.4	99.2
	287-1	Axe	4.5	2.9	1.2	32.5
	288-1	Axe	4.7	3.7	1.4	54.4
	289-1	Axe	3.8	2.7	1.0	20.0
146 (203E1-8-13) Real 2?	219-1		5.3	3.4	1.6	66.0
143 (203E1-8-12) Real 2-3 transition	146-1	Axe	5.0	3.2	1.3	39.0
	147-1	Axe	8.7	4.1	1.5	110.9
	148-1	Axe	5.2	3.3	1.6	41.8
	149-1	Axe	4.8	3.2	1.3	41.5
	150-1	Axe	4.9	3.9	1.9	72.1
	151-1	Axe	7.4	3.5	1.6	77.6
	152-1	Axe	6.4	3.5	1.9	66.4
	153-1	Axe	3.9	2.7	1.0	22.6
	160 (203B20-8-6) Real 3	1799-1	Axe	7.1	3.6	1.5
1800-1	Axe	4.7	3.6	1.5	46.7	
1801-1	Axe	6.5	3.0	1.7	59.1	
1802-1	Axe	5.7	3.5	1.5	60.8	
1803-1	Axe	5.3	2.7	1.2	31.9	
1804-1	Quartz sphere	0.9	0.7		0.5	
132 (203C3-7-2) Real 3?	418-1	Axe	5.8	4.0	2.3	100.8
	419-1	Axe	4.0	3.5	1.3	38.1
	420-1	Axe	4.3	3.4	1.4	43.7
	421-1	Axe	5.7	4.0	1.6	75.1
	422-1	Axe	4.8	3.0	1.4	41.2
	422-2	Sphere?				
152 (203B20-6-6) Real 3 / Escoba 1	1589-1	Pseudo-axe	4.4	3.6	1.6	39.8
153 (203B18-6-8) Real 3 / Escoba 1	1659-1	Axe	3.6	1.5	1.1	12.4
106 (203A3-6-5) Escoba 1?	223-1	Axe	6.6	3.9	0.9	37.0
105 (203A1-6-4) Escoba 2?	214-1	Axe	6.4	3.4	1.4	54.7
	366-1	Axe	4.6	3.3	1.6	40.3

### Greenstone Axe Caches

The Ceibal-Petexbatun Project uncovered 13 caches dating to the Middle Preclassic period that contained greenstone axes (Table 1). Eleven of them were from the east-west axis of the E-Group assemblage whereas two were uncovered in the A-24 Platform. The symbolism and function associated with specific morphologies of these objects are not clear. Thus, we use the term axe as a generic category that includes what other researchers may call celts or adzes (see Clark and Colman 2014). A pseudo-axe refers to an object that loosely mimics the form of an axe. The technological analysis of these artifacts by Kazuo Aoyama is expected to provide important information. Below we describe them in a probable chronological order.

**Table 1.** Ceibal Middle Preclassic caches with greenstone axes.



**Figure 5.** Cache 118: (left) viewed from south, with a small axe (Cat. 203A354-1) above other axes; (right) after the small axe was removed.



**Figure 6.** Axes found in Cache 118. The photo replicates their original positions, except the small axe at upper left.

*Cache 118.* This cache dating to the beginning of the Real 1 phase (c. 1000 BC) was deposited in the natural marl layer near the center of the original E-Group plaza defined by Structures Ajaw and Xa'an (Figures 5 and 6). The Ceibal residents scraped humus off to expose a whitish marl surface, which was used as the first plaza floor (Floor 18). They dug a 40 cm deep, 50 cm diameter pit into this surface to deposit 12 greenstone axes. Ten of them were placed in two parallel lines and the most finely polished piece, Catalog no. (Cat.) 203A365-1, was laid in front of them. A small axe (Cat. 203A354-1) was placed horizontally about 10 cm above them. This pattern suggests that the ancient Ceibaleños buried the eleven axes with a small amount of marl before placing the small axe. Cache 118 may have been the first, or one of the earliest caches, deposited at Ceibal. It is puzzling that the orientation of the axes does not match the east-west axis of the E-Group assemblage, but their direction, 20 degrees south of the E-Group axis or 115 degrees east of true north, may have pointed to the sunrise at the winter solstice.





Figure 7. Greenstone axe found in Cache 134. Note facets and dimple. The dimpled side (right) was facing east in Figure 8.

