

# **Household Patterning, the “Collapse,” and LiDAR Ground-Checks:**

**Continued Investigation in and near Caracol’s Epicenter:  
2010 Field Report of the Caracol Archaeological Project**

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**Report submitted to the Belize Institute of Archaeology**

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### **Continued Investigation in and near Caracol’s Epicenter: 2010 Field Report of the Caracol Archaeological Project**

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The 2010 season of the Caracol Archaeological Project ran from late January through the middle of March 2010. Over the course of the field season, the project was staffed by 35 people (Table 1). The research undertaken at Caracol during the 2010 field season was a direct continuation of the 2009 field season and had three specific field objectives that were set within an overarching framework that sought to gain a better understanding of the Classic Maya Collapse within the complexity of the built environment at ancient Caracol. The first field objective was to continue investigation of Terminal Classic abandonment assemblages (particularly the elite ceramic sub-assemblage) through the continued excavation of the Northeast Acropolis, which had been the primary focus of the 2009 excavations. The second field objective involved beginning new excavation of what was thought to be a secondary-elite residential complex, Structures F30-F42; this double plaza complex was renamed “Alta/Baja Vista” during the 2010 season; excavations within this complex sought to broaden our archaeological understanding of the diversity and distribution of Terminal Classic material culture at the time of abandonment. Financial support for the excavations in the Northeast Acropolis and in Alta/Baja Vista came from the Alphawood Foundation. The third field objective during 2010 was to begin to ground-checking of remote sensing data gained through the successful application of LiDAR in 2009 to Caracol through a NASA/NSPIRES grant (A. Chase et al. 2010, 2011; Weishampel et al. 2010, 2011). The initial focus for the LiDAR ground-checks during the 2010 field season was on caves.

#### **Objective 1 for 2010: Continued Research in the Northeast Acropolis**

During the 2009 field season, extensive investigations were undertaken in the Northeast Acropolis (see 2009 field report at [www.caracol.org](http://www.caracol.org)). The western and northern buildings (Structures B32 and B33) in this complex were both trenched and horizontally cleared; the southwestern building (Structure B31) was

also horizontally defined. Investigations during 2010 continued the areal exposures in this complex. The central palace at the summit of Structure B33 was cleared, as was most of the northwestern base of this building. The balk at the base of the eastern building was also re-exposed and its sides were excavated (preparatory to stabilization), showing this architectural feature to have been directly attached to dry core fill. An excavation also was extended south along the western side of Structure B31 and succeeded in finding a stairway to a lower inward-facing building that was largely destroyed. Most of these investigations succeeded in recovering Terminal Classic materials associated with the final occupation of the Northeast Acropolis. Finally, a deeper excavation was made into the center of the Northeast Acropolis plaza. While this excavation again recovered materials that demonstrated that the plaza was raised some 2.1 m in the Terminal Classic Period, it also produced a unique Early Classic deposit that has a direct bearing on questions of Teotihuacan influence in the Southern Maya lowlands. While the intent had been to undertake stabilization of the Northeast Acropolis following the conclusion of the 2010 field season, the Institute of Archaeology instead opted to begin this process immediately prior to the start of the 2011 field season.

#### **Objective 2 for 2010: Caracol's Alta/Baja Vista Residential Complex**

During the 2010 field season, and in accord with the three-year proposal that was funded in 2009 by the Alphawood Foundation, investigations began in the double-plaza residential unit formed by Structures F30-F42 and named Alta/Baja Vista. This group was initially selected for investigation because it appeared to be a locus occupied by Caracol's secondary elite and, thus, was a promising location for examining Terminal Classic artifactual materials to assess the extent of penetration into late Caracol society of class-linked materials that are found in the restricted palace ceramic subcomplex (A. Chase and D. Chase 2004). The buildings in the Alta/Baja Vista Group were both areally and axially investigated in order to recover primary deposits and to provide data on time-depth and change in artifactual subcomplexes at Caracol at the time of the "collapse." During the 2010 field season, Structure F33 in Alta Vista was axially penetrated and Structures F36, F39, and F41 were axially penetrated in Baja Vista. Two areal investigations were also carried out; one was associated with the alley between Structures F41 and F42 and the other exposed a vacant terrain structure on the western edge of the Baja Vista plaza. Some 28 special deposits were recovered in these excavations. The investigations in the Alta/Baja Vista Group will be

concluded during 2011. All excavations in the Alta/Baja Vista Group were backfilled following the completion of the investigations.

### **Objective 3 for 2010: Ground-Checking LiDAR data and associated Cave Research**

In conjunction with Dr. John Weishampel of the UCF Department of Biology, funding was awarded through a NASA/NSPIRES grant both to gain biological information for the Caracol area and to attempt to map Caracol's settlement, terraces, and other constructed features that form the site's landscape through the use of remote sensing information (IKONOS imagery and LIDAR radar). The LiDAR data was collected at the end of April 2009 and was processed for analyses in June 2009. The LiDAR application was far more successful than anyone could have imagined and makes the use of the older IKONOS imagery obsolete in the Maya area (A. Chase et al. 2010, 2011). The imagery that has been gained through LiDAR provides relatively complete information on topography, settlement, terraces, and road systems for approximately 200 square kilometers of Caracol (compare A. Chase et al. 2011 with A. Chase and D. Chase 2001a). Also evident in these data were caves. An especially large cave was noted some 2 kilometers north of Caana and was ground-checked by Dr. Holley Moyes during the 2010 field season. Additional ground-checking of caves was carried out by Ms. Jessica Hightower, a graduate student in biology at UCF.

### **Interpreting the "Collapse": Background for 2009 - 2011 Research (*same as 2009 season report*)**

Despite almost two centuries of research, the factors resulting in the Classic Maya collapse remain unresolved. Originally defined in terms of a cessation in the creation and erection of stone hieroglyphic monuments, conjoined with a stoppage of the construction of massive stone temples and palaces in the lowland areas of Belize, Guatemala, and Mexico, the collapse occurs primarily in the 9<sup>th</sup> century A.D. However, its timing varies substantially from site to site throughout the Southern Maya lowlands. The Maya collapse has additional import when viewed in relation to the contemporary turbulent political climate, with scholars and lay public alike wondering if ancient situations may have modern parallels - or even provide "warnings" for our own society. Archaeological investigations at Caracol, Belize have provided tantalizing clues to this transition, documenting dramatic changes in the site's socio-political and economic systems between the Late Classic (A.D. 550-780) and Terminal Classic (A.D. 780-950) Periods. Contemporaneous differences exist in the ceramic assemblages utilized by Caracol's highest epicentral elite



as compared to other segments of the Terminal Classic society. Non-epicentral, secondary elite, even those living in palaces, appear not to share in the use of the epicentral elite ceramic subcomplex. Thus, further investigation of both epicentral and non-epicentral elite residential compounds is expected to shed light on what transpired just before Caracol's collapse. Towards this end, funds were requested from the Alphawood Foundation for focused investigations over a 3-year period on two late elite residential locations. The Northeast Acropolis was investigated during the 2009 field season and again during the 2010 field season. During the 2010 field season, investigations also began in the Alta/Baja Vista Group (see Figure 1); these will continue during the 2011 field season. During 2011, the Northeast Acropolis will also see the stabilization of the buildings exposed as a result of the 2009 and 2010 investigations.

**The Problem: Understanding the Nature of the Maya Collapse (*same as 2009 season report*)**

The Classic Maya collapse is among the most debated enigmas in modern archaeology. New proposals claiming to explain the Maya denouement appear yearly, usually receiving substantial newspaper and television coverage. Most recently, the end of Maya civilization has been portrayed as either due to drought (History Channel *Ancient Apocalypse: The Maya Collapse*) or due to destructive warfare and sacrifice (*USA Today* and *New York Times* November 17, 2005; Discovery Channel *Explorer: Last Days of the Maya*); the collapse of the Maya has also been linked to prophetic "end-of-the-world" scenarios correlated with December 21, 2012 (History Channel *Mayan Doomsday Prophecy*). These are intriguing postulations that play well for the media and public, but they are based on archaeological data that are open to other interpretations. Academically popular single-cause explanations for the Classic Maya collapse include a host of factors (Aimers 2007), but often center on discussions of internal and external warfare (A. Chase and D. Chase 1989; D. Chase and A. Chase 2002, 2003; Demarest 1993, 1997a, 1997b, 2004; Sabloff and Willey 1967 [but see Binford 1968]; Willey 1990), drought (Iannone 2007; Hodell et al. 1995, 2001; Gill 2000, Gill et al. 2007), and environmental degradation (e.g. Copan, Webster 2002; Webster et al. 2004 [but see Fash et al. 2004]). It is apparent, however, that the collapse was a more complex phenomenon that both spanned a substantial period of time and had a variety of impacts among and within individual sites.

Previous archaeological investigations at Caracol, Belize have shown that the site contains abundant Late and Terminal Classic (collapse-related) remains (A. Chase and D. Chase 2007; D. Chase and

A. Chase 2000). This research has suggested that the leaders of Late Classic Caracol utilized a distinct management strategy characterized by symbolic egalitarianism (A. Chase and D. Chase 2009; D. Chase and A. Chase 2006), resulting in a shared identity and prosperity throughout Caracol's population (D. Chase and A. Chase 2004). Through symbolic egalitarianism, the majority of Caracol's Late Classic population had access to material and ritual items that were normally restricted at other Maya sites. In the Terminal Classic Period, however, this strategy appears to have been abandoned. Rather than having a relatively homogenous archaeological distribution of material culture (as occurred in the Late Classic), it appears that social differences were emphasized during the Terminal Classic and there are strong hints that the uppermost elite used a distinct ceramic subcomplex, as well as had access to goods that were no longer available to the general populace (A. Chase and D. Chase 2004, 2005a). This move away from symbolic egalitarianism is perhaps the catalyst for the ultimate collapse of Caracol.

Key to understanding the collapse at Caracol, then, is greater exploration of Terminal Classic deposits to outline changes in management strategies and social access to material and ritual items, as well as to determine the areal extent of the high status ceramic sub-complex and the degree to which these remains are associated with royal as opposed to other elite occupation. To this end, two different locations were selected for archaeological investigation from 2009 through 2011. Both are residential groups: one likely represents high status, but non-royal, occupation (Northeast Acropolis; 2009 and 2010 field seasons); the other likely housed high-status members of Caracol's secondary elite (Alta/Baja Vista [Structures F30-F42]; 2010 and 2011 field seasons). Taken together and placed within the context of previous long-term work at Caracol, these two groups should provide sufficient detail to elucidate the changes and variability that were associated with Caracol's social, political, and economic organization at the time of the collapse.

### **Northeast Acropolis: Structures B30-B34**

The Northeast Acropolis is a large architectural complex situated atop a raised platform that is located immediately east of Caana (Figure 2). The acropolis commands the northern end of a broad plaza that is bordered by Caana to the west and by the Barrio palace complex to the east (A. Chase and D. Chase 2001b). Excavations during 2009 demonstrated that there was no formal entryway to this raised acropolis area along its southern expanse; instead, entrance must have been gained at the southwest and southeast corners of the raised acropolis. During 2009, excavations also recovered *in situ* Terminal Classic refuse in

association with the northern palace building (Structure B33) and demonstrated that the western building (Structure B32) was built in conjunction with raising the plaza over a meter in the Terminal Classic. During 2010, excavations finished clearing the central rooms of the northern palace building that comprises Structure B33. As in 2009, the 2010 investigations recovered reconstructable vessels on the interior floors of this palace. The 2009 excavations recovered an Early Classic tomb at the summit of Structure B33 and the investigations demonstrated that the construction efforts associated with this large building largely dated to the Early Classic and Terminal Classic Periods. An Early Classic cremation was recovered from a sealed context deep within the central plaza of the Northeast Acropolis during 2010. Only the eastern construction – Structure B34, the ancestral temple of the Northeast Acropolis – produced special deposits dating to the Late Classic Period; excavations in 1994 and 1995 at this locus recovered a series of deposits ranging from the Late Preclassic (A. Chase and D. Chase 2005b) through the Terminal Classic Periods (A. Chase and D. Chase 2007), indicating that the group had a long occupation history and was certainly occupied until the final abandonment of the site. However, the extant archaeological data suggest that the Northeast Acropolis experienced construction apogees in both the Early Classic and Terminal Classic Periods.

### **Structure B34**

A large pyramidal building, Structure B34, rises some 5 meters above its associated plaza and dominates the eastern side of the Northeast Acropolis. This structure was trenched in 1994 and an earlier Late Preclassic construction buried beneath earlier plaza floors, directly in front of the building, was investigated in 1995. These investigations recovered a series of burials, tombs, and caches that spanned the Late Preclassic through Terminal Classic Periods. The latest deposit that was recovered consisted of a burial accompanied by 3 vessels (A. Chase and D. Chase 2007:Fig. 2c) that had been placed in a crypt that had been built into a balk located at the front of Structure B34. The axial trench that recovered this burial was 2 m wide. While the balk was evident, the sides of the balk were not encountered. In conversations with the Institute of Archaeology, it was suggested that this balk and the base of Structure B34 would be a good addition to the planned stabilization program. An excavation was therefore situation over the area of the balk in order to define its sides and find an associated stairway. What this excavation instead encountered was a balk that had been built upon large boulder dry-core fill.

**Operation C117E** (Figures 2, 3, and 4) was placed in front of Structure B34 and encompassed the older trench and measured 4.75 m north-south. The area in front of the balk was re-excavated to expose the back-filled architectural feature and then went to either side to find its edges. The balk itself measured almost precisely 3 m across its face and had been bifurcated by the original excavation in 1994. The 2010 excavation continued 1 m south of the balk and 0.75 m north of the balk. No flooring was encountered. In the areas exterior to the balk, an attempt was made to find the balk's sides and an associated stairway. However, the sides of the balk were set upon the dry rubble fill that continued to either side of the balk. Thus, it would appear that the balk was an architectural addition to an already ruined or stone-robbled building. The balk would, therefore appear to have been built for the sole purpose of housing the burial crypt that was contained in it during Terminal Classic times.

#### **Northeast Acropolis Plaza**

A single exploratory excavation was placed in the central part of the Northeast Acropolis plaza. Previous research within this plaza – associated with both Structures B33 and B34 – had demonstrated that the latest surface had been constructed as a single fill unit during the Terminal Classic Period. This fill unit raised the Northeast Acropolis plaza by 2.1 m above earlier plaza floors that were associated with Early Classic architectural construction in this area. Excavations into both Structures B33 and B34 had encountered “Proclassic” (A. Chase and D. Chase 2005b:22) and Early Classic (see 2010 field report at [www.caracol.org](http://www.caracol.org)) burials that were associated with these earlier building efforts. A test-pit placed in front of Structure B33 had also recovered a Late Preclassic cache that was sealed within the deeply buried floors (see 2002 field report at [www.caracol.org](http://www.caracol.org)). Using these deposits as a guide, a test excavation was placed in the Northeast Acropolis plaza at the intersection of what appeared to be two early building axes.

**Operation C117F** (Figures 2, 5, 6, 7, and 8) was a 2 m by 2 m test excavation placed within the central part of the Northeast Acropolis plaza. It was later augmented by an offset 2 m by 2 m excavation to its northeast (see Figures 2 and 8). Two plaster floors were encountered at a depth of 2.1 m below the ground surface. The lower floor had been penetrated to place S.D. C117F-1 and then sealed with a cap that melded with the upper floor. The cap was viewable because this floor surface was bright white in contrast to the burning that was evident elsewhere. The sides of S.D. C117F-1 cut through an earlier plaza floor and used an even deeper plaza floor as the bottom of this deposit. Following the removal of S.D. C117F-1, this

basal floor was penetrated and the excavation eventually reached a depth of 4.15 m below ground surface. No evidence of earlier construction activity was discovered beneath the floor that was used as the basal surface for S.D. C117F-1 (see Figure 6) and the fills beneath this surface contained a dearth of artifactual material. Excavations into the plaza in front of Structures B33 and B34 were dug to a deeper level and recovered a very early floor that was placed just above bedrock. Thus, future investigation is still needed in this part of the Northeast Acropolis plaza to conclusively rule out the existence of an earlier, deeply-buried floor at this locus.

Immediately under the ground surface, excavation encountered large uncut stones that had served as the bedding for the final plaza floor, now totally destroyed. These larger stones were set atop and within a light buff colored matrix consisting of extremely hard-packed dirt that was full of artifactual material; this matrix continued down to a plaza floor that was located approximately 2.1 m below the ground surface. Besides abundant broken ceramics spanning the Preclassic through Terminal Classic era, the refuse within this fill included miniature vessels (Figure 9a and 9b), worked shell (Figure 9d-f), worked bone (Figure 9g-n), stone bars (Figure 9s and 9y), broken green obsidian blades (Figures 9c and 9o-p), a partial quartz blade (Figure 9q), and chert artifacts (Figure 9r, t-x, z-cc). Human remains were also well represented in this dirt fill. While some of these materials may have derived from the seemingly careless destruction of earlier architectural remains – given the presence of earlier artifacts in this fill (like green obsidian; Figure 9c, o-p) – some of these remains may have resulted from Terminal Classic burial practices. There is a fairly consistent and common association of human remains with Terminal Classic refuse at Caracol (e.g., A. Chase and D. Chase 2001b; D. Chase and A. Chase 1998; see Operation C183J below). In the case of the C117F excavation, recovered human remains from the plaza fill included phalanges from hands and feet, cranial fragments, long bone fragments, four teeth (upper right canine and premolar; lower right premolar; lower left molar), a partial pelvis, and a second pelvis fragment that could be identified as an adult female.

**S.D. C117F-1** was the designation given a sealed deposit (Figure 11) located some 2.2 m below the current ground surface of the Northeast Acropolis plaza. The deposit was placed within a 1.15 m by 1.25 m pit dug through an earlier plaster floor and then sealed with a fresh plaster cap. Another thin plaster surface sealed both the cap and the lower floor. The pit itself was dug to a depth of 0.56 m below the lower floor. The lower floor was completely blackened from an intense fire on its southern end, but the

cap was completely white, which is how the deposit was found. Once it had been ascertained through removing part of the cap that there was, in fact, an intrusion, a second off-setting excavation was made to the north to encompass the suspected pit (see Figure 8). Getting down to the appropriate level, the cap (which was well melded with the lower floor) was then removed over the pit. The sides of the pit were also calcined like the southern floor, which made it fairly easy to follow. The upper part of the pit was completely filled with 20-30 cm of buff-colored marl that was used to provide a firm bedding for the capping floor. This marl rested directly on a thick grey layer of ash that covered the broken artifacts and ceramics in the pit. The artifacts and ceramics, in turn, lay directly on a 2-3 cm thick layer of carbon at the bottom of the pit (on top of the earlier floor).

The artifacts within this pit were mostly broken and burnt. Some twenty ceramic vessels were recovered: 1 lidded censer (Figure 12a), 7 basal-flanged polychrome bowls (Figure 12n-t), 1 small olla (Figure 12f), 2 smaller jars (Figures 12i and 12m), 2 large footed bowls (Figures 12b and 12c), 2 miniature footed bowls (Figures 12k and 12l), 4 flat-bottom bowls (Figures 12d, 12e, 12g, and 12h), and 1 probably pedestalled bowl (Figure 12j). The only vessel that had survived in fairly whole condition was a small slipped olla (Figure 12f) that was in the center of the deposit. The majority of the ceramic vessels were distributed in the deposit in large pieces, but pieces of the same vessel were widely scattered. Upon removal of the ceramics, it also became clear that not all of the pieces had undergone the same treatment. Some pieces were barely singed. Others were exceedingly burnt, to the point where the ceramics were warped and, in some cases, the clay had swelled and become exceedingly brittle with a consistency of sand. This intense heat-related distortion was evident on the feet of the two footed bowls (Figure 12b and 12c), on the rim of the censer (Figure 12a), on much of the rim of a large out-curved bowl (Figure 12d), and on two of the flanged polychrome bowls (Figures 12p and 12r). Four of the flanged polychrome bowls exhibit a pair of human figures lying on their stomachs with upraised, possibly tied, hands; this iconography is repeated on a flanged bowl from the Early Classic tomb in Structure B33 (see 2009 field report at [www.caracol.org](http://www.caracol.org)); although facing the opposite direction, similar iconography also appears on a flanged polychrome bowl from Belize's Eduardo Quiroz Cave (Pendergast 1971:31b). The exact symbolism incorporated into this iconography, however, is not known. Several of the vessels – the two footed miniatures and the Aguila Orange with the shape of a Thin Orange bowl – are reminiscent of similar

vessels from Teotihuacan. The censer also resembles ones found at Teotihuacan in the Xolalapan Complex (see Rattray 2001:517 and A. Chase and D. Chase 2011: Figure 7) and possibly at Tikal associated with the Holom Complex (Feree 1972: Fig. 4g and Fig. 5o). While all of the vessels in this deposit may have had a local Maya origin, their relationship to the central Mexican city of Teotihuacan must be considered, given the totality of the artifactual material present (as discussed below).

A wide variety of artifacts were recovered from S.D. C117F-1. These materials included most of a broken metate and mano (Figure 13). An unusual amount of green obsidian artifacts were also recovered from this deposit. Six tanged points (Figure 14) were recovered; most were warped from the intensity of the fire and it is believed that they had been used to push things around in the fire when they were still attached to their wooden counterparts. The tip of one of the points was no longer translucent and had turned an opaque light green. Similar heat distortion of obsidian has been recorded for cremations found in the American Southwest (McGuire 1992). Two obsidian knives (Figure 15) were also recovered; both were broken and separate pieces showed evidence of having been burnt. One of the knives is 36 cm in length and is the longest one yet recovered from the Maya area. Sixteen complete green obsidian blades (Figure 16) were also recovered from the central portion of the deposit; it is not known whether the curvature of some of the blades can be attributed to the fire. Six partial green obsidian blades and seven partial gray obsidian blades (Figure 17) were also recovered. Slate backings for composite artifacts were also present. One slate mirror back had two suspension holes and a red substance on its face that may represent melted hematite (Figure 18). Three other thin slate backings were uncovered; one with a concave front still had part of its backing attached to it (Figure 19a); another formed a square with rounded corners (Figure 19b); and, a third formed the backing for an elongated oval pendant (Figure 19c). The largest shell object encountered was badly burnt and fragmented, but appears to have possibly formed the throwing tip for an atlatl (Figure 20); it is carved in the shape of a bird head. Five large beads were encountered; three are largely unburnt jadeite (Figure 21a-c); one that was shell was incinerated (Figure 21d) and one that was stone, possibly jadeite (Figure 21e) was also incinerated. One hundred and forty-seven burnt shell beads were recovered (Figure 22); 35 fragments of other shell beads were also noted. Two larger Flamingo Tongue shells (Figure 23o and 23p) were recovered, as well as 14 smaller Flamingo Tongues shells (Figure 23a-n), all pierced for suspension; all were burnt. Numerous fragments of worked bone (Figure 24a-v) and

worked and carved shell (Figure 24w-oo) were also included within S.D. C117F-1; several pieces of broken pieces of chert were also found. The amount of artifactual material from this deposit is unusual, especially from such a small area.

The bones within this deposit were heavily burnt and would represent a “Level 1” cremation in central Mexico (e.g., Sempowski and Spence 1994). At least 3 individuals were present. However, because of the extremely small size of the material and the burning intensity that it experienced, it is very difficult to identify the number of individuals and their ages. Some 66 single root tips from human teeth were recovered; given that a maximum of 50 roots exist in the mouth of a single adult individual, this clearly indicates that more than one person was present. Several teeth have incompletely formed roots, suggesting that at least one individual was a subadult or a young adult. Some long bones appear to derive from an infant or subadult. The dental enamel caps that are present do not appear to be worn; however, there is so much breakage that this might not be accurate. These caps could also represent a 5 year old, if the roots were not yet formed; however, no subadult teeth were present. An epiphysis from a radius indicates that one of the individuals was between 10 to 15 years of age at time of death. Thus, looking at all lines of data, it would appear that three individuals were present in this deposit: one adult; one subadult; and additional bones from a third individual.

Special Deposit C117F-1 is of great significance to our understanding of Caracol’s early history (A. Chase and D. Chase 2011). It dates to approximately A.D. 330, which is when Caracol was “founded” according to the hieroglyphic texts; radiocarbon dating will be forthcoming. The size and shape of the grave resembles those that are known from household groups at Teotihuacan and its location in the center of a plaza also matches similar placement of important burials at Teotihuacan (Sempowski 1992). Unlike the Maya lowlands, cremation is not uncommon at Teotihuacan. And, high status cremations at Teotihuacan contain a high diversity and wealth of artifactual material, like the Caracol interment (Sempowski and Spence 1994). In the future, it may be possible to derive oxygen levels from the bones of individuals in this interment to determine if any were, in fact, non-Maya. It is not impossible to imagine that a Teotihuacan warrior married into an elite family at Caracol in the early part of the 4<sup>th</sup> century. The presence of S.D. C117F-1 at Caracol also lends credence to the belief that Copan’s earliest ruler may have



come from this site (Price et al. 2010), which would accord with the hieroglyphic notation that this Copan ruler came from the “three stone place,” a designation associated with Caracol.

### **Structure B33**

Structure B33 formed a primary focus of investigation during the 2009 field season. The base and summit of this building were also foci of the 2010 field season. During the 2009 field season, the eastern interior portion of the central building was cleared and the eastern transverse rooms were also cleared. Both units were also trenched during 2009. During the 2010 field season, the remainder of the interior building (western portion) was areally cleared, as was the western rear bench room. The front portico of the building was also cleared in order to aid stabilization. The only section of the Structure B33 palace that was not excavated was the transvers suite of rooms located to the east of the main palace building.

**Operations C181E, F, and G** (Figures 2, 25, 26, 29) were designated for excavations that occurred on the summit of Structure B33. Operation C181E was located in the front interior room of the palace area and ran from western facings of the central door jambs to the eastern door jamb of the rear western suite. Two ceramic vessels (Figure 27e and 27g) and pieces of a burner also recovered during the 2009 field season (Figure 27a) were recovered on the building floor west of the central door jambs; smaller artifacts from this portion of the building included a large perforated stone (Figure 28g) and a partial green obsidian blade (Figure 28d). Operation C181F was designated for areal clearing of the summit to the south of the front wall of the palace. Artifacts recovered in these excavations included a chert projectile point tip, worked bone (Figure 28b), worked slate fragments (Figure 28e and 28f) and the tip of a speleothem. Operation C181G was utilized both for the excavation of the western side room directly off the front palace room and for the western part of central rear room. Like its eastern counterpart, the western rear room exhibited benches on all three sides and was largely devoid of artifacts. Excavation in the western portion of the central rear room revealed that this area had been partitioned from the central bench and that a small interior room had been created that was largely occupied by benches on the western and southern sides. An elevation was done for the face of the western bench (Figure 29a) and two pottery vessels (Figure 29b and 30) were found *in situ* on top of this bench. Worked bone also came from the bench surface (Figure 27a) and a shell ring (Figure 27c) was encountered on the structure floor in front of the bench. As excavated, the central unit of Structure B33 exhibited a front room that was 23.25 m in length by 2 m in depth and had

three front doorways. Three doorways also pierced the medial wall of the building; only the central one was a straight pass-through. The central rear rooms measured 18.95 m from east to west. The central rear bench for the building measured 5.15 m east-west by 1.80 m north-south. This structure was clearly modified and utilized by the Terminal Classic occupants of the Northeast Acropolis.

**Operation C182E** (Figures 2, 31, 32, 33, and 34) was designated for the areal clearing of the base of substructure supporting Structure B33. During the 2009 field season, no architecture associated with the substructure was recovered. In order to define the substructure, so that plaza-level stabilization could take place, excavations started by working north from the known corner of Structure B32 and followed the plaster floor until the basal course of the Structure B33 substructure was located. The substructure was located 2.4 m north of Structure B32 and the excavation then followed this substructure east toward the central stairway. Two meters of the alley between Structures B32 and B33 was also exposed. The western side of the Structure B33 stairway was found 12.75 m east of Structure B32; an offset excavation, measuring by 1.5 m north-south by 6.2 m east-west, was placed over the area in which the basal step should have been located and proceeded to the edge of the Operation C181B trench excavated in 2009. The majority of the basal remains west of the stairway were in poor disrepair and usually only one course in height; only in the inset corner where the stairway and basal facing met were there 4 courses of stones. A final excavation, measuring 2.95 m by 2.95 m, was placed over the area where the eastern edge of the stair should have met the basal facing; this excavation did succeed in finding these architectural remains (Figure 34). Parts of two ceramic vessels were recovered from these excavations, most of an incurved footed bowl (Figure 35a) and the majority of a footed, red-slipped ceramic barrel (Figure 35b). With the exception of a pyrite hexagon (Figure 36j) and a partial green obsidian blade (Figure 36m), most other artifacts of note consisted of broken chert tools (Figure 36a-i, j). However, a miniature chert “arrow” point (Figure 36k) was also recovered, making it the second one found in association with the Northeast Acropolis and the third one known from the site epicenter (a fourth came from an outlying residential group).

### **Structure B31**

Mostly excavated during 2009, Structure B31 was a low composite structure located on the southwest corner of the Northeast Acropolis. It faced toward the plaza and, with Structure B32, blocked direct central access into the Northeast Acropolis from the southern direction. Excavations associated with

Structure B32 during 2010 involved the removal of a balk and then an extension of the excavation tangent to the western side of the building down the southern platform slope.

**Operation C183I** (Figure 2 and 37) consisted of the removal of the balk between Operations C183E and C183F, both excavated during the 2009 field season. Operation C183I measured 2 m east-west by 3.55 m north-south. It recovered the same architectural features found during the 2009 field season. Artifactual remains recovered in this clearing excavation included broken chert tools (Figure 38a and 38b).

**Operation C183J** (Figure 2, 39, 40, and 41) was placed immediately west and tangent to Structure B31, but east of a low building that occupied the southwestern summit corner of the Northwest Acropolis. This excavation succeeded in encountering a stairway that ran south down the slope of the Northeast Acropolis and ended in a landing for a north-facing doorway. This doorway articulated with a building that was located half-way down the south face of the Northeast Acropolis platform, but the rear wall of this structure had collapsed. Given that there was no central southern entryway to the Northeast Acropolis summit, this area would have permitted private entry to this complex from its side. Operation C183J measured 12.10 m north-south by 2.75 m east-west. The descending stairway consisted of six steps that ended in a landing that was 1.8 m below the upper plaza floor. The landing measured 1.6 m north-south by 2.55 m east-west. At its southern edge was a step, which rose approximately 25 cm above the lower surface, into the north-facing building. Both sides of this landing were faced and the facing originally rose to the height of the Northeast Acropolis plaza surface, articulating with the stairs. Refuse was recovered from the landing floor immediately in front of the step. Reconstructable ceramics included a large olla (Figure 42b), a large platter (Figure 42a), an elaborately incised and fluted black jar (Figure 42c), a footed vase (Figure 42d), and a burner that was decorated with an applied, probably human, figure (Figure 42e). Other artifacts included slate drills (Figures 43a and 43e), a partial green obsidian blade (Figure 43g), modified shell (Figure 43f), a ceramic figurine fragment (Figure 43b), and broken chert tools (Figures 43b and 43d). Also associated with the refuse on the landing floor were human cranial fragments and the phalange from a human hand.

### **Structure B30**

Only the western edge of Structure B30 was exposed in 2009. Together with Structure B31, Structure B30 effectively precluded central access to the Northeast Acropolis in the Terminal Classic

Period, making the interior plaza of the Northeast Acropolis very private space. In 2010, the northern facing of this building was exposed.

**Operation C183K** (Figures 44 and 45) was a very shallow excavation that measured 5.5 m east-west by 1 m north-south. It was excavated to expose the northern facing of Structure B30 at the request of the IOA stabilization crew. No small artifacts were recovered.

### **Summary of Northeast Acropolis Excavations**

The excavations undertaken in the Northeast Acropolis during 2009 and 2010 were significant in their recovery of Early Classic and Terminal Classic materials. The deposits recovered during these two excavation seasons serve to emphasize the importance of this group in the Early Classic Period, highlighting Caracol's importance in the wider Maya world. The potential Teotihuacan relationship evinced by the occupants of this group is both early and unusual, but would not be inconsistent with the hieroglyphically and osteologically-based interpretation that Caracol contributed the founding ruler to Copan (Price et al. 2010). The elaborateness of S.D. C117F-1 and its early date relative to Teotihuacan-inspired materials also requires re-assessing exactly what the A.D. 378 "entrada" (Stuart 2000) recorded at Tikal and Uaxactun means. Based on the Caracol and Altun Ha (Pendergast 2003) materials, Teotihuacan was clearly an established trading partner well before this time. The second time period that is emphasized in the materials recovered from the Northeast Acropolis was the Terminal Classic Period. Realistically, while buildings may have existed on the northern and eastern sides, the final form of the Northeast Acropolis came into existence in the late 9<sup>th</sup> century. The summit was raised some 2.1 m and new buildings (Structure B30, B31, and B33) were all constructed as part of this effort. The palace that existed on the northern building, Structure B33 was modified and re-occupied; possibly the eastern and western ends of Structure B33 were added at this time. While Structure B34 was used in several cases to place burials in the Terminal Classic Period, it does not appear to have been overtly modified; instead, the 2010 excavations show that what appeared to have been a stairbalk was in fact simply appended to dry core fill. The cut stone architecture that may have been associated with Structure B34 appears to have been stone-robbled. Thus, while the other buildings in the Northeast Acropolis were all occupied and modified until the final days of Caracol, the eastern ancestral shrine appears to have been largely left in a state of

disrepair. Even though some late interments were recovered in Structure B34, its architectural neglect may suggest that a different group of people occupied the Northeast Acropolis just before Caracol collapsed.

### **Alta/Baja Vista: Structures F30-F42**

The primary residential group that was selected for investigation in accord with the research design focused on Terminal Classic variability in elite material culture is located on the high ground of a peninsular spine immediately west of the Northwest Group (Structures F1-F4), a terminus for the Caracol epicenter (Figure 1). Alta/Baja Vista constitutes a double-plaza elite residential group connected to the epicenter by a formally constructed via. Based on the size of the constructions, its inhabitants were surely important participants in Caracol's history. Structure F33, in particular, rises well over 5 meters above its associated plaza in Alta Vista and approximately 7 m above the plaza in Baja Vista, making it one of the tallest pyramidal structures known from a Caracol residential group. Archaeological investigations were carried out in this complex in 2010 and will again be undertaken here in during the 2011 field season. It was initially hoped to gain a fairly full understanding of both the plans of the buildings within this group and their developmental histories through these investigations. The 2010 field season demonstrated that this residential complex was probably established in the Late Preclassic Period and that it was indeed occupied in the Terminal Classic Period at the same time as the final occupation in Caracol's epicenter. Because of the complex's proximity to the epicenter, it is indeed an excellent location to assess the penetration of Caracol's final "palace complex" into the material culture of the site's secondary elite. The data collected here are also comparable to those collected from the Northwest Acropolis ([www.caracol.org](http://www.caracol.org) 2006 field report) and from the group containing Structure F21 ([www.caracol.org](http://www.caracol.org) 2001 field report). Investigations undertaken during 2010 focused on Structures F33, F36, and F39, in case a second season of excavation was necessary at any of these loci; also investigated during 2010 was Structure F41 and a vacant terrain platform in the plaza of Baja Vista.

#### **Structure F39**

Two eastern constructions define the eastern side of Baja Vista, a larger southern building and a smaller northern building. One or both of these edifices should represent mortuary buildings, if patterns found elsewhere at Caracol are applicable to this residential complex. Both structures are built against a hill slope that rises to the east. The via running into Alta/Baja Vista lies directly south of the larger eastern

building. The larger eastern building, Structure F39, rose 3.8 m above the plaza surface and was selected for excavation during the 2010 field season. No architectural features were in evidence prior to investigation.

**Operation C184B** (Figures 46, 47, 48, and 49) was a 2 m wide by 11.3 m long trench set on axis to Structure F39. The excavation reached bedrock in most of the trench, except for the easternmost extent, where the boulder-like core rocks were too large to be easily moved in the confines of the investigation. A fairly complicated building sequence was encountered at the locus, involving at least four different versions of this edifice. The summit floor for the latest building phase was not in evidence, but the coring for this final substructure is visible in the section (Figure 47), as are the ruined steps on the eastern side of the building. Also associated with this final building version was a burial (S.D. C184B-2) that cut through two earlier floors and was sealed by the upper building fill; it appears that this burial was placed at the time of the final summit building episode. Evidence of two earlier sequent frontal shrine rooms were also encountered in the excavation. The uppermost one was represented by a crude corner with a preserved floor (evident in Figure 49); on this surface, a partial carved stone figure (Figure 51) was recovered on the floor of this feature against the “rear” wall; the immediate fill over this upper shrine contained the fragments of two speleothems (Figure 50). The earlier, deeper shrine room was labeled as a special deposit (S.D. C184B-4 below) because of the quantity of ritual ceramic materials and bone that were recovered. This shrine was set directly above a burial (S.D. C184B-6) and another burial was immediately in front of the shrine (S. D. C184B-7). It is likely that these interments cut through earlier special deposits, which would account for the face cache (Figure 72d) in S.D. C184B-7 and for the broken, much earlier, lip-to-lip cache (Figure 52) and the obsidian eccentrics (Figure 63c-e) in the fill beneath the lowest shrine. The investigation of Structure F39 resulted in the recovery of 3 burials, 3 caches, and the shrine deposit mentioned above; the majority of these deposits may be assigned to the Late Classic Period and at least one burial (S.D. C184B-2) dates to the Terminal Classic Period.

**S.D. C184B-1** (Figures 48, 49, 52a) consisted of a single upright finger bowl placed in the plaza fill 2.4 m west of the bottom-most step. It was not associated with any other artifactual material. The dating that cannot be refined beyond “Classic Period.”

**S.D. C184B-2** (Figures 48, 49, 53, 54a, 55, 56, and 57) is a burial that was associated with the latest renovation for Structure F39. A pit was put through the earlier summit floor, the burial was placed, the pit was infilled, and then a new summit was constructed. Based on stratigraphy, S.D. C184B-2 may be assigned a Terminal Classic date. The contents of the burial consisted of 1 flexed individual placed in a circular pit beneath a large inverted bowl (Figure 54a) with an eccentric flint (Figure 55); the individual was wearing a necklace or collar comprised of 162 Flamingo Tongue shells (Figures 56 and 57). The eccentric flint (Figure 55) measured 21cm in length by 14.3 cm in width; the flint was pierced by a circular hole having a diameter of 5.4 cm; its basal portion was in the form of a tang, presumably for hafting. In 26 seasons of excavation at Caracol, this was only the second time that a deposit with one or more eccentric flints had been encountered; both deposits were outside the site epicenter in residential units (see 2008 field report at [www.caracol.org](http://www.caracol.org)). The skeletal remains were quite fragmentary. The skull fragments show a slight thickening of the bone and potential pitting on the occipital near the suture. However, the vertebrae do not suggest any degenerative change. The small size of the mandible suggests that the individual may have been a female, although the angle is not possible to determine. The central upper incisors and lower lateral left incisor all show substantial wear. Tartar is present on both the lower and upper teeth. The wear patterns on the teeth suggest that the individual was between 35 and 45 years of age at the time of death (following Brothwell 1981).

**S.D. C184B-3** (Figure 48, 49, and 52b) consisted of a single upright finger bowl in the center of the excavation directly west of both of the buried shrines; the deposit was in the fill for the latest renovation of Structure F39, dating it to the Terminal Classic era. However, the possibility exists that the small finger bowl was not purposefully placed, but was rather re-deposited incidentally as part of the last construction episode associated with Structure F39.

**S.D. C184B-4** (Figures 48, 49, 58, 59, 60, 62, and 66) consisted of materials deposited in the basal portion of a small destroyed shrine room (Figure 59). The shrine room was deeply buried within the core of Structure F39; its roof was gone and it had no formal flooring, although the artifactual materials ended at the base of the defining walls of this feature. The shrine room had a small door that faced west (Figure 66). The dirt and stone fill that was located within the remaining walls of shrine room contained a large amount of whole and partial specialized ceramics in the form of incensarios (Figure 60) and cache

vessels (Figure 61). Also present were most of a polychrome bowl (Figure 61a), human bone, two jadeite beads (Figure 62j and 62k) and artifactual materials, such as obsidian eccentrics (Figure 62a-i), that were appropriate for deposition with cache vessels. The recovered human bone from S.D. C184B-4 represents the partial and disarticulated remains of two older individuals; one is possibly male and the other is possibly female. Two mandibles were recovered; both were devoid of teeth. All tooth loss appears to have been ante-mortem. One mandible appears male, which is consistent with well-marked muscle attachments on a tibia and femur that were recovered. The second mandible is more diminutive; the size and proportions suggest that it comes from a female, matching a gracile humerus with no muscle markings. The deposition of the bone, artifacts, and specialized ceramics within the walls of the buried shrine suggest that all of these materials were redeposited from somewhere else. In essence, S.D. C184B-4 represents the deposition and consecration of ritual items that were stored elsewhere and placed within an appropriate consecrated space as part of one of the building episodes for Structure F39. Directly beneath the shrine room, the capstones for a burial (S.D. C184B-6) were recovered and the fill above these capstone contained artifactual material (Figures 52d, 52e, and 63) that may have been disturbed when this burial was placed.

**S.D. C184B-5** (Figures 48, 49, 52c, 64, and 65) consisted of a ceramic cache vessel (Figure 52c) placed within the frontal stairway for Structure F39 in a hollow dug into the bedrock shelf upon which the shrine room for S.D. C184B-4 was built. The ceramic vessel was spherical in shape and was not lidded. Within the interior of this vessel, a trove of 6 obsidian cores and 9 large obsidian flakes (possibly classifiable, given the context, as “eccentrics”) were recovered. Other than being attributable to the “Classic Period,” the exact dating of this cache is not known.

**S.D. C184B-6** (Figures 48, 49, 66, 67, 68, and 69) was assigned to a burial located directly beneath the shrine room that held S.D. C184B-4. Subflooring the shrine room revealed a series of limestone capstones (Figure 66). These rested slightly over the skeletal remains of a single fragmentary individual who was accompanied by 2 ceramic vessels (Figure 68). The individual was deposited just above bedrock in a supine position with head to the north. A cylinder was placed over the individual's right humerus and a plate/dish was placed over the individual's lower legs. The skull was relatively well preserved and the frontal area is suggestive of a male. The sciatic notch was broken. No mandible was



recovered. The skeletal remains are those of an adult, but age is not certain. Based on the ceramics, the burial may be dated to the Late Classic Period.

**S.D. C184B-7** (Figures 48, 49, 66, 70, 71, 72, and 73) was an interment placed directly on bedrock in front of the buried shrine room that held S.D. C184B-4. The northern edge of the pit was cut into the bedrock and only the southern part of the burial pit evinced capstones (Figure 66). The skeletal remains were in a poor state of preservation and were very fragmentary; they had been disturbed, possibly by animals as there was air space below the southern capstones. Originally, the head had been placed to the north in a supine position (Figure 71). The sex of the individual could not be ascertained. The teeth show evidence of heavy wear, indicative of an adult between the ages of 25 to 35; however, not all teeth are present and, if there was ante-mortem tooth loss, the individual could actually be older. All of the artifactual materials were concentrated in the upper part of the body. The individual was accompanied by 3 shell adornos (Figure 73) and 4 ceramic vessels (Figure 72). It is suspected that the cache vessel was uncovered during the placement of this burial and was added to its contents; the cylinder, bowl, and plate comprise an appropriate burial assemblage (D. Chase 1997). The ceramic vessels permit the burial to be dated to the transition from the Late to Terminal Classic Periods; S.D. C184B-7 was placed after S. D. C184B-6.

### **Structure F41**

Located along the southern side of the Baja Vista plaza (Figure 46) are three low structures. None rises more than 60 cm above the plaza level. The central one of these buildings, Structure F41, was selected for investigation during the 2010 field season.

**Operations C184C and C184E** (Figures 74, 75, 76, 77, 78, and 79) were both designated for Structure F41. Operation C184C was a 4.6 m long (north-south) by 1.5 m wide excavation placed on axis to Structure F41. Operation C184E was set 1 m west of Operation C184C and measured 4.0 m east-west by 4.6 m north south; it was primarily designed to encounter trash in the alleyway between Structures F41 and F42. Together these two investigations revealed that Structure F41 was a bi-level building with a northern frontal stoop (Figures 75 and 76) and a possible bench on its eastern side (Figure 76). Whereas Operation C184E was an areal excavation designed to expose the latest cultural features, Operation C184C also was a trench that penetrated the core of Structure F41. Operation C184C revealed an earlier flooring

for Structure F41 and also an even deeper, earlier plaza surface. No deposits were found in the core for Structure F41. However, a partial Terminal Classic bowl and a partial scored incense burner were recovered from the alley between the two buildings (Figure 79). Recovered artifactual materials (Figure 77) included worked shell from Operation C184C and a stone spindle whorl from Operation C184E.

### **Structure F36**

Dominating the north side of Baja Vista is Structure F36, which rises some 4.4 m above the plaza surface. During the 2010 field season, it was selected for investigation. Unlike other buildings in Baja Vista, a southern facing was partially visible prior to excavation.

**Operation C184D** (Figures 46, 80, 81, and 82) consisted of a 2 m wide by 9.85 m long trench set on axis to Structure F36. The excavation immediately focused on the partially visible southern facing. The facing was followed down to plaza level. At plaza level, it articulated with another facing or step; the original facing clearly formed a stair balk. This balk effectively divided Operation C184D into two parts, a test excavation into the Baja Vista plaza in front of the building and a deep probe of the building itself. Once initial excavations on the summit of Structure F36 had removed the darker humus, the investigation recovered large building stone and buff-colored marl. This matrix continued to a depth of 2.25 m below the summit and exposed the remains of a still plastered – and once vaulted – building that consisted of two rooms. The walls were 0.90 m thick and the doorways to each room were 1.7 m wide. A raised bench occupied the rear room; it was not cleared and the rear wall was not reached. The front room was 1.85 m wide and it is suspected that the rear room was the same width (only 0.9 m of it was exposed in the trench). A faised frontal platform extended 3.35 m to the south of the building to articulate with the balk. Penetration of the vaulted building and frontal platform found evidence of at least 2 earlier versions of Structure F36. Based on the height difference in the floors in the building and in front of the building, the basic stepped-layer design was the same for the earlier versions of the edifice. The earliest building was penetrated to a depth of just over 2 m and revealed continuous large rubble fill. An earlier floor level recovered within the northern wall of S.D. C184D-6, however, suggests that an even earlier, but smaller, construction may lie beneath the raised frontal platform. No deposits were recovered beneath the building itself, but a series of burials and caches were recovered from the plaza in front of the building and within the frontal terrace. Additionally, a series of reconstructable vessels (Figure 86) were encountered in the fill

beneath the plaster floor for the raised frontal platform. These ceramics permit the construction of the latest version of Structure F36 to be dated to the Late Classic Period, a fact corroborated by the tomb (S.D. C184D-6) sealed beneath this same surface.

