Interpreting Ancient Maya Neighborhoods through the Archaeological Record: Caracol Archaeological Project Investigations during 2024 (second year of a 2-year program spanning 2023 and 2024)

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Even after more than a century of settlement research in the Maya area, we still do not have a full understanding of everyday life within ancient Maya society. Early Maya research focused on the social elite with their stone palaces and spectacular tombs. Investigations into average residential units only advanced through the last few decades of household archaeology. While we can make assumptions, we cannot demonstrate how these ancient people chose where they lived or how (or if) they were related to those who lived nearby. We also cannot fully establish whether neighborhoods were important factors for social cohesion and can only speculate about the importance of local communities in establishing and continuing group identities. Previous field excavations, lidar acquisition, and subsequent analyses undertaken at Caracol, Belize primarily supported by the Alphawood Foundation has put us in a unique position to test and verify preliminary findings of neighborhood identification, composition, and cohesion by providing the first complete view of one ancient Maya neighborhood.

Research on ancient neighborhoods, including those at Caracol, has typically focused on crude topographic identifications of neighborhoods or suggested that clusters of residences are neighborhoods (e.g., Smith 2010b) without scientifically testing the validity of those neighborhood identifications. However, we can now more accurately define neighborhoods through geospatial analysis by focusing on the likelihood of regular and repeated interpersonal interactions among residents. Initial work has also shown that material culture remains – particularly remains associated with ritual activity found in burials and caches that are more resistant to change – are more similar within sampled neighborhoods than they are with other residences at the site (Chase 2021, 2023a). In addition, other functional necessities appear to be incorporated within each reconstructed neighborhood (e.g., lithic workshops). However, until the

2024 field season at Caracol, we did not have complete information from all the residential units that comprised a single neighborhood at a given site.

The Dos Aguadas neighborhood at Caracol saw the remainder of its unexcavated residential units systematically investigated during the 2023 and 2024 field seasons. This involved conducting excavations in nine residential groups, leading to a sample that includes all 22 residential groups in this neighborhood. The 2023 field season successfully investigated six of these groups and the 2024 field season investigated the remaining three residential units. These investigations in all residential groups in a single neighborhood should be able to provide a unique window into ancient life at Caracol and hopefully provide insights on how a neighborhood was organized and integrated. This information should be useful for other Mayanists and should facilitate future research exploring the variation in the residential experiences of the ancient Maya in other cities. It should also be useful to other archaeologists and even social scientists interested in how (and to what degree) neighborhoods originate, operate, adapt, and endure in ancient (and modern) cities.

Background (previously used in 2023 field report)

Settlement pattern studies have broadened our archaeological studies of the ancient Maya beyond a focus on elites, their material culture, and associated monumental architecture through the incorporation of data that pertains to the bulk of the population that once made up the ancient societies of the southern lowlands (Sabloff 2019). What this means for Maya archaeology is that we have gained a sizeable amount of archaeological information relating to the "every-day" non-elite segments of any Maya center. The application and conjunction of lidar data with settlement archaeology has also permitted Maya researchers to leverage spatial data pertaining to where and how ancient populations were distributed, permitting the definition of urban and regional boundaries as well as the better contextualization of the monumental architecture in the final phase of any given center (A. Chase et al. 2012, 2014a, 2014b, 2025). What this means is that we should now be able to define the structure of ancient Maya cities – however, this is not an easy task, especially given methodological issues (A. Chase et al. 2024) and the variation in city structure and sizes (e.g., D. Chase et al. 2023).

Largely due to the new dimensions added by both lidar and extensive settlement data to our understanding of the past, there has been a flurry of recent interest in defining the structure of Maya cities and in analyzing their variability (ASZ Chase 2016, 2023b; ASZ Chase et al. 2024a; A. Chase and D. Chase 2016; A. Chase et al. 2022; Houk 2015; Hutson 2016; Marken and Arnauld 2022). Whereas past research generally focused on elites, their texts, and their associated structures like palaces and temples (Inomata and Houston 2001; Martin and Grube 2000; Schele and Mathews 1998), broader archaeological interests today focus on the distribution of households over the landscape and on their relationships to larger constructions, plazas, and resources (such as water sources) – features that could facilitate or provide services to a city's inhabitants (ASZ Chase 2021; A. Chase et al. 2020; D. Chase et al. 2020; see also Robin 2003).

Using Caracol, Belize as an example, we have been able to demonstrate that the ancient city covered some 240 square kilometers and contained minimally 100,000 inhabitants at 650 CE (ASZ Chase et al. 2024b). The city was characterized by a dispersed arrangement of public plazas and architecture, some purposefully constructed, but with other pre-existing units incorporated into the metropolitan infrastructure as the city came to cover its huge landscape. One reason that the city grew to the size that it did was because it was a sustainable center. The agricultural terraces that define the terrain between the almost 9000 residential groups meant that each household was capable of growing the basic crops that they needed – and then some – possibly enough for the trade and export of some subsistence items. Based on his own work in similar kinds of cities like Angkor in southeast Asia, Roland Fletcher (2009, 2012, 2019) has defined this kind and form of city (that is actually found worldwide in tropical environments) as low-density agricultural urbanism. We have referred to it as a "garden city" (A. Chase and D. Chase 1987:53, 1998; see also Barthel and Isendahl 2013 and Graham 1999) because of its urban character, the inclusion of intensive agriculture within city boundaries, and its long-term sustainability.

Even though very extensive in size, Caracol the city was tied together by a dendritic internal causeway or road system that linked monumental plazas at each causeway terminus into an integrated unit that eventually connected to the unique central architectural complex known as Caana (A. Chase and D.

Chase 2017). The primary road system in Caracol geographically spanned over 20 kilometers, running from the city's eastern boundary above the Macal River through several architectural nodes before reaching Caana and then continuing west through two other nodes and ending above the Chiquibul River in Guatemala. This road system provided centralized control for the flow of goods moving from the Maya Mountains into the southern lowlands and also permitted other imported and traded items widespread distribution throughout the city (again with centralized control; all roads lead into or away from the downtown).

Based on the distribution of architectural features over the landscape, it has proven possible to subdivide the city into 25 districts (with three primarily in Guatemala), each centered on a concentration of monumental architecture and public space. These districts were all connected to downtown Caracol via the causeway system and would have been used for economic matters and administration of the Late Classic city. Each district would have contained an average of approximately 4,500 inhabitants (ASZ Chase 2021, 2023b). While the larger interconnections of the city are easier to identify because of the causeway system and the distribution of the public architecture, getting at smaller social units is considerably more difficult, but spatial analysis, similar to that carried out to establish the various districts, has demonstrated that 373 neighborhoods likely existed within the portion of Caracol that is in Belize (Figure 1).

The Problem: How was Ancient Maya Residential Settlement Organized at Caracol? (previously used in 2023 field report)

For almost four decades, we have been involved in looking at the archaeological variability that was expressed in residential groups within the city of Caracol. In the residential groups that we initially tested at the site, we focused on getting an idea as to when they were occupied and used (i.e., "dated") (A. Chase and D. Chase 1989; D. Chase and A. Chase 2003). Over the course of initially testing these residential groups, a ritual focus on the eastern structures in most of these groups became clear (A. Chase and D. Chase 1994; D. Chase and A. Chase 2004a) and it also became evident that there were different numbers and kinds of deposits in these ritual structures (e.g., D. Chase 1998; D. Chase and A. Chase

1998; Jaeger 1994). Excavations in residential groups also revealed that occupants in some of these groups manufactured specific goods made of different raw materials (e.g., Cobos 1994; Jones 1994). This initial research also led us to postulate the existence of markets at Caracol (A. Chase 1998; D. Chase and A. Chase 2020).

Over time, the settlement pattern research that we carried out became more focused in specific areas. After testing residential groups for temporal placement in various parts of the site (D. Chase and A. Chase 2003), we subsequently began to focus on concentrated excavations of residential groups. This led to the excavation of a series of residential groups that were helpful in identifying many of the ritual deposits as being symbolic markers of time (A. Chase and D. Chase 2013a; D. Chase and A. Chase 2004b, 2011, 2024).

The recognition of the existence of multiple market areas at Caracol (A. Chase and D. Chase 2001; D. Chase and A. Chase 2014; A. Chase et al. 2015) also suggested to us how the different goods that were being excavated in residential groups came to be there (following Hirth 1998) and also that intensive household craft production was being undertaken to participate in this exchange system. Thus, we also wanted to investigate the differential distribution of goods across the city and to know whether or not different markets had access to different goods. Some items, such as obsidian (Johnson 2016), were rather ubiquitously distributed throughout the city, but others were not. For instance, the archaeological distribution of Belize Red footed plates versus Belize Red footed dishes in special deposits appeared to indicate a distinctive distribution (D. Chase and A. Chase 2014:fig. 4) within certain parts of the site. We also wanted to know whether there was any organization in terms of production and distribution within co-located residential groups. This led us to explicitly try to look for neighborhoods in the archaeological record of Caracol.

The research outlined here seeks to hone in on the definition of neighborhoods at Caracol based on lidar analysis, archaeologically recovered materials, and variability within adjacent residential groups during the Late Classic era.

Relevant Archaeological Research (previously used in 2023 field report)

Our archaeological interest in neighborhoods started with our research at Santa Rita Corozal, Belize, carried out between 1979-1985, where we focused on how that city was organized and structured (D. Chase 1986). However, Santa Rita Corozal was much smaller than Caracol and the larger site size at Caracol meant that we could not focus on neighborhoods initially because of the need to obtain a basic spatial and temporal understanding of the city's expansive landscape. After some 20 seasons of research at Caracol, however, we began to wonder if the Santa Rita Corozal patterns, such as an elite and ritual focused residential group being placed within each site sector, might not also exist at Caracol.

Prior to 2008 at Caracol, our approach to looking at co-located residential groups had been minimal. However, excavation of the GRB Group in 2007 changed this focus by highlighting the variability in ritual practices that could occur in residential groups. The GRB residential group had been selected for excavation simply to determine what kind of settlement existed northwest of Caana. The excavation of its eastern structure produced a stratified sequence of cache vessels and burials that could be temporally seriated. The number of deposits and items found within the eastern building of the GRB residential group was also reminiscent of the large number of deposits found within the eastern building of the Highrise residential group in 1989 by Susan Jaeger (1991), something we had believed to be an anomaly given the other excavations that had been done in the two decades after this. While certain residential groups had large numbers of cache deposits within their buildings and not only in front of the eastern ritual building, the pattern initially appeared to be random. Excavations in 2008 and 2009 in the conjoined residential groups of Alta Vista and Baja Vista confirmed the patterns seen at Highrise and GRB in terms of the large numbers of eastern deposits, but not the reason that such a pattern existed (A. Chase and D. Chase 2013).

Starting in 2012, we explicitly targeted what we considered to be a potential neighborhood, intending to test every residential group within the defined area with extensive and intensive excavation. The research design was oriented so as to see how the residential groups did or did not articulate with each other and also to look at the distribution of goods within these residential groups as a result of

participation in a market system. The research reported here completes the sample of residential groups within the Dos Aguadas neighborhood, which has firmer boundaries established as a result of lidar analysis (ASZ Chase 2021).

To initially define this neighborhood, we focused on topography and selected a highly visible area immediately southeast of the Caracol epicenter that we called the "Machete Plateau;" it was characterized by residential groups located on a higher ground surrounding a flat area (plateau) that supported a natural aguada or bajo in its middle; these residential groups were in turn surrounded by lower terraced agricultural fields. Our working definition of neighborhood was that supplied by the work of Michael Smith (2010a, 2010b:139): "A neighborhood is a residential zone that has considerable face-to-face interaction and is distinctive on the basis of physical and/or social characteristics." We viewed the identification of neighborhoods as being useful in determining other underlying principles of organization within the city of Caracol.

From 2012 through 2014, some fourteen co-located residential groups on the Machete Plateau were excavated, as well as two others immediately west of this area and the Conchita Causeway (Figure 2). These excavations resulted in the archaeological investigation of 45 structures and the recovery of 9 tombs, 31 burials, and 71 caches that provided useful information in terms of dating and the distribution of material items. The recovered archaeological materials generally spanned the Early Classic through Terminal Classic Periods, although Preclassic materials were also recovered in fill deposits. A lithic workshop area and a bone workshop area were additionally identified for this area.

As a result of investigating these residential units between 2012 and 2014, a series of interpretations were possible concerning the settlement of this area (see also ASZ Chase et al. 2023a for more detail). First, some of the residential groups on the Machete Plateau appeared to have begun construction in the early part of the Late Classic Period and to possibly represent in-migration to Caracol resulting from the successful warfare practiced by the site (A. Chase and D. Chase 1989; D. Chase and A. Chase 2002, 2003); future analyses will check the stable isotopes of burials recovered in these contexts to determine origin. Second, groups that are nearest neighbors can manifest very different statuses, which is

a pattern evident in what are called “walking cities” (A. Chase and D. Chase 2016:365; Story 2006; see also Hutson and Welch 2021); this is evident in both the size and quality of construction, and confirms interpretations made earlier about different residential groups having different diets (A. Chase et al. 2001). Third, all residential groups within this area appear to have had access to the use of ritual items like face and finger caches and to have had access to prestige items like jadeite and ceramic tradewares, indicative of participation in a market economy (D. Chase and A. Chase 2014, 2020). Fourth, manufacturing of lithics and bone artifacts was generally undertaken in smaller groups that were not the highest status based on size, quality of construction, and other deposits. Finally, this area evinces signs of extensive urban renewal in which complete groups were demolished, removed, and then rebuilt in the Late Classic Period, with ritual objects from earlier occupation sometimes being included within later deposits. This means that there would be great difficulty in assuming the full recovery of a complicated occupation history through limited archaeological excavation.

Following the Machete Plateau neighborhood program, we sought to gain larger samples of well-excavated residential groups from other areas for comparative purposes. From 2018 through 2020, this resulted in the return to the northeastern sector of Caracol proper in order to see if there were possibly different goods being distributed in different markets. These excavations built upon an earlier settlement program that had been carried out between 1992 and 1994 (funded by a National Science Foundation grant), specifically focusing of residential groups in the vicinity of the Puchituk Terminus and in the vicinity of an area of public architecture 5 kilometers distant from the epicenter. New excavations in the “Monterey public architecture” some 5 kilometers distant from the epicenter were carried out in the 2019 field season and recovered a plain ballcourt marker and also two Late Preclassic caches that were dated by stratigraphy and two associated carbon dates to between 74-130 CE; another residential group south of the Monterey public architecture also produced Late Preclassic caches and an overlay of Late Classic and Terminal Classic materials.

Residential groups associated with Puchituk Terminus were the specific focus of excavations carried out in 2018, 2019, and 2020, resulting in eleven new complexes being excavated in this area

(thirteen in total). These investigations gathered information on 24 buildings in the residential groups and recovered 8 tombs, 26 burials, and 34 caches. Two of the excavated groups also produced evidence of having practiced lithic production; indeed, one excavation alone yielded 54,686 pieces of chert (with none visible on the ground surface). Taken together, these two areas, both located some distance from the Caracol epicenter, permit intra-site comparison of the kinds and quantities of market goods that were being distributed to residential groups

A different approach to looking at neighborhoods was undertaken by Adrian Chase (2021) for his PhD dissertation on the urban structure of Caracol. Using models and theories from cognitive science, network science, sociology, and geography, he was able to document that ancient neighborhoods, characterized by face-to-face interactions would have been constituted by under 500 people given cognitive constraints on frequent face-to-face interactions (see Kosse 1990; 2000; Lindenfors et al. 2021). The distribution of causeways and public architecture at Caracol permitted him to identify the nodal units for 22 districts in Belize (an additional 1 to 3 exist in Guatemala for a total of 23 to 25). Using the lidar data, he was then able to use least-cost area allocation to segment the urban landscape into units that would have likely comprised each district (as urban service areas centered on public plazas) (see A.S.Z. Chase 2016:24). Conducting a more detailed analysis of travel times, which would have faciliated frequent face-to-face interactions in the past, resulted in the definition of minimally 373 neighborhoods (only in the Belizean portion of Caracol). The cohesiveness of eight of these proposed neighborhoods were then tested with archaeological materials recovered from the residential groups within their boundaries (A.S.Z. Chase 2021, 2023a).

Use of his methods segmented the initially proposed Machete Plateau neighborhood into two different units, the Machete and Dos Aguadas neighborhoods (Figure 3), but the archaeological comparison of this result showed distinct material differences in each of these halves, showing that residential groups within each proposed neighborhood were more similar to each other than to ones outside the proposed neighborhood. To carry out this archaeological analysis, the items recovered in ritual deposits were broken into both materials and form classes that could be tested relative to kinds and

numbers of items using similarity and dissimilarity indices (see Horn 1966; Morisita 1959; Wolda 1981). Correlation coefficients were then run for excavated units within each neighborhood which strongly supports these suggested divisions.

However, other patterns became manifest in this analysis that can be used to categorize Caracol neighborhoods as broader social units. Without this kind of analysis, the identification and validation of these patterns would probably not have been possible (e.g., Thompson et al. 2022). In looking at excavated residential groups within the neighborhoods defined by least cost allocation methods, it became clear that while there was differentiation of the residential groups within each neighborhood, taken together, the residential groups within each neighborhood would have likely functioned as a cohesive unit.

This can be seen in the distribution of notable practices and social markers within residential groups and neighborhoods. For instance, based on the current excavation dataset, no neighborhood had more than one or two residential groups focused on the same kind of craft production. Nineteen lithic workshops have been defined in the settlement work carried out at Caracol and their distribution shows that no more than one or two residential groups in a neighborhood were producing lithics for the rest of that neighborhood and for distribution at the district market (Johnson and Chase 2025). The use of obsidian eccentrics within residential groups within a neighborhood is limited in the same way (Figure 4), as are patterns related to the decoration of human dentition. For instance, the distributions of both Tau-Notched Teeth, sometimes referred to as Sun God teeth, and the various inlaid jadeite, pyrite, and filed teeth that are widely distributed in the Caracol residential groups (occurring in at least 67 excavated residential groups; D. Chase and A. Chase 2017), suggest that the known examples are limited to between one to three residential groups within each neighborhood, meaning that the patterns seen in human dentition may relate to different occupations, ethnicities, or family ties.

Perhaps the most interesting pattern relative to neighborhoods appears to be the concentration of caching practices within one residential group within each neighborhood, suggesting that, while each residential group could carry out its own ritual ceremonies, there was one plazuela group in particular that

likely represented the neighborhood unit. The residential group that does this usually has a preponderance of ritual remains in the form of cache vessels that are often embedded into the eastern structure, rather than existing simply in front of the building; it is often not a presupposing building. Thus, Structure 2E28 in the Highrise residential group (Jaeger 1994) is associated with 14 caches and 1 tomb; Structure I5 in the GRB residential group is associated with 7 caches and 6 burials (Chase and Chase 2013a); Structure I28 in the Rebel residential group yielded 13 caches, 1 tomb, and 2 burials; Structure K26 in the Zumba residential group is associated with 10 caches, 1 tomb, and 4 interments; and, Structures F33 and F39 in the double group known as Alta Vista are associated with 15 caches and 6 burials.

Thus, multiple patterns visible in the archaeological data - both on the levels of the artifactual materials and the residential groups themselves, and especially when organized through least-cost allocation analysis - appear to validate the existence of neighborhoods as important social units in ancient Caracol.

Archaeological Research Carried out During 2023

The lidar analysis of neighborhoods indicated that the Dos Aguadas neighborhood was larger than originally conceived. Whereas the original topographic conceptualization of what was then termed the “Machete Plateau” in 2012 had excluded agricultural fields and actually used them to formulate a boundary, the newer lidar spatial analysis that defined neighborhoods (ASZ Chase 2021) included the agricultural fields within the boundaries. As a result, the reconceptualized Dos Aguadas neighborhood excluded the Machete Group and two other eastern groups on a ridge along the western side of the “plateau” (these went into a different neighborhood unit) and incorporated nine new groups to the east and southeast that now either bounded or are incorporated into the field systems.

Accordingly, a two-year project to fully document the Dos Aguadas neighborhood was submitted to and accepted by the Alphawood Foundation in 2022. The 2023 field season lasted from mid-January to the end of March and investigated a series of six co-located residential groups located in the extreme southeastern section of the Dos Aguadas neighborhood (see

Figures 2 and 5). Each of these residential groups had multiple buildings lining the edges of a central plaza and were located in an area approximately 1.5 km southeast of the site's large central monumental architecture. The northern three groups were each associated with their own reservoirs. One or more of the structures in each living area were intensively excavated. The 2023 investigations produced a series of ritual deposits – 5 tombs, 7 non-tomb interments, and 8 caches – that help both to date the archaeological contexts and also to provide comparative materials for understanding past inter-group relationships. One potential lithic workshop was also identified in a residential group. These archaeological investigations are available in the 2023 season report (https://www.caracol.org/wp-content/uploads/2024/01/2023.pdf).

Research carried out during the 2024 Field Season

During the 2024 field season, the three remaining groups in the Dos Aguadas neighborhood were investigated. Two of these residential groups are within the valley field system and the other one is located on top of a small hill (see Figure 5). Three other groups immediately south of the Dos Aguadas Neighborhood were also investigated during the 2024 field season. Since the southernmost group to be excavated in the Dos Aguadas neighborhhod is located on top of a hill associated with a ridge that supports the three other residential groups, these non-neighborhood groups were also excavated so as to provide boundary information relative to the Dos Aguadas neighborhood. The 2024 investigations also produced a series of ritual deposits – 2 tombs, 13 other burials, and 10 caches – that provide comparative material for analysis.