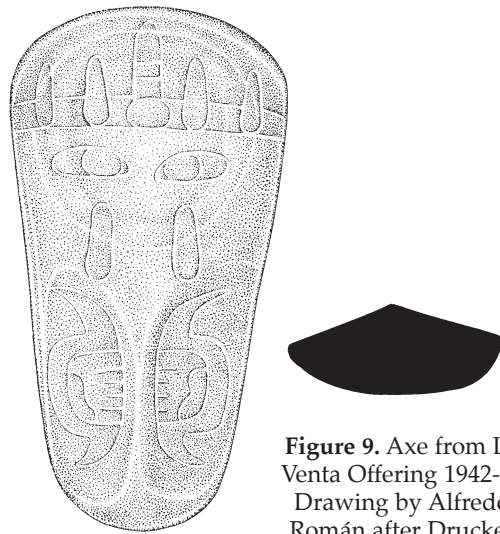


Figure 9. Axe from La Venta Offering 1942-C. Drawing by Alfredo Román after Drucker (1952:Fig. 47a), Drucker et al. (1959:Fig. 65), and photographs.

*Cache 134.* This cache was found 2.0 m to the west of Cache 118 in our tunnel excavation dug toward Structure A-20. Its pit was also dug into Floor 18 at the beginning of the Real 1 phase, and it contained one greenstone axe (Figure 8). One side of this axe exhibits three facets with a circular dimple (Figure 7), a form resembling those of two axes found in Offering 1942-C of La Venta (Drucker et al. 1959:Fig. 65) (Figure 9). The similarity between these objects is striking although the Ceibal axe lacked engraving observed on the La Venta pieces (Drucker 1952:Figs. 47a, b). These observations indicate that the Ceibal residents shared ritual and aesthetic concepts with those of the southern Gulf Coast, and they may have had direct contacts.



Figure 8. Cache 134 dug into the natural marl layer.



Figure 10. Cache 138 viewed from the south (below) and its axes. The photo on the right approximates the possible original positions of the axes with north on top; the axe on the left in the photo, pointing west, was found with its edge pointing east.



*Cache 138.* This cache was uncovered 11.7 m to the west of Cache 134. It was dug into the second floor of the E-Group plaza (Floor 17b) (Figure 10) and dates to the Real 1 phase but later than Caches 118 and 134. The western axe was found lying flat with its edge pointing east whereas the other three were in vertical positions leaning outward. Four axes may have originally been placed in a flower-petal arrangement and the western piece may have fallen face down. Alternatively, the western axe, which was the most finely polished piece, may have been placed horizontally in the center of the other three intentionally.





*Cache 131.* This deposit was placed under Floor 8 of Structure Katal 1st that was built on Platform Ch'och' (an early version of the A-24 Platform) during the Real 2 phase (Figures 11 and 12). It contained a greenstone axe preform or a pseudo-axe that was roughly shaped by percussion and only partially ground. The object was placed horizontally with its edge pointing west.

**Figure 11.** Cache 131: (below) viewed from the west; (left) the cache's axe preform, with the side that was facing up on the right.



**Figure 12.** Floor 8 of Structure Katal 1st viewed from the south with the locations of Caches 131 and 127. Cache 131 was found under Floor 8 whereas Cache 127 was above Floor 8 and under Floor 7a1 that covered Structure Katal 1st.





Figure 13. Cache 127 viewed from the north.



Figure 14. Cache 109 viewed from the east.

*Cache 127.* This is another cache found in Platform Ch'och'. It was placed under Floor 7a1 during the Real 2 phase, but slightly later than Cache 131 (Figure 12). Three axes may have been placed originally on their butts with the cutting edges up, but the northern and eastern axes were found lying horizontally (Figure 13).

*Cache 109.* This cache was found in the fill of Floor 14 of the E-Group plaza, and it cut slightly into Floor 15 (Figures 14 and 15). It was not clear whether the cache was intrusive into Floor 14 or upper floors or whether it was placed at the time of the construction of Floor 14. We place this cache in the Real 2 phase, but there remains some ambiguity as to its stratigraphic position. Six axes appear to have been placed vertically on their butts, but probably not in flower-petal form. One of them (Cat. 203A283-1) was a pseudo-axe, probably reworked from a rectangular-shaped ornament. On top of these six axes, a smaller, broken axe was placed horizontally.

*Cache 146.* At the beginning of the 2012 season, we found a single greenstone axe in soils that had collapsed at the beginning of the tunnel excavation after the previous season. It appears to have come from the fill of Floor 14 dating to the Real 2 phase.