**S.D. C184D-1** (Figures 81, 82, and 83a) was assigned to a smashed lip-to-lip ceramic cache (Figure 84a) located in plaza fill south of the lowest step in the eastern part of Operation C184D. While the upper vessel was badly smashed, the lower vessel was fairly intact.

**S.D. C184D-2** (Figures 81, 82, and 84) was assigned for a pyrite mirror that was recovered in the plaza fill south of the lowest step in the eastern part of Operation C184D. Most of the mirror was in a fairly concentrated area, but pieces of it had fallen through the dry core fill that made up the plaza. The mirror was easily reassembled from its pyrite components and was missing only 5 edge pieces (Figure 84). Its backing appeared to have been composed of porous sandstone that had decomposed to some extent.

**S.D. C184D-3** (Figures 81, 82, and 85) was assigned for a crypt interment that was encountered in the plaza immediately beneath the lower step. The open-air crypt ran east-west and was constructed of rough boulders on its sides and for its capstones. A single supine individual with head to the east occupied the chamber. There was an in-field identification of the individual as an adult female. Substantial wear on the molars indicates an age of between 35 to 45 years at the time of death. No inlays or filings occur on any of the teeth. However, caries are present on 2 upper molars and on 1 upper canine; tartar is present on two lower incisors. Uneven wear is pronounced on the lower right central incisor. Because no artifactual material accompanied the burial, exact dating is problematic.

**S.D. C184D-4** (Figures 81, 82, 87, 88, and 89) was assigned for a burial placed directly in the fill of the raised frontal platform. The body was of a sub-adult individual who was approximately 4 years old based on dental eruption. All lower deciduous teeth were present; the upper central deciduous teeth were missing; the permanent teeth had not yet erupted. Only minimal wear was evident on the incisors and canines. The individual was articulated and was in a supine position with head to the east. Three ceramic vessels and one carved shell accompanied the child (Figure 89); the faced bowl and the olla were above (east of) the head; the carved shell was placed directly over the mandible and was, in turn, covered by the small footed plate. The ceramics date this burial to the Terminal Classic Period.

**S.D. C184D-5** (Figures 81, 82, 83b, and 88) was assigned for a single unslipped ceramic vessel with a slightly dimpled base (Figure 83b) that was deposited in the front core of Structure F36. Even though spatially close to S.D. C184D-4, the cache had been placed at a deeper level and was not associated with that deposit. Nothing was found in the container.

**S.D. C184D-6** (Figures 81, 82, 90, 91, 92, 93, 94, and 95) denoted a tomb encountered in the eastern wall of Operation C184D that was sealed beneath the level of the latest frontal platform floor. However, this may be misleading because there was an eastern entryway to the chamber that presumably articulated in some way with a side stairway. The tomb measured 0.7 m in width by 2.7 m in length and had a height of 1.2 m at its tallest point (Figures 91 and 92). The walls of the chamber were built of rough stone. The bones were in a state of disarray, probably because the chamber had been accessed by animals for a lair. The ceramic vessels were mostly located at the eastern end of the chamber. Eight ceramic vessels were found in the chamber (Figure 93); one of the vessels is a small perfume bottle with the modeled images of God K on its two sides (Figures 93c and 94). The ceramics permit the tomb to be dated to the Late Classic Period. Artifactual remains from the chamber included a jadeite “bib-head” pendent, piece of jadeite, a quartzite bead, two carved shell adornos, and a partial limestone bar. The tomb contained the fragmentary skeletal remains of three individuals. Sexes could not be determined. One was an older adult with jadeite inlays. Another individual in this chamber also once had inlaid teeth; however the holes are now empty and no inlays were recovered in the chamber. The bone on one mandible fragment is totally resorbed on its right side, indicating ante-mortem tooth loss. Tartar and caries are also present on some teeth.

### **Vacant Terrain Building**

Traversing the Baja Vista plaza to enter the Alta Vista plaza resulted in the recognition of possible lines of stone that had not originally been recorded on the site map. As line-of-stone constructions were often late additions to plazas, a vacant terrain excavation was placed over the area believed to contain a possible structure.

**Operation C184F** (Figures 46, 74, 96, 97, 98, and 99) was assigned to an areal excavation that measured 3 m north-south by 5.6 m east-west. The investigation succeeded in revealing the line-of-stone building plan for approximately 60% of the structure (Figure 98). As revealed, the structure appeared to

have been stepped midway through the platform and to have had a square-like feature, perhaps a bench, on its northern side on the raised western level. The platform was not penetrated. A patch of plaster flooring was encountered on the lower eastern level – and associated with this plaster floor was a reconstructable olla (Figure 99b). The upper portion of another, smaller olla (Figure 99a) was also recovered in this excavation. These vessels date the construction to the Terminal Classic Period. It may be that this low structure was used as a kitchen or food processing area based on the ollas (both of which are blackened).

### **Structure F33**

The tallest building in the Baja/Alta Vista complex was Structure F33. Pyramidal in shape, it rose some 5.1 m above the eastern plaza ground surface. Structure F33 is one of the tallest constructions in a residential group at Caracol. The height of this building is one of the reasons that Baja/Alta Vista was identified as potentially being occupied by secondary elites. Even though excavation did not recover any formal architectural features that can be ascribed to a formal constructed building as ever having existed at its summit, the number of ritual deposits recovered from this structure indicate its importance.

**Operation C185B** (Figures 100, 101, 102, and 103) was a 2 m wide by 13.4 m long trench placed on axis to Structure F33. With the exception of the basal front portion of the sub-structure, the architectural features related to Structure F33 were not well preserved. This excavation eventually penetrated the structure to a depth of 5.7 m below its summit. The latest summit floor was eroded, but must have capped both the fill and the grave for S.D. C185B-4 (Figure 105), which can be dated to the Late Classic Period. This interment cut through an earlier floor that dated to the Early Classic Period based on S.D. C185B-6 (Figures 118 and 119). An earlier floor was encountered beneath this deposit. This floor articulated with a projecting balk (see eastern stone feature in Figure 103) and was constructed at some point in the Late Preclassic Period based on S.D. C185B-15 (Figure 115). Two floors of even earlier dating were located beneath this deposit, but no deposits were recovered in association with them to provide secure dating (other than Late Preclassic). In contrast to the early fills in the core of Structure F33, the majority of the deposits that were recovered in the stairway area date to the Late Classic Period. The only cache deposit that may date earlier than the Late Classic Period is S.D. C185B-7 (Figure 122c), based on it being disturbed by the construction of the crypt for S.D. C185B-13 (Figure 112). The stratigraphy suggests that all of the other caches to the front of Structure F33 are of Late Classic date. A projecting stair balk was

built over S.D. C185B-13 and was probably associated with the placement of S.D. C185B-9 (Figure 122f) in the early part of the Late Classic Period. This balk was later extended west into the plaza area with the deposition of S.D. C185B-10 (Figure 108), a burial immediately behind the balk's western facing. S.D. C185B-8, a face cache (Figure 123c) was also either placed at this time or was later intruded into the renovated balk. A total of 15 deposits (3 burials, 12 caches) were recovered from Operation C185B. Only a few significant artifacts were recovered outside of the confines of these deposits (see Figure 104) – and no artifactual materials that could be clearly dated to the Terminal Classic Period were noted.

**S.D. C185B-1** (Figures 101, 103, and 123a) consisted of a lidded face cache that was found in the fill for the last plaza surface immediately north of the stair balk that housed S.D. C185B-13. The cache had no inorganic contents. It is possible that a similarly placed cache would be found south of the stairbalk. The face cache is of Late Classic date.

**S.D. C185B-2** (Figures 101, 103, and 122c) was assigned for a paired set of lip-to-lip “finger bowls” that were recovered in the center of the Operation C185B in the collapse matrix overlying S.D. C185B-13. Because the cache was found at a fairly highly level, it is likely that it is not in its original placement and that it derived from behind now-collapsed stairs.

**S.D. C185B-3** (Figures 101, 103, and 122a) consisted of a paired set of partial finger bowls that were recovered in collapse from the middle part of the frontal slope of Operation C185B. The original placement of this cache is not known.

**S.D. C185B-4** (Figures 101, 102, 105, 106, and 107) was assigned to a grave at the summit of Structure F33. The grave was cut into an earlier floor and was presumably sealed by the now eroded upper floor for the building. The fill within the grave was full of large pieces of what are redeposited incensarios (Figure 106). Interestingly, while some of the incensarios are reconstructable from base to rim, the faces that were modeled on the censers are largely missing, perhaps having been purposefully removed. The incensarios from this deposit are all in the form of hollow flanged cylinders; this is different from other incensarios recovered from Caracol (e.g., A. Chase and D. Chase 1987:fig xx; 2004:fig. xx) which all exhibit closed pedestaled bases. This hollow tubular form may date to the earlier part of the Late Classic Period. The censers in S.D. C185B-4 are similar to those found in S.D. C184B-4 and it is suspected that the C184B-4 censers (Figure 60) were of a similar date to those in Operation C185B

and were also the result of redeposition. These two deposits are unique in being associated with a high proportion of censerware and may shed light on the occupations of the Baja/Alta Vista inhabitants. The body of the primary individual in the interment appears to have been oriented head to the south, although the recovered mandible came from the northern portion of the grave. The skeletal remains primarily come from 1 individual, who may be identified as an older female. However, the partial remains of a second individual are also present based on 3 recovered femurs. The pelvis of the primary individual was identified as belonging to a female in post-field analysis. The probable mandible of this individual has ante-mortem tooth loss with the molar areas being completely resorbed. Seven teeth are present; all are well worn; two have caries; and a lower right canine has a pyrite inlay. Tartar and hypoplasia are also in evidence. While no complete ceramic vessels accompanied the skeletal remains, a number of artifacts clearly accompanied the burial; these included a set of ceramic ear spools (Figures 107a and 107b), a carved jadeite bead (Figure 107j), and 2 perforated sea shells (Figures 107c and 107d). Based on the incensarios included in the fill of this burial, it likely dates to the middle part of the Late Classic Period.

**S.D. C185B-5** (Figures 101, 103, and 123b) was assigned to a very crushed face cache and lid that was set directly on bedrock within the plaza fill in the western end of Operation C185B. The vessel showed no evidence of any contents. It dates to the Late Classic Period.

**S.D. C185B-6** (Figures 101, 102, 118, 119, 120, and 121) was a cache sealed beneath the floor that was cut to place S.D. C185B-4. The cache consisted of an urn and lid (Figure 119) placed into the dry core fill beneath this floor. As found, the modeled lid was not on the urn, but rested just south of it. The lid is modeled with a jaguar body, but the head is missing; it is similar to one found during the 2008 field season (see 2008 field report at [www.caracol.org](http://www.caracol.org)). The bodies and rims of 3 large striated and punctuated ollas (Figure 118) had been placed over the cache and the cache lay on a bedding of smooth rounded quartzite pebbles. The contents of the urn (Figure 120) were carefully drawn. The urn was covered by a large scallop shell (Figure 120 and 121a) and, like S.D. C185B-15, was filled with a host of smaller artifactual materials (Figure 121) that included: 2 spondylus shells, 2 pomacea, 1 stingray spine, 6 worked shell disks, 4 shell beads, 2 pieces of worked hematite, 2 jadeite beads, 1 jadeite ball, 1 jadeite objects pendent, 1 pearl, 3 Charlie Chaplins, 6 small shell pendants, 5 pieces of worked shell, a 2-part

composite shell disk, 5 jadeite chips, and 2 fish vertebrae. The style of urn, the overlying olla pieces, and the kinds of contents in this deposit all permit the deposit to be dated to the Early Classic Period.

**S.D. C185B-7** (Figures 101, 103, and 122e) was assigned to a cache consisting of two lip-to-lip deep bowls that were set on bedrock at the base of the structure stair at the northern edge of Operation C185B. Besides the ceramic vessels, no other artifacts are assigned to this deposit. While the bottom vessel, which was not modeled, was largely intact, the upper vessel was missing its base. This upper vessel was also modeled with 2 elements that were painted yellow and looked like the sun and its rays; vertical moldings with possible cylindrical earrings flanked these two elements. Because the base was largely missing, the exact iconography cannot be ascertained. Pieces of the upper vessel were recovered from within S.D. C185B-13, indicating that the construction of this crypt disturbed this earlier deposit. Thus, S.D. C185B-7 can be dated as earlier than the early part of the Late Classic Period and possibly to the Early Classic Period.

**S.D. C185B-8** (Figures 101, 103, and 123c) was assigned to a face cache that had been placed within the Structure F33 stair-balk extension directly in front of the old balk and tangent to the southern edge of Operation C185B. The face on the vessel was modeled in the form of the jaguar god of the underworld, normally found associated with incensarios. The lidded cache contained no inorganic materials. The deposit dates to the Late Classic Period.

**S.D. C185B-9** (Figures 101, 103, and 122f) was assigned to a cache consisting to two lip-to-lip deep bowls that were set beneath the western facing of the initial stair-balk for Structure F33. This stair-balk contains S.D. C185B-13, which dates to the early part of the Late Classic Period. Thus, S.D. C185B-9 dates no later than this time; however, an even earlier dating is possible if the cache was deposited prior to the construction of the stair-balk. No artifactual material was recovered from within the two vessels.

**S.D. C185B-10** (Figures 101, 103, 108, and 109, and 110) was a burial set inside a bedrock pit immediately behind the western facing for the stair-balk extension. Initially, it was thought that there was a single supine individual in this interment with head to the north. However, as excavation of the lower portion of the body proceeded, bundles of bone were recovered over the legs of this first individual. Eventually, the remains of 4 individuals were recovered from this burial. All were adults or older adults.



Two were male (based on one sciatic notch and two skulls); one was female (based on one sciatic notch and one skull); and the sex of the last individual cannot be determined. The recovered mandibles all exhibit ante-mortem tooth loss accompanied by extensive resorption. The northern male skull was associated with a pair of shell earflares (Figure 110a and 110b); a stone spindle whorl (Figure 110c) was recovered from the pelvis region of this primary individual. Two ceramic vessels (Figure 109) also accompanied this individual; both are of early-middle Late Classic date.

**S.D. C185B-11** (Figures 101, 103, and 124) was assigned to a large face cache found half-way up the front slope of Structure F33. It does not appear to have been lidded. The bottom part of the vessel was anchored in building fill, but the upper part of the vessel had been broken and was collapsing down the slope. The barbles or whiskers on the face are characteristic only of face caches found in higher status residential groups (D. Chase and A. Chase 2010). No artifactual materials were found in association with the vessel. Given the large size of the face cache, it is suspected that it dates to the earlier part of the Late Classic Period.

**S.D. C185B-12** (Figures 101, 103, and 122d) was assigned to a very broken pair of finger bowls found south of S.D. C185B-11. These vessels were clearly in the collapse of the building and had come from a higher level. It may be possible that they were once paired with S.D. C185B-11, possibly originally near the rim of the vessel. However, as they were physically distinct from the remains of the face cache, they were given their own deposit number. The incomplete lid of the vessel showed evidence of a modeled design.

**S.D. C185B-13** (Figures 101, 102, 111, 112, 113, and 114) was assigned for a burial in a well-constructed crypt that was encountered within the original stair-balk for Structure F33. Removal of the plaster surface of this stair-balk resulted in the recovery of a series of capstones (Figure 112); two of these capstones were slate, a burial pattern commonly found north of Caracol at the site of Minanha (Iannone 2005). Like S.D. C185B-10, the main individual in this crypt was placed in a supine position with head to the north; and, like S.D. C185B-10, bundled human remains were found in the vicinity of the lower legs. All told, the remains of at least 4 individuals were recovered from this burial. The primary individual was supine; two individuals were deposited as bundles to the south; and, one individual was deposited as a bundle to the north. Some additional remains are also present, but it is not clear whether

these represent an additional 1 or 2 individuals. The supine individual was likely a male based on his skull and mandible, which shows ante-mortem tooth loss and extensive resorption; this individual was at least 35 years of age. One of the other individuals was between 25 and 35 years of age at time of death based on dental wear. Three ceramic vessels (Figure 113) accompanied the interment; two bowls were in the chest area of the supine individual and a dish was inverted over the lower legs; all date to the early part of the Late Classic Period. As in S.D. C185B-10, a pair of shell earrings (Figure 114a and 114b) were recovered from the vicinity of the primary individual's skull. Two carved shell inlays, two jadeite beads, and one other potential shell earring were also recovered from this burial (Figure 114).

**S.D. C185B-14** (Figures 101, 103, and 122b) was assigned for a fragmentary pair of finger bowls that were recovered above the capstones for S.D. C185B-13 in the fill of the stair-balk. This cache would date to the same time that S.D. C185B-13 was covered or the early part of the Late Classic Period.

**S.D. C185B-15** (Figures 101, 102, 115, 116, and 117) was recovered by the back-filling crew; it was exposed in the southern wall of the section when a stone was knocked. The cache was sealed in the core of an earlier construction and represents the earliest deposit found during the 2010 field season; it likely dates to the end of the Late Preclassic Period. Set into dry core fill, the lidded barrel (Figure 115) was slipped a deep red and contained items commonly found within earlier caches (Figure 116). Included within the urn were complete sea shells (Figure 117a and 117b), 4 shell Charlie Chaplins (Figure 117c-f), 5 shell pendants (Figure 117g-k), 2 jadeite pendants (Figure 117l and 117m), 1 jadeite bead (Figure 117n), 1 piece of worked hematite (Figure 117o), 2 shell beads (Figure 117p and 117q), and 2 chert chips (Figure 117r and 117s). The inclusion of S.D. C185B-15 and S.D. C185B-6 within the fills of earlier constructions for Structure F33 suggests that the ritual use of this building may not originally have been for mortuary purposes; it was not until the early part of the Late Classic Period that the building gained a mortuary function with the placement of S.D. C185B-13.

### **Summary of Baja/Alta Vista 2010 Excavations**

Archaeological excavations in the Baja/Alta Vista residential complex have recovered a long history of occupation going back to the Late Preclassic Period and extending to the Terminal Classic Period. Interestingly, the recovered burials and deposits can be linearly sequenced and suggest that

Structure F33 was first utilized as a ritual locus for cache deposition in the Late Preclassic to Early Classic Period. While no Early Classic burials were recovered during the 2010 field season in association with these buildings, two early Late Classic burials were recovered from in front of Structure F33 and another interment of Late Classic date was recovered from the summit of this same building. The ritual locus then appeared to shift to Structures F36 and F39, both of which contained Late Classic and Terminal Classic burials. The fact that Structure F36 was also a vaulted stone building also indicates the high status that the occupants of this group enjoyed. The excavations further provide some insight as to the individuals who once lived here. Their access to, and probable use of, Late Classic incensarios was unusual – as indicated by the large numbers of redeposited incensario fragments that were recovered from the primary eastern buildings in both plazas. In combination with the large number of recovered cache vessels from Baja/Alta Vista, the presence of these incensario fragments strongly hints at the ritual occupations of the group's residents. Also unusual are the large number of older individuals that were recovered from the burials; most showed evidence of having resorbed mandibles. The age of these individuals would be consistent with ritual specialists who had become wise men or "itz'at" (Freidel et al. 1993:411).

### **LiDAR Ground-Checking and Cave Research**

Because the excavation agenda for the 2009-2010 season had already been set by the Alphawood grant, the overall focus has not been on ground-checking anomalies in the LiDAR data. Additional ground checking will be undertaken in earnest during the 2011 field season and will be followed up in 2012 with a season of excavation based on the LiDAR information and partially funded by the NASA/NSPIRES grant. One focus undertaken during 2010 was to formally identify features seen in the LiDAR DEM as caves. This was done for two huge sinkholes that were identified 2 kilometers north of Caana. Dr. Holley Moyes (UC Merced Anthropology) consented to come to Caracol to ascertain whether these depressions would be worthwhile to be investigated archaeologically. Using the LiDAR imagery, she easily led a reconnaissance crew to this locale and examined the sinks, declaring both to be present as was indicated by the LiDAR, but largely devoid of archaeological value given their steep and restricted access. Many smaller caves detected through the LiDAR DEM were located on the ground by Ms. Jessica Hightower (UCF Biology). Ms. Hightower spent much of her time gathering information on tree canopies, types, and thicknesses that could be correlated with the LiDAR data. She also ground-checked the location of a number of caves that

had been identified by Dr. John Weishampel (UCF Biology) as being more than 10 m in depth from the LiDAR DEM and was quite successful in locating all of these features (Figure 125). The reconnaissance activities associated with the identification of caves at Caracol have successfully demonstrated the utility and accuracy of the LiDAR data. However, the analysis of the LiDAR data and the articulation of these data with anomalies that have been recognized on the ground will require more than the 2010 and 2011 field seasons to reach fruition.

### **Significance**

The investigations that were continued in Northeast Acropolis during the 2010 field season and those that were begun in the Alta/Baja Vista Group at Caracol are particularly important to understanding Terminal Classic variability in coeval Maya material culture and in identifying changes that immediately preceded the Classic Maya Collapse. The excavations that were undertaken in the Northeast Acropolis are helping to elucidate late burial ritual, craft specialization, and the special role that this architectural complex played within the Caracol site core. Investigations in the Alta/Baja Vista Group have already provided comparative material that aids in defining the latest occupation, ritual patterns, and ultimate abandonment of Caracol's residential groups. These same data also demonstrate the significant differences that existed in the material culture of coeval social groups at the site. Previous research at Caracol suggests that some of the answers to the Maya collapse lay in understanding the internal dynamics of Maya socio-political and economic structures and the changes in these dynamics between the Late and Terminal Classic Period. The research that has been undertaken in 2009 and 2010 at the site is providing a concrete example of such inter-relationships for two upper level Caracol residential units that can then be compared with previously excavated Late Classic and Terminal Classic data. Thus, the investigation of the late (Terminal Classic Period) occupation at Caracol should ultimately shed light on the changing socio-political and economic dynamics of this site and region that will have implications for wider interpretations of the Classic Maya Collapse.

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**TABLE 1:****Caracol Project Members: 2010 Field Season****Staff:**

<b>Directors:</b>	Arlen F. Chase	C1
	Diane Z. Chase	C2
<b>Lab and Field Directors:</b>	Maureen Carpenter	C56
	Amy Morris	C111
<b>Senior Field Supervisors:</b>	Jorge Garcia	C144
	Lisa Lomitola	C183
<b>Field Supervisors:</b>	Jeff Brzezinski	C192
	Alexander Rivas	C188
<b>Field Assistants:</b>	Nicole Buccino	C194
	Patrick Carroll	C195
	Aubrey Houck	C196
	Eric Lauer	C197
	Kelly McCarver	C198
	Samantha Pietruszewski	C199
	Phillip Wolfe	C200
<b>Biological Program:</b>	Jessica Hightower	C191
<b>Cave Program:</b>	Holley Moyes	C193
<b>Clean-Up Crew:</b>	Amanda Groff	C150
	Lucas Johnson	C134

**Belizean Labor:**

<b>Kitchen:</b>	Angelica Meneses
	Linda Aurora Meneses
	Irma Maradiaga
<b>Field:</b>	Adrian V. Cruz Jr.
	Roni Omar Cocom
	Felix Cunil
	Reynaldo Cunil
	Roberto Cunil
	Saul Galeano
	Rudolfo Carlos Godoy
	Jaime Rene Iglesias
	Sergio Rafaelito Jimenez
	Jose Bernabe Lopez
	Carlos Ivan Mendez
	Asterio Morales
	Narciso Uc

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- Figure 36: Artifacts associated with Operation C182E: a.-i., k., l. chert; j. pyrite; m. green obsidian.
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- Figure 94: Photograph of carved miniature ceramic vessel from S.D. C184D-6.
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- Figure 100: Photograph of Operation C185B.
- Figure 101: Section for Operation C185B.
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- Figure 105: Plan of S.D. C185B-4.
- Figure 106: Censerware from S.D. C185B-4 (all Pedregal Modeled).
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- Figure 110: Artifacts associated with S.D. C185B-10: a., b. shell earrings; c. limestone spindle whorl.
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- Figure 112: Plans related to S.D. C185B-13.
- Figure 113: Ceramic vessels from S.D. C185B-13: a. Saxche Orange Polychrome; b. unnamed type; c. eroded Machete Orange Polychrome.
- Figure 114: Artifacts associated with S.D. C185B-13: a., b., f. shell earrings; c., i. jadeite beads; d., e. carved shell; g., h. chert flakes.
- Figure 115: Ceramic cache vessel for S.D. C185B-15: undesignated type, deep-red slip.
- Figure 116: Detailed plan of contents of S.D. C185B-15.
- Figure 117: Artifacts within S.D. C185B-15: a., b. unworked sea shells; c.-f. shell "Charlie Chaplins;" g.-k. worked shell pendants; l., m. jadeite pendants; n. jadeite bead; o. worked hematite; p., q. shell beads; o. pyrite; r., s. chert flakes.
- Figure 118: Partial ceramic ollas covering S.D. C185B-6: all possibly Sapote Striated.
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- Figure 120: Detailed plan of contents of S.D. C185B-6.

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- Figure 122: Cache vessels from Operation C185B: a. S.D. C185B-3, Ceiba Unslipped; b. S.D. C185B-14, Ceiba Unslipped; c. S.D. C185B-2, Ceiba Unslipped, d. S.D. C185B-12, Ceiba Unslipped; e. S.D. C185B-7, undesignated type; f. S.D. C185B-9, undesignated type.
- Figure 123: Face Caches from Operation C185: a. S.D. C185B-1, Hebe Modeled; b. S.D. C185B-5, Hebe Modeled; c. S.D. C185B-8, Hebe Modeled.
- Figure 124: Face Cache from Operation C185B: S.D. C185B-11, Hebe Modeled.
- Figure 125: Photograph of one of the new caves found during the LiDAR reconnaissance.



## CARACOL Northeast Acropolis

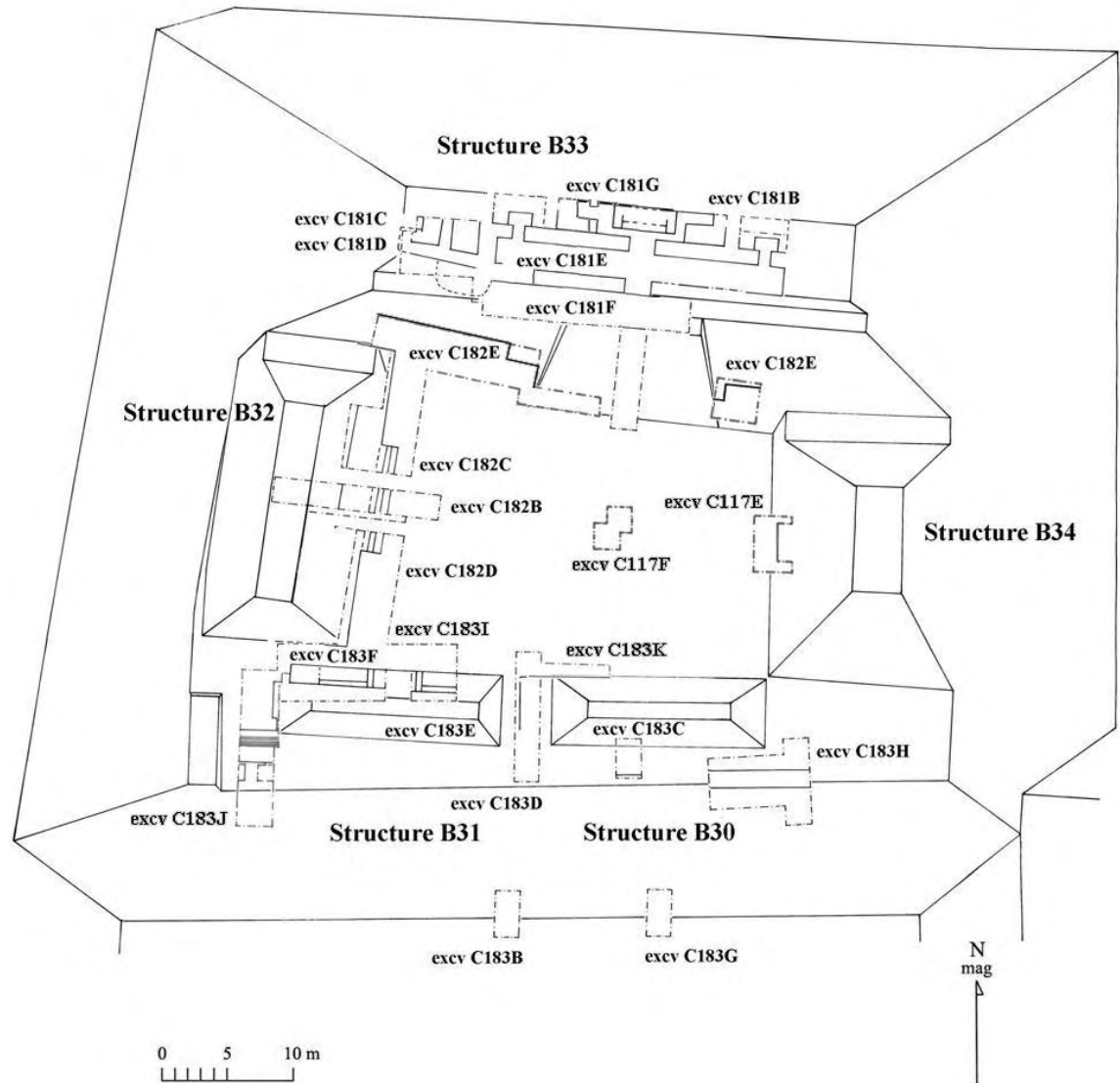


Figure 2: Plan of the Northeast Acropolis, showing the locations of the 2009 and 2010 investigations.





Figure 3: Photo of the re-excavated balk area, Operation C117E, on the western side of Structure B34.



excv. C117E

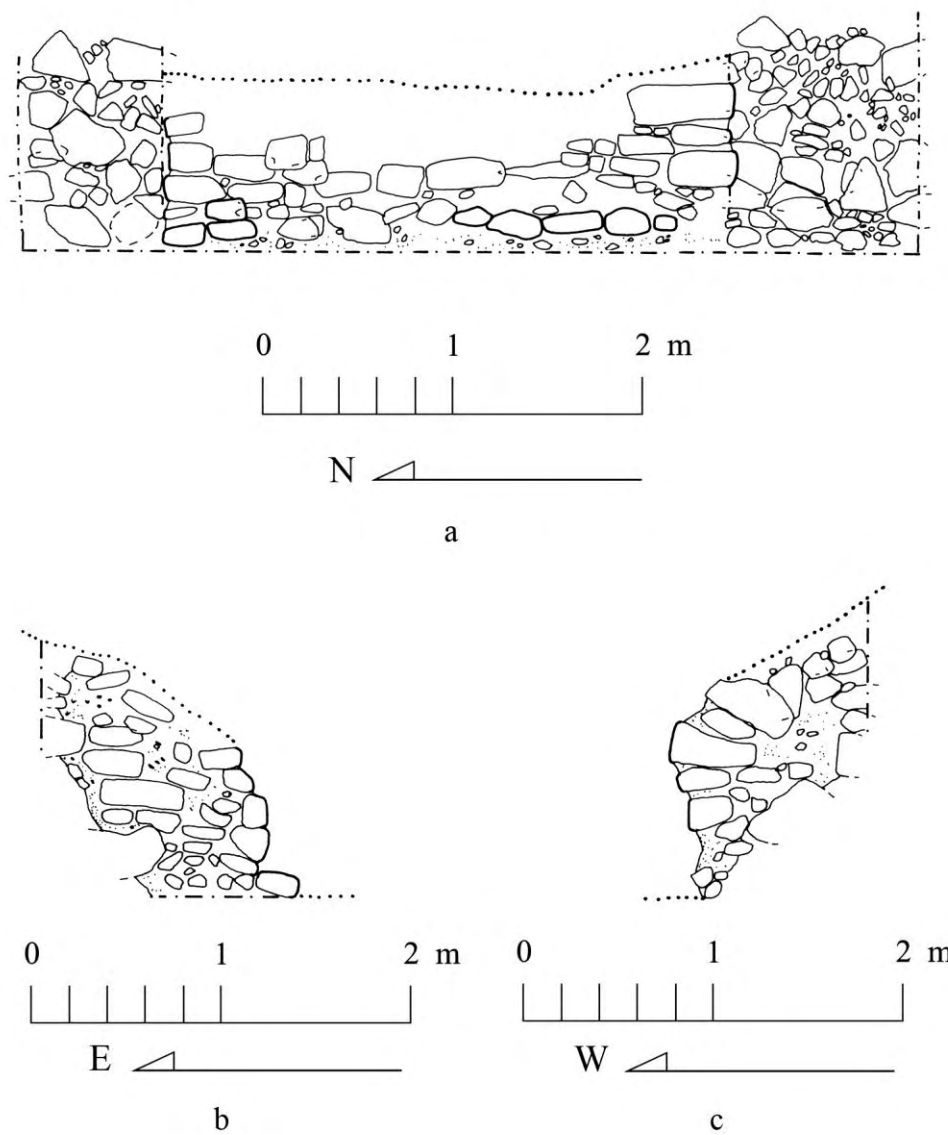


Figure 4: Elevations and side sections of the balk in the front of Structure B34.



Figure 5: Photograph of Operation C117F in the central plaza of the Northeast Acropolis.

excav. C117F

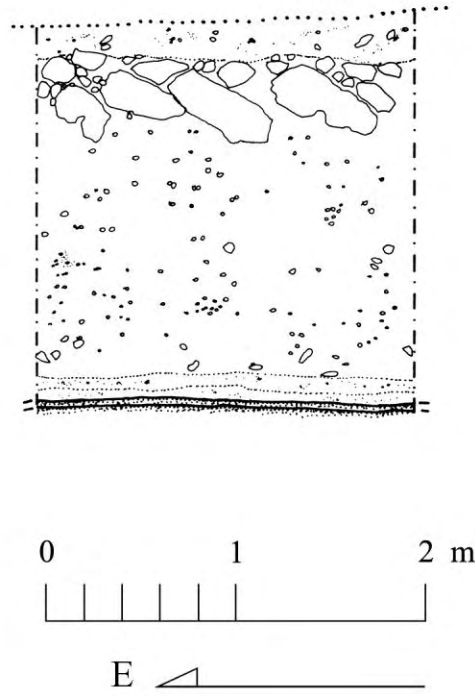


Figure 6: Southernmost section of Operation C117F.

excv. C117F

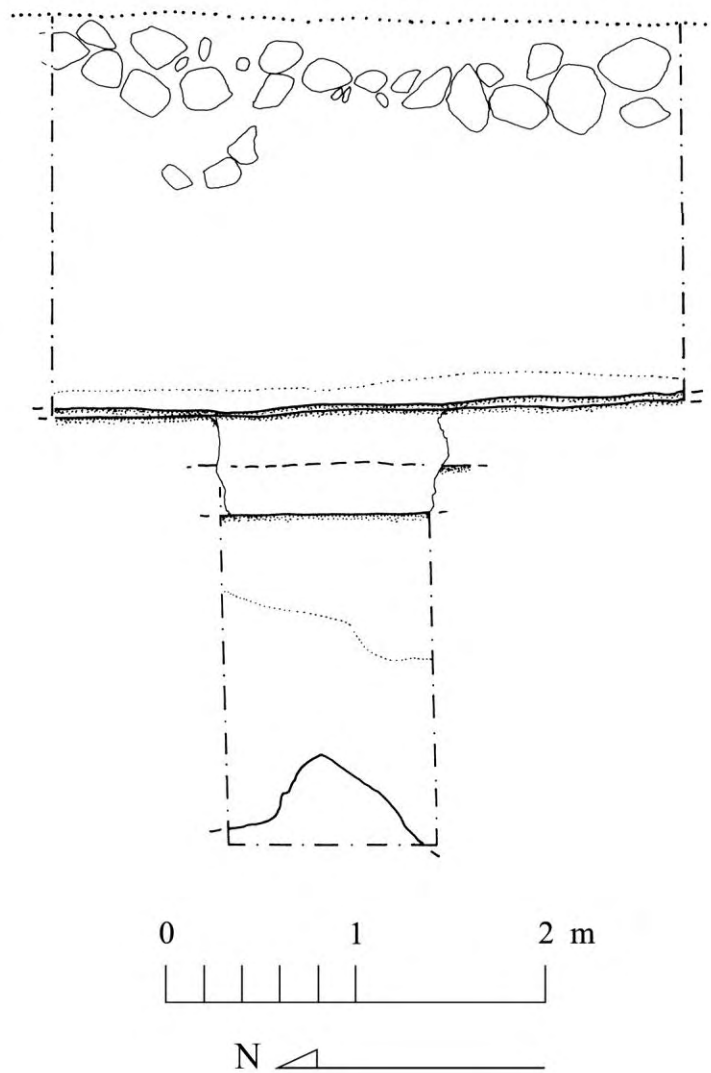


Figure 7: North-south section through Operation C117F.

excv. C117F

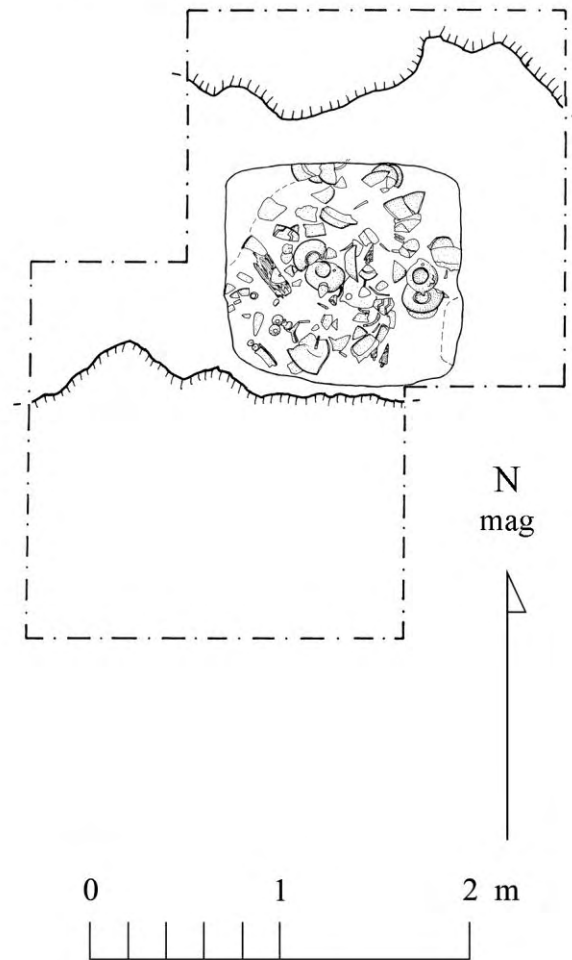


Figure 8: Plan of Operation C117F, showing location of S.D. C117F-1.

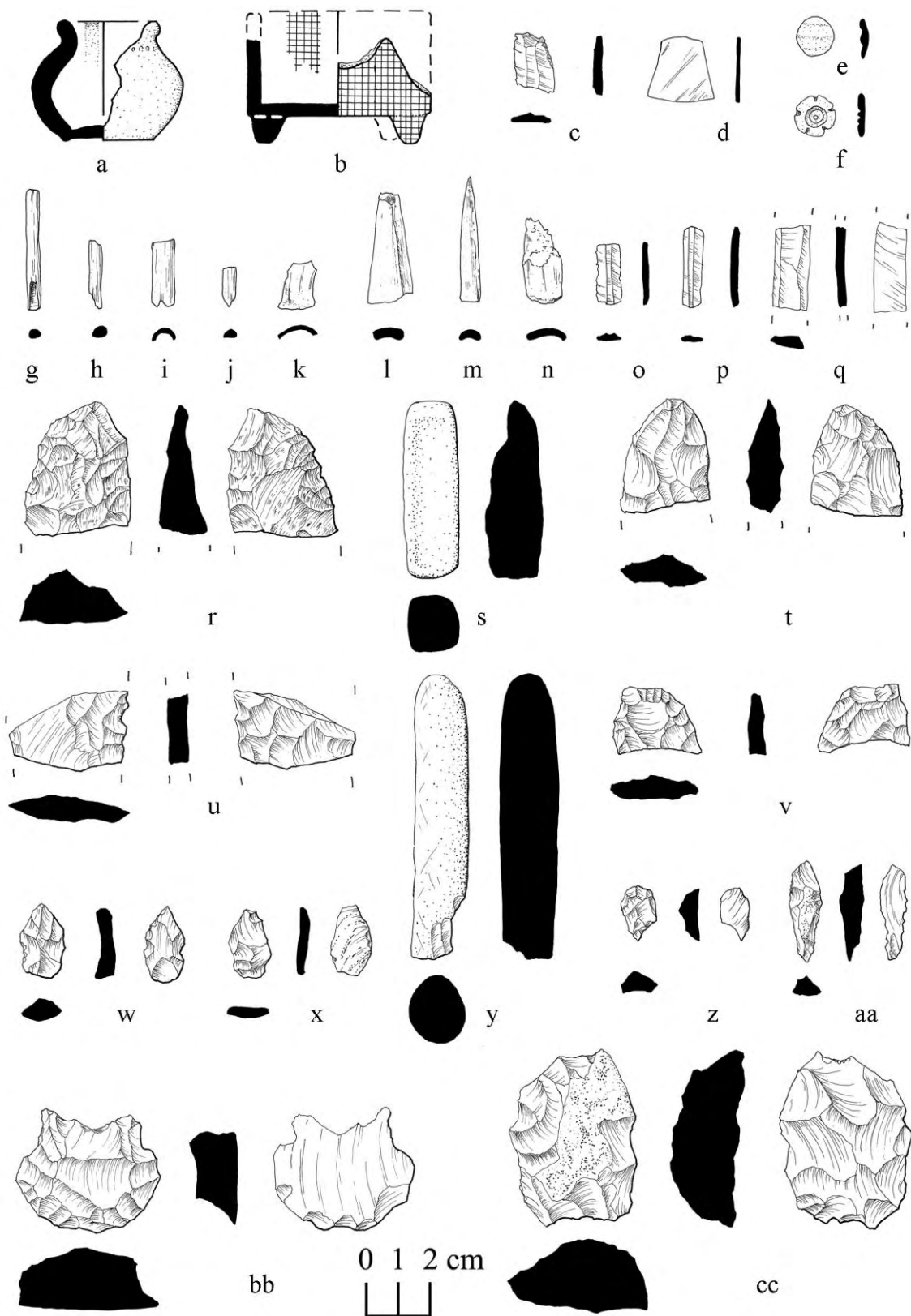


Figure 9: Artifacts from the fill overlying the Early Classic plaza floors: a. miniature ceramic olla; b. miniature ceramic vessel; c., o., p. partial green obsidian blades; d.-f. worked shell; g.-n. worked bone; q. partial quartz blade; s., y. stone bars; r., t.-x., z.-cc. broken chert tools.





Figure 10: Photograph of S.D. C117F-1 *in situ* after overlying floor bedding had been removed.

S.D. C117F-1

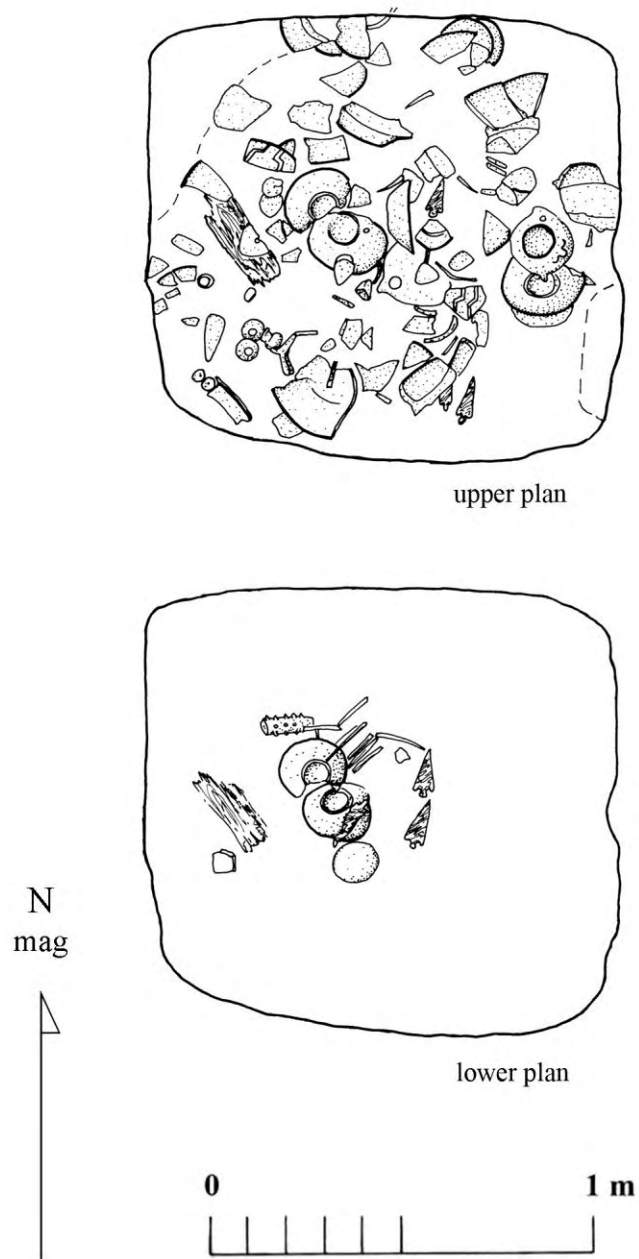


Figure 11: Detailed plans of S.D. C117F-1





Figure 12: Ceramic vessels associated with S.D. C117F-1: a. undesignated modeled censer; b., c. undesignated types; d. possibly Achiotes Unslipped; e., g. possibly Sierra Red; f. possibly Xtabcab Incised; h. undesignated type; i., m. undesignated type; j. Aguila Orange; k., l. possibly Pucte Brown.