As a result of these two seasons of excavation, we now have now sampled all of the residential groups with the Dos Aguadas neighborhood at Caracol. This Dos Aguadas neighborhood consists of a total of 22 residential groups, all of which have been investigated archaeologically (as of the conclusion of the 2024 field season). This sample should permit us to model neighborhood development over time and also to use the results from these investigations to generate future research questions. It also provides

us with a meaningful archaeological sample from which to derive an understanding of the internal spatial organization of Caracol on a smaller local scale.

We would also note that while we can demonstrate the cohesiveness of Caracol's neighborhoods (see ASZ Chase 2021), as a field we still have difficulties considering the composition of ancient Maya residential groups. Thus, a subsidiary goal of this research both in-field and during post-field analysis is to examine the functions of each of the buildings within these residential groups. How many buildings in these groups were actually residences – as opposed to kitchens, storage areas, ritual buildings, and auxiliary constructions used for other purposes? How many people resided in these groups and were they potentially all members of the same extended kin group? The past two seasons of fieldwork are helping us build the data to begin to answer these questions.

Analysis of artifactual materials is currently focused on defining ceramic sub-complexes and functionally identifiable artifact clusters that can then be compared with material remains from other coeval locations at the site to determine occupational specialization and status as well as local vs. non-local archaeological remains; these analyses hope to find functional relationships among artifacts in a given residential group (see A. Chase and D. Chase 2013b). Stable isotope analysis of recovered human bone following the field seasons should help to uncover human relationships in terms of diet and origin. Analyses should be able to determine whether individuals had spent their lifetimes at Caracol or were later immigrants (current work being undertaken by Rick Smith [George Mason]; see earlier work at other sites by Spence and White 2009; White et al. 1998). The temporal depth and spatial similarities/differences gained through this dataset should also aid in understanding developmental relationships in terms of neighborhoods and highlight differences within Caracol's residential settlement.

Vanilla Residential Group: Structures M28-M33

The Vanilla residential group is located on the northern end of a ridge that supports four residential compounds; the ridge is a little over 1 kilometer south of the downtown part of Caracol. The Vanilla group contains six low building platforms, none of them being very

prominent. Four groups share the ridge upon which Vanilla was placed. Only the easternmost group, Maple, falls within the Dos Aguadas neighborhood, The other three groups on this ridge were selected for excavation for comparative data. All excavations within the Vanilla residential group suggested that it was built and occupied in the Late Classic Period.

Structure M31

Structure M31 is the southeasternmost construction on the extended residential platform. It only rises approximately half a meter above the plaza surface. No architectural facings could be identified with the raised platform. However surface inspection revealed an open and partially collapsed tomb chamber in this building; another collapsed chamber could be seen in the plaza in front of the building. While Structure M31 was selected for excavation in order to provide comparative data from the eastern shrine building, the excavation was extended into the plaza to encompass the second tomb. This plaza excavation yielded the corner of an earlier construction episode as well as a set of two finger caches barely under the surface and a crypt set into the deeper bedrock.

Operation C235B consisted of an axial excavation placed over Structure M31 and into the plaza in front of this building (Figures 7 and 8). The trench measured 7.55 m east-west by 2.0 m north-south. A southern extension, measuring 1 m north-south by 1.2 m east-west, was later added to the western limit of the excavation to encompass SD C235B-2. The fill in the plaza yield a wide variety of materials, including a partial speleothem (Figure 9a), a broken slate macehead (Figure 9b), and a limestone bar (Figure 9e). Additionally, while not localized, more than half of a face cache was found in the humus immediately in front of Structure M31 (Figure 10a).

SD C235B-1 consisted of a paired set of finger caches (Figure 10b and 10c), both lip-to-lip, set into the plaza some distance in front of Structure M31 (Figures 8 and 11). No associated bone was recovered with the vessels.

SD C235B-2 was established for the open chamber in the plaza at the western edge of the excavation (Figures 12 and 13). Several fallen capstones were in evidence on the surface of the collapsed chamber. The chamber had probably been open for some time. Excavation recovered some smaller artifacts and one smaller vessel (Figure 10d); notable, however, were 135 fragments of worked marine shell (Figure 23) and 17 chert drills (Figure 14a-h) that would have been used in working the shell (Figure 14i-p). The chamber contained human remains set on bedrock, largely on the southern side of the chamber following the slope of the bedrock. This bone was recovered and provided evidence for four individuals – one subadult, two adults, and one older adult. The subadult was represented by two teeth (lower second premolar with incomplete roots and an incomplete lower first molar cap) that indicated that the individual was approximately 2 years old at death. One adult had tau-shaped teeth. The adult teeth evince tartar and caries. It is difficult to identify the teeth of any particular individual because they were not all localized in skull areas. Only two skull areas were identified during excavation.

SD C235B-3 was assigned to the open and collapsed tomb within the core of Structure M31 (Figures 12, 15, and 16). The bottom of the chamber is defined by bedrock. Several large fragments of pottery vessels (Figure 17) were recovered when the tomb was being cleaned out as well as an obsidian lancet (Figure 18a). While only a few bone fragments were recovered in the open chamber, forty teeth were found. These teeth represent two adults, one

older adult, and one sub-adult approximately 3 to 4 years in age (upper lateral incisor and deciduous upper second molar).

SD C235B-4 was assigned to the deeply buried crypt (Figure 19) that was covered by plaza fill. The crypt took advantage of a naturally occurring cleft in bedrock and was covered by capstones. Apart from a piece of worked slate (Figure 18b), a limestone spindle whorl (Figure 18c) was recovered within the crypt. Only a small amount of bone was recovered. One deciduous upper lateral incisor was also found, representing an individual approximately three years in age. Short of the deciduous inisor, no sex or age identification is possible based on the recovered bone.

Structure M30

Structure M30 is a very small platform to the north of Structure M31. No exterior architectural features could be identified on the surface for this building.

Operation C235C was a test-pit (Figures 20 and 21) set on axis to Structure M30 in the residential plaza tangent to the western facing. The excavation measured 1.5 m by 1.5 m. It was dug through what appeared to be a single layer of fill to bedrock. Apart from pieces of groundstone metates (Figure 22), some 63 pieces of worked marine shell were recovered within the plaza fill in this excavation.

Structure M29

Structure M29 is a small northern structure that is set just to the east of Structure M30. It rose approximately 0.2 m above the plaza level and was defined by visible stone alignments that were evident without excavation.

Operation C235D was an excavation that encompassed the alley between Structures M28 and M29 and the front facing of Structure M29 (Figures 23, 24, and 25). The investigation

measured 3.7 m east-west by 2.9 m north south, but was offset. The alley excavation measured 1.65 in width by 2.90 north-south. The southern limit of the excavation extended 2.05 m more to the east with a width of 0.9 m, encompassing the front facing of Structure M29. A Pantano Impressed jar rim of Late to Terminal Classic date (Figure 26), was encountered in association with Structure M29.

Chocolate Residential Group: Structures M37-M40

The second residential group investigated during 2024 was located southwest of the Vanilla residential group by some 50 m on a slightly lower spur of the ridge. This group was nicknamed Chocolate and two of its structures were investigated (Figure 5).

Structure M39

Structure M39 is the eastern structure in the Chocolate residential group (Figure 27). Its mounded remains rose approximately 1 m in height above the plaza level. Large stones on the summit suggested the presence of a disturbed deposit (and one was found – SD C238B-4). Excavation revealed the existence of a well-preserved step for the latest building, but any earlier architectural remains in the core of the building were disturbed by intrusions to place burials. The recovered deposits suggest that occupation spanned the Early Classic to Terminal Classic eras.

Operation C236B consisted of an axial excavation over Structure M39. It measured 5.9 m east-west by 2.0 m north-south (Figures 28 and 29). This investigation produced three caches and five burials. Additionally, two complete seashells (Figure 30a and 30f) and one shaped limestone object (Figure 30e) were recovered from the plaza area in front of the building, but were not clearly associated with a special deposit.

SD C236B-1 was assigned to a large face cache with lid that had been deposited in the plaza in front of Structure M39 (Figures 31, 32, and 33a). The cache was facing to the west and had no other artifactual materials associated with it.

SD C236B-2 was assigned to a small face cache that was located east of SD C236B-1 on axis to Structure M39 (Figures 31, 32, and 33b). No pottery lid or other artifacts were found in association with this deposit.

SD C236B-3 was assigned to a lip-to-lip cache that had been set directly on bedrock (Figures 31, 32, and 33c). The cache had been disturbed and appeared to have been cut in half based on the pottery. The cache vessels were stylistically early and matched the kind of vessels found in the Apollo residential group during the 2023 field season and dated to the Early Classic Period..

SD C236B-4 was assigned to a burial placed on bedrock in the southwestern part of Operation C236B (Figure 32). There was no associated artifactual material. The burial consisted of a small amount of assorted long bone fragments. No teeth were recovered, and no sex identification is possible. However, the individual is presumed to have been an adult based on the recovered bone.

SD C236B-5 was assigned for a disturbed crypt on the western summit of Structure M39 (Figures 34, 35, and 36). The crypt had clearly had most of its contents removed, presumable in antiquity. While the crypt could be clearly defined, it only produced a small amount of assorted bone fragments. The proximity to the ground surface likely led to poor bone preservation, as well. Two adult teeth (1 lower premolar and 1 upper canine) were recovered; both show wear. The remains could possibly represent an older adult with tooth loss, but it is hard to tell. No sex identification was possible.

SD C236B-6 was defined for a crypt burial that had been set in front of the lower step for Structure M39 (Figures 34, 35, and 36). Five ceramic vessels (Figure 37), dating to the late Late Classic into the Terminal Classic Period, were recovered in the crypt; The most elaborate cylinder (Figures 40a and 41), containing plano-relief or modeled-carved decoration, was located in the southern portion of the burial while the other four vessels were in the northern portion of the crypt. One of the plates in the northern portion of the crypt (Figures 40b and 42) is an unusual polychrome related to Belize Red. These vessels may represent successive re-entry events. A set of shell earings (Figures 43a,b) and worked shell pendent (Figure 43c) were recovered from the southern part of the chamber where the remains of two skulls were also found A sizeable amount of cranial and postcranial bone was recovered. There are at least four individuals present based on the mandibles that were recovered. All are older individuals with antemortem tooth loss and resorption. Of the four mandibles, three appear to be male; the other is less clear as to sex. Very few teeth were recovered (1 subadult premolar; 2 upper premolars with caries and wear; 1 lower lateral incisor with wear; 1 upper canine). There is no evidence of filing or inlays, but the teeth that normally would be filed or inlaid are not present, likely lost long before death or interment. The one subadult tooth may or may not represent an additional individual.

SD C236B-7 was assigned for a burial that had been intruded into the summit of Structure M39 (Figures 44). Once placed, the body was then covered with fill. No pottery vessels were deposited, but it is likely that a worked shell bar (Figure 30d) was deposited with the burial. Cranial and postcranial remains are present. There is a broken, but relatively small, mastoid process that may indicate a female. Both central upper incisors have inlay holes (but no inlays). An upper left central incisor is also filed but doesn't match any known patterns (Romero 1958,

1970, 1986). A lower 3rd right molar is also present with some wear (but not heavy wear), indicating an adult or young adult. A dental carie is present on a lower incisor (circular on side of lower incisor root). Finally, there is an extra premolar in the collected material which may or may not be indicative of a second individual in this interment.

SD C236B-8 was assigned for a burial found just above bedrock in a small crypt on the northeastern end of Operation C236B (Figure 45). The crypt had clearly been impacted on its south side by the placement of SD C237B-5. On the north end of the crypt two pottery vessels were recovered (Figure 46), which help date this interment to the early part of the Late Classic Period. Also recovered were three large flamingo-tongue shells (Figure 43d-f). As found, SD C236B-8 contained the remains of a single individual. The eight teeth that were recovered are all adult with slight to moderate wear, but not all teeth are present. Sex identification was not possible

Structure M37

Structure M37 defines the northern side of the Chocolate residential group, rising approximately 0.9 m above the plaza. Excavation demonstrated multiple construction episodes and an origin point in the Early Classic Period, but no formal deposits were recovered.

Operation C236C was an axial trench set over Structure M37 (Figures 27, 47, and 48). It measured 5.85 m north-south by 2.0 m east-west. Multiple steps or facings were recovered once the humus had been removed and pieces of four successive floor levels were also in existence, providing support to different construction episodes over a lengthy occupation history. Pottery in structure fill above bedrock on the northern end of the building likely dates to the Early Classic Period (Figure 49). The core fill of Structure M37 also contained several interesting artifacts that

included speleothems (Figure 50b and 50f), a broken limestone bar (Figure 50c), and a limestone spindle whorl (Figure 50i).

Lemon Residential Group: Structures M33-M36

The Lemon residential group is located south of the narrow spit of ridge-top land that connects the Vanilla residential group with the hill supporting the Maple residential group (Figure 5). The group itself consists of four very low structures set around a well-defined plaza.

Structure M35

Structure M35 is the most prominent building in the Lemon residential group. It is located on the eastern side of the plaza and rises to a height of approximately 40 cm above the plaza floor.

Operation C237B consisted of an axial excavation placed over Structure M35 that measured 3.5 m east-west by 2 m north-south (Figures 51 and 52). The excavation was dug to bedrock and did not find any clear facings for the structure. An empty burial crypt was in evidence in the eastern portion of the building platform. An almost complete groundstone mano was recovered in the fill (Figure 53).

SD C237B-1 was assigned for a crypt in the rear of Structure M33 (Figure 55). While the crypt was covered with capstones (Figure 54), excavation found neither artifactual material nor preserved bone.

Maple Residential Group: Structures L70-L72

The Maple residential group is set atop a hillock that occupies the eastern extent of the ridge supporting the four residential groups (Figure 5). Three structures are situated around a raised plaza that is open to its west side. The southern building is the largest structure, but it was not investigated.

Structure L71

Structure L71 is the eastern construction in the Maple residential group. It rose approximately 0.60 m above the plaza. No formal architectural features were in evidence for Structure L71.

Operation C238B was the original axial excavation placed over Structure L71 that measured 5.5 m east-west by 2.0 m north-south. The western extension of this excavation later ran through the entire plaza on axis to Structure L71; this extension was designated as Operation C238C (Figures 56 and 57). No formal facings were found for Structure L71, but a burial (SD C238B-1) was identified in the western portion of the building. In the fill above the burial, two jadeite chips (Figure 58a,b) were recovered. Clearing the humus in front of the building revealed most of a face cache (Figure 61a), but its exact context could not be determined.

SD C238B-1 was assigned for an interment set into the eastern front of Structure L71. The burial occupied a crudely shaped crypt and contained multiple bodies (Figures 59 and 60). Two pottery vessels (Figure 61b and 61c) accompanied these individuals as well as a host of artifactual materials (Figure 62). Six jadeite beads were recovered along with two obsidian lancets, a spondylus bead, and two shell disks representing earrings. The number of long bones indicated multiple individuals in this burial, but only teeth were used to come up with a count of three individuals in SD C238B-1. There is a fragment of the maxillary bone preserved that contains several teeth. The one almost complete mandible is not well preserved, but evinces likely bone resorption and tooth loss. There is one set of incisors (see Figures 59 and 62m) that have jadeite inlays, all upper central incisors (one inlay hole was empty). There is at least one additional individual with a well-worn, no-inlaid lateral upper incisor. There are also just over a dozen teeth that belong to a roughly 4-year old based on deciduous and permanent teeth. In terms

of sex identification, a temporal bone may indicate the presence of a male. Likewise, the mandible, which is broken and of an older individual with resorption, may indicate a male.

Operation C238C was an extension of Operation C238B to the west. It was tangent to Operation C238B and measured 9.8 m east-west by 2 m north-south. Together, Operations C238B and C238C bisected the entire residential plaza (Figure 56). The entire excavation was taken down to bedrock and found the poorly preserved remains of three burials.

SD C238C-1 was assigned for some fragments of human bone found on bedrock in the center of Operation C238C (Figure 63). No age or sex or individual identifications are possible because of the preservation and nature of the sample. No artifactual material was recovered with the interment.

SD C238C-2 was assigned for another burial discovered on bedrock in Operation C238C immediately west of SD C238C-1 (Figure 63). A recovered left temporal bone possibly represents a male. Fragments of a skull and humerus are present; otherwise, there is very little bone. No artifactual material was recovered with the interment.

SD C238C-3 was assigned for the third burial discovered on bedrock in Operation C238C (Figures 64 and 76). It was located on bedrock west of the other two burials and consisted of long bones and cranial fragments as well as a few teeth from the primary individual, who was an adult of unspecified age and unspecified sex. Additional teeth exist from a subadult, perhaps a 1-year old based on unerupted teeth. The cranium was set on the south and the area associated with it and to its south was associated with a series of artifacts (Figure 65) that consisted of 24 heishi beads, two larger shell beads, one hematite bead, and one jadeite bead, as well as a single shell earring.

Structure L70

Structure L70 is the very low northern building in the Maple residential group. Even though it was not excavated, its form was visible from lines of stone on the ground surface. Both an elevation (Figure 66) and a plan (Figure 67) were done for the building for comparative purposes.

Coffee Residential Group: Structure L86-L88

The Coffee residential group is located north of the Maple residential group in the adjacent valley (Figure 5). It consists of three structures located on the eastern, northern, and western sides of a small plaza; the southern side of the plaza has no buildings. All three buildings in this group were investigated. The group appears to date entirely to the Late Classic Period.

Structure L88

Structure L88 is a small building on the eastern side of the Coffee residential group. In its collapsed form, it rises no more than 0.4 m above the plaza level. A single western facing was the entirety of the formal architecture that was encountered. General artifactual materials recovered in association with this residential group include pieces of monos and metates (Figure 69).

Operation C239B was an axial excavation placed over Caracol Structure L88 that measured 5.5 m east-west by 2.0 m north-south (Figures 68, 70, and 71). A single crude crypt was uncovered in the eastern part of Structure L88 (SD C239B-4) while four caches and another burial (SD C239B-6) were uncovered in the plaza in front of the building.

SD C239B-1 was assigned for an unlidded face cache that had its visage facing west (Figures 68, 71, 72, and 73a). The vessel was missing part of its rim and had been damaged in antiquity.

SD C239B-2 was assigned for a second cache concentration (Figures 68, 71, and 72) that had been crushed and barely set into the plaza fill. The concentration of sherds materials belonged to two lidded face caches and one set of small finger bowls (Figure 73b-d). The finger bowls contained a portion of a finger; the specific bone was not identifiable

SD C239B-3 was assigned for a third concentration of sherds (Figures 68, 71, and 72) that produced the complete lid of face cache (Figure 73e). This lid may be the missing cover for SD C239B-1, but the spatial difference in contexts is suggestive of two events.

SD C239B-4 was assigned for a crude crypt (Figures 71 and 74) in the eastern core of Structure L88 that contained two complete pottery vessels on its southern side. The pottery vessels (Figure 75) date to the early part of the Late Classic Period. No bone was recovered from the crypt, possibly indicative of the acidity of the soil.

SD C239B-5 was assigned for another cache vessel found slightly deeper in the fill and southwest of the other concentrations (Figures 71 and 72). The cache vessel was lidded and complete (Figure 73f). No other artifacts were found in association.

SD C239B-6 was assigned for an interment dug into soft bedrock and covered with capstones (Figures 71, 76, and 78). Based on the scattered artifact and bone distribution, it is suspected that it had been re-entered in antiquity and some of its contents removed. Two pottery vessels were associated with the interment; one vessel was in situ on the very bottom of the chamber under long bone (Figure 78a); the other was largely complete, but was broken and scattered throughout the chamber (Figure 78b). Artifactual materials recovered included a complete shell scoop (Figure 79d), a limestone spidle whorl (Figure 79a), two worked shell disks (Figure 79b,c), and a small groundstone metate (Figure 79d). The bone was largely in disarray and non-articulated, but appeared to belong to a single individual. Assorted long bones (arm and

leg) were recovered along with six teeth. The interred individual was likely an older adult based on dental wear. There was also tartar build up on some teeth. No sex identification was possible.

Structure L87

Structure L87 was a meter high mounded structure on the northern side of the Coffee residential group (Figure 5). A large tree dominated its central axis and was removed during excavation. No architectural features were in evidence on the surface.

Operation C239C was placed over the axis of Caracol Structure L87 that measured 5.95 m north-south by 2.0 m east-west (Figures 80, 81, and 82). A well-built front step was encountered in the front of the building. Penetration of the building found evidence of earlier building episodes consisting of partial floors and an earlier facing (Figure 82). A secondary construction was also encountered on the plaza surface in front of the structure on the western side of the excavation. The rim of a large Late Classic storage container was smashed against this feature (Figure 83).

Structure L86

The north side of the Coffee residential group was defined by a sloping multi-level structure (Figure 5) that rose in its back (west) to almost a meter in height in accord with the underlying bedrock (see Figure 84). It is suspected that Structure L86 was the residential structure for this group based on its form (see A. Chase and D. Chase 2014).

Operation C239D was an axial excavation into Caracol Structure L88 that measured 5.7 m east-west by 2.0 m north-south (Figures 80, 84, and 85). Excavation found several rows of stones that likely functioned as facings for the building (see Figure 85). It is suspected that they represent at least two different construction episodes. A preserved part of the original plaza floor

was encountered in front of the building. The most notable artifact from this excavation was a stone sphere of unknown function found in the plaza fill in front of the structure (Figure 69c).