Figure 15. The axes of Cache 109. The photo only loosely reflects the original positions of the axes, with north on the viewer's right. Inset: the pseudo-axe.







Figure 16. Cache 143 viewed from below. East is on the viewer's right and north on the bottom.



Figure 17. The axes of Cache 143. The photo approximates the relative positions of the axes with north on top, but they are placed closer together than the original positions.

*Cache 143.* This deposit was found in the ceiling of the tunnel excavation into Structure A-20 at 11.0 m from the beginning of the tunnel (Figures 4, 16, and 17). We needed to excavate this cache from below. In a circular pit cut into Floor 14, eight axes were placed in a loose cruciform arrangement along an approximate orientation of 30 degrees south of the E-Group axis or 125 degrees from true north. This arrangement does not seem to be aligned with any specific solar orientation. Floor 14 was constructed during the Real 2 phase whereas the ceramics found lying flat on this floor belonged to the Real 3 phase. Thus, Cache 143 can be dated securely to the transition from the Real 2 phase to Real 3 (around 800 BC).

*Cache 160.* This was a cruciform deposit containing five greenstone axes aligned with the east-west axis of the E-Group assemblage (Figures 18 and 19). It was found in Structure Xa'an, the earliest version of the eastern platform. The cruciform pit appears to have been cut from Floor 13 and sealed by the fill of Floor 12a. This stratigraphic information and a radiocarbon date on a charcoal piece found near the center axe (PLD-22110, 2475±20 bp, 763-421 cal. BC 2 sigma) indicate that it dates to the Real 3 phase. Next to the axe in the circular central part of the pit, excavators found a small quartz sphere without a perforation and a small quantity of red pigment. The central pit was significantly larger than these objects and may have contained perishable materials.





Figure 18. Cache 160 viewed from the east, its cut visible prior to excavation, and a close-up of the central axe.





**Figure 19.** The axes found in Cache 160. This approximates the relative positions of the axes with north on top, but they are placed closer together than the original positions.

The center axe, the quartz sphere, and the red pigment were found close together, 3 cm above the bottom of the pit. The four outer axes appear to have originally been placed vertically on the butt or leaning outward. The center axe, made of slightly translucent jade with a bluish tint, was found lying horizontally with its edge pointing north. Cache 160 may have been deposited at the same time as Cache 7, another cruciform cache discovered by the Harvard Project possibly in the southern portion of Structure Xa'an (Smith 1982: 243). We wonder whether another cruciform cache was placed in the northern portion of this building.



*Cache 132.* This was another probable cruciform cache aligned with the east-west axis and placed in Structure Xa'an (Figure 20). It was uncovered 1.7 m to the west of Cache 160. Excavators did not recognize its circular pit until they reached the natural marl layer. The pit may have been cut from Floors 7, 8, or 8b, and it is not clear whether the cache dates to the Real or Escoba phase. Given its similarity to Cache 160, we favor the dating to the Real 3 phase. The cache may have been meant to be a cruciform deposit, but one axe was found on top of the center axe instead of the expected southern part.



**Figure 20.** Cache 132 viewed from the west and its axes. The photo above loosely approximates the positions of the axes with north on top, but the axe that was lying on top of the center one is placed on the southern side.

These two central axes were placed horizontally with their edges pointing east. Under these axes, directly on the bottom of the pit, we found a badly eroded object made of unidentified mineral, which seems to have been a small sphere similar to the one found in Cache 160. The northern and western axes appear to have been placed originally on their butts. The eastern axe was moved during excavation; the worker put it back with the edge pointing down, but we are not sure if this position is correct.



*Cache 152.* This was a pit of 18 cm diameter found in Structure Xa'an, 50 cm to the southeast of Cache 160 (Figure 21). It may have been intrusive into Floor 10a, and the cache probably dates to the Real 3 or Escoba 1 phase. It contained a small pseudo-axe, possibly reworked from an ornament (Figure 22).

*Cache 153.* A small, well-polished axe made of dark green stone was found along the east-west axis of the E-Group roughly 30 cm north of Caches 154 and 155 under Floor 12b (see below). We did not recognize any pit cut into the floor, and the axe may have been deposited at the time of construction of Floor 12b. The cache probably dates to the Real 3 or Escoba 1 phase. This cache appears to have been a deposit different from Caches 154 and 155, but we still cannot dismiss the possibility that they were placed at the same time.