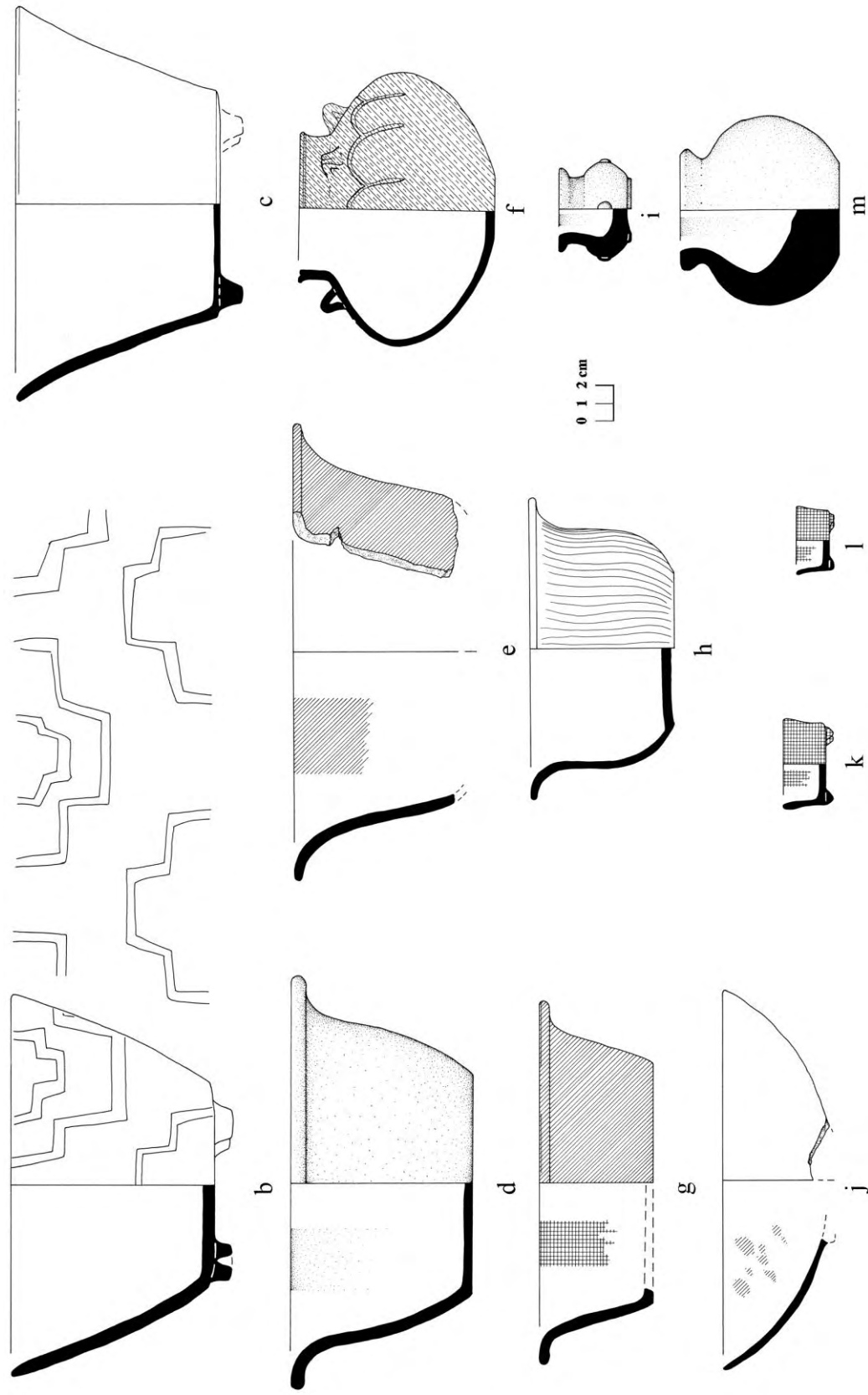


Figure 12: Ceramic vessels associated with S.D. C117F-1: a. undesignated modeled censer; b., c. undesignated types; d. possibly Achiotes Unslipped; e., g. possibly Sierra Red; f. possibly Xtabcab Incised; h. undesignated type; i., m. undesignated type; j. Aguila Orange; k., l. possibly Pucte Brown.

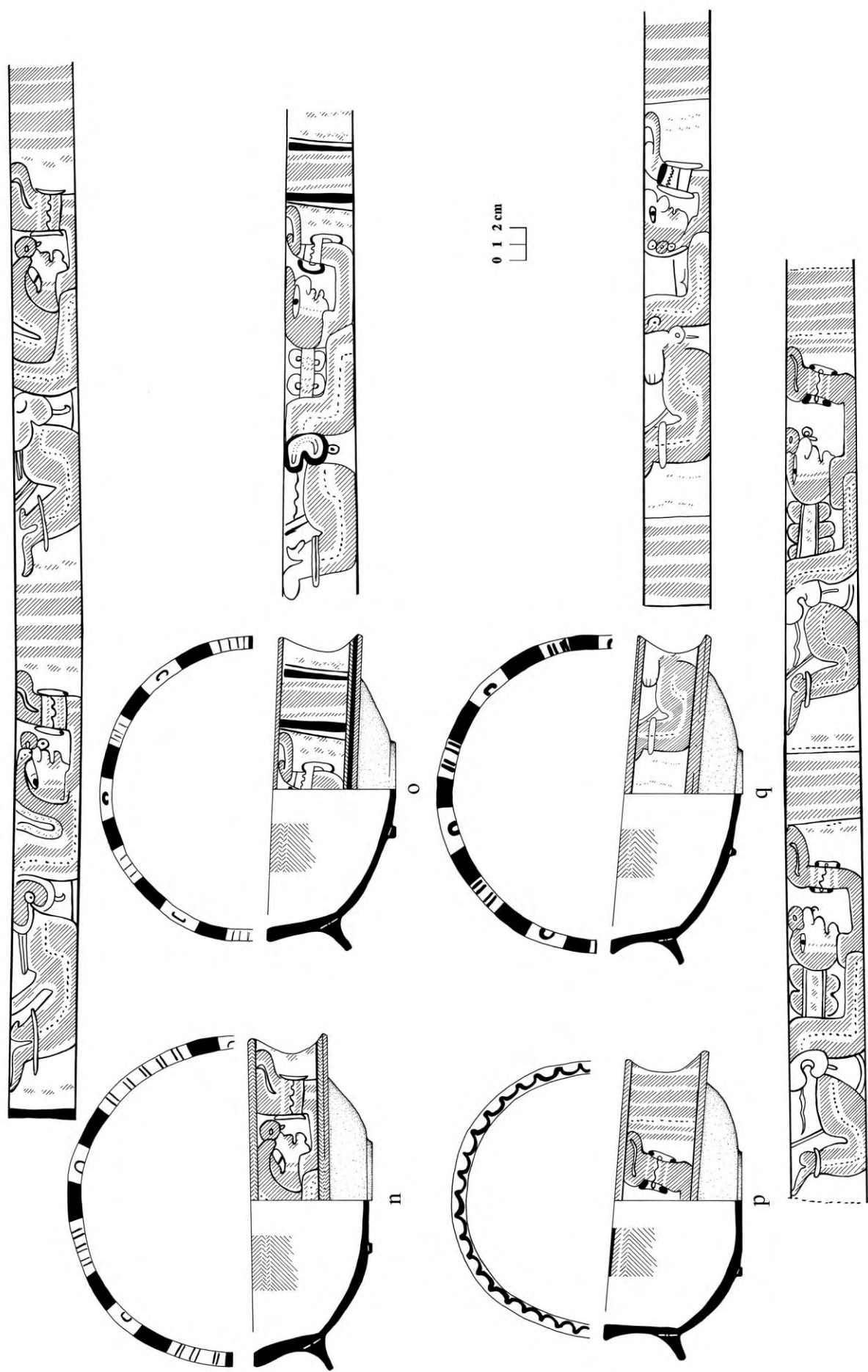


Figure 12: Ceramic vessels associated with S.D. C117F-1: a. undesignated modeled censer; b., c. undesignated types; d. possibly Achiotes Unslipped; e., g. possibly Sierra Red; f. possibly Xtabcab Incised; h. undesignated type; i., m. undesignated type; j. Aguila Orange; k., l. possibly Pucte Brown.

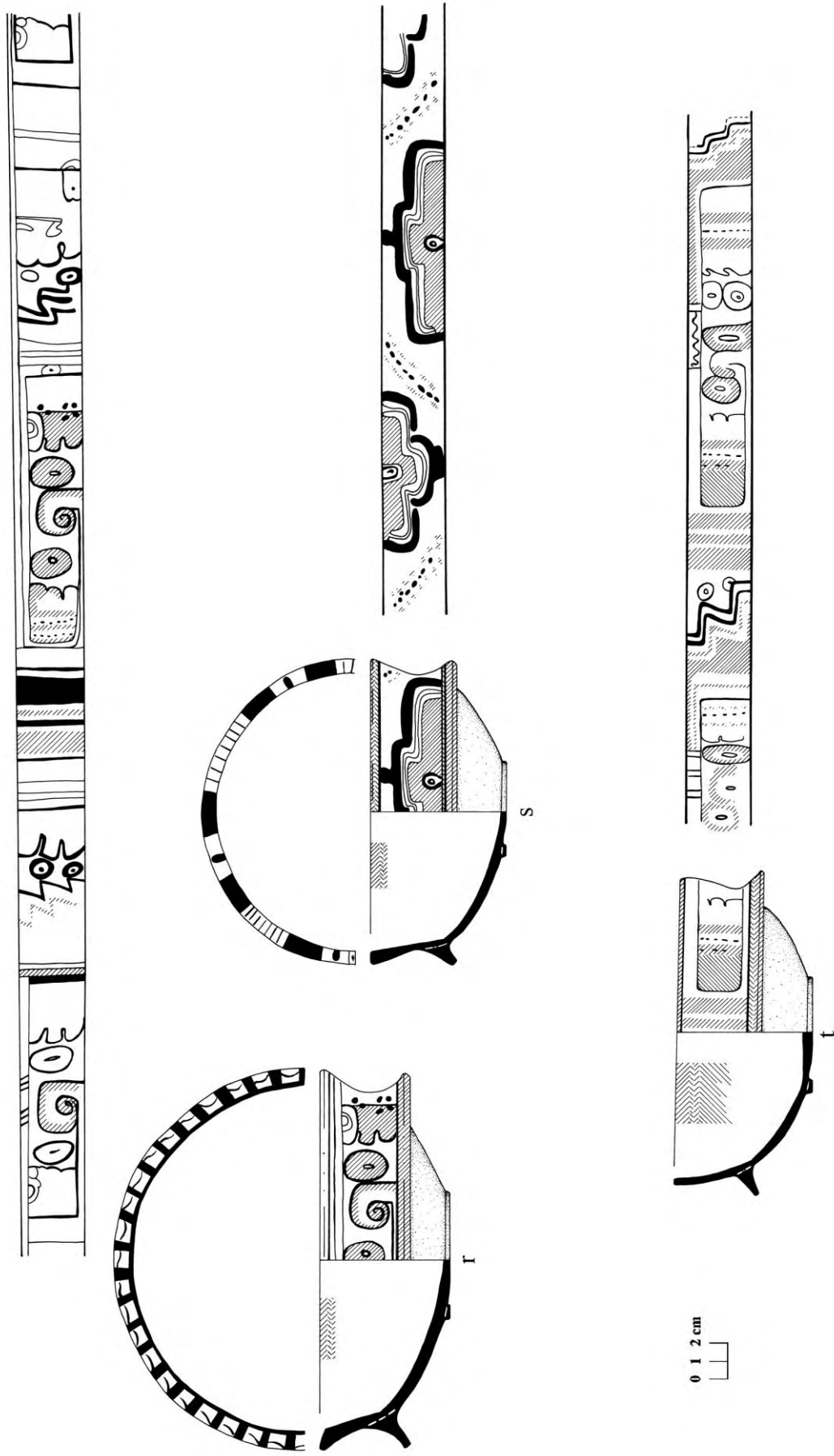


Figure 12: Ceramic vessels associated with S.D. C117F-1: a. undesignated modeled censer; b., c. undesignated types; d. possibly Achiotes Unslipped; e., g. possibly Sierra Red; f. possibly Xtabcab Incised; h. undesignated type; i., m. undesignated type; j. Aguila Orange; k., l. possibly Pucte Brown.

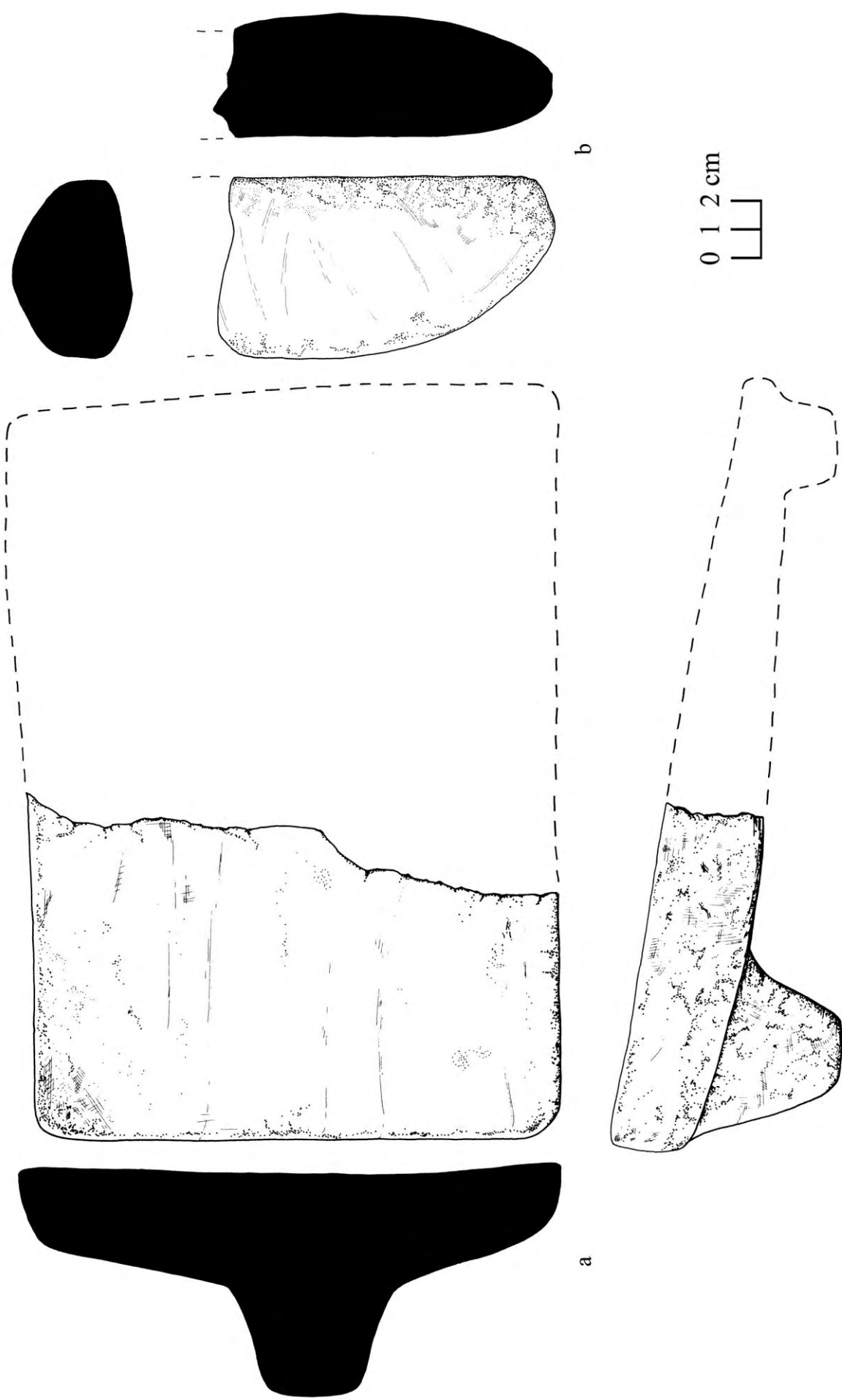


Figure 13: Partial metate and mano from S.D. C117F-1.

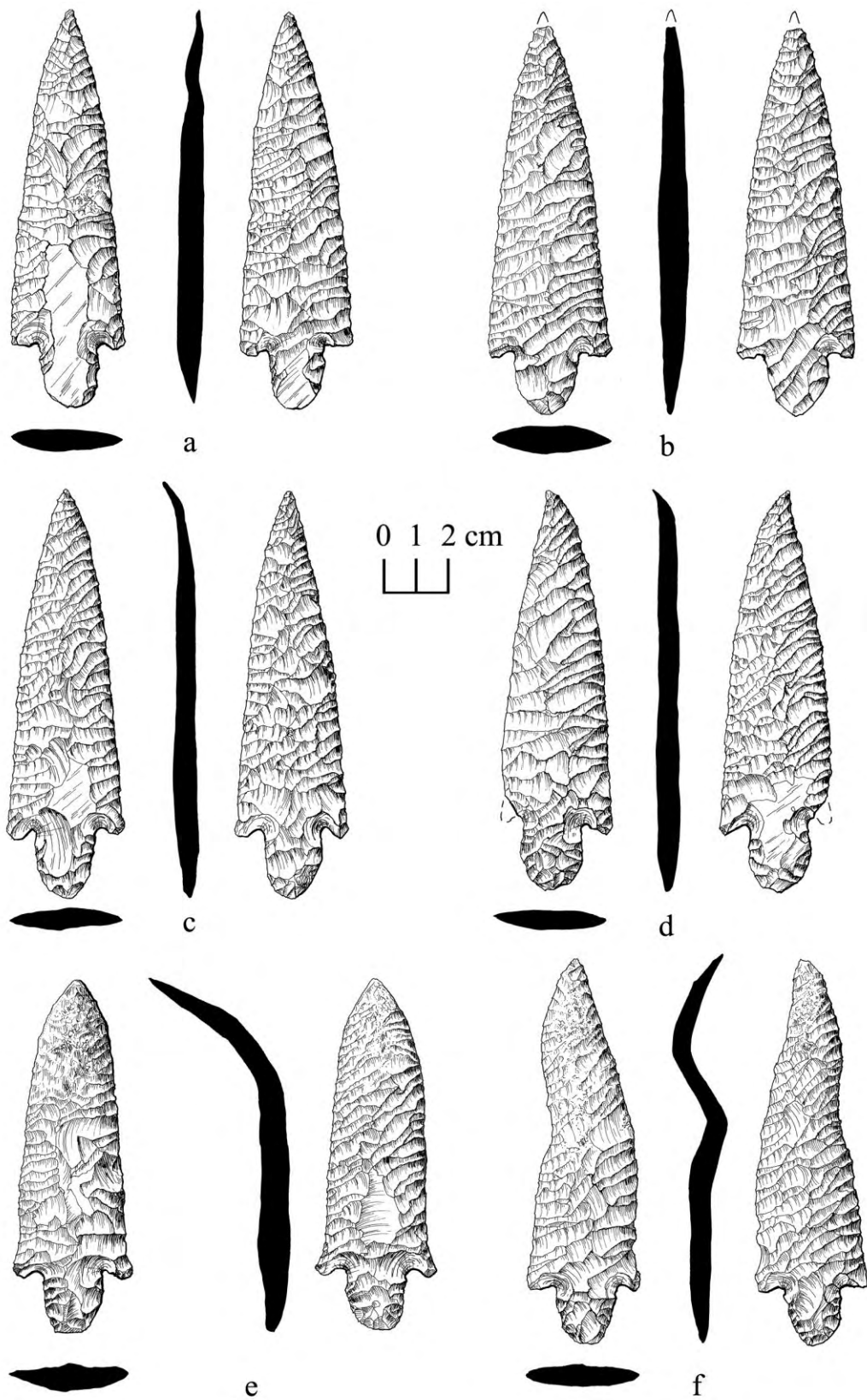


Figure 14: Green obsidian points from S.D. C117F-1 (some melted and differentially burnt).

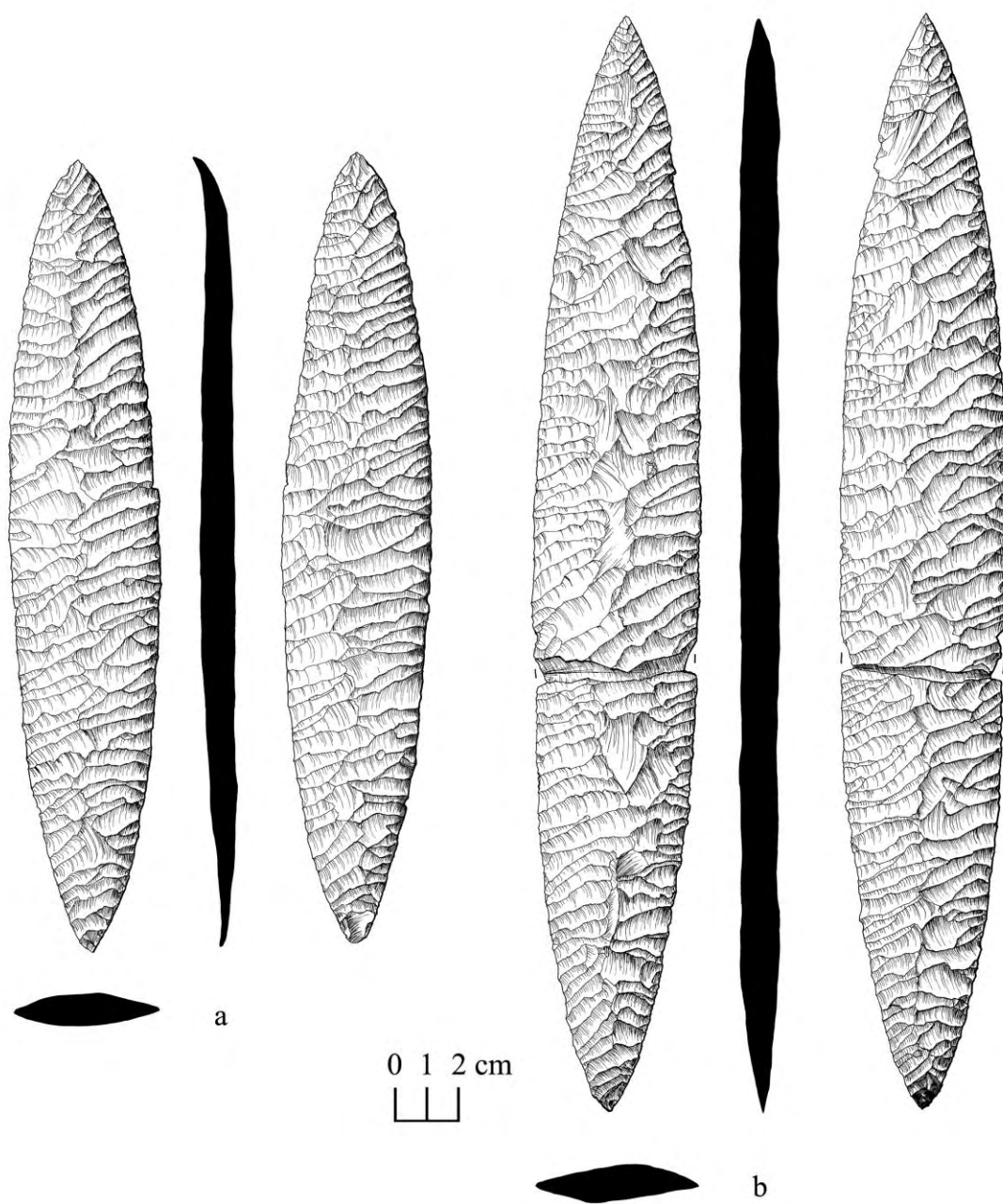


Figure 15: Green obsidian knives from S.D. C117F-1 (broken with differential burning).

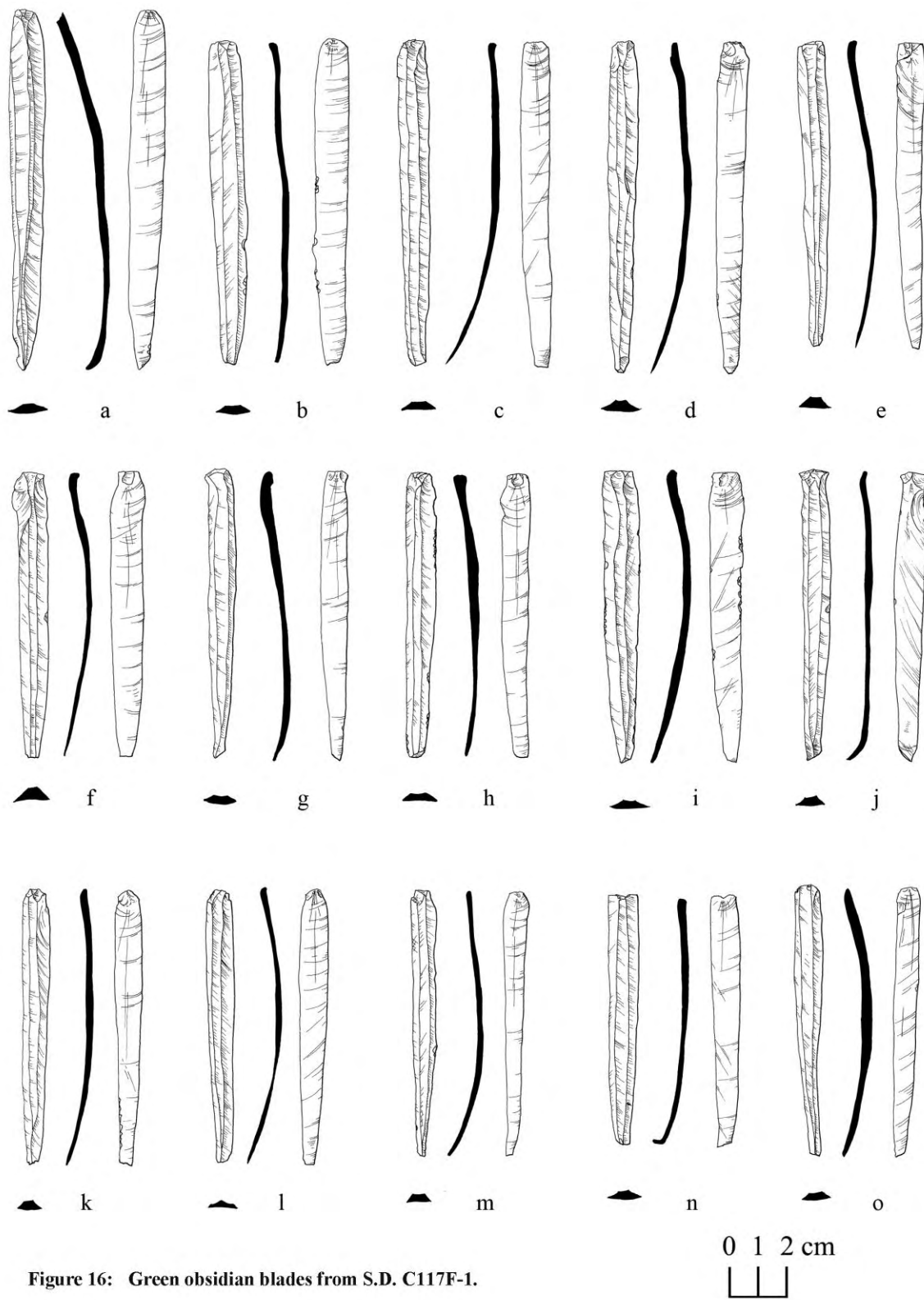


Figure 16: Green obsidian blades from S.D. C117F-1.



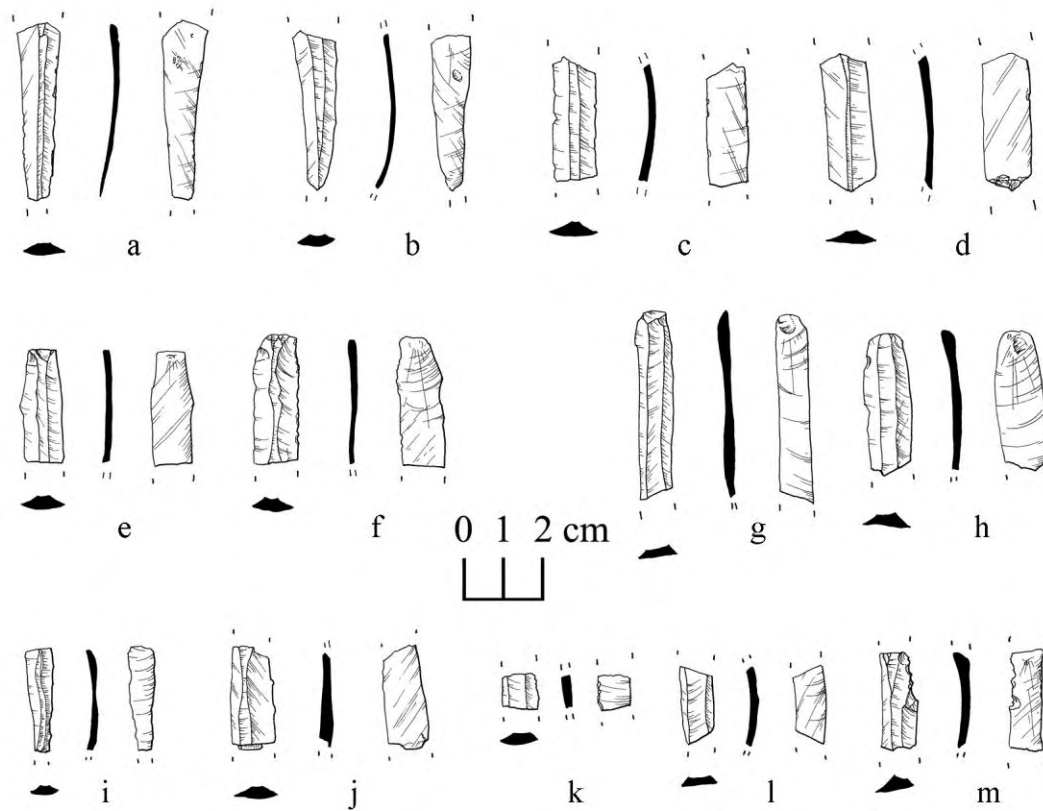
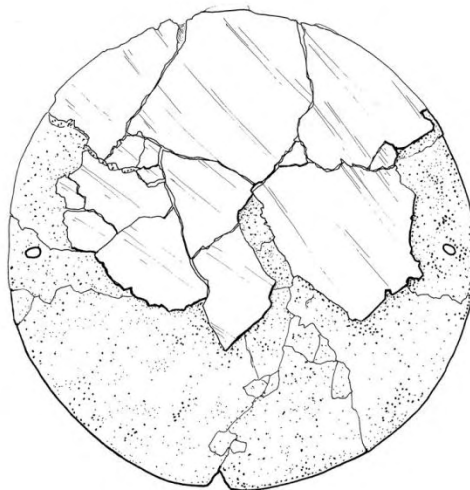


Figure 17: Partial obsidian blades from S.D. C117F-1: a-f. green obsidian; g-m. gray obsidian.



0 1 2 cm

Figure 18: Mirror on slate backing from S.D. C117F-1 (heavily burnt).

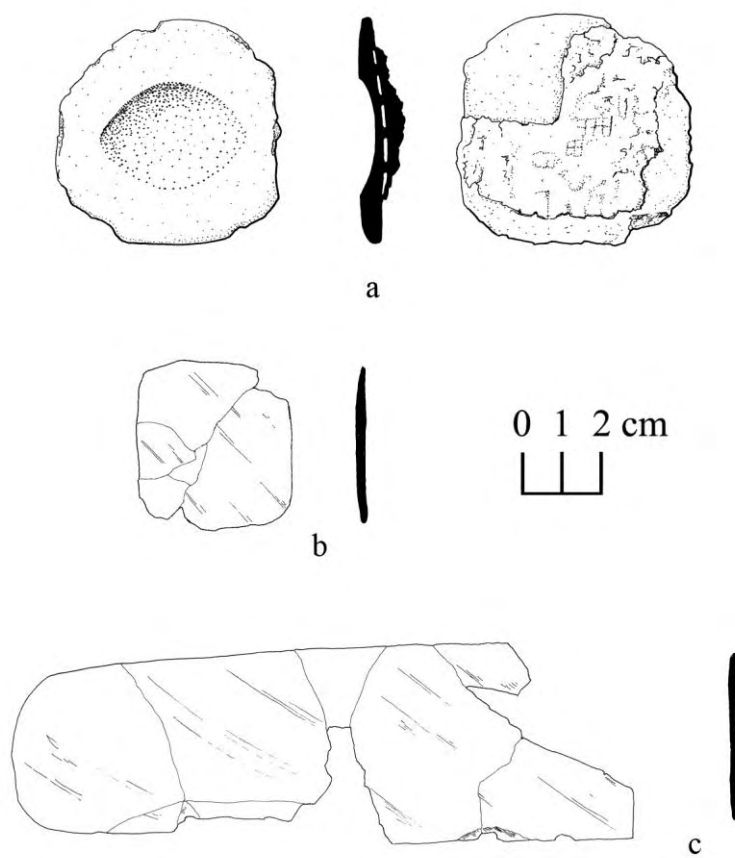


Figure 19: Slate-backed artifacts from S.D. C117F-1: a., b. potential earrings; c. potential pendant.

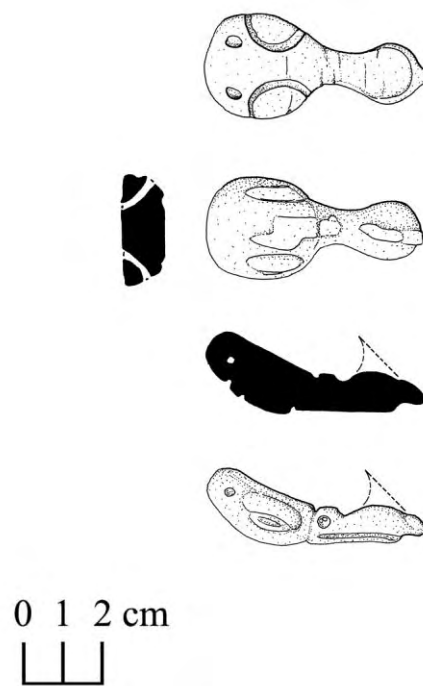


Figure 20: Carved shell, potentially used on the throwing end of an atlatl (heavily burnt).

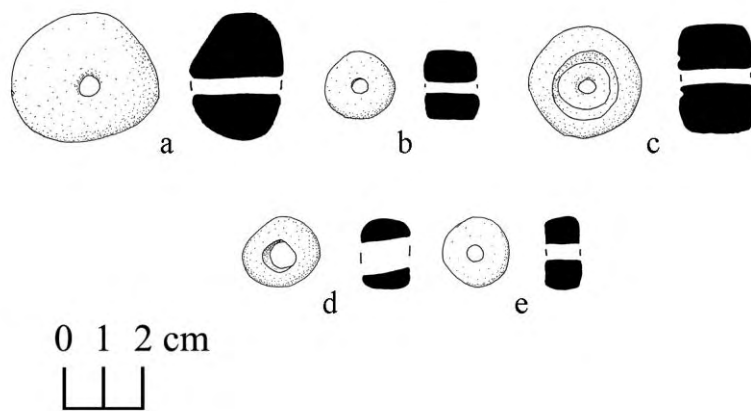


Figure 21: Jadeite beads from S.D. C117F-1 (d. and e. heavily burnt).

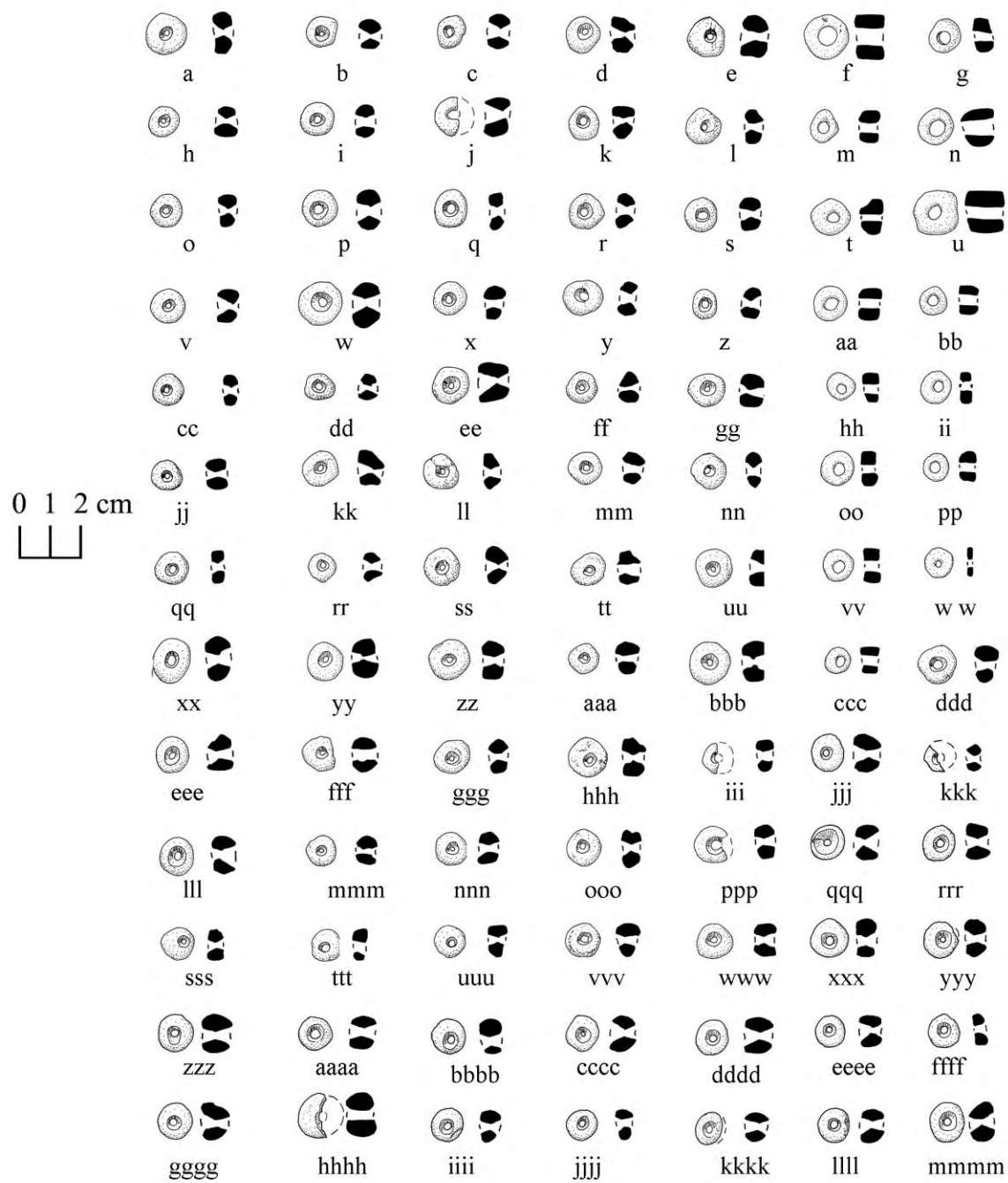


Figure 22: Shell beads from S.D. C117F-1 (all heavily burnt).

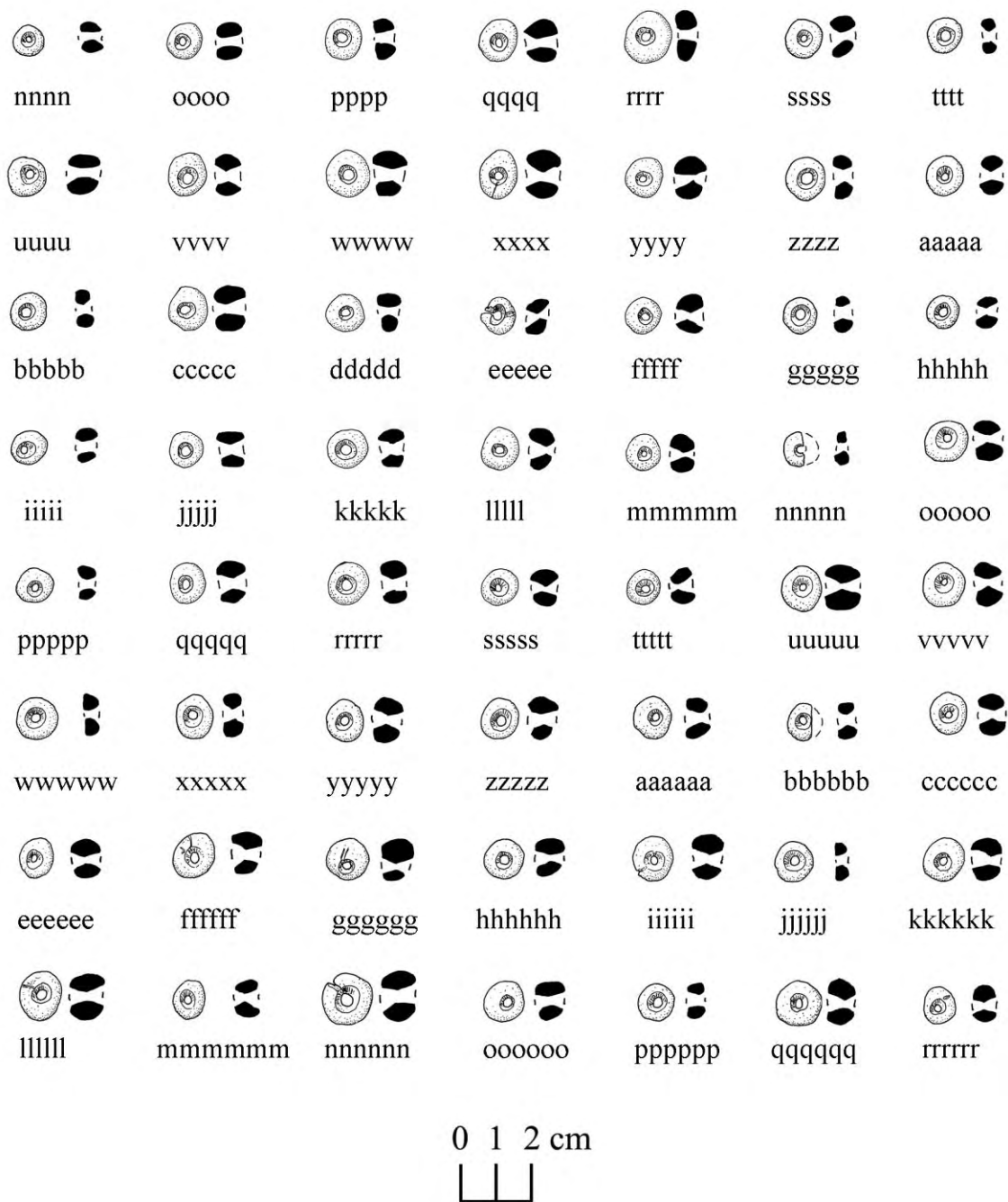


Figure 22: Shell beads from S.D. C117F-1 (all heavily burnt).

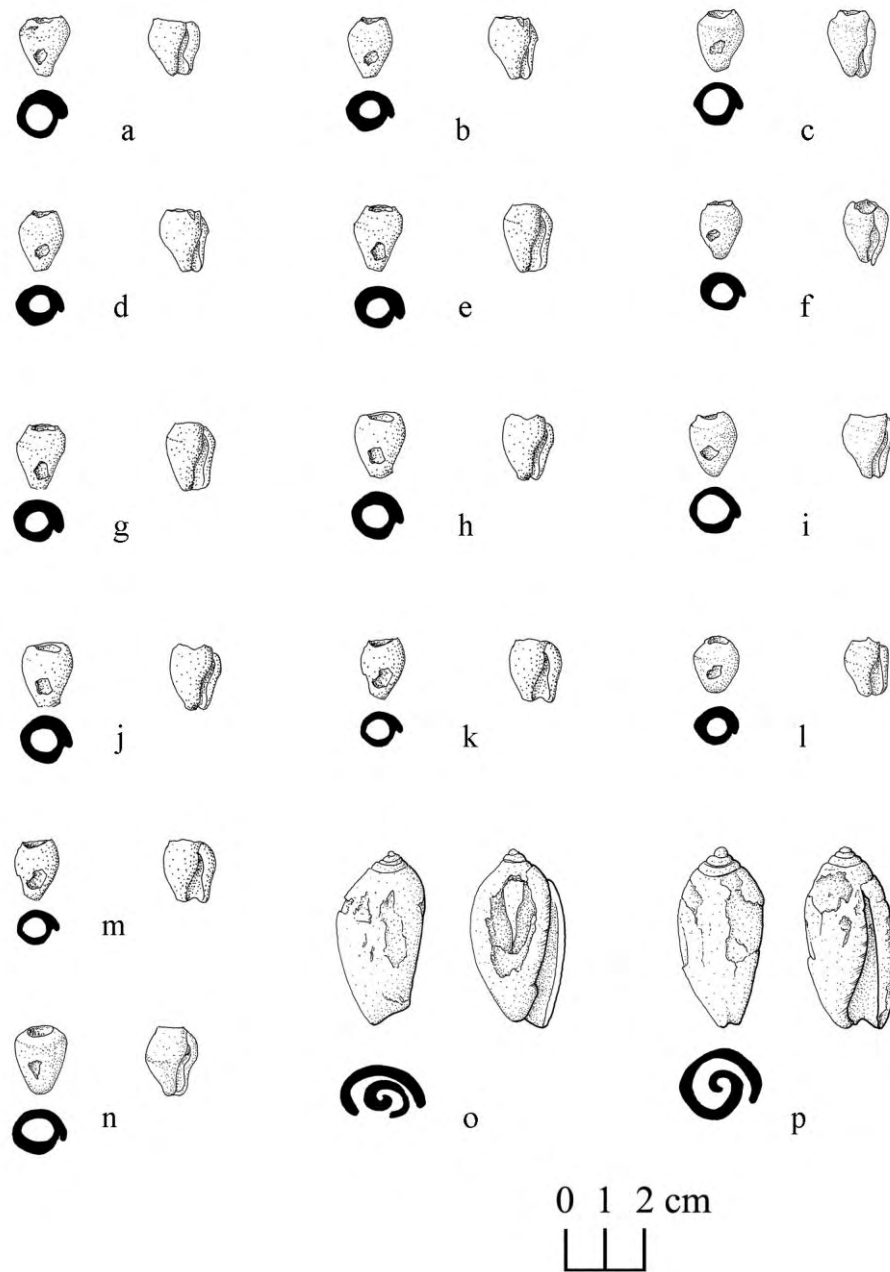


Figure 23: Flamingo Tongue shell beads from S.D. C117F-1 (all burnt).