Potential Reservoir

A large potential reservoir was identified just to the southwest of the Coffee residential group at the base of the hill going up to the Maple residential group (Figure 5). A sloping area on the eastern side appeared to provide entry to the sunken feature. In order to see if it could be a reservoir, a series of co-located excavations were placed over the north-south axis of the sunken area and also the eastern side of the east-west axis of the feature.

Operations C239E-C239G consisted of a series of investigations placed over the suspected reservoir in such a way as to gain a long section and half-section of the feature (Figures 88 and 89). Operation C239E was the northernmost excavation and measured 2 m by 2m. Operation C239F defined the eastern segment of the feature and measured 3.0 m east-west by 1 m north-south. The southern side was delineated by Operation C239G, a trench measuring 6 m north-south by 1 m east-west. The overall width of the feature was approximately 6 meters while the length of the feature was approximately 17 meters (north-south). Sherd materials were encountered in all the layers of the excavations going down to bedrock, suggesting that this was indeed a human construction into which soil had washed.

Cream Residential Group: Structures L84 and L85

Located north of all the other residential groups dug during the 2025 field season was a small group composed of two structures that was located on a small hillock (Figure 5). The group was very difficult to see as both structures are only represented by lines-of-stone. The group could not be located during the 2024 field season because of tree fall, even though it is less than 50 m from the Mars residential group dug during that season.

Structure L85

Structure L85 is a small line of stone structure that faces to the south and has a second building, also facing south, located immediately to its northwest.

Operation C240B was an axial trench over Structure L83 that measured 2 m north-south by 1.5 m east-west (Figures 89 and 90). The excavation encountered the facing stones for the structure and encountered bedrock a short distance below the ground surface. The core of the building contained a broken limestone bar (Figure 91), indicating that rituals involving these objects was practiced in even the least impressive of residential groups.

Significance

A topic of interest to many Mesoamerican researchers in recent years has been the study of neighborhoods in the archaeological record (e.g., Arnauld et al. 2012; A.S.Z. Chase 2023a; Thompson et al. 2022). By investigating neighborhoods within a larger urban community, archaeologists hope to gain more information on the local-level social organization of larger centers and to examine material similarities and differences among these theoretically cohesive social groups. The Caracol Archaeological Project has carried out settlement pattern research since the first field season in 1985 and has specifically engaged in attempting to identify and investigate co-located residential groups in various Classic Period (CE 550-900) neighborhoods since 2006 (even though some co-located groups were excavated during earlier field seasons). Comparison of the archaeological materials from different neighborhoods permits the examination of the material record for information related to relative social status, ritual practices, and access to and participation within a broader market economy.

Initially, potential neighborhoods were crudely defined through topographic analysis. More recently, however, lidar has been employed with least cost path, clustering, and nearest

neighbor analyses to derive potential neighborhood aggregations based on service areas and models of interaction (A.S.Z. Chase 2021, 2023a). These geospatially derived neighborhood divisions can be tested and analyzed in terms of recovered archaeological materials. Preliminary analysis of ritual materials from residential groups at Caracol, Belize has suggested that these urban delineations represent meaningful units with more similarities within than between neighborhoods (ASZ Chase 2021, 2023a). The research that was undertaken during 2023 and 2024 was designed to help complete the sampling of one neighborhood and this was accomplished.

This research is suggesting that what appears at first to be randomly distributed residential settlement on the ground at Caracol is actually organized in very specific ways that better integrated the site's population into cohesive local social units in antiquity. As a result of research undertaken in 2023 and 2024, an entire Caracol neighborhood (as defined by the newer lidar analysis) has been archaeologically tested and can now serve as a benchmark for further comparison and interpretation. All 22 of the residential groups in the Dos Aguadas neighborhood have been archaeologically tested and can now undergo more detailed analysis. This neighborhood sample should permit us to model the development of this neighborhood over time and also to use the results from these investigations to generate future research questions. It should also provide a meaningful archaeological sample from which to derive an understanding of the internal spatial organization of Caracol on a smaller local scale.

Neighborhoods are often assumed to form the backbone of ancient cities, but they have been difficult to identify or test archaeologically. Thus, the methods and results of the Caracol research and future analyses that will be undertaken may have broader use in other disciplines interested in city planning, social organization, and urban sustainability.

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TABLE 1:
Caracol Project Members: 2024 Field Season

Staff:		
Directors		
	Arlen F. Chase	C1
	Diane Z. Chase	C2
Lab and Field Directors		
	Adrian S.Z. Chase	C154
Field Supervisors		
	Gabriela Saldana	C253
Field Assistants		
	Gina Cardenas	C259
	Sonia Escobedo	C260
	Declan Gass	C261
	Rumari Ku	C262
Belizean Support Personnel:		
Kitchen		
	Angelica Meneses	
	Linda Aurora Meneses	
	Guadelupe Meneses	
	Glenda I. Garcia Vasquez	
	Flor Heranadez	
Field		
	Carlos Mendez	
	Saul Galeano	
	Jaime Iglesias	
	Gerardo I. Magana	
	Reynaldo Cunil	
	Jorge Israel Itza	
	Flavio Pirir	
	Abner David Mendez	
	Edwin Rafael Chan	

Figures

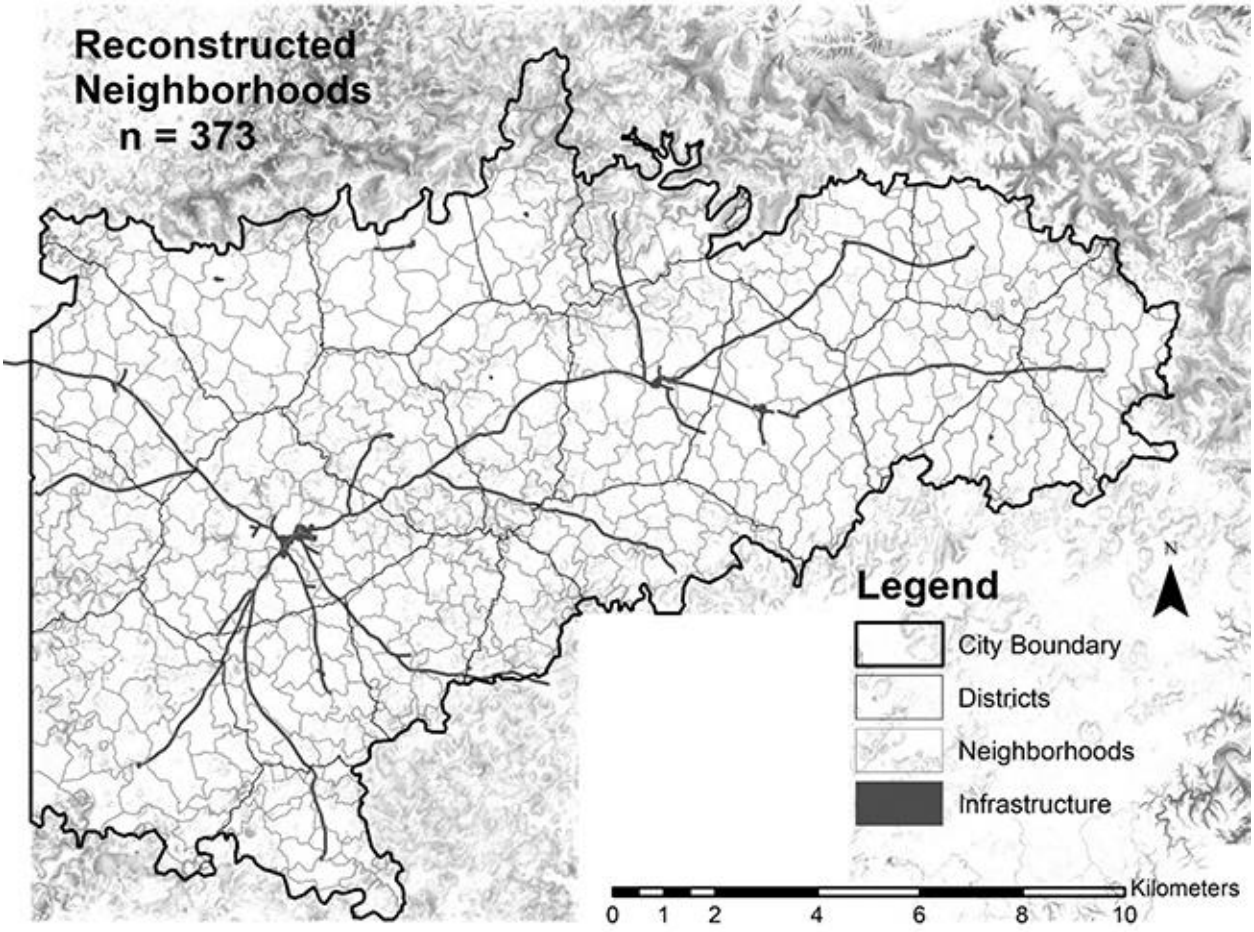

Figure 1. Reconstructed districts and neighborhoods at Caracol, Belize (image provided by ASZ Chase).

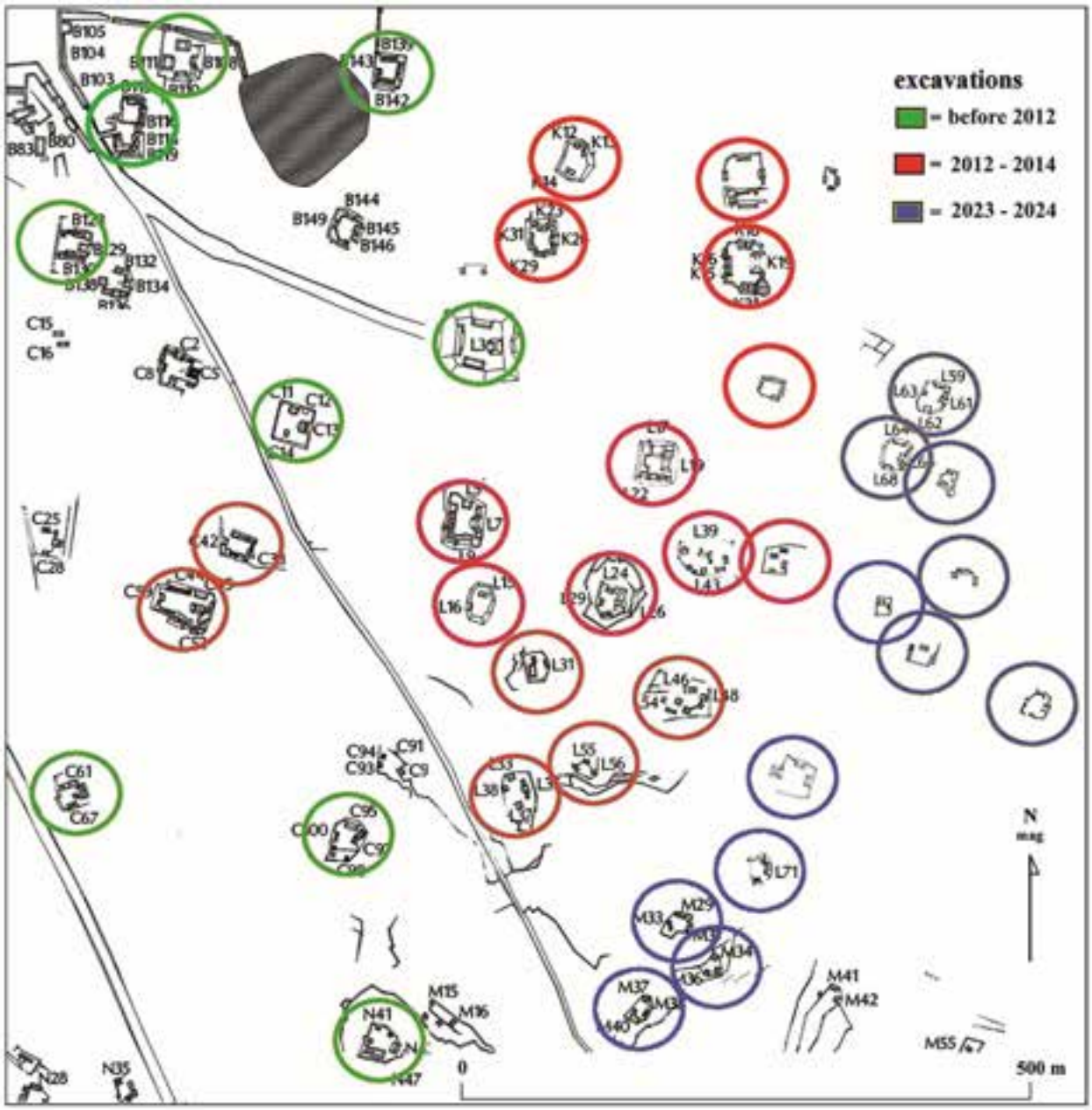

Figure 2. Groups excavated to the southeast of the Caracol epicenter, largely as a result of the Machete Plateau program from 2012 to 2014 and the Dos Aguadas neighborhood program in 2023 and 2024..

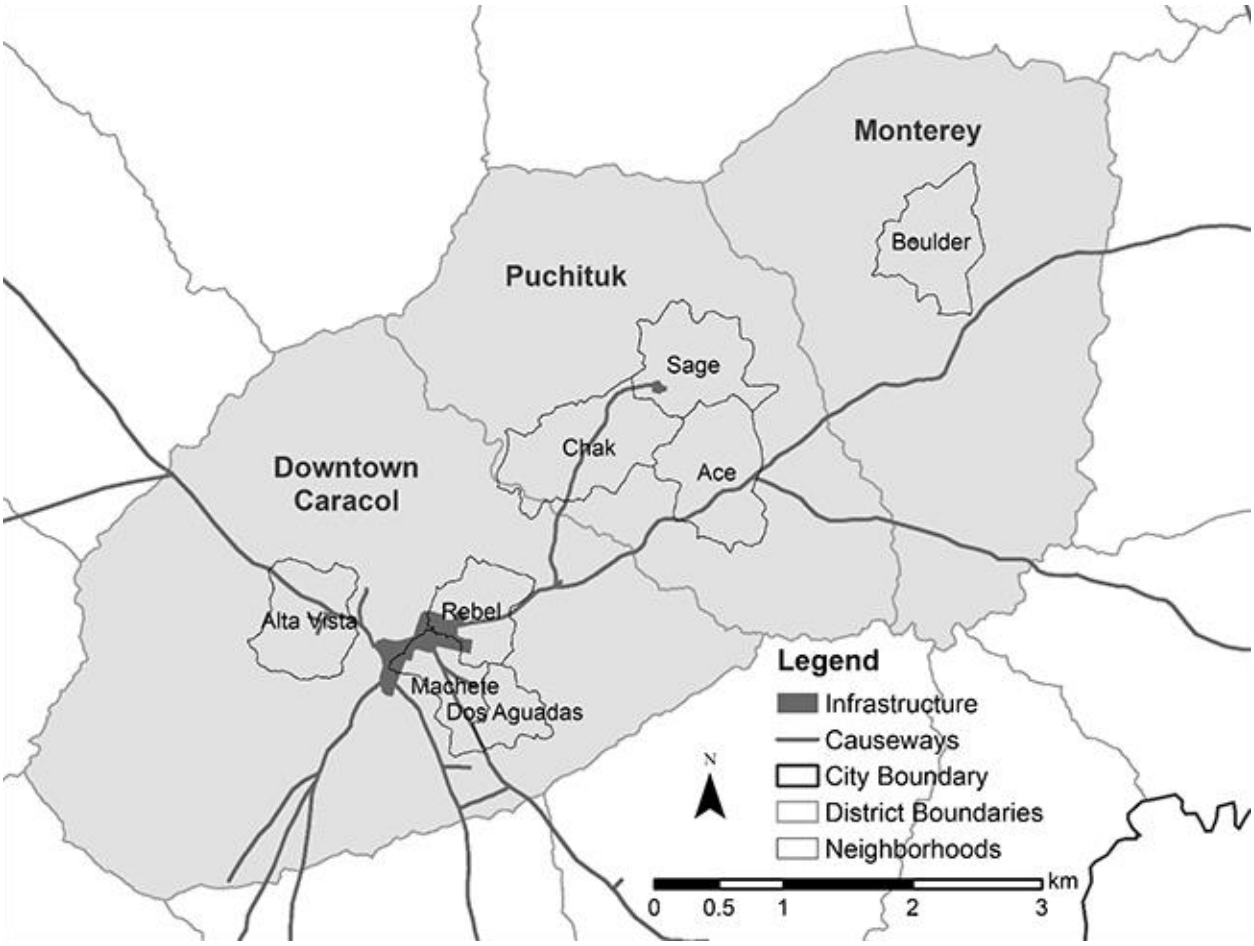

Figure 3. Neighborhoods defined and characterized by artifact analysis carried out by ASZ Chase (2021; image provided by ASZ Chase).

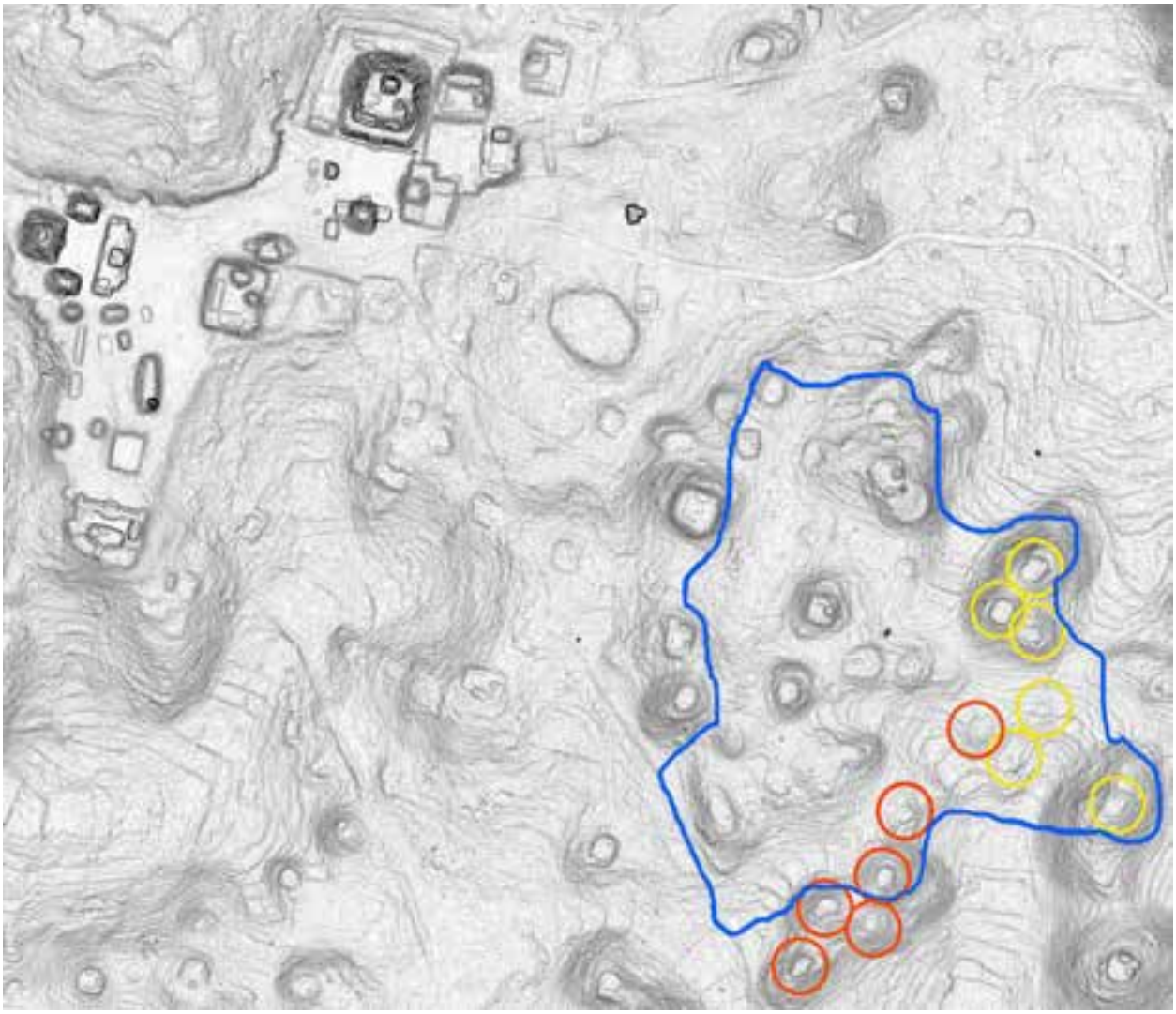

Figure 4. The Dos Aguadas neighborhood (blue outline) showing the residential groups excavated during the 2023 field season (yellow) and the 2024 field season (red circles).