*Cache 106.* A finely polished axe was found in the fill of Floor 11 of the E-Group plaza, which probably dates to the Escoba 1 phase (Figure 23). The axe was moved during excavation, and we did not recognize any pit. Since this layer consisted almost purely of powdery yellow marl and was nearly devoid of artifacts, this axe was most likely placed intentionally during the construction of the floor.

*Cache 105.* This cache refers to two finely polished axes found in the fill of Floor 10 directly above Floor 11 where Cache 106 was found (Figure 23). One of the axes was made of semi-translucent blue jade. The cache probably dates to the Escoba 2 phase. The axes were moved during excavation, but their context was similar to that of Cache 106. The yellow marl layer contained few artifacts beside these axes.



Figure 21. Floor of Structure Xa'an with the locations of Caches 151, 152, and 160.



Figure 22. Pseudo-axe found in Cache 152. The object was found on its butt leaning halfway from the vertical position with the side shown in the left photo facing up and its edge (top in the photo) pointing southeast.



Figure 23. Axes found in Cache 105 (left and center) and Cache 106 (right).



Cache No.	Phase	Lot	Artifacts
156	Real 1/3	201F1-15-2	Abelino Red plate with charcoal
145	Real 2	203E2-8-14	Green stone spoon, shell spoon, Achiotés Unslipped vase
161	Real 2/3	203B21-8-11	Turtle carapace
108	Real 3	203A2-7-7	Carved shell pendant
133	Real 3	201A30-10-7	Abelino Red plate
151	Real 3/Escoba 1	203B20-6-1	Red pigments
154	Escoba 1?	203B18-6-7	Bird (hawk?) skeleton
155	Escoba 1?	203B18-8-2	Reworked greenstone spoon
129	Escoba 1	201A30-7-6	Three stone spheres
149	Escoba 1	203B16-5-7	Shell with charcoal
136	Escoba 1/2	201G1-6-3	Chunhinta Black miniature jar with red pigment
124	Escoba 2	201A30-6-2	Ceramic fragments
137	Escoba 2?	204A1-6-5	Pital Cream bowl
135	Escoba 2/3?	201G1-5-5	Juventud Red bowl
123	Escoba 3	201B13-6-4	Ten obsidian blades
125	Cantutse 3	200B31-5-6	Stone figurine head

Table 2. Ceibal Middle Preclassic caches with offerings other than axes.



Figure 24. Cache 156.



Figure 25. Cache 145 viewed from below (from the southeast). Note the greenstone spoon attached to the bottom of the ceramic vessel. Its concave side is facing up, and the top part of the spoon (the edge with perforations) is on the viewer's left (west). The shell spoon was found on the viewer's left (southwestern) side of the vessel at the midpoint of the vessel's height.

#### Other Types of Caches

Fifteen Middle Preclassic caches found during the Ceibal-Petexbatun Project contained artifacts other than greenstone axes, including greenstone spoons and ceramic vessels (Table 2).

*Cache 156.* An Abelino Red plate was found on a deposit of charcoal on Floor 29 next to Structure Fernando, a small possible residential building that was carved out of the natural marl layer (Figure 24). The cache was originally dated to the Real 1 or 2 phase, but further analysis has suggested a Real 3 date (Inomata

et al. 2015).

*Cache 145.* An intrusive pit was cut from above Floor Hillary in the lower part of the ramp or stair of Structure B'ehom or the subsequent building. It probably dates to the Real 2 phase (Figure 25). If so, Cache 145 represents the earliest known ritual deposit placed in a ceremonial structure at Ceibal. The pit contained an Achiotés Unslipped cylinder vase that may have held perishable materials. Excavators found a dark green jade "Olmec tadpole spoon" with two perforations and traces of red





Figure 26. Greenstone spoon and shell spoon found in Cache 145.

pigment underneath the vessel and a probable river-clam shell carved in a tadpole-like spoon shape on the southwestern side of the vessel next to its exterior wall (Figure 26). The close placement of jade and shell spoons to the vessel suggests that these objects may have been wrapped in a bundle before they were deposited in the pit. Comparable greenstone tadpole spoons have been found at various sites, including Cuello (Hammond 1999), Ka'kabish (Haines 2012), Chacsinkin (Andrews 1986), Uxbenka (Healy and Awe 2001), and Chichen Itza (Proskouriakoff 1974). Greenstone spoons are generally attributed to the Gulf Coast Olmec (Andrews 1986; Parsons 1993; Pohorilenko 1996). Their use as pectorals is suggested by depictions on Monument 3 of Ojo de Agua (Hodgson et al. 2010) and on the Shook Panel (Graham 1993; Shook and Heizer 1976). Shell spoons are less common, but a ceramic pendant reported from Puerto Escondido (Joyce and Henderson 2010) is in a shape similar to that of the Ceibal piece.