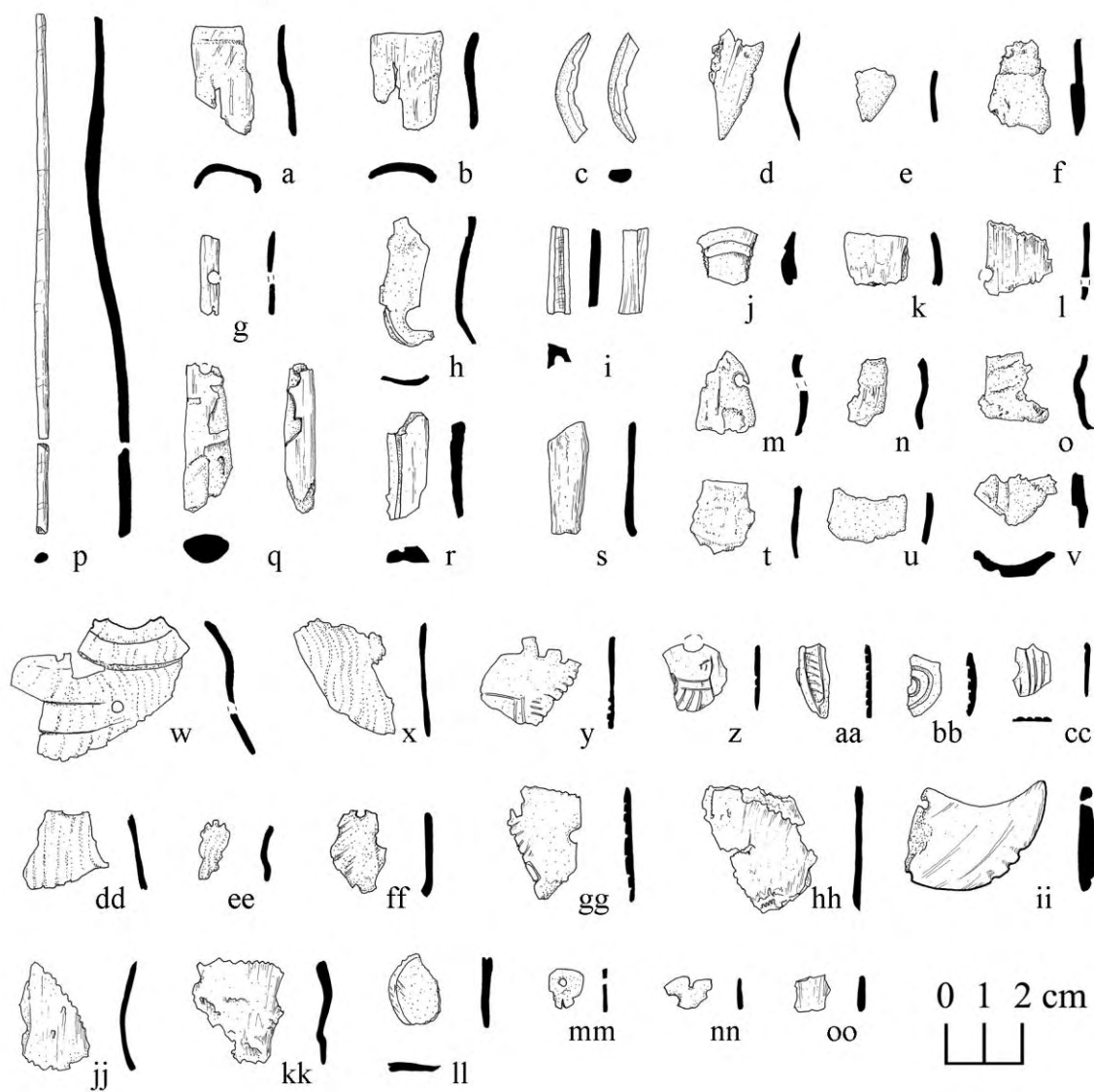


Figure 24: Partial carved bone (a.-v.) and carved shell (w.-oo.) artifacts from S.D. C117F-1 (all burnt).



Figure 25: Photograph of summit excavations of Structure B33 during 2010 field season.

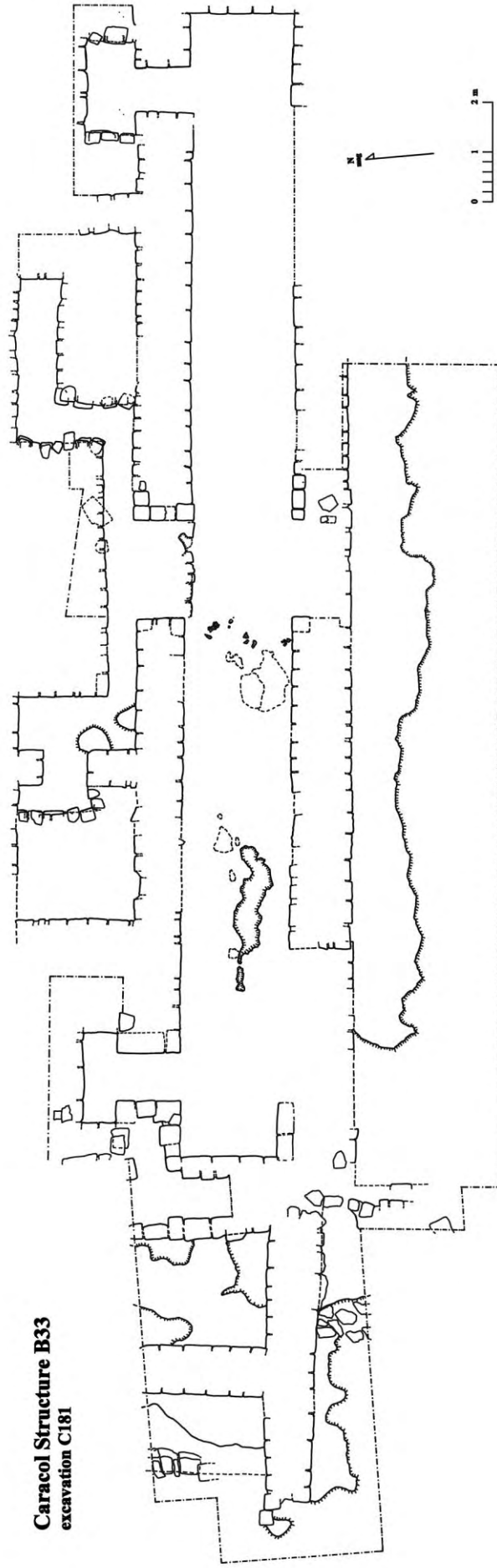


Figure 26: Plan of Terminal Classic palace excavated on the summit of Structure B33.

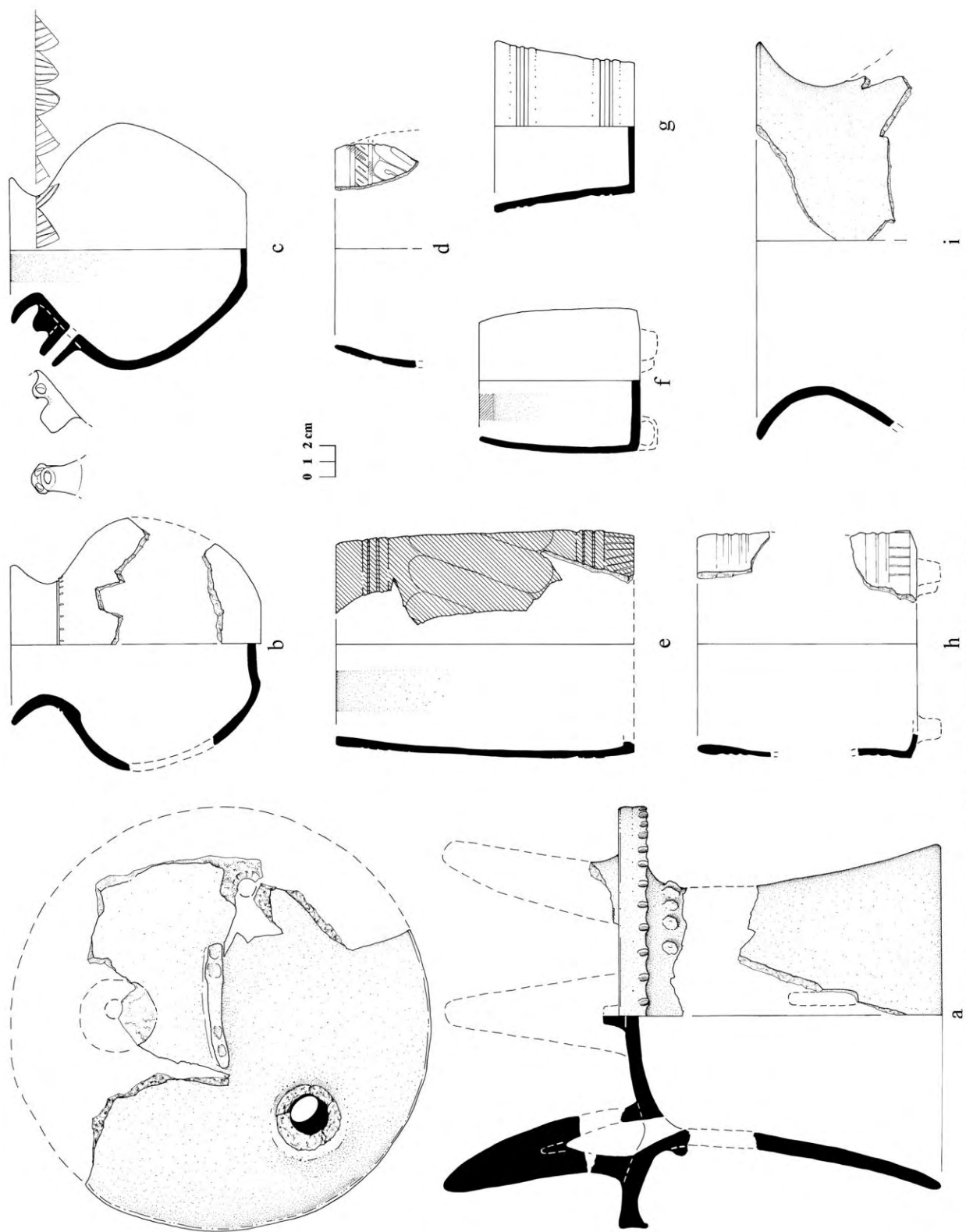


Figure 27. Ceramic vessels associated with the summit floor of Structure B33: a. Monterrey Modeled; b. Cameron Incised; c. possibly San Julio Modeled; d. Montea Plano-Relief; e, h. Colume Composite; f. eroded Zacatal Cream Polychrome; g. Pantano Impressed; i. Valentin Unslipped.

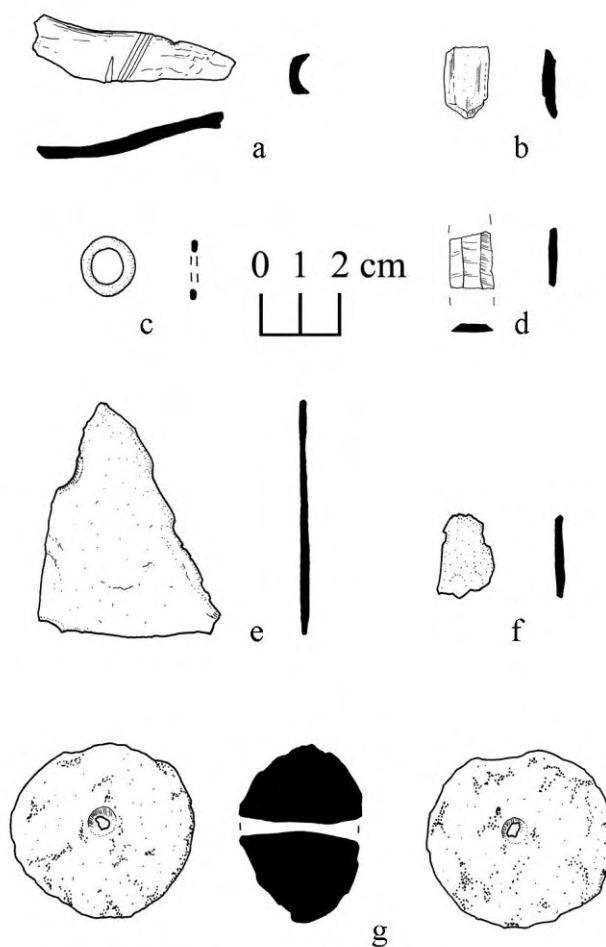
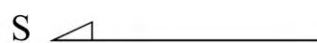
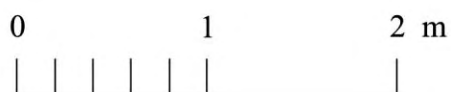
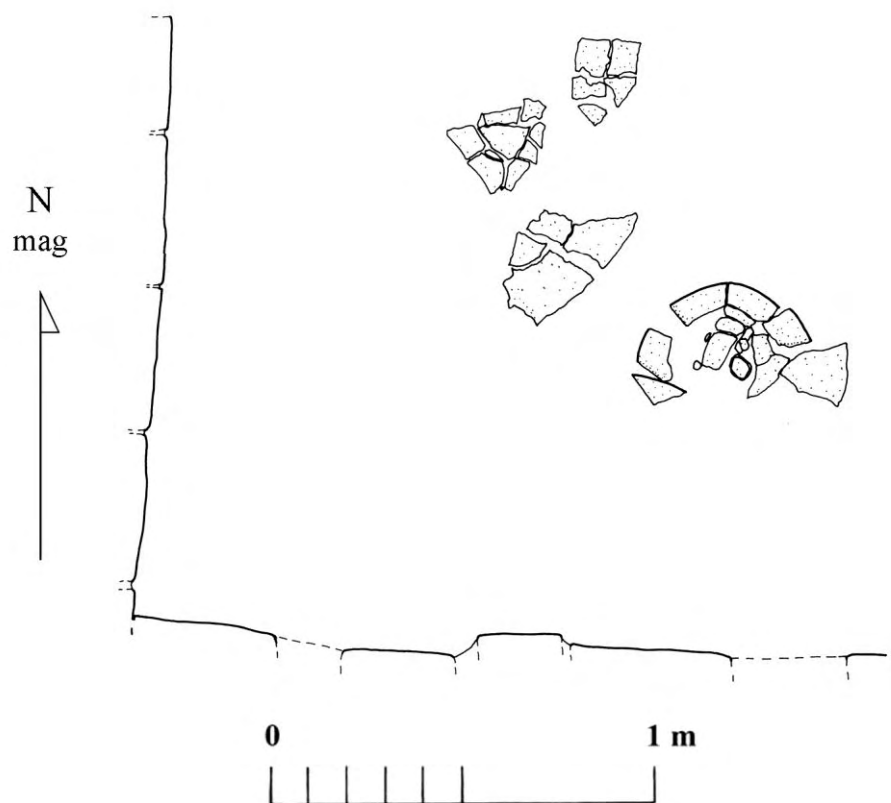


Figure 28: Artifactual materials associated with the summit of Structure B33: a., b. worked bone; c. carved shell ring; d. green obsidian blade fragment; e., f. slate backing from a mirror; g. large perforated stone.

excv. C181G



a



b

Figure 29: Bench elevation and detailed plan of smashed vessels on bench in Operation C181G.

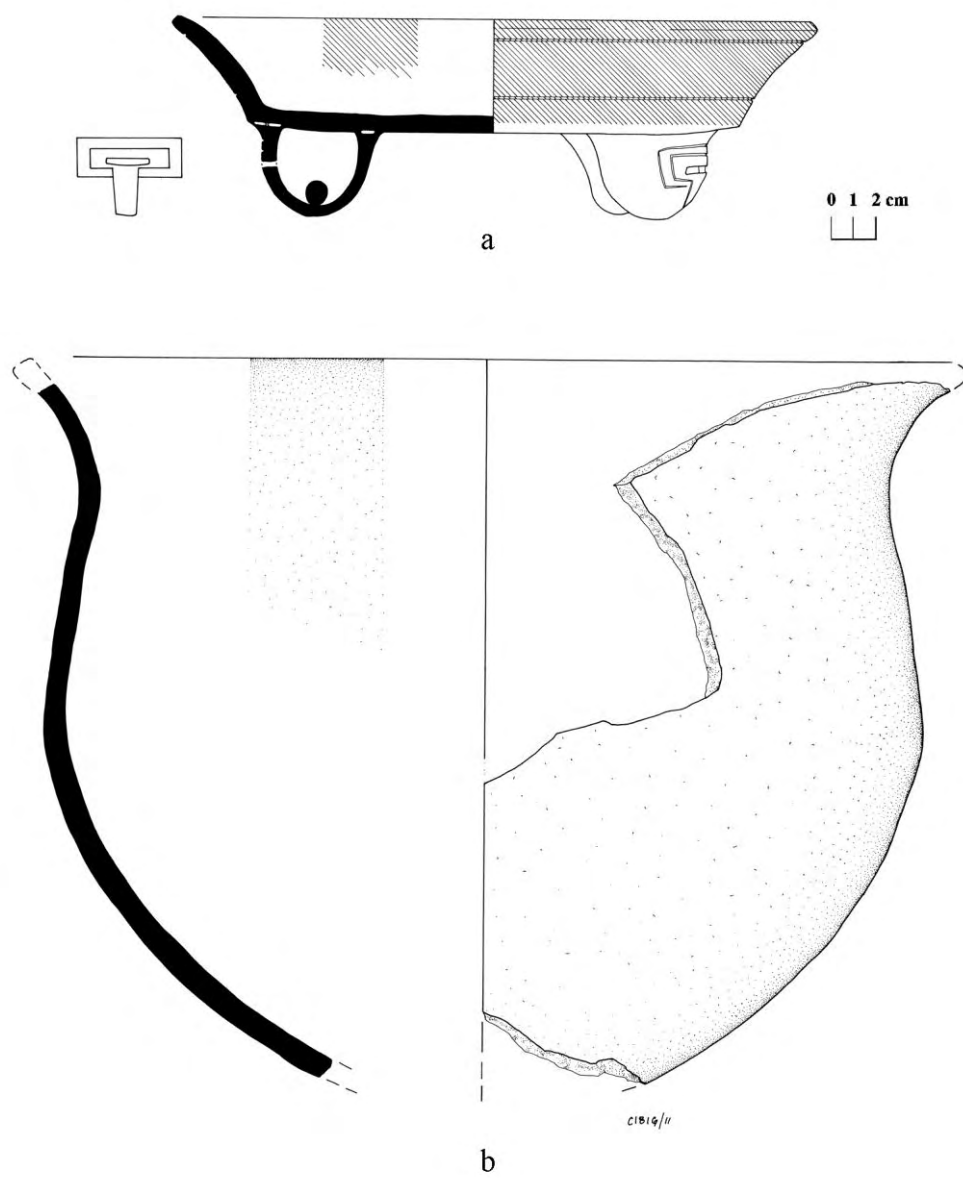


Figure 30: Ceramic vessels on top of rear bench in Structure B33: a. possibly Martin's Incised; b. Valentin Unslipped.





Figure 31: Photograph of Operation C182E at base of Structure B33.



excv. C182E

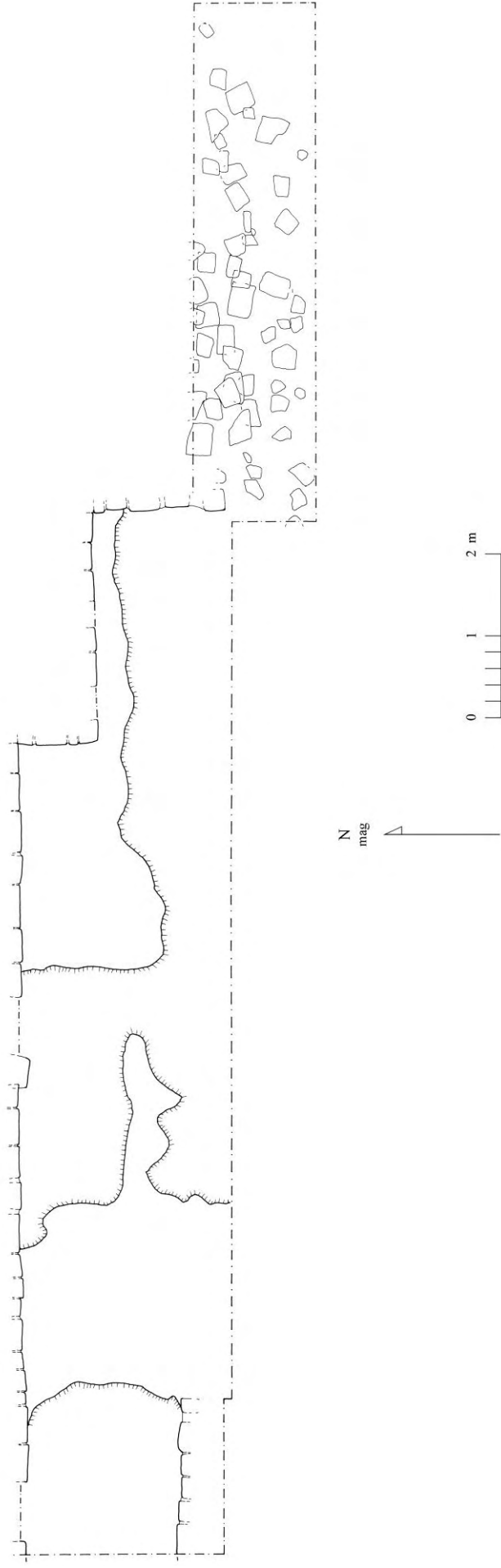


Figure 32: Plan of Operation C182E at the base of Structure B33 (western section).

excv. C182E

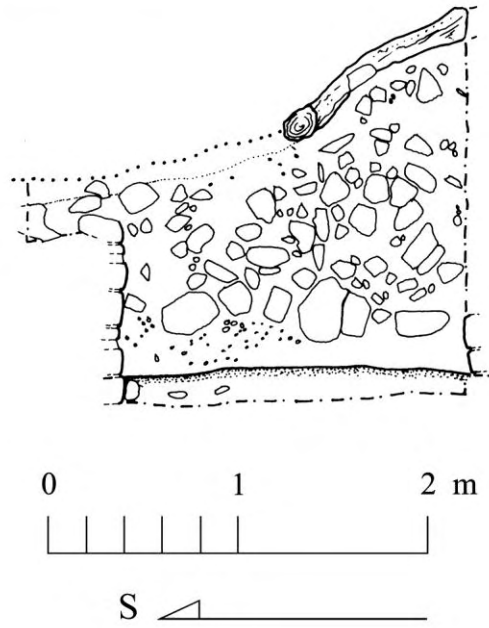
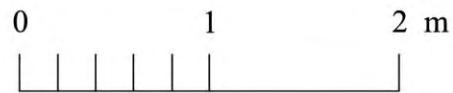
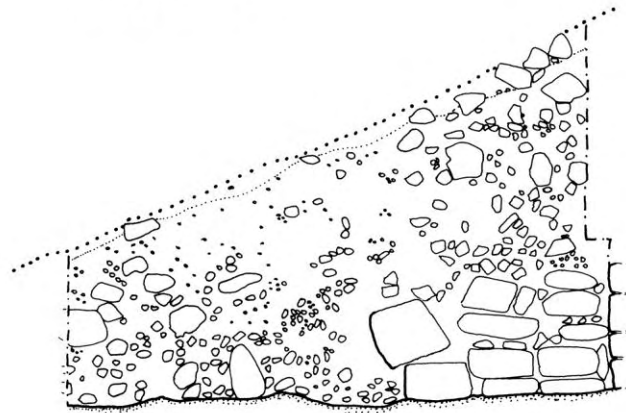
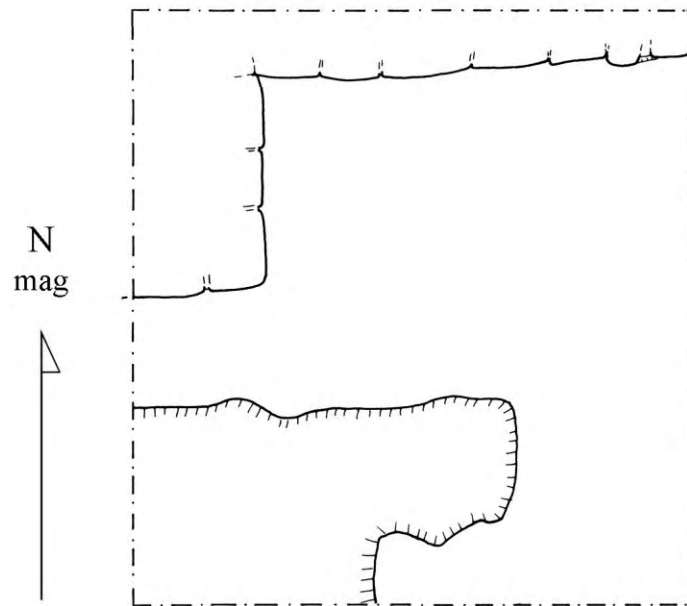


Figure 33: Western section of Operation C182E at the base of Structure B33 (western section).

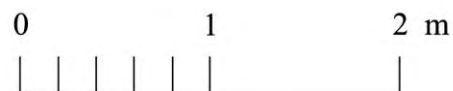
excv. C182E



a



N  
mag



b

Figure 34: Plan and section of Operation C182E at the base of Structure B33 (eastern section).

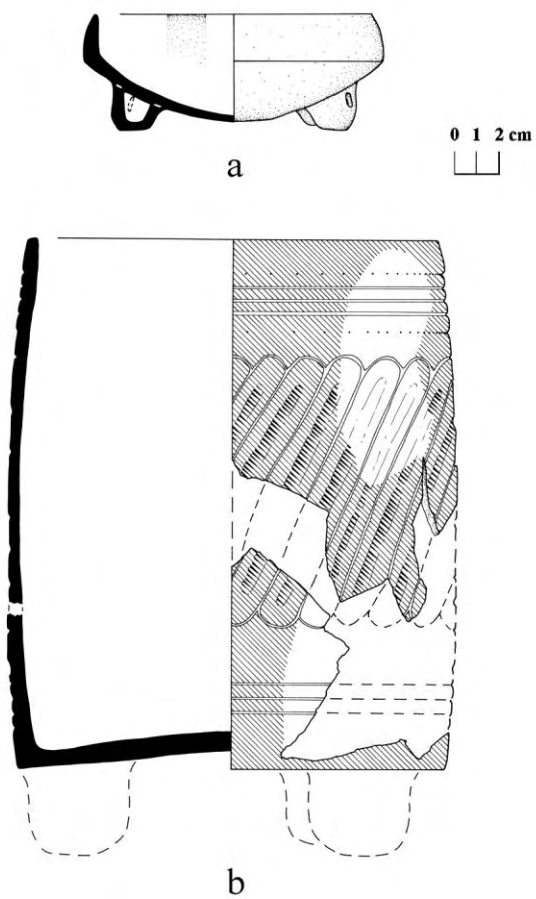


Figure 35: Ceramic vessels associated with Operation C182E: a. Tinaja Red; b. Cohune Composite.

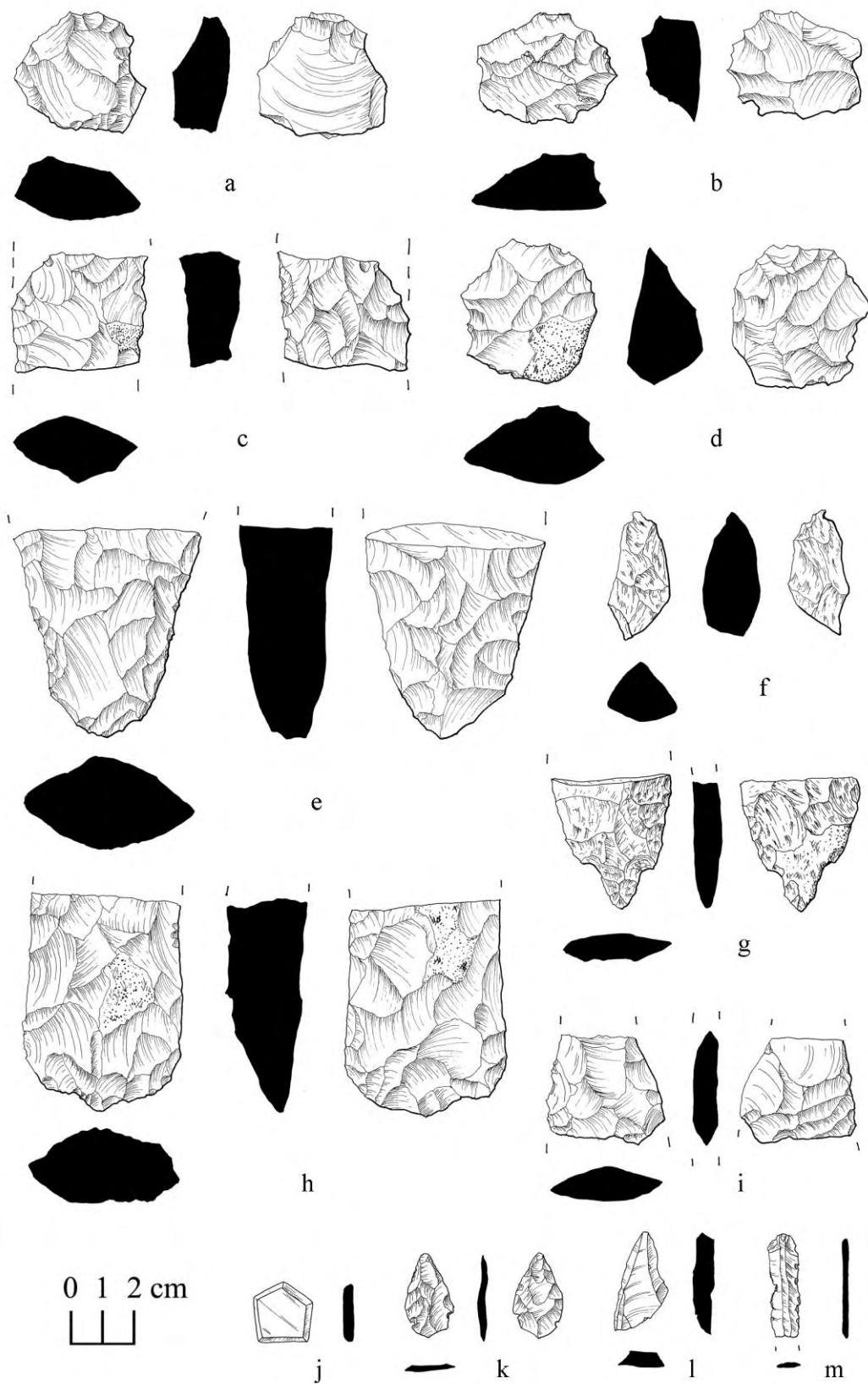


Figure 36: Artifacts associated with Operation C182E: a.-i., k., l. chert; j. pyrite; m. green obsidian.

excv. C183I

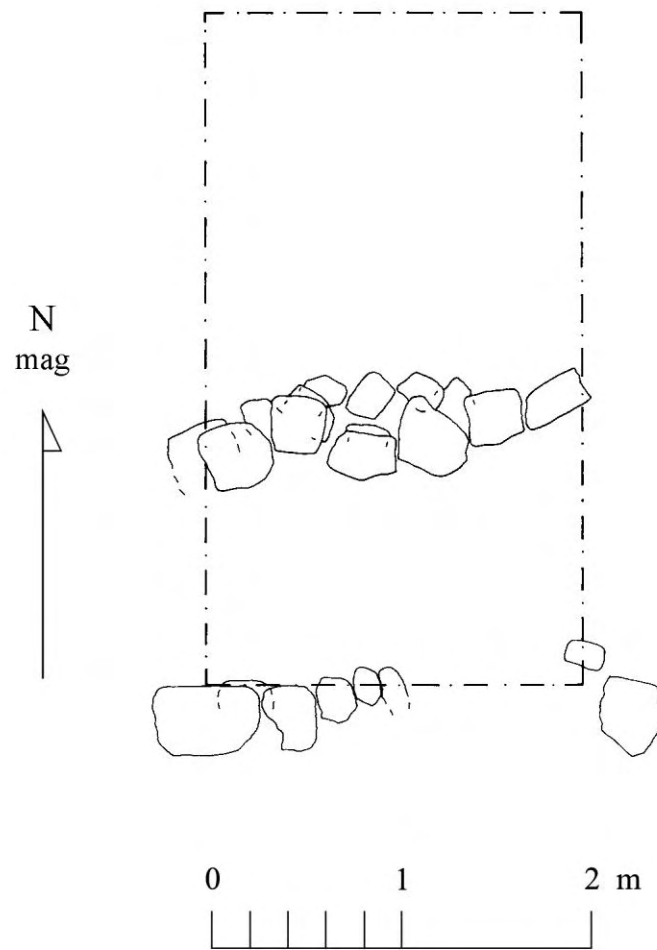


Figure 37: Plan of Operation C183I.

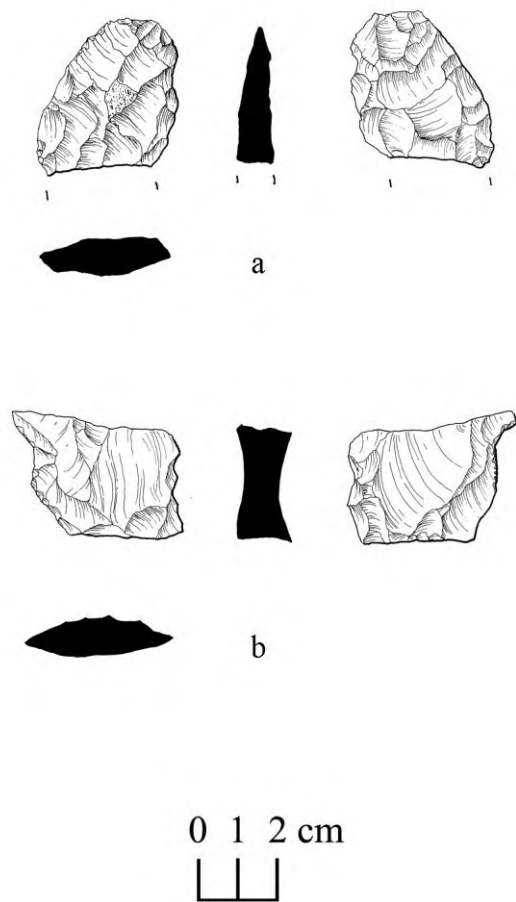


Figure 38: Artifacts associated with Operation C183I: a., b. chert.



Figure 39: Photograph of Operation C183J.



**excavation C183J**

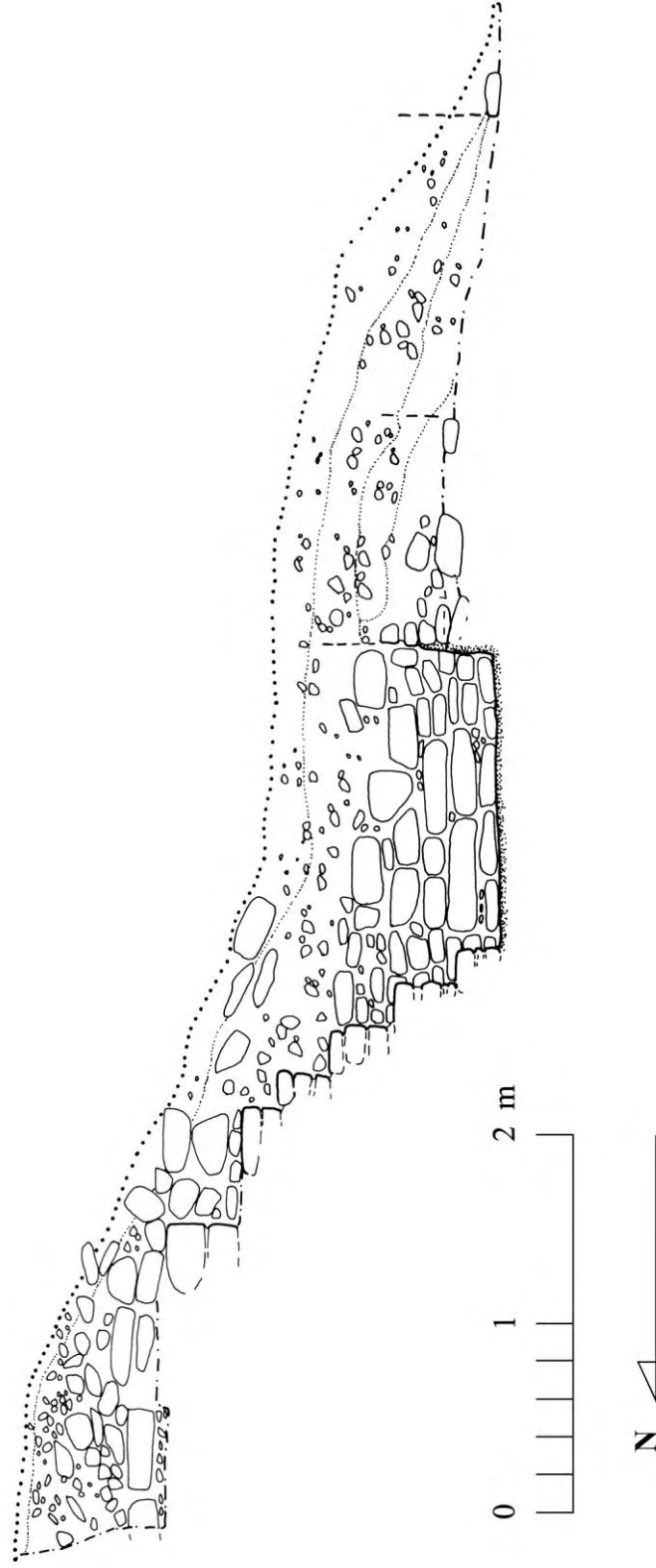
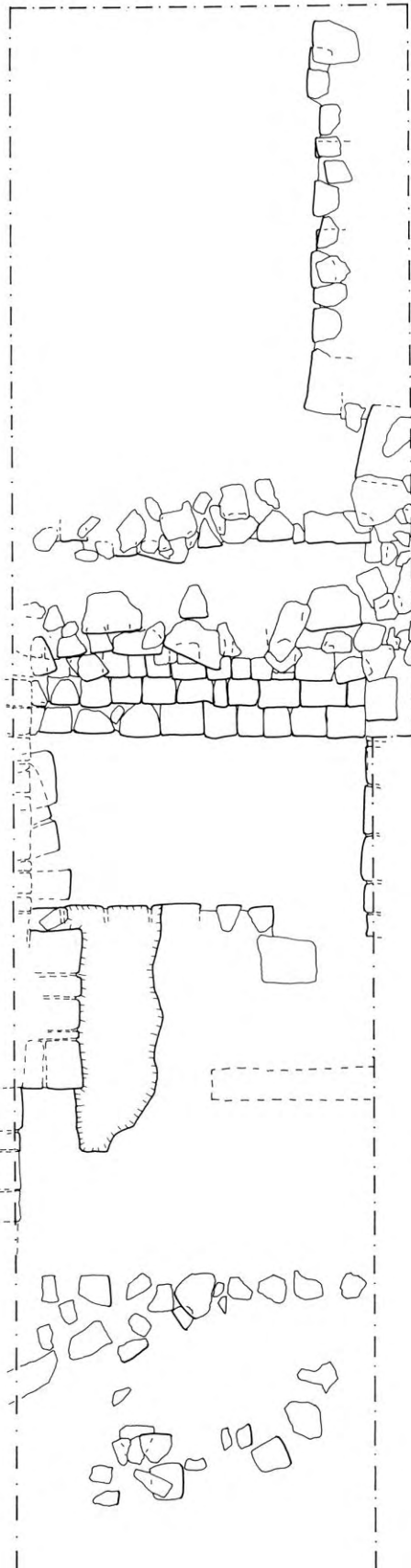
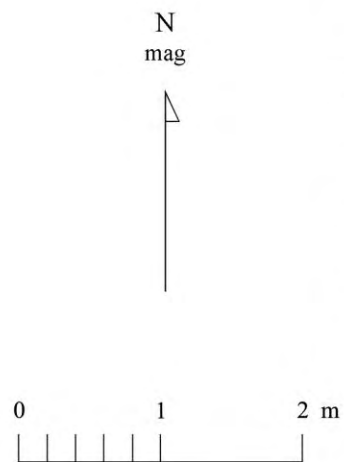


Figure 40: Section of Operation C183J.

**excavation C183J**



**Figure 41: Plan of Operation C183J.**

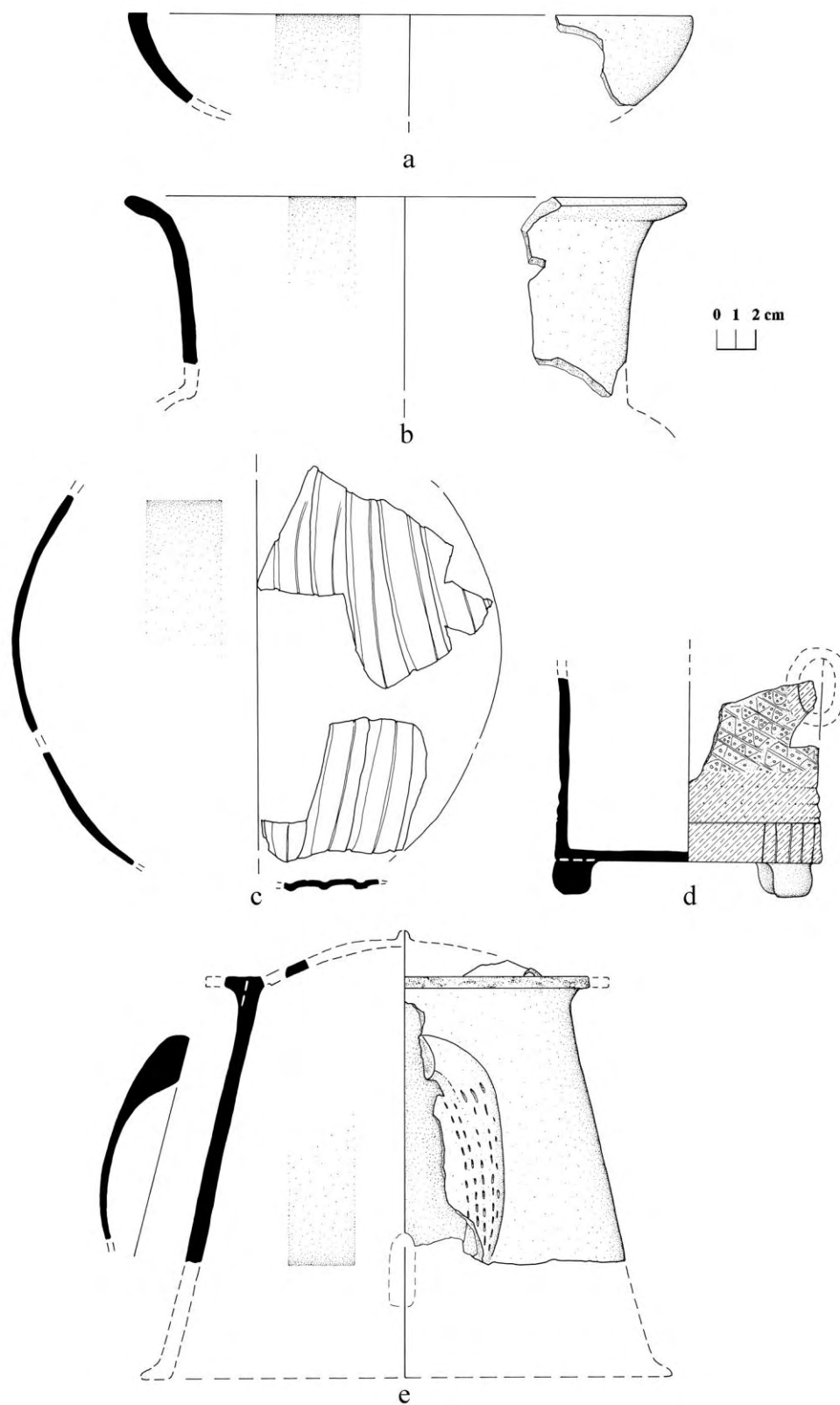


Figure 42: Ceramic vessels associated with Operation C183J: a. unnamed; b. Valentin Unslipped; c. possibly Chilar Fluted; d. possibly related to Azucar Impressed; e. Monterey Modeled.

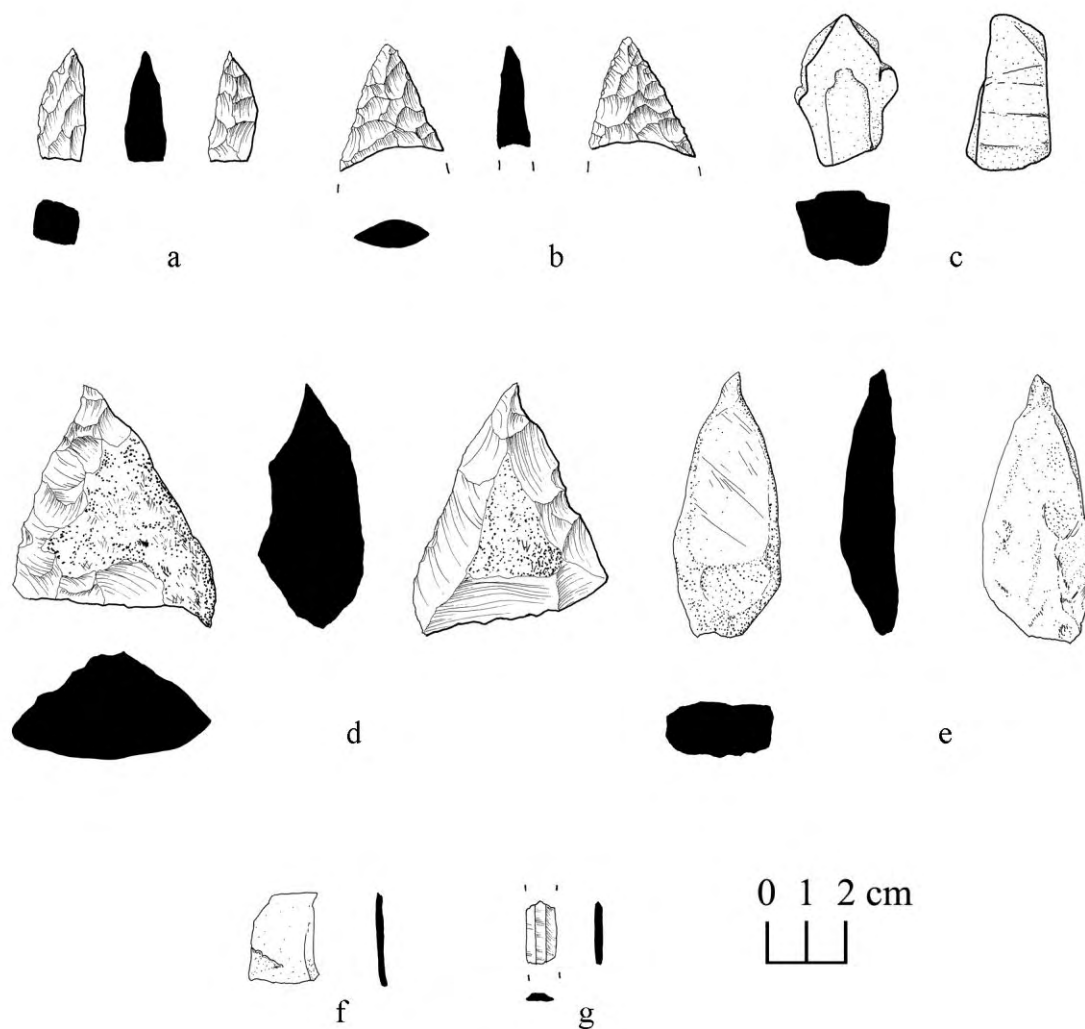


Figure 43: Artifacts associated with Operation C183J: a., e. slate drills; b., d. chert; c. ceramic figurine fragment; f. shell; g. green obsidian.