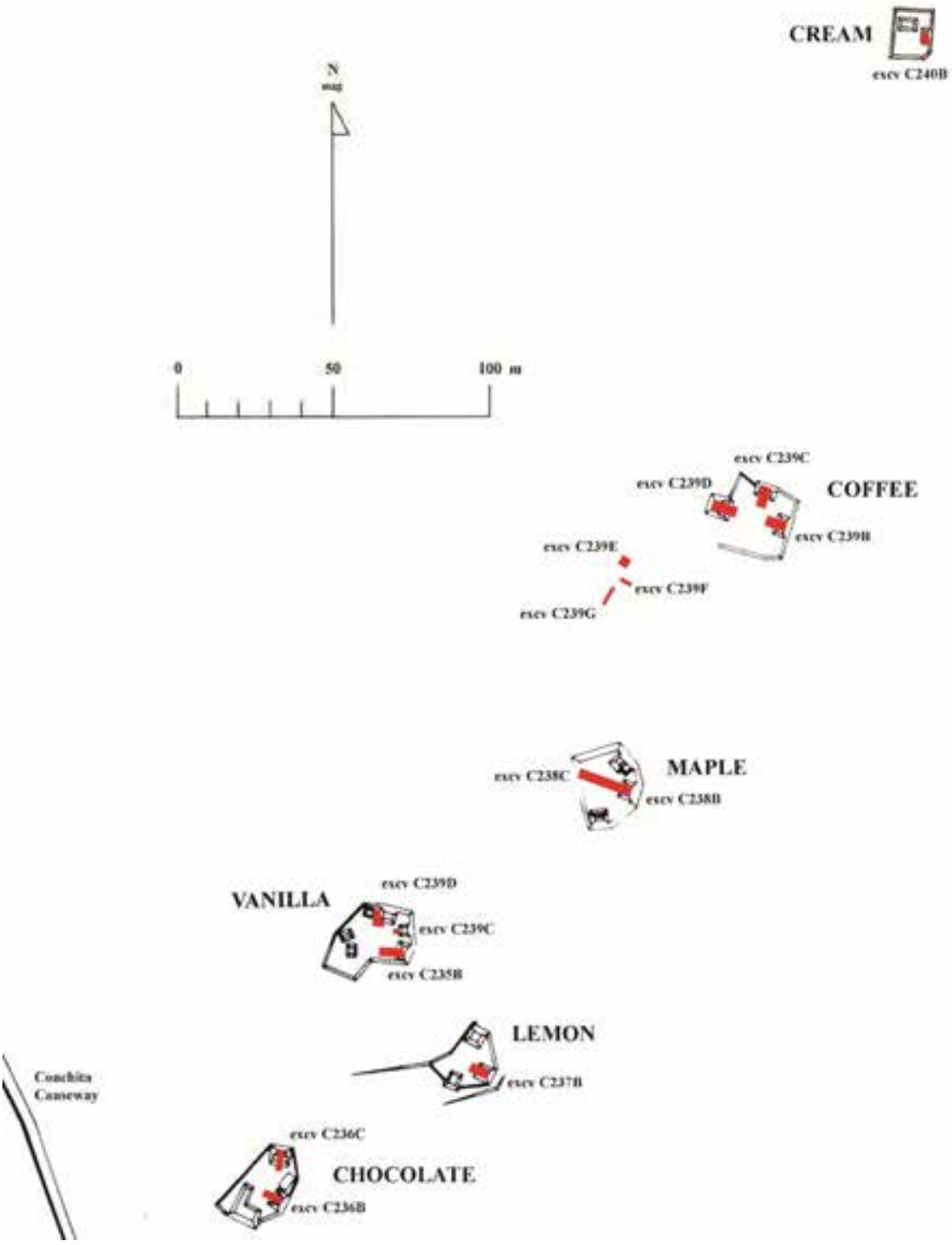

Figure 5. Plans of the residential groups excavated in 2024 with the locations of the excavations included within this report.

Figure 6. Photographs of excv. C235B, focusing on Caracol Structure M31.

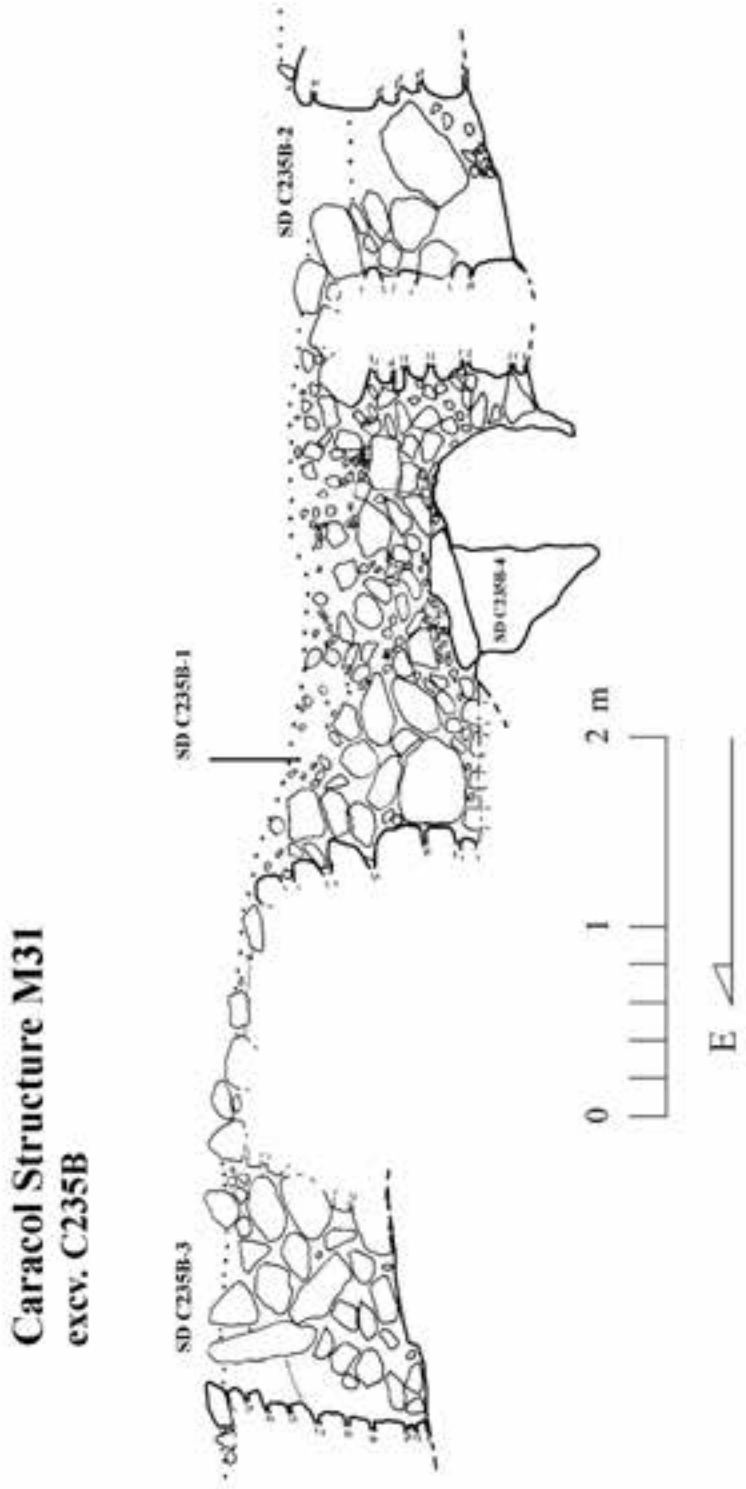

Figure 7. Section through Caracol Structure M31, as revealed by Operation C235B.

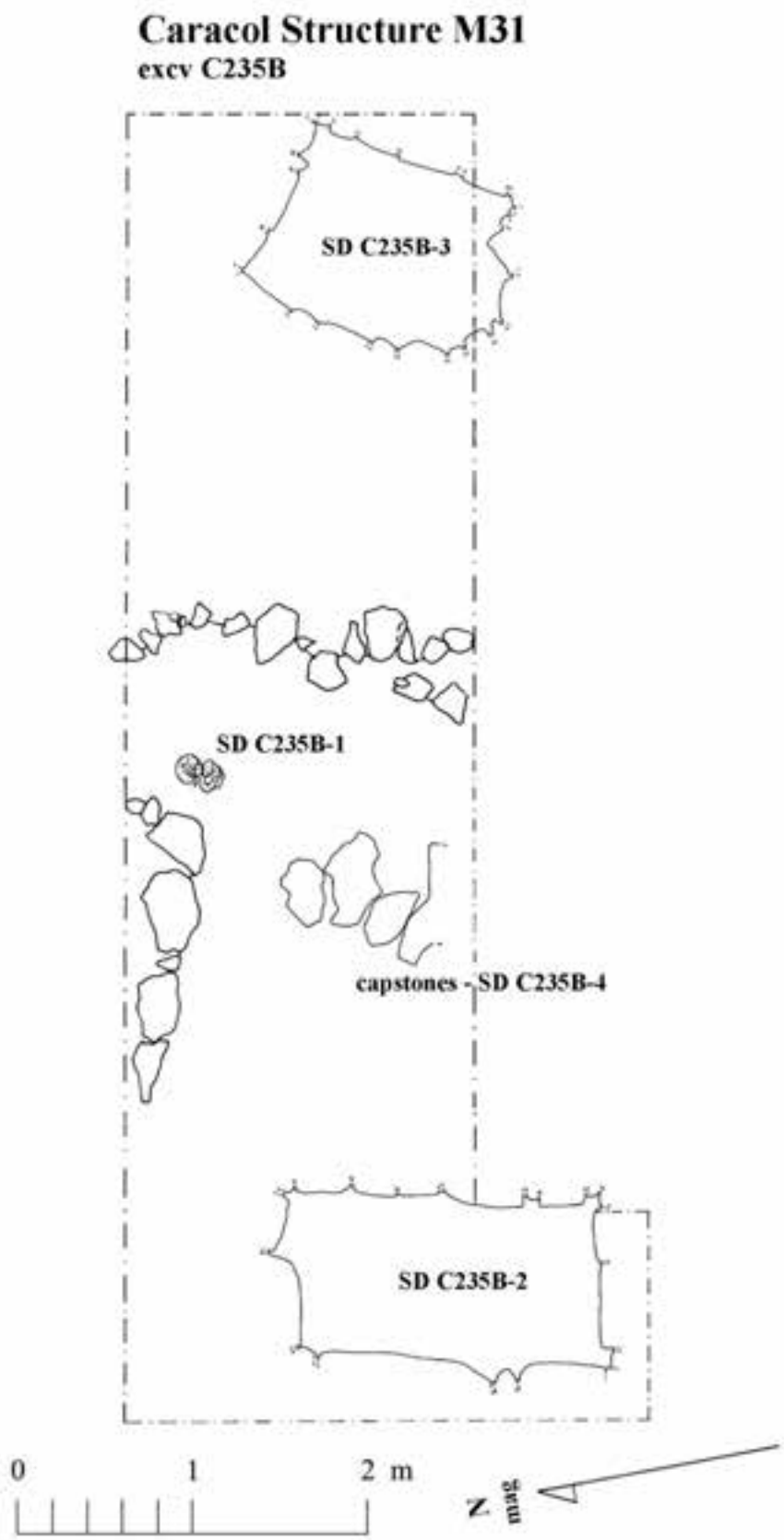

Figure 8. Plan of features and deposits associated with Caracol Structure M31.

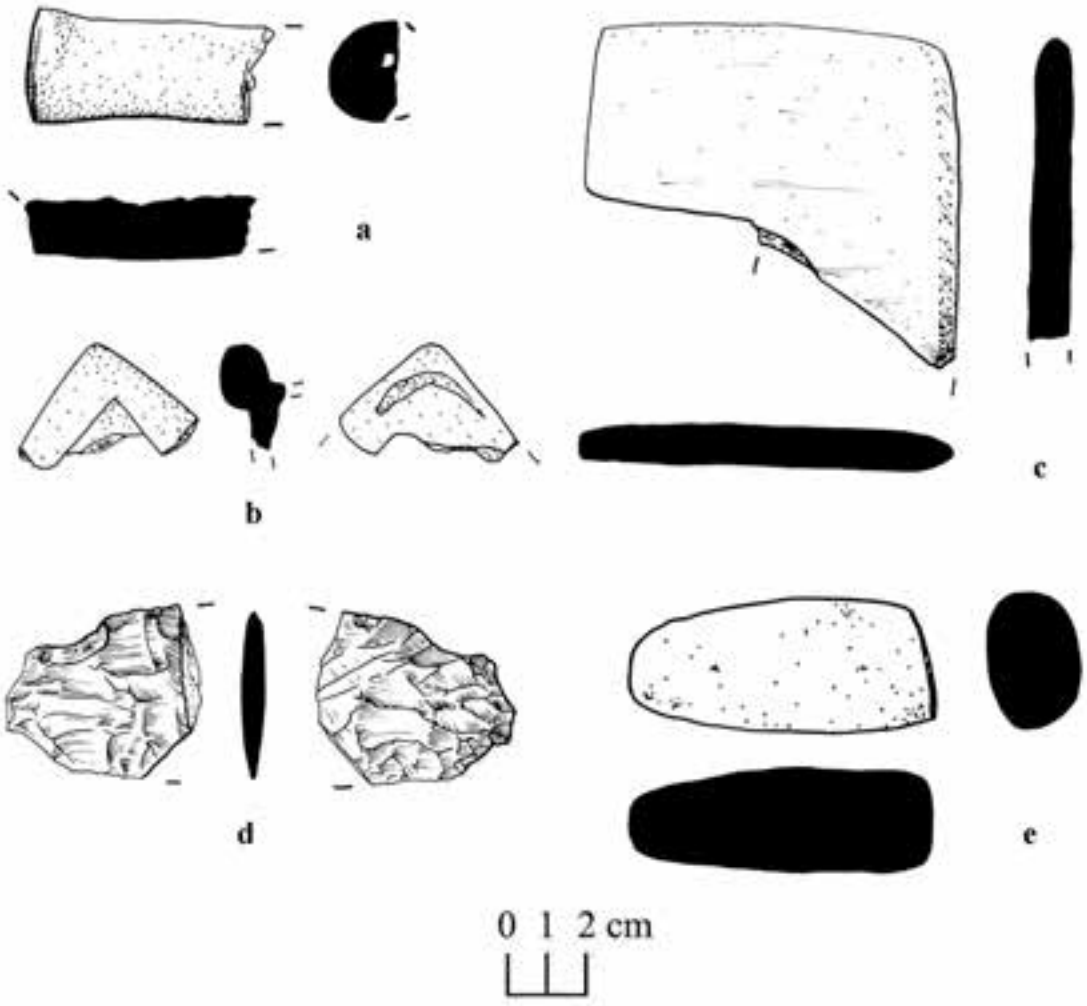

Figure 9. Artifacts associated with Operation C235B: a. speleothem fragment; b. ceramic applique fragment; c. broken slate macehead; d. broken chert biface; e. limestone bar.

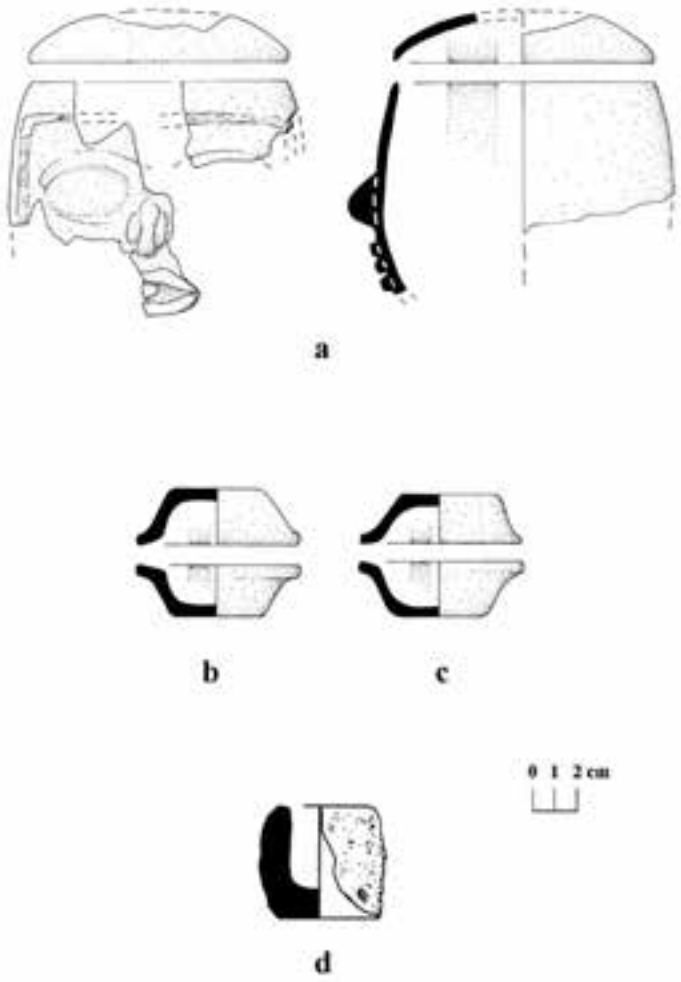

Figure 10. Pottery vessels associated with Operation C235B: a. Hebe Modeled; b., c. Ceiba Unsipped (SD C235B-1); d. undesignated unslipped (SD C235B-2).

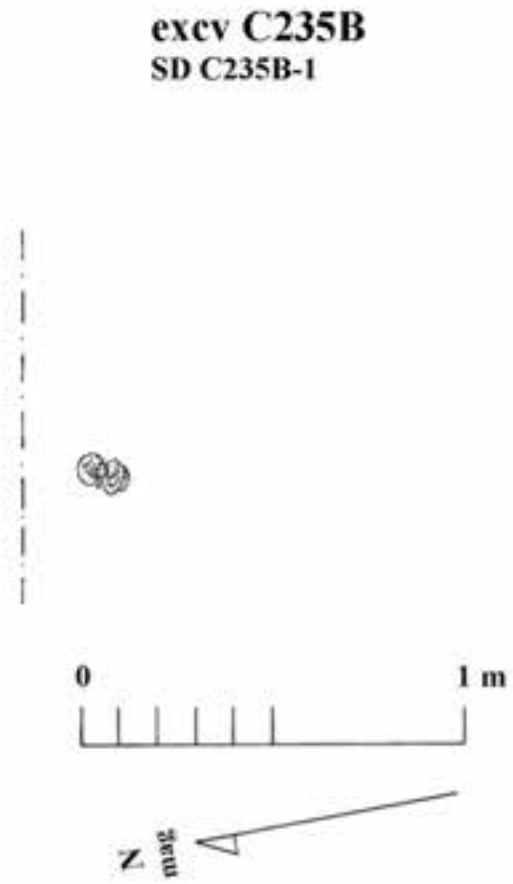

Figure 11. Plan of SD C235B-1.

Figure 12. Photographs of SD C235B-2 and SD C235B-3.

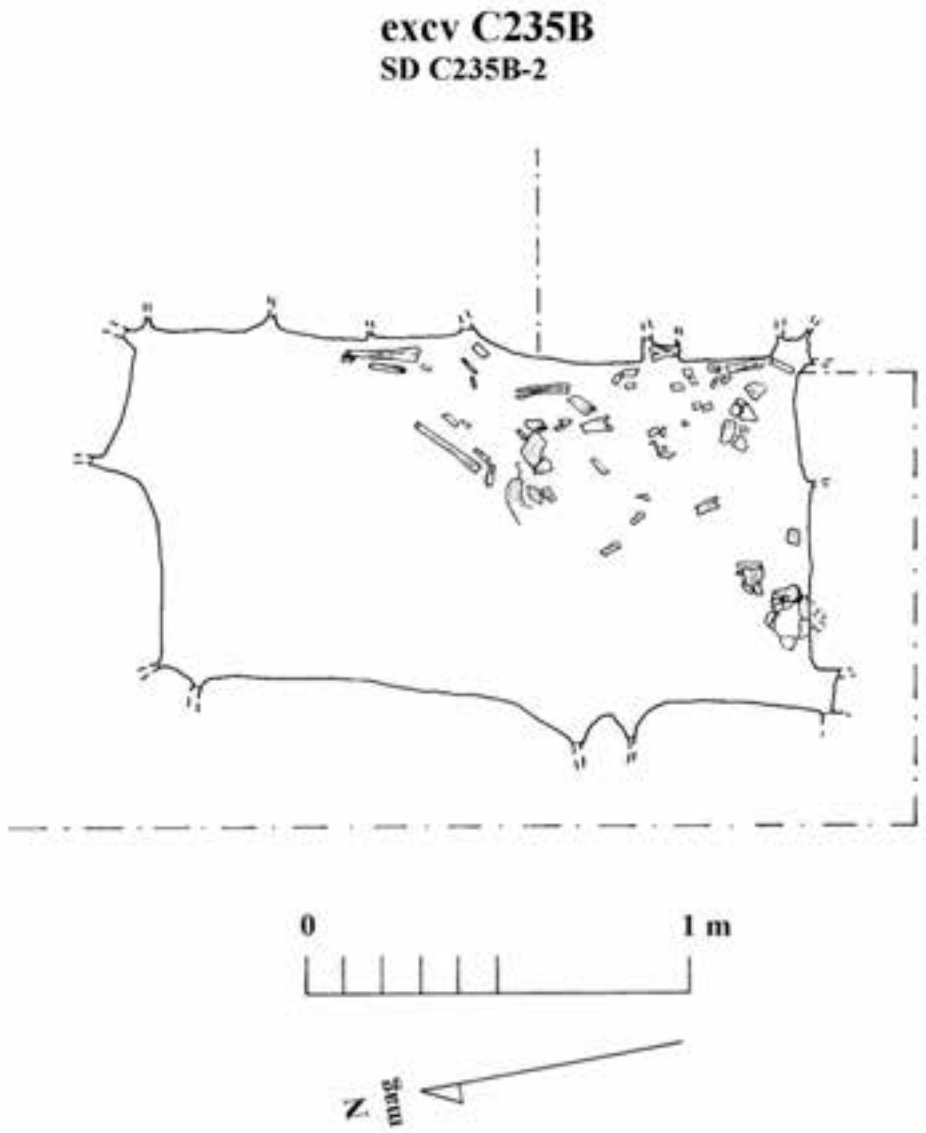

Figure 13. Plan of SD C235B-2.