Figure 27. Monument 1 and Cache 161.

Cache 161. Fragments of a turtle carapace were placed under Floor 11 in front (west) of Monument 1, which was placed to the east of Structure Xa'an (Figures 4 and 27). The cache dates to the Real 2 phase or the beginning of the Real 3 phase. Monument 1 is a rock measuring 90 cm in length, 80 cm in width, and 50 cm in height. Despite its coarse appearance, its placement along the east-west axis of the E-Group assemblage reminds us of Altar 4 on the eastern side of Mound D-8 at La Venta. Before the next floor (Floor 10b) was built, the area around Monument 1 was

burned, and a layer of charcoal was deposited. Turtle carapaces have been found in Escalera-phase Burial 180 and Francesa-phase Burial 149 at Chiapa de Corzo (Agrinier 1964:31, 1975:35). The symbolic importance of turtle shells is also suggested by a carved carapace and a pendant with Olmec iconography made of a turtle shell found in the recently discovered Burial 4 of Chiapa de Corzo, as well as the depiction of a turtle carapace with a possible Olmec Maize God on a jade pectoral from La Encrucijada (Diehl 1990; Lowe 2012; Taube 2004c:Fig. 40).



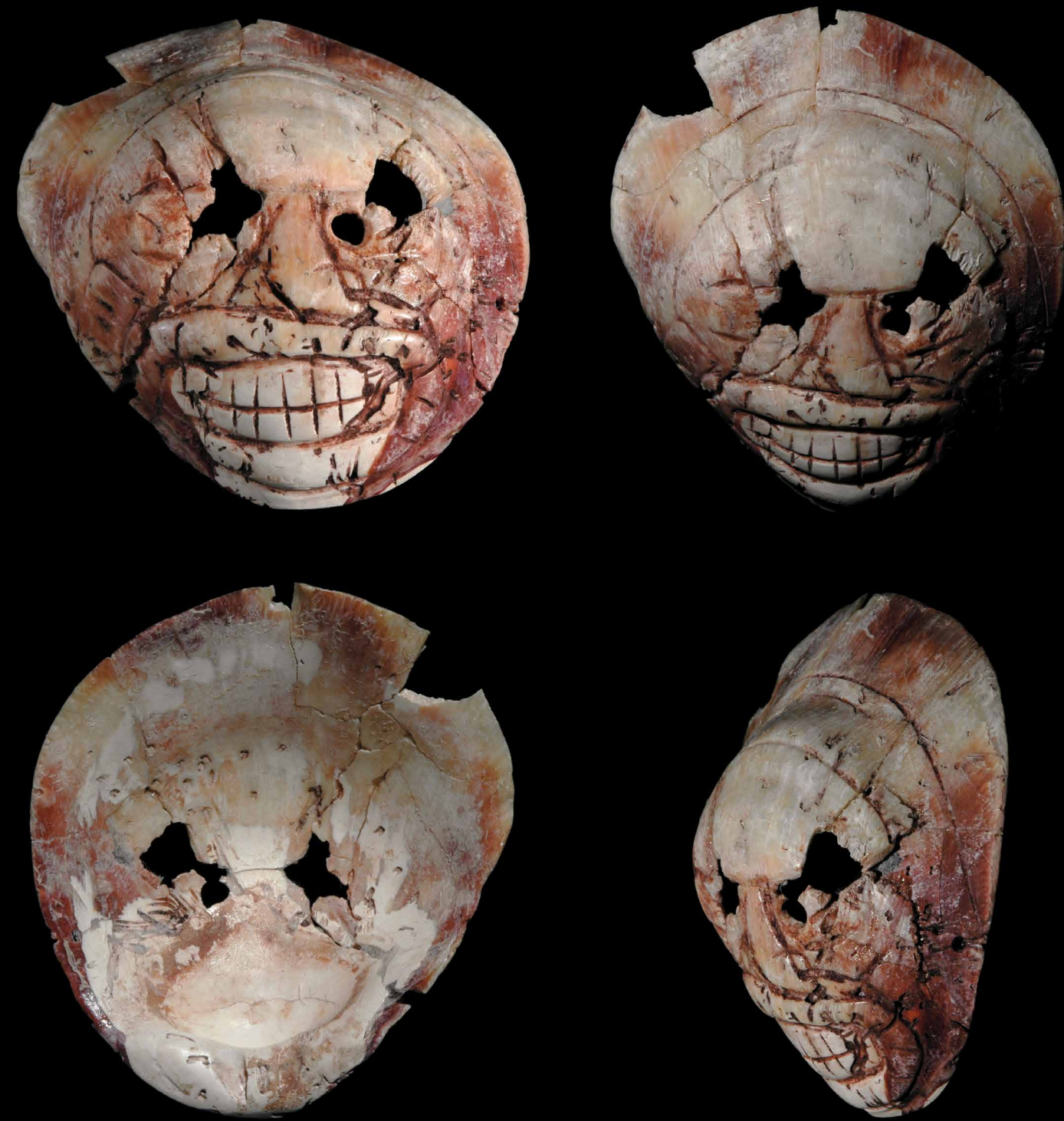


Figure 28. Carved shell found in Cache 108 (12.0 cm long).

*Cache 108.* This cache consists of a carved *Spondylus sp.* shell placed under Floor 13 of the E-Group plaza dating to the Real 3 phase (Figure 28). The object appears to have been placed at the time of construction of the floor. The shell depicts a human face with hollow eyes and exposed teeth, which probably represents a desiccated decapitated head. Perforations on the sides indicate that the piece was worn upside down as a pectoral, and the radiating lines of the shell's natural texture seem to represent dangling hair. This pendant resembles Late Classic depictions of trophy heads worn upside down by elite warriors, as shown in the Bonampak murals, Yaxchilan Lintels 9 and 12, and Itzimte Stela 3, although the Ceibal example shows a decapitated head with skull bone, teeth, and skin as opposed to probable flayed shrunken heads depicted in Late Classic images. Cache 108 reflects an early development of

practices of decapitation, which was most likely associated with war (Inomata 2014).

*Cache 133.* An Abelino Red plate was found face down under Floor 20 of Operation 201A, which may have been part of Platform K'at (Figure 29). The vessel's shallow and wide shape is typical of the Real 3 phase (Figure 30). Its bottom shows heavy use-wear, which indicates that the vessel was used for some time before it was deposited.

