Markets and the Socio-Economic Integration of Caracol, Belize: Investigating Residential Groups in the Vicinity of the Puchituk Terminus: Caracol Archaeological Project Investigations for 2020

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The 2020 field season constituted the third year of a three-year program supported by the Alphawood Foundation that was designed to provide information relative to the functioning of the market economy at the Maya city of Caracol, Belize. This is an important topic that has only recently begun to be addressed through the use of archaeological data for insights into ancient Maya economy(ies). Within the last decade researchers in Maya archaeology have begun to significantly alter long-standing views regarding the complexity and composition of Classic Period society. The use of LiDAR has permitted the demonstration that many Classic Period Maya cities were quite large in areal extent (e.g., Canuto et al. 2018; A. Chase and D. Chase 2016, 2017; A. Chase et al. 2011) and archaeological research has also shown that ancient Maya marketplaces were located at many of these Late Classic (500-800 C.E.) Maya centers (e.g., Dahlin et al. 2010; King 2015).

The existence of both sizeable cities correlated with urbanism and a market economy were topics that had been long debated in Maya archaeology (e.g., Becker 1979). Because economic discussions are largely absent in the Classic Period hieroglyphic texts that have been recovered (see Tokavinine and Beliaev 2013), interpretations about Maya society did not initially focus on economic transactions in markets but rather discussed tribute, gifting, and household production (e.g., Foais 2013: 140-144; MacAnany 1993). Even though plentiful status and trade goods have long been recognized among the excavated households of the Maya (e.g., Willey 1956), the

mechanisms for the distribution of these materials to households were either largely ignored or alternatively focused on elite-controlled redistribution and gifting (e.g., Foias 2013: 190-191). Then-standard economic models used in anthropology did not view market systems as being possible for ancient societies like the Maya (eg., Polyani 1957; Sahlins 1972). However, researchers have now pointed out the flaws in the theoretical underpinnings of anthropological economics, recognizing that markets could indeed exist in ancient non-western economies (Feinman and Garraty 2010; Garraty and Stark 2010). This relatively recent realization that the ancient Maya had market systems has had major ramifications for our understanding of how their society functioned economically (Masson et al. 2020).

Even before the current paradigm shift in Maya archaeology, our research at Caracol, Belize had postulated the existence of markets at the site based on the distribution and connectivity of public plazas (A. Chase 1998, 2021; D. Chase and A. Chase 2004); we have subsequently amplified our views on how these markets functioned as a system within Classic Period society (A. Chase and D. Chase 2015; A. Chase et al. 2015; D. Chase and A. Chase 2014, 2020). We also now know that different kinds of markets existed within the Maya area. Some were centrally located and focused on the supply of foodstuffs for the populace and employed small market stalls, as at Chuchucmil, Mexico (Dahlin et al. 2007, 2010; Hutson 2017). Others were centrally located in vaulted stone buildings, as at Tikal (Becker 2015; Jones 1996, 2015). Still others focused on the use of centrally-located large plaza areas, as at Buenavista, Belize (Cap 2015) and Motul de San Jose (Bair and Terry 2012). Multiple market locations that were situated within a single urban center, similar to the system known from Caracol, are

known from the center of Yaxnohcah, Mexico (but minus the direct causeways; Anaya Hernandez et al. 2021). No matter what their form, these public market loci usually served to make a variety of goods – such as both imported fineware and quotidian ceramics (A. Chase and D. Chase 2012), jadeite (D. Chase and A. Chase 2017), and obsidian (Johnson 2016) – available to the inhabitants of a given site.

The market system at Caracol is a relatively elaborate one. It consists of a solar system of seven main plaza markets that are directly connected to the epicenter of the site by causeways (see D. Chase and A. Chase 2017: fig. 1). The Caracol market system used plazas, buildings, and stalls in different combinations (see A. Chase et al. 2015); smaller platform buildings lined the sides of the plaza marketplaces and stalls lined some of the causeways where they joined the public plazas. Excavation data has shown that these non-epicentral markets were constructed at the beginning of the Late Classic Period and were either added to engulfed centers or purposefully built as separate units within the city landscape (A. Chase and D. Chase 2001), providing easy market access for the site's inhabitants; no one had to walk more than 3 km to reach a marketplace (D. Chase and A. Chase 2014:243). Each marketplace also effectively served a different spatial segment of Late Classic Caracol; these spatial segments are referred to as "districts," following the earlier use of this term in reference to other cities (A.S.Z. Chase 2016; Smith 2010; Smith and Novic 2012). Because of limited archaeological data on the more distant parts of Caracol (including market plazas), we are only beginning to understand how these markets functioned both within the broader city and within the communities they served.

In order to investigate these issues, funds were provided by the Alphawood Foundation, the University of Nevada, Las Vegas, and Pomona College, Claremont for

focused investigations over a 3-year period that centered on how the Caracol market system served different neighborhoods distributed on the city's landscape. To accomplish this task, archaeological research focused on two of Caracol's outlying areas of public architecture, namely the Puchituk Terminus and the Monterey area, excavating a series of residential groups in the vicinity of each node of public architecture. This research built directly upon previous seasons of field work funded by the Alphawood Foundation that examined the site core, outlying residential groups, and neighborhood development; it was designed to further analyze how Caracol's market system integrated the site's inhabitants during the Late Classic Period through the use of material indicators.

The Problem: Markets, Distribution, and Social Integration of Late Classic Caracol (previously utilized in the 2018 and 2019 field reports)

While now recognizing that ancient Maya markets existed and that they likely appeared at many sites (Hirth and Pillsbury 2013; Hutson 2017; King 2015; Masson et al. 2020; Paris 2021), researchers still do not know exactly how they functioned within Classic Period Maya society. Because of the history of Maya research with its focus on elite control of long-distance trade (for background, see: Becker 1973 and Tourtellot and Sabloff 1972), there is disagreement over whether institutional (prestige goods) and domestic (household necessities) economies were part of the same market system (e.g., Scarborough and Valdez 2009, but see Isaac 2013 and Masson and Freidel 2012). However, excavations within residential groups at most Maya sites often recovered what are considered to be prestige items (see Willey 1965 for Barton Ramie; Becker 1999 and Haviland 1985, 2014 for Tikal; Hutson 2016 for Chunchucmil), leading to questions as to whether or not these items derived from gifting or from market exchange. While limited

archaeological research permitted a less complex viewpoint, as more and more excavations have been undertaken in residential groups it has become clear that the volume of items recovered in households strongly argues against gifting and redistribution as the predominant means for site-wide household provisioning. At Caracol, in particular, it is possible to demonstrate that obsidian was distributed through the market system (Johnson 2016), that jadeite was distributed through the market system (D. Chase and A. Chase 2017:225, 2020); and that marine shell and polychrome pottery were also available through this system (D. Chase and A. Chase 2004, 2017:215). The widespread distribution of Belize Red ceramics, imported into Caracol from the Belize Valley 55 km due north, also must have been accomplished through the site's market system (A, Chase and D. Chase 2012). Yet, the presence of specific forms of Belize Red in some parts of the site and not in others (e.g., D. Chase and A. Chase 2014:246) is strongly suggestive of either the differential distribution of certain forms to some of the site's markets or of differences in population preference in various sectors of the city (perhaps attributable to the city's heterogenous character).

The current research has attempted to examine the distribution of artifactual materials within different parts of Caracol that would have used different marketplaces, particularly comparing and contrasting items found in residential groups with direct access to the epicentral market (using archaeological data collected during earlier field seasons) with items found in residential groups at some distance from the epicenter and with easier access to other market areas. An extensive amount of data has been collected that relates to goods that would have been available through the epicentral market. Between 2010 and 2014, two different neighborhoods with access to the epicentral

marketplace were investigated. To the immediate northwest of the epicenter, seven co-located residential groups were investigated that yielded a series of Late Classic deposits that can be compared and contrasted with other areas. To the southeast of the epicenter nineteen co-located residential groups have been investigated that also yielded a series of Late Classic deposits that can be compared and contrasted with other areas. While there are differences between these two epicentral neighborhoods in terms of Late Classic burial patterns, both areas had access to imports from outside of Caracol, presumably obtained through the site's epicentral market.

A settlement pattern program focusing on the northeast sector of Caracol was carried out between 1994 and 1996 (Figure 1), recording the Puchituk Causeway and Terminus (at a distance of 3 km from the epicenter) and also the public architecture at Monterey (located 5.5 km from the epicenter). This settlement pattern program block-mapped some 8 sq km of residential groups to the northeast of Caracol's epicentral settlement and 2 sq km of agricultural terraces (A. Chase and D. Chase 1998). Small non-structural test-pits were excavated in 22 dispersed residential groups (usually within the associated plazas) with four groups in this portion of the site being more intensively excavated (2 near Puchituk and 2 near Monterey). Seven open tombs, four chultuns, 20 non-tomb burials, and 36 caches were investigated and recorded in the northeast sector of the site as a result of this research program. The data recovered in the course of this excavation program suggest some variances within this northeast sector of the site when compared to the data from the epicentral neighborhoods, implying that differential availability of items possibly existed within Caracol's markets. For instance, there are differences in ceramic forms recovered from the northeastern burials, even though they

date to the Late Classic and overlap temporally with those known from the epicentral neighborhoods. But, the sample recovered from 1994 through 1996 was too small to say whether the variation was meaningful, something the 2018 through 2020 research program has attempted to remedy.

Further excavation within the northeast sector (Figure 1) is helping to define the Late Classic social and economic systems for the city of Caracol by permitting the comparison and contrasting of Late Classic residential patterns and artifactual materials that were likely derived from the Puchituk market with patterns and residential materials likely derived from the epicentral market. It is also probable that further analysis of these data will permit new insight to be gained into the presence and distribution of different status groups within the urban matrix. Because of the test-pits undertaken in the 1990s, we know that this sector of the site shared in the broader Caracol patterns associated with inlaid teeth (n=9) and ritual caching (see D. Chase and A. Chase 2004, 2017), but that the burials we had from this part of the site hinted at differences from those in the epicenter in terms of a paucity of certain goods (such as stone spindle whorls). Thus, the research undertaken from 2018 through 2020 should permit us to better understand how sampling and distribution patterns relate to broader patterns of site integration.

This research also provides some time depth to Caracol's markets. While the Puchituk Terminus mimics the same architectural configuration seen at the other two inner ring termini (e.g., Conchita and Ramonal; A. Chase and D. Chase 2001; A. Chase et al. 2015:242-243; D. Chase and A. Chase 2014), the public architecture at Monterey was never connected to the Late Classic causeway system. Yet, besides a plaza area, Monterey also exhibits a public ball court and an eastern temple. These were excavated

during 2019; the pyramid produced Late Preclassic caches and the ballcourt yielded an uncarved marker. Yet, Late and Terminal Classic materials were also recovered from these locations, implying connections to the the Late Classic market system. Excavations in the group south of the ballcourt in 1994 also revealed a vaulted northern building and ritual deposits that went back to the Late Preclassic era (A. Chase and D. Chase 2006, Lomitola 2012), as well as Late Classic and Terminal Classic artifactual remains. Thus, there appears to be a truncated developmental sequence in this part of the site that should prove useful for better contextualizing Late Classic Caracol and its spatial order.

The 2018-2020 Comparative Markets Program at Caracol

Since previous field seasons at Caracol had collected significant amounts of artifactual materials and primary deposits close to the site epicenter and in association with two of the southeastern market plazas, the three-year program undertaken from 2018 through 2020 sought to work further afield. Research was accordingly carried out in two exterior areas, specifically in the vicinities of the Puchituk market plaza and the public architecture associated with the Monterey residential group in the northeastern section of the site (Figure 1). The Puchituk Terminus is 3 kilometers distant from the site epicenter, and the public architecture associated with Monterey is 5.5 kilometers distant from the site epicenter. The excavations carried out in the Monterey area during 2019 confirmed the early date of this public area and suggested that the public plaza there dated to the Late Preclassic Period (before CE 250) and may not have been utilized as a formal market location in the Late Classic era (CE 550-900). In contrast, the excavations carried out in the vicinity of the Puchituk Terminus during 2018 and 2019 were strongly

suggestive of this locale's use as a market during the Late Classic Period. Summaries of the 2018, 2019, and 2020 field seasons follow sequentially below.

Research Carried Out during the 2018 Field Season

The 2018 field season concentrated on better defining the Puchituk market plaza through soil testing (final 2018 season report with figures may be found at https://www.caracol.org) and the associated excavations of residential groups in the immediate vicinity of the plaza. The excavations in the residential groups provide comparisons to the neighborhood excavations conducted in the vicinity of the epicenter (D. Chase and A. Chase 2017: 198). In addition to conducting excavations that identified architectural and material remains, the Puchituk plaza was sampled for soil testing, as had been previously done for the Conchita and Ramonal plazas of Caracol (A. Chase et al. 2015). Following the protocol outlined by Terry and his colleagues (2015:142-143), a sampling grid of 5 m intervals was laid out across the open space of the Puchituk plaza and surface soil samples were gathered once the leaf litter has been removed. Soil samples were collected and analyzed under the supervision of Dr. Matthew Lachniet, a UNLV geoscientist; the samples were then tested for phosphorus concentrations (see Terry et al. 2000) and for extractable trace metal concentrations (see Lindsay and Norvell 1978 and Parnell et al. 2002) by ASSET Laboratories in Las Vegas. A cursory excavation (2 m by 4 m) undertaken on the summit of the eastern building associated with the Puchituk Plaza in 1994 revealed a plastered floor that rose in three 1 m deep segments steps to abut a rear wall (this arrangement is clearly not meant for occupation).

A program of soil testing during 2018 was also carried out in the Monterey area on the raised platform that supports the ballcourt and also on the terrace immediately

west of the ballcourt. These appear to be the best venues for useable public space and serve as a comparative sample to the results obtained from the Puchituk Plaza and from earlier sampling at Conchita and Ramonal (A. Chase et al. 2015). This testing was also supervised by Dr. Matthew Lachniet and the collected samples were processed by ASSET Laboritories in Las Vegas, Nevada. The results from both plaza tests suggest that chemical concentrations correlated with slight elevation differences and that taphonomic, rather than cultural, processes may have been behind the distribution of the recovered patterning in the trace metals found in these plazas.

Excavations during 2018 focused on residential groups that are co-located in the vicinity to the Puchituk Plaza in order to identify artifactual remains that could be used to compare and contrast distribution systems within the site. Two groups adjacent to Puchituk Plaza were more intensively excavated in 1994; both were revisited in 2018. The residential group immediately southwest of the plaza had its eastern building trenched and had two collapsed chultuns investigated; these excavations yielded 1 small tomb, 3 other burials, and 2 caches, all of which date to the Late Classic Period. The sizeable group directly east of Puchituk plaza was also cursorily investigated in 1994 with a trench placed in the plaza to the front of the eastern building. This plaza trench yielded part of a carved stela and 2 caches; it also uncovered a basal doorway associated with the eastern pyramid that was not penetrated. During the 2018 field season, this eastern group witnessed further investigation of both the eastern and southern structures as well as some areal excavation in front of the eastern building. These investigations yielded a three-door range building that was once vaulted embedded in the base of the eastern pyramid. The partial carved stela had been reset in the plaza in front of the central

door; its original base was not located and is suspected to be elsewhere at Caracol; a new drawing of this monument was prepared by Dr. Christophe Helmke during the 2018 field season. The front room of the southern building was also areally excavated during the 2018 field season and the northeast exterior corner of this structure (which had been the locus of looting) was also exposed and drawn. Limited trenching was carried out in both the eastern and southern buildings.

Besides the Puchituk eastern residential group, an additional three other residential groups were investigated during 2018 with a combination of trenching and areal excavations to begin to garner an archaeological sample that can be compared to the two epicentral neighborhoods. These groups were co-located in close spatial proximity to the Puchituk Terminus; the location of the groups excavated during 2018 are shown in Figure 1. The first new group investigated during 2018 was located about 100 m southeast of the Puchituk Plaza. The eastern building was trenched and an alleyway between two northern buildings was also excavated to look for trash. These investigations produced two burials in the eastern building, one an Early Classic tomb and the other an early Late Classic multiple interment. A second new group investigated during 2018 was located about 100 m west-northwest of the Puchituk Plaza. An axial trench was placed on the eastern construction and dug to bedrock, producing 1 burial dating to the Late Classic Period and 2 caches. The third new group excavated during the 2018 field season was approximately 200 m west-southwest of the Puchituk Plaza adjacent to the causeway running back to the epicenter. The eastern building in this group was trenched, producing six Late Classic special deposits. An open chultun on the northeast corner of the north building was also investigated, producing a deposit dating to the Early Classic Period.

Research Undertaken During the 2019 Field Season

During the 2019 field season, excavation was evenly split between the Puchituk and Monterey areas (final 2019 season report with figures may be found at www.caracol.org). Three co-located residential groups – situated on the top and sides of a high hill 300 meters east of the Puchituk public architecture – but separated from that terminus by a deep valley – were investigated. The first group contained five structures and occupied the summit of the hill. The northern and eastern buildings were axially trenched to bedrock and a smaller excavation was undertaken on a western structure. No formal deposits were uncovered in the northern building, but the investigation of the eastern building yielded one tomb, two simple burials, and seven caches that ranged in date from the Early Classic to Late Classic Periods. One hundred meters southwest of the hilltop group another residential group, consisting of four structures on a raised platform, was investigated. A still upright plain stone monument (originally projecting 2.0 m above its plaza) was in front of the eastern building and an axial trench into this structure yielded seven caches and six interments, again dating from the Early Classic to Late Classic Periods. DNA samples were collected in the field from both of these groups and are being analyzed by Rick Smith of George Mason University. A third residential group at the base of the hill had two of its five structures axially excavated, but yielded no associated deposits; recovered sherds indicated a Late Classic date for construction.

A series of investigations were also undertaken in the Monterey area during the 2019 field season. Two groups of public architecture at Monterey were excavated as were two adjacent residential groups. Significant discoveries made in the Monterey public architecture included a plain circular altar in the center of alley between the two ballcourt

structures at the eastern edge of the central public plaza as well as two deeply-buried Late Preclassic caches in the eastern pyramid that commanded its own raised plaza to the east of the ballcourt. This second public plaza was set on the side of a hill and was linked to the ballcourt plaza by a causeway. Two Late Preclassic caches in the eastern building were associated with carbon and, combined with the stratigraphy, could be demonstrated to date between AD 74-126 (Beta-537760 and Beta-537761). These two investigations helped to confirm the earlier dating of the Monterey public architecture; other early ritual deposits dating to the Late Preclassic and Early Classic Periods were recovered in a residential group approximately 100 meters south of the public architecture that was excavated in 1996. Two residential groups that bounded the Monterey public architecture to the east and west were also investigated during 2019. In the residential group to the immediate west of the ballcourt plaza, an axial trench of its eastern construction revealed a single-phase building of Late Classic date, but devoid of deposits containing ceramics. A second residential group, directly east of the Monterey public architecture atop a hill, had three of its buildings investigated. A large central building set on a pyramidal based proved to be a single-phase construction, while the other two edifices produced extensive evidence of rebuilding from the Late Preclassic through Terminal Classic Periods. However, no formal deposits were recovered from these structures, although a series of metates were recovered from their structure floors.

Research undertaken during the 2020 Field Season

The 2020 field season was a continuation of the three-year field program funded by the Alphawood Foundation. Instead of splitting forces, as in 2019, excavations were focused to the east of the Puchituk Terminus and southeast of the Puchituk-area

residential groups dug in 2019. During 2020, five residential groups that were all co-located along the same elevated ridge were investigated (Figure 2). Four of these residential groups produced a series of Late Classic deposits (and the fifth probably had a Late Classic burial) with Early Classic materials also being recovered in two of the groups.

King Residential Group: Structures 4E1-4E4

King residential group contains four elevated buildings: one to the west, one to the east, and two on the north side of the plaza (Figure 3). While no visible constructions line the southern part of the plaza, the remains of an access stairway are visible on the southeast corner of the raised platform. King was the northernmost residential group investigated during 2020 and both its northeastern and eastern buildings were investigated. The eastern half of the northeastern structure was areally exposed (Figure 18), revealing a "c-shaped" structure that is usually dated to the Terminal Classic Period in other parts of the Maya area (Rice 1988). Artifactual materials associated with this building included a metate (Figure 19) and a spindle whorl (Figure 8b), indicating its domestic function. The eastern building was trenched to bedrock and yielded three interments and four face caches. While the earliest burial in the structure dated to the middle portion of the Late Classic Period, all four caches and at least one of the other burials dated to the late Late Classic Period after CE 700.

Structure 4E3

Structure 4E3 was the raised eastern building in King Residential Group (Figure 4). It is elevated approximately 0.6 m above plaza level and was rectangular in plan. A single-course front summit facing with vertical risers was in evidence on the southern

side of the building while the summit present a slumped depression on its northern side, indicative of a potential collapse. Excavation revealed a miniature green stone celt (Figure 8c) in front of the building as well as a limestone bar (Figure 8a).

Operation C224B was a 2 m wide by 5.6 m long trench that was axially placed over Structure 4E3 (Figure 5). The trench revealed that there were two disturbed phases of the building built directly on bedrock. An earlier buried floor had been cut to place a burial in the rear of the building (Figure 6). The lower two steps for the last structure were also recovered, as was evidence of stairway modification with the addition of a second stair (Figure 7), presumably in association with one of the caches in the front of the building.

SD C224B-1 (Figure 9) was assigned for a face cache (Figure 10a) that had been placed in plazafill immediately in front of the front step of the building. Nothing was recovered from within the vessel and it was devoid of a lid.

SD C224B-2 was assigned to a burial in a simple cist (Figure 11) that had been placed in the stone fill to the north and on the bedrock to the south. Two skulls comprised the southernmost extent of the deposit. Thus, two individuals were present, but the recovered bone indicate that one of the individuals was quite partial. This skull of the primary individual was to the east, was an older adult (based on the lack of teeth), and was probably female (based on the mandible). The other skull was likely that of an adult male and was associated with three adult teeth, all showing evidence of wear and tartar. No central incisors were recovered. There may be some articulation for the primary individual, although at least one humerus was located in a place that does not fit with an articulated individual.

SD C224B-3 was assigned to an interment in a crude tomb (Figure 12) in the rear of Structure 4E3. While the western wall consisted of cut and well-laid stone, the other three sides of the chamber appear to have been composed of large rubble placed directly on the underlying bedrock. The tomb was likely re-entered and then re-filled in antiquity, as the floor above it was cut. The original volume for the chamber is estimated to have been 0.97 cubic meters. Four complete ceramic vessels were recovered in association with the burial, as well as a large fragment of an olla body beneath one of the vessels (Figure 13). Four mother of pearl shell fragments were also in association, while three other pieces of mother of pearl and one piece of conch shell were in the fill above the articulated remains. The primary individual was likely male and was articulated in a supine position with his head to the south. A second skull of unknown sex was also located at the southern extent of the deposit. No central incisors were recovered.

SD C224B-4 (Figure 9) was assigned for a crushed face cache (Figure 10b) that was located beneath the front step for the building. A slate bar was recovered in the vicinity of the ceramic vessel.

SD C224B-5 (Figures 9 and 14) was assigned for a face cache (Figure 10c) placed through the earlier step of the building. The face cache had been placed within a crudely constructed stone cist that had been capped with another stone slab once the vessel had been placed. Within the face cache, the remains of 11 oyster shells were recovered.

SD C224B-6 (Figure 9) was assigned for an interment that was placed in the upper fill of the building immediately in front of the summit western face. The bone was in poor condition and was limited, but included a partial humerus and tibia located

near the single ceramic cylinder (Figure 15) that accompanied the burial. Only a cracked upper canine, an upper premolar, and the roots from three teeth were recovered with the bone. It is likely that this was a secondary interment.

SD C224B-7 (Figure 9) was assigned for a partial face cache (Figure 10d) that had been placed toward the center of the structure, but had been badly disturbed by subsequent activity. A series of other artifactual materials were recovered in its vicinity that included 5 obsidian flake fragments, a rounded sherd with a central hole, 2 complete jute shells, 3 mother of pearl fragments, and 2 slate fragments.

Structure 4E2

The northern building in King Residential Group, Structure 4E2 (Figure 16), rose only approximately 40 centimeters above the plaza level and measured approximately 5.8 m east-west by 2.8 m north-south. Excavation showed that it approximated a late "C-shaped" structure, as defined for Seibal (Tourtellot 1988) and the Central Peten (Rice 1988).

Operation C224C consisted of a 3.55 m wide (roughly east-west) by 3.8 m long (roughly north-south) excavation placed over the southeastern corner of Structure 4E2 (Figures 17 and 18). The excavation was not in precise alignment with the structure. The facing for a one-course substructure set on the plaza was recovered in the southeastern portion of the excavation. Two courses of the building facing for Structure 4E2 were recovered as well as interior features that showed a rear raised facing that articulated with a higher interior feature on the southeastern corner of the building. This indicates that the interior of the building had a lower frontal surface with a raised rear bench and raised piers on either side of the front surface. The composition resembled some of the benches

that were recovered in association with Caana. An almost whole metate (Figure 19) was recovered against the front facing for the building, while a partial mano was found on the front surface of the building. A limestone spindle whorl (Figure 8b) was also recovered in front of the structure.

Queen Residential Group: Structures 4E5-4E10

The northern intermediate group that was excavated was the largest in areal extent and was located on a 35 m by 40 m raised platform. Four different buildings were trenched within Queen Residential Group (Figure 3). The northernmost building contained a tomb that ran east-west; partial vessels on its floor dated the use of the tomb to the Late Classic Period. The large eastern building was also trenched and dug to bedrock, producing four caches (none of which were face/urn or finger caches), one of which dated to the late part of the Early Classic and the others to the early part of the Late Classic Period. Two other structures in the southeastern corner of the residential group were also trenched. Both sealed earlier construction efforts that could be dated to the Late Classic Period. The southeastern building also yielded a flexed burial on bedrock beneath it and some 5,750 pieces of chert in its fill layers, indicating the presence of a chert workshop in the vicinity.

Structure 4E6

Structure 4E6 was the tallest building in Queen Residential Group, rising 1.4 m above the frontal plaza (Figure 20). No formal construction features were visible on the surface before excavation, although it what appeared to be a disturbance or collapse was visible on the northwest front of the building.

Operation C225B was assigned for a 2m wide by 7.65 m in length axial trench into Structure 4E6 (Figure 22). The investigation uncovered a crude lower step in front of which two caches had been placed. A front summit facing was also recovered running across the trench and a squarish feature to the front of this suggested the possibility of a stair balk, but in reality the formal architecture was very much in a state of disarray (Figure 23). Excavation into the front of the building recovered at least four distinct sets of capstones (Figure 24) and eventually what appeared to be a small crypt, but no bone or artifactual material was associated with the crypt. Besides the two caches in the front of the building, a complete vessel was recovered in the rear fill for the structure and an earlier cache vessel was recovered just above bedrock in the center of the structure. Excavation into the summit fill of Structure 4E6 also recovered a carved fragment of a slate monument (probably part of a stela text; see Figure23a). A single carved glyph was clearly visible; it recorded the day-sign 9 Lamat. This same day-sign appears on Caracol Stela 3 associated with a date in AD 584 (9.7.10.16.8; see Houston 1987:99 and D. Chase and A. Chase 2008: 101) that refers to an event witnessed by Batz Ek at the site. This is the fourth slate stela fragment from the site core found within a residential group at Caracol (also known from Tiger, Terraza, and the B42 Group), indicating that broken monument fragments were being incorporated into household ritual.

SD C225B-1 (Figure 25) was assigned to a deep bowl (Figure 28a) that had been cached deep in the rear fill of Structure 4E6. The cache is Late Classic in date.

SD C225B-2 (Figure 26) was assigned to a Peten-style bowl (Figure 28b) that had been cached just south of the front axis of the lower step. The cache dates to the Late Classic Period.

SD C225B-3 (Figure 26) was assigned to a deep bowl (Figure 28c) that had been cached just south of the front axis of the lower step for Structure 4E6. Like SD C225B-1 and SD C225B-2, SD C225B-3 consists of normal ceramic serving ware and not specially produced cache vessels.

SD C225B-4 (Figure 27) was assigned to a cache vessel and partial dish that were located in a bedrock pit beneath the front summit of Structure 4E6. The cache vessel is of a form that is likely of late Early Classic date and the dish is of serving ware that is transitional between the Early and Late Classic Periods (Figure 28d and 28e).

Structure 4E5

Structure 4E5 was the designation assigned to the northern building in Queen Residential Group. The structure rose 60 cm above the plaza area and appeared to have sumped towards its rear (Figure 29).

Operation C225C was an axial trench placed over Structure 4E5 that measured 2 m by 7.2 m (Figure 30). No formal facings for the broader building platform or potential steps for the structure were uncovered. However, three sides of a squarish single course facing were recovered on the rear summit of the structure (Figure 31). Excavation revealed that this feature surmounted was located directly above a tomb housed within the core of the structure. The open-air chamber had collapsed, but excavation revealed a well plastered concave floor and the sides of the chamber.

SD C225C-1 (Figure 32) was assigned to a collapsed tomb in the rear of Structure 4E5. The chamber had a well-constructed northern wall and potential vertical entryway; its southern wall was set into bedrock; and, it’s flooring was well plastered and concave in profile. The chamber contained no human bone, but did have pieces of two

Late Classic dishes on the plastered floor of the chamber (Figure 33a and 33b). The medial part of an obsidian blade was also recovered on the floor. The chamber measured 1.05m in width and was at least 1.9 m in length. Projections for its height indicate that the tomb would have originally encompassed approximately 1.43 cubic meters of space. It had what appeared to be a 35 cm high bench across its western extent. While the face of the bench was evident in the section, the surface of the bench itself was not excavated and, thus, the western extent of the chamber was not fully exposed. Directly above the chamber, a single course platform foundation that was slightly larger than the buried tomb appears to have architecturally marked the location of the chamber.

Structure 4E10

The southeastern part of Queen Residential group was characterized by a smaller inset plaza with structures on its northern and eastern sides. Structure 4E10 was designated for the most southern and eastern building on this mini-plaza. Structure 4E10 rose approximately 1.15 m above the lower mini-plaza and 0.70 m above the broader plaza for the larger northern and eastern structures associated with Queen Residential Group (Figure 34). The building measured 3.8 m in depth by 4.5 m in width and was bordered to its north by a lower platform that was not investigated.

Operation C225D (Figure 35) was a 2 m wide axial platform that was placed over Structure 4E10 and across the plaza west of the building. It measured 2 m in width by 6.35 m in length. The investigation was placed just east of the rear wall for Structure 4E10 that was visible on the ground surface and extended over the facing for the summit of the building, eventually recovering what was a decomposed western step for the edifice. Deeper penetration into both the plaza and the building encountered evidence of

earlier construction (Figure 36). In the plaza a facing set just above bedrock was found running diagonally to the later Structure 4E10 and within the core of Structure 4E10, the facings of two earlier versions of the structure were found (Figure 37). Structure 4E10-2nd was oriented the same way as -1st, but its summit was only 2.4 m deep. An even earlier summit building, was only 1.7 m deep. A large fragment of a Belize Red dish (Figure 33c) abutted the southern side of the Structure 4E10-3rd, indicating that all of this construction dated to the Late Classic Period. A broken rounded quartzite ball (Figure 23c) was also recovered in the vicinity of the dish. A flexed burial, presumably of Late Classic date, had been deposited underneath the latest western summit facing.