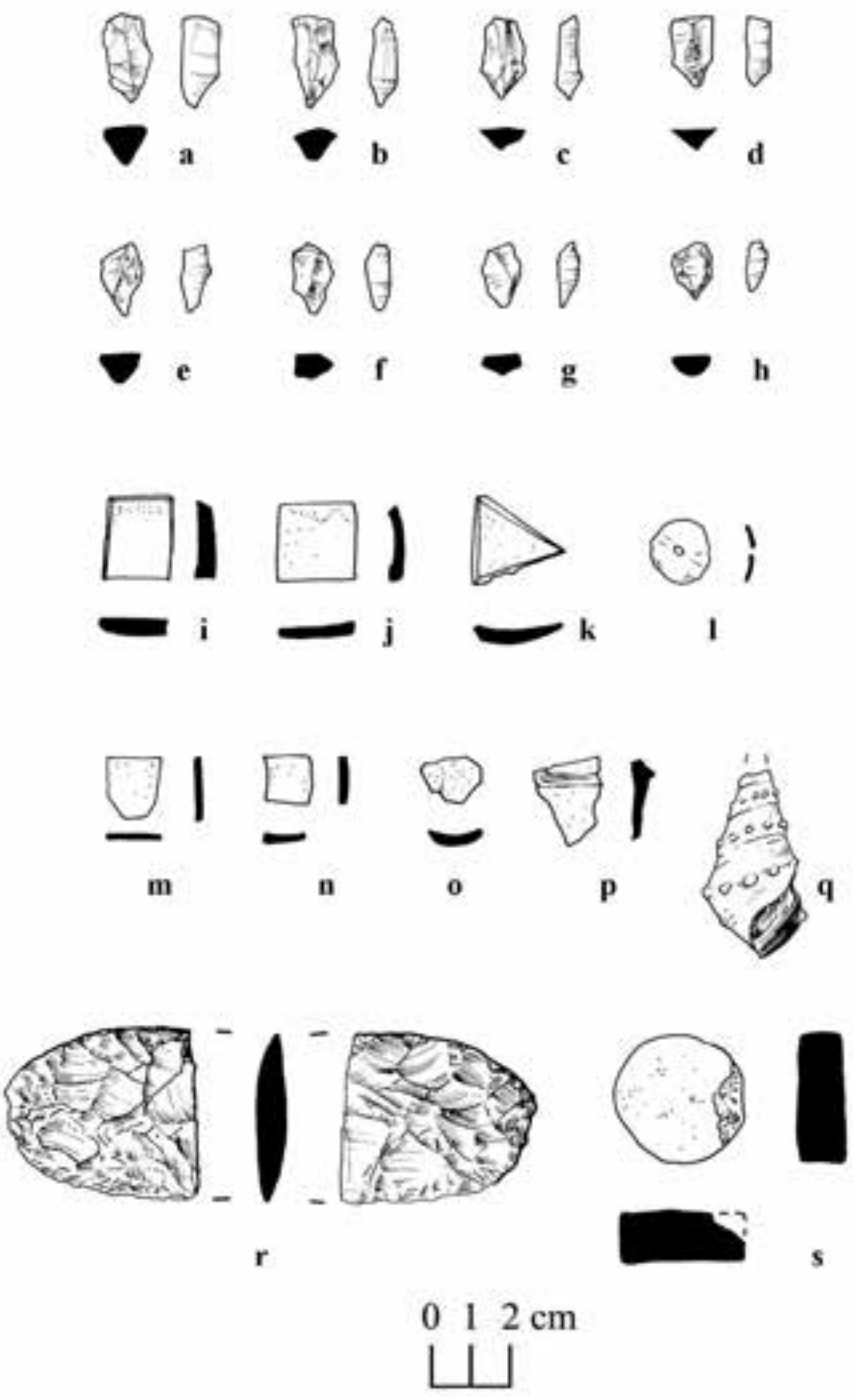

Figure 14. Artifactual materials associated with SD C235B-2: a-h: chert drills; i.-p. worked seashell; q. unworked seashell; r. broken chert bifac; s. ceramic disk.

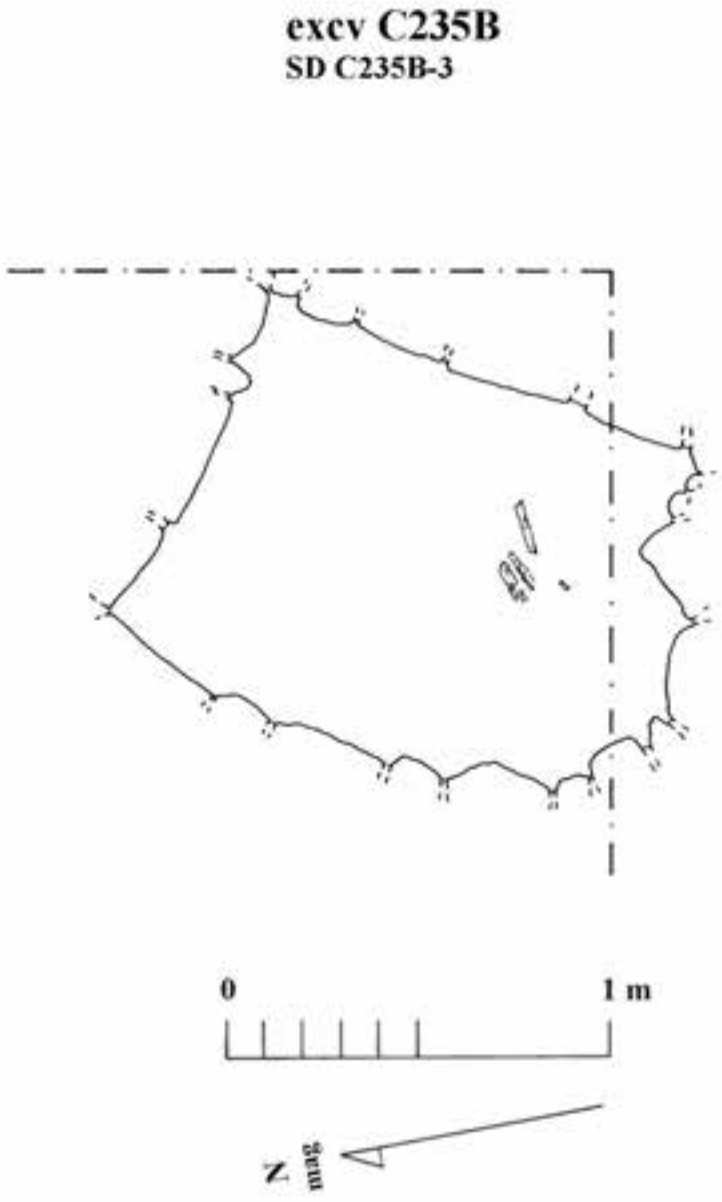

Figure 15. Plan of SD C235B-3.

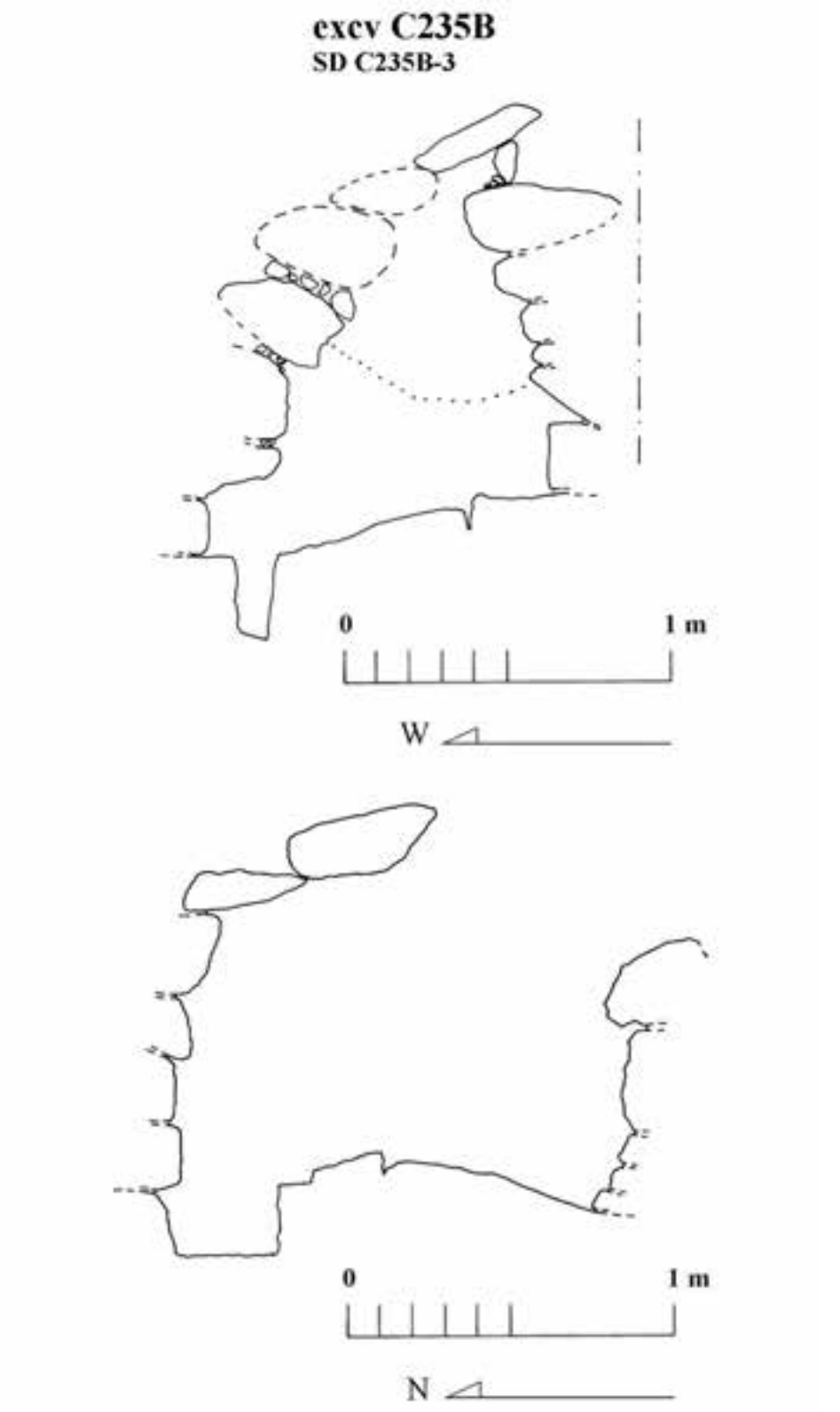

Figure 16. Cross-Sections of SD C235B-3.

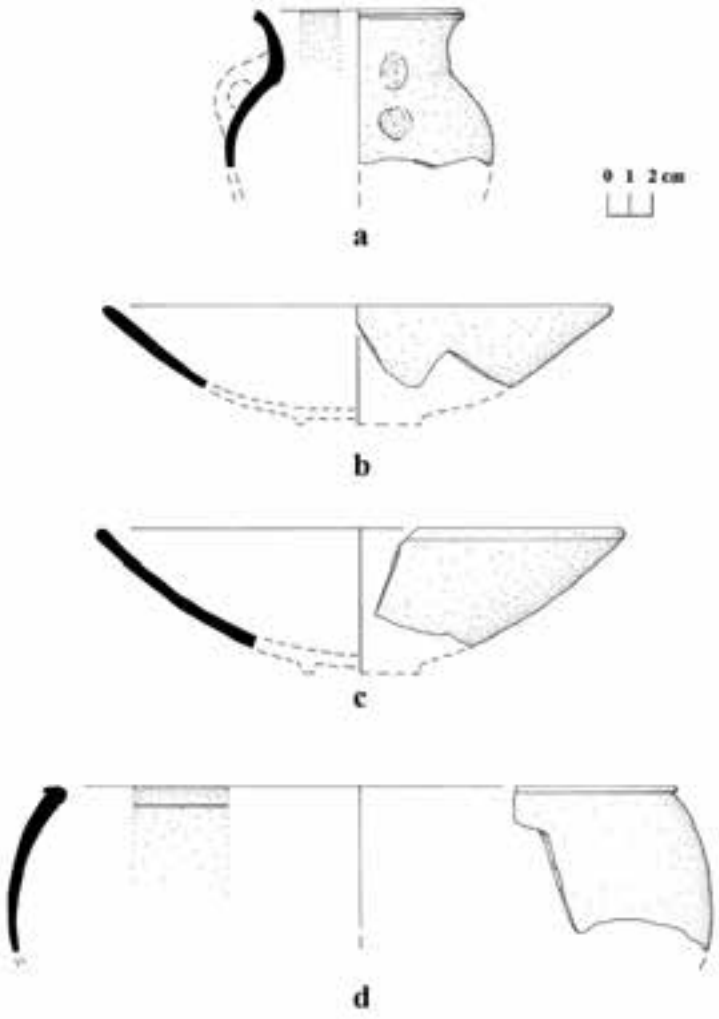

Figure 17. Pottery vessels associated with SD C235B-3: a. undesignated applique; b, c. eroded Machete Polychrome; d. Ceiba Unslipped.

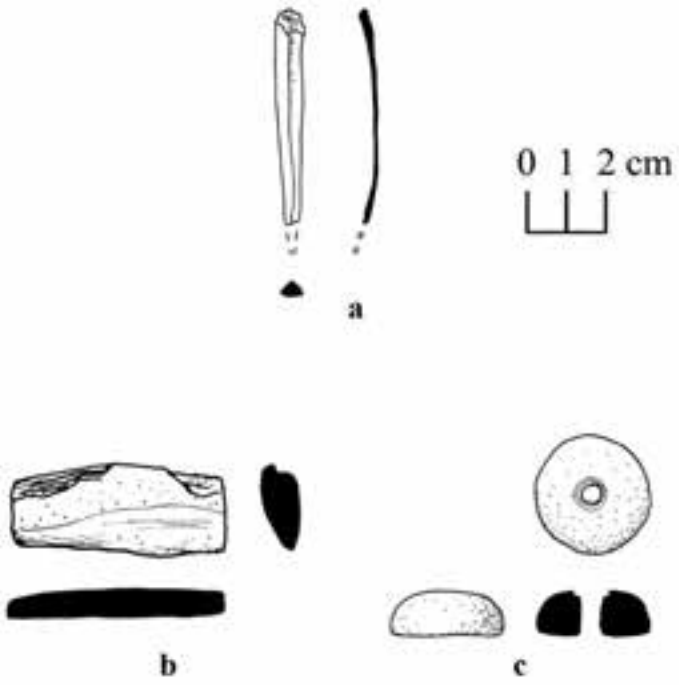

Figure 18. Artifactual material associated with SD C235B-3 (a.,b.) and SD C235B-4 (c.): a. obsidian lancet; b. ground slate fragment; c. limestone spindle whorl.

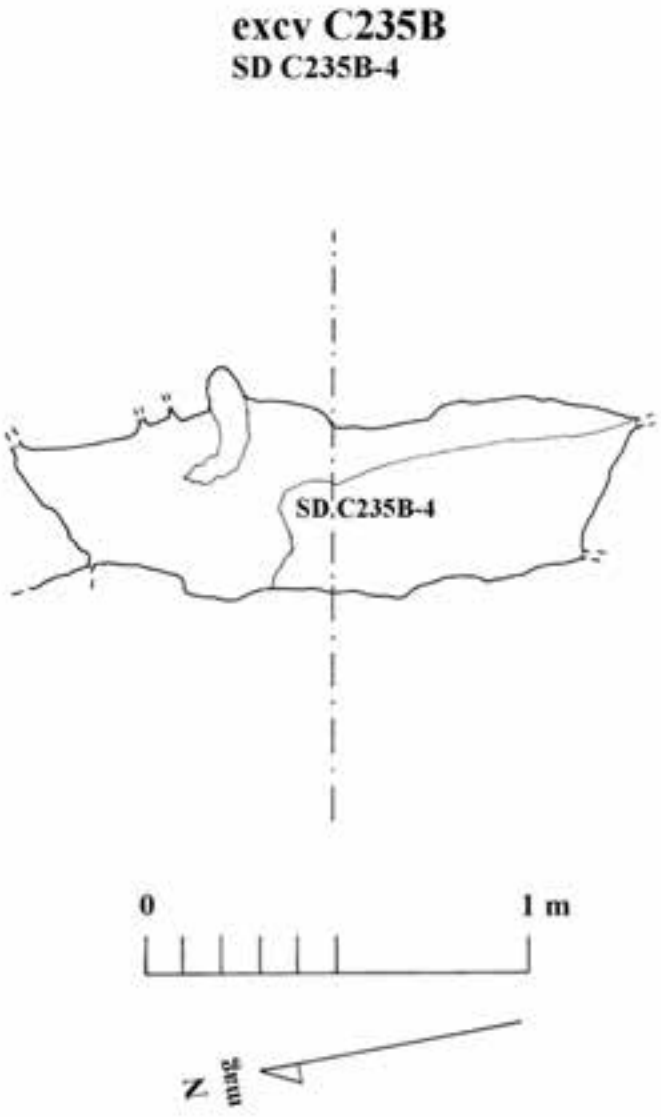

Figure 19. Plan of SD C235B-4.

Figure 20. Section of test in front of Caracol Structure M30, as revealed by Operation C235C.

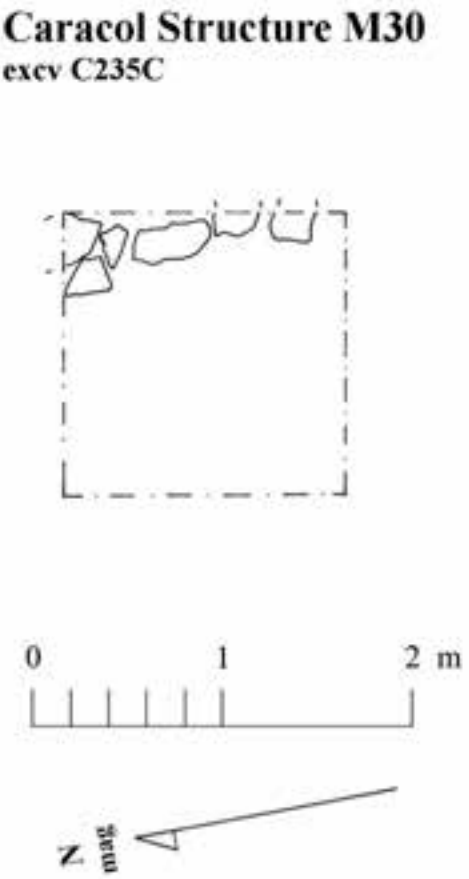

Figure 21. Plan of Operation C235C.

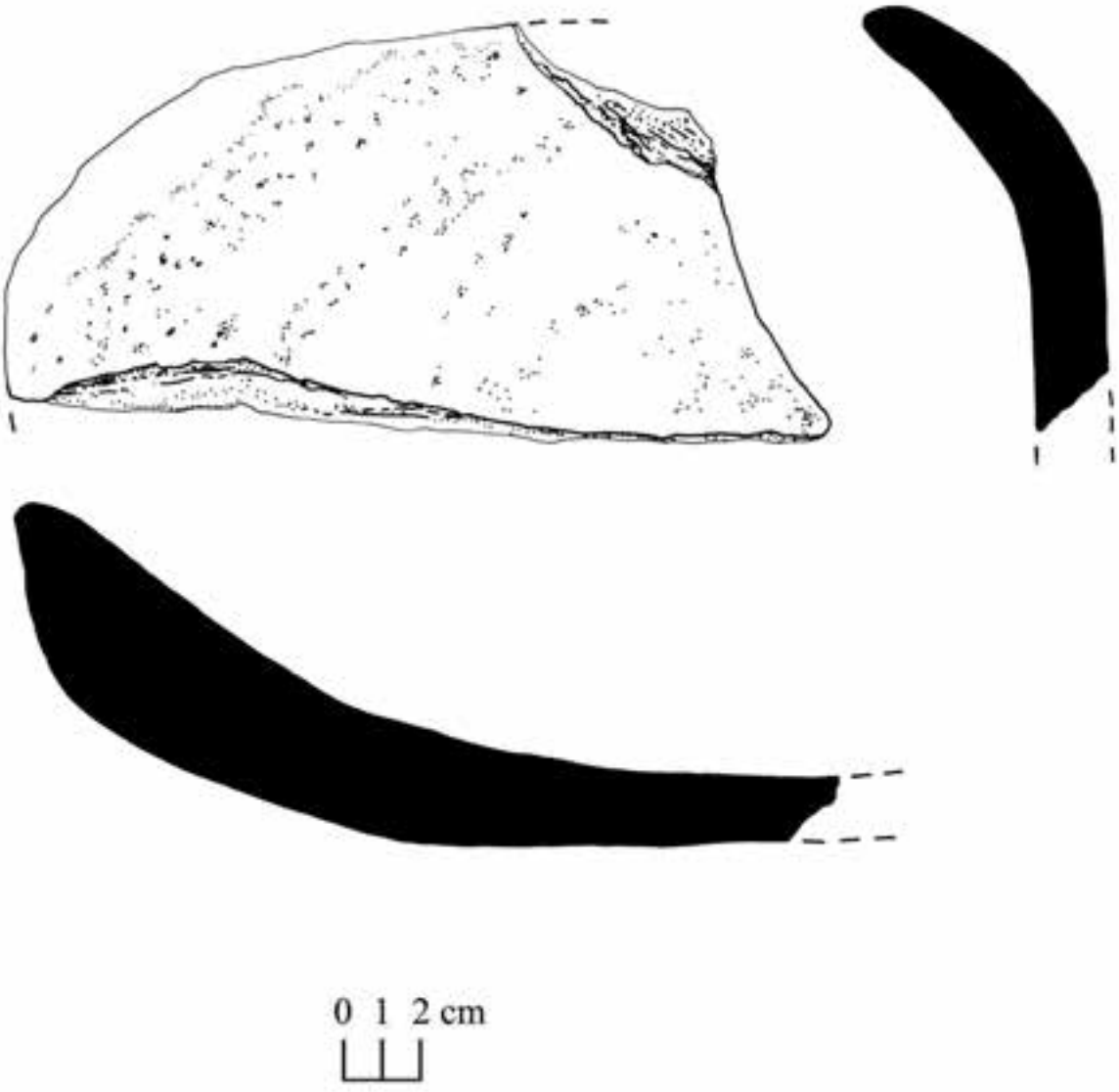

Figure 22. Artifactual material associated with Operation C235C: metamorphic metate fragment.