*Cache 151.* Excavators found four small pits close to each other, which appear to have been cut from Floor 10a into Structure Xa'an (Figure 21). Like Cache 152 with a pseudo-axe that was found nearby, these pits probably date to the Real 3 or Escoba 1 phase. The northeast pit contained red pigment, and we gave it a cache number. This pit, as well as others nearby, may have contained offerings made of perishable materials.



Figure 29. Cache 133 viewed from the west.





Figure 30. Abelino Red plate found in Cache 133.



Figure 31. Reworked greenstone oval spoon found in Cache 155 (5.4 cm long). The object appears to have been deposited in a vertical position as shown in the photo.

*Caches 154 and 155.* The pit for Cache 154 was cut from Floor 12b of the E-Group plaza in front of Structure Saqpusin probably during the Escoba 1 phase. It contained wing and leg bones of a bird, which Ashley Sharpe (personal communication 2013) tentatively identified as a hawk. Slightly below this deposit, we found Cache 155 containing a jade object (Figure 31). Although we gave it a separate cache number, Cache 155 may be the same deposit as Cache 154. A worker removed the jade piece from its original location, but he told us that it was placed in a vertical position. The object was modified from an oval “Olmec spoon.” An oval spoon has been found at La Venta (Drucker 1952:Pl. 53), and those kept as heirlooms have been uncovered from Nakum (Žraňka et al. 2011) and Tikal (Laporte and Fialko 1995). Like the “tadpole” version, they were probably used

originally as pectorals. The portion used for the Cache 155 piece, however, does not have perforations for suspension. Its convex side had shallow engravings showing a bird wing and an eye. The engravings show similarities to some of the “wing-paw” motifs, particularly those on cylinder seals (Joralemon 1971). John Clark (personal communication 2013) has also pointed out to us that combinations of bird wings and eye motifs are common themes in later Izapan monuments (see Guernsey 2006). If Caches 154 and 155 indeed belonged to a single deposit, it may have explicitly shown symbolism tied to birds. Lucia Henderson (personal communication 2015), however, pointed out to us that what may be represented is a reptilian eye commonly seen on Terminal Preclassic monuments.