Figure 44: Photograph of Operation C183K.

excv. C183K

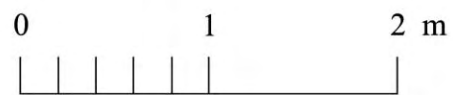
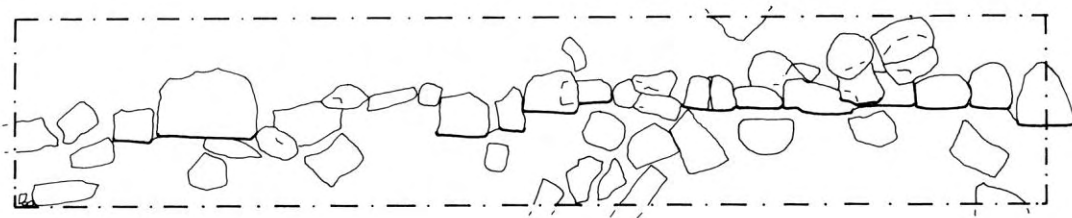


Figure 45: Plan of Operation C183K.

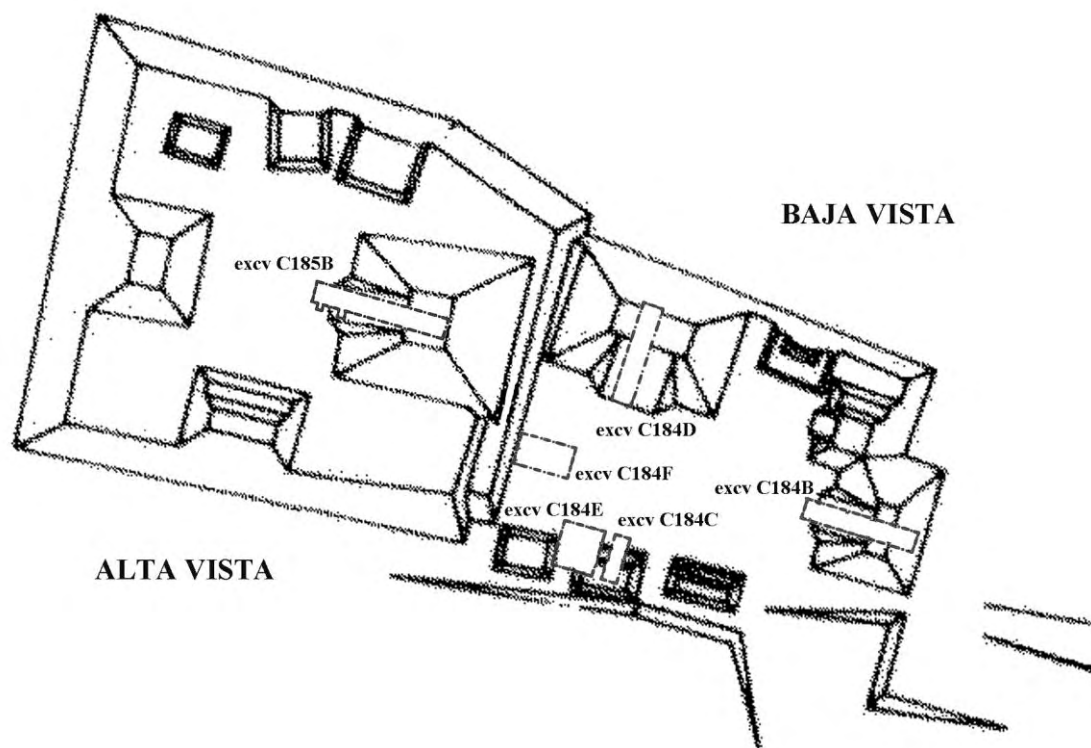


Figure 46: Detailed plan of Alta/Baja Vista, showing the location of the 2010 excavations.





Figure 47: Photograph of Structure F39 and Operation C184B.



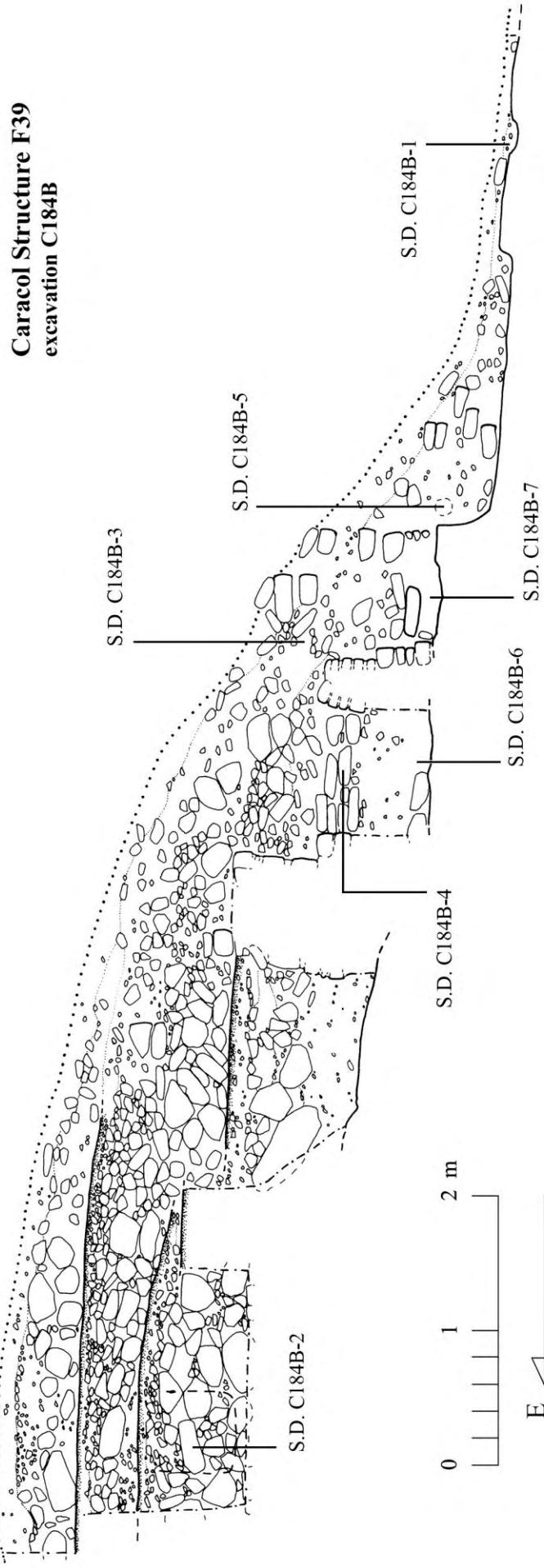
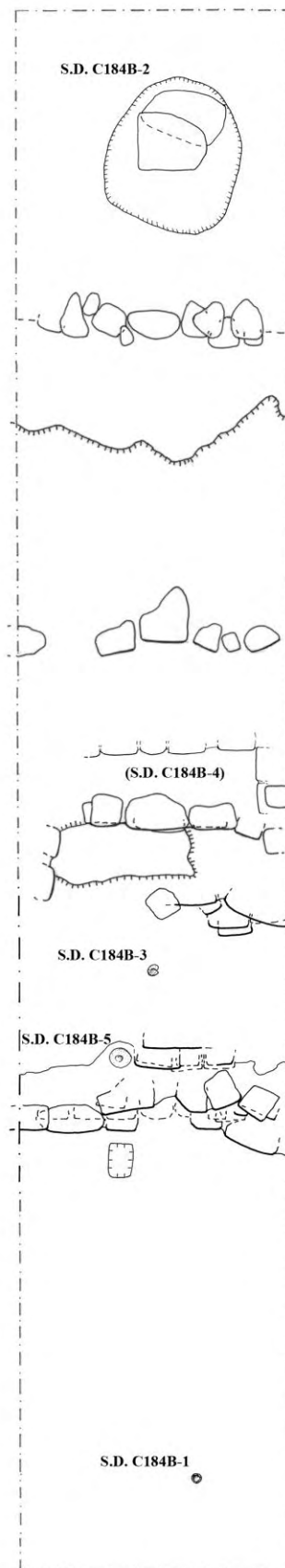
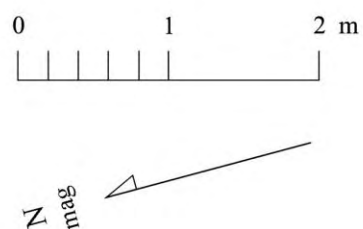


Figure 48: Section of Operation C184B through Structure F39.

**Caracol Structure F39  
excavation C184B**



**Figure 49: Plan of Operation C184B, showing location of recovered special deposits.**

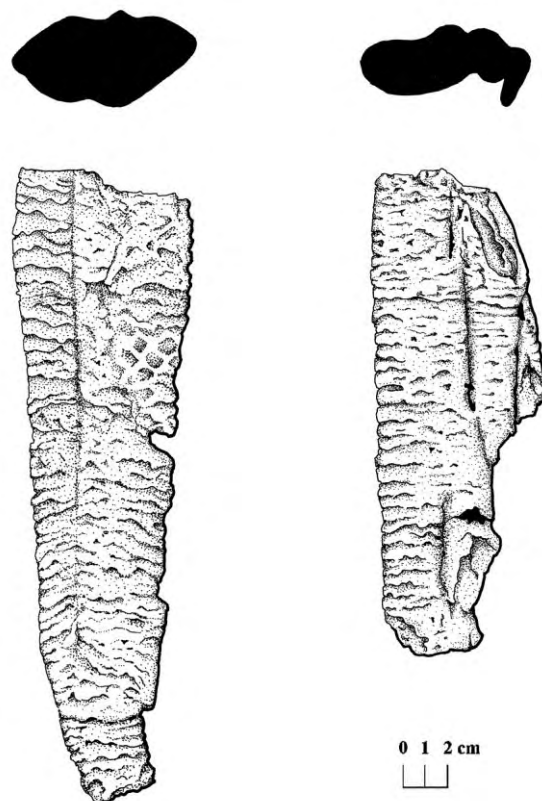


Figure 50: Speleothems associated with upper shrine area in Operation C184B.

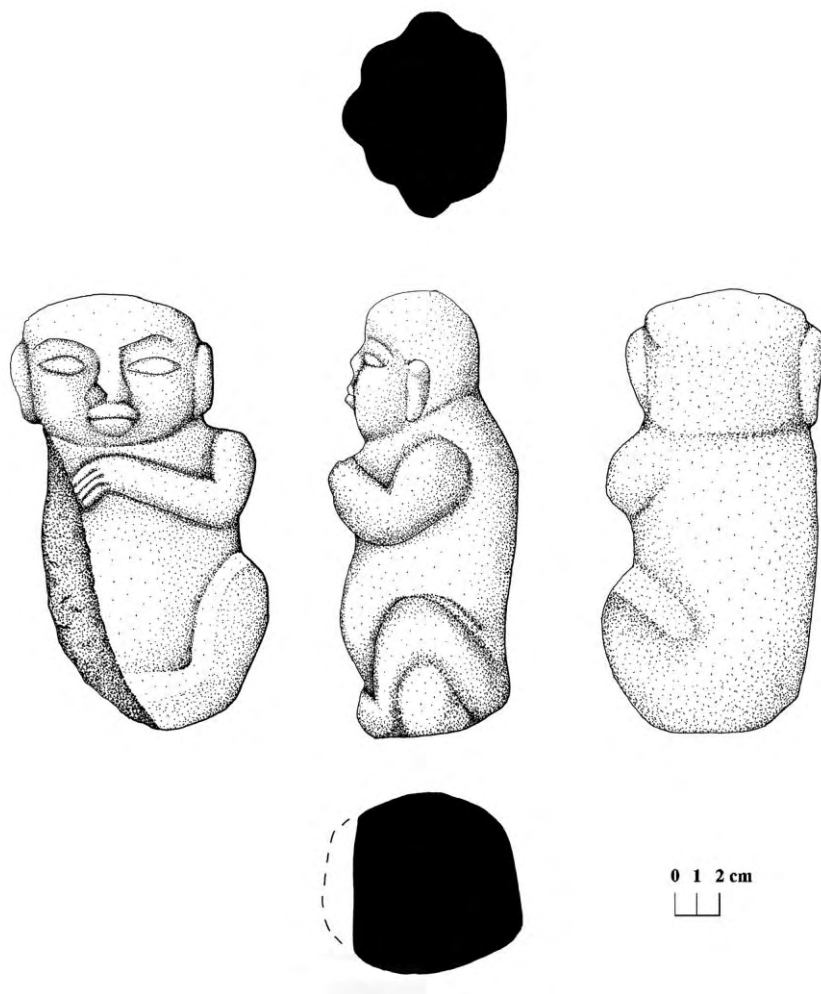


Figure 51: Carved stone figurine associated with upper shrine area in Operation C184B.

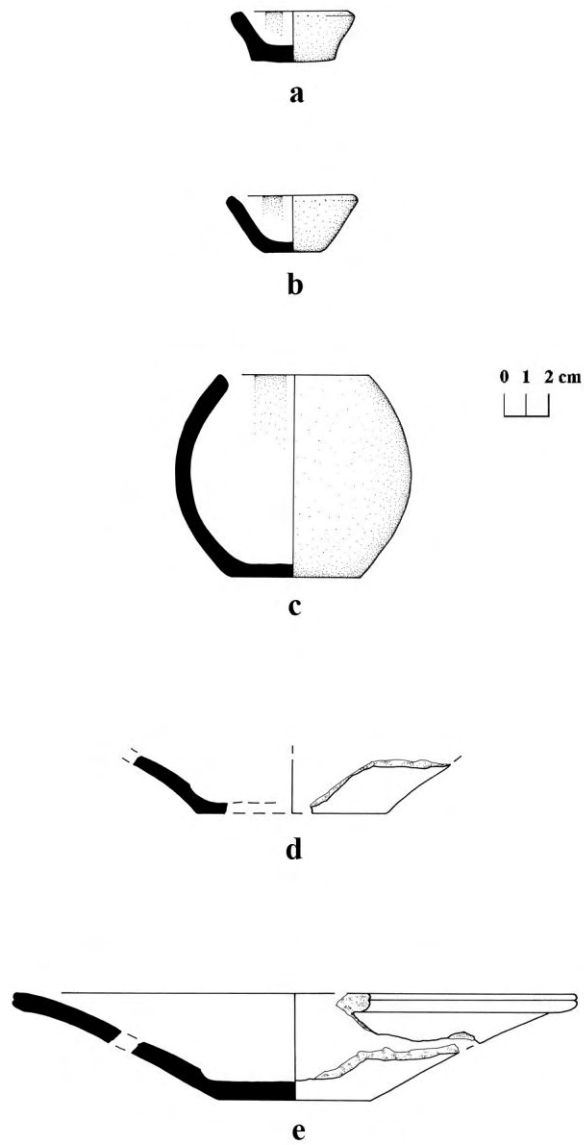
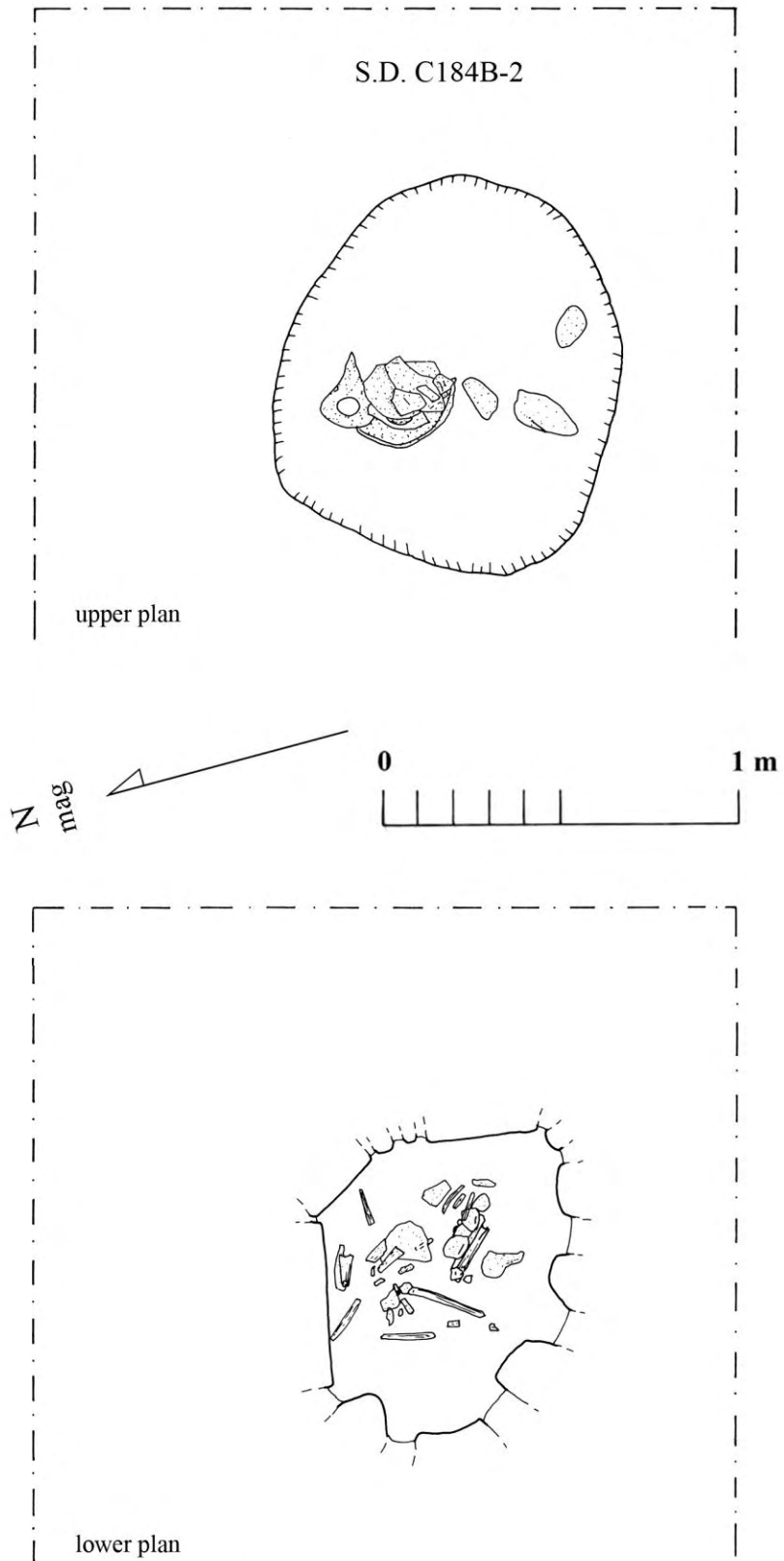


Figure 52: Cache vessels from Operation C184B: a. Ceiba Unslipped from S.D. C184B-1; b. Ceiba Unslipped from S.D. C184B-3; c. Ceiba Unslipped from S.D. C184B-5; d., e. Aguila Orange.



**Figure 53: Plans of S.D. C184B-2.**

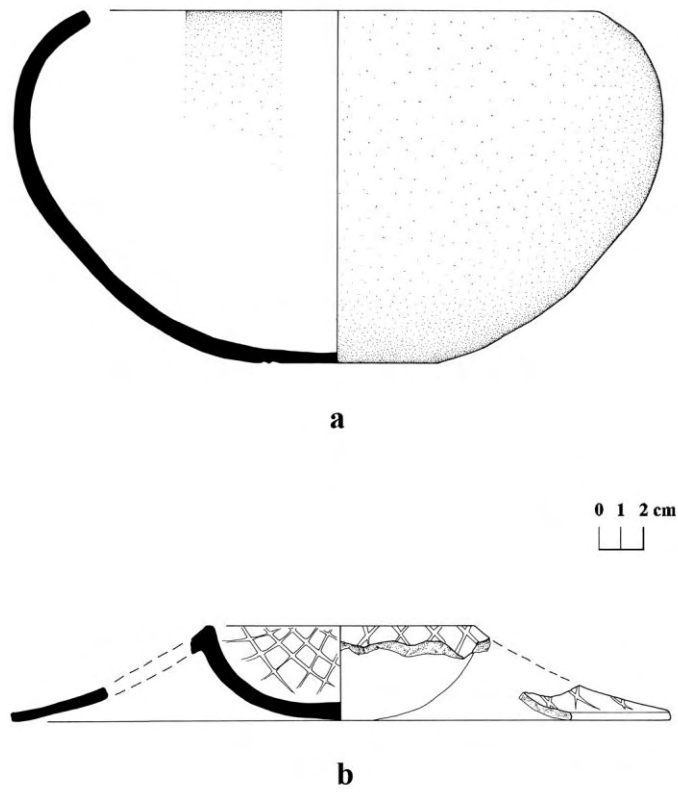


Figure 54: Ceramic vessels from Operation C184B: a. possibly Tinaja Red from S.D. C184B-2; b.unnamed striated vessel from bedrock pit dug in front of Structure F39.

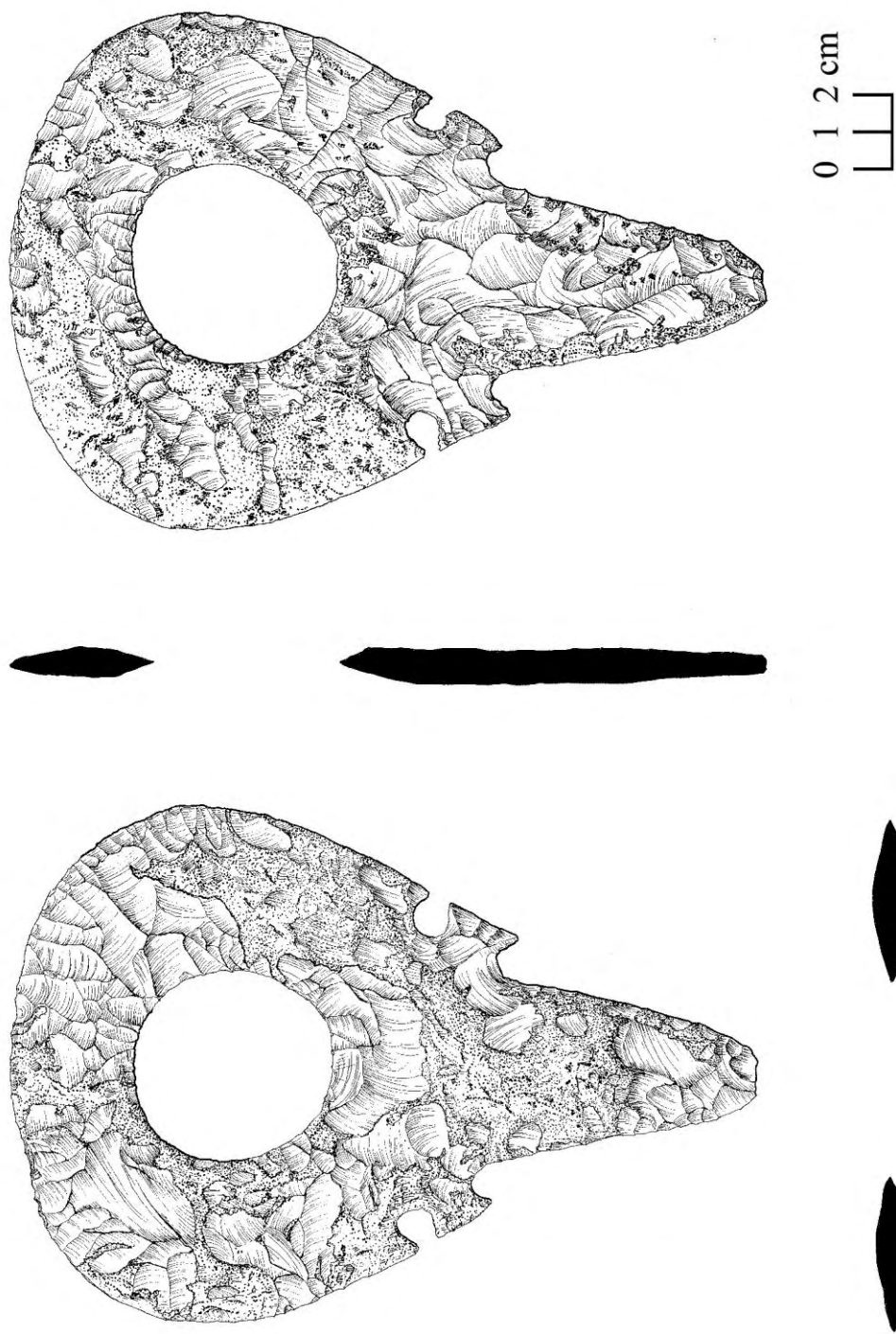


Figure 55: Chert eccentric from S.D. C184B-2.



S.D. C184B-2

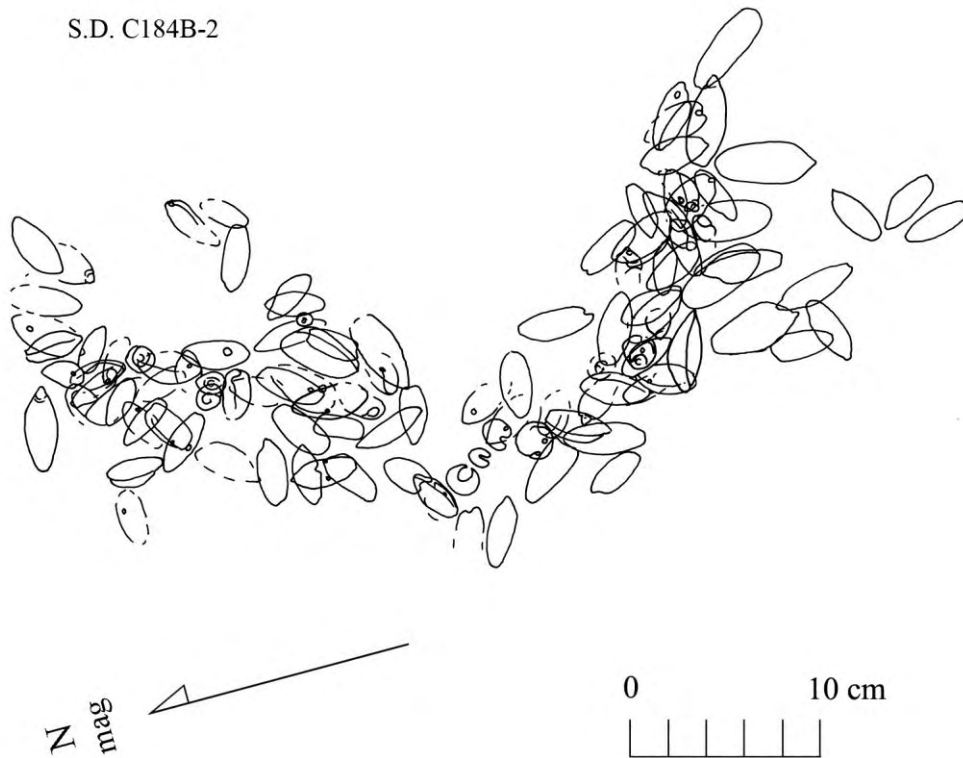


Figure 56: Detailed plan of Flamingo Tongue beads from within S.D. C184B-2.

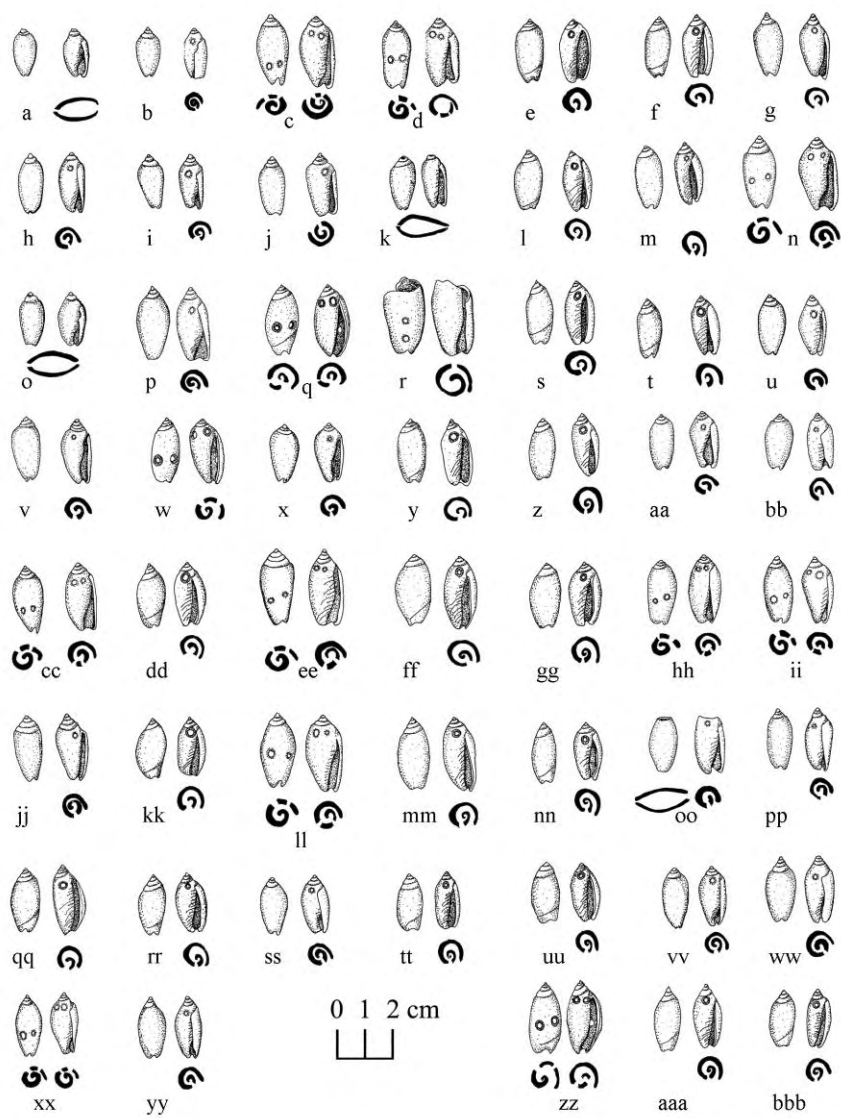


Figure 57: Flamingo Tongue heads from S.D. C184B-2.

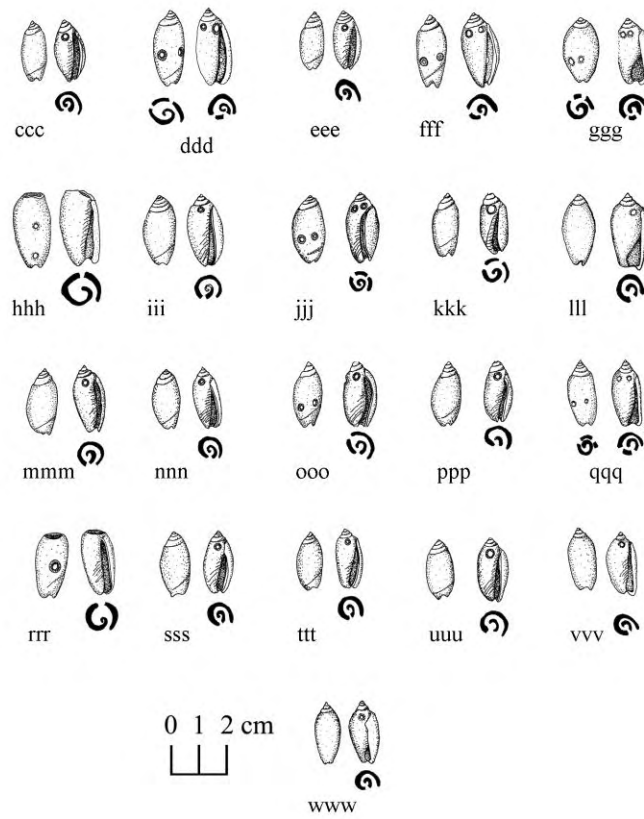


Figure 57: Flamingo Tongue beads from S.D. C184B-2.



Figure 58: Photograph of lower shrine and *in situ* material designated as S.D. C184B-4.

S.D. C184B-4

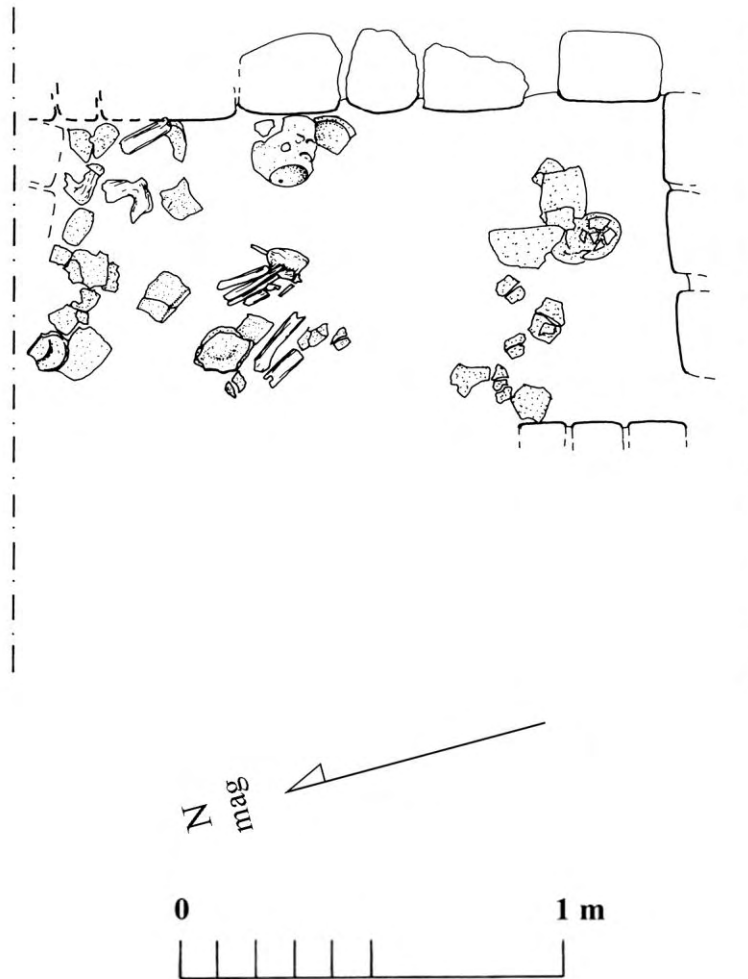


Figure 59: Detailed plan of ceramics and bone from S.D. C184B-4.

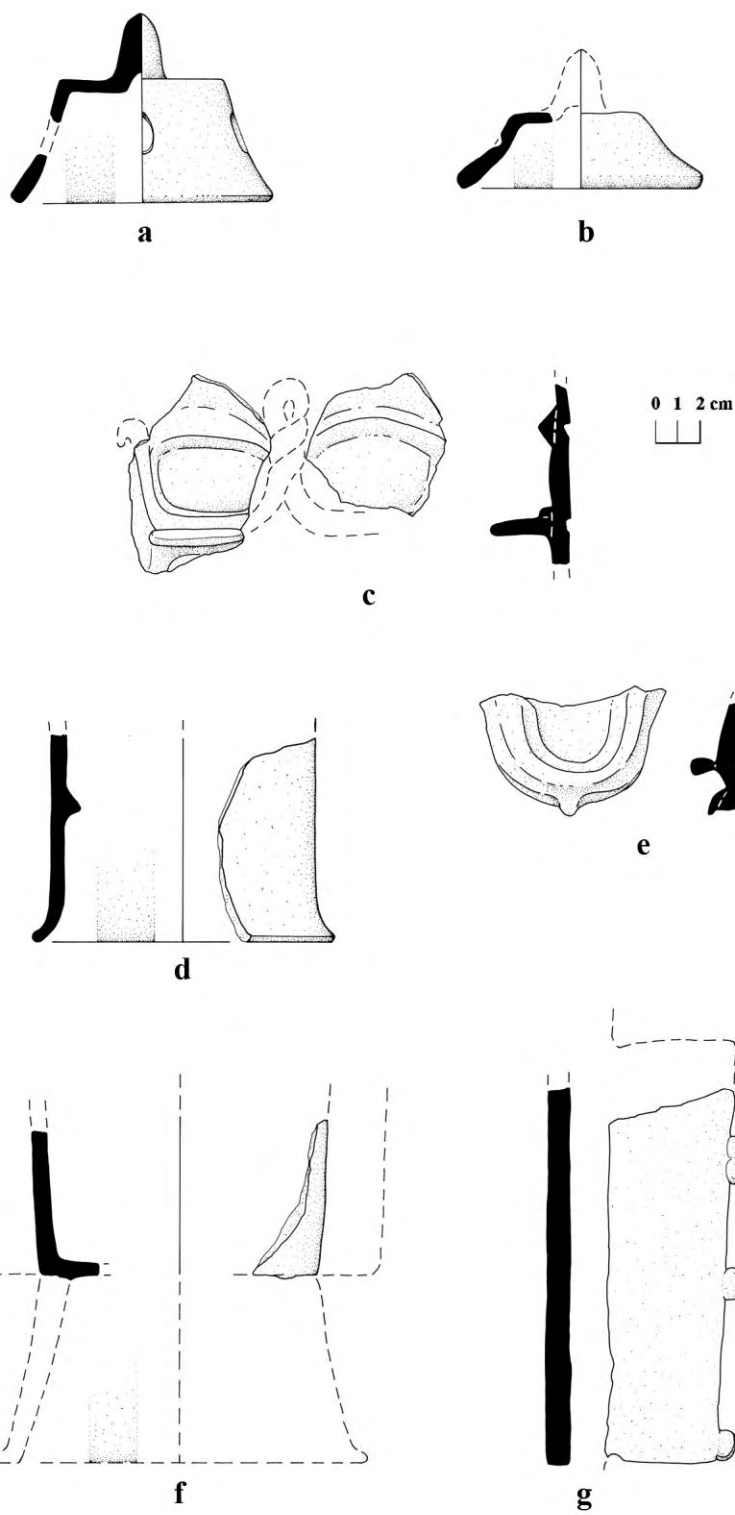


Figure 60: Censerware from S.D. C184B-4 (all Pedregal Modeled).

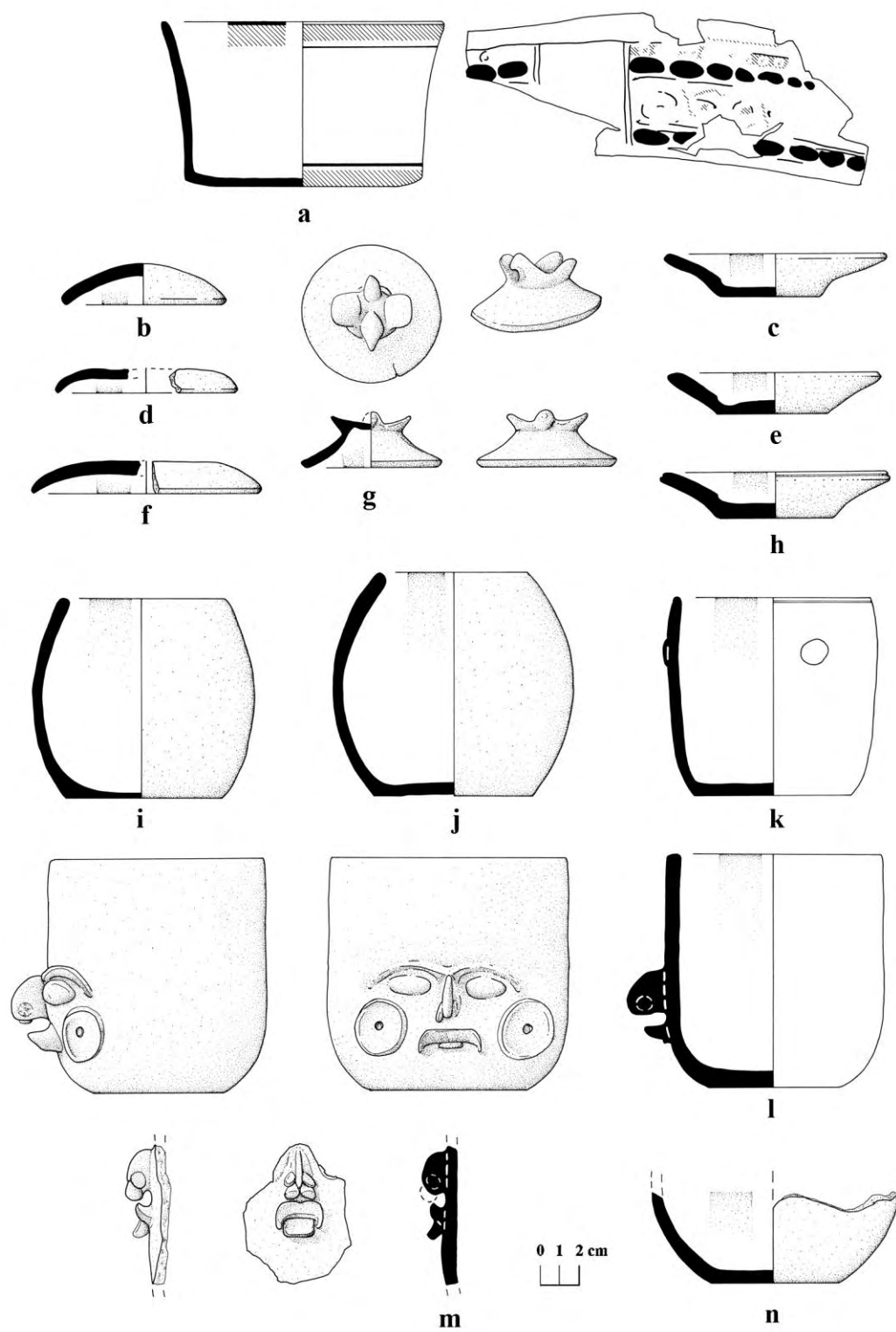


Figure 61: Ceramics from S.D. C184B-4: a. Zacatel Cream Polychrome; b.-f., h.-j., n. Ceiba Unslipped; g., k.-m. Hebe Modeled.

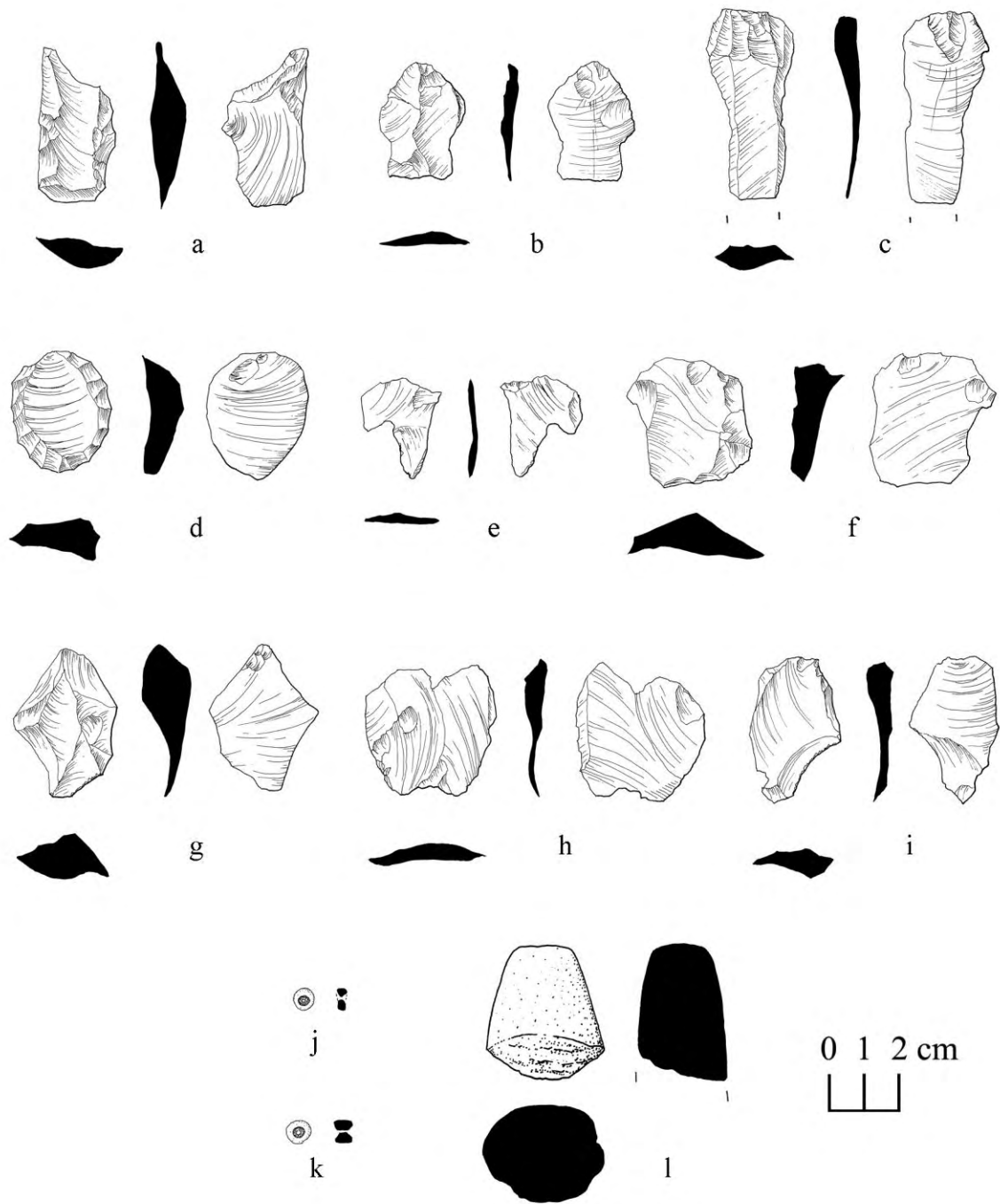


Figure 62: Artifactual material from S.D. C184B-4: a.-i. obsidian eccentrics; j., k. jadeite beads; l. partial mano.



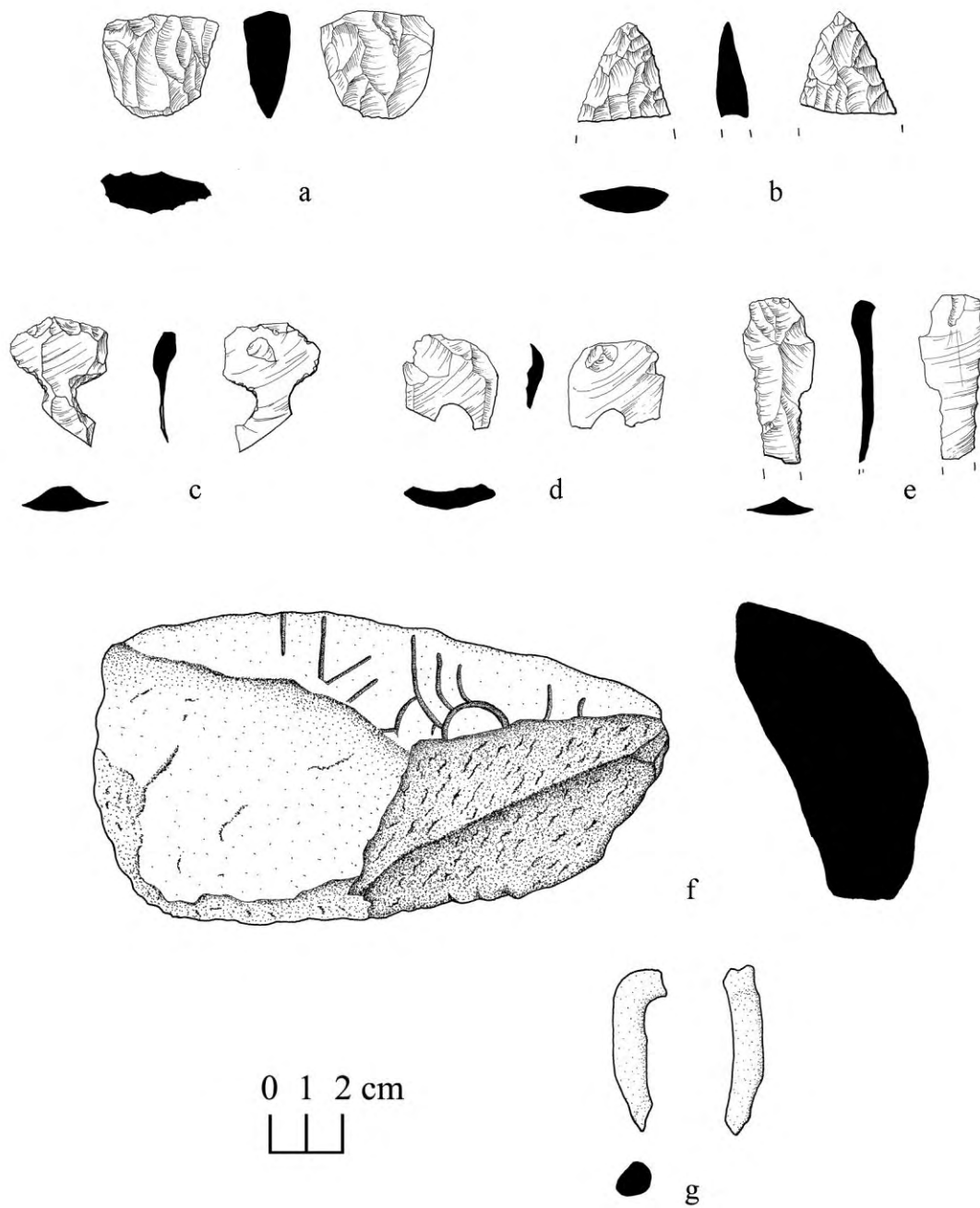


Figure 63: Artifactual material from beneath S.D. C184B-4: a., b. chert; c.-e. obsidian; f. carved stone; g. possible ceramic figurine fragment.

S.D. C184B-5

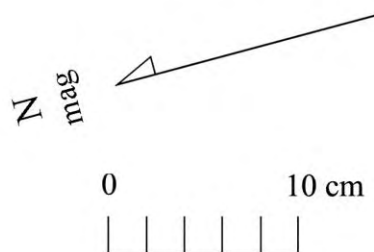
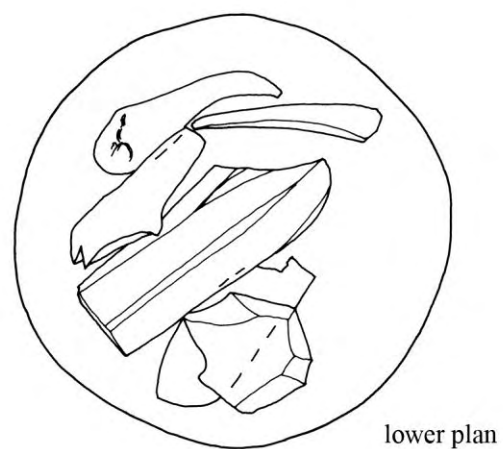
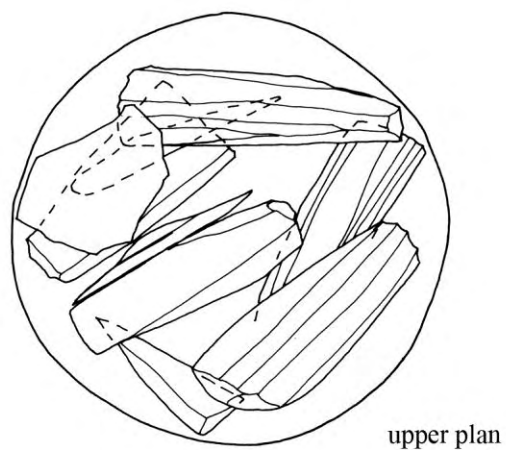


Figure 64: Interior plans of obsidian in S.D. C184B-5.

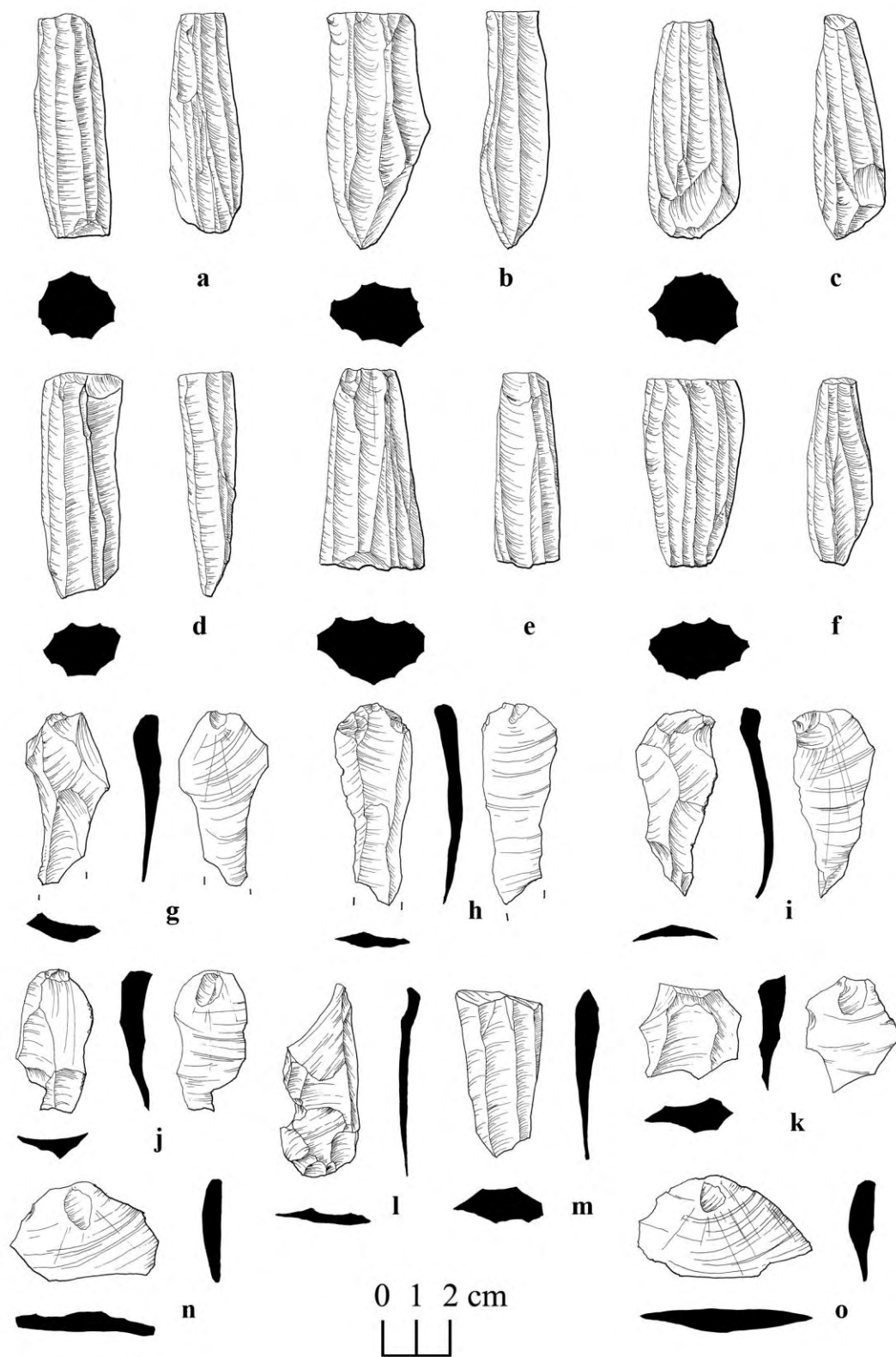


Figure 65: Obsidian from within S.D. C184B-5.

excav. C184B



Figure 66: Detailed plan of shrine that contained S.D. C184B-4 and the capstones for S.D. C184B-6 and S.D. C184B-7.



Figure 67: Photograph of S.D. CI84B-6.

S.D. C184B-6

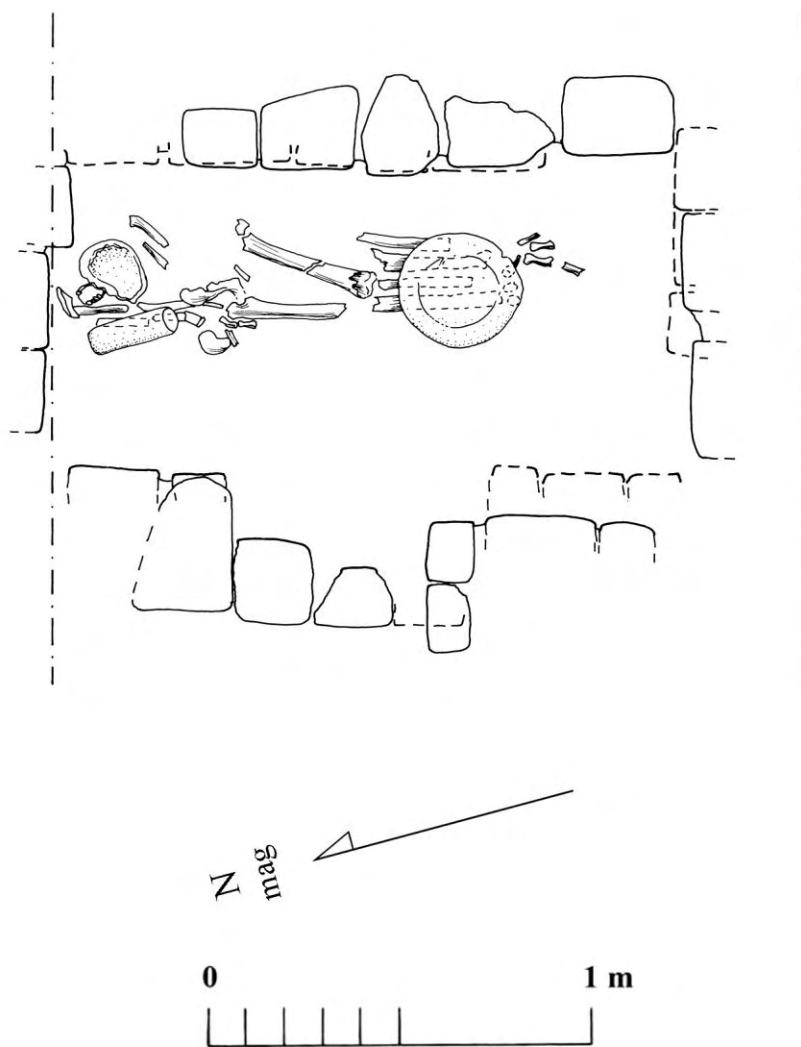


Figure 68: Plan of S.D. C184B-6.

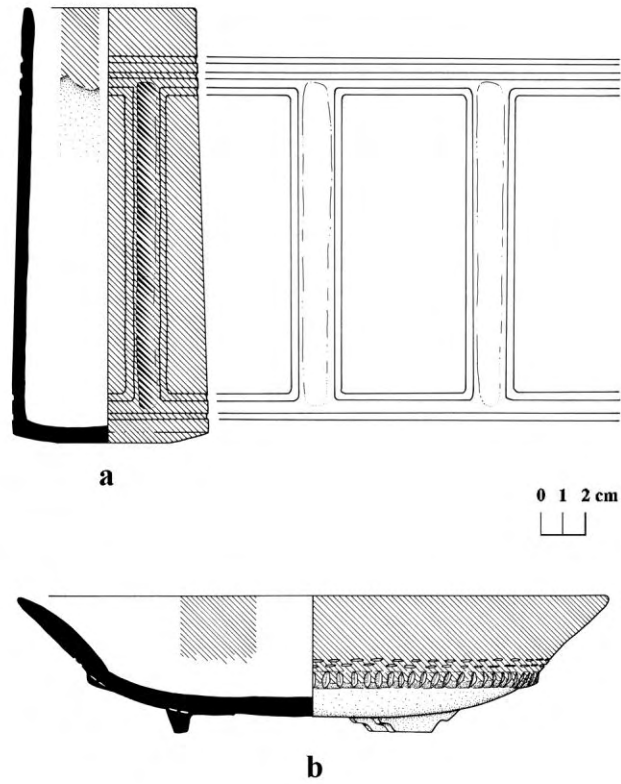


Figure 69: Ceramic vessels from S.D. C184B-6: a. Gallinero Fluted; b. McRae Impressed.





Figure 70: Photograph of S.D. C184B-7.



S.D. C184B-7

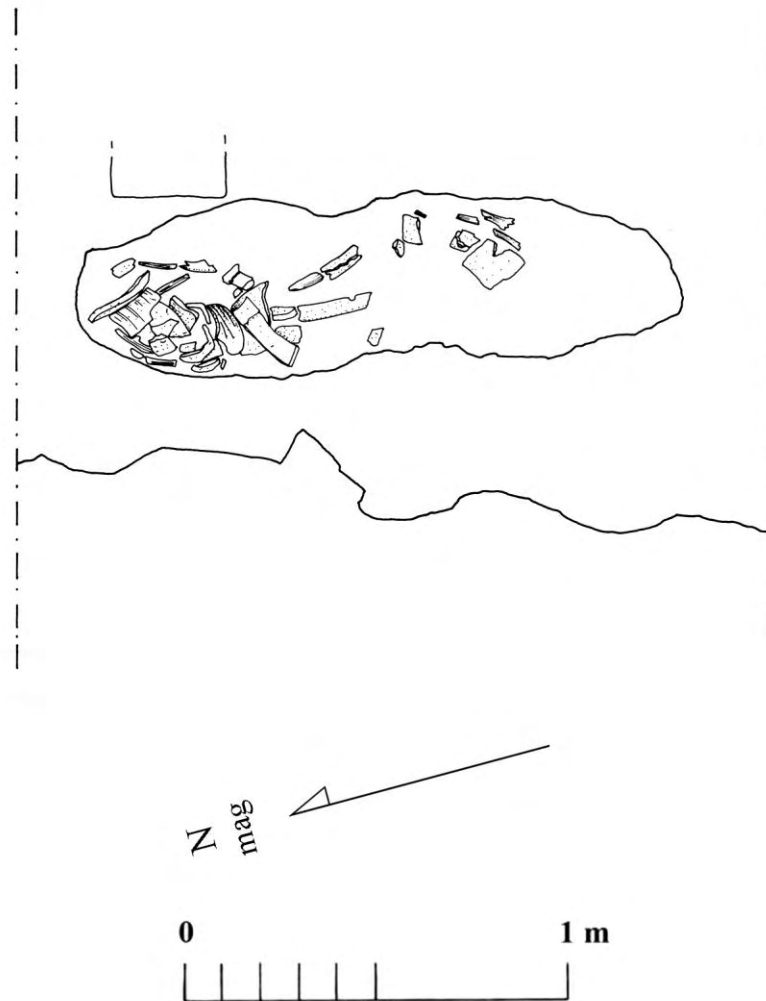


Figure 71: Plan of S.D. C184B-7.

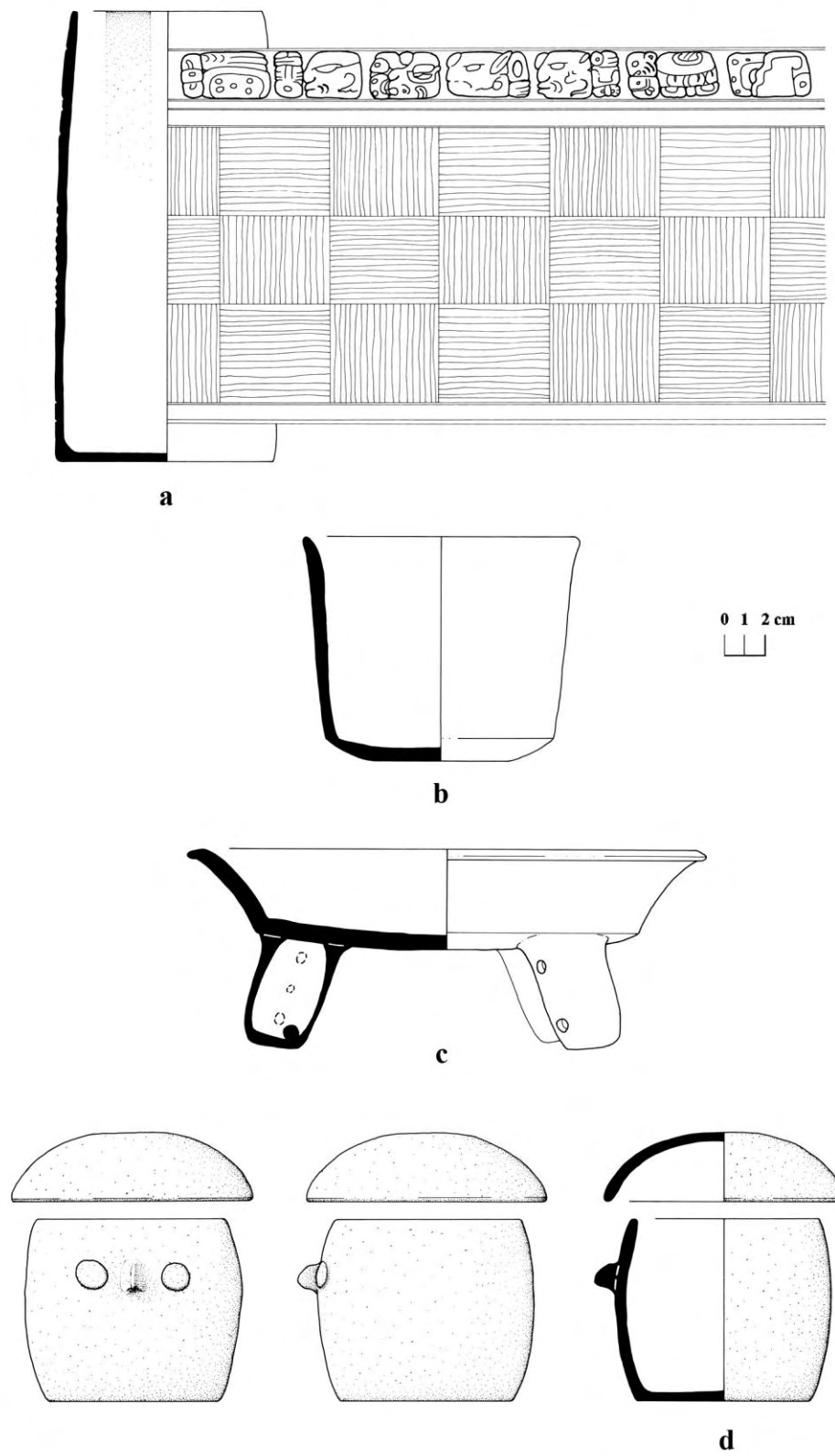


Figure 72: Ceramic vessels associated with S.D. C184B-7: a. possibly Canoa Incised; b., c. eroded Zacatel Cream Polychrome; d. Hebe Modeled.

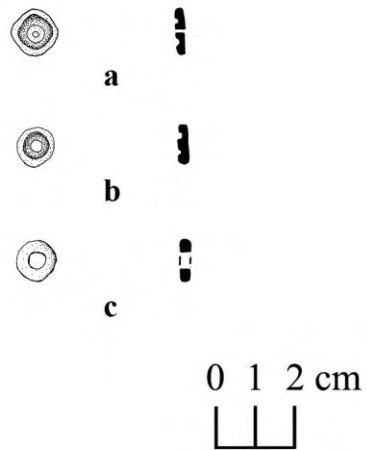


Figure 73: Shell artifacts associated with S.D. C184B-7.



Figure 74: Photograph of Operations C184B, C184C, C184E, and C184F (in foreground).

**Caracol Structure F41**  
excavation C184C

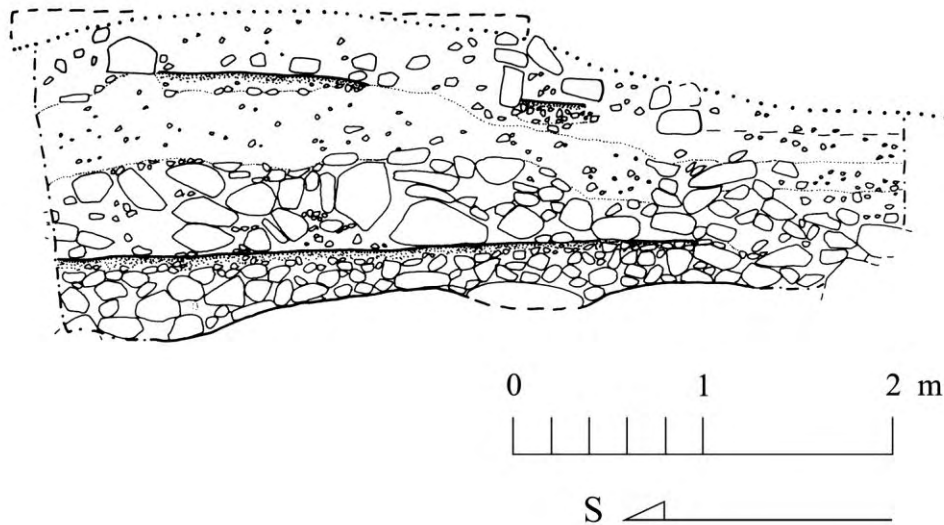
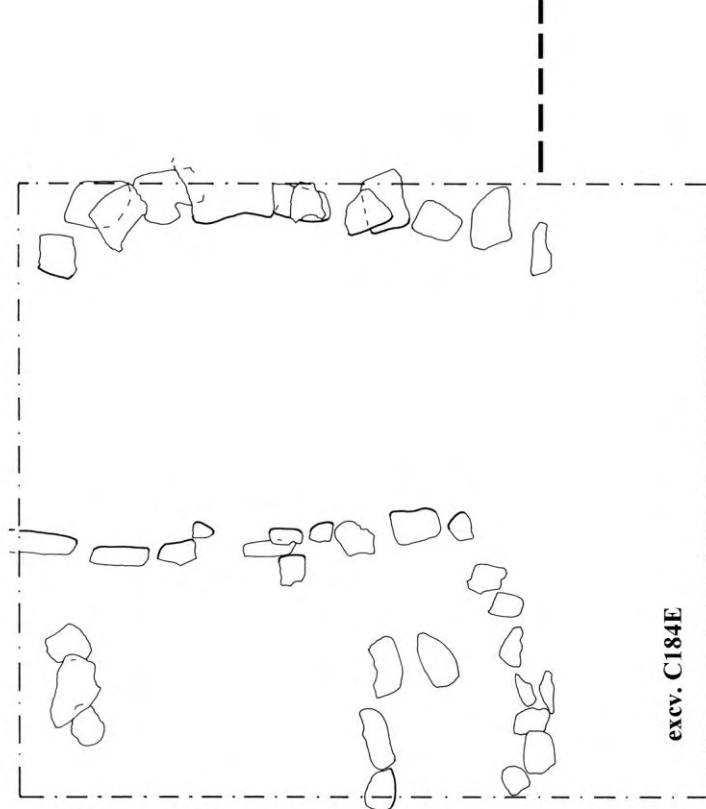


Figure 75: Section of Operation C184C through Structure F41.

Structure C42



Structure C41

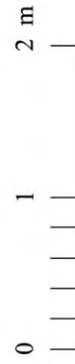
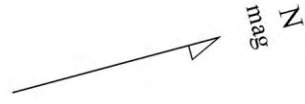


Figure 76: Plan of Operations C184C and C184E.

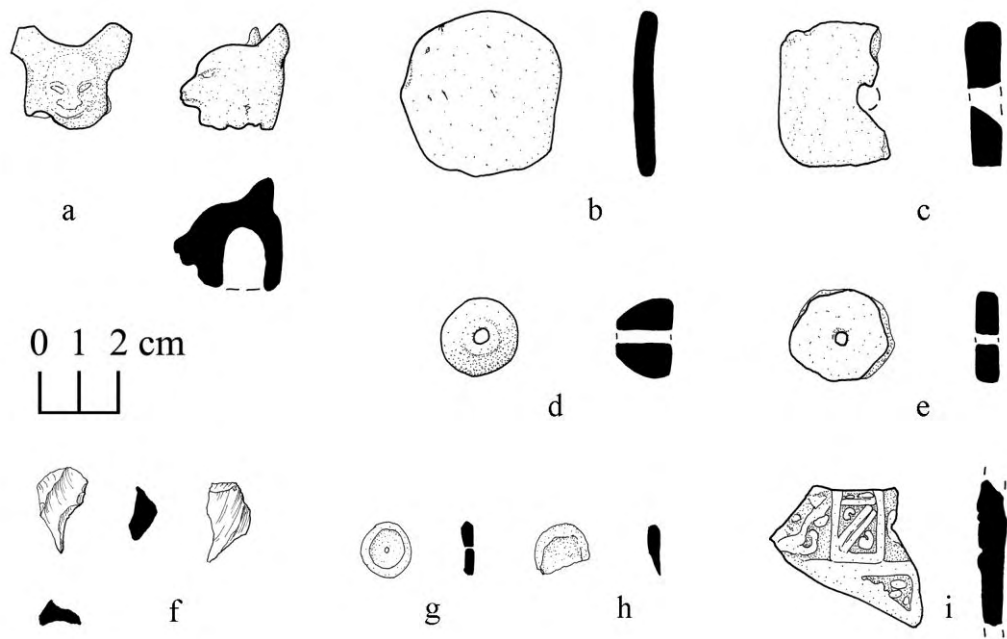


Figure 77: Artifactual materials associated with Operation C184: a. ceramic figurine head (C184D/1-1); b. shaped ceramic (C184C/6-1); c., e. shaped and drilled ceramics (C184E/2-2 and C184E/8-1); d. stone spindle whorl (C184E/6-3); f. chert fragment (C184C/5-8); g., h. worked shell (C184C/5-6 and C184C/9-1); i. Sahcaba Modeled-Carved ceramic (C184B/5-1).

**excavation C184E**

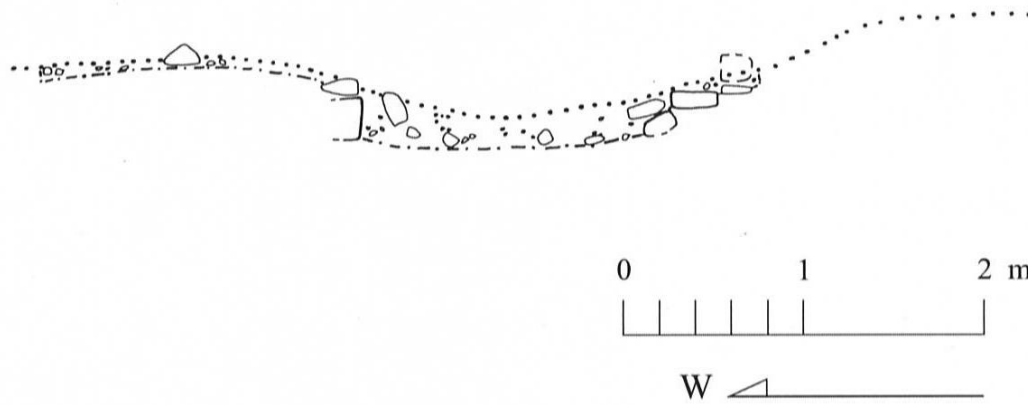


Figure 78: Southern section for Operation C184E.



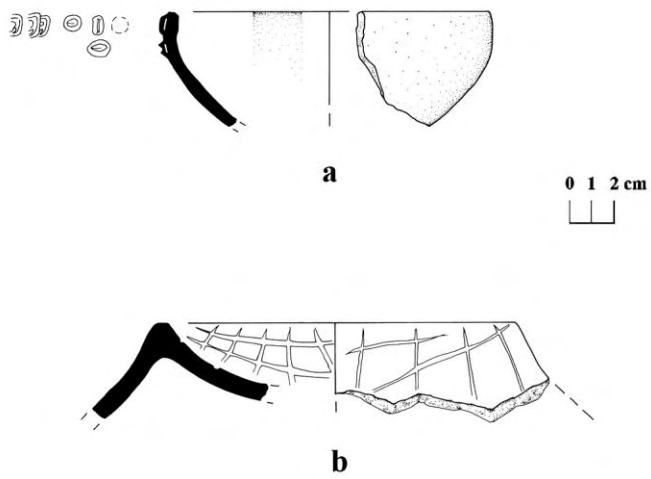


Figure 79: Ceramic vessels associated with Operation C184E: a. possibly San Julio Modeled; b. unnamed striated.



Figure 80: Photograph of Operation C184D in Structure F36.

# **Caracol Structure F36 excavation C184D**

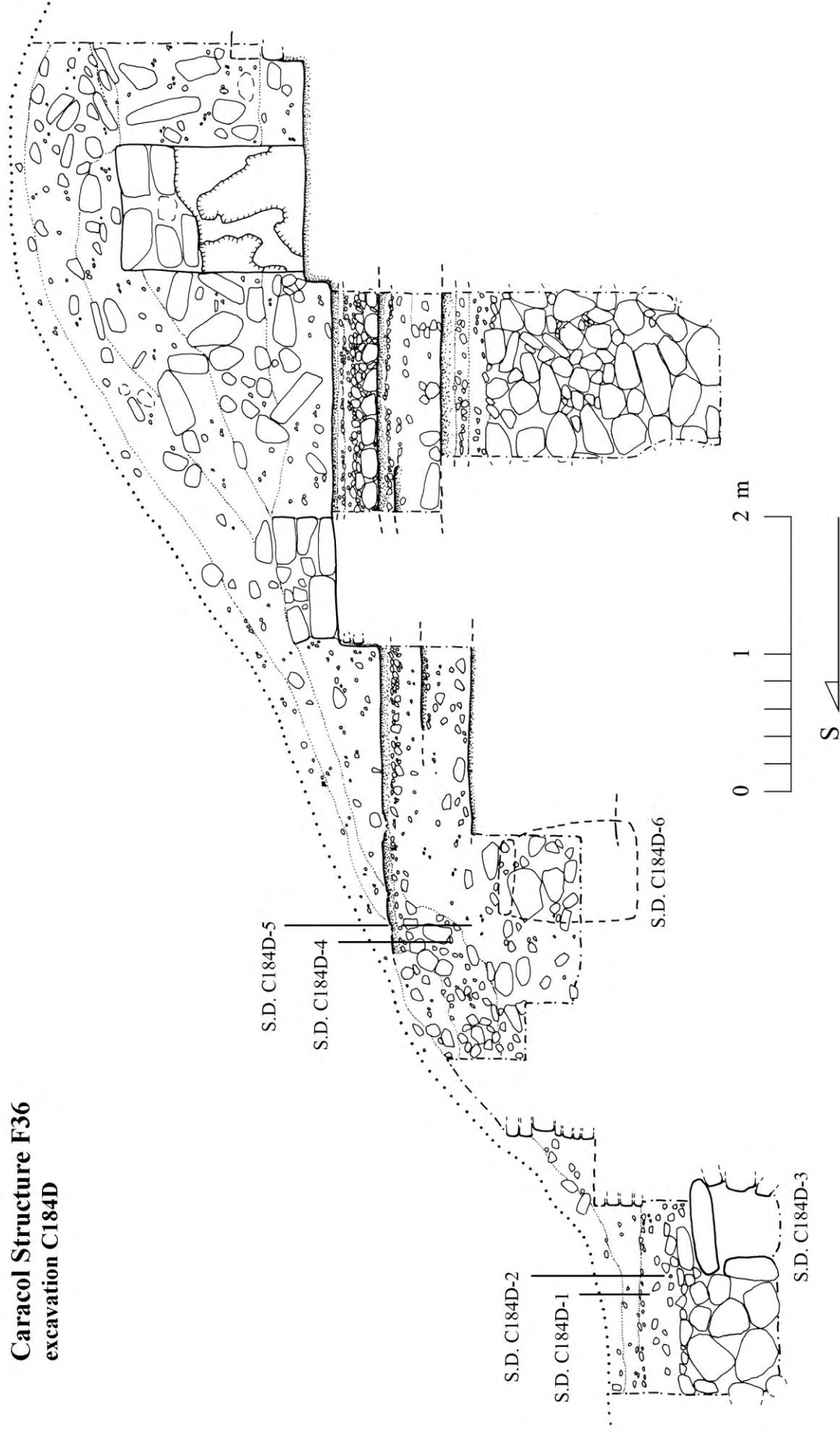


Figure 81: Section for Operation C184D in Structure F36.

**Caracol Structure F36  
excavation C184D**

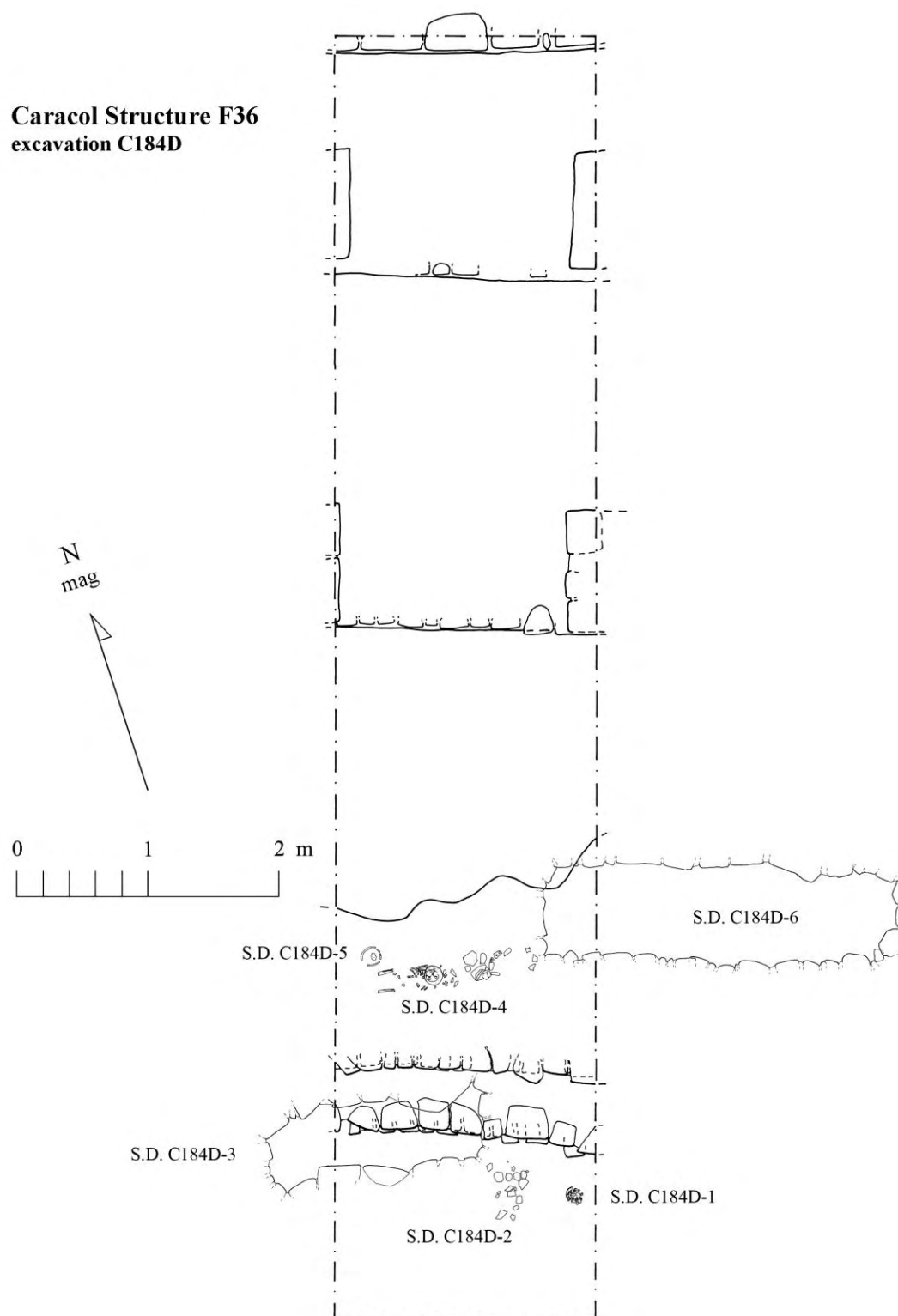


Figure 82: Plan of Operation C184D, showing the location of the recovered special deposits.

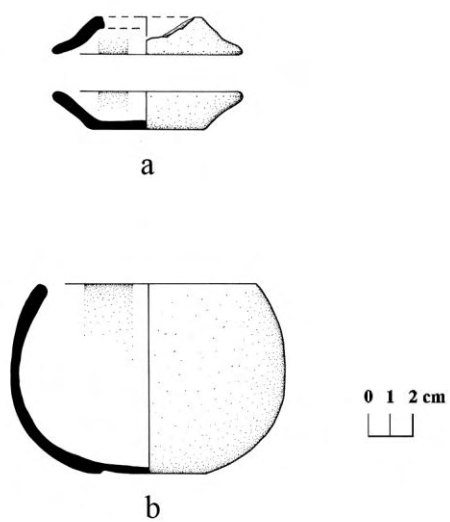
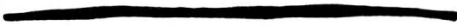
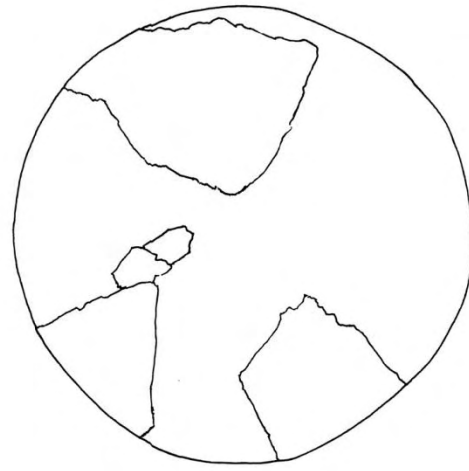
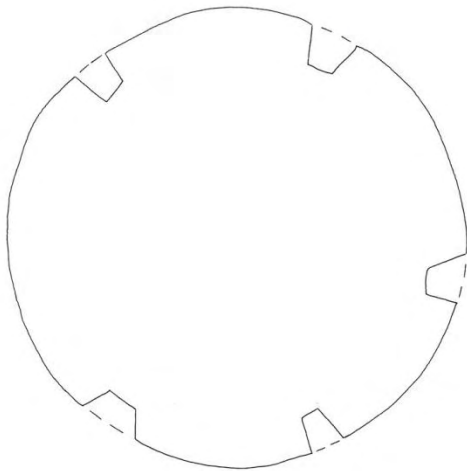


Figure 83: Cache vessels from Operation C184D: a. S.D. C184D-1, Ceiba Unslipped; b. S.D. C184D-5, possibly Ceiba Unslipped.



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Figure 84:

Mirror recovered as S.D. C184D-2.



S.D. C184D-3

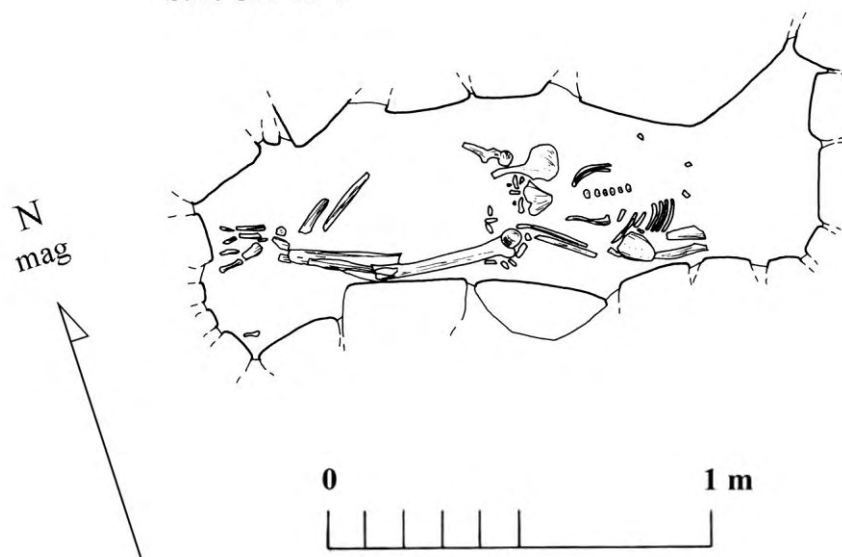


Figure 85: Plan of S.D. C184D-3.

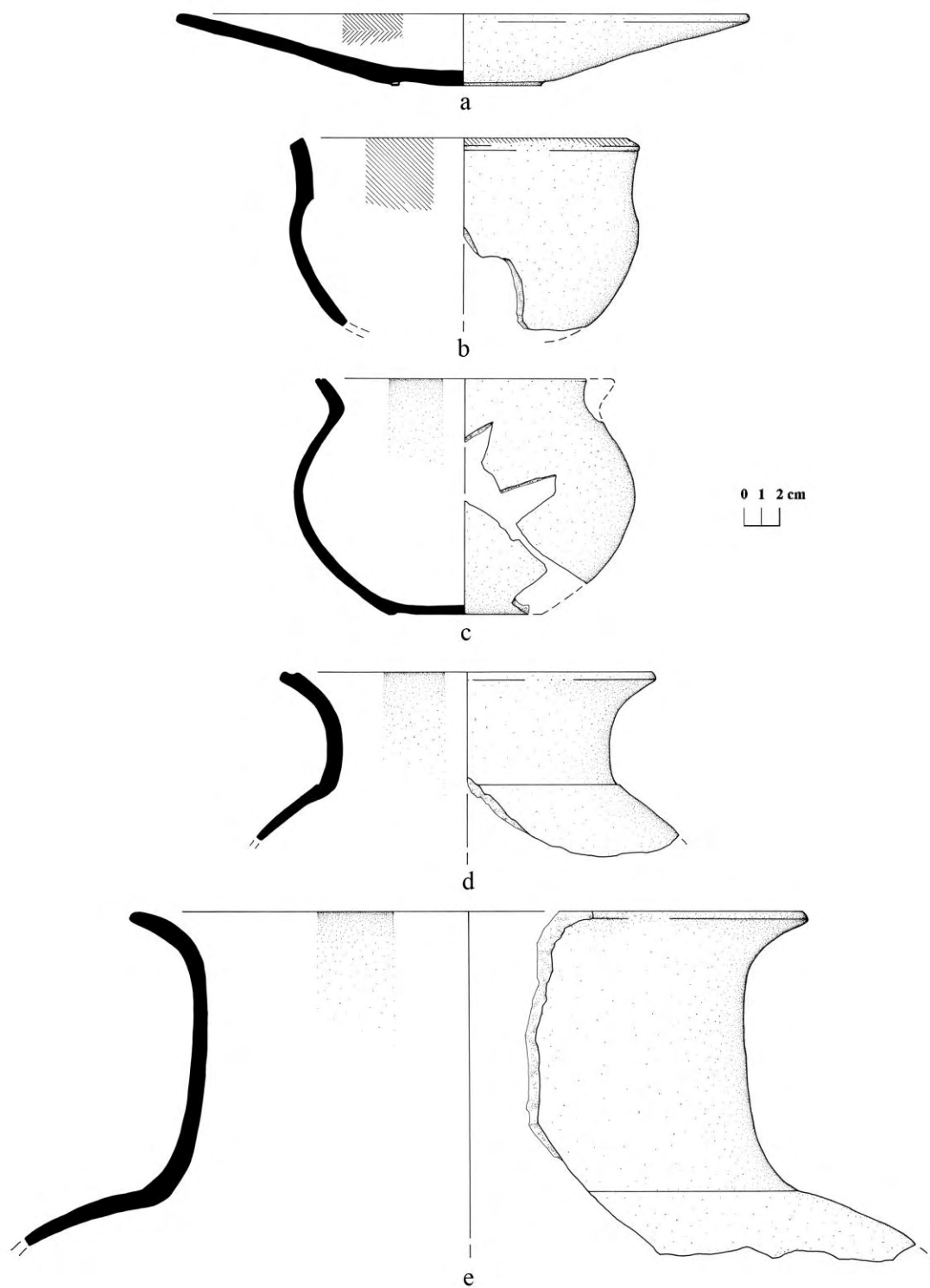


Figure 86: Ceramic vessels reconstructed from the fill beneath the front platform floor: a. possibly Fallabon Red-on-Roange; b. possibly Tinaja Red; c. eroded Maquina Brown; d., e. Valentin Unslipped.





Figure 87: Photograph of S.D. C184D-4 with detail of skull and accompanying shell artifact.

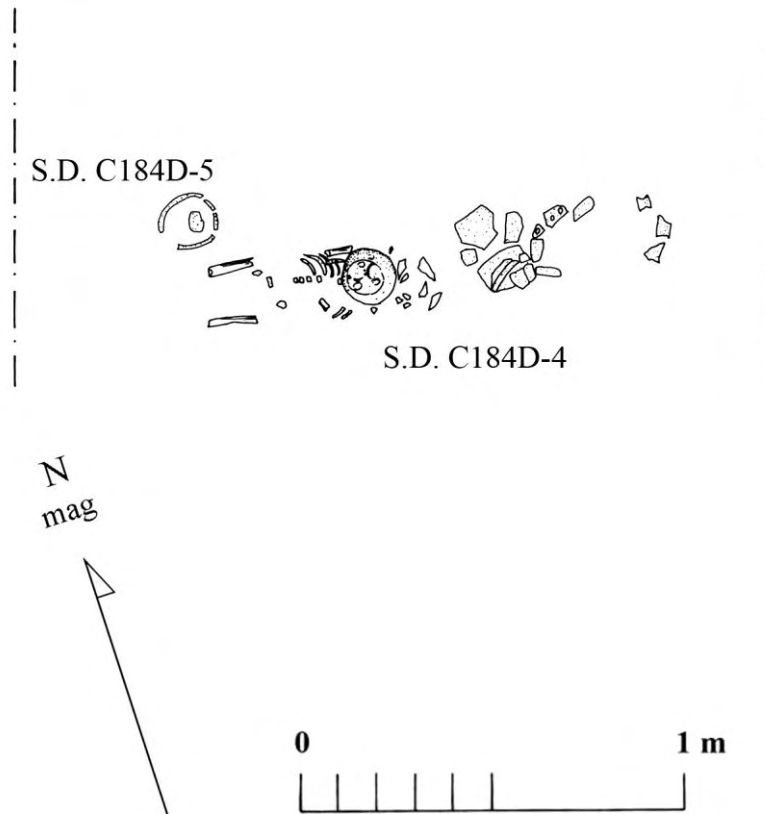


Figure 88: Plans of S.D. C184D-5 and S.D. C184D-4.

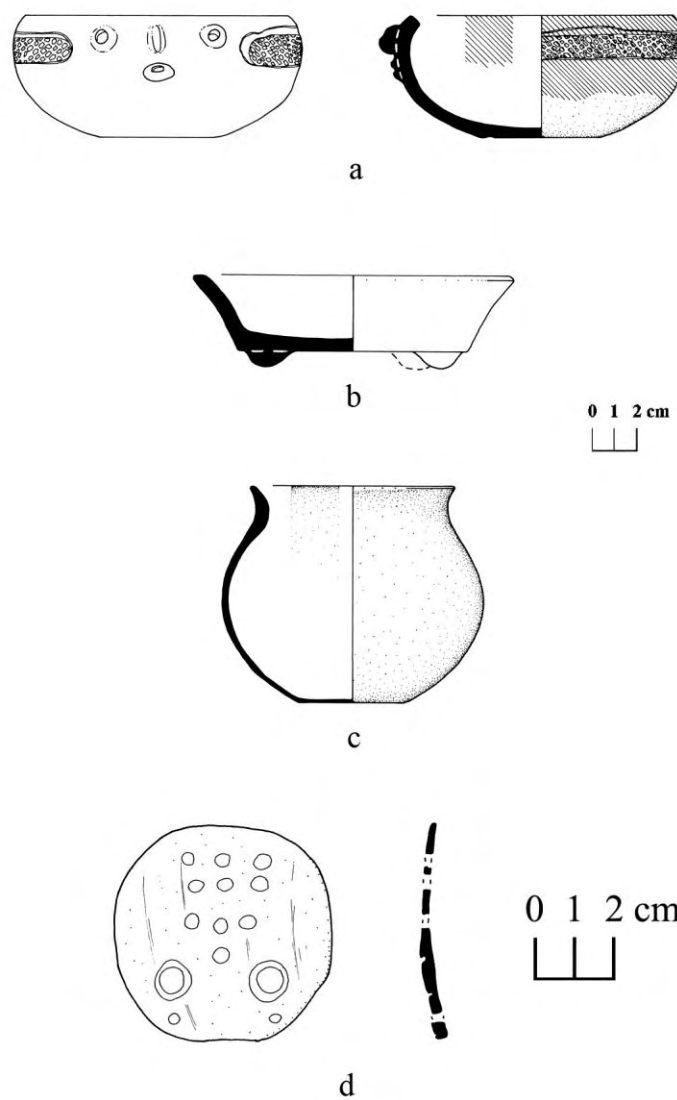


Figure 89: Ceramic vessels and an artifact associated with S.D. C184D-4: a. San Julio Modeled; b. probably eroded Tinaja Red; c. probably eroded Maquina Brown; d. carved shell.





Figure 90: Photograph of S.D. C184D-6.

S.D. C184D-6

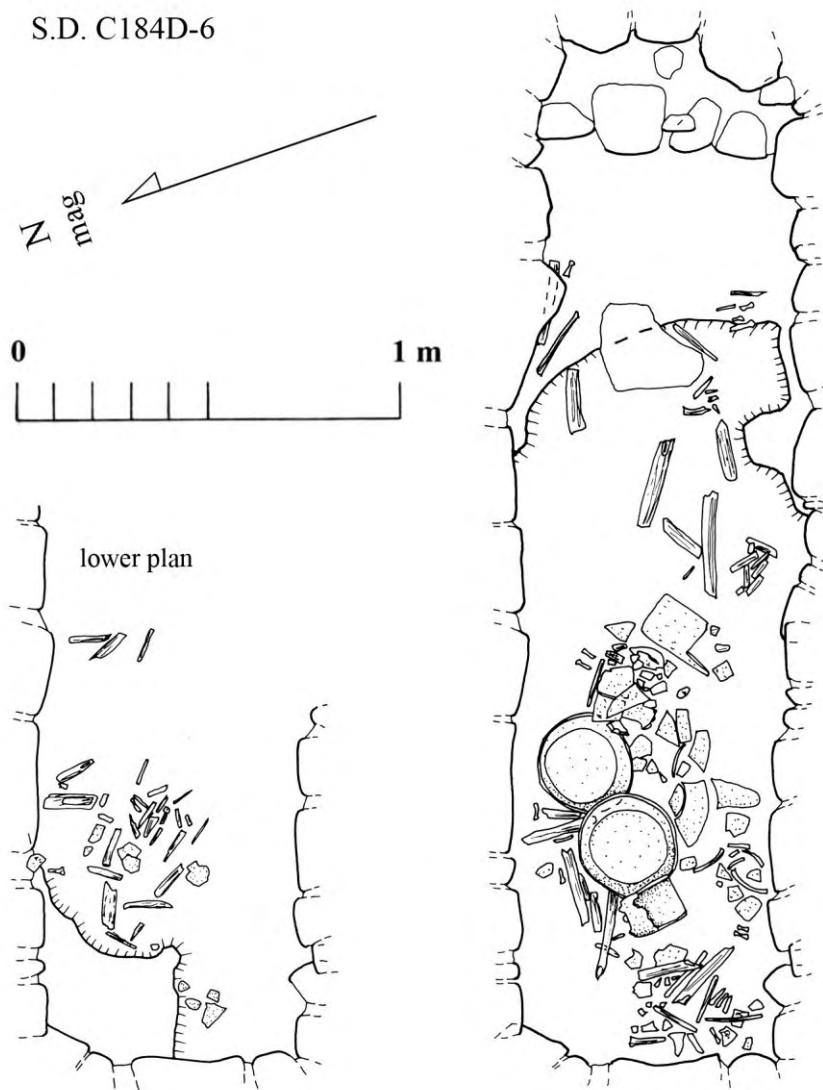


Figure 91: Plan of S.D. C184D-6.

**S.D. C184D-6**

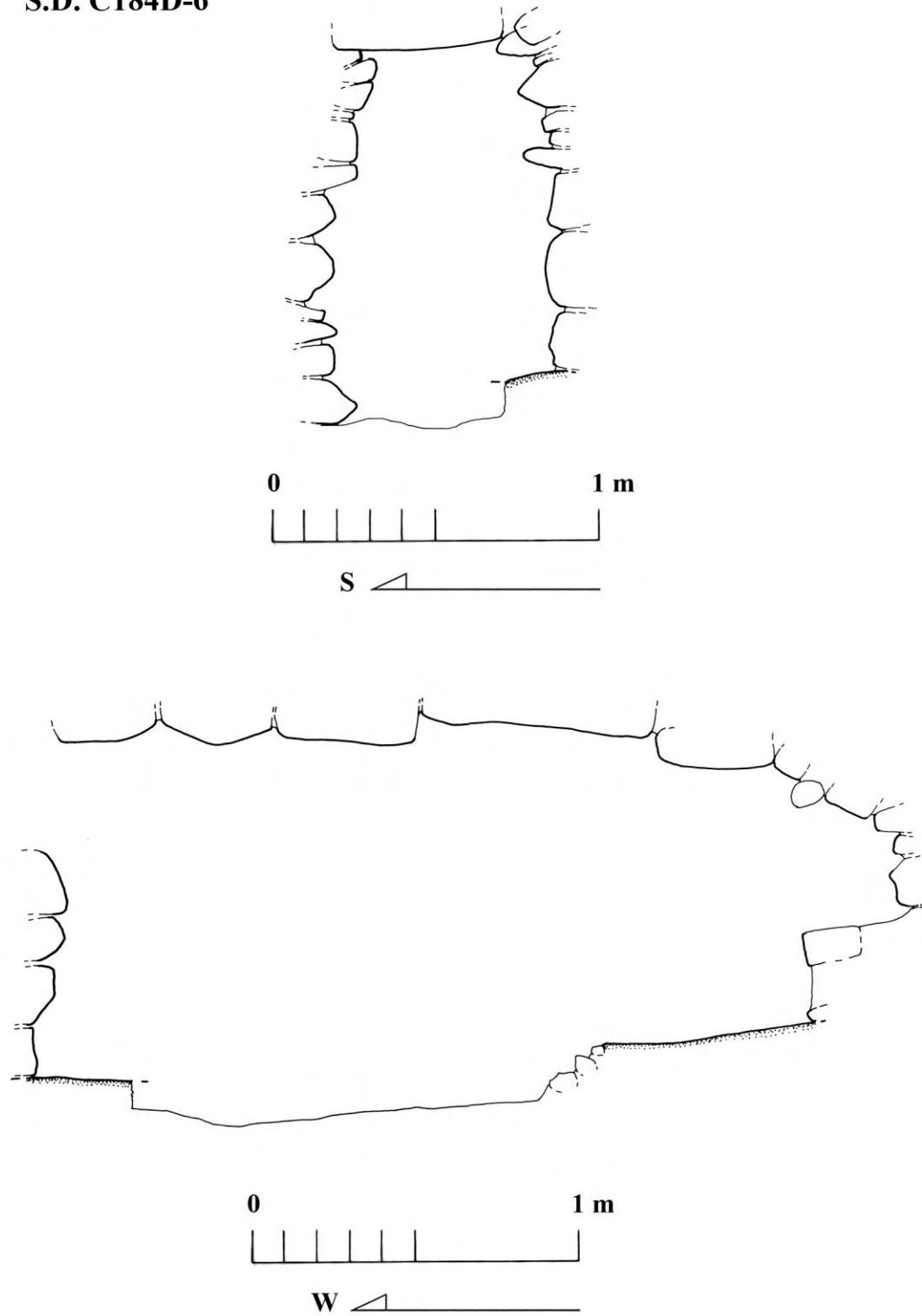


Figure 92: Cross-sections of the tomb for S.D. C184D-6.

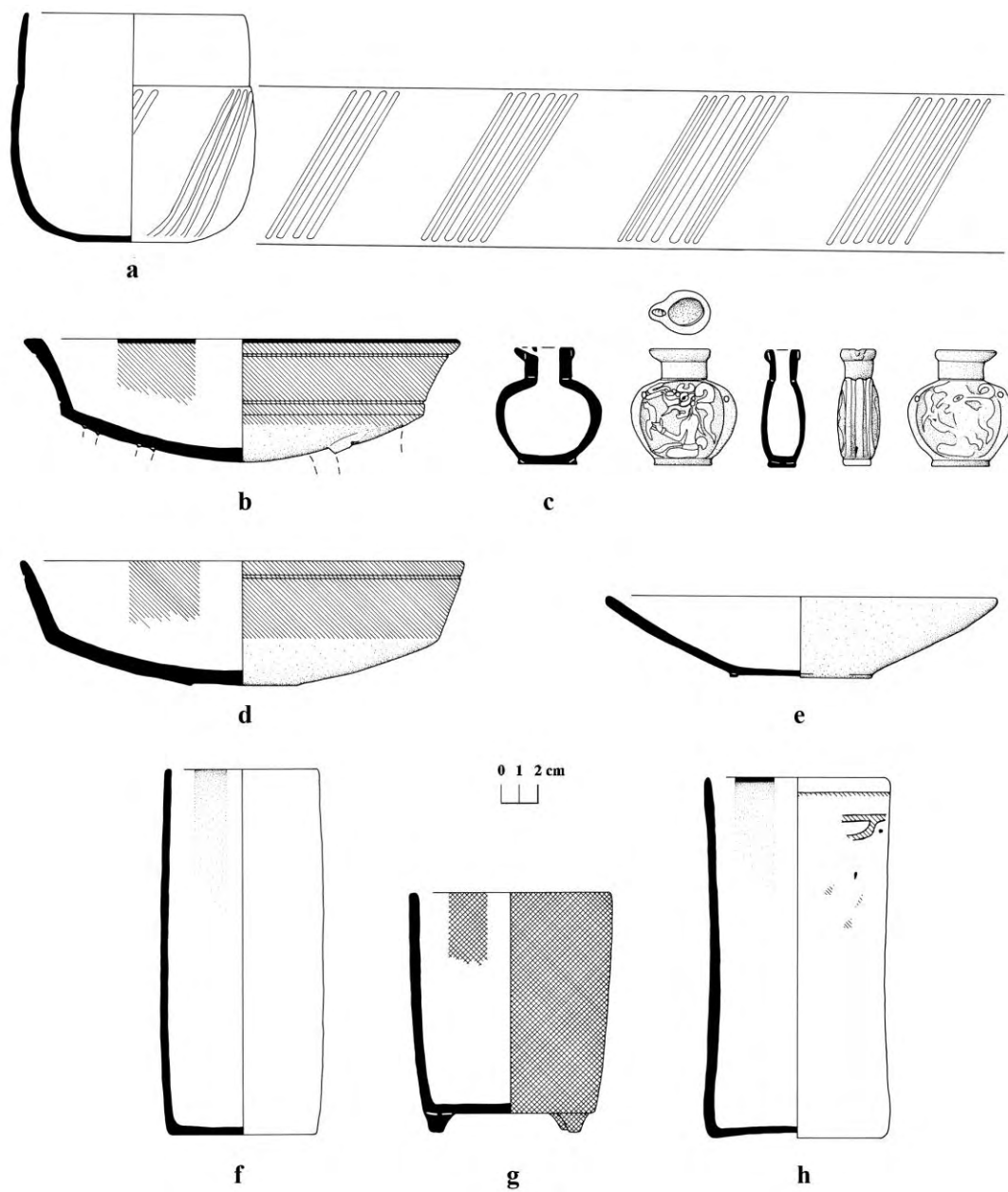


Figure 93: Ceramic vessels from S.D. C184D-6: a. possibly Salada Fluted; b. Belize Red with black-slipped rim; c. unnamed modeled; d. Belize Red; e. eroded Machete Orange Polychrome; f., h. eroded Zacatel Cream Polychrome; g. possibly Infierno Black.





Figure 94: Photograph of carved miniature ceramic vessel from S.D. C184D-6.



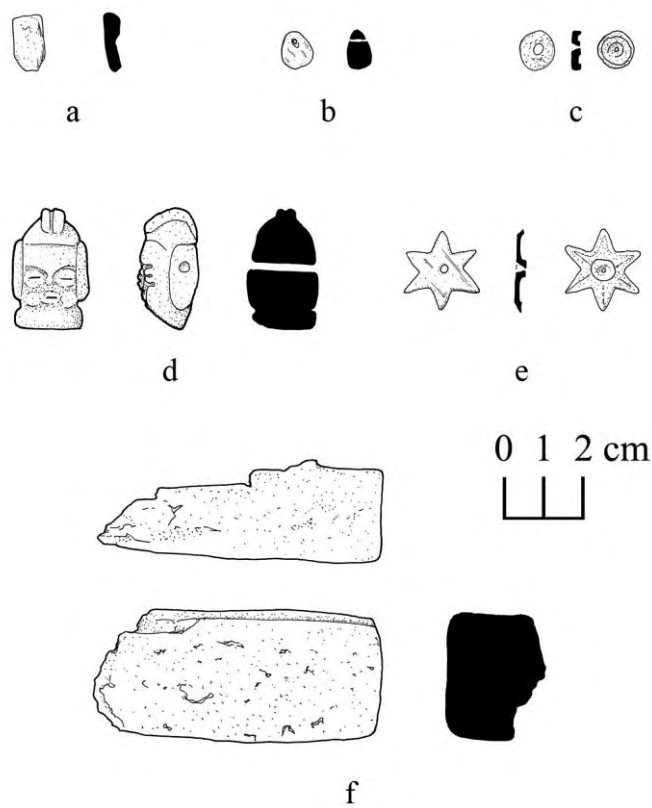


Figure 95: Artifactual material from S.D. C184D-6: a. possible jadeite inlay; b. quartzite bead; c. carved shell; d. carved jadeite pendent; e. carved shell; f. limestone bar.



Figure 96: Photograph of Operation C184F.

**excavation C184F**

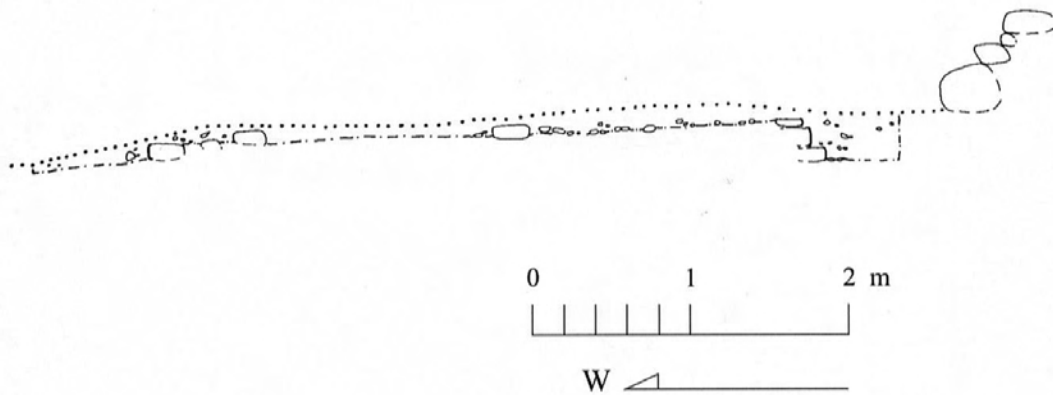


Figure 97: Section for Operation C184F

excav. C184F

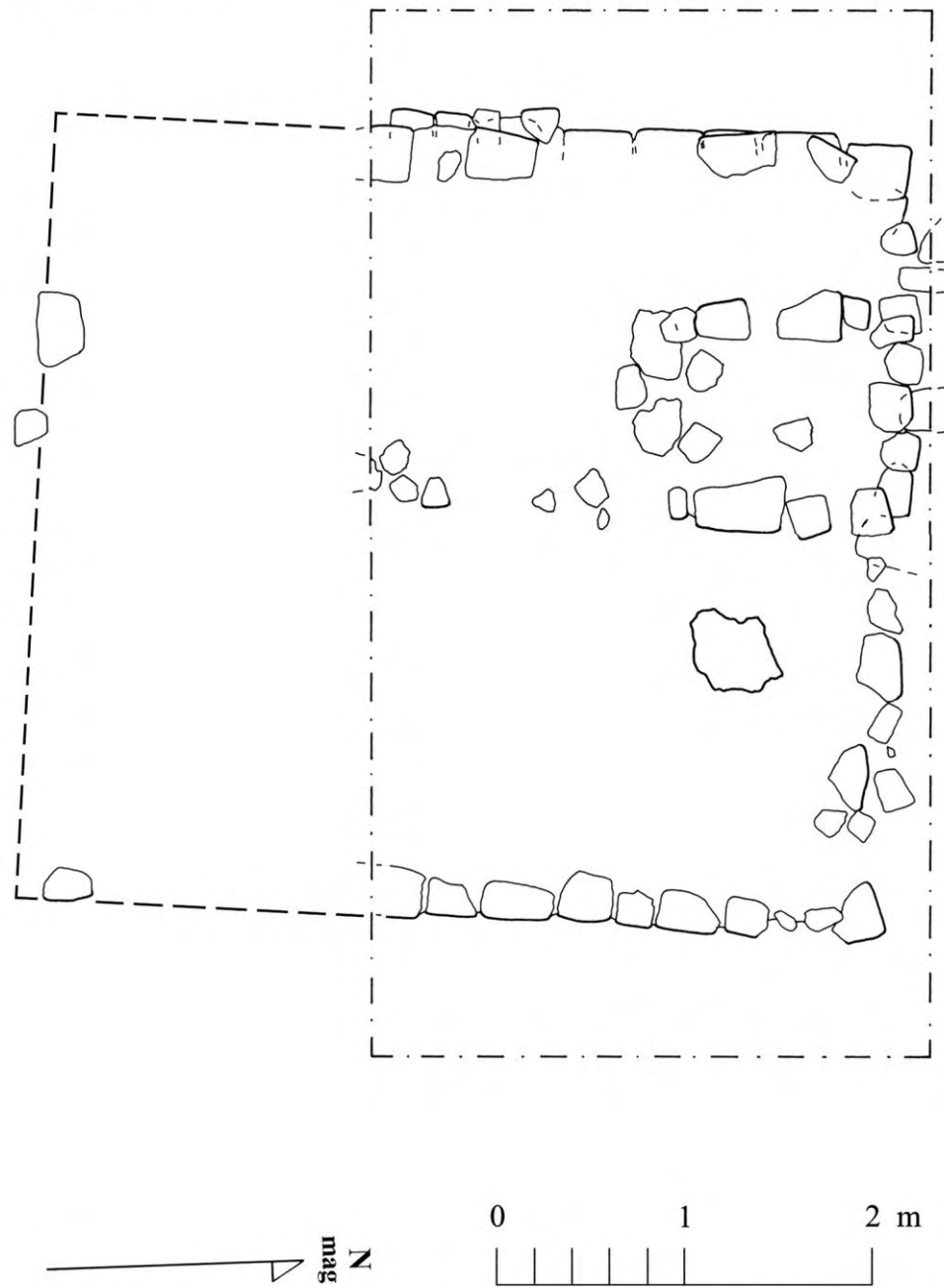


Figure 98: Plan of Operation C184F.

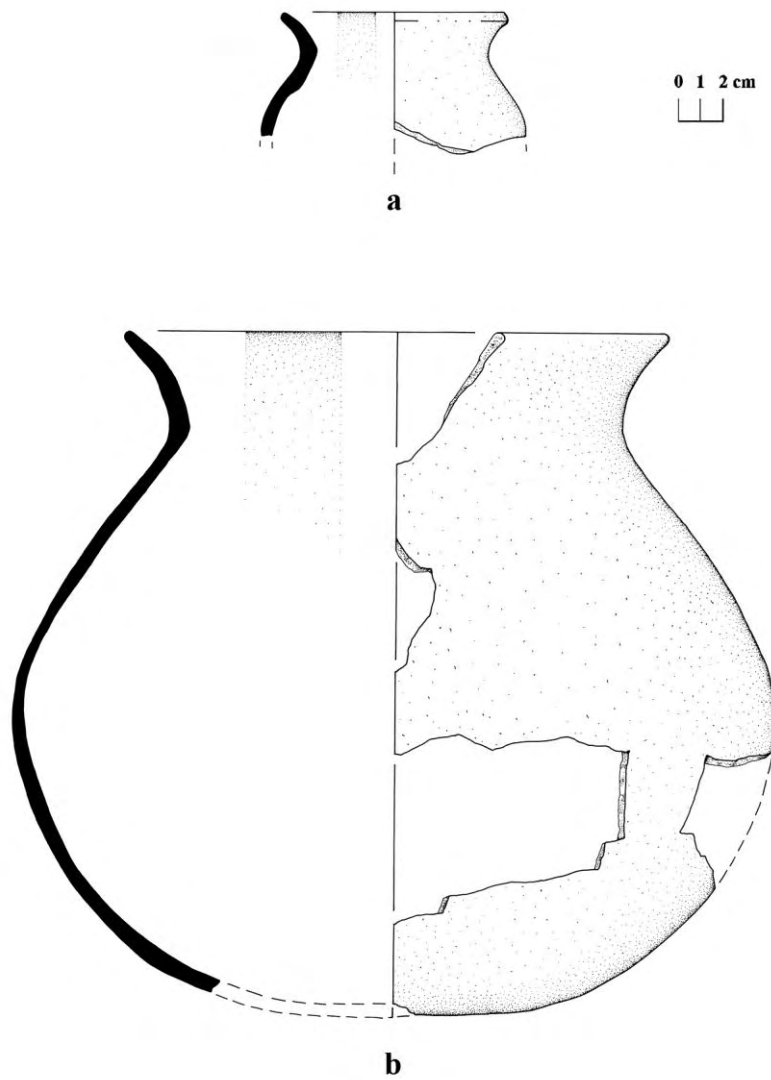


Figure 99: Ceramic vessels from Operation C184F: a., b. Valentin Unslipped.





Figure 100: Photograph of Operation C185B.

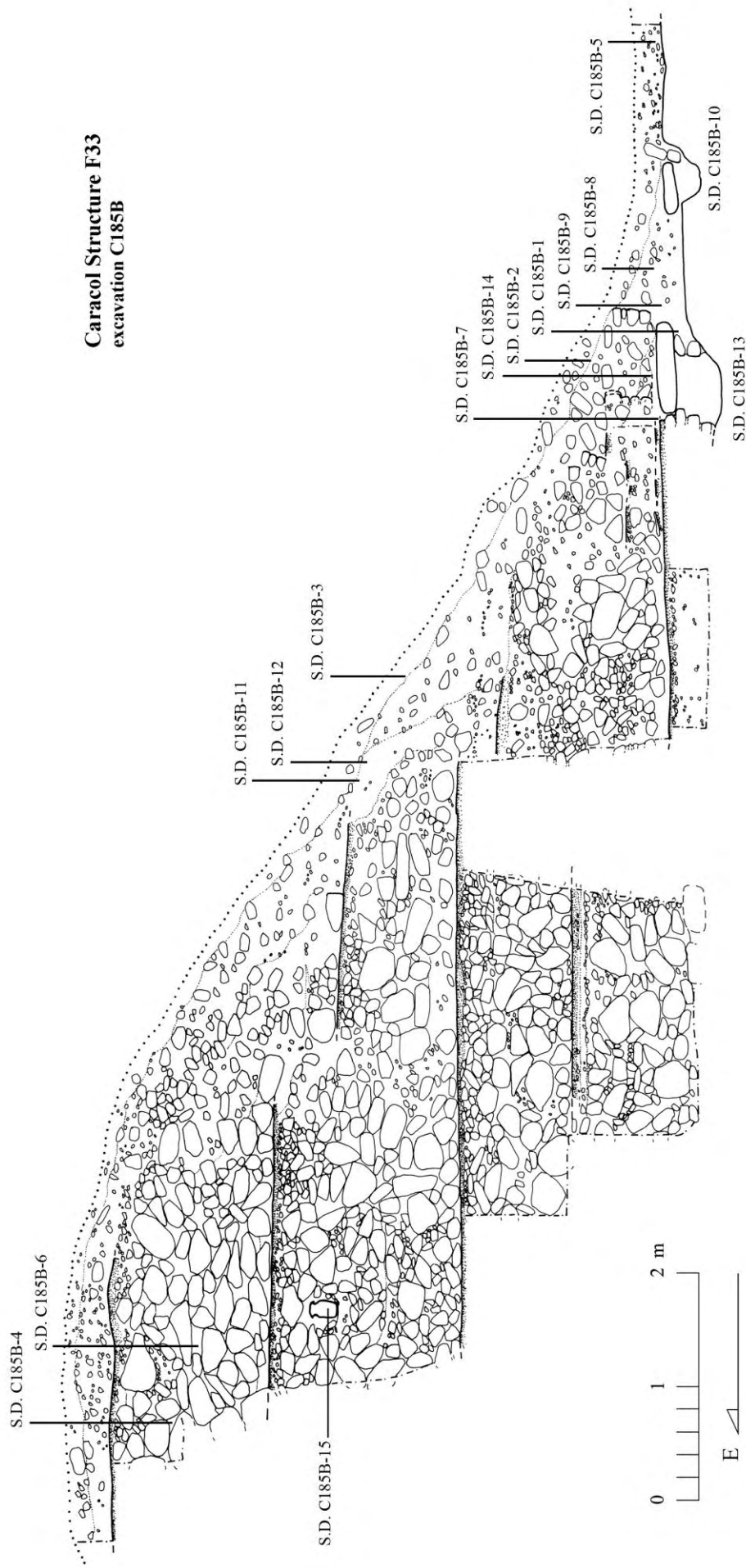
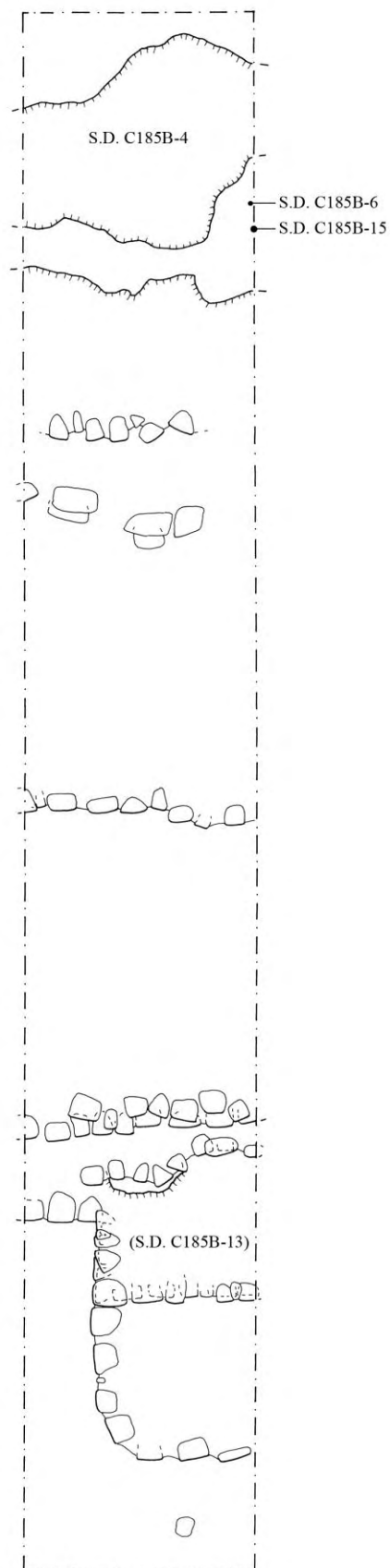


Figure 101: Section for Operation C185B.

**Caracol Structure F33  
excavation C185B**

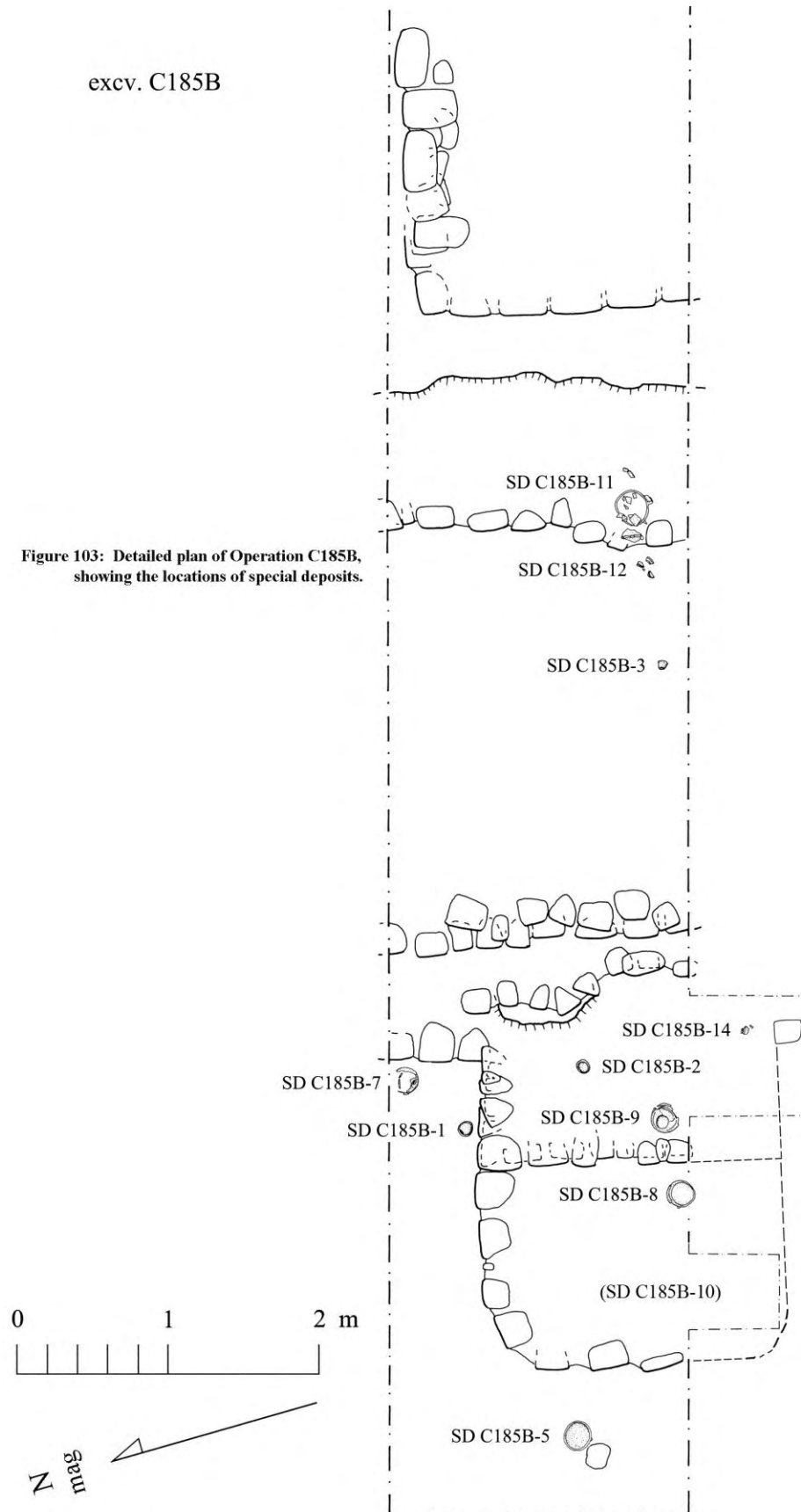


**Figure 102: Full plan of Operation C185B.**



excv. C185B

Figure 103: Detailed plan of Operation C185B, showing the locations of special deposits.



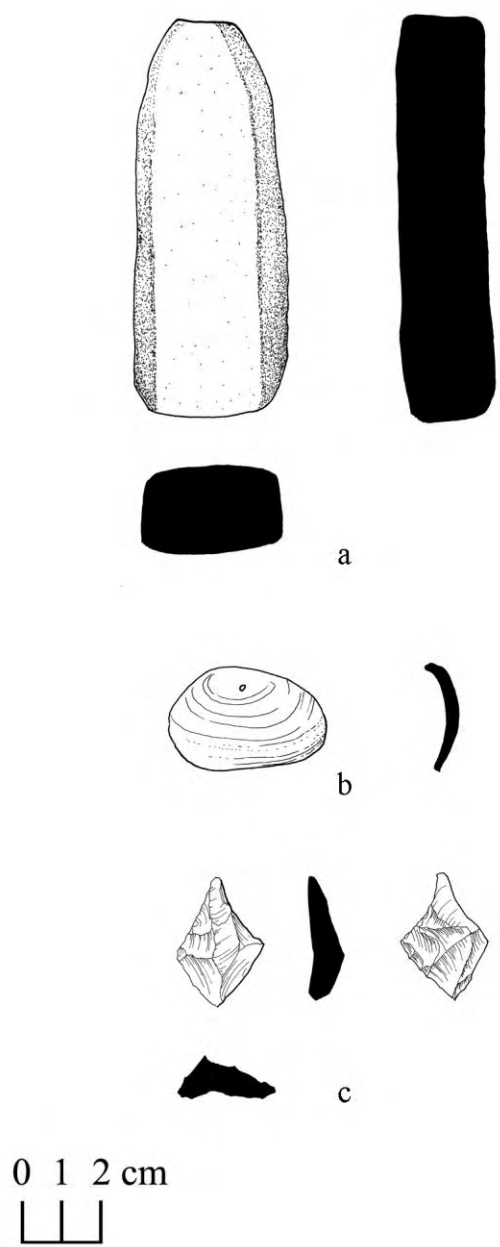


Figure 104:      Artifactual material from Operation C185B: a. limestone bar; b. perforated shell; c. chert.

S.D. C185B-4

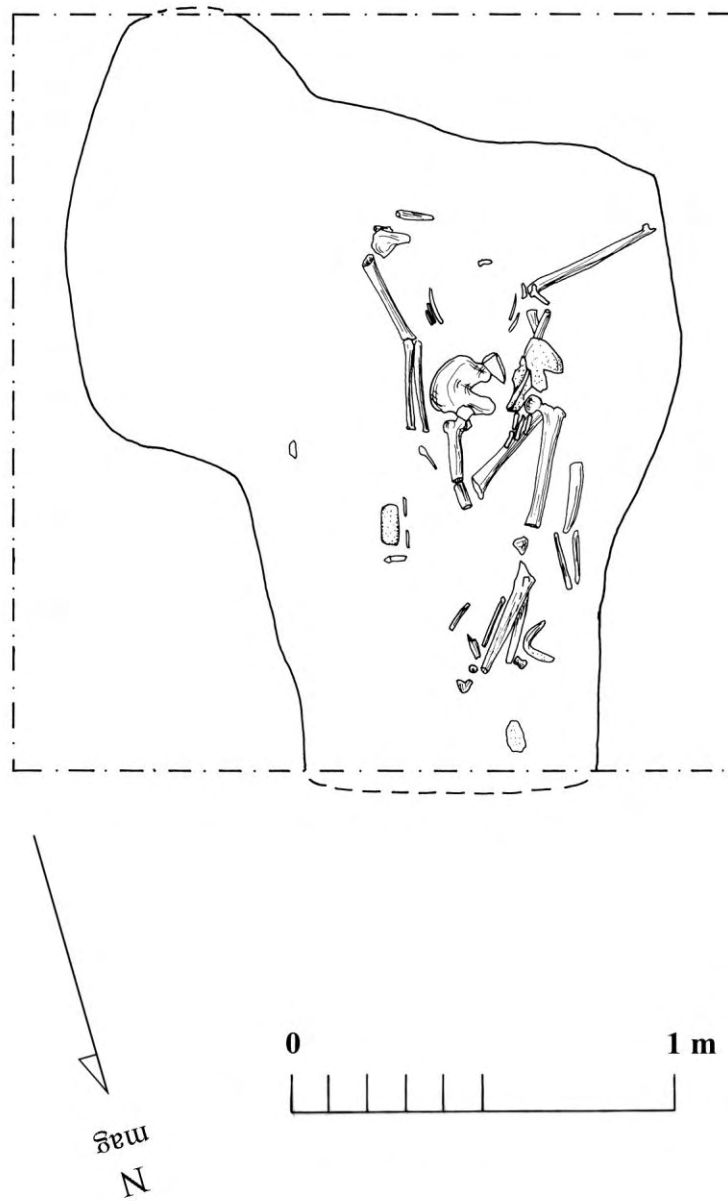


Figure 105: Plan of S.D. C185B-4.

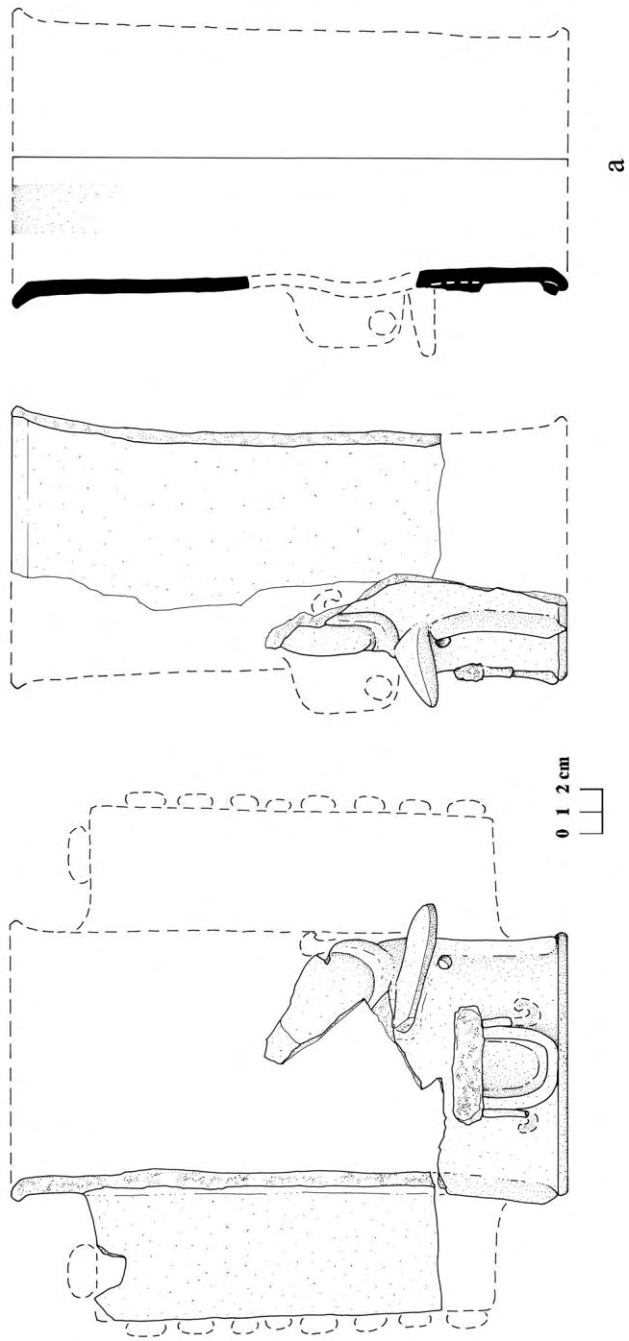


Figure 106: Censerware from S.D. C185B-4 (all Pedregal Modeled).

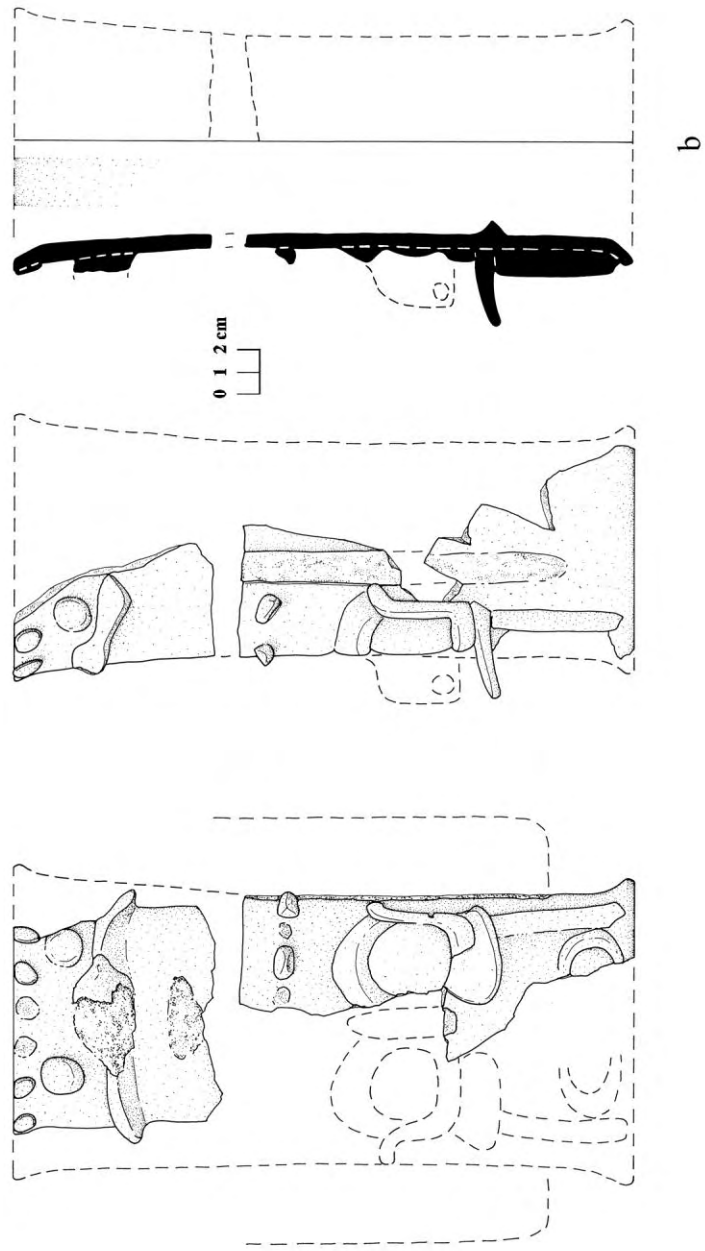


Figure 106: Censerware from S.D. C185B-4 (all Pedregal Modeled).