Figure 23. Photograph of Operation C235D associated with Caracol Structure M29 and of worked shell associated with SD C235B-2.

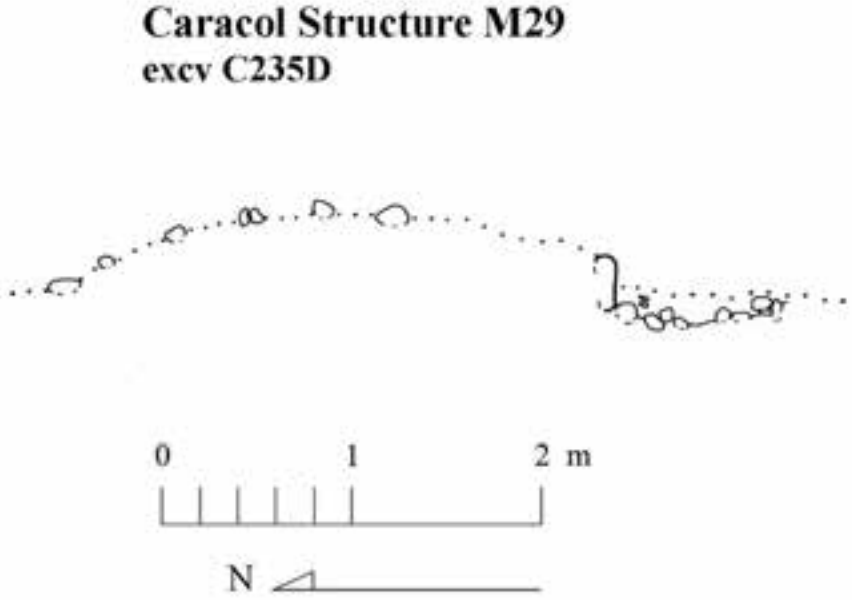

Figure 24. Section through Caracol Structure M29, as revealed by Operation C235D.

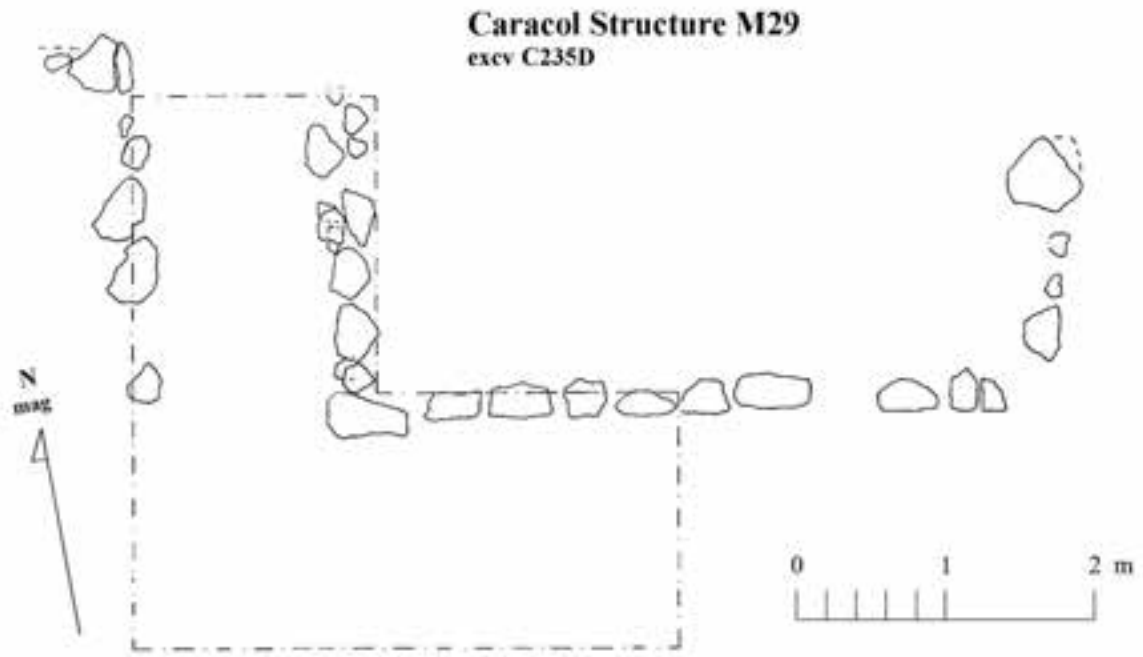

Figure 25. Plan of Operation C235D.

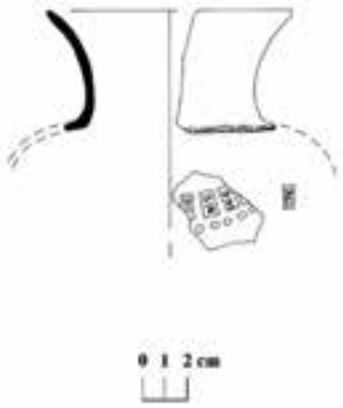

Figure 26. Pottery vessel associated with Caracol Structure M29: Pantano Impressed.

Figure 27. Photographs of Operations C236B (upper and middle) and C236C (lower) in Caracol Structure M37 and M39.

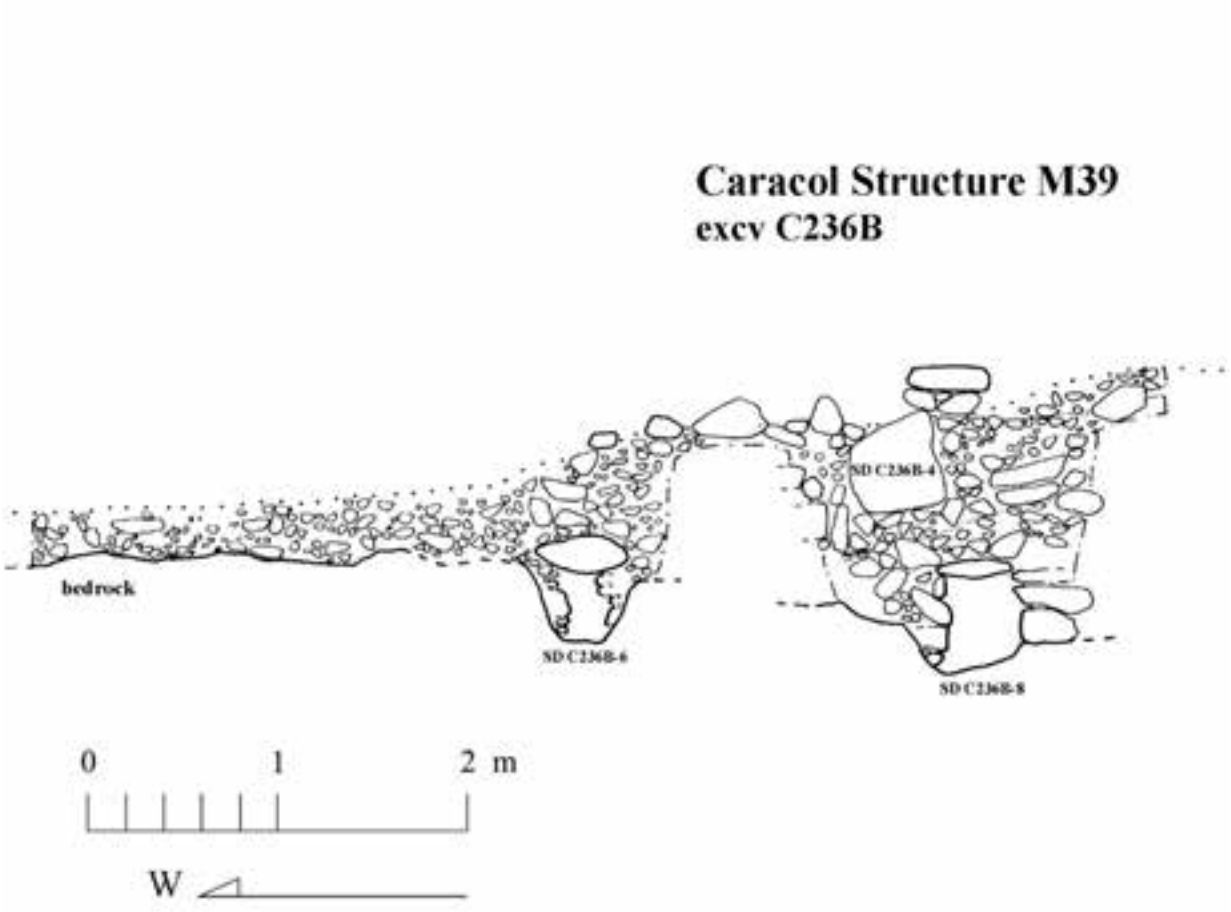

Figure 28. Section through Caracol Structure M39, as revealed by Operation C236B.

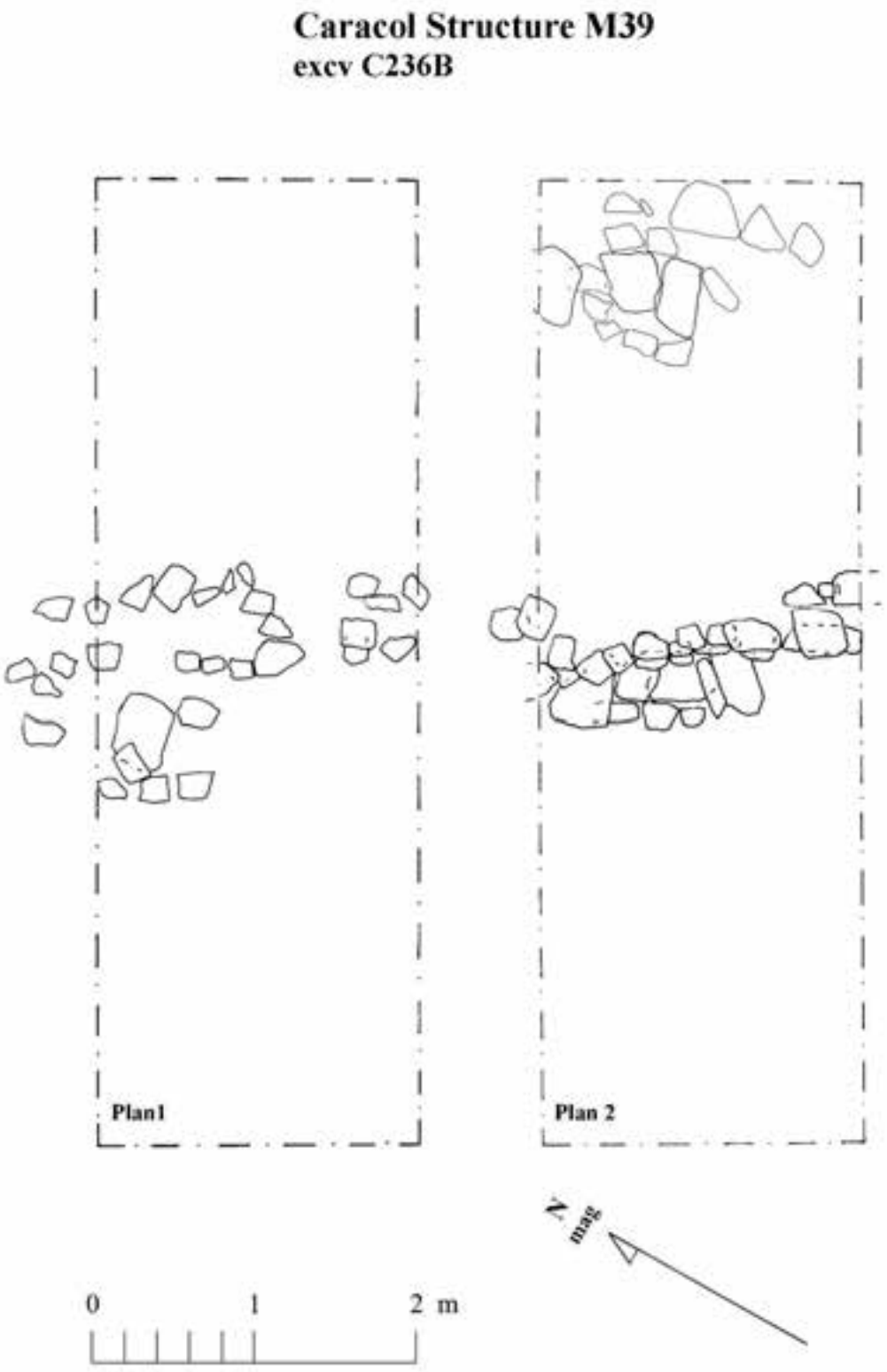

Figure 29. Plans of Operation C236B.

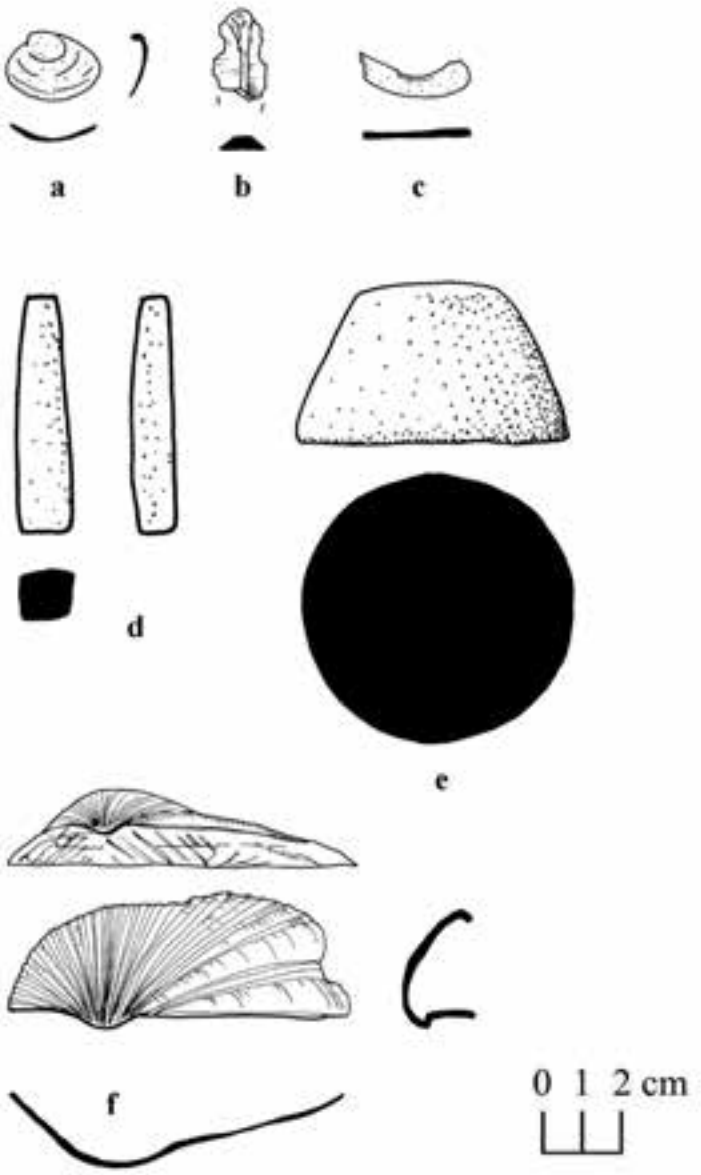

Figure 30. Artifactual materials associated with Operation C236B: a. marine clam shell; b. obsidian blade fragment; c. worked shell; d. worked shell bar (probably from SD C236B-7); e. worked limestone cone; f. marine shell.

Figure 31. Photographs of Special Deposits C236B-1 (upper), C236B-2 (middle), and C236B-3 (lower).

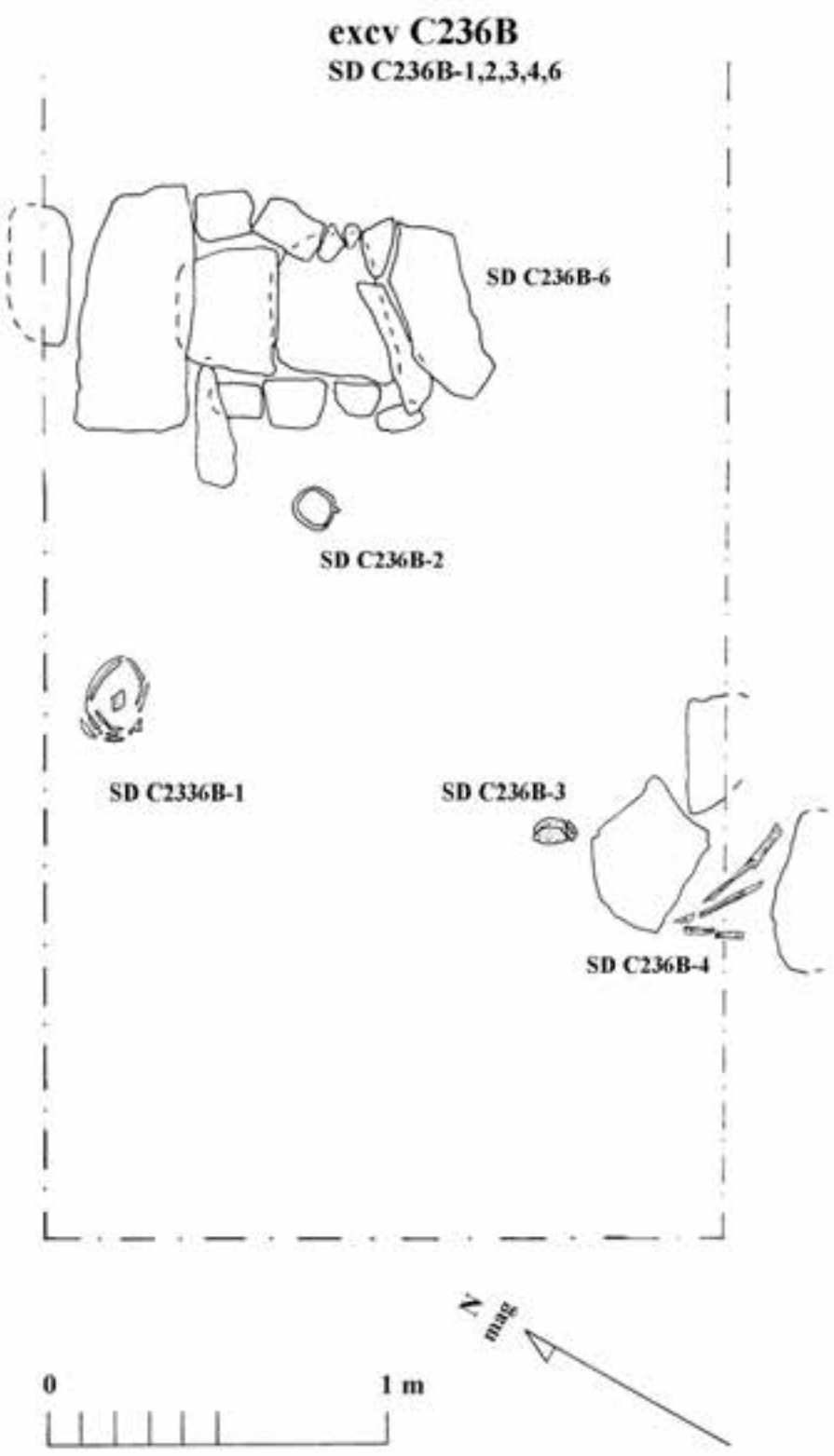

Figure 32. Plans of SDs C236B-1, C236B-2, C236B-3, and C236B-4.

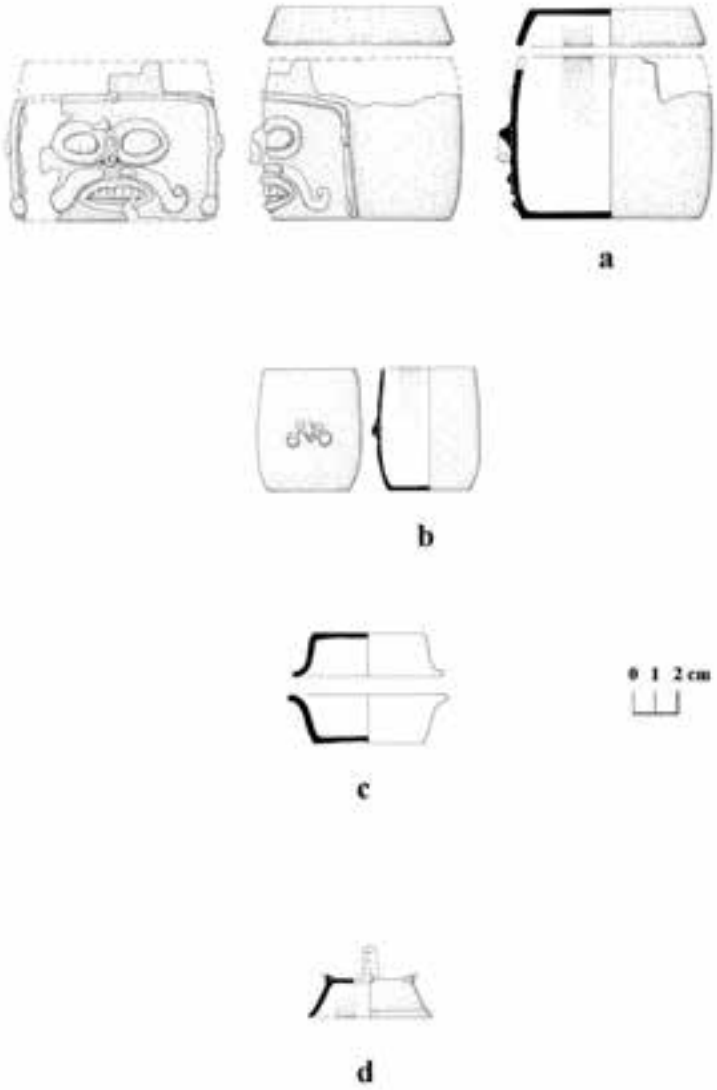

Figure 33. Pottery vessels from Operation C236B: a. Hebe Modeled (SD C236B-1); b. Hebe Modeled (SD C236B-2); c. Ceiba Unslipped (SD C236B-3); d. Pedregal Modeled lid.

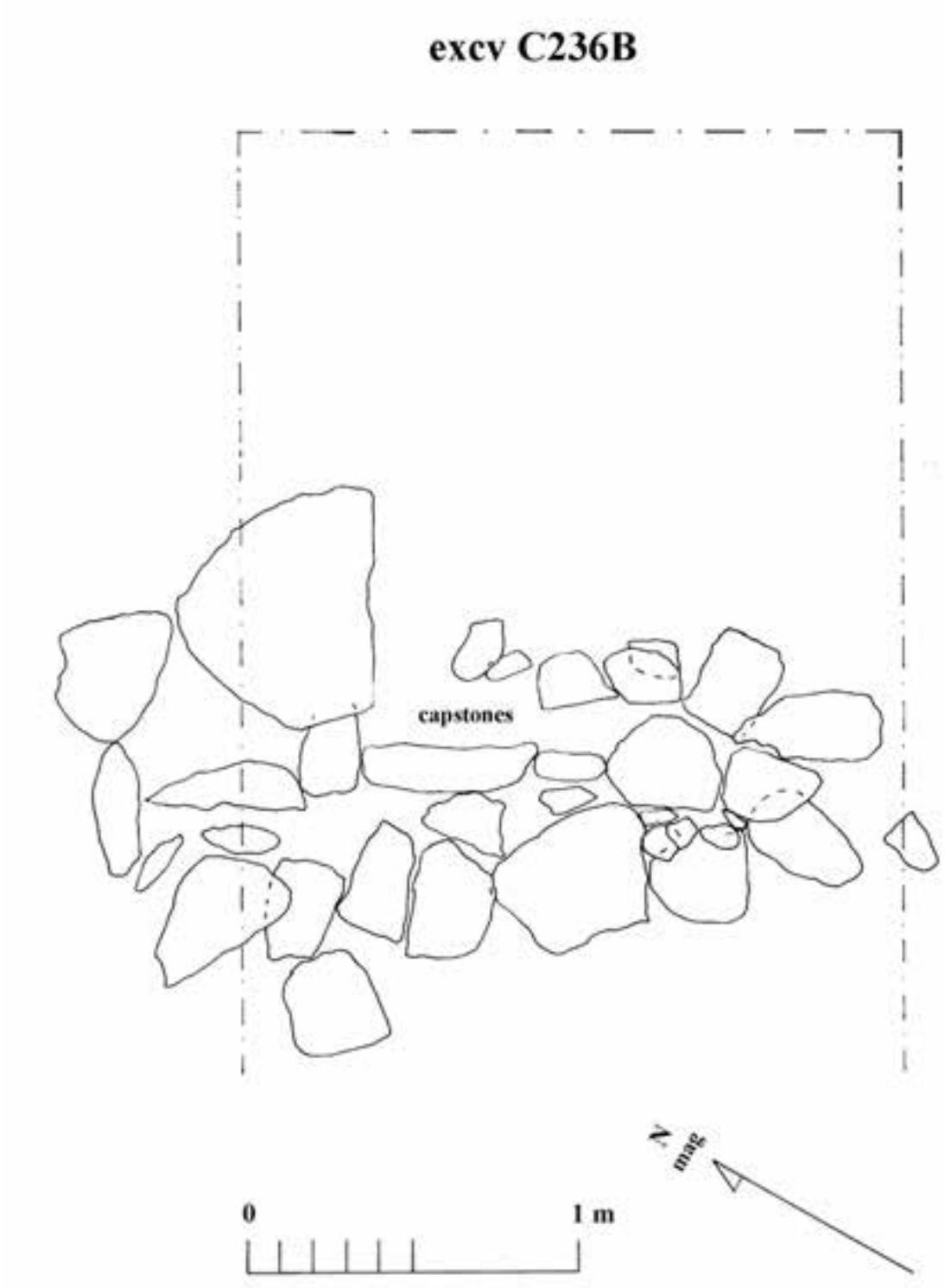

Figure 34. Plan of capstones over SD C236B-5.

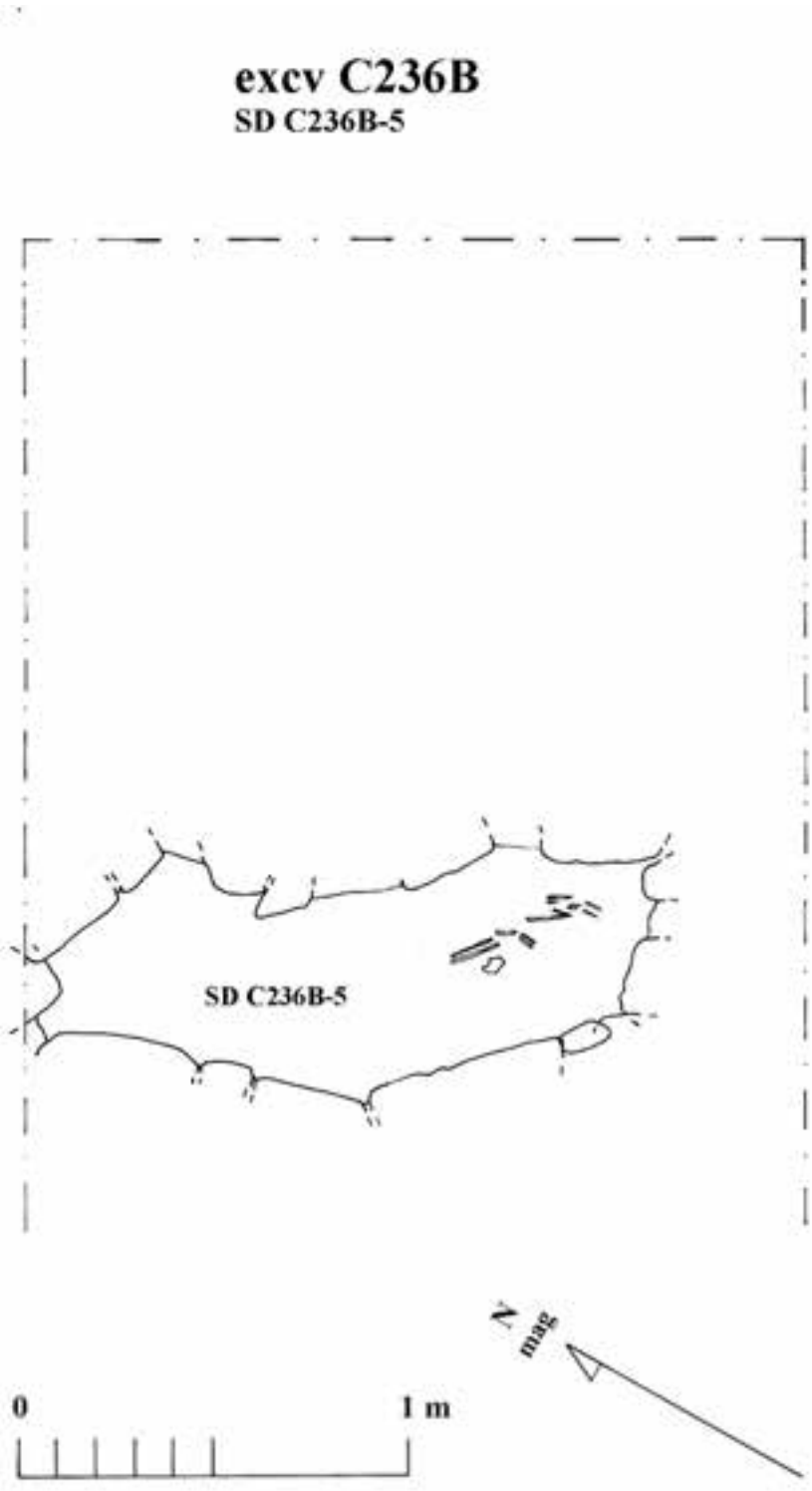

Figure 35. Plan of the crypt for SD C236B-5.

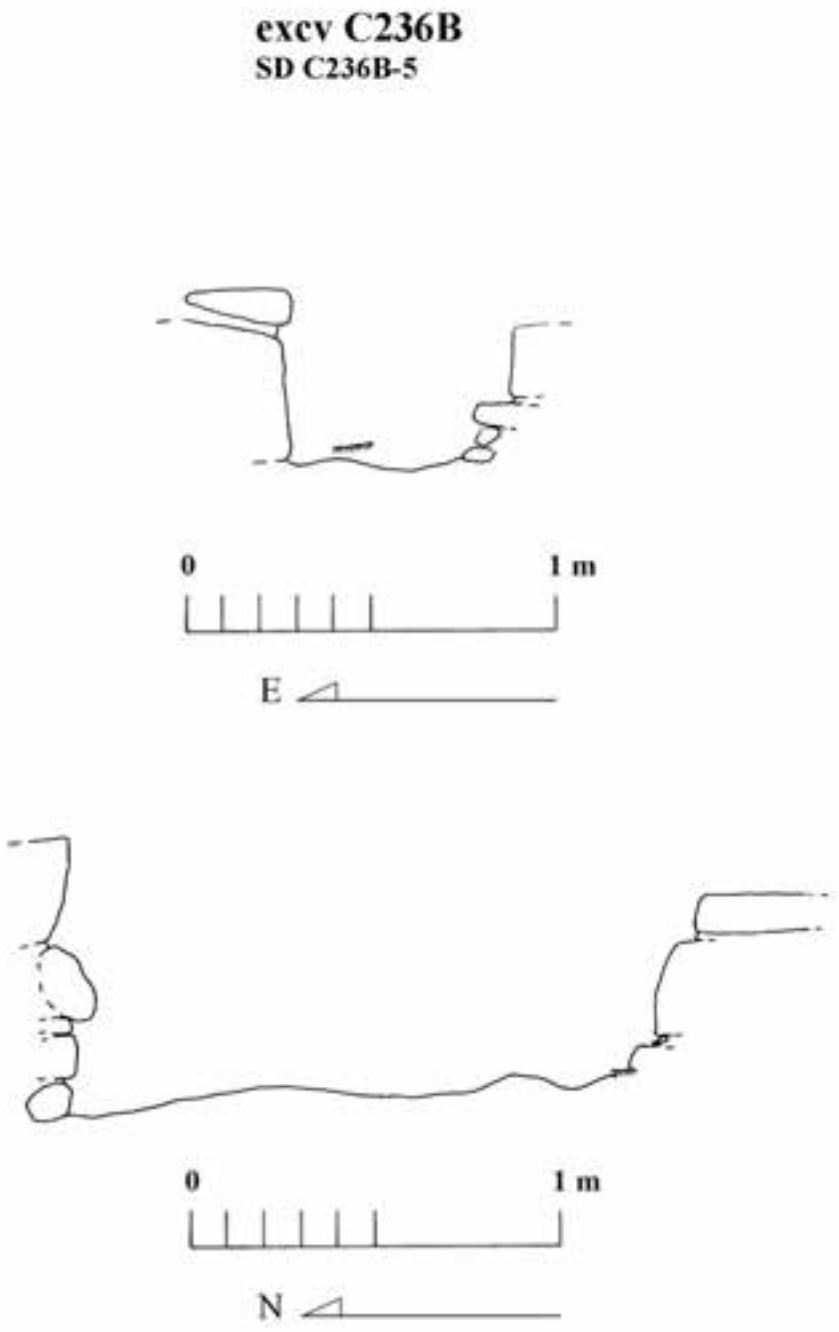

Figure 36. Sections of the crypt for SD C236B-5.

Figure 37. Photographs of SD C236B-6 (upper) and SD C236B-8 (lower).

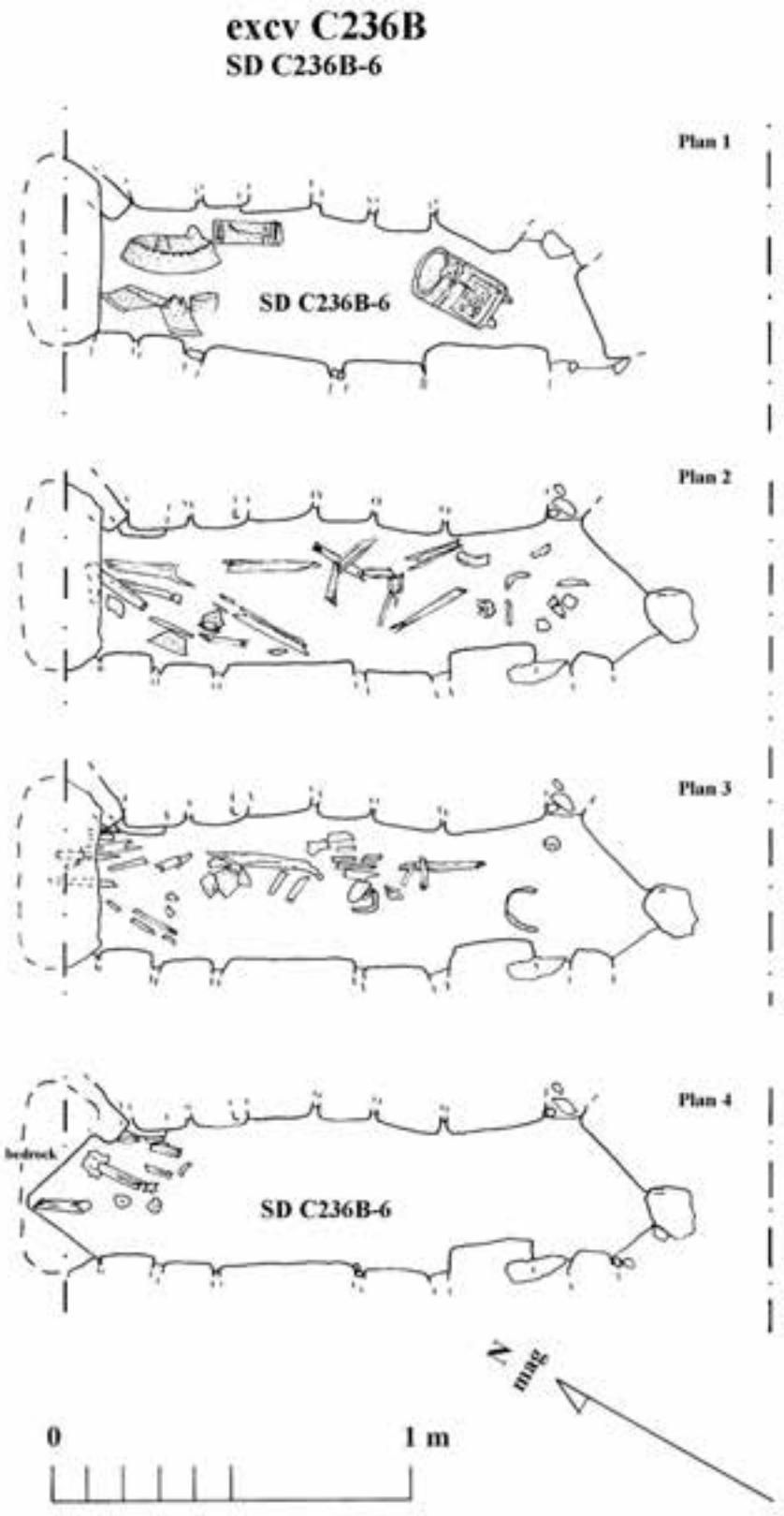

Figure 38. Plans of SD C236B-6.

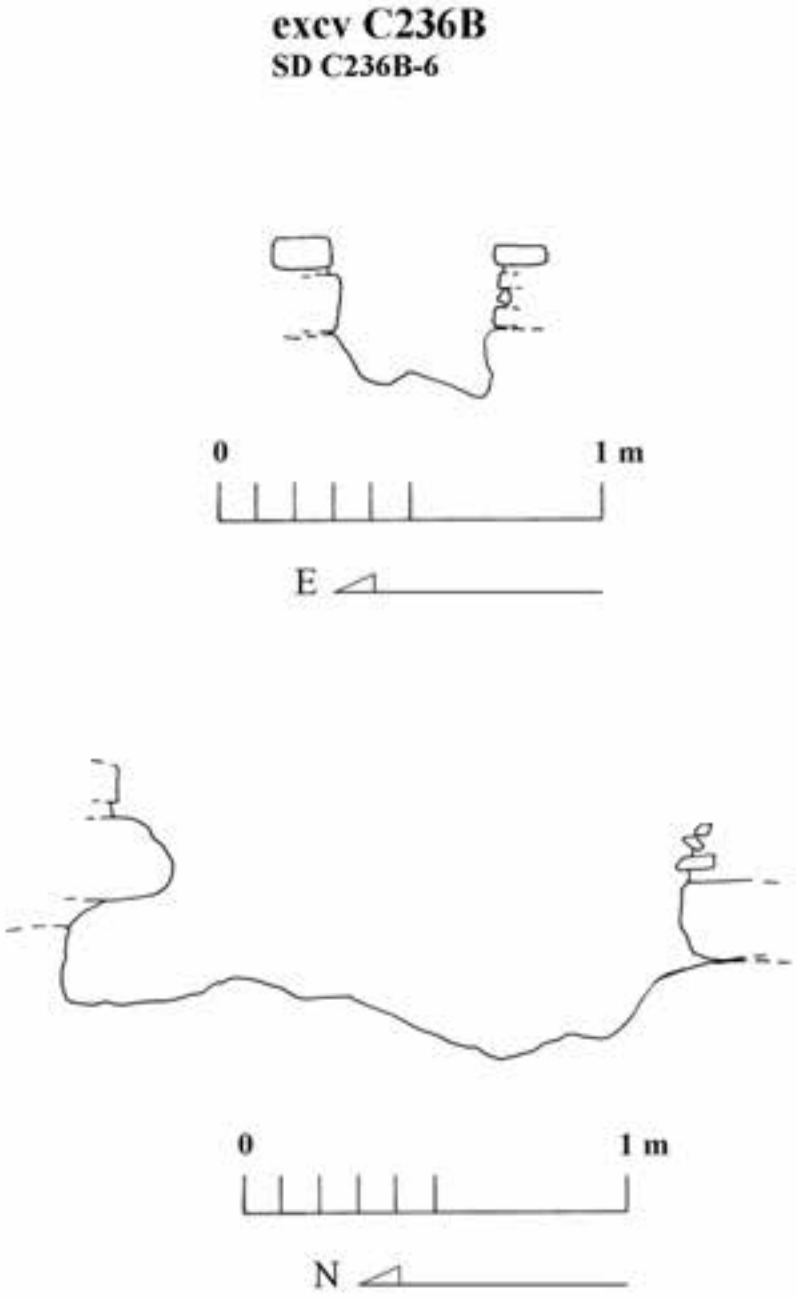

Figure 39. Sections of the crypt for SD C236B-6.

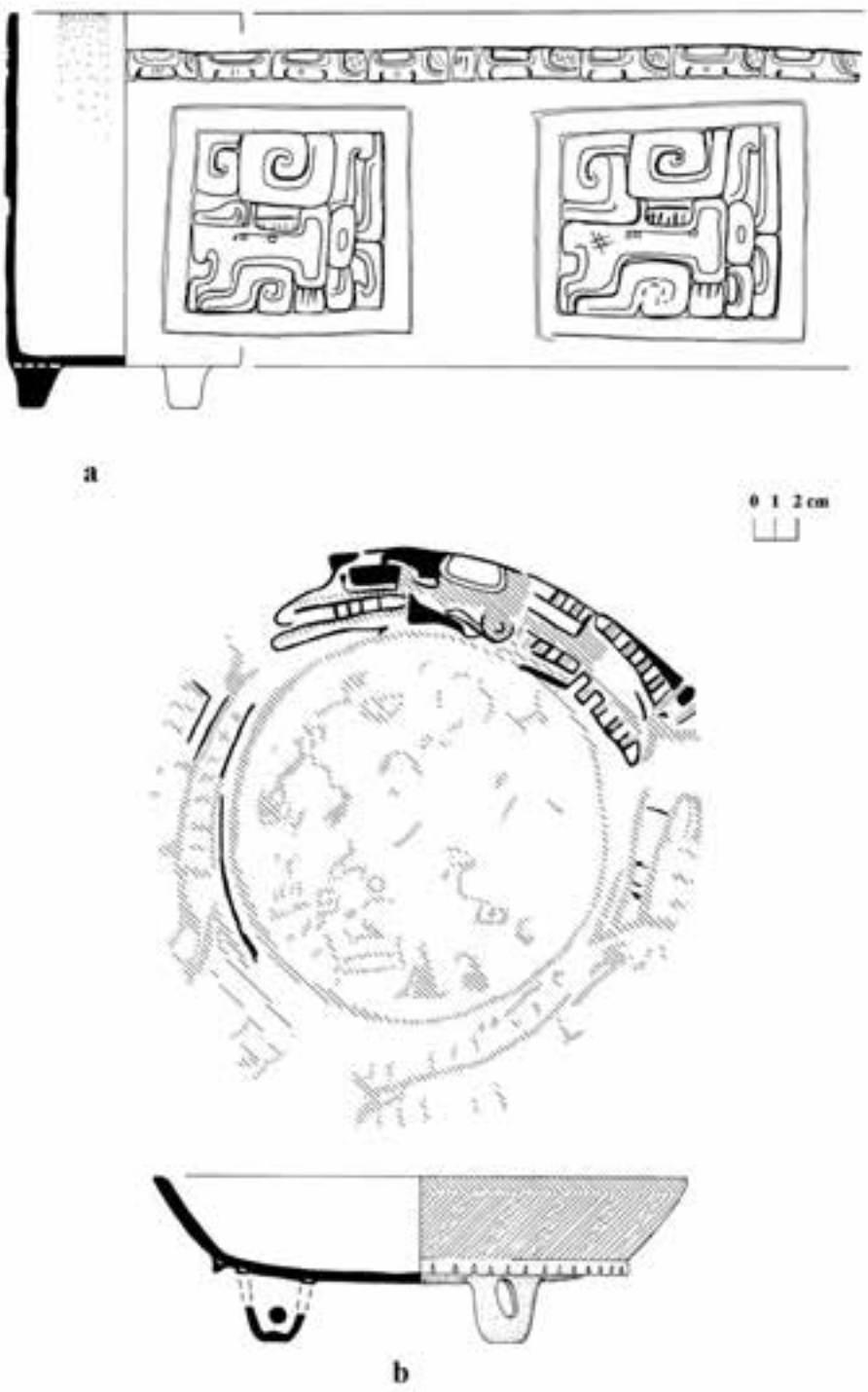

Figure 40. Pottery vessels associated with SD C236B-6: a. undesignated plano-relief type; b. polychrome San Pedro Impressed; c. Belize Red punctate; d. Belize Red; e. Tialipa Brown; f. Ceiba Unslipped.

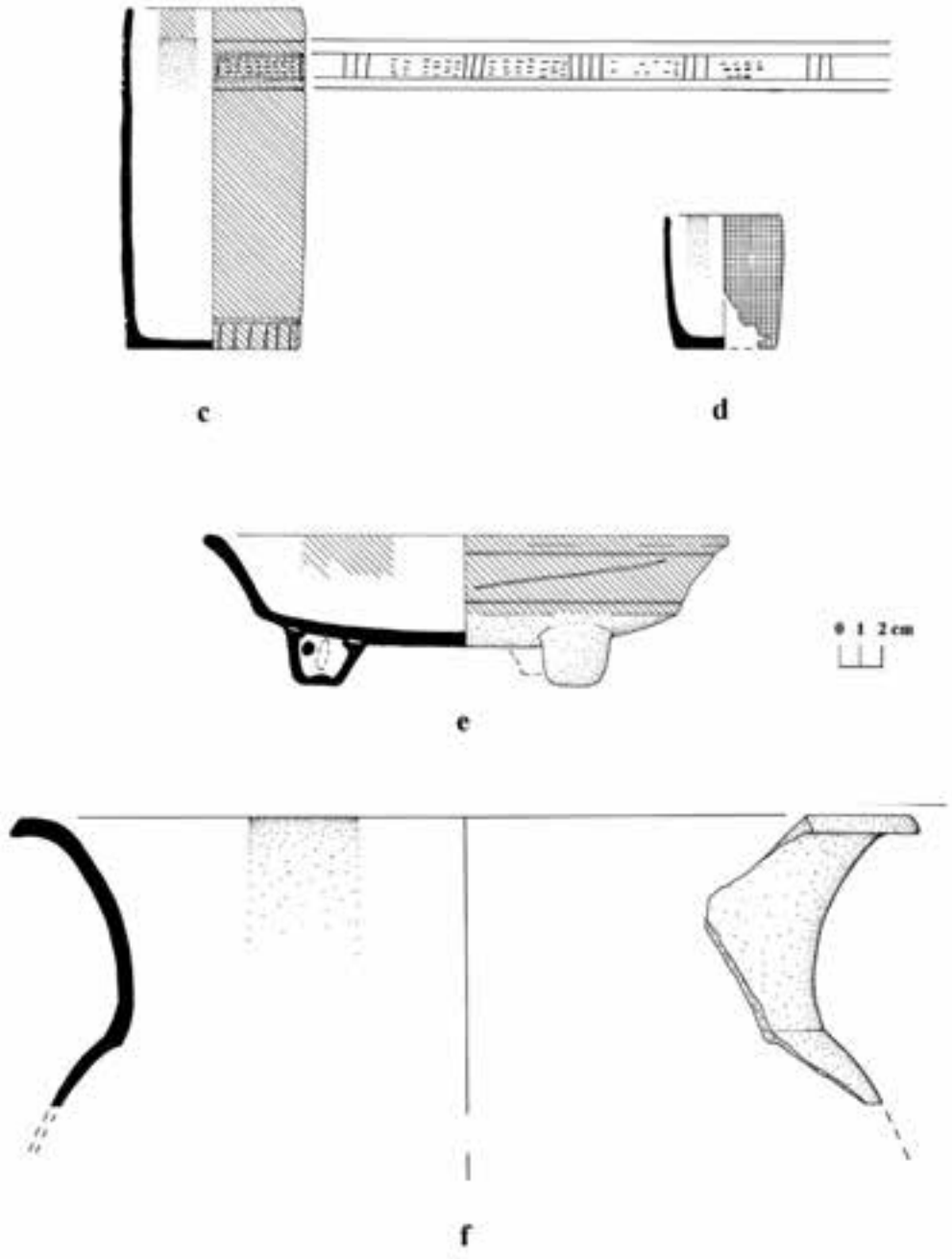

Figure 40. Pottery vessels associated with SD C236B-6: a. undesignated plano-relief type; b. polychrome San Pedro Impressed; c. Belize Red punctate; d. Belize Red; e. Tialipa Brown; f. Ceiba Unslipped.

Figure 41. Color rollout of pottery vessel shown in Figure 40a.

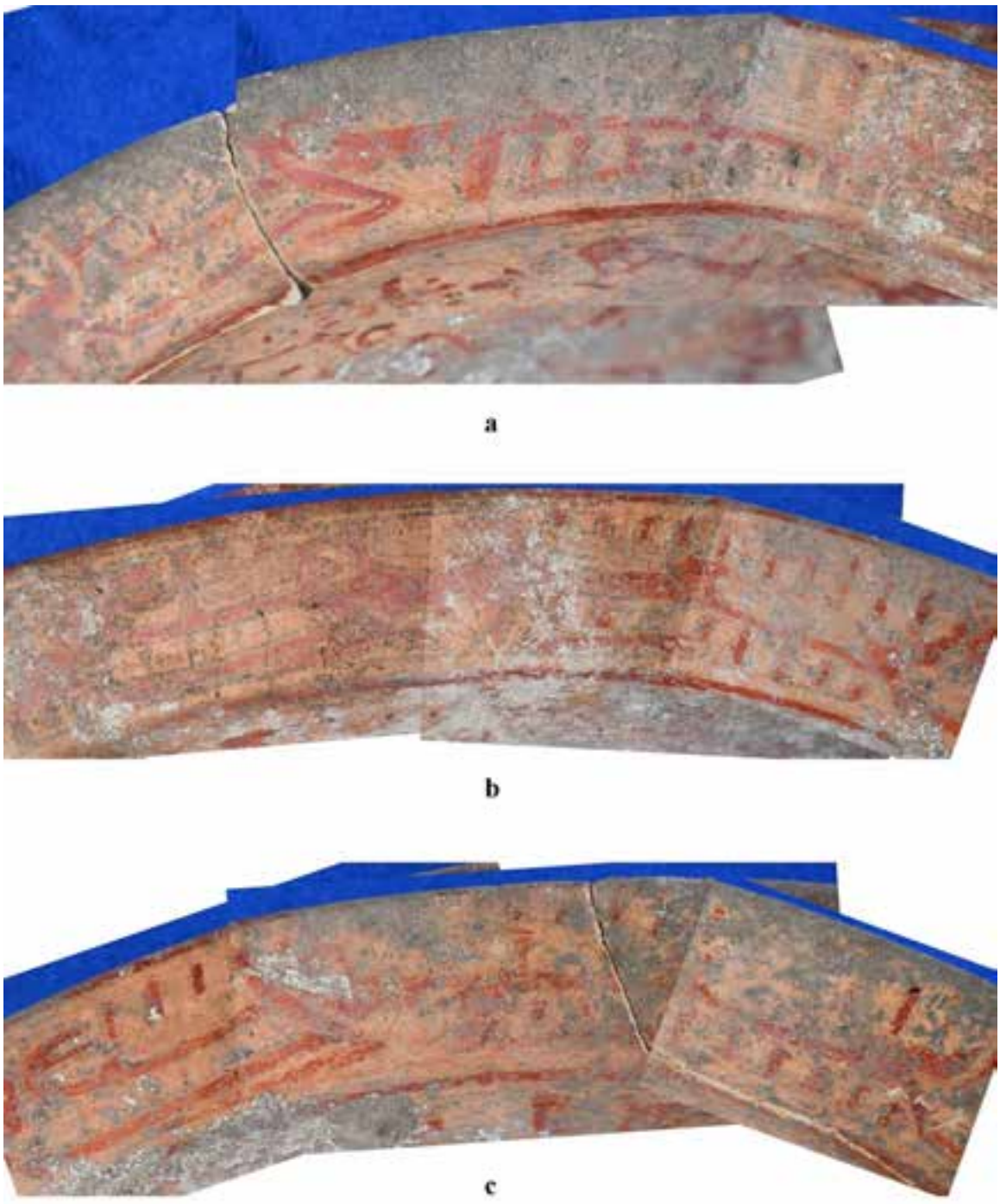

Figure 42. Color photographs of fish on the rim of Figure 40b.

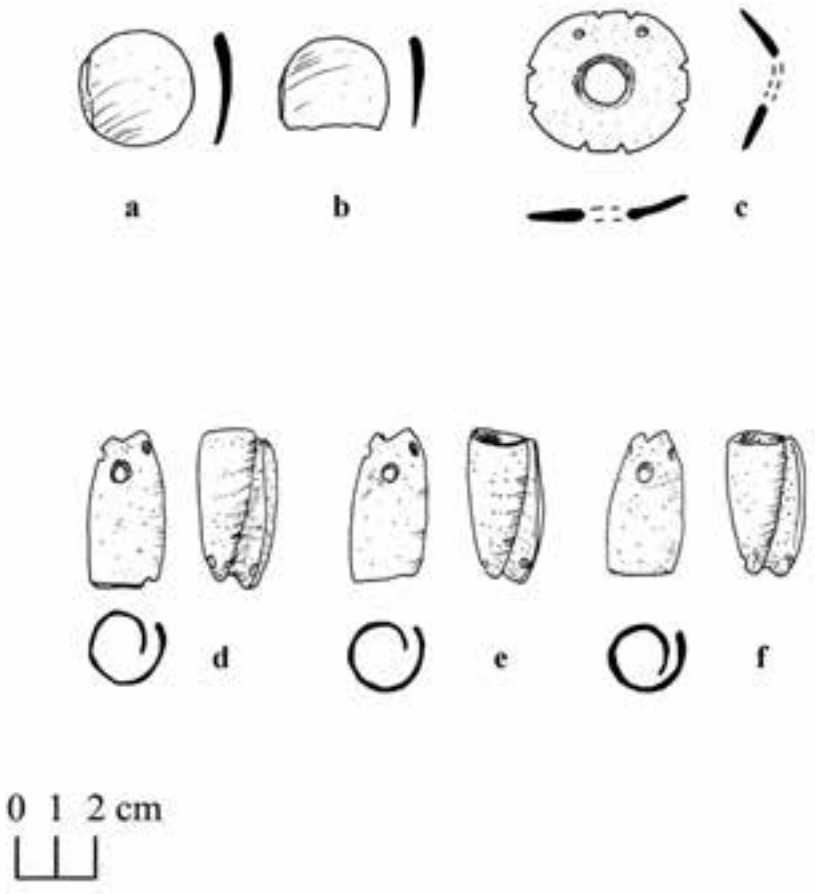

Figure 43. Artifactual materials recovered from SD C236B-6 and SD C236B-8: a.,b. worked rounded shell (SD C236B-6); c. worked shell pendent (SD C236B-6); d.-f. drilled flamingo-tongue shells (SD C236B-8).

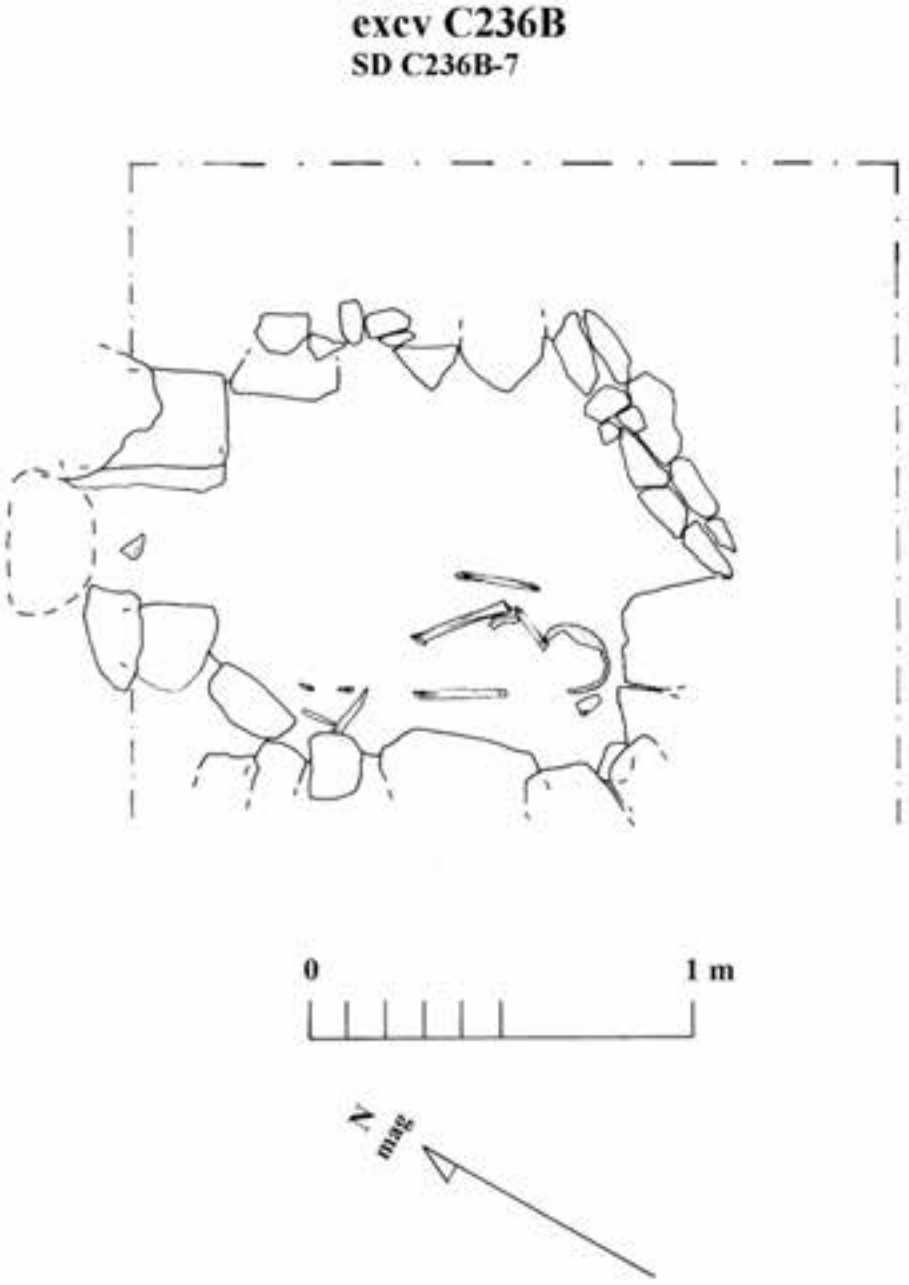

Figure 44. Plan of SD C236B-7.

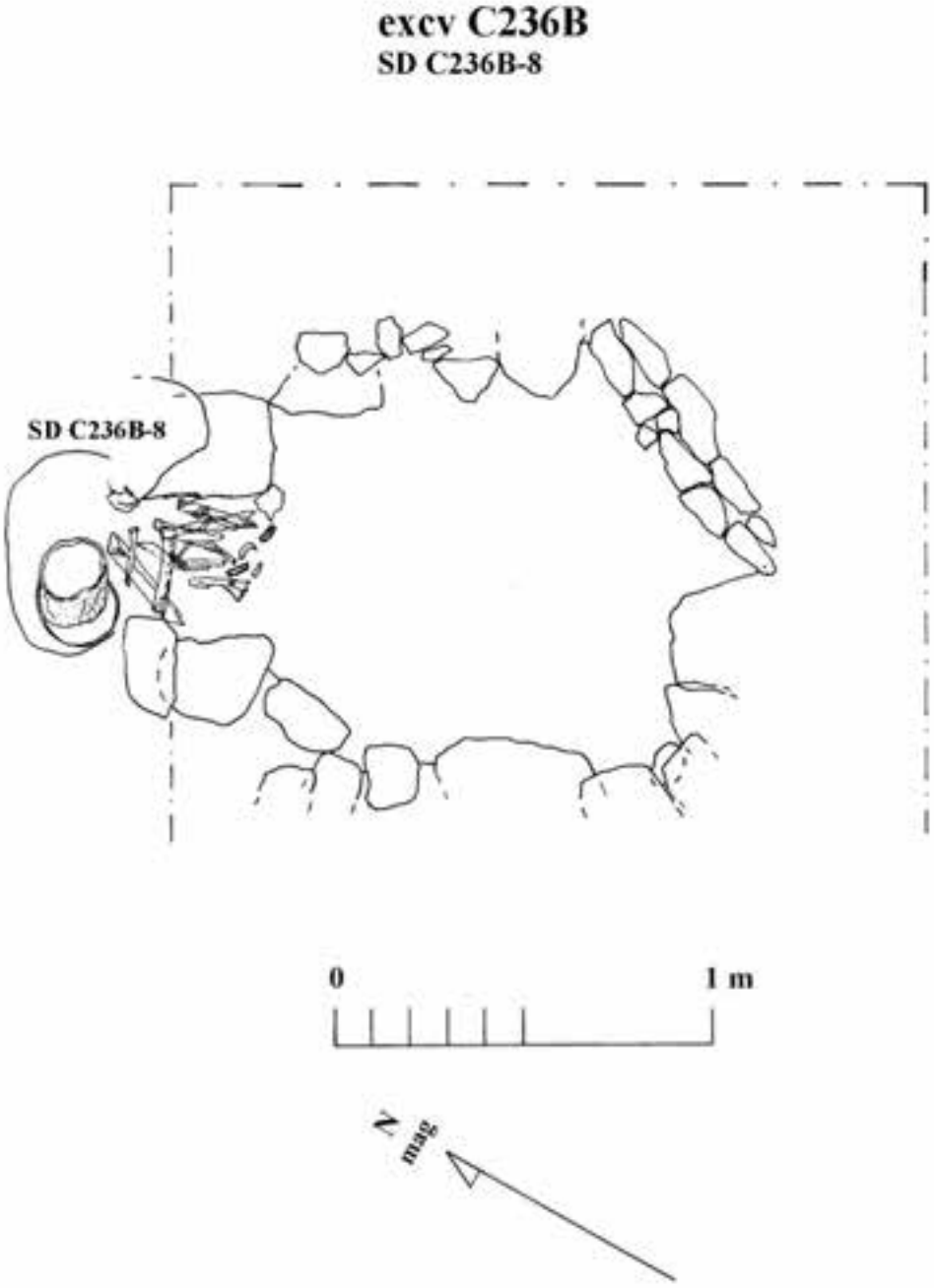

Figure 45. Plan of SD C236B-8.

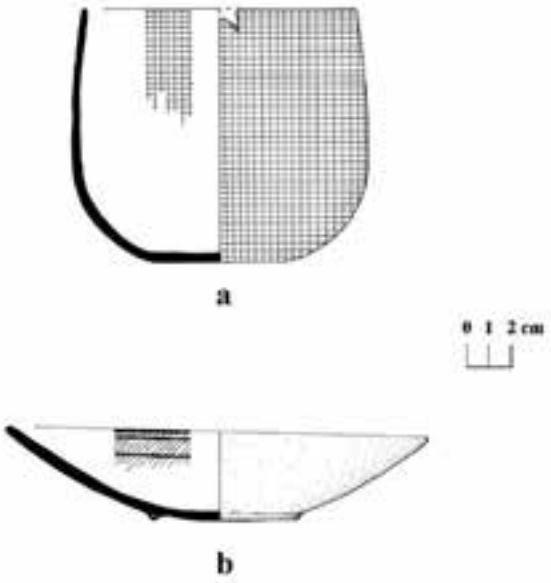

Figure 46. Pottery Vessels associated with SD C236B-8: a. Molino Black; b. Machete Polychrome.