*Cache 129.* Excavators found three limestone spheres of approximately 15 cm diameter placed in a triangular formation on Floor 12 and covered by Floor 11, which were Escoba 1-phase layers built over Platform K' at (Figure 32). A charcoal piece taken from it returned a radiocarbon date of 2480±35 bp (AA-90443, 770-416 cal. bc 2 sigma).

*Cache 149.* This deposit contained shell fragments with carbonized pieces of wood. It cut slightly into Floor 8 of Structure Saqpusin (a Real 3-phase version of the eastern mound of the E-Group assemblage) and was covered by Floor 7 that was probably placed during the Escoba 1 phase.



**Figure 32.** Cache 129 with three limestone spheres viewed from the south.



*Cache 136.* A pit intrusive to Floor 9 in the area between the East Court and Structure A-18 contained a small Chunhinta Black jar (Figure 33). The vessel appears to have contained red pigment. The cache probably dates to the Escoba 1 phase.

*Cache 124.* A small pit dug into Floor 7 in Operation 201A contained several fragments of Chunhinta Black vessels. It probably dates to the Escoba 2 phase. It is not clear whether these objects were deposited for ritual purposes.

**Figure 33.** Cache 136 viewed from the east and its Chunhinta Black jar.







*Cache 137.* In Operation 204A placed to the west of the E-Group assemblage, excavators found a Pital Cream bowl, which cut slightly into Floor 6 (Figure 34). This deposit was probably made when Floor 5 was constructed during the Escoba 2 phase.

*Cache 135.* A Juventud Red bowl was placed face down in a pit dug into Floor 7 in the area between the East Court and Structure A-18. The cache dates to the Escoba 2 or 3 phase.

*Cache 123.* This cache consists of obsidian blades placed in the fill of Structure A-15 Sub-4, a large platform dating to the Escoba 3 phase (Figure 35). Aoyama (personal communication 2013) identified ten blades.

**Figure 34.** Cache 137 viewed from the west and its Pital Cream bowl.



**Figure 35.** Cache 123 with obsidian blades viewed from the west.





**Figure 36.** Olmec-style figurine head found in Cache 125. It measures 6.8 cm from the top of the head to the bottom of the chin.

*Cache 125.* This cache was deposited during the Late Preclassic period, but the offering was most likely an heirloom dating back to the Middle Preclassic. It was an Olmec-style figurine head, which was found in the stone fill near the eastern edge of the A-24 Platform dating to the Cantutse 3 phase (200–50 BC) (Figure 36). The object was made possibly of serpentine or mudstone with parallel layers and ferruginous inclusions. Its surface is slightly reddened, which may have been caused by exposure to heat. This head was broken off, probably from a full-figure statuette.

#### Discussion

The discovery of greenstone axe caches found at Ceibal supports our original hypothesis that the early Middle Preclassic residents of Ceibal had close interaction with groups in Chiapas and possibly with those on the southern Gulf Coast. These ritual deposits were not visible once they were buried. The close similarities that the caches from Ceibal share with those found in Chiapas and at La Venta would not have been possible without sustained direct contacts between the inhabitants of these areas. In some cases, individuals from one area may have visited rituals held in another region to witness the depositions of axes. The standardized arrangement of the MFC pattern was not merely superficial resemblance, but it was tied to common spatial and ritual practices shared across regions.

Rituals involving the deposition of greenstone axes may have developed primarily on the southern Gulf Coast, as seen in Early Preclassic caches found at El Manatí and La Merced (Ortíz C. and Rodríguez 1999; Rodríguez and Ortíz 2000) although the probable axe offering found under the earliest Locona floor of Mound 6 at Paso de la Amada suggests that the inhabitants of the Soconusco region shared this tradition (Blake 1991:Fig. 11). During the Early Preclassic period before 1000 BC, the Maya lowlands appear to have been occupied by mobile horticulturalists, and no comparable ritual deposits of this period have been found in the Maya lowlands. The deposits at El Manatí and La Merced were associated with natural springs away from major settlements. Practices of axe offering in ceremonial and residential centers during the Early Preclassic period are hinted at by the aforementioned Paso de la Amada offering, Cantón Corralito Burial 2 with 15 jade and serpentine axes, and the deposit of