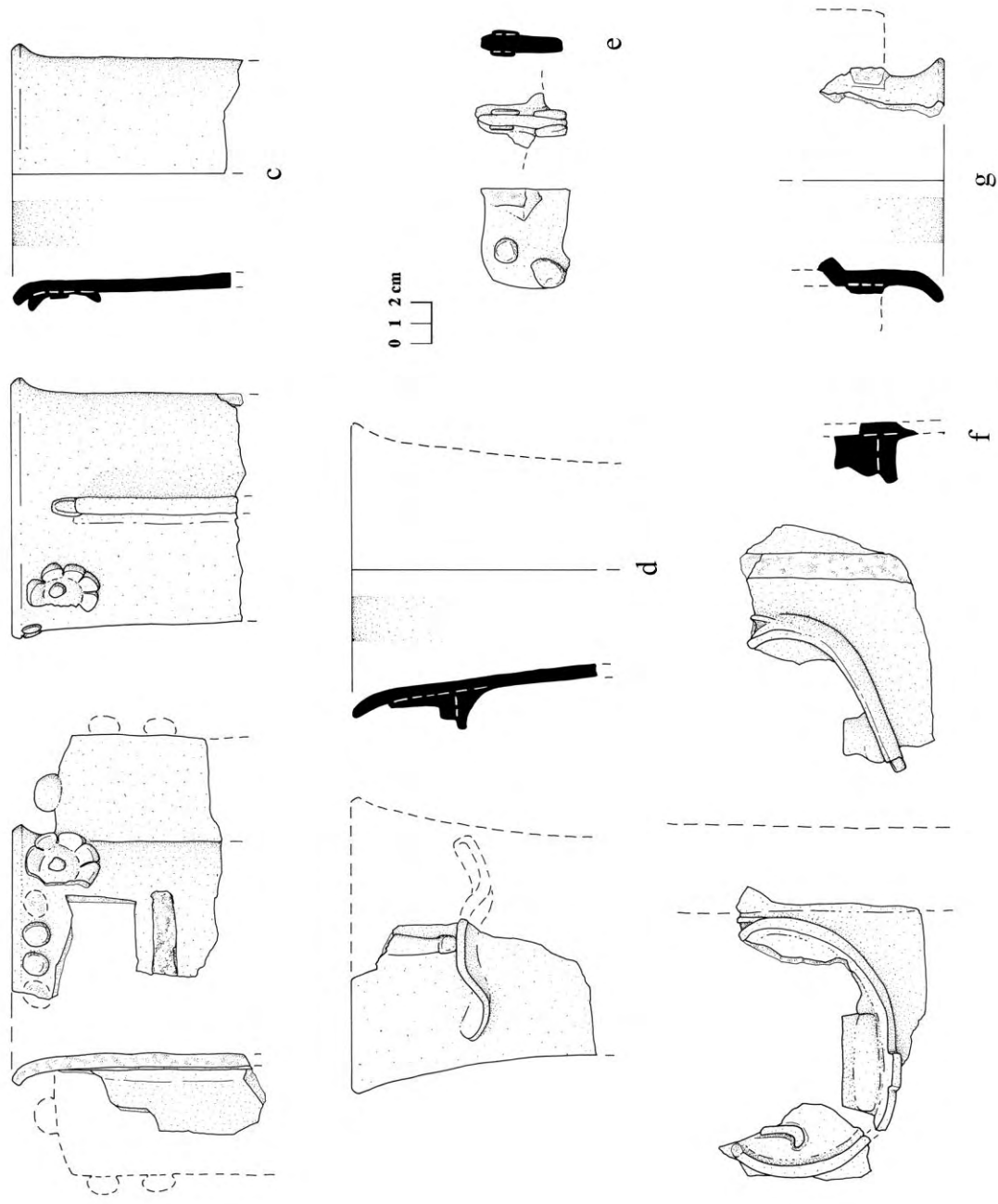


Figure 106: Censerware from S.D. C185B-4 (all Pedregal Modeled).

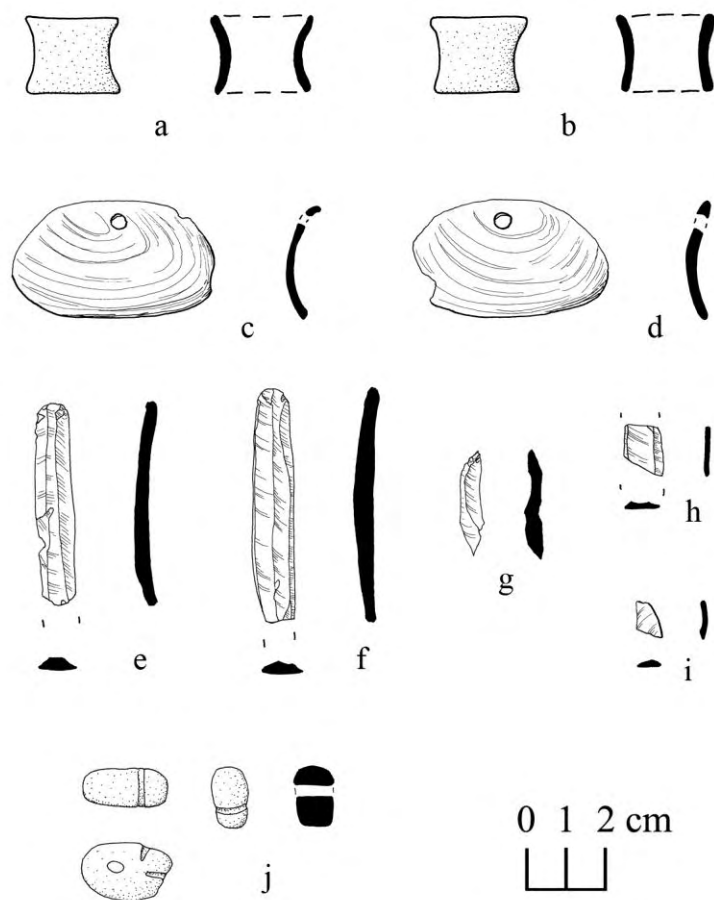


Figure 107: Artifactual material from S.D. C185B-4: a., b. ceramic earrings; c., d. perforated shells; e.,f.,h.,i. obsidian blades; g. chert; j. carved jadeite bead.

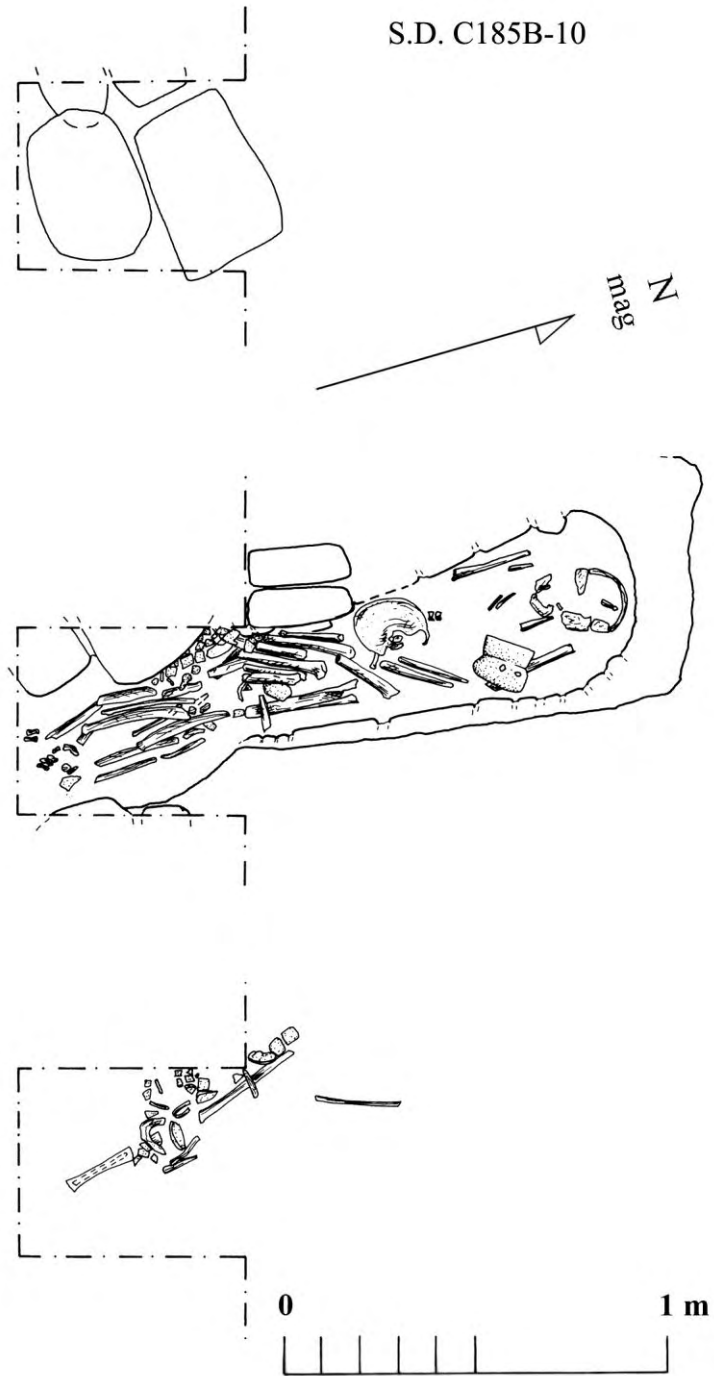


Figure 108: Plans related to S.D. C185B-10.



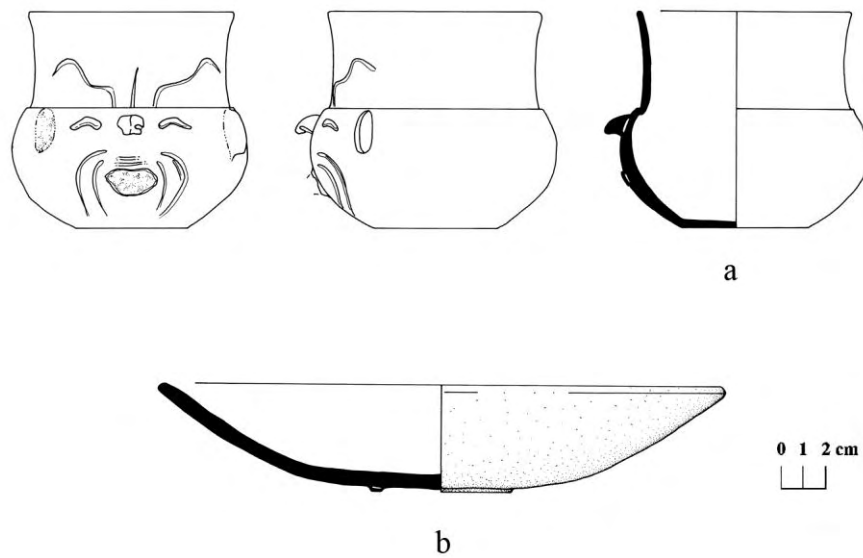


Figure 109: Ceramic vessels from S.D. C185B-10: a. possibly San Julio Modeled; b. eroded Machete Orange Polychrome.

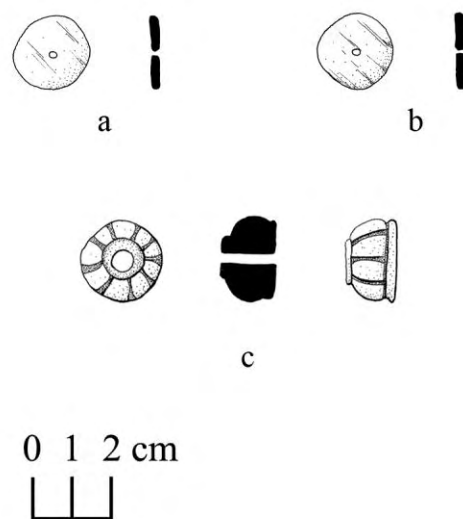


Figure 110: Artifacts associated with S.D. C185B-10: a., b. shell earrings; c. limestone spindle whorl.



Figure 111: Photograph of S.D. C185B-13.

S.D. C185B-13

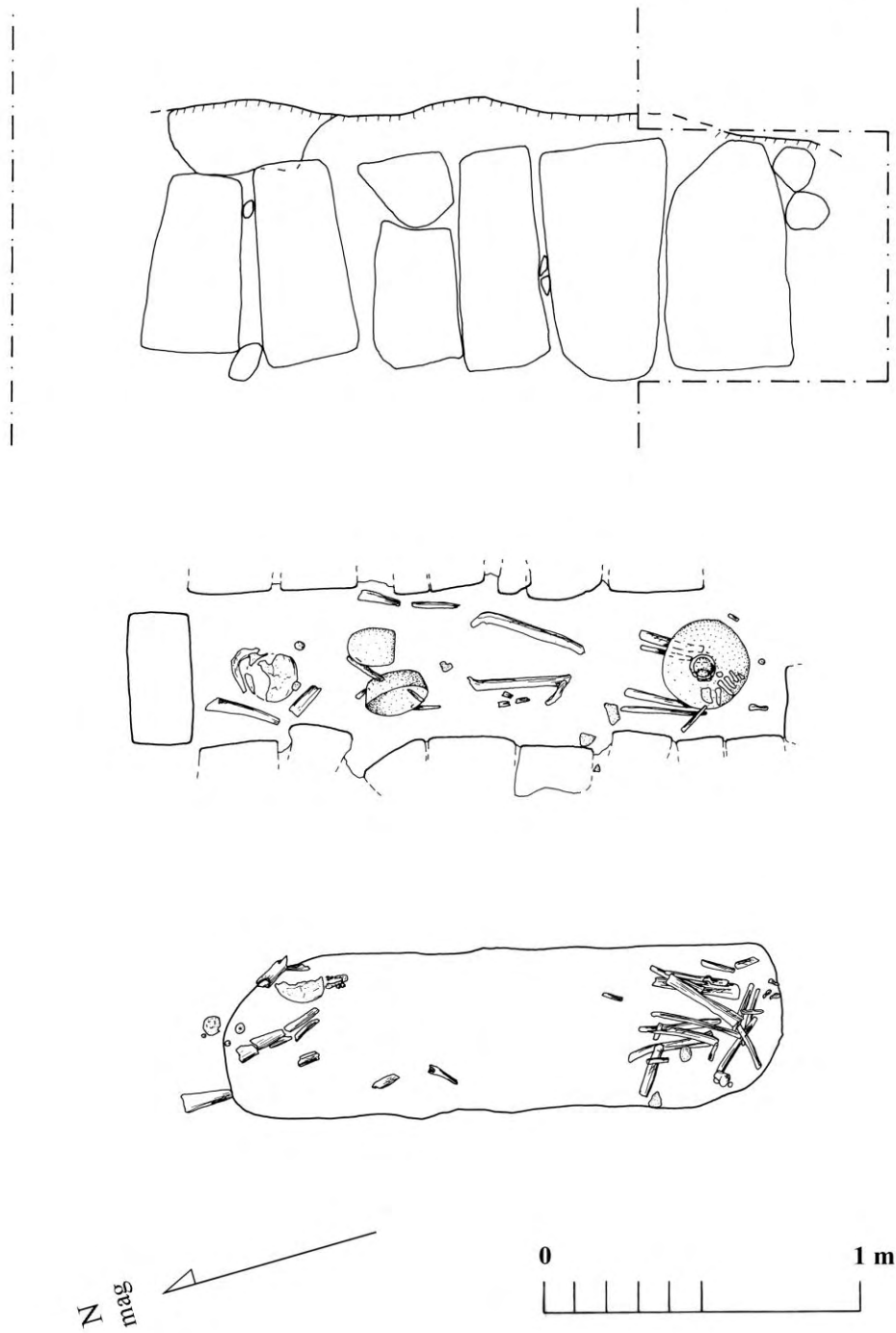


Figure 112: Plans related to S.D. C185B-13.

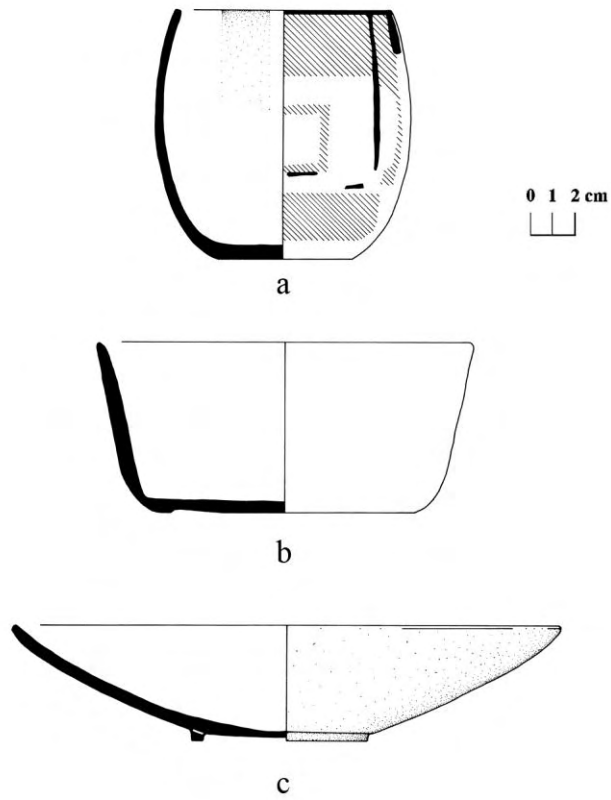


Figure 113: Ceramic vessels from S.D. C185B-13: a. Saxche Orange Polychrome; b. unnamed type; c. eroded Machete Orange Polychrome.

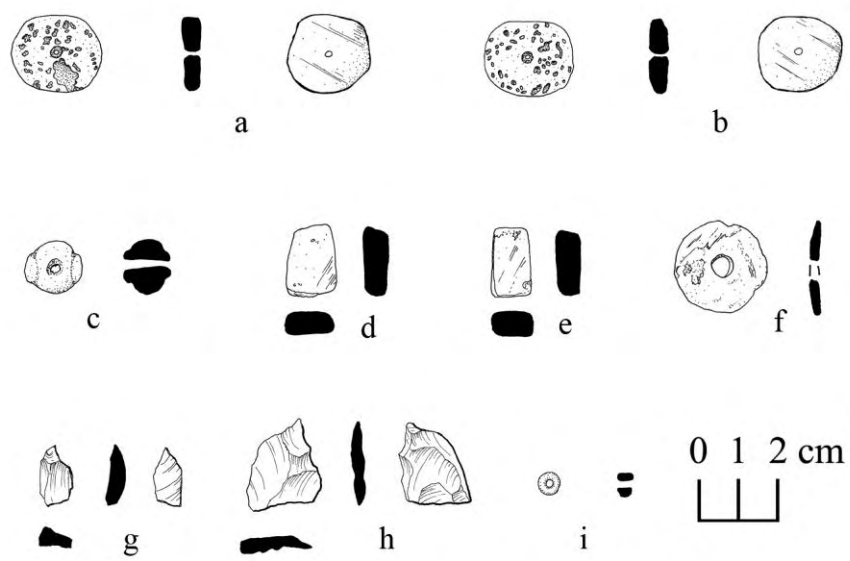


Figure 114: Artifacts associated with S.D. C185B-13: a., b., f. shell earrings; c., i. jadeite beads; d., e. carved shell; g., h. chert flakes.

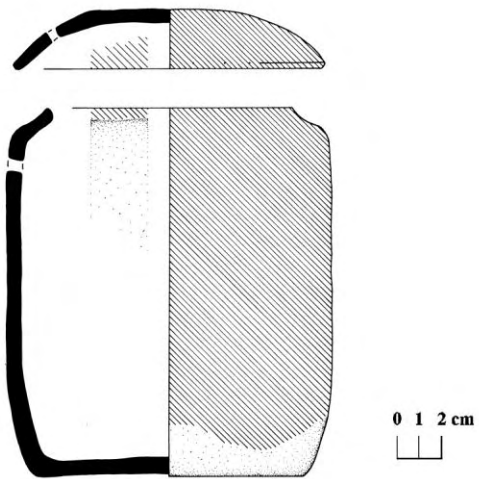


Figure 115: Ceramic cache vessel for S.D. C185B-15: undesignated type, deep-red slip.

S.D. C185B-15

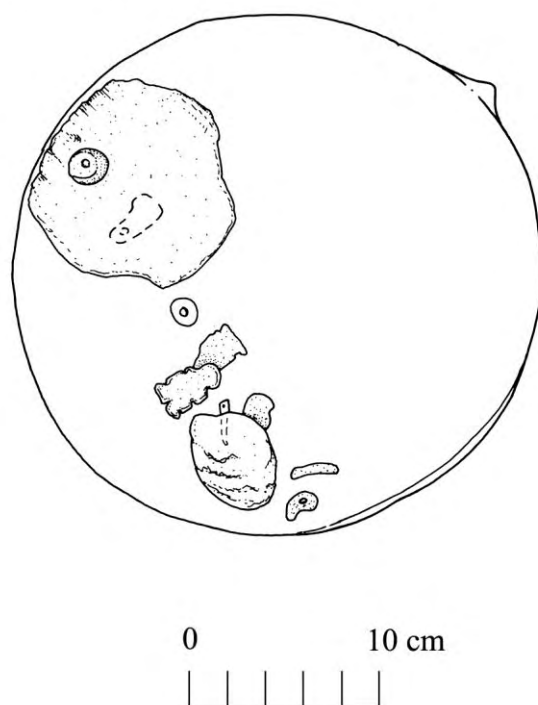


Figure 116: Detailed plan of contents of S.D. C185B-15.



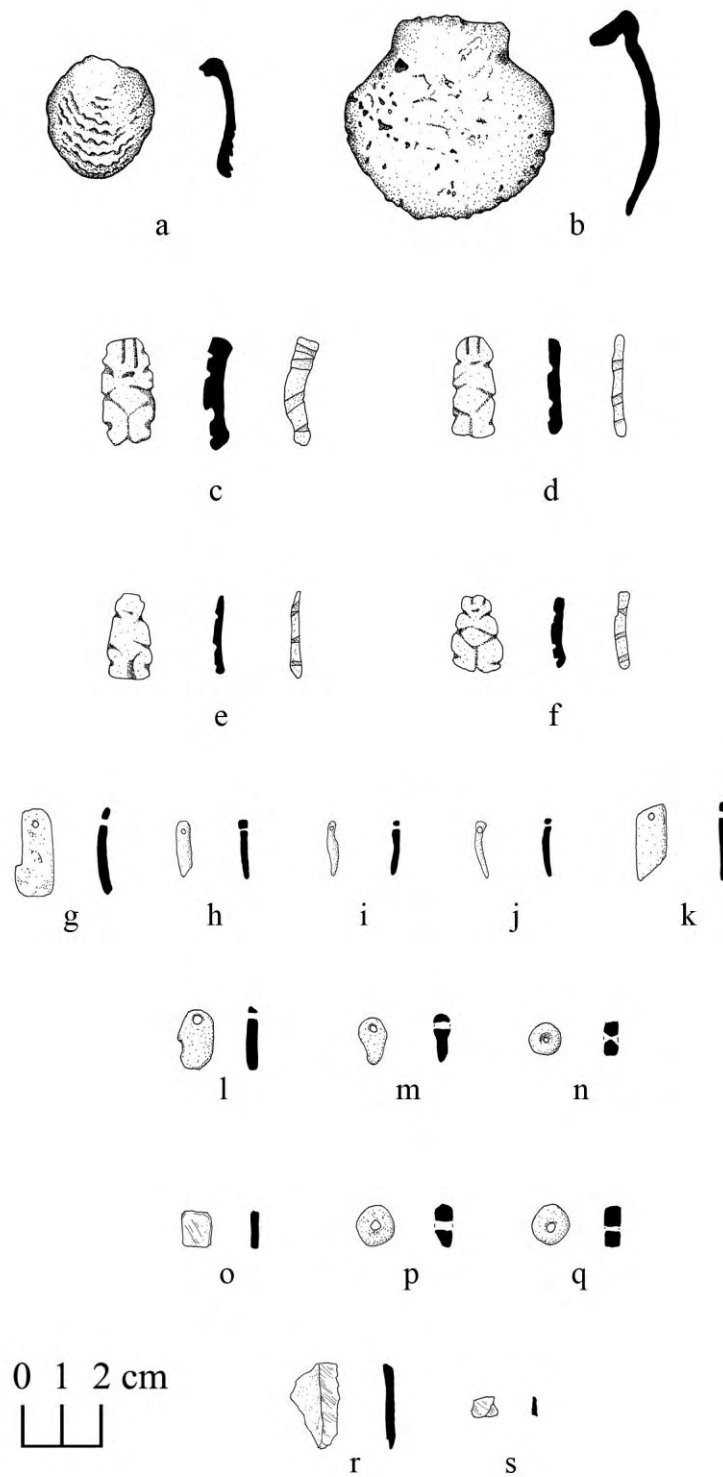


Figure 117: Artifacts within S.D. C185B-15: a., b. unworked sea shells; c.-f. shell “Charlie Chaplins;” g.-k. worked shell pendants; l., m. jadeite pendants; n. jadeite bead; o. worked hematite; p., q. shell beads; o. pyrite; r., s. chert flakes.

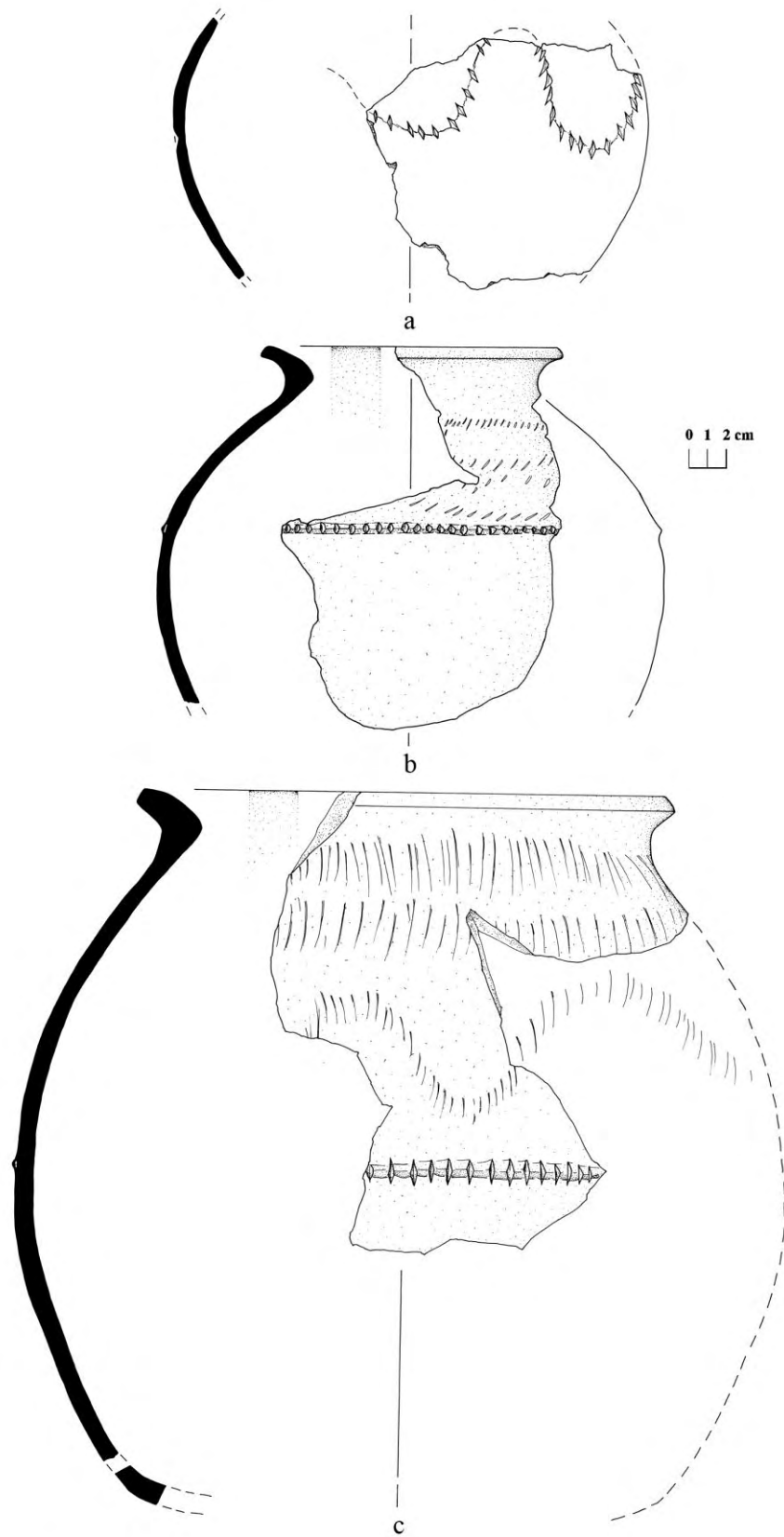


Figure 118: Partial ceramic ollas covering S.D. C185B-6: all possibly Sapote Striated.

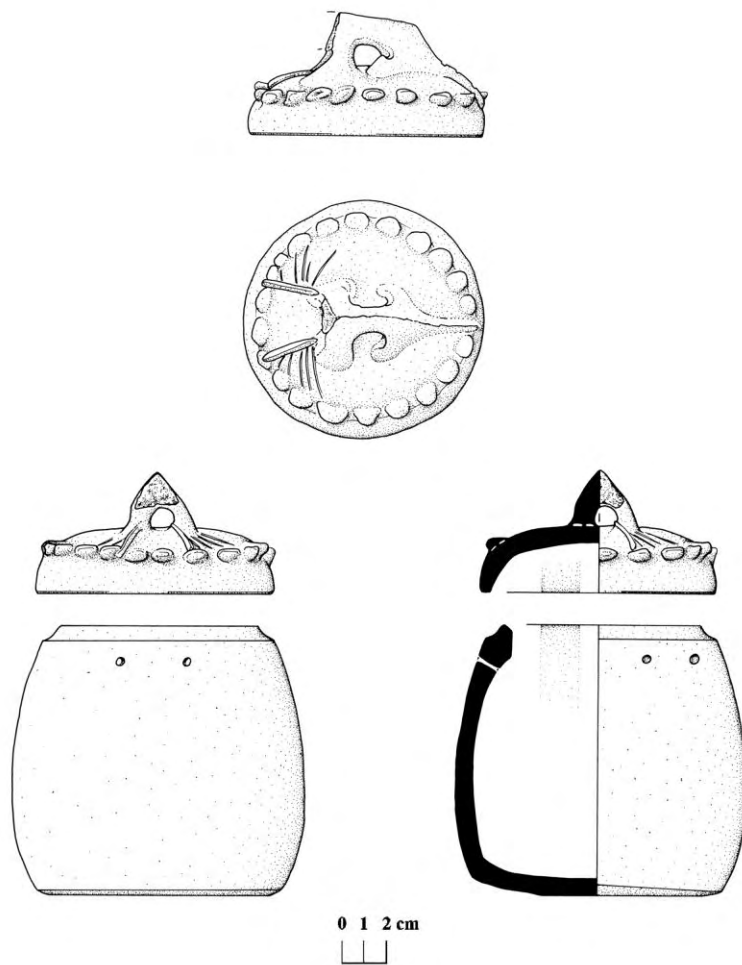


Figure 119: Cache vessel for S.D. C185B-6: undesignated type.

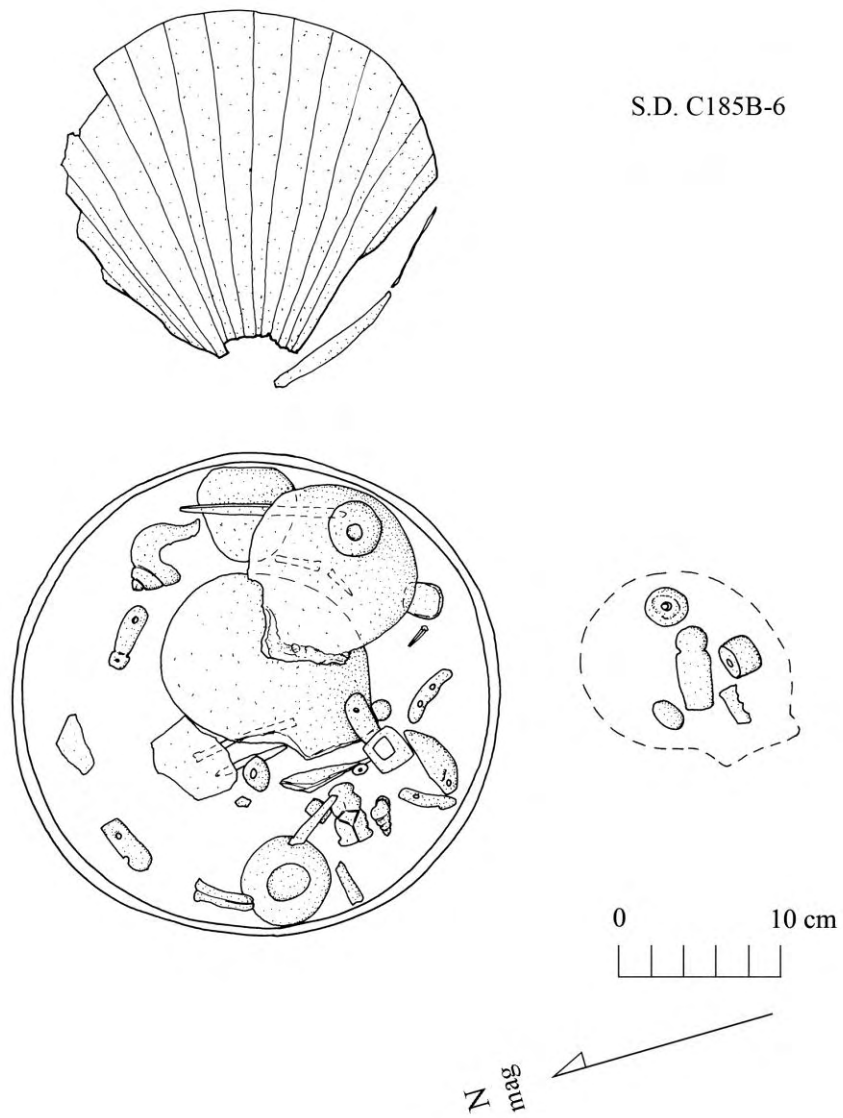


Figure 120: Detailed plan of contents of S.D. C185B-6.

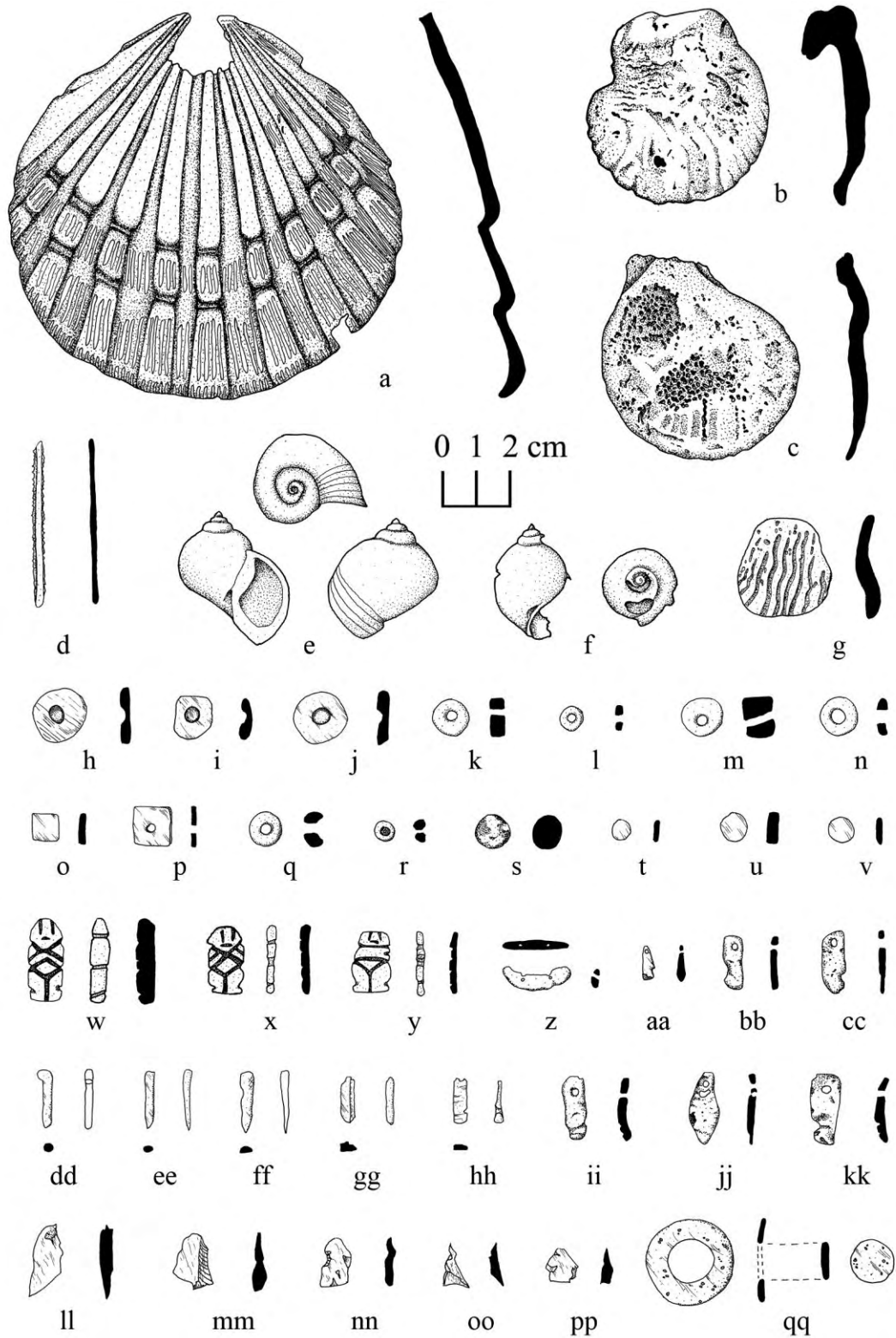


Figure 121:

Contents of S.D. C185B-6: a. unworked scallop shell; b., c. spondylus shells; d. stingray spine; e., f. pomacea shells; g. rounded shell; h.-j. worked shell disks; k.-n. shell beads; o., p. worked hematite; q., r. jadeite beads; s. jadeite ball; t. pearl; u., v. rounded shell disks; w.-y. shell "Charlie Chaplins;" z. burnt jadeite pendent; aa.-cc., ii.-kk. shell pendants; dd.-hh. worked shell; ll.-pp. jadeite chips; qq. composite worked shell.

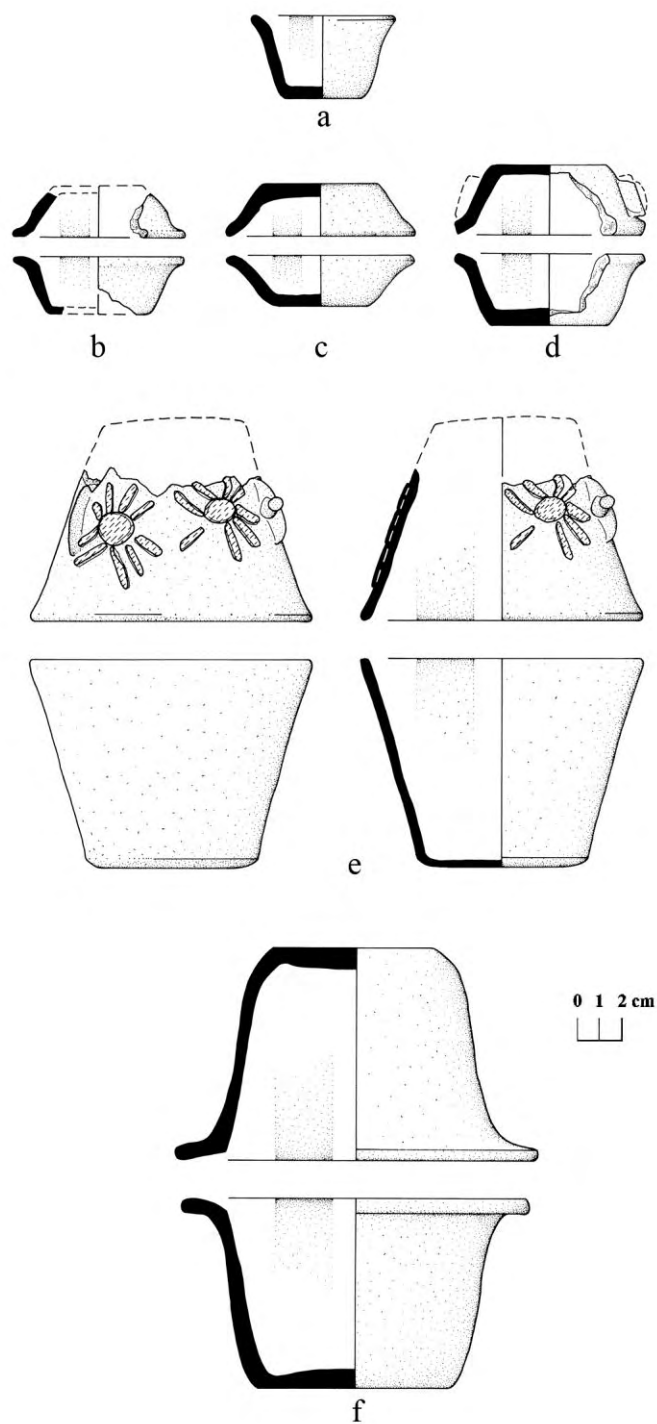


Figure 122: Cache vessels from Operation C185B: a. S.D. C185B-3, Ceiba Unslipped; b. S.D. C185B-14, Ceiba Unslipped; c. S.D. C185B-2, Ceiba Unslipped; d. S.D. C185B-12, Ceiba Unslipped; e. S.D. C185B-7, undesignated type; f. S.D. C185B-9, undesignated type.

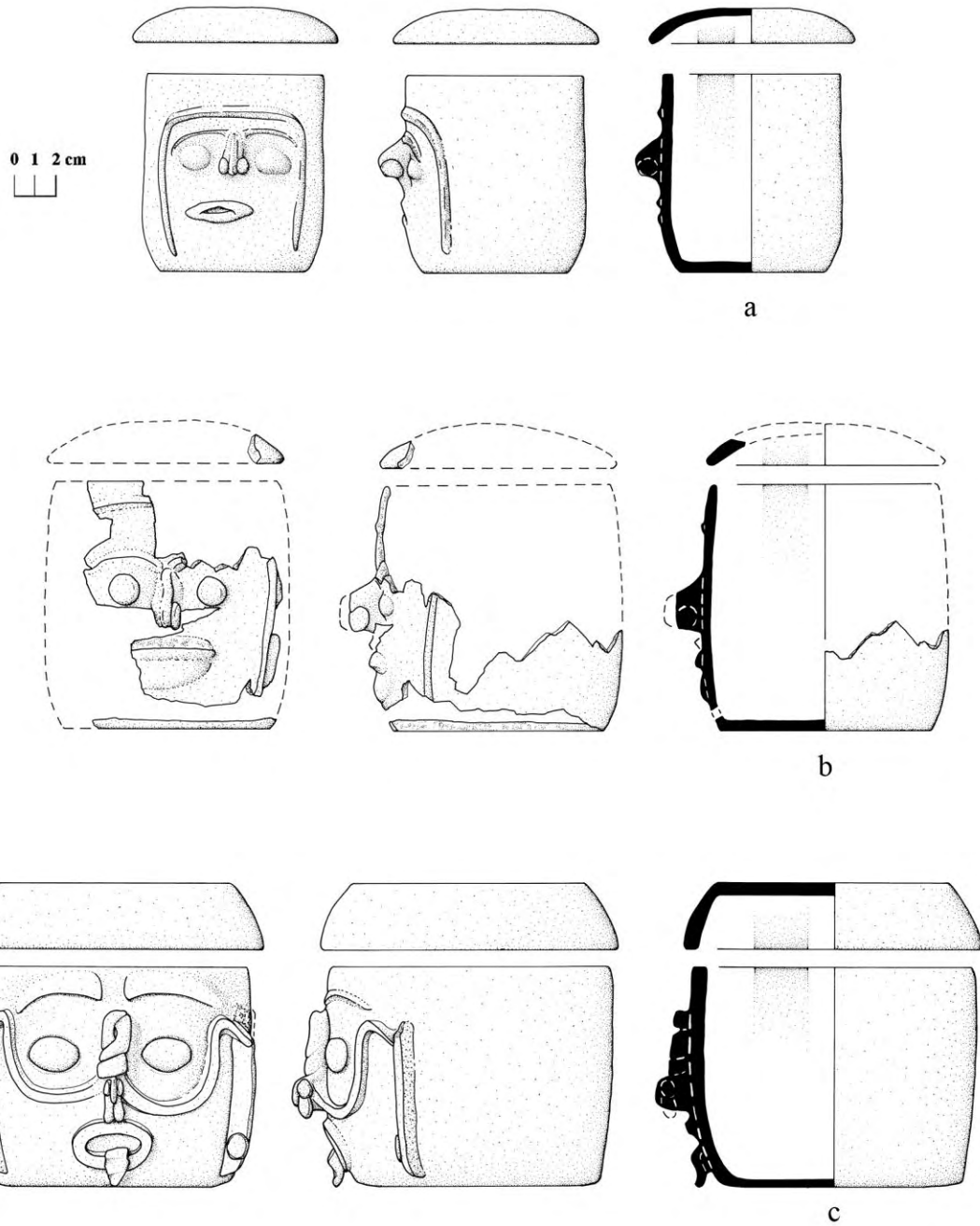


Figure 123: Face Caches from Operation C185: a. S.D. C185B-1, Hebe Modeled; b. S.D. C185B-5, Hebe Modeled; c. S.D. C185B-8, Hebe Modeled.

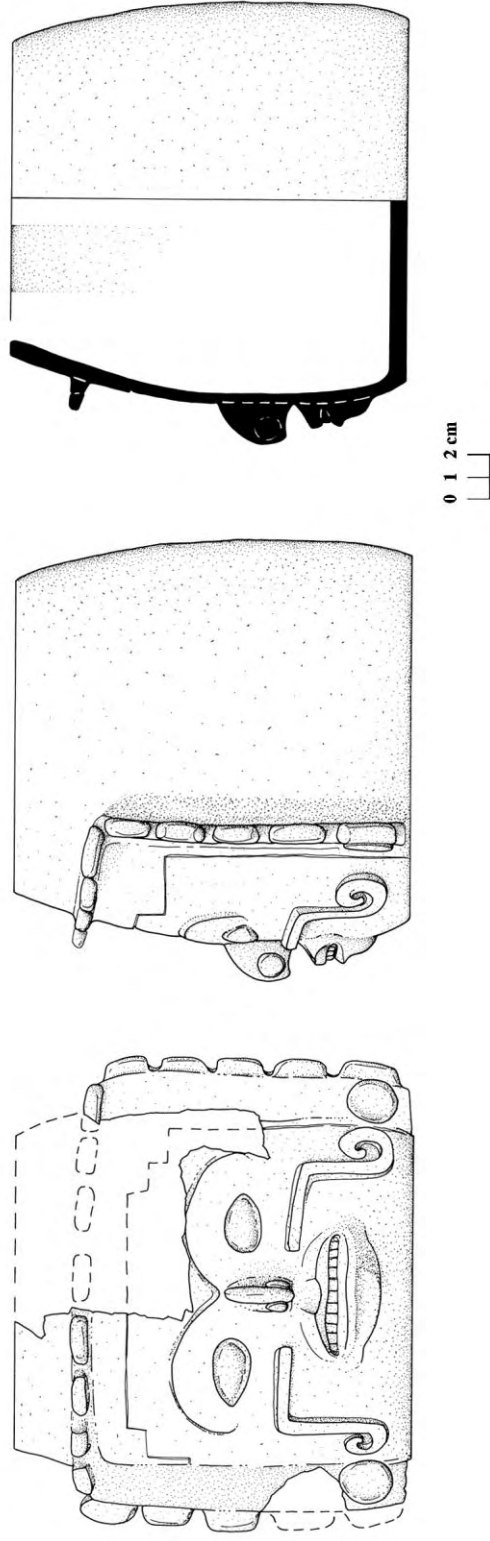


Figure 124: Face Cache from Operation C185B: S.D. C185B-11, Hebe Modeled.





Figure 125: Photograph of one of the new caves found during the LiDAR reconnaissance.