SD C225D-1 (Figure 38) was assigned for a flexed burial located under the front facing of Structure 4E10 directly above bedrock. The head was to the south and faced west. The individual was an adult, as all of the teeth through the 3rd molar had erupted. The preservation of the bone was not very good, probably because of the body's proximity to bedrock. In the field, the upper central incisors of the individual presented a "tau" or t-shaped profile, but this could not be verified in the laboratory because of the poor preservation. No artifactual material accompanied the burial.

Structure 4E8

The northern side of the mini-plaza on the southwest side of Queen Residential Group was also investigated during the 2020 field season (Figure 39). This structure was smaller that the eastern building associated with it, but still rose 0.75 m above the mini-plaza and 0.45 m above the plaza to its north associated with Structures 4E5 and 4E6. Like its eastern companion, a lower platform abutted its side (to the west).

Operation C225E (Figure 40) was assigned to a 2 m wide by 4.85 m long trench placed on axis to Structure 4E8. No formal facings were recovered for the latest building, nor were any cut stone steps found for the latest construction. However, a limestone bar (Figure 23b), indicative of ritual activity, was found during summit clearing. The trench was dug to bedrock. Two steps were set directly on bedrock (Figure 41). As recovered, the steps were only one course high and a possible posthole into bedrock had been cut immediately behind the northern step on the western side of the excavation. The stratigraphy indicates that whatever had been on this locus before had been largely cleared to bedrock and that the latest version of Structure 4E8 had been built as a single phase directly over bedrock and the earlier steps.

Jack Residential Group: Structures 4E11-4E16

The southern intermediate group on the ridge had two of its buildings excavated. Jack Residential Group consisted of five small building buildings located around a central plaza (Figure 3), two on the northern edge of the plaza, and one each on the other sides of the plaza. The western edifice was trenched and proved to have been constructed on the latest plaza floor during the Late Classic Period. An axial trench through the eastern building revealed a series of purposeful deposits. Two burials could be dated by associated ceramics to the Late Classic Period and all three caches could be stylistically dated to after CE 700. Also present at this locus were two “pot-lids” that may have been used to seal the ends of logs for ancient bee-keeping and honey production.

Structure 4E14

The eastern building, Structure 4E14, in Jack Residential Group rose approximately 0.75 m above its central plaza (Figure 42 upper). Although no lines of

stone were visible on the surface, excavation revealed several constructed features as well as three caches (all face caches) and three burials.

Operation C226B (Figure 43) was a 2 m wide by 6.2 m long excavation set on axis to Structure 4E14. The western summit facing for the building was recovered running across the excavation (Figure 44). It was set directly above what was left of summit plaster floor. A large portion of an olla was recovered against this facing on the northern side of the excavation (Figure 46). A massive capstone at the rear of the excavation was visible on the surface (Figure 44) and proved to have slid to the east, off the back of the structure; it had once covered a small rear tomb. The lower western step was located in the southern part of the excavation, but was not in evidence in the northern part of the excavation. Two other sets of capstones were also recovered in the front of the structure, each above an interment.

SD C226B-1 (Figure 42 lower) was assigned to a cache that had been placed into the plaza in front of and on axis to Structure 4E14. It consisted of four tangent sets of cache vessels (Figure 47). Two lidded face caches were linearly located immediately south of a set of large lip-to-lip flaring rim bowls that formed the northern end of the deposit. The flaring rim bowls contained 56 oyster shells (Figure 48). To the east of the southernmost face cache was a squat barrel-shaped urn. These vessels (Figure 49) date to the Late Classic Period. To the southeast of this deposit at the same level a complete pot-lid (Figure 51a) and two limestone bars (Figure 45a and 45b) were recovered that may have been deposited with SD C226B-1.

SD C226B-2 (Figure 47) was assigned for a small cached urn (or cup; Figure 50a) that was placed in the plaza to the west of SD C226B-1. The cup was also accompanied by a pot-lid (Figure 51b).

SD C226B-3 (Figure 47) was assigned for a partial small cache urn (Figure 50b) that had been placed into the plaza fill in front of Structure 4E14. The fact that it is partial may indicate that it was disturbed either by activity related to the placement of SD C226B-5 or by some other subsequent activity in this area. It dates to the Late Classic Period.

SD C226B-4 (Figure 54) was assigned to a small tomb located in the rear of Structure 4E14. The existence of this tomb was reflected in a massive capstone that was on the surface and had partially slid off the eroded back of the building; this slab had likely once covered the southern end of the chamber. During initial excavation, the upper stones for the chamber were readily delineated and revealed two partial burners or "stoves" (Figure 53) along the interior western extent of the infilled chamber (Figure 52; see Ball and Taschek 2007 for more information on ceramic stoves). These burners may have been deposited when the chamber was likely re-entered and then infilled in the Late Classic Period. The small chamber itself measured 0.55 m in width by 1.9 m in length and likely originally encompassed 0.63 cubic meters when constructed. Four ceramic vessels were associated with the interment (Figure 55). An elaborately incised cylinder showing an underworld water scene (cover; Figure 55a; Figure 56) was located in the southeast corner of the chamber; this vessel is both stylistically and thematically similar in style to an incised cylinder encountered at Tikal, Guatemala in Burial 81 (Culbert 1993: fig. 43d). A typical Caracol dish was also present as were two "perfume bottles."

One of the bottles was located at the same level as the burners and in the northeastern portion of the chamber, suggesting that the re-entry may have removed other items associated with the burial. A conch shell worked disc (Figure 45c) and a piece of a spondylus shell were also associated with the interment. While the human bone was largely in disarray, some of the bone along the eastern side of the chamber appears to have been articulated and represent an extended individual with head to the south. The other bone in the chamber was apparently bundled and does not appear to have been articulated. The recovered teeth indicate that a young adult and an older adult were present in the chamber; however, two full sets of teeth were not recovered. The teeth have tarter and caries, as well as enamel extensions. There is extreme wear on the older adult's incisors.

SD C226B-5 (Figure 57) was assigned for a burial placed into a pit dug into bedrock immediately to the west of the lower front step for Str 4E14. At least two individuals were present. One had their head to the south and may have been partially articulated. The second individual was represented by extra bone within the burial. No teeth were recovered. A single brown ceramic bowl with three exterior medial grooves accompanied the interment (Figure 50c); this vessel resembles two vessels recovered from a small chamber in Caracol Structure B129 (Caracol 2000 season report, Figures 27d,e; available at https://www.caracol.org). This burial may have also been disturbed in antiquity.

SD C226B-6 (Figure 57) was assigned for a burial placed directly on bedrock at the western limit of Operation C226B. The burial is represented by articulated legs upon which a skull was set (on the southern end over the femur heads). No sex

identification was possible, but the individual was likely an adult. A partial obsidian blade was recovered within the soil underneath the right femur. In terms of teeth, molars were present but no incisors or canine were recovered. There was tartar on the molars.

Structure 4E16

A low building, Structure 4E16, was placed on the western side of Jack Residential Group. It rose 0.40 m above the plaza and was roughly positioned opposite the eastern structure (Figure 58).

Operation C226C (Figure 59) was assigned for a 2 m wide by 4.5 m long excavation placed on axis to the building. This investigation was dug down to the last plaza floor level, upon which the building had been constructed in a single phase. A crude eastern (front) facing for the building was recovered (Figure 60), but no deposits were found in the core of the building. However, artifactual material mixed into the building's fill included a ceramic bird whistle, a ceramic head probably from another whistle, and a slightly drilled large quartzite ball (Figure 45d-f). These materials indicate a late Late Classic construction date for Structure 4E16.

Joker Residential Group: Structures 4E17-4E20

The southernmost residential group atop the ridge was small but had the highest elevation of all the groups, being raised above the summit of the hill by its plaza platform. Like the other ridge groups, Joker Residential Group (Figure 3) had two low buildings on the northern side of its plaza. It also had a single building on both the south and east sides of the plaza with no building in evidence on its western side. A single axial excavation was placed into the eastern construction and dug to bedrock.

Structure 4E19

Structure 4E19, located on the eastern side of Joker Residential Group, is the highest building in this assemblage of buildings (Figure 61 upper). It rises 0.80 m above its associated plaza. No building features were in evidence on the mounded structure before excavation began, nor was there any hint of the amount of chert debitage that was contained in the matrices above the ruined building core.

Operation C227B (Figure 62) was assigned for the axial trench through Structure 4E19. It measured 2.0 m in width by 5.5 m in length and was dug to bedrock in most places. Multiple building episodes were recovered within the trench (Figure 63). The front step for the latest building was recovered; it was set over a set of capstones that sealed a burial. Another set of capstones sealing an interment was found in the plaza (Figure 70). Several partial floors were recovered in the building core at a higher level than the front plaza surface, indicating that the building had undergone several modifications. Additionally, the lower course of a facing for a buried building set on one of the buried plaster floors and running to the south (that was incorporated into Structure 4E19) was recovered along the southeastern portion of the excavation. The excavations in this locale yielded three burials and two caches (both of lip-to-lip finger bowls). A single Late Classic vessel accompanied one of the interments, but another had a series of reconstructable domestic vessels mixed into the fill above the interment; a reconstructable censer was also broken over the front of the building with pieces being included with the domestic vessels. These vessels are all of late Late Classic date. Excavation of the humus and collapse over the building produced 54,686 pieces of chert, one of the most intense expressions of debris from a lithic workshop yet found at Caracol.

Many other broken artifacts were recovered in the overburden above the plaza and the structure, including two jadeite beads, drilled olivella shells, a partial limestone spindle whorld, a broken greenstone celt, a broken quartzite ball, a crudely carved limestone head, work shell, and a partial rounded and perforated shell (Figure 64).

SD C227B-1 (Figure 66) was assigned to a set of lip-to-lip finger bowls (Figure 67a) set into the plaza on axis to Structure 4E19 and in front of the western step.

SD C227B-2 (Figure 68) was assigned to a presumed burial set in a crude cist behind the first step for Structure 4E19. Limited bone was recovered that includes a humerus, a tibia, a radius, and 1 tooth; none of it was in anatomical order. The bone probably represents a single adult individual. Six vessels were recovered in the fill directly above the burial (two are relatively complete) and within the confines of the crude rock cist. These six vessels include a variety of vessel forms that do not usually accompany burials at Caracol (Figure 65), but the presence of a large olla sherd (Figure 65f) in this assemblage is consistent with burial practices known from other residential groups at Caracol (see SD C224B-3 above and the tomb in the eastern building at Dos Aguadas [2014 season report]). Pieces of a flanged cylindrical censer (Figure 65g) were also recovered in association with these vessels, but other pieces of this censer were recovered from elsewhere on the front of the building. One piece of a spondylus shell was also recovered in the cist.

SD C227B-3 (Figure 66) was assigned to a set of lip-to-lip finger bowls (Figure 67b) set into the structure fill on axis to the building behind the first step.

SD C227B-4 (Figure 60 lower; Figure 69) was assigned for a burial that had been placed into the fill of the plaza in front of Structure 4E19. A minimum of three adult individuals were conjoined in the cist. Two of the adults were definitely female (one being an older female). Pieces of three mandibles were recovered, one of which showed substantial absorption. A sciatic notch for one individual was identified as female; that individual also had teeth with caries. Beneath this individual, another individual may have been interred as a bundle. The third individual is not at all articulated. One obsidian blade is noted as being in possible association with the interment.

SD C227B-5 (Figure 60 lower; Figure 71) was assigned for a burial set into a crypt that was situated beneath the front step for the building and slightly east of SD C227B-3. The crypt was covered with capstones (Figure 70) and oriented north-south. A bone concentration was at its northern extent (including a tibia). A single deep bowl was at its southern extent (Figure 72). And, a skull with manible was situated in the middle of the interment. Both the maxillary and mandibular teeth were present. The positioning of the skull and bone are interpreted as representing a flexed individual with head to the south. The individual was a subadult, 18-20 years of age and possibly female. There was skull deformation. The third molar had not yet erupted and there were supernumerary holes in the maxilla or, alternatively, the subadult teeth were still in place. There is one sub-adult upper left canine with caries. The upper central incisors show “tau-shaped” filing.

Ace Residential Group: Structures 4E21-4E23

The final residential group excavated during the 2020 field season was located 75 meters to the east of the southernmost ridge group on a lower plateau of land. Ace Residential Group (Figure 3) consisted of a large low raised platform with buildings situated on the north, east and, south sides. A small reservoir was also located immediately west of the southern building. Only the small eastern building in this group was investigated, producing evidence of an earlier building as well as two interments set into bedrock, one of which could be dated to the early part of the Early Classic Period based on the three ceramic vessels that accompanied it.

Structure 4E22

Structure 4E22 is the low eastern building in Ace Residential Group (Figure 73 upper). It is larger in size that the other two buildings in this group, but only rises 0.45 m above its accompanying plaza.

Operation C228B (Figure 74) was assigned for the axial excavation that was placed over Structure 4E22. The excavation measured 2.0 m in width and was 5.6 m in length. No constructed features were visible prior to excavation, but a western facing set on bedrock was recovered in the excavation. Pieces of two plaster floors, both at a high level than the plaza surface, were also recovered in the core of the building, indicating past modifications to this structure (Figure 75). It also appeared that the western facing had been raised in height when these floors were buried in the fill of a later phase of the building. The floors within the fill of the building were not penetrated, but the area to the west of the facing was completely dug to bedrock, revealing two burials; one dated to the early part of the Early Classic and the other was of unknown date. Late Classic sherds

were recovered in the building fill, indicating modification of the structure during this era.

SD C228B-1 (Figure 76) was assigned for a burial that had been placed into bedrock in front of Structure 4E22 in the southwest corner of the axial trench. The human bone that was recovered included femur and tibia fragments of a probable adult. No teeth were recovered and there is no age or sex estimation. No artifactual material was associated with this interment. Its dating is also problematic.

SD C228B-2 (Figure 73 lower; Figure 76) was assigned for an interment that had been placed into bedrock on axis to Structure 4E22. It possibly would have once been covered by a lower step for the slightly raised building. Three vessels were recovered with the very eroded remains of three individuals. The vessels all date to the early part of the Early Classic Period. One is a small decorated olla and the other two are typical early, unslipped bowls usually used as cache vessels (Figure 77). While the bone was largely gone, eleven teeth (no central incisors) were recovered and these teeth indicated the existence of two individuals in the deposit. One individual was 9-12 months old at the time of death and the other was between 16-22 years of age at the time of death.

Looted Tomb Clean-Up

As has been done in previous seasons, a looted tomb was also excavated and recorded at the beginning of the field season while the groups to be excavated were being cleared of brush. For 2020, a single chamber was dug and drawn in the northern building of a residential group that is immediately northeast of the site epicenter (and specifically Caracol's C Group).

Structure J8

Caracol Structure J8 is assigned for a northern building that anchors a residential group located approximately 100 m northeast of Caracol's C Group natural aguada. This aguada holds water year-round and had been minimally modified in the past (Crandall 2009) This building rises about 1.6 m above its raised plaza and contained the remains of a sizeable tomb within the northeast portion of the building. The rear of the north building and other buildings in this group had all seen recent looting and pitting. In 2019 some sherds were collected from the heavily looted eastern building, but none of these appeared to derive from a purposeful deposit. Although largely devoid of contents, the sherds recovered inside the chamber are indicative of a Late Classic date.

Operation C223C (Figure 78) was assigned for excavation and clearing related to the northern chamber in Structure J8.

SD C223C-1 (Figures 79 and 80) was assigned for material that derived from the tomb clean-up. The tomb had previously been emptied of all contents, but we were able to recover some small long bone fragments, confirming the presence of at least one body in the chamber. The remains of two tooth roots without enamel were also recovered. The chamber itself measured 2.6 m in length by 1.05 m in width with a height of 1.15 m; it encompassed 3.00 cubic meter of space. Two steps defined the northern end of the chamber and these were directly below what would have been a vertical shaft entryway into the tomb. It was this entryway that had collapsed and exposed the existence of the chamber. It appears that looting had cleared the chamber of most of the collapsed debris. The vertical entryway into this chamber is similar to one that led into a tomb in Caracol Structure F2 that was excavated in 1985.

Significance

When combined with the 2018 and 2019 investigations, the 2020 field season augments our understanding of the distributions of ceramics, artifacts, ritual offerings, and craft production over the Caracol spatial area. Once fully analyzed, these data will also help to flesh out our understanding of Caracol's functioning urban market system, while highlighting social differences presumably related to status, wealth, and/or neighborhoods that occurred in different parts of the urban area. Future stable isotope and DNA analysis of human bone recovered during the 2018-2020 field seasons should help define past human relationships in terms of diet, origin, and consanguinity. Contextual analyses of ceramic sub-complexes should help define social relationships (e.g., A. Chase and D. Chase 2013). And, further isotopic analyses of contextually recovered human remains should be able to determine whether individuals had spent their lifetimes at Caracol or were later immigrants (see Spence and White 2009; White et al. 1998) as well as detail familial and non-familial relationships.

Archaeological work at Caracol has documented that the site had a solar market system and that residential groups had access to a wide variety of quotidian, prestige, and ritual items that were provided to the inhabitants of the city through its markets. Excavation and analysis have suggested that different kinds of goods may have been available in different quantities in various parts of the site. The work undertaken in the vicinities of the Puchituk Terminus and the Monterey Residential Group provides both detailed information relating to a functioning market system and relating to potential social differences in status, wealth, and/or group membership that occurred in different parts of Caracol. Minimally, this research permits an investigation of "down-the-line"

economic exchange and integration through the comparison of three spatially discrete data sets from the Caracol epicenter, the Puchituk area, and the Monterey area. It also suggests that different neighborhoods at Caracol focused on slightly different items and amounts for ritual inclusion into deposits (ASZ Chase 2021).

Thus, the research undertaken from 2018-2020 has served a number of goals:

First, it permits an archaeological determination of whether or not the same items were available in different parts of Caracol through its market system, providing an indirect measure of centralized versus distributed control of the site's economic system. At least some ceramic items, such as footed Belize Red plates, do not occur in ritual deposits in the northeast sector of the site – either due to distributional constraints placed on the market system or to social preferences of the inhabitants of this part of the site (see D. Chase and A. Chase 2014: fig. 6, which has not been modified by the 2018-2020 investigations).

Second, these investigations have yielded a large sample of residential deposits and materials that are not associated with the central part of the city, providing a better view of socio-economic variability at the site. While the outlying tombs may be smaller in volume than those near the epicenter, the range of artifactual materials found in tombs and caches is just as great.

Third, the excavations in the vicinities of Monterey and Puchituk also provide a comparative sample of residential groups and public architecture that has substantial time depth. For Puchituk, five of the groups excavated between 2018 and 2020 produced primary deposits of Early Classic date, indicating the presence of a substantial population in this area before the purposeful placement and construction of the Puchituk Terminus

on the cityscape during the early part of the Late Classic Period. For Monterey, excavation confirmed the existence of public architecture in this part of the site during the Late Preclassic Period, followed by its apparent disuse by the onset of the Late Classic Period.

Finally, the research undertaken from 2018-2020 better demonstrates how an ancient market system worked to socio-economically integrate a Maya city, something likely to be of interest to the broadest spectrum of researchers working in Mesoamerica and elsewhere.

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TABLE 1:
Caracol Project Members: 2020 Field Season

Staff:		
Directors		
	Arlen F. Chase	C1
	Diane Z. Chase	C2
Lab and Field Directors		
	Melissa Badillo	C166
	Maureen Carpenter	C56
	Adrian S.Z. Chase	C154
Field Supervisors		
	Mayra Arzate	C248
	Gabriela Saldana	C243
Field Assistants		
	Shei Yu	C254
Specialists		
	Zoot Productions film crew	
Belizean Labor:		
Kitchen		
	Angelica Meneses	
	Linda Aurora Meneses	
	Saida Mishille Gonzalez	
Field		
	Carlos Mendez	
	Saul Galeano	
	Jaime Iglesias	
	Julio M. Trujillo	
	Reynaldo Cunil	
	Jorge Israel Itza	
	Flavio Pirir	
	Gustavo Adolfo Mendez	
	Abner David Mendez	
	Gerardo Ismael Magana	
	Edwin Rafael Chan	
	Jose I. Martinez	

Figures

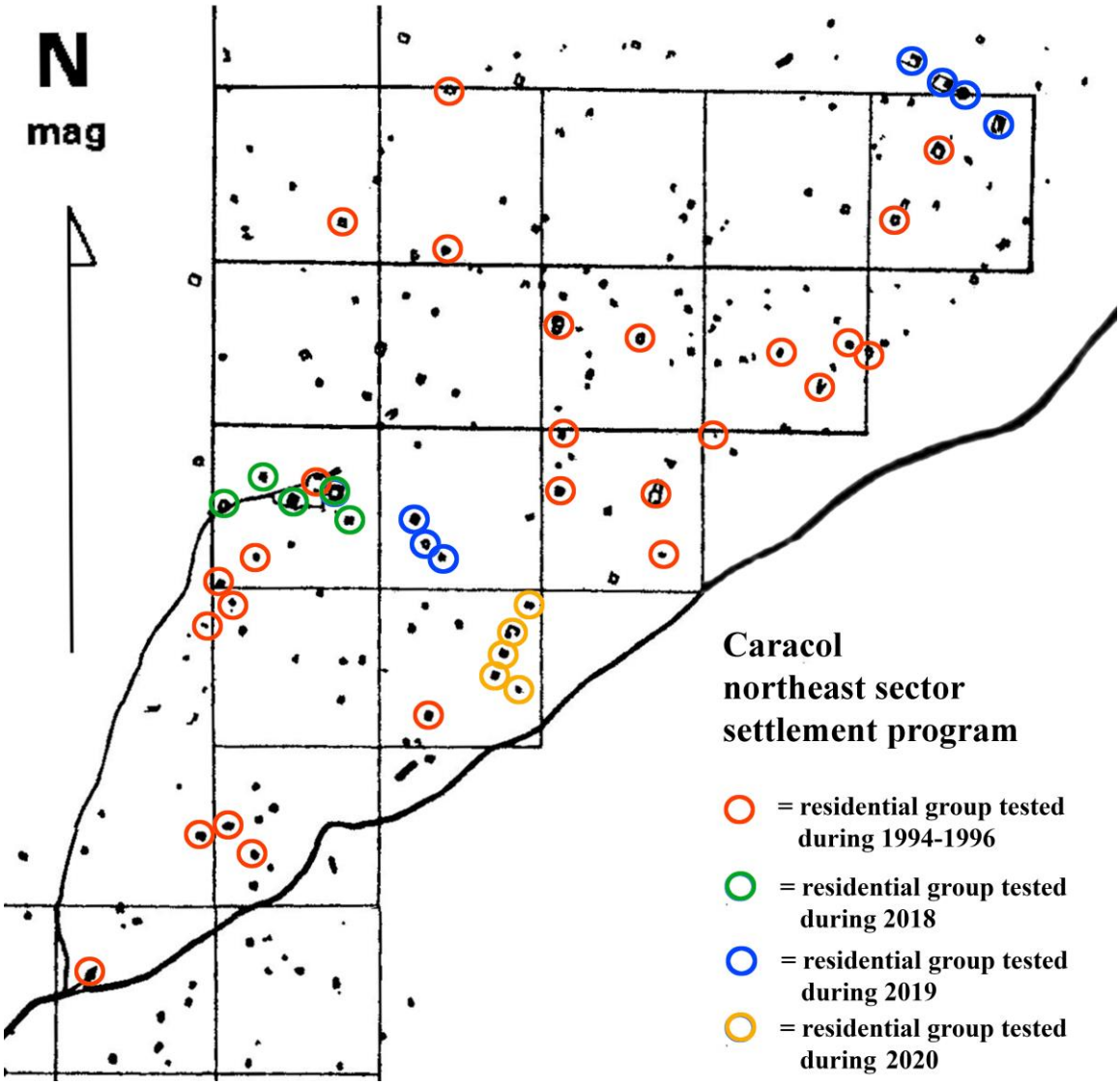

Figure 1: Northeast sector in the vicinity of Puchituk Terminus showing residential groups that have been investigated.

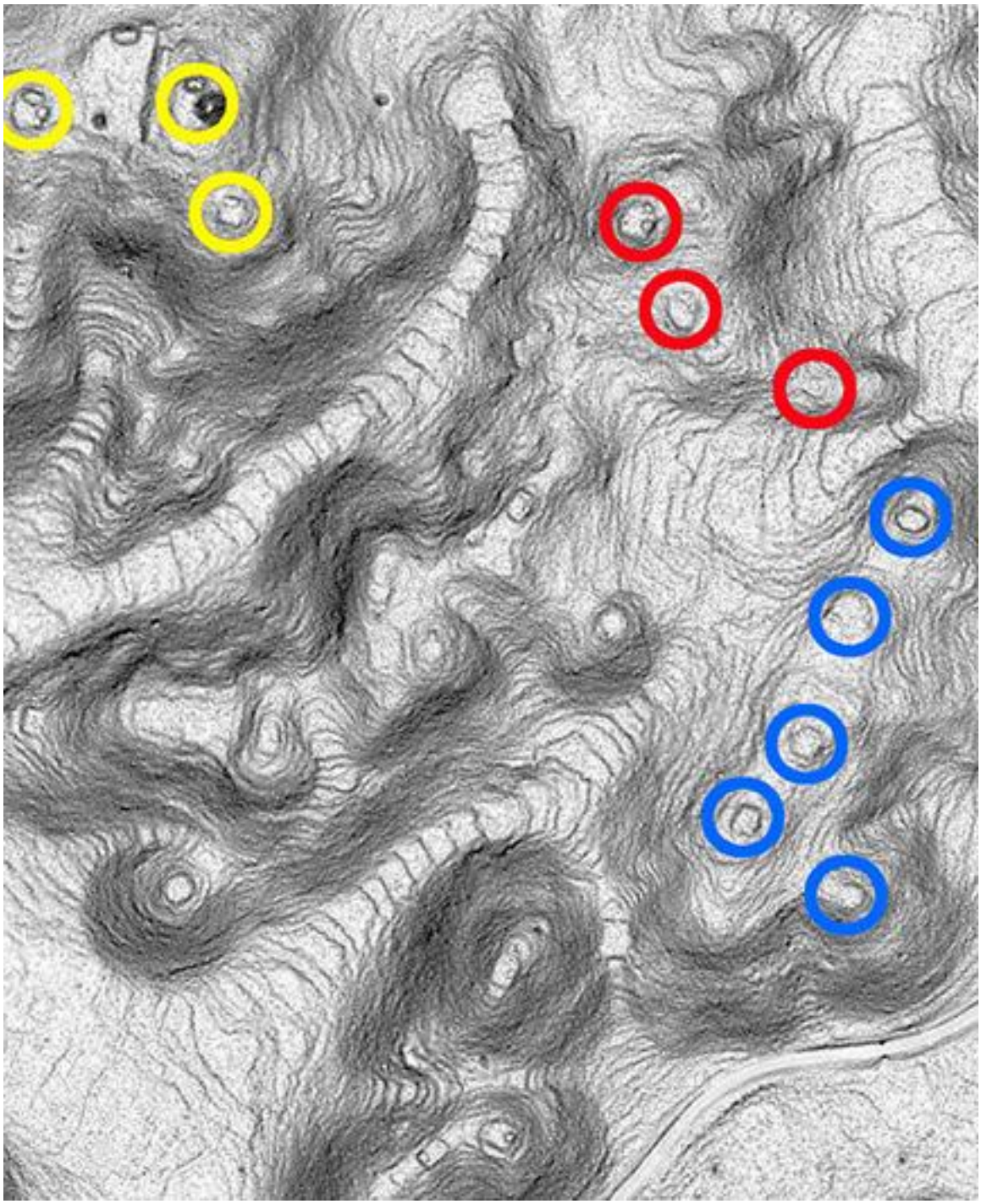

Figure 2: Detail of lidar in the vicinity of the Puchituk Terminus showing residential groups excavated during the 2020 field season (in blue).

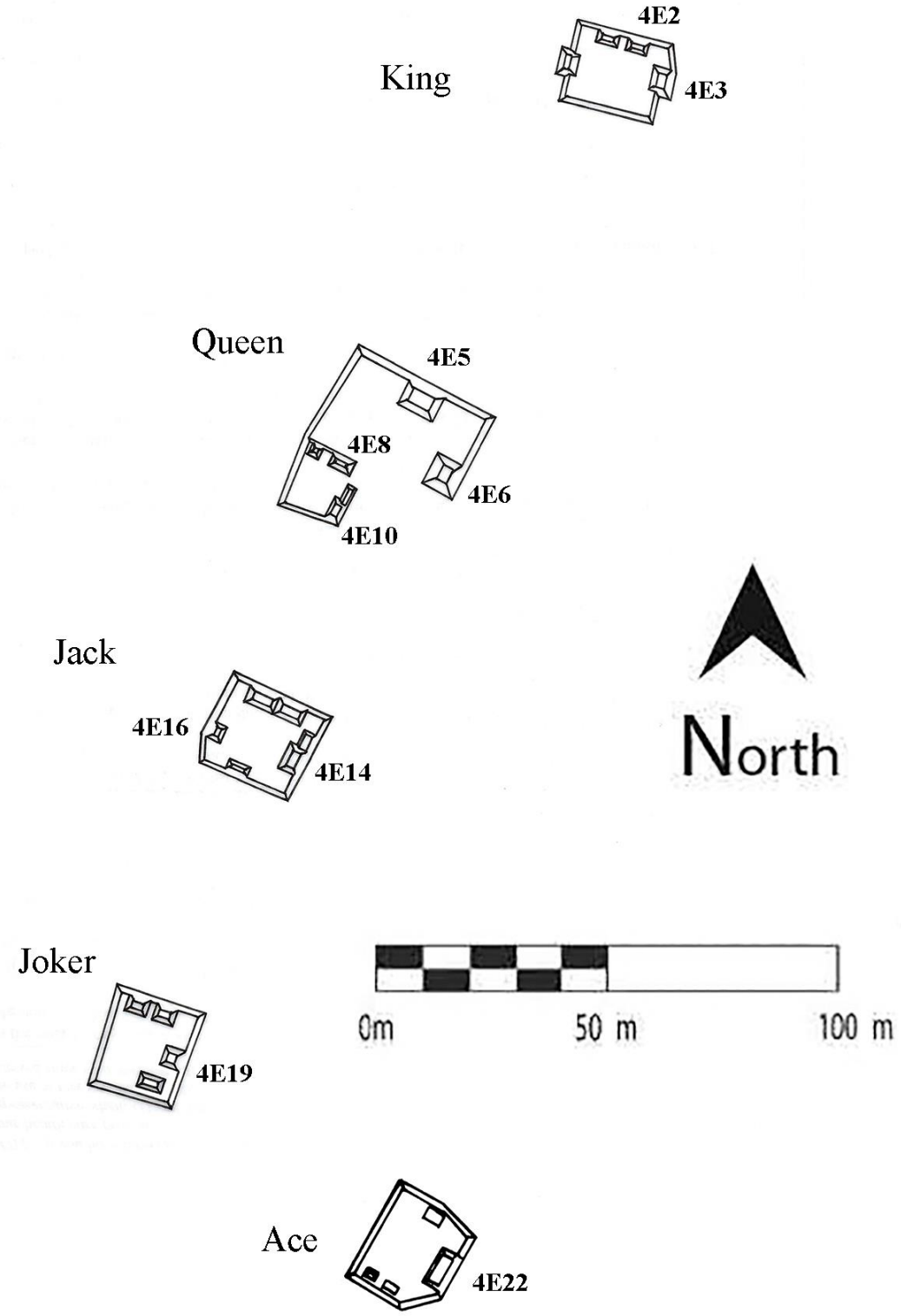

Figure 3: Plans of the groups excavated during the 2020 field season, labeling the specific structures that were investigated during the 2020 field season.

Figure 4: Photographs of Caracol Structure 4E3 looking east (upper) and SD C224B-3.

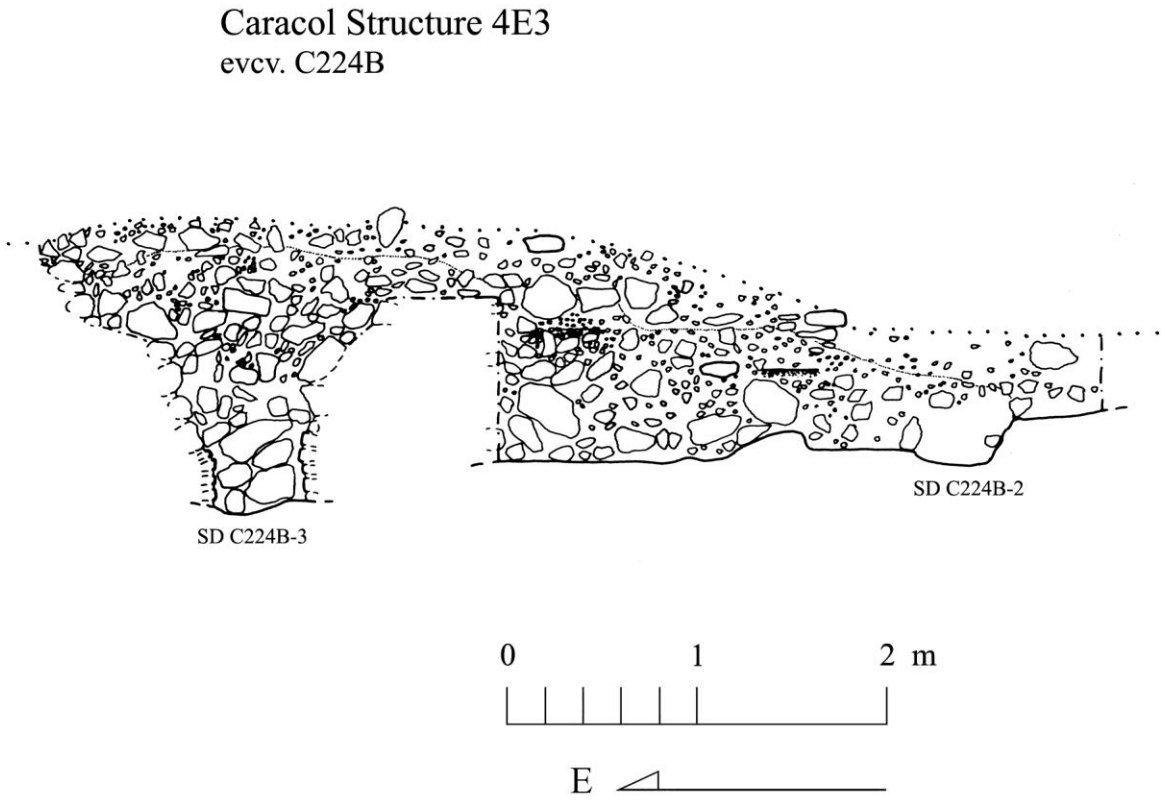

Figure 5: Section through Caracol Structure 4E3, as revealed by Operation C224B.

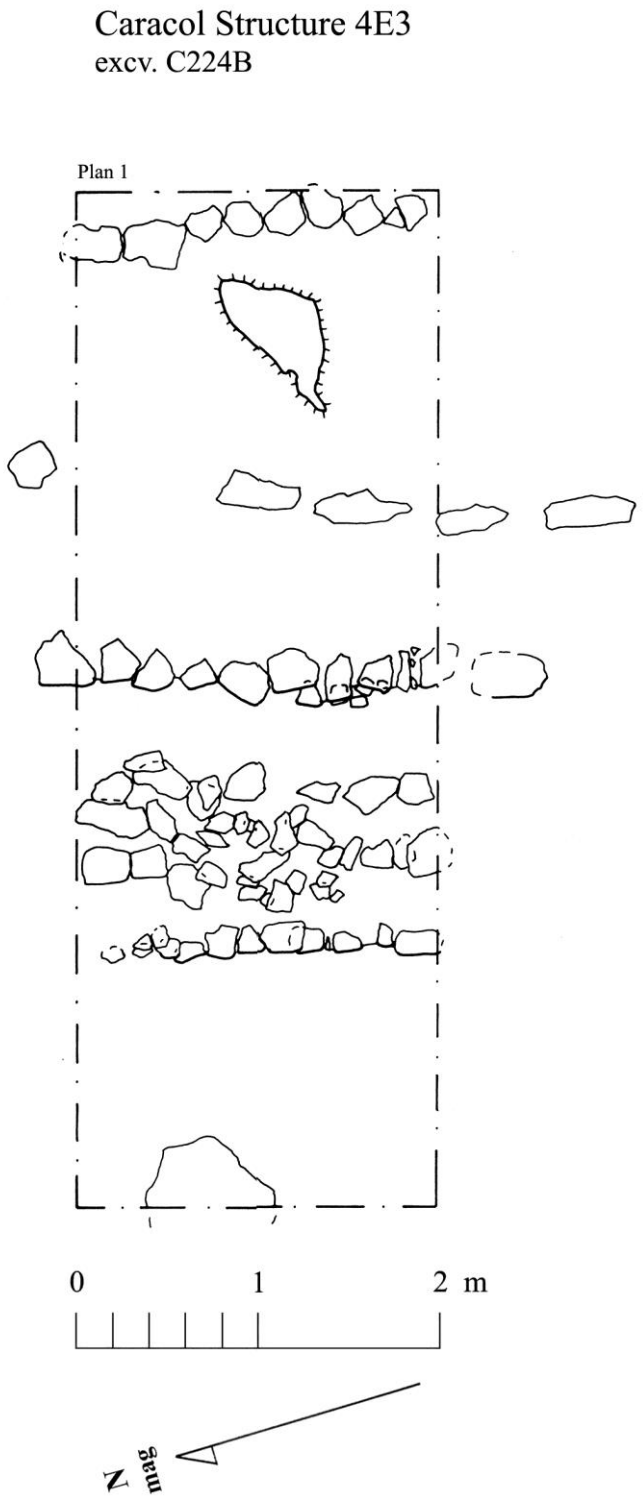

Figure 6: Plan of latest building associated with Caracol Structure 4E3.

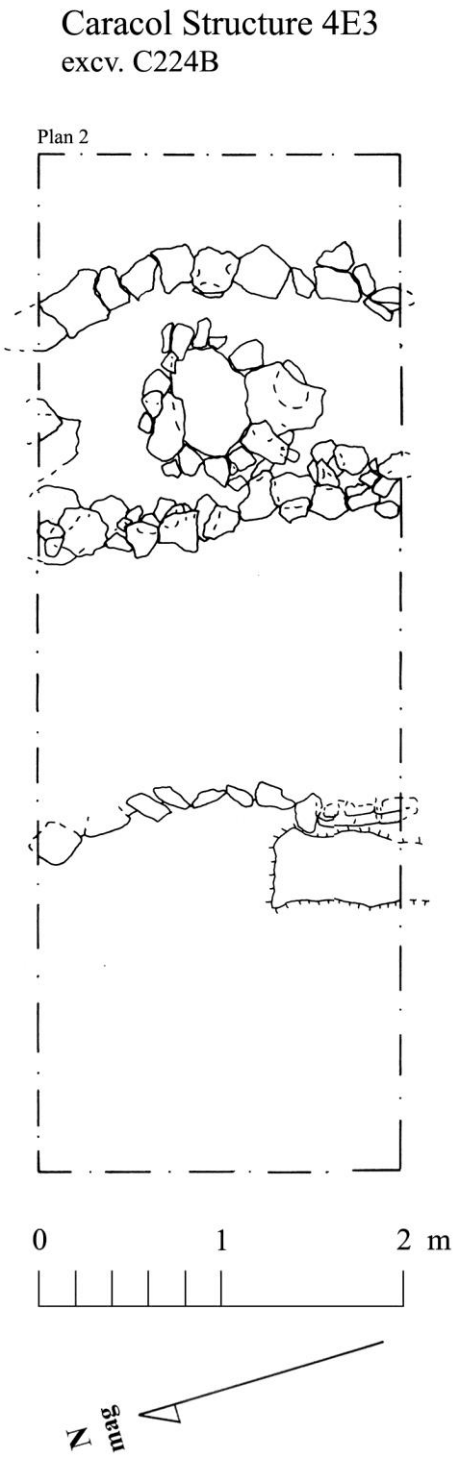

Figure 7: Plan of earlier step and floor revealed in Operation C224B as well as the capstones and outline for SD C224B-3.

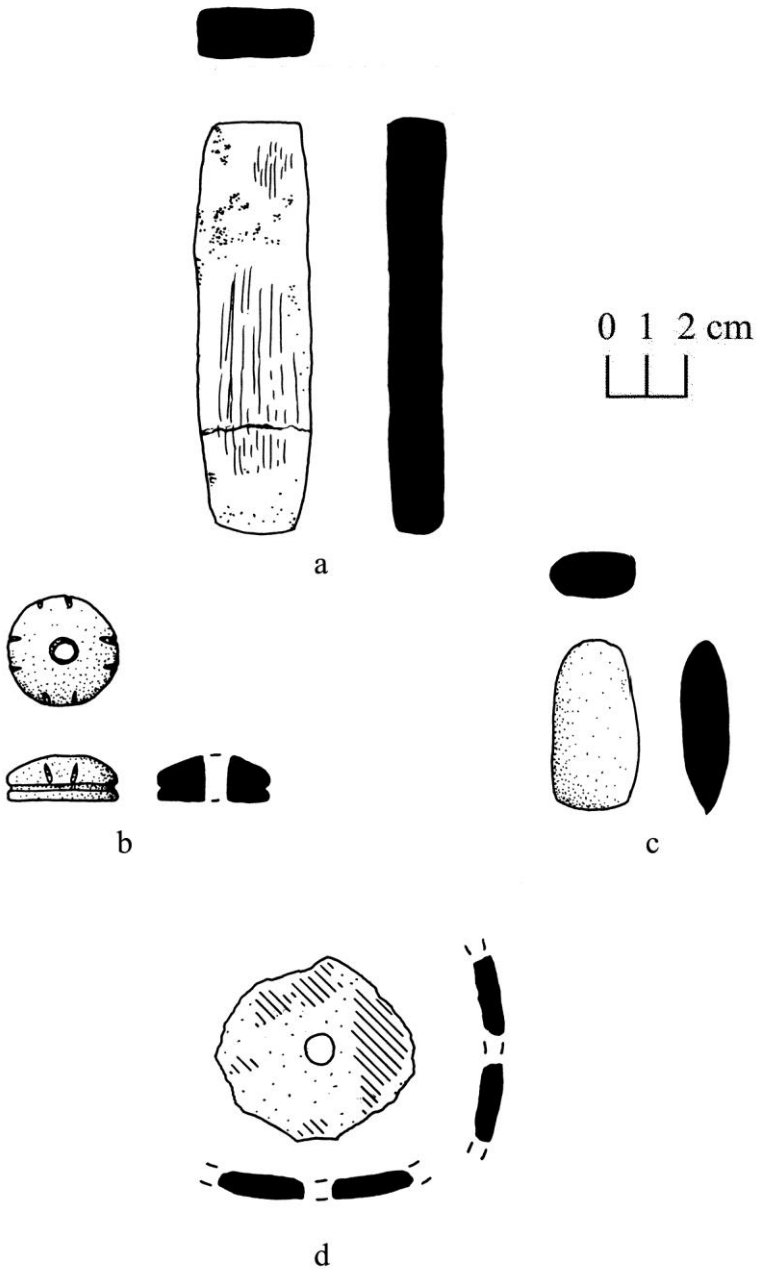

Figure 8: Artifactual materials recovered in association with Operations C224B (a.,c.,d.) and C224C (b.): a. limestone bar; b. limestone spindle whorl; c. small greenstone celt; d. perforated and roughly rounded sherd.

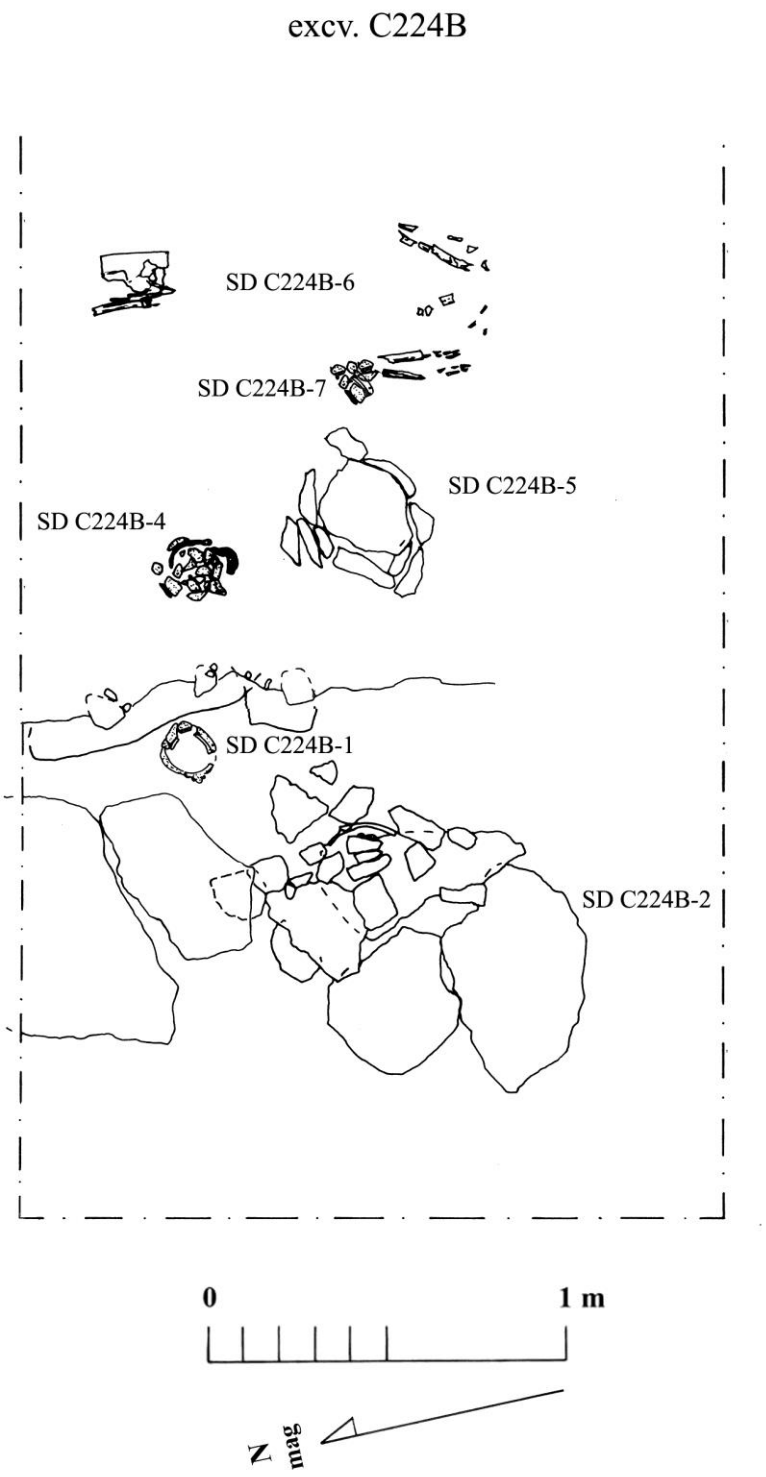

Figure 9: Detailed plan of SD C224B-1, SD 224B-4, SD C224B-6, and SD C224B-7 along with the plans of capstones associated with SD C224B-2 and SD C224B-5.

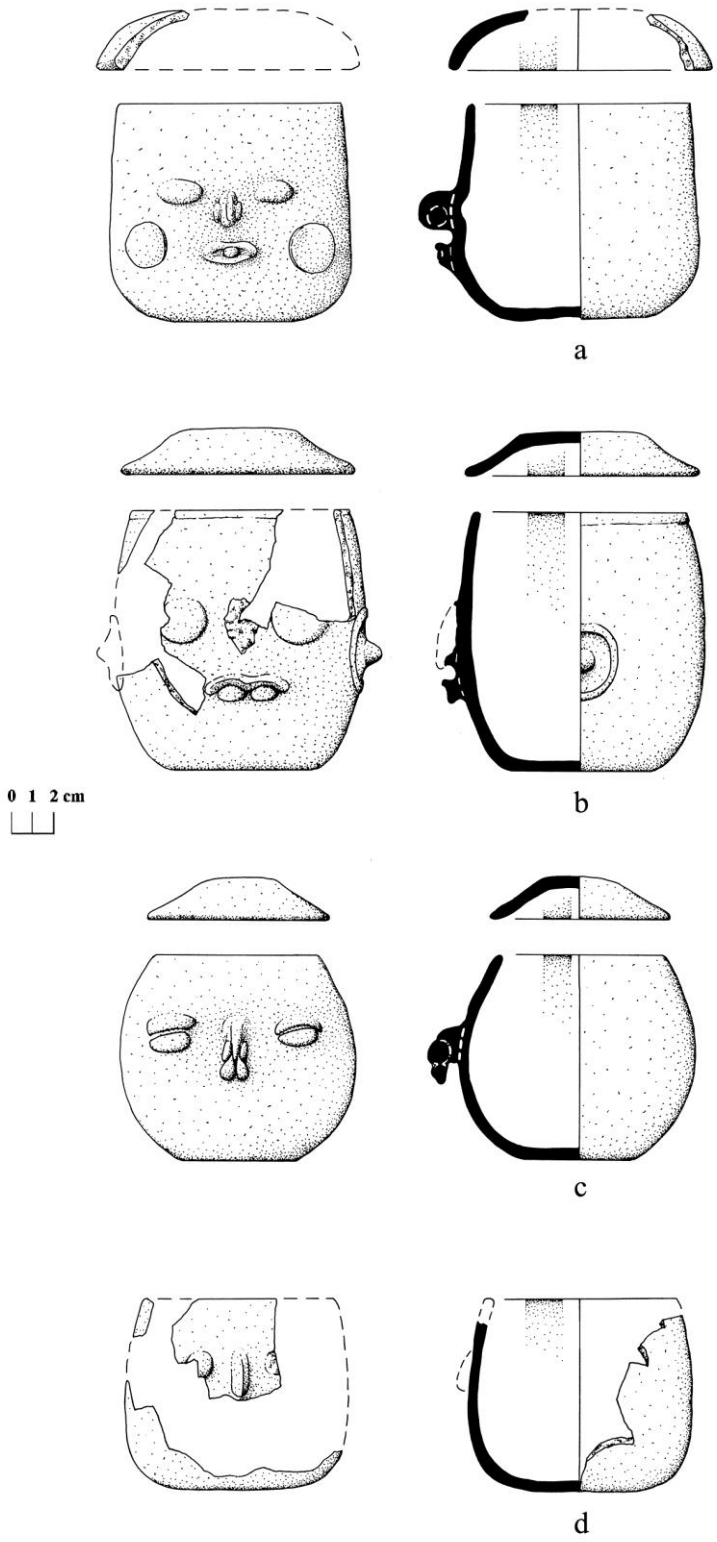

Figure 10: Face caches associated with Operation C224B: a. SD C224B-1; b. SD C224B-4; c. SD C224B-5; d. SD C224B-7.

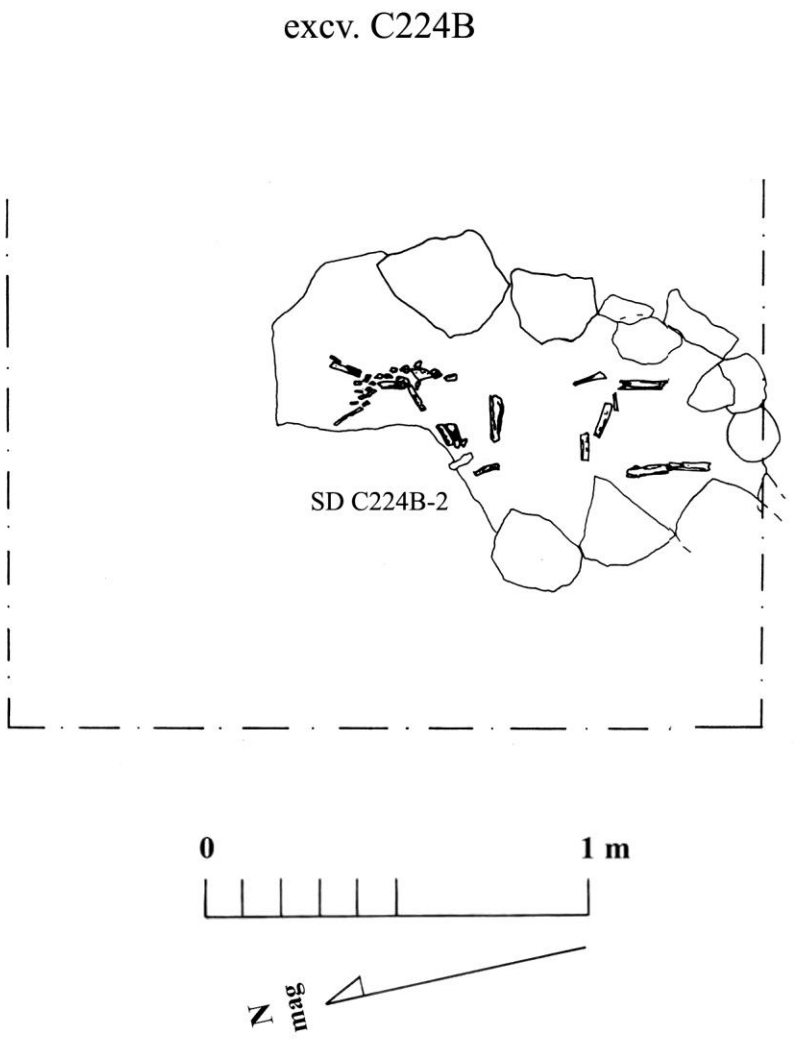

Figure 11: Detailed plan of SD C224B-2.

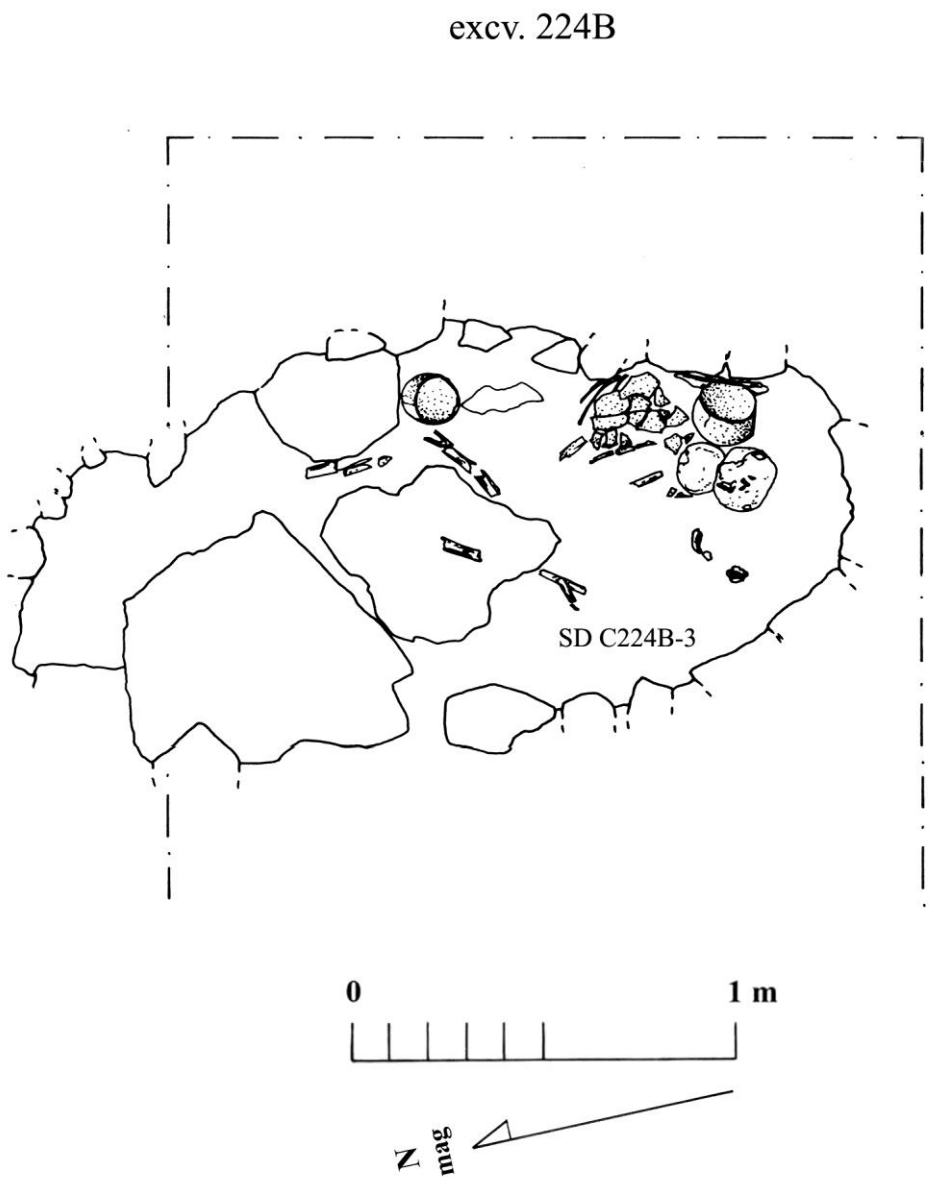

Figure 12: Detailed plan of SD C224B-3.

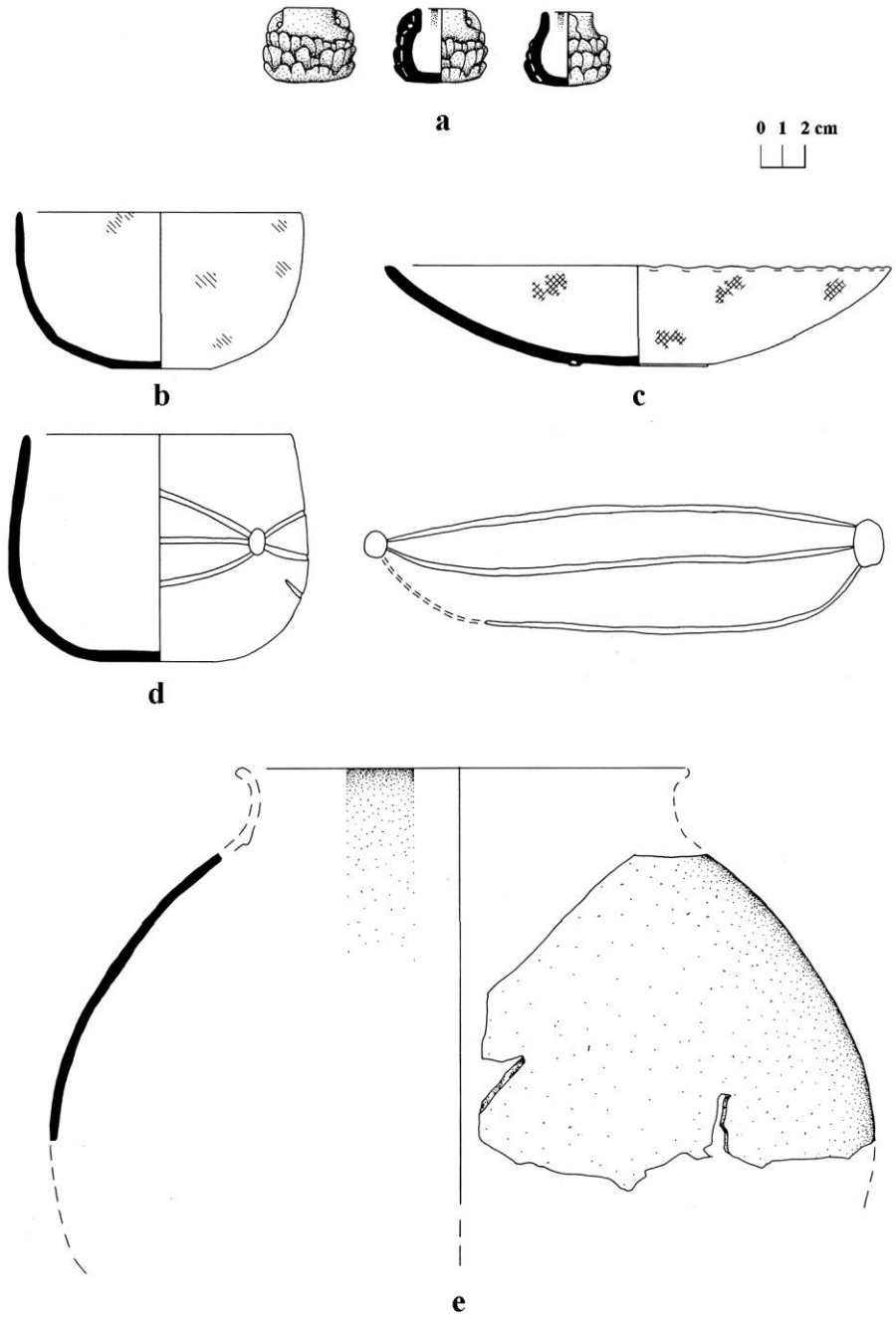

Figure 13: Pottery vessels associated with SD C224B-3: a. unnamed appliqued; b.Veracal Orange; c. probably Tialipa Brown Fluted; d. Hormiguero Modeled; e. possibly Valentin Unslipped.

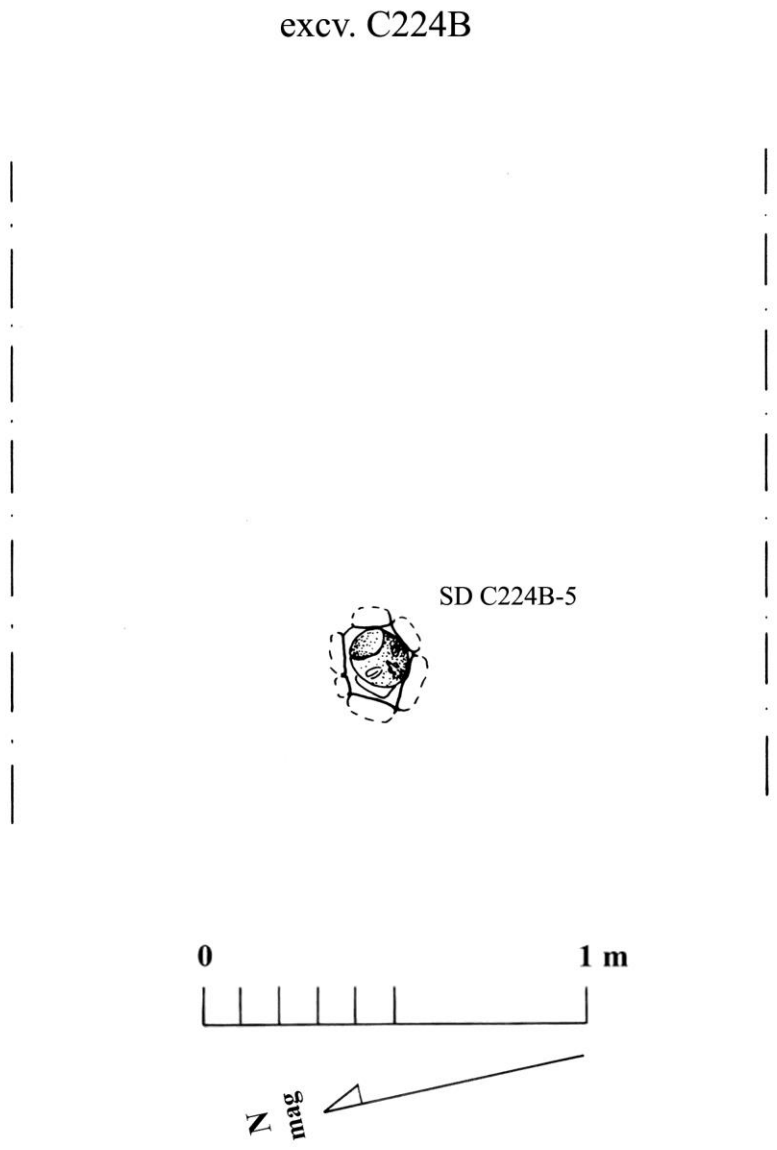

Figure 14: Detailed plan of SD C224B-5.

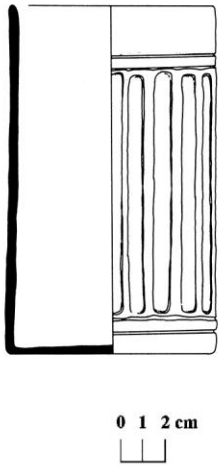

Figure 15: Ceramic vessel associated with SD C224B-6: Tenaja Fluted.

Figure 16: Photograph of Caracol Structure 4E2.

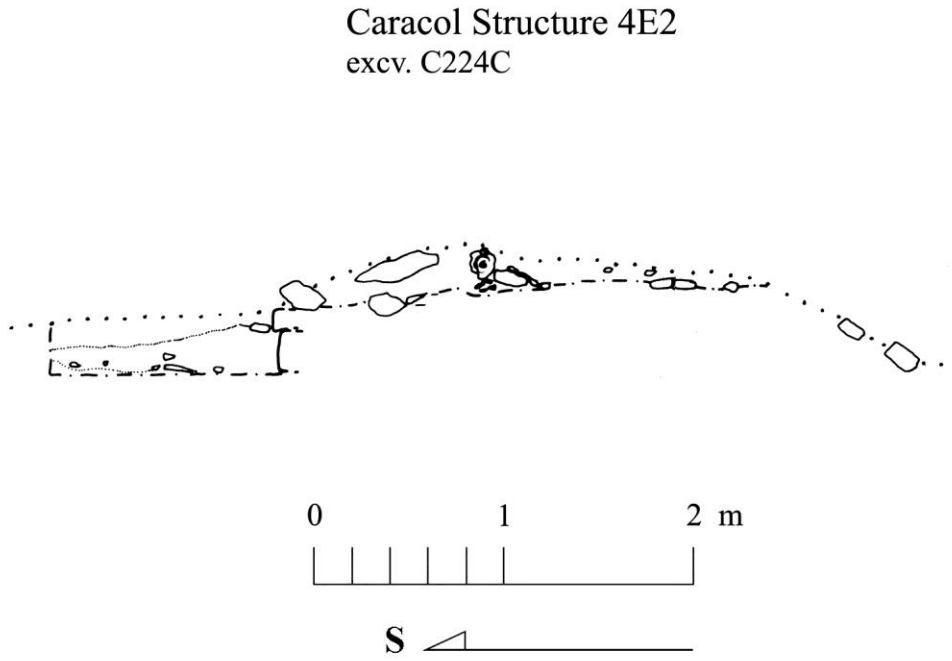

Figure 17: Section through Caracol Structure 4E2, as revealed by Operation C224C.

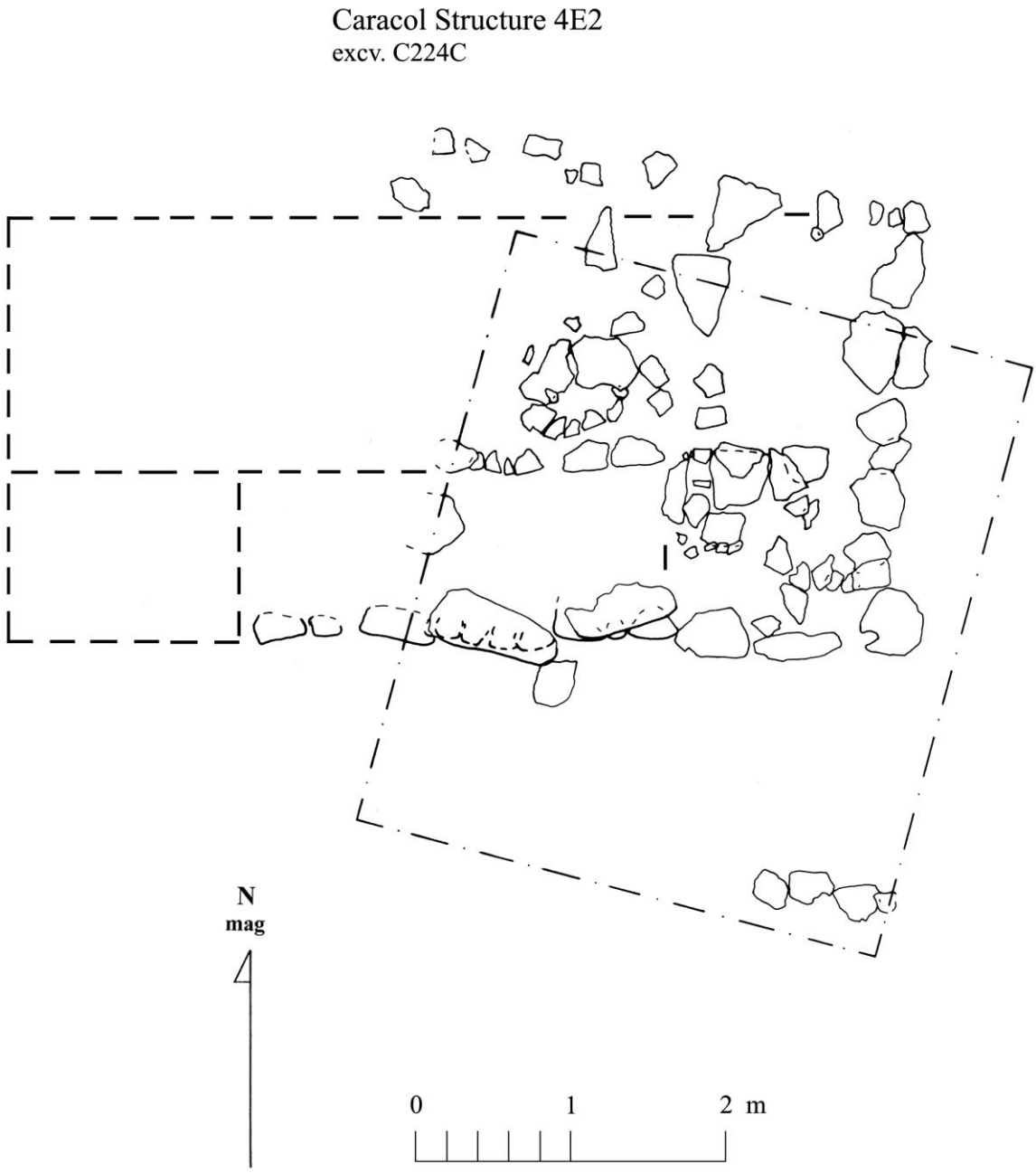

Figure 18: Plan of latest building associated with Caracol Structure 4E2.

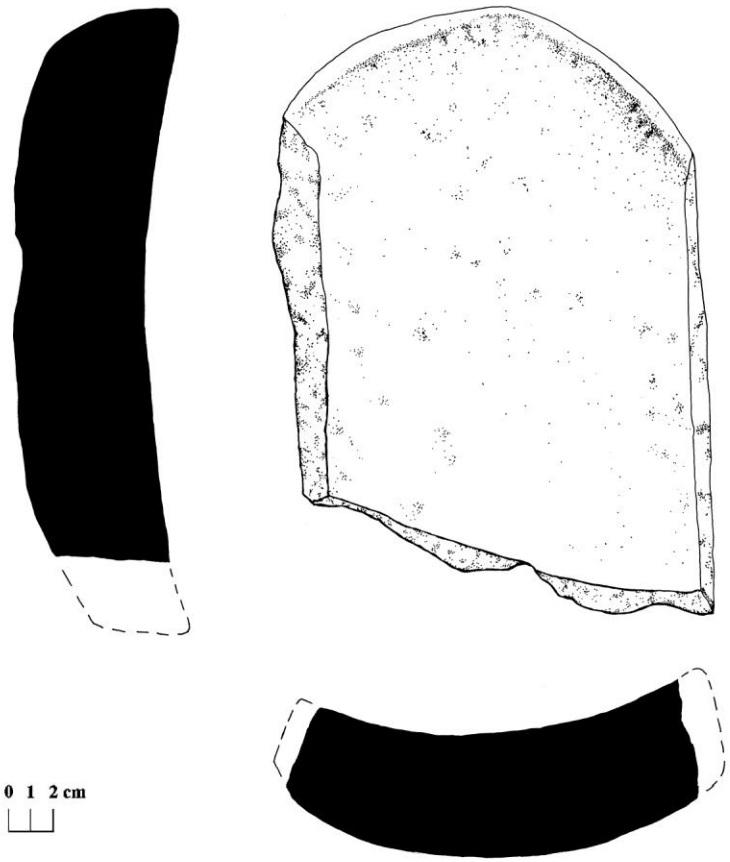

Figure 19: Metate associated with Caracol Structure 4E2.

Figure 20: Photographs of Caracol Structure 4E6, showing SDs C225B-2 and C225B-3 (upper) and end of excavation (lower).

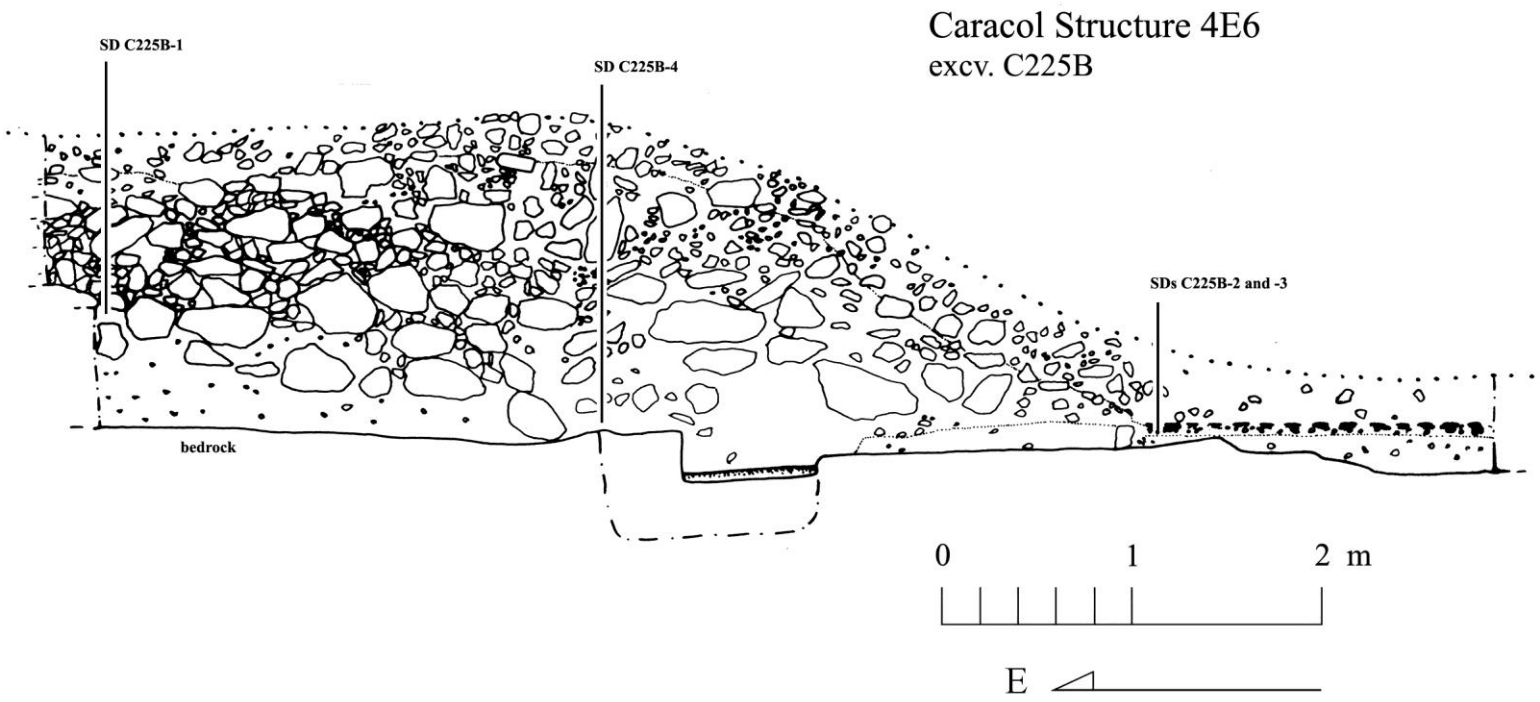

Figure 21: Section through Caracol Structure 4E6, as revealed by Operation C225B.

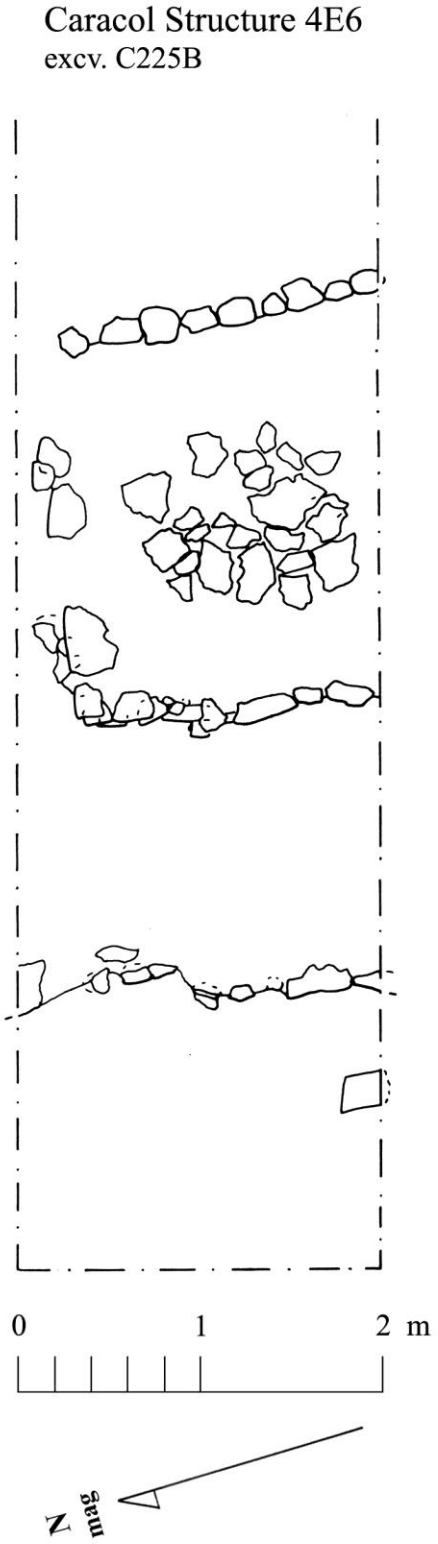

Figure 22: Plan of architectural features in trench through Caracol Structure 4E6.

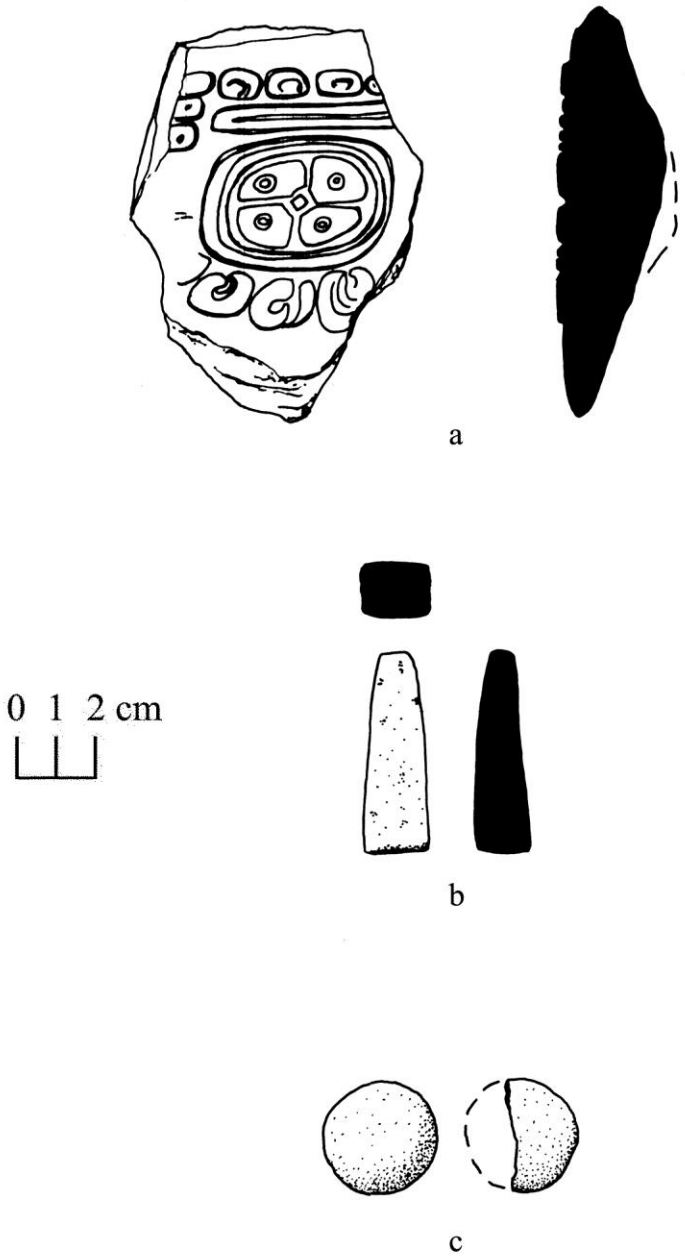

Figure 23: Artifactual material recovered in Operation C225B: a. slate monument fragment; b. limestone bar; c. broken quartzite ball.

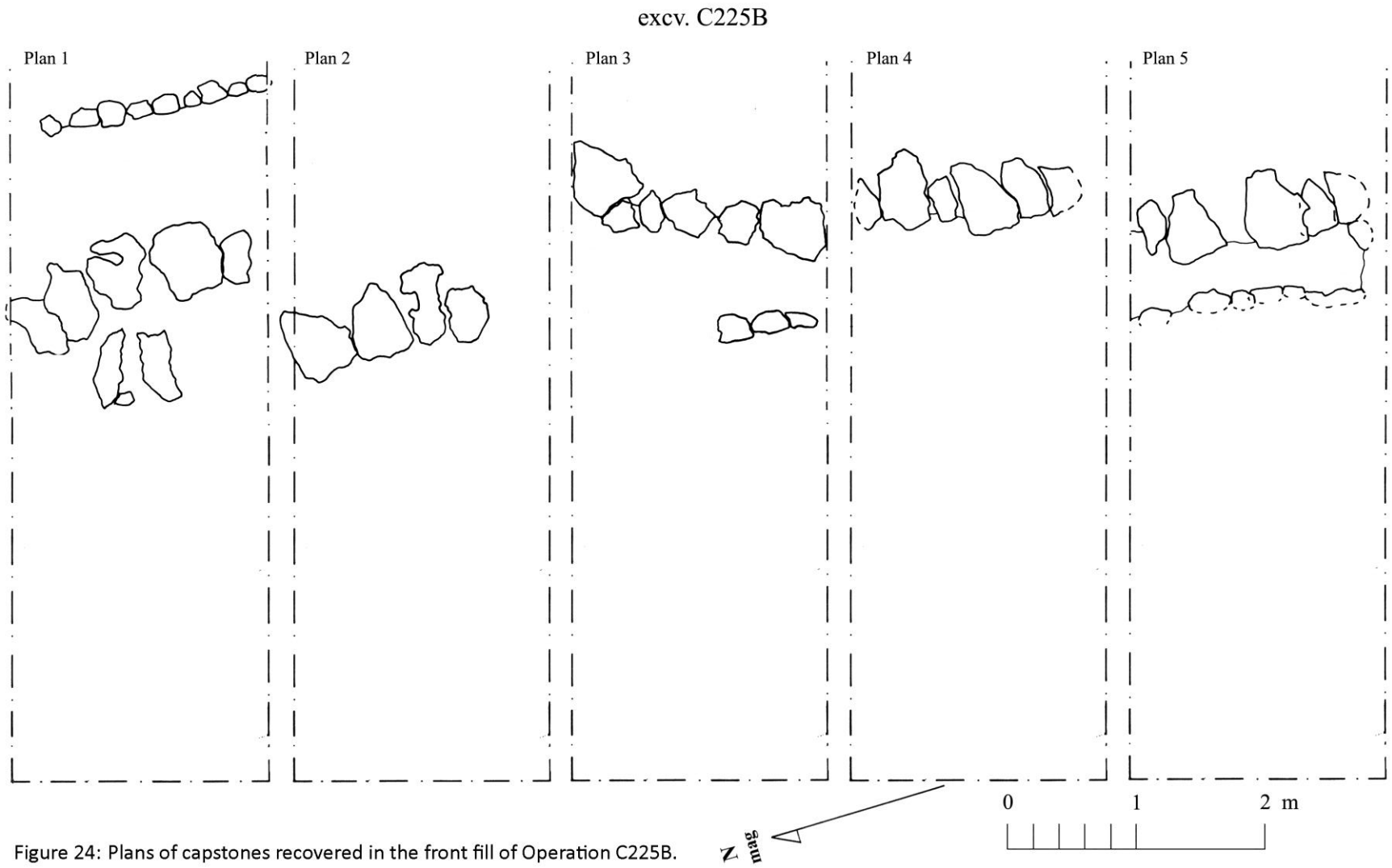

Figure 24: Plans of capstones recovered in the front fill of Operation C225B.

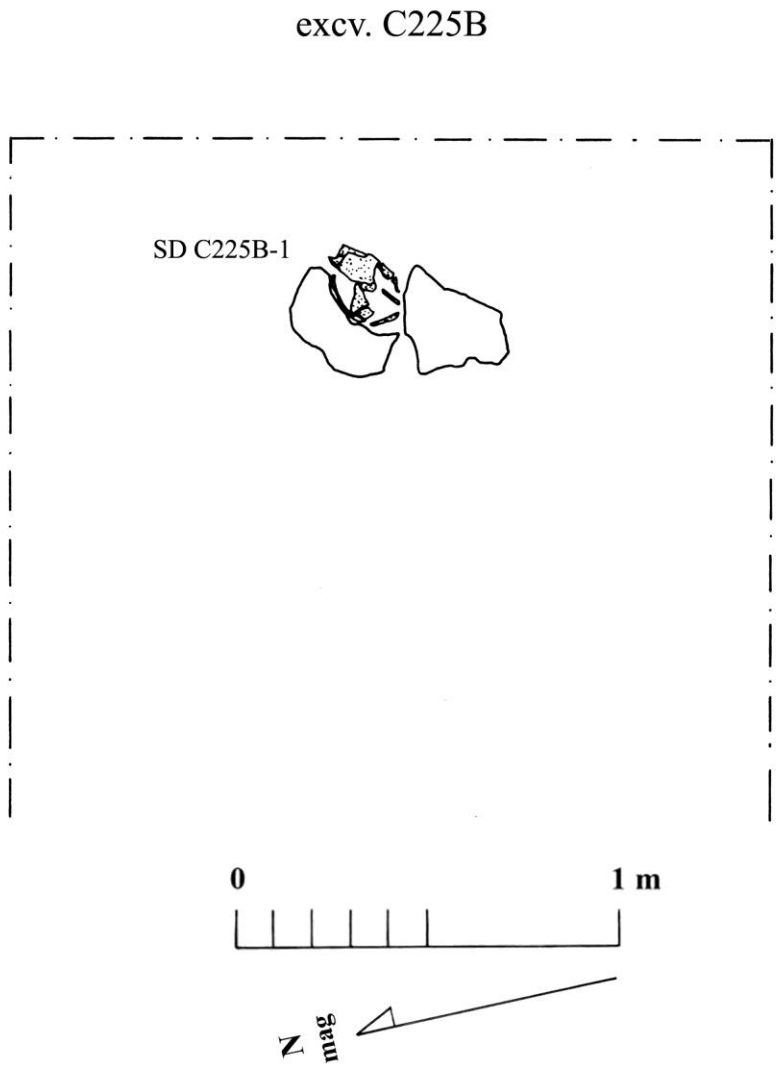

Figure 25: Detailed plan of SD C225B-1.

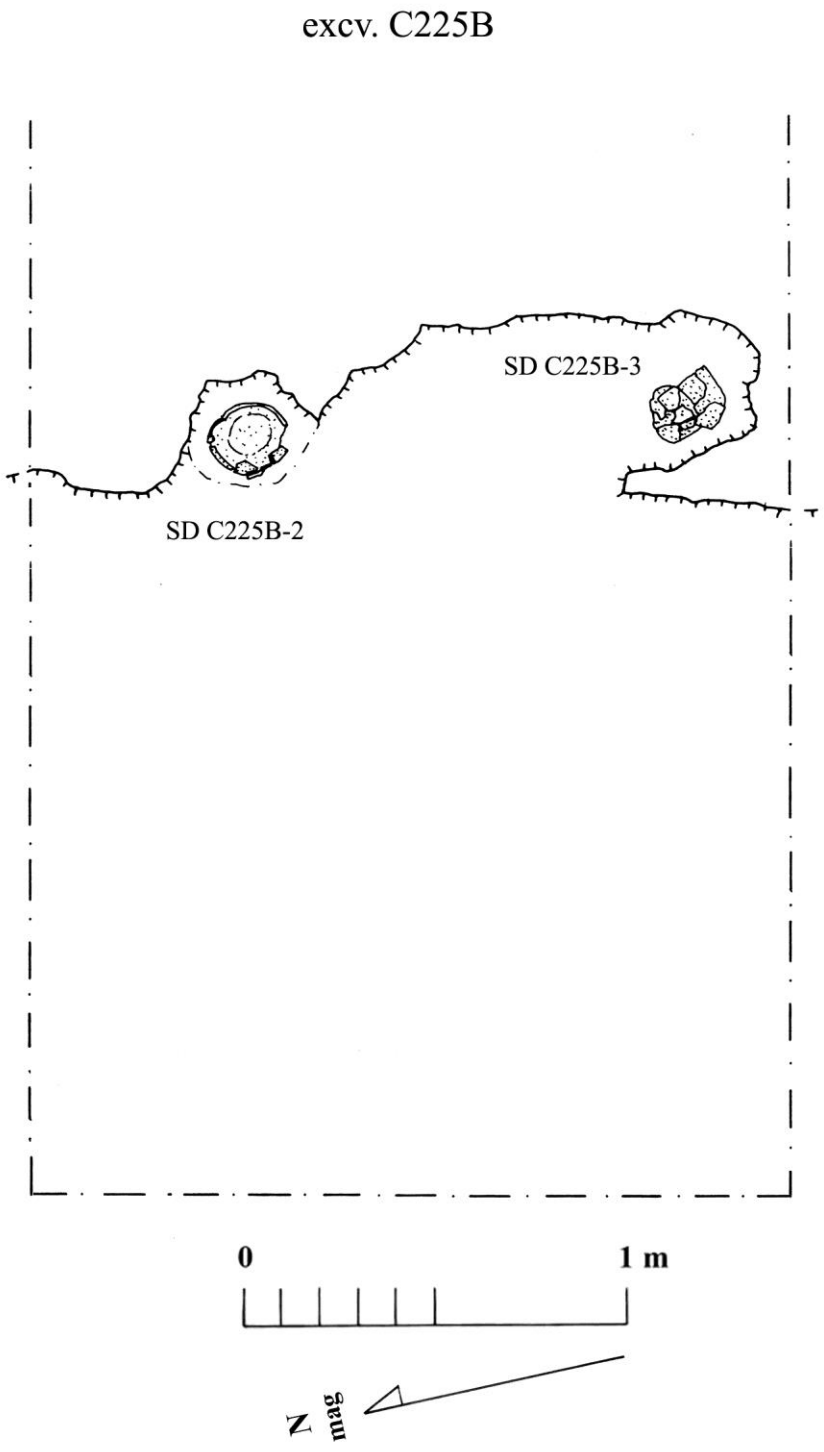

Figure 26: Detailed plan of SDs C225B-2 and C225B-3.

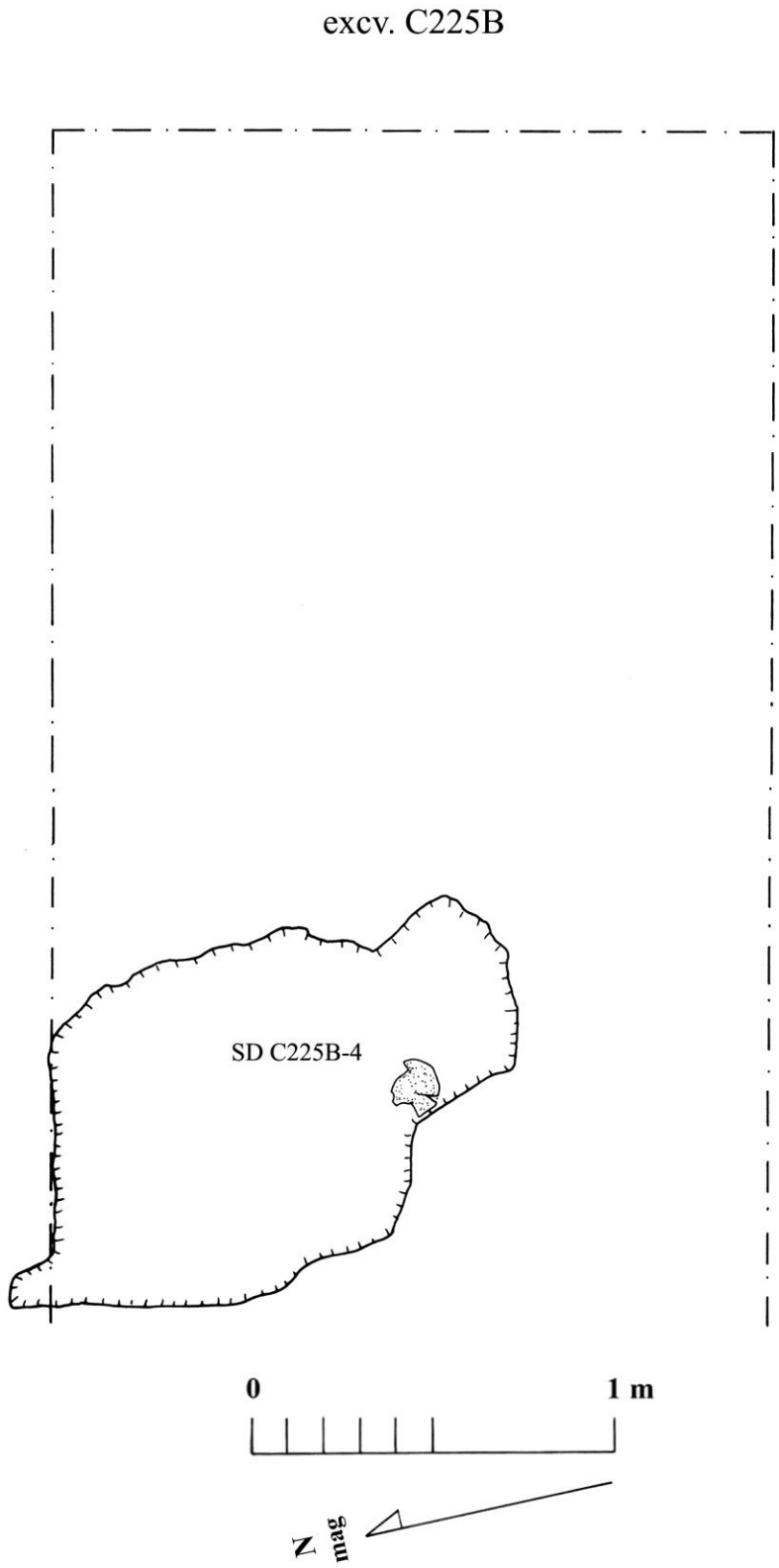

Figure 27: Detailed plan of SD C225B-4.

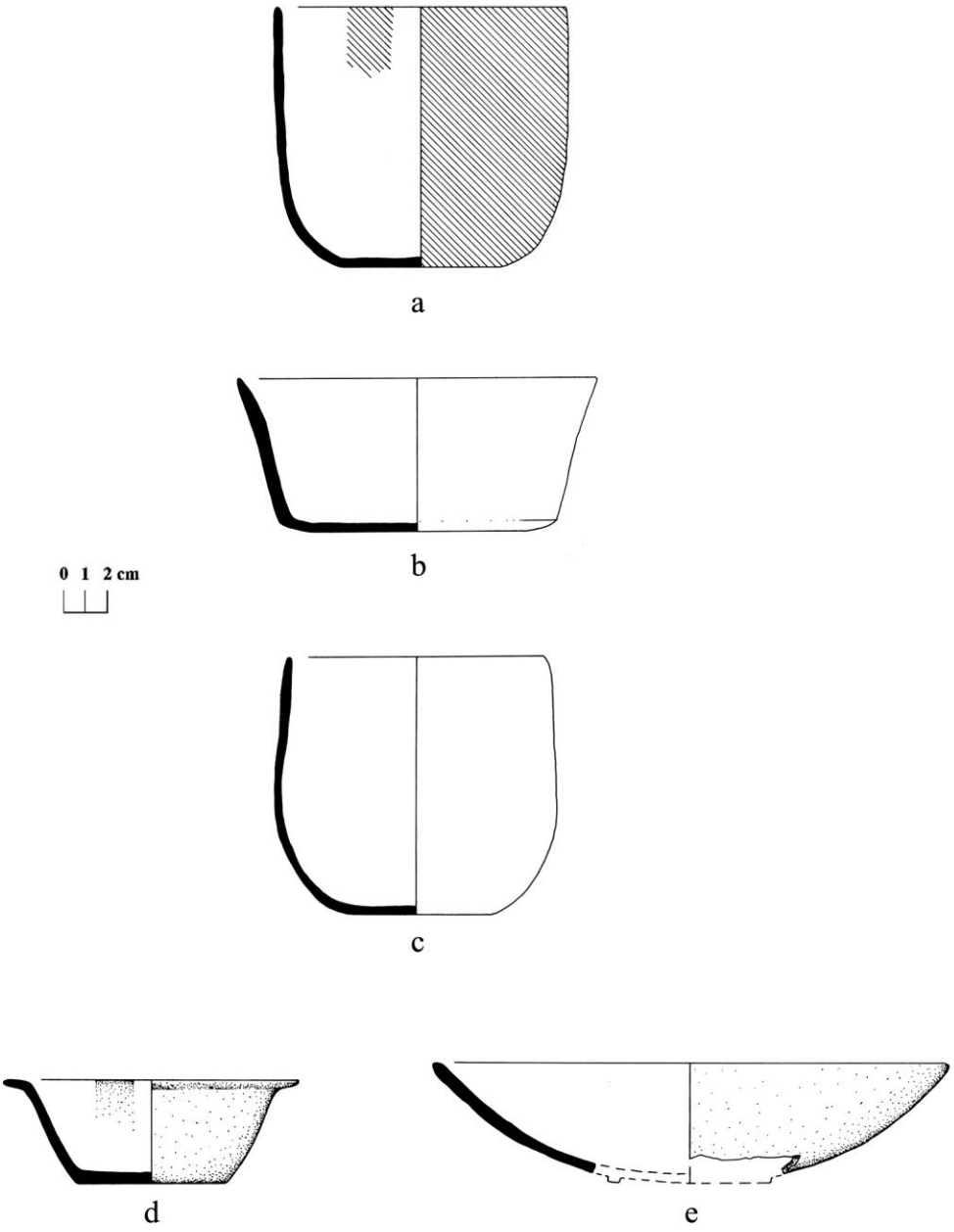

Figure 28: Ceramic vessels associated with the C225B special deposits: a. Bontifela Orange (SD C225B-1); b. eroded Molino Black (SD C225B-2); c. eroded Palmar Orange-Polychrome (SD C225B-3); d. possibly Paila Unslipped (SD C225B-4); e. eroded Machete Orange-Polychrome (SD C225B-4).

Figure 29: Photographs of Caracol Structure 4E5, showing upper platform defining tomb area and entryway (upper) as well as the final trench (lower).

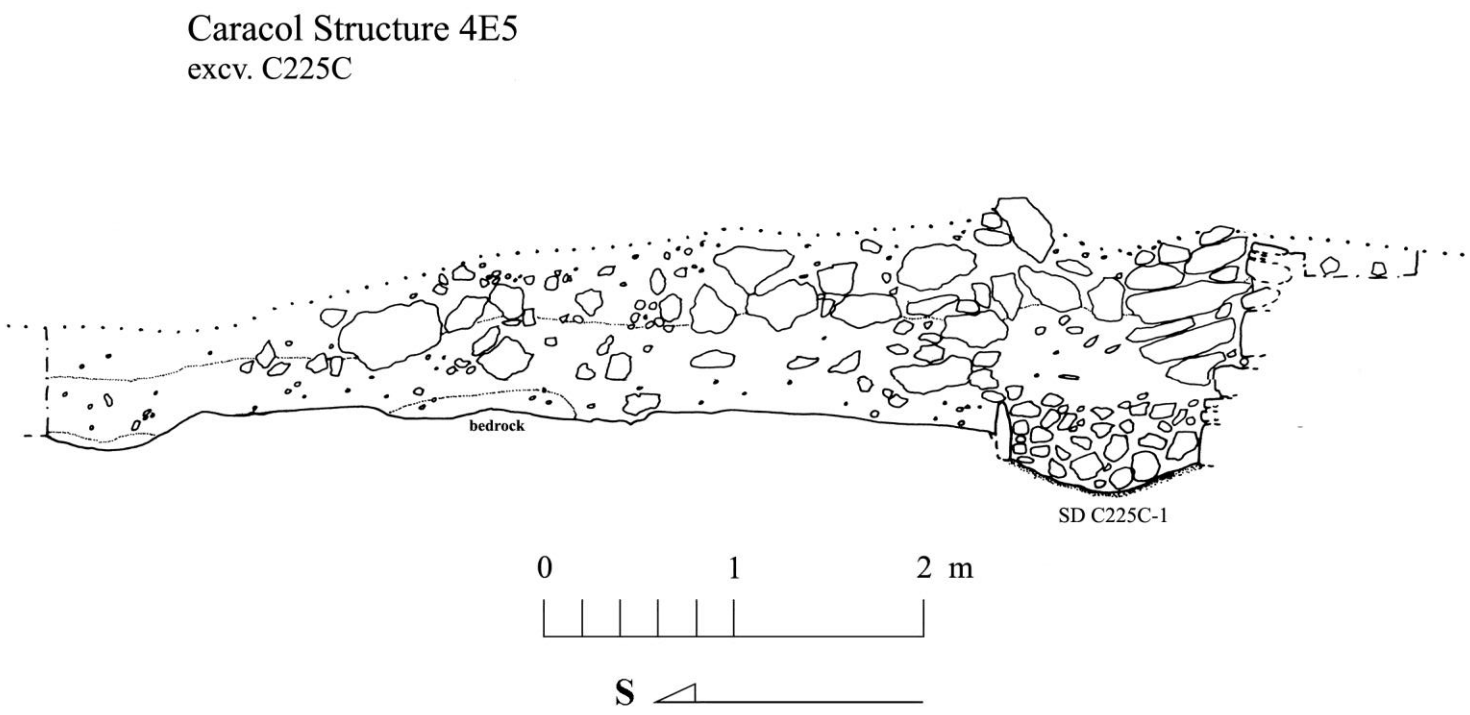

Figure 30: Section through Caracol Structure 4E5, as revealed by Operation C225C.

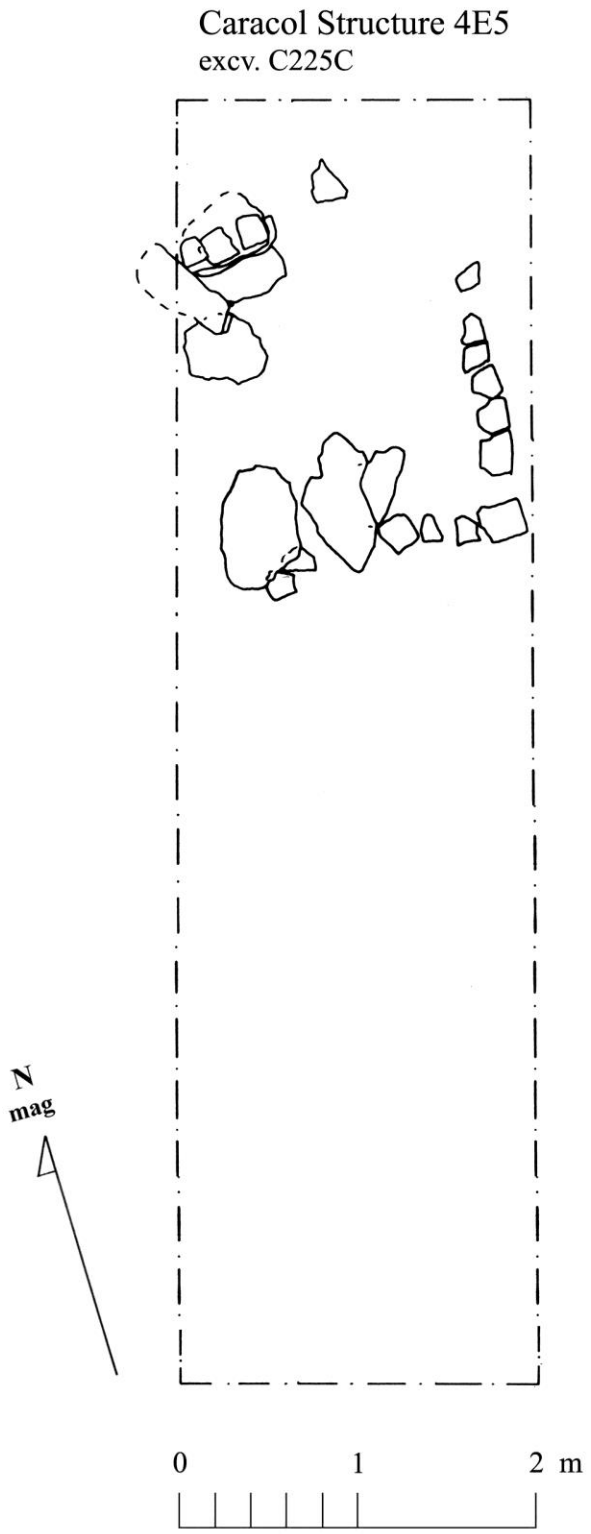

Figure 31: Plan of architectural features evident after removal of humus in Operation C225C.

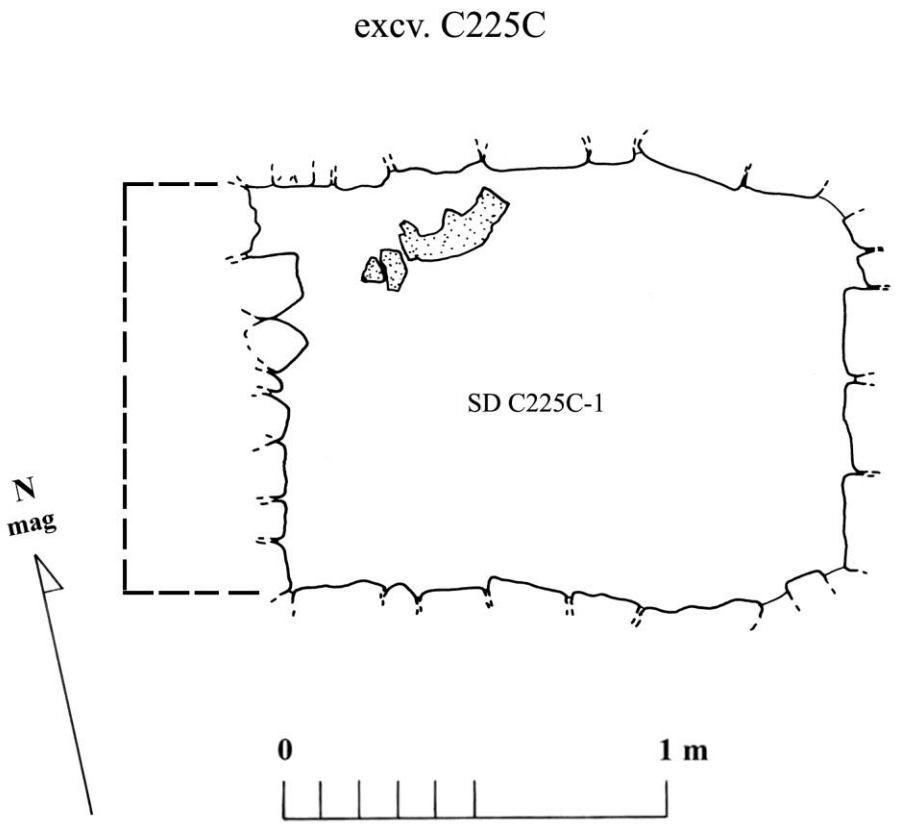

Figure 32: Detailed plan of tomb recovered in Caracol Structure 4E5.

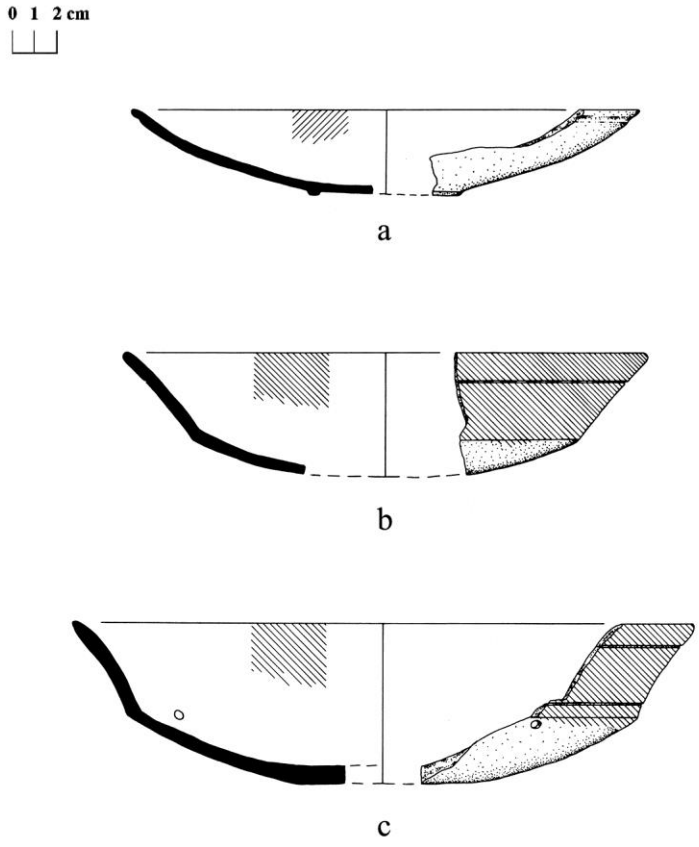

Figure 33: Partial ceramic vessels recovered from Operations C225C and C225D: a. Pajarito Orange Polychrome (SD C225C-1); b. Belize Red (SD C225C-1); c. Belize Red (C225D).

Figure 34: Photographs of Caracol Structure 4E10, looking east (upper) and at detail of earlier constructions (lower).

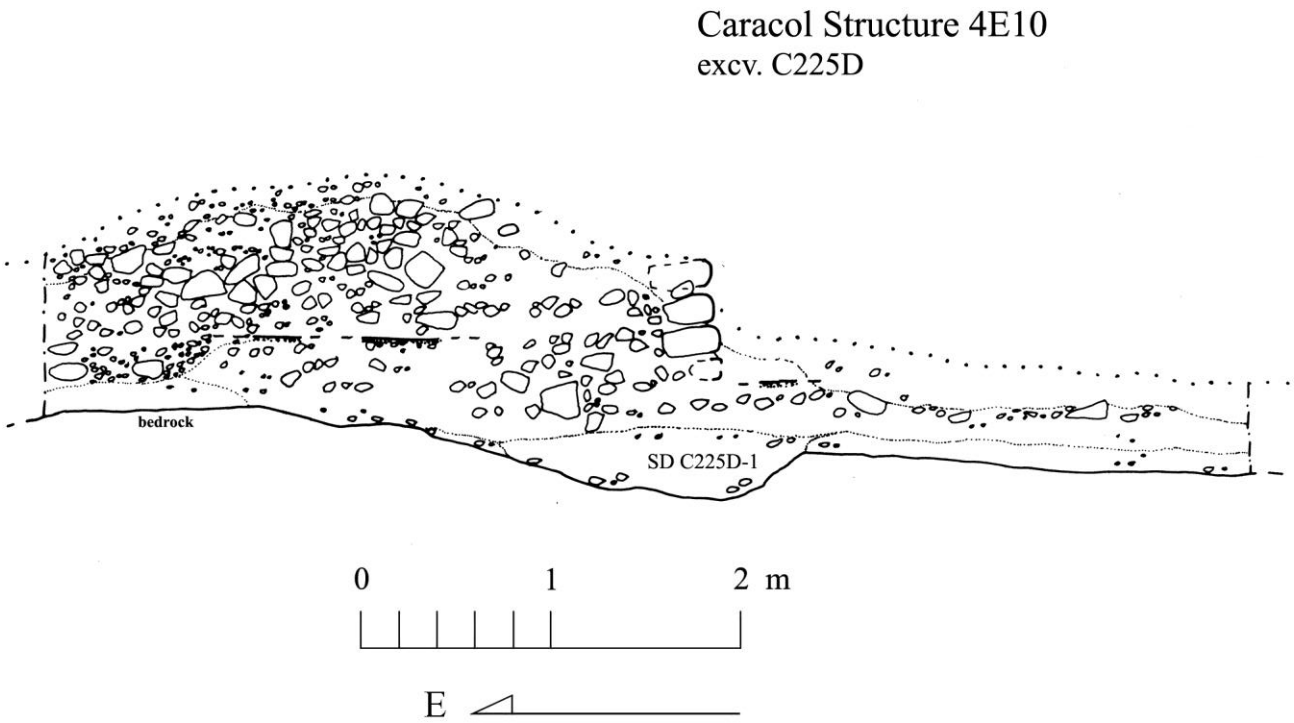

Figure 35: Section through Caracol Structure 4E10, as revealed by Operation C225D.

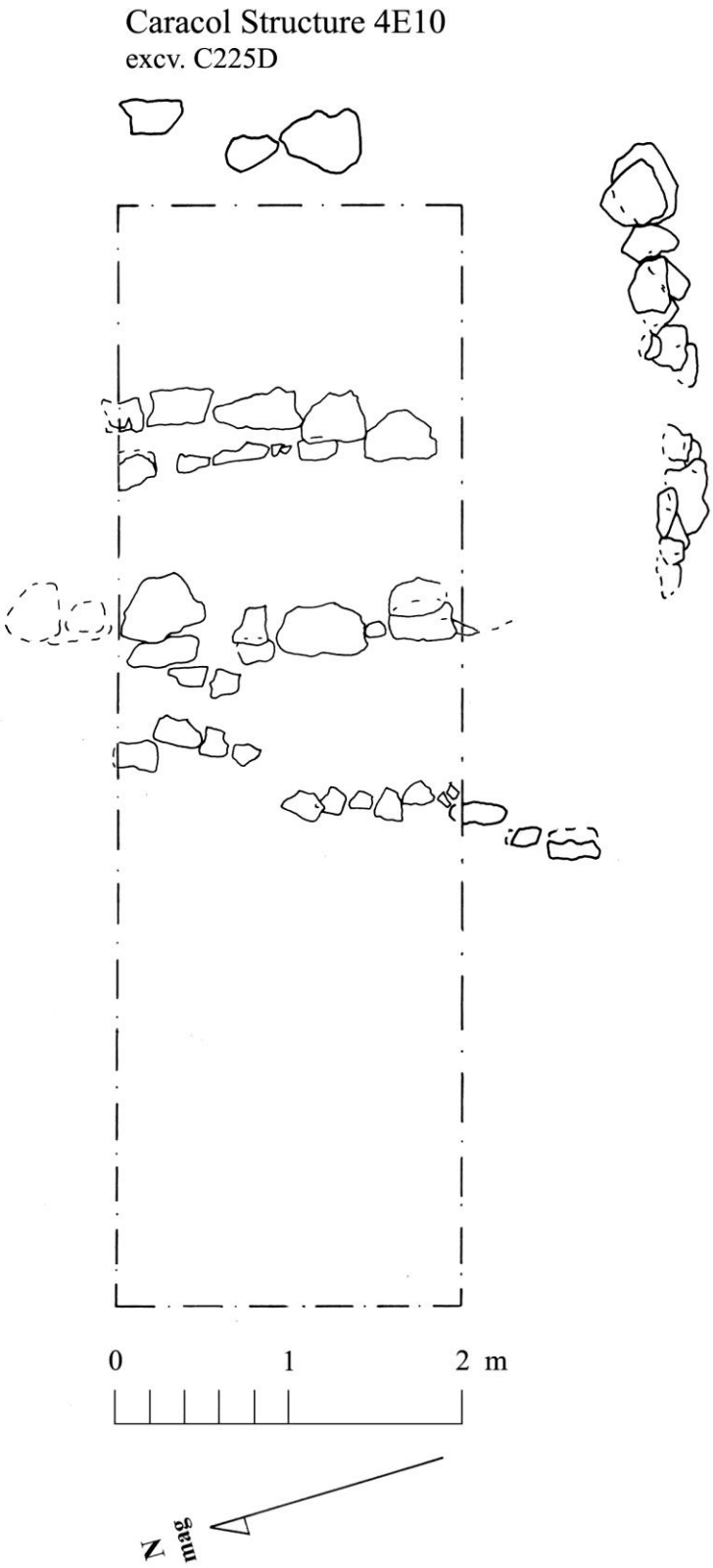

Figure 36: Plan of architectural features associated with latest version of Caracol Structure 4E10.

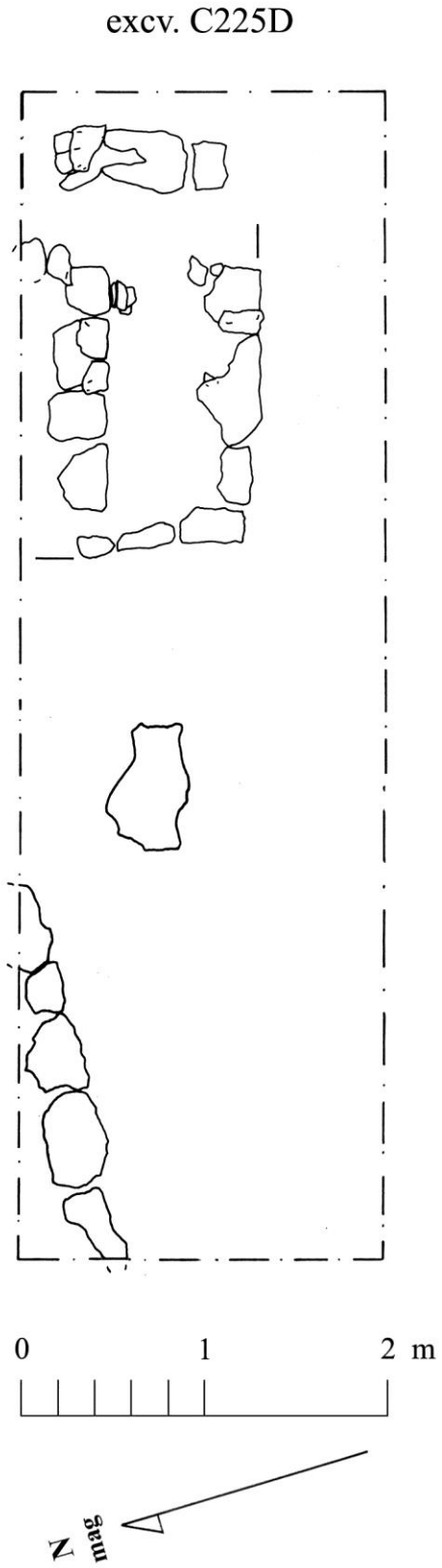

Figure 37: Plan of earlier architectural features uncovered in Operation C225D.

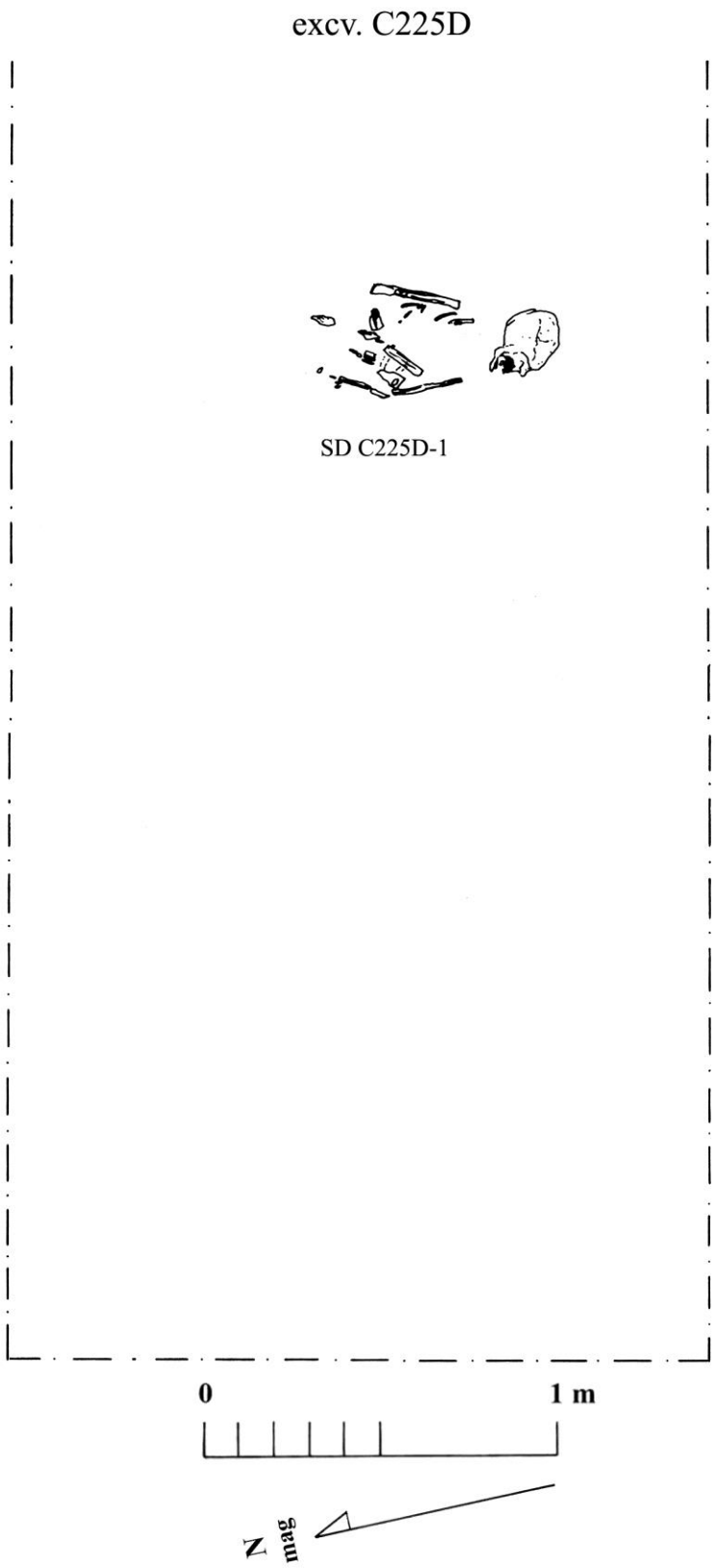

Figure 38: Detailed plan of SD C225D-1.

Figure 39: Photograph of Caracol Structure 4E8 and steps on bedrock.

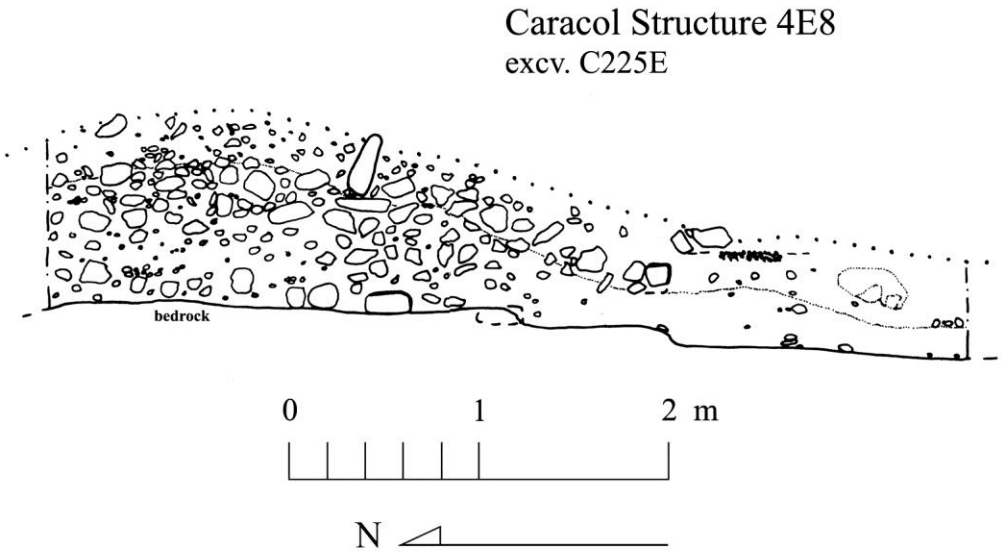

Figure 40: Section through Caracol Structure 4E8, as revealed by Operation C225E.

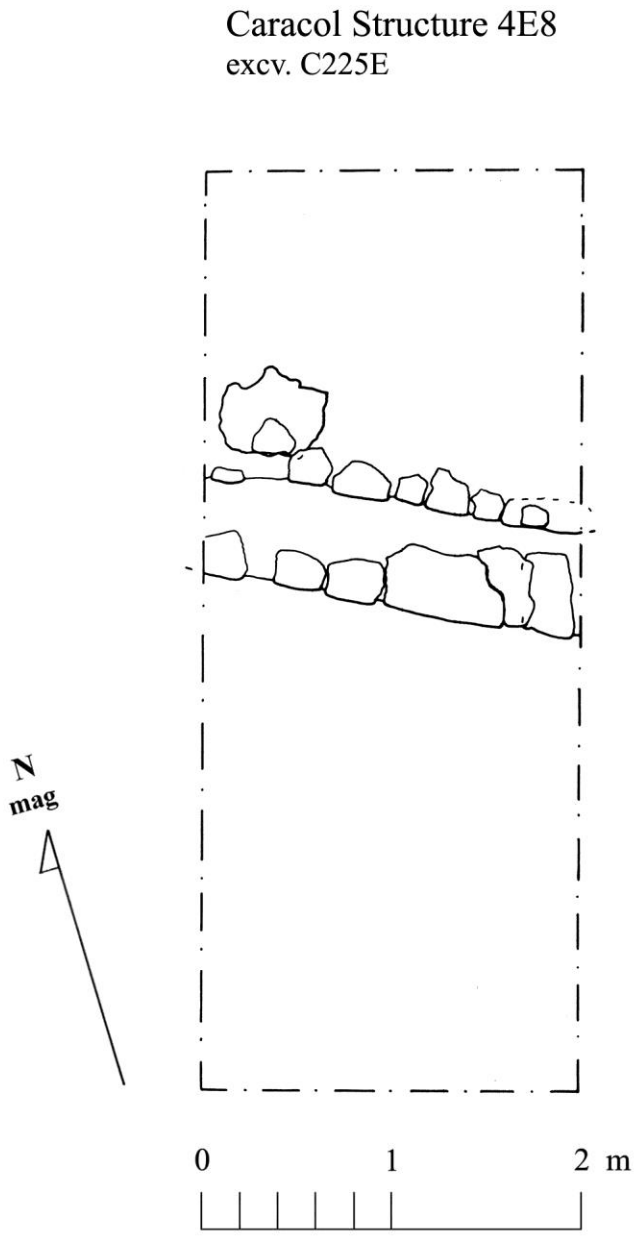

Figure 41: Deeply buried steps set on bedrock uncovered in Operation C225E.

Figure 42: Photographs of Caracol Structure 4E14, showing axial trench looking east (upper) and SD C226B-1 looking west (lower).

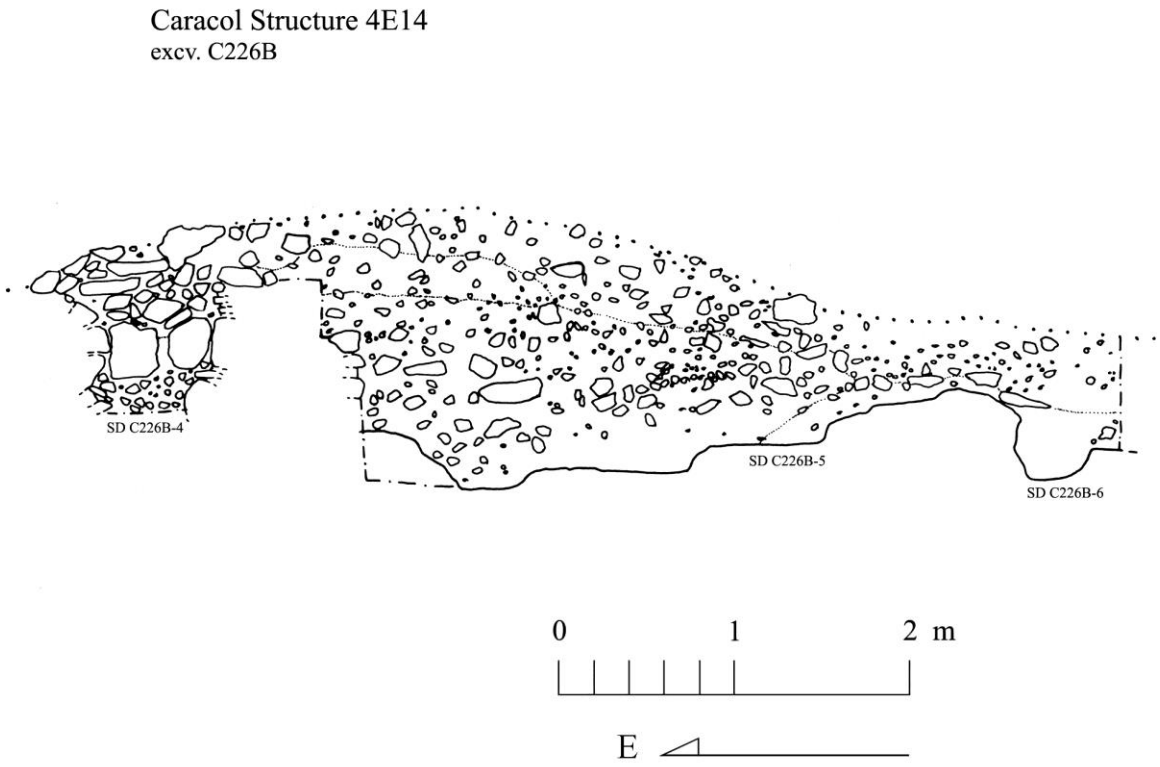

Figure 43: Section through Caracol Structure 4E14, as revealed by Operation C226B.

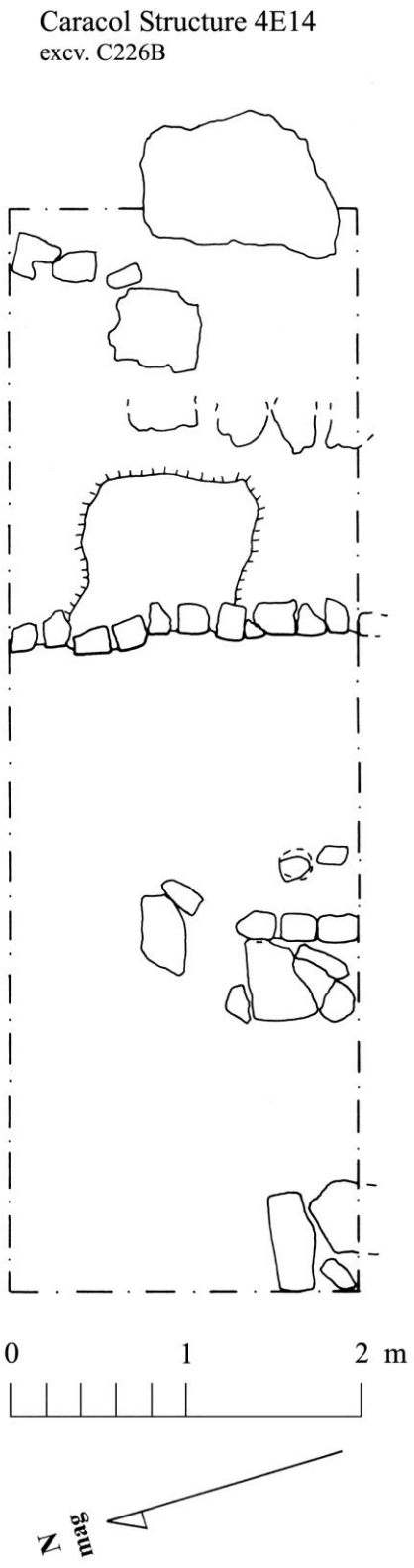

Figure 44: Plan of architectural features and capstones associated with Caracol Structure 4E14.

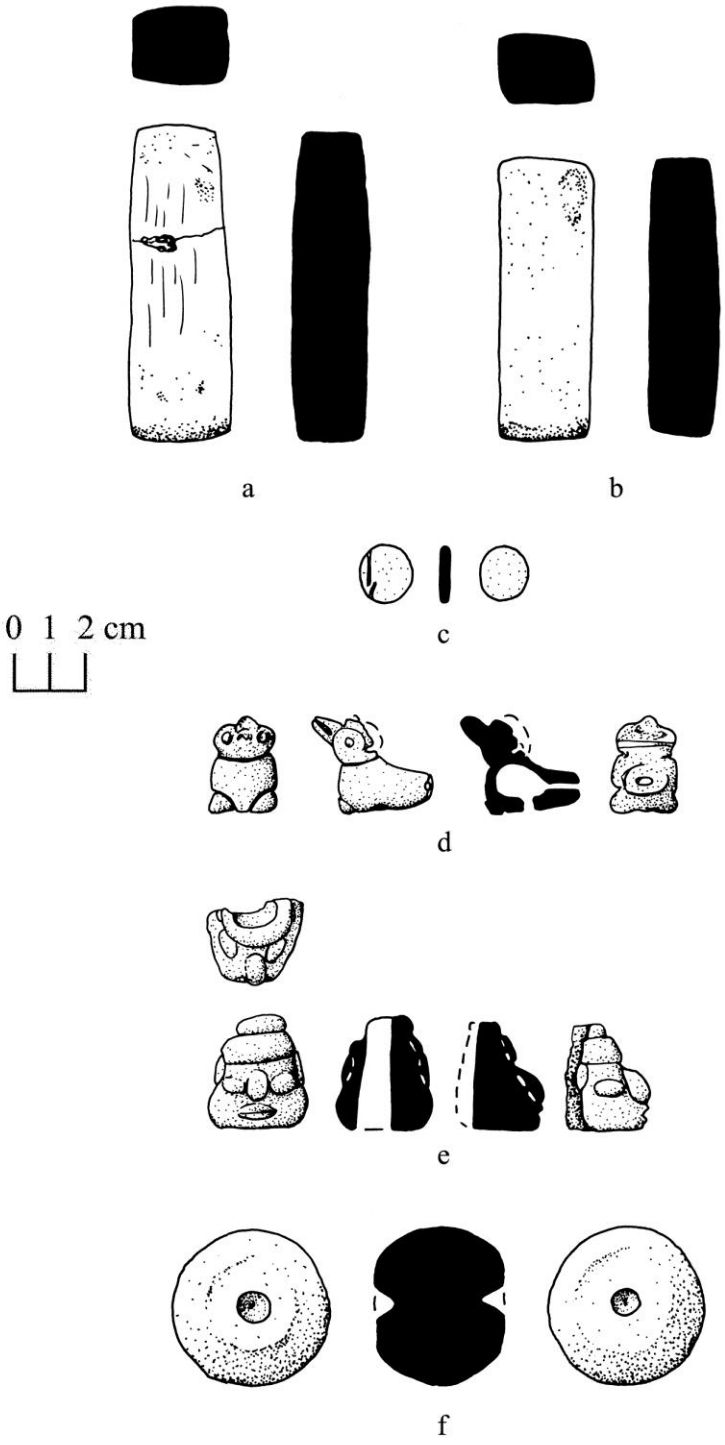

Figure 45: Artifactual materials associated with Caracol Structures 4E14 and 4E16: a., b. limestone bars (SD C226B-1); c. worked conch shell disc (SD C226B-4); d. ceramic whistle; e. ceramic figurine head (probably part of a whistle); f. partially drilled limestone ball.

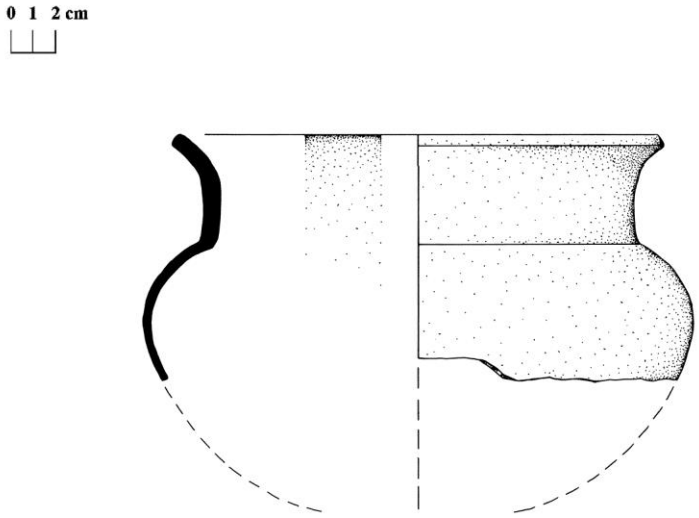

Figure 46: Large collared ceramic bowl (or wide-mouth olla) found adjacent to the front steep (north side) in Operation C226B.

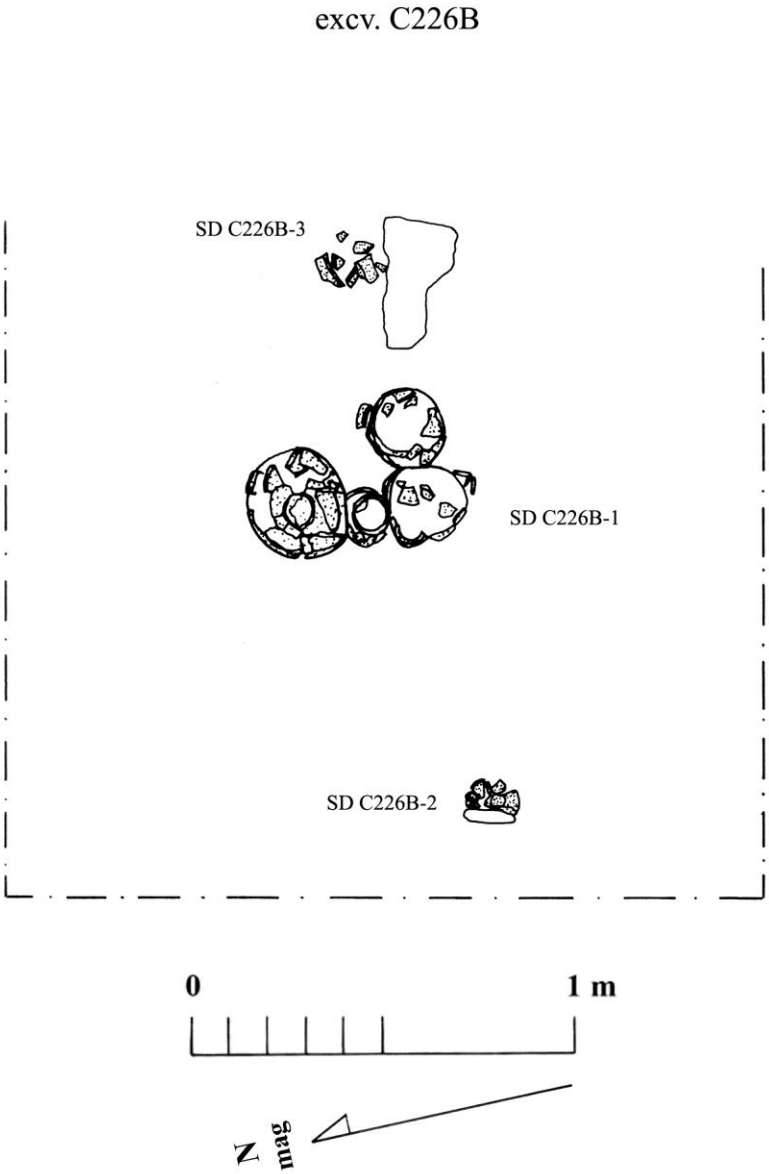

Figure 47: Detailed plans of SD C226B-1, SD C226B-2, and SD C226B-3 in front of Structure 4E14.

Figure 48: Detailed plan of oyster shells in northern set of vessels in SD C226B-1.

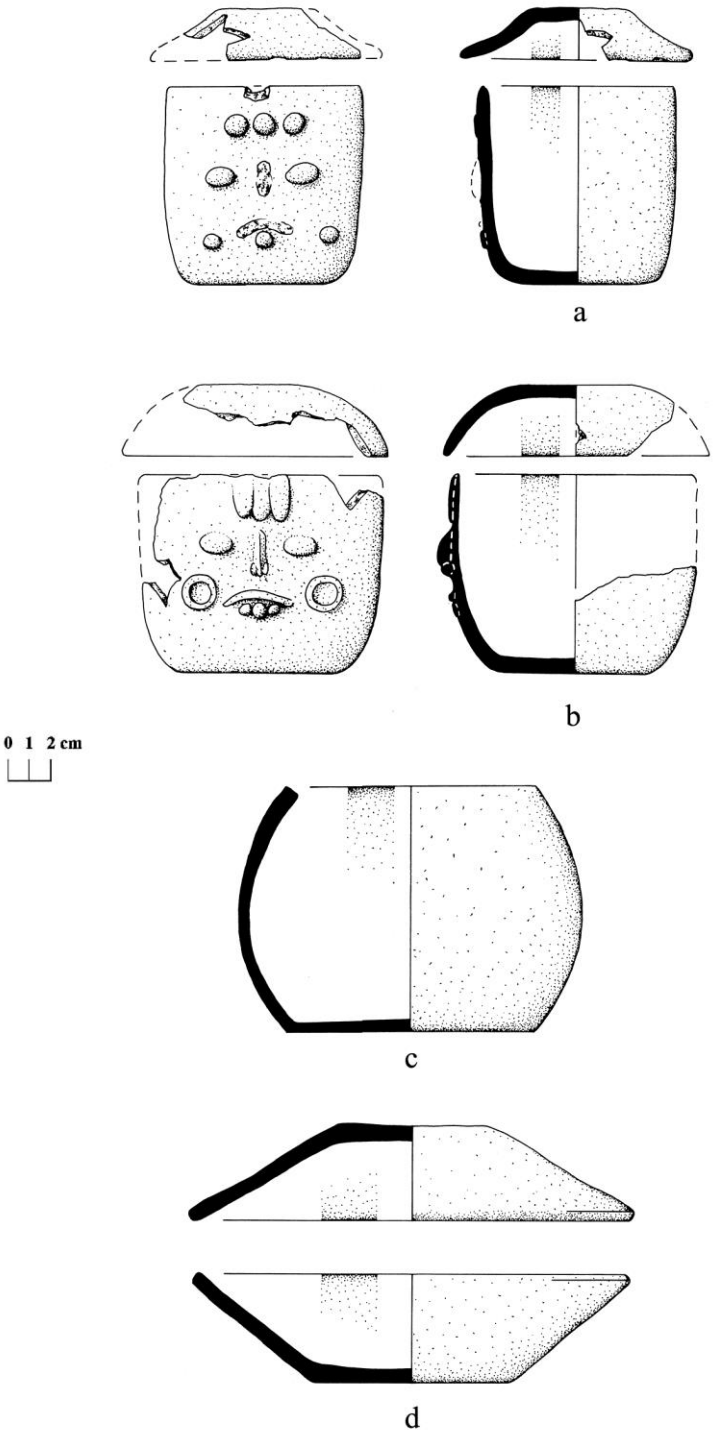

Figure 49: Ceramic containers associated with SD C226B-1: a., b. Hebe Modeled; c., d. Ceiba Unslipped.

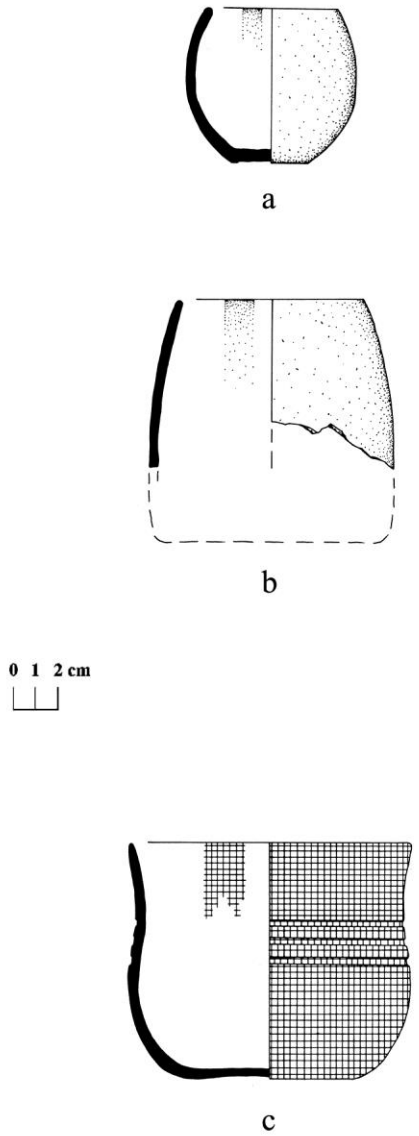

Figure 50: Ceramic vessels associated with other SDs in Operation C226B: a. Ceiba Unslipped (SD C226B-2); b. Ceiba Unslipped (SD C226B-3); c. possibly Tialipa Incised (SD C226B-5).

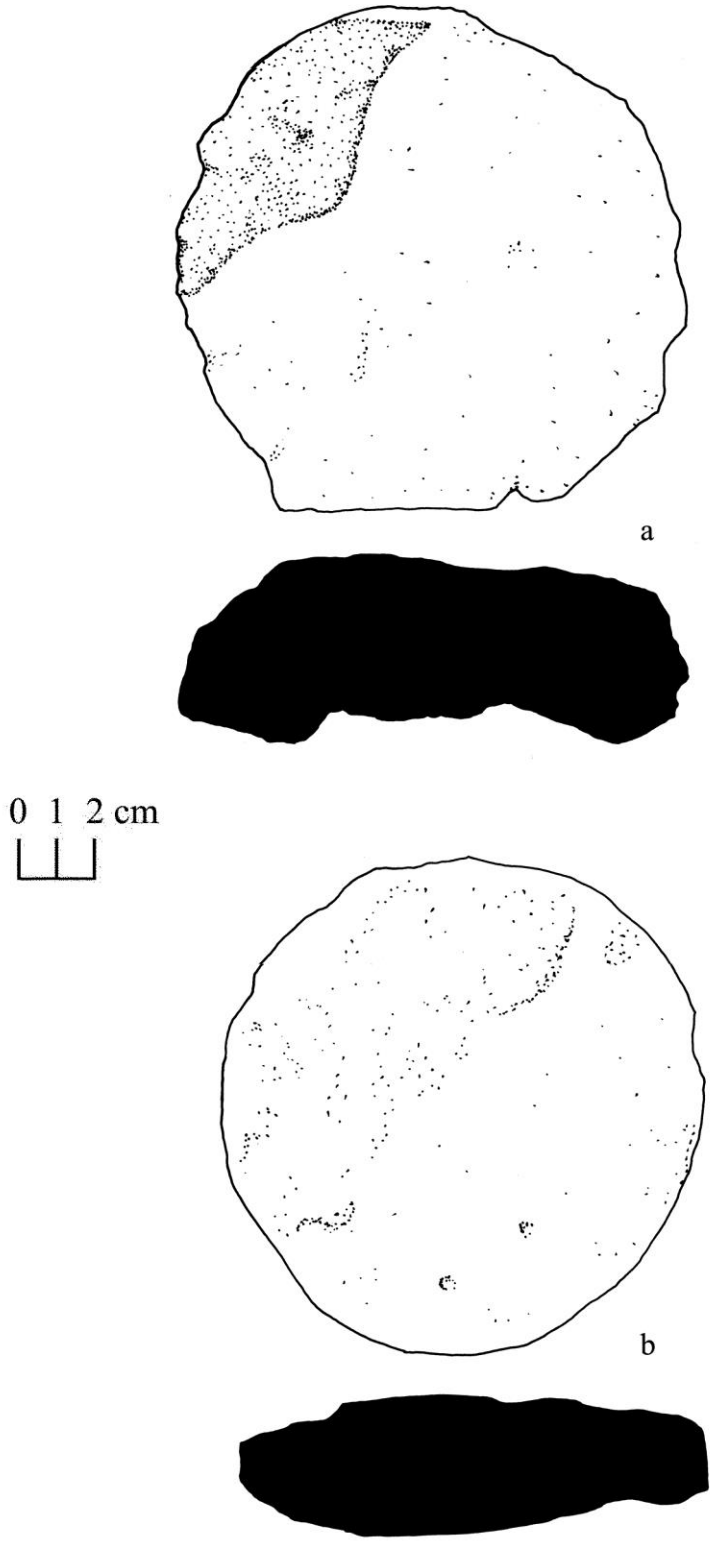

Figure 51: Limestone pot-lids from Operation C226B (b is from SD C226B-2).

excv. C226B

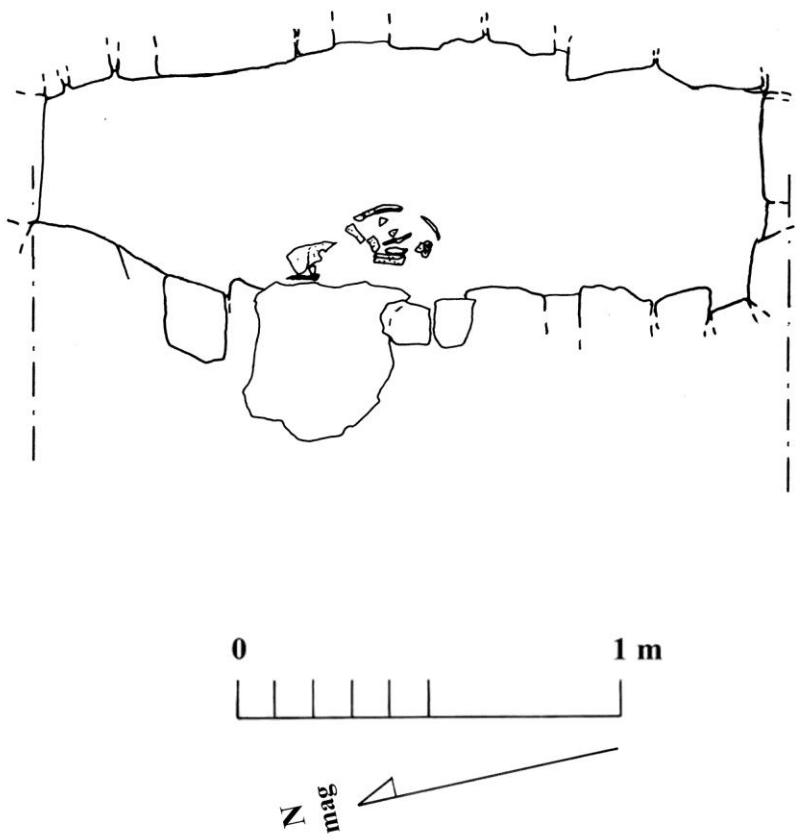

Figure 52: Plan of rear chamber upper stones, showing location and plan of two partial ceramic burners.

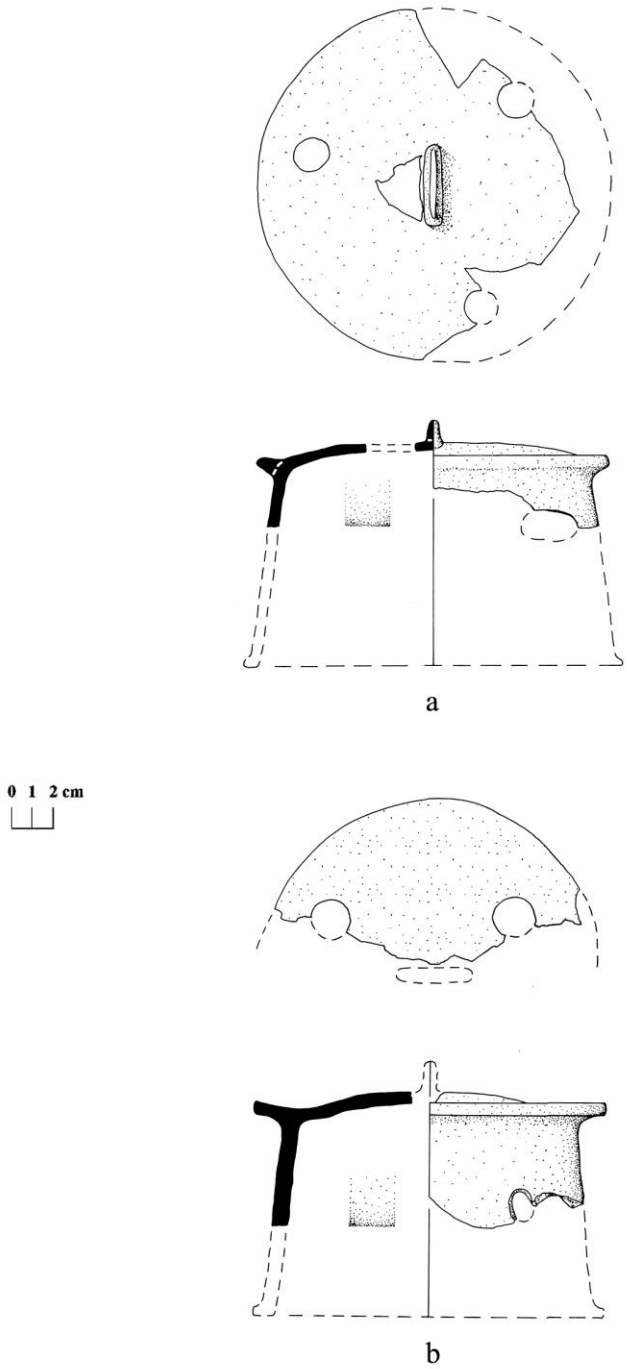

Figure 53: Ceramic burners recovered immediately above SD C226B-4, both probably Monterey Modeled.

SD C226B-4

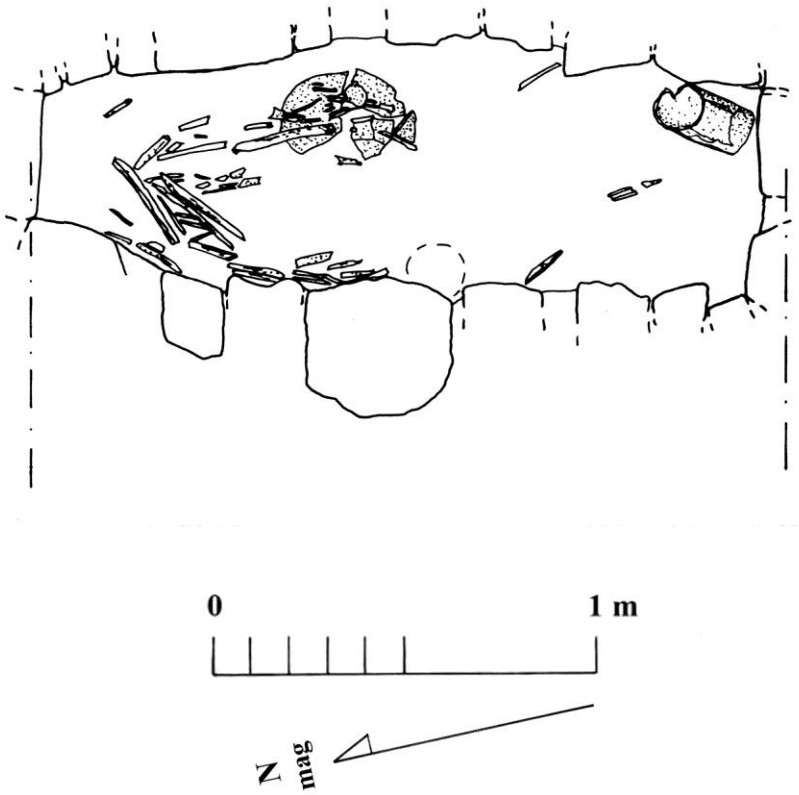

Figure 54: Detailed plan of SD C226B-4.

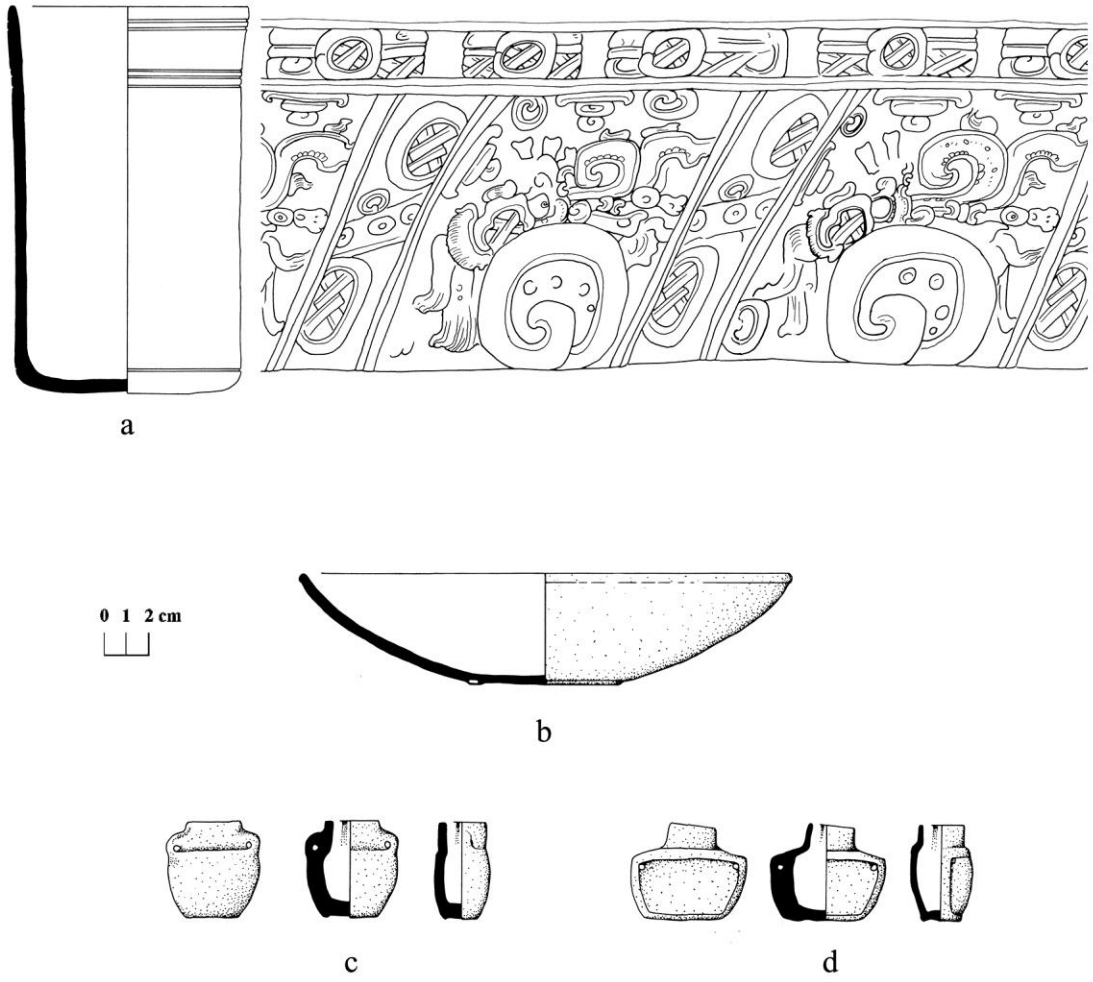

Figure 55: Ceramic vessels associated with SD C226B-4: a. Kau Incised (Veracal Orange); b. eroded Machete Polychrome; c., d. undesignated “medicine” bottles.

Figure 56: Rollout photograph of Kau Incised vessel from SD C226B-4.

excv. C226B

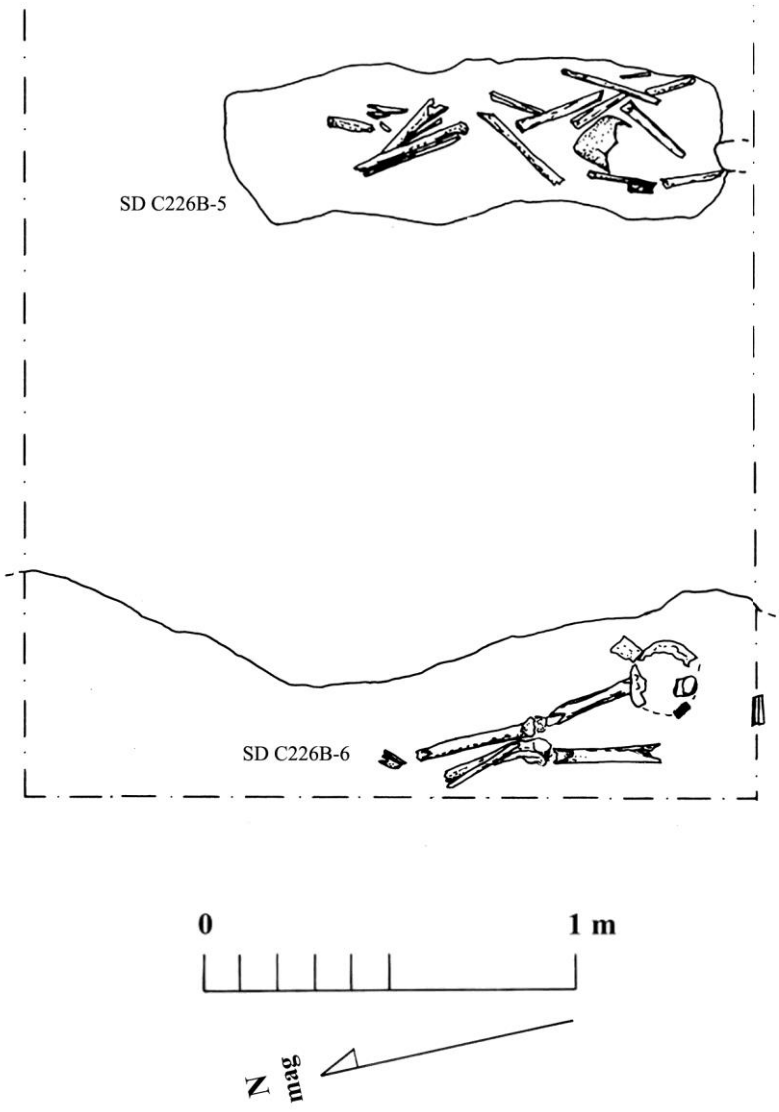

Figure 57: Detailed plans of SD C226B-5 and SD C226B-6.

Figure 58: Photograph of Caracol Structure 4E16 looking west.

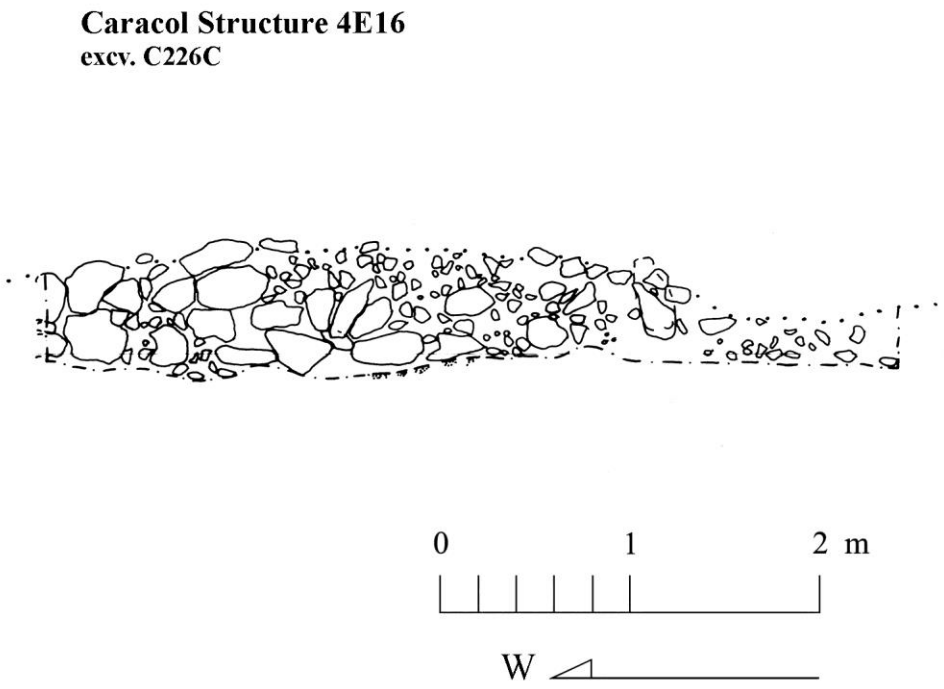

Figure 59: Section through Caracol Structure 4E16, as revealed by Operation C226C.

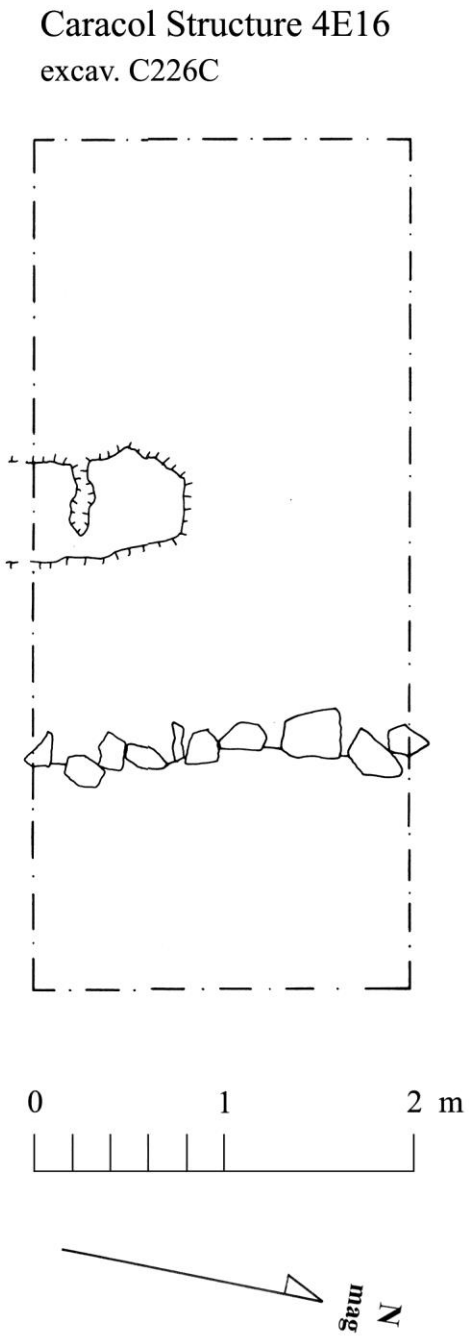

Figure 60: Architectural features uncovered in Operation C226C.

Figure 61: Photographs of Caracol Structure 4E19 looking east (upper) and SD C227B-4 and SD C227B-5 looking north (lower).

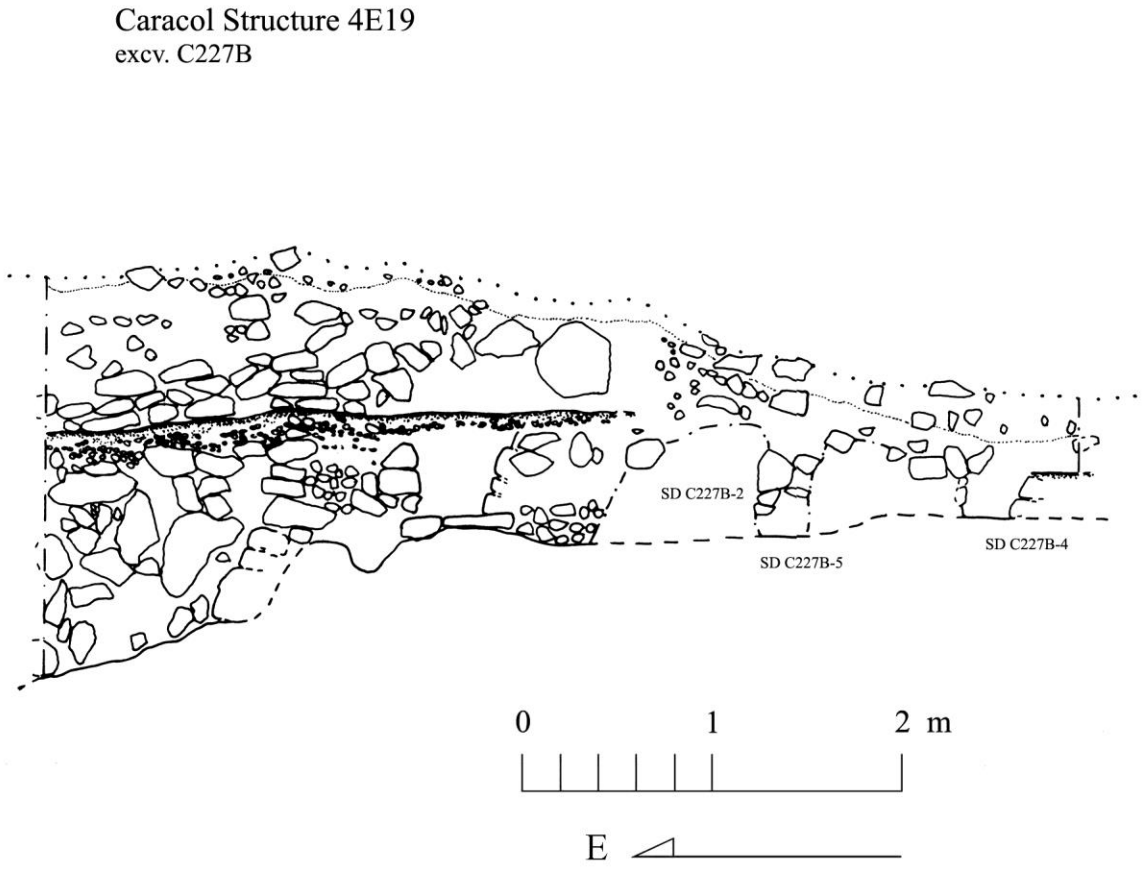

Figure 62: Section through Caracol Structure 4E19 as revealed by Operation C227B.

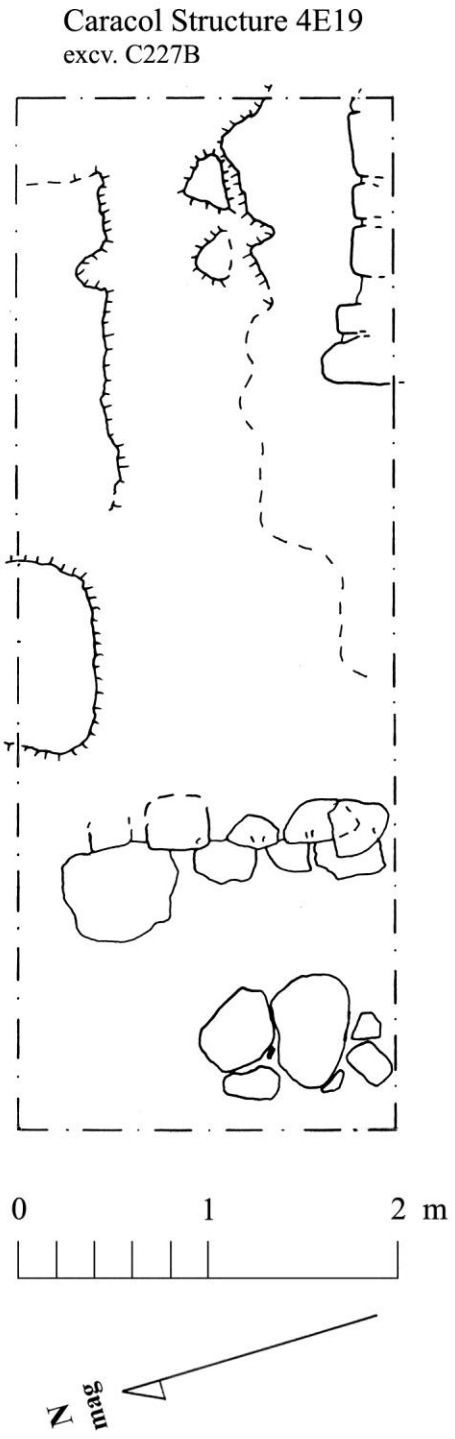

Figure 63: Architectural features and capstones revealed in Operation C227B.

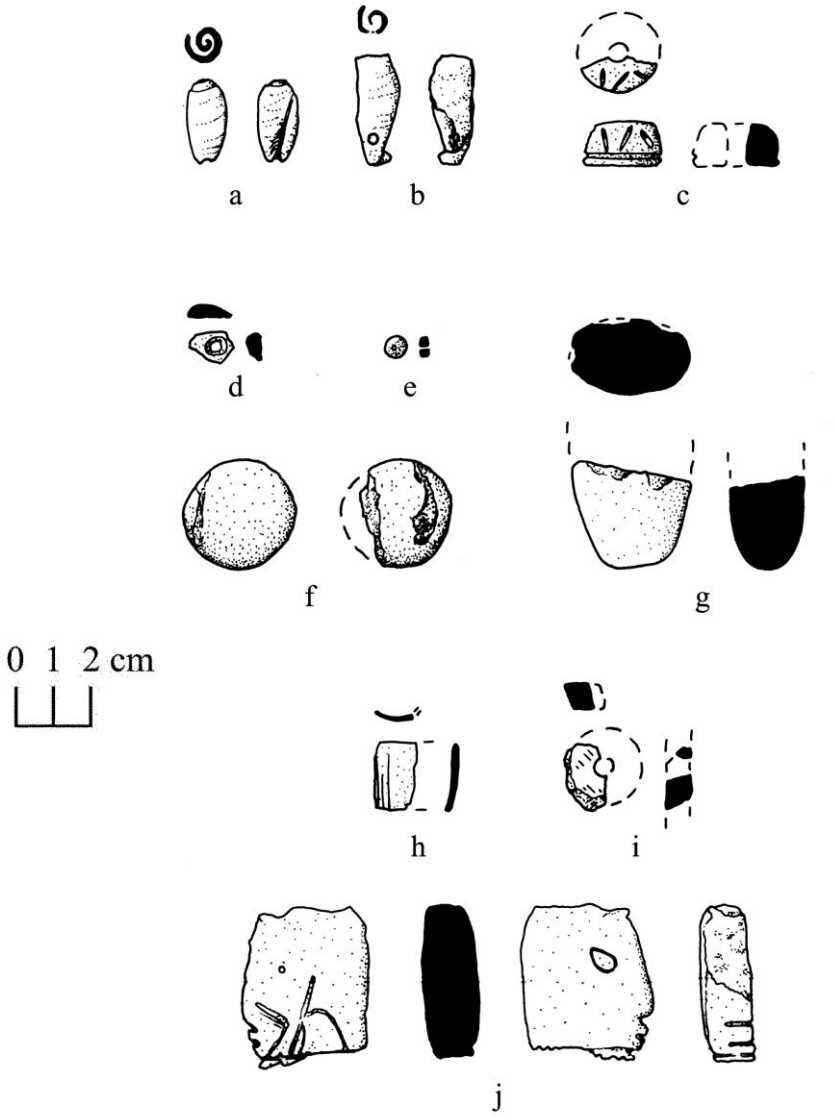

Figure 64: Artifactual materials recovered in association with Operation C227B: a., b. Olivella shells (one drilled); c. partial limestone spindle whorl; d. drilled jadeite chip; e. jadeite bead; f. limestone ball; g. broken greenstone celt; h. worked seashell; i. partial drilled and rounded ceramic sherd; j. limestone carved face.

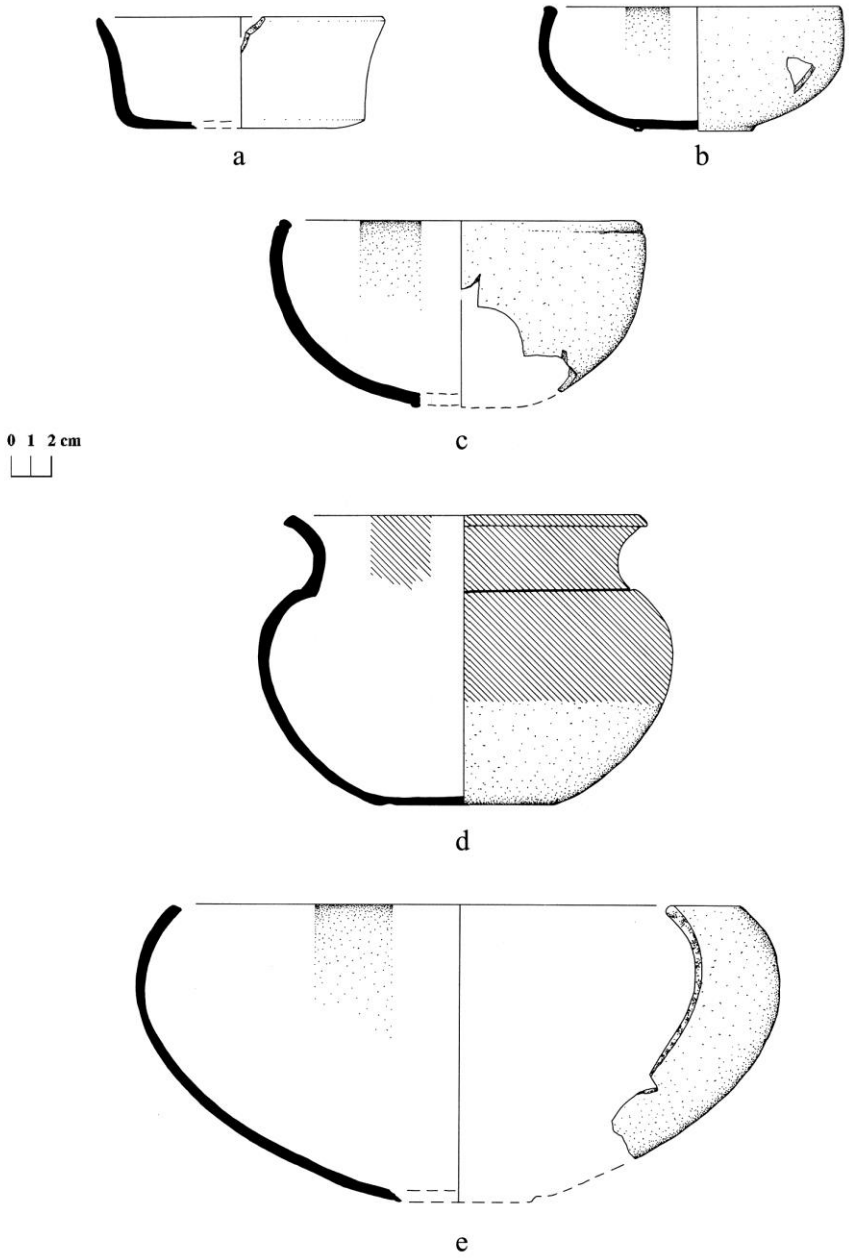

Figure 65: Reconstrucable ceramic vessels associated with the front of Operation C227B: a. eroded Zacatel Cream Polychrome; b., c. probably eroded Dolphin Head Red; d. Tinaja Red; e., f. Valentin Unslipped; g. Pedregal Modeled.

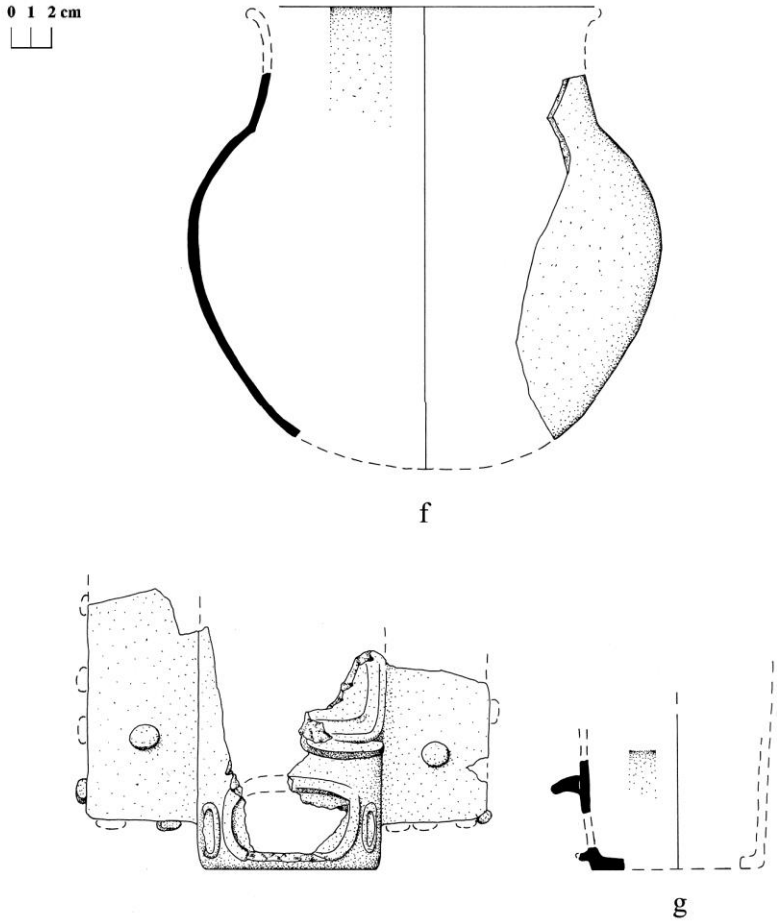

Figure 65: Reconstrucable ceramic vessels associated with the front of Operation C227B: a. eroded Zacatel Cream Polychrome; b., c. probably eroded Dolphin Head Red; d. Tinaja Red; e., f. Valentin Unslipped; g. Pedregal Modeled.

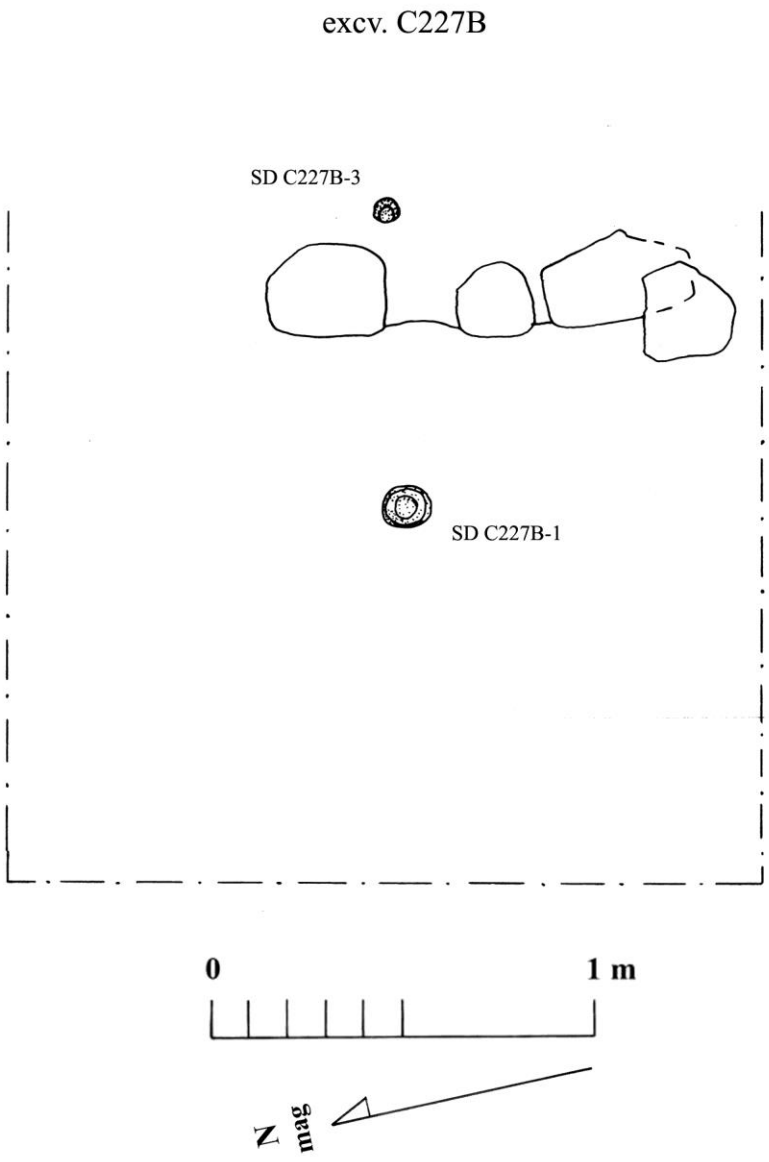

Figure 66: Detailed plans of SD C227B-1 and SD C227B-3 in Operation C227B.

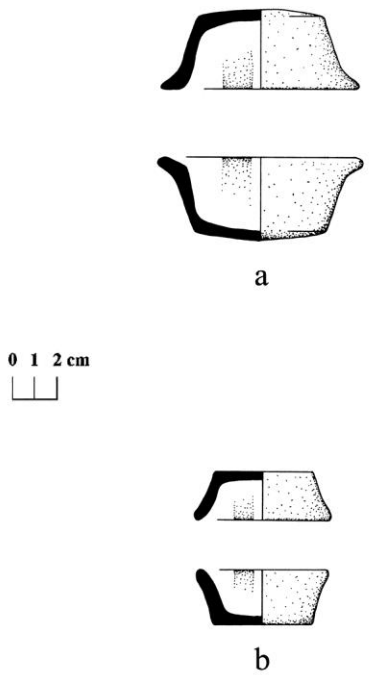

Figure 67: Ceiba Unslipped vessels from SD C227B-1 (a) and SD C227B-3 (b).

SD C227B-2

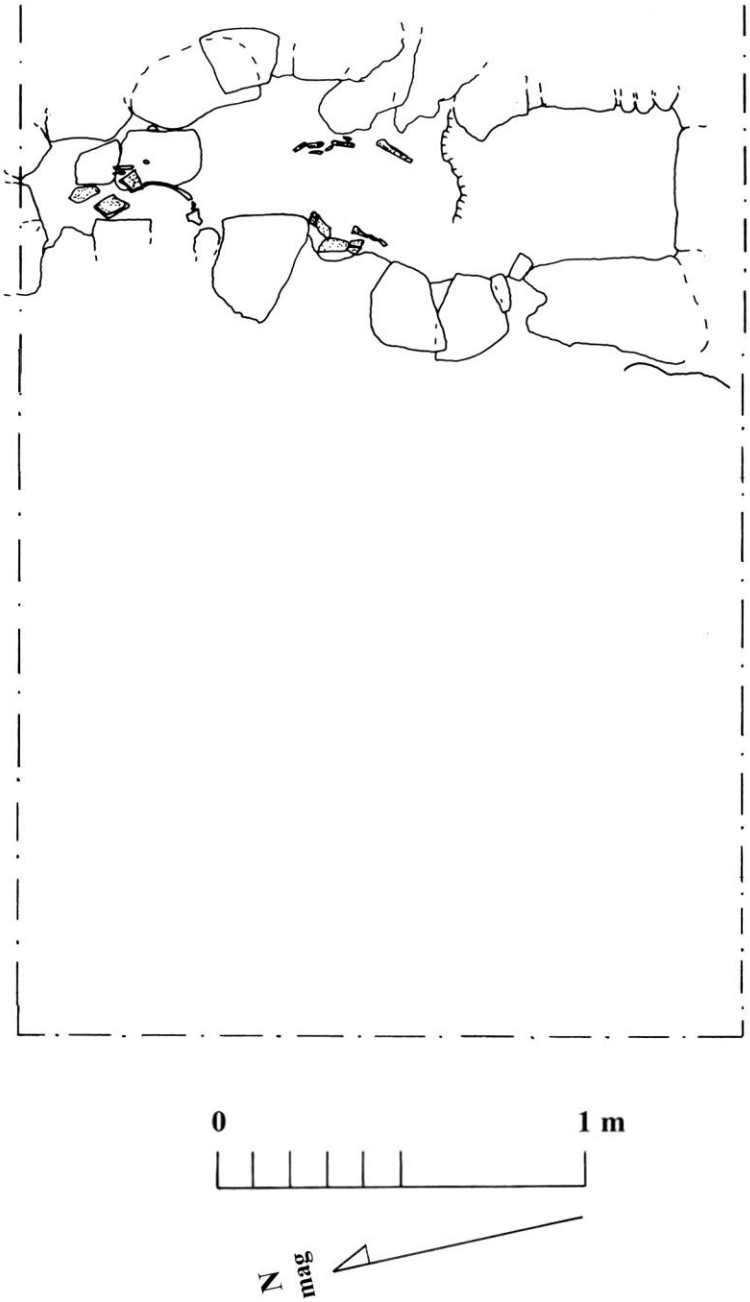

Figure 68: Detailed plan of SD C227B-2.

SD C227B-4

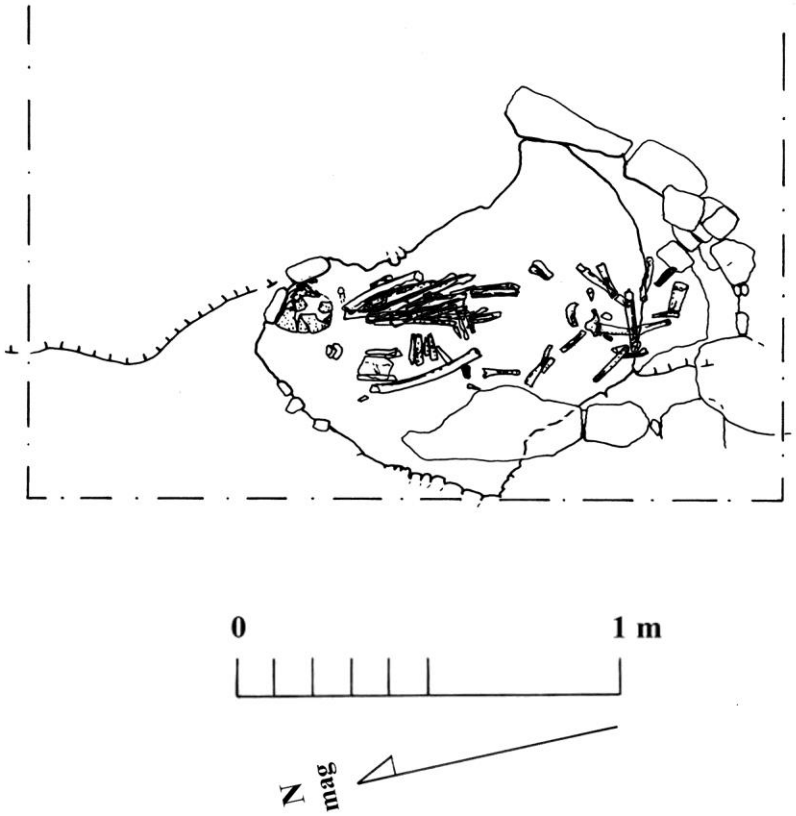

Figure 69: Detailed plan of SD C227B-4.

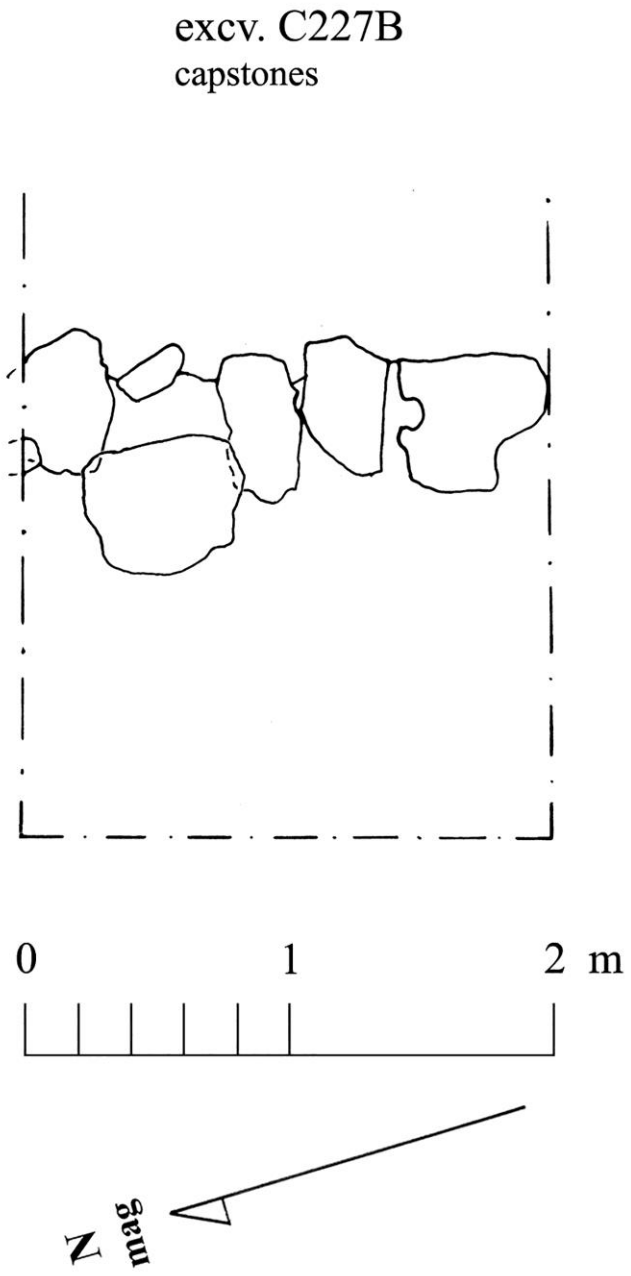

Figure 70: Detailed plan of capstones above SD C227B-5.

SD C227B-5

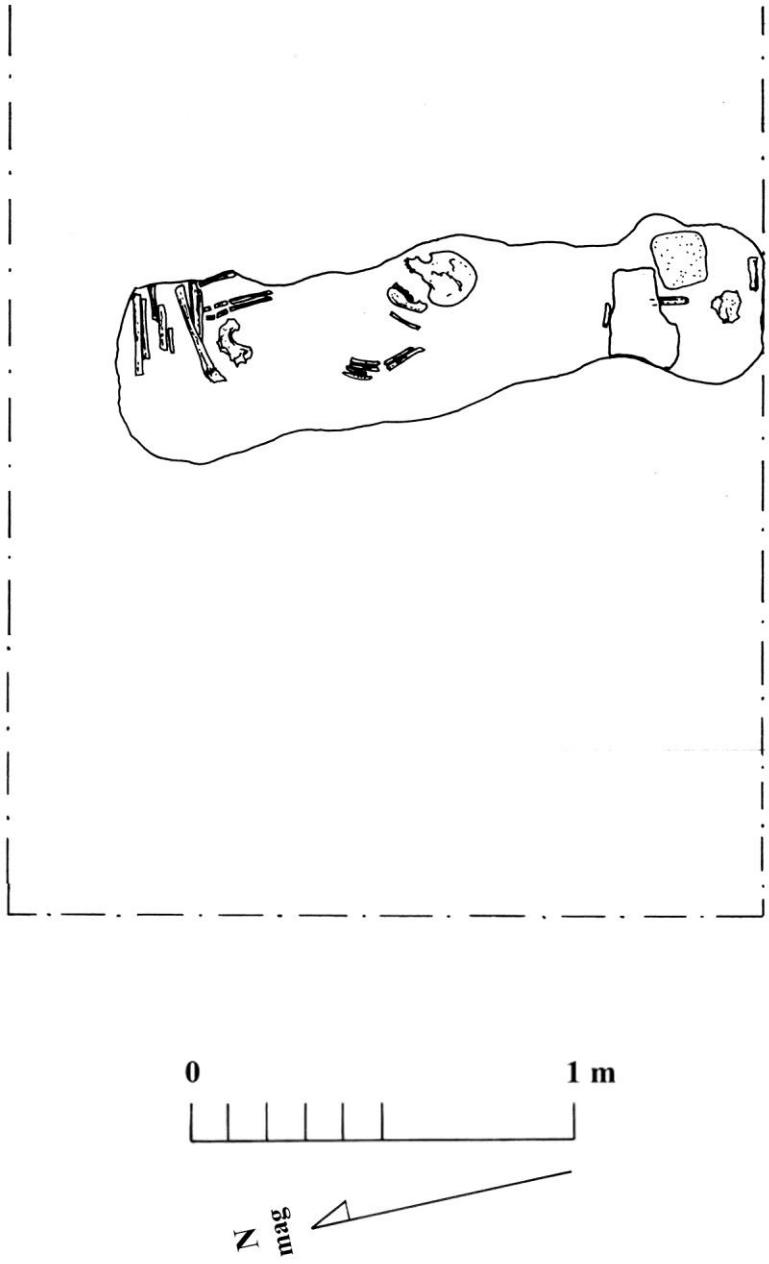

Figure 71: Detailed plan of SD C227B-5.

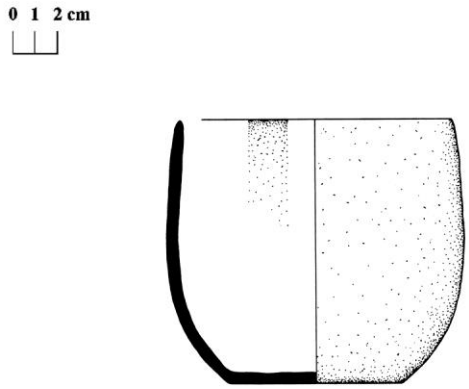

Figure 72: Ceramic vessel associated with SD C227B-5 (undesignated type).

Figure 73: Photographs of Caracol Structure 4E22 looking west with summit floor visible (upper) and bedrock deposit SD C228B-2 (lower).

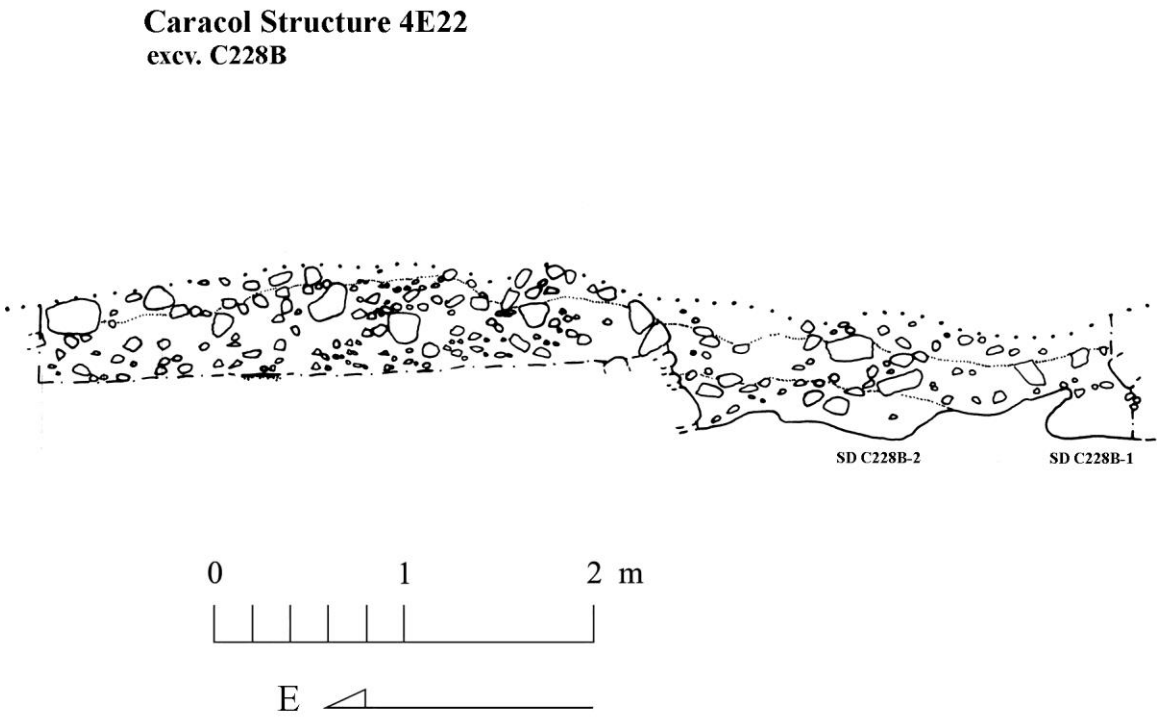

Figure 74: Section through Caracol Structure 4E22, as revealed by Operation C228B

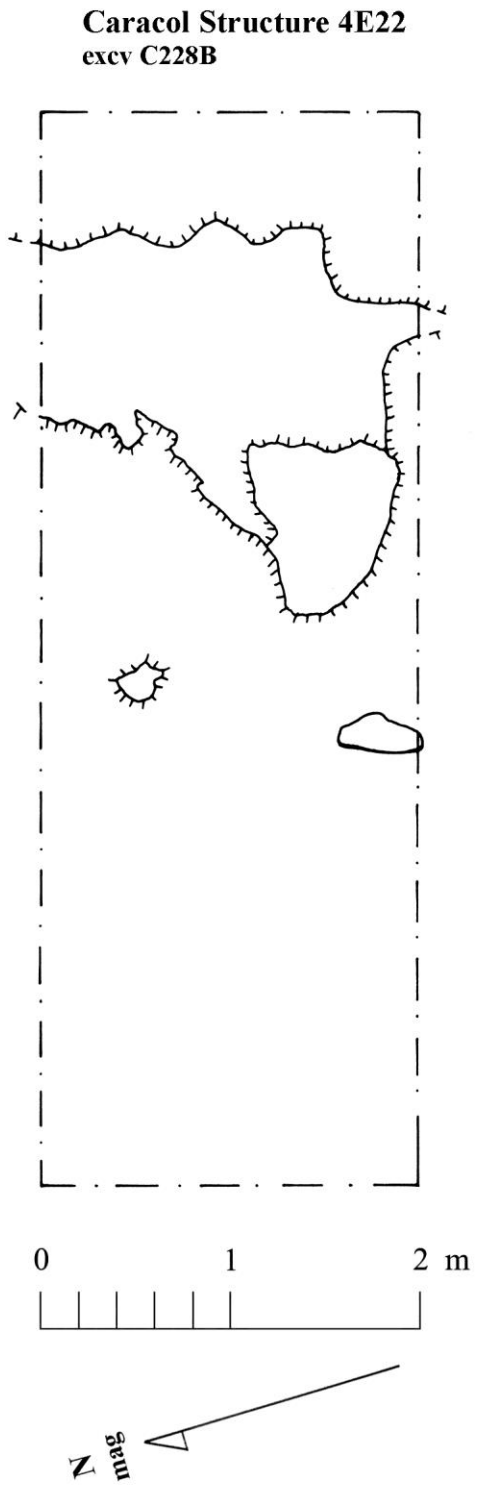

Figure 75: Architectural features revealed in Operation C228B.

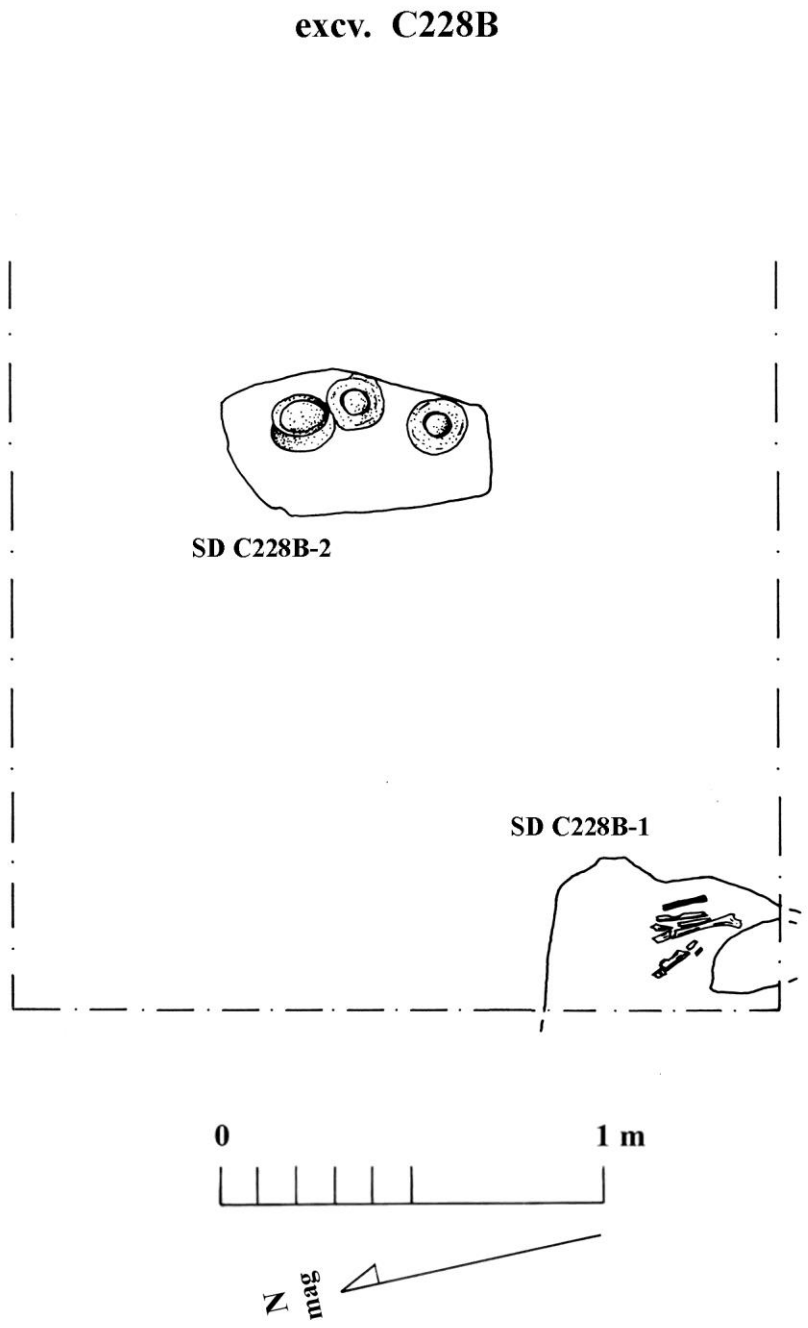

Figure 76: Detailed plan of SD C228B-1 and SD C228B-2.

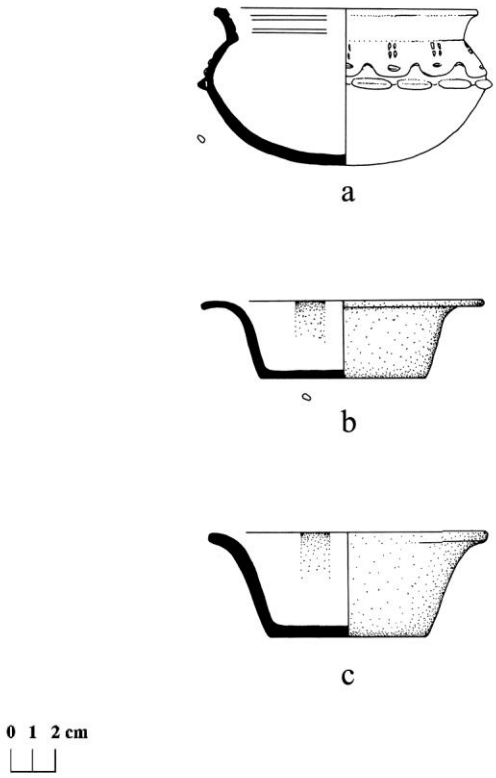

Figure 77: Ceramic vessels associated with SD C228B-2: a: Corriental appliqued; b.c, Paila Unslipped.

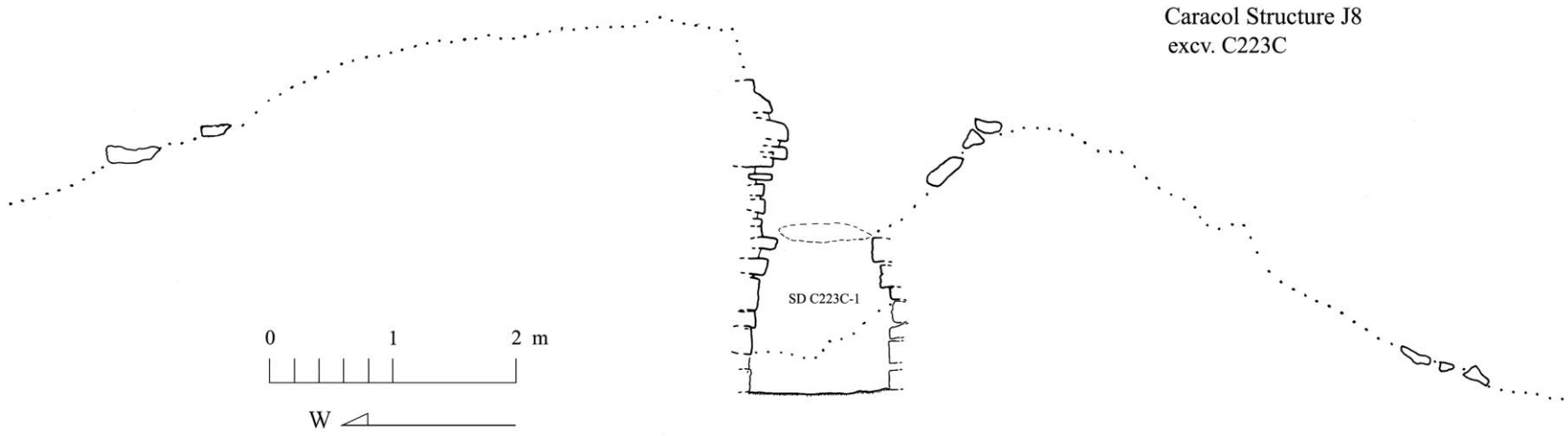

Figure 78: East-West cross-section over looted Caracol Structure J8, showing collapsed tomb shaft entrance.

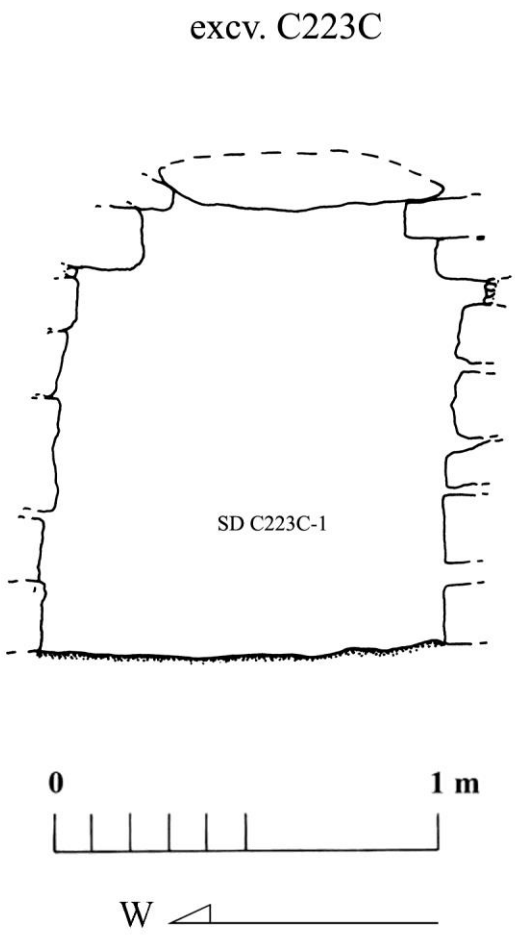

Figure 79: Detailed interior cross-section of SD C223C-1.

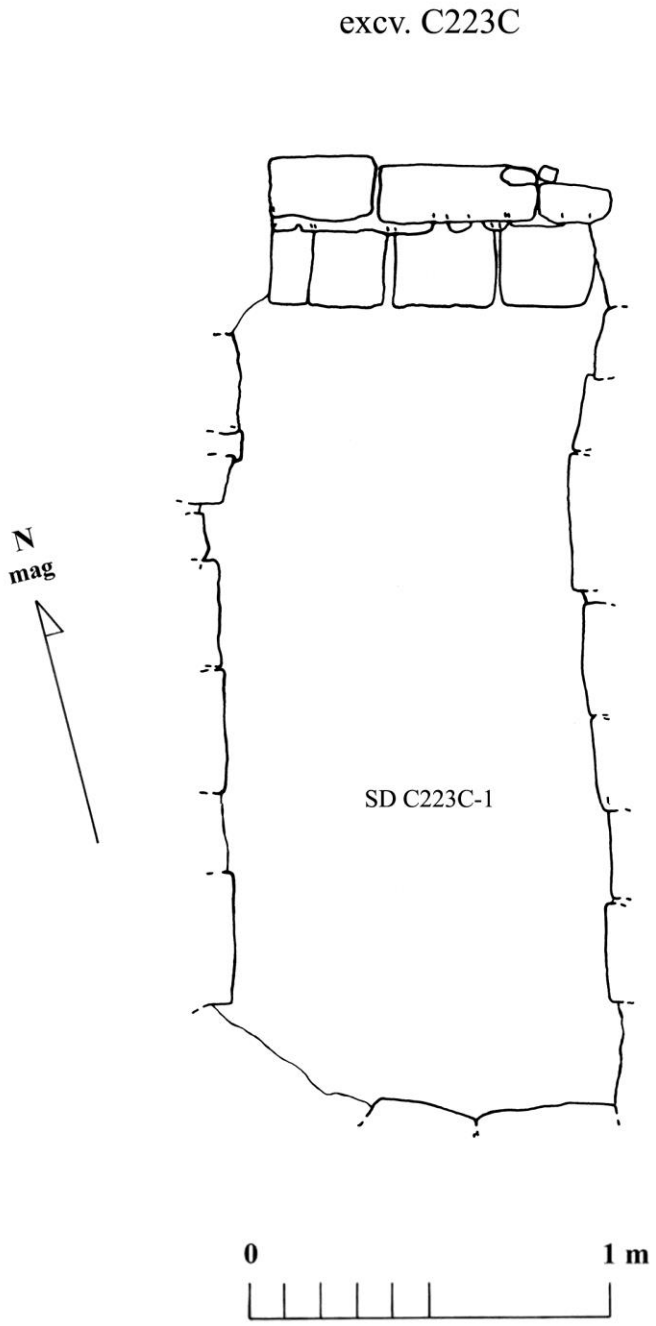

Figure 80: Detailed plan of SD C223C-1 showing steps beneath shaft entrance.