seven serpentine axes associated with Monument 21 at San Lorenzo, as well as by San Lorenzo Monument 8 that exhibits axe-shaped slots on its surface (Cheatham 2010:152–153; Coe and Diehl 1980:100–103, 313). However, cases of axe deposits in Early Preclassic settlements are limited. If Early Preclassic axe offerings indeed focused on natural features away from settlements, the greenstone axe caches placed in the E-Group plaza of Ceibal after 1000 BC may represent a transposition of pre-existing ritual practices to a different spatial context. Ceibal is the only known site in the Maya lowlands that has greenstone axe caches dating before 800 BC (Real 1 and 2 phases). Located at the southwestern end of the Maya lowlands, Ceibal probably had close contact with western groups. Caches of this period contained greenstone axes placed typically in flower-petal form or in horizontal positions. Although Cache 118 of Ceibal closely resembles Offerings 9 and 11 of La Venta possibly dating after 800 BC (Drucker et al. 1959), in general Ceibal caches of the Real 1 and 2 phases share more similarities with those of El Manatí from the preceding period. The presence of Caches 127 and 131 in Platform Ch'och' suggests that the emergent elites of Ceibal may have played a central role in the acquisition of precious materials and in the organization and execution of public rituals held in the E-Group plaza. Greenstone spoons found in Caches 145 and 154 may have been once worn by these emerging elites.

After 800 BC, greenstone axe caches in cruciform arrangements became common, as seen in caches at San Isidro, Chiapa de Corzo, and La Venta (Bachand and Lowe 2012; Drucker et al. 1959; Lowe 1981). During this period, La Venta probably grew as a major center (Inomata et al. 2013). At Ceibal, cruciform caches 160 and 132, as well as Cache 7 found by the Harvard Project, probably date to the Real

3 phase (800–700 BC) or the Escoba 1 phase (700–600 BC). Although radiocarbon dates obtained from Ceibal Cache 7 (UCLA-1437, 2610±75 bp, 929–428 cal BC) (Berger et al. 1974) and Cache 160 (PLD-22110, 2475±20 bp, 763–421 cal BC) leave wide ranges of probable dates, five black-slipped water jars contained in Cache 7 (Sabloff 1975:Fig. 64; Smith 1982:243) most likely date to the Real 3 or Escoba 1 phase. Cache 4 of Cival in a cruciform arrangement also appears to date to this period (Estrada Belli 2006) and represents the earliest greenstone axe cache found in the Maya lowlands besides those from Ceibal. Radiocarbon dates obtained from Burial 33 predating Cival Cache 4 (Beta-234440, 2670±40 bp, 904–793 cal BC) and from the stucco floor sealing the cache (Beta-213528, 2520±40 bp, 797–517 cal BC) leave a wide range of uncertainty, but the five water jars (four black-slipped and one red-slipped) found in Cival Cache 4 closely resemble those of Ceibal Cache 7 and most likely date to the Real 3 corresponding period. We also suspect that semi-translucent blue jade might have become more common after 800 BC. The semi-translucent jade axes from Caches 7, 160, and 105 at Ceibal, as well as that of Cival Cache 4, all date after 800 BC.

John Clark and Arlene Colman (2014) suggest that in some of the cruciform caches at La Venta jade axes were placed at the center and at the end of the cross bar and were contrasted with serpentine axes occupying the other locations. In Cival Cache 4, the most finely polished, largest axe was set in the center (Estrada Belli 2006). However, the positioning and possible symbolism associated with the specific colors and qualities of axes in Ceibal caches are somewhat ambiguous. In Cache 118 the best polished, highest quality axe was placed at the head of the formation, and in Caches 138 and 127, too, the best polished ones may have been positioned near the center. Nonetheless,

such arrangements are not clear in Caches 109 and 143. In the cruciform cache 160 the center axe may have better shine and smoother texture with a slightly translucent, bluish tint, but it is not larger or better shaped than the others. In another cruciform cache, 132, the center piece is not of better quality than the other axes.

During the late Middle Preclassic period after 700 BC, the practice of greenstone axe deposition was mostly abandoned at Ceibal, although such deposits continued in Chiapas and at La Venta. By this time, the Ceibal residents were developing closer connections with the rest of the Maya lowlands. During this period, caches containing ceramic vessels became gradually more common. The tie to the western regions, however, was not forgotten by the Ceibal residents. The beautifully carved stone figurine head in the Olmec style of Cache 125 had most likely been kept as an heirloom since the Middle Preclassic period until its deposition in the Late Preclassic.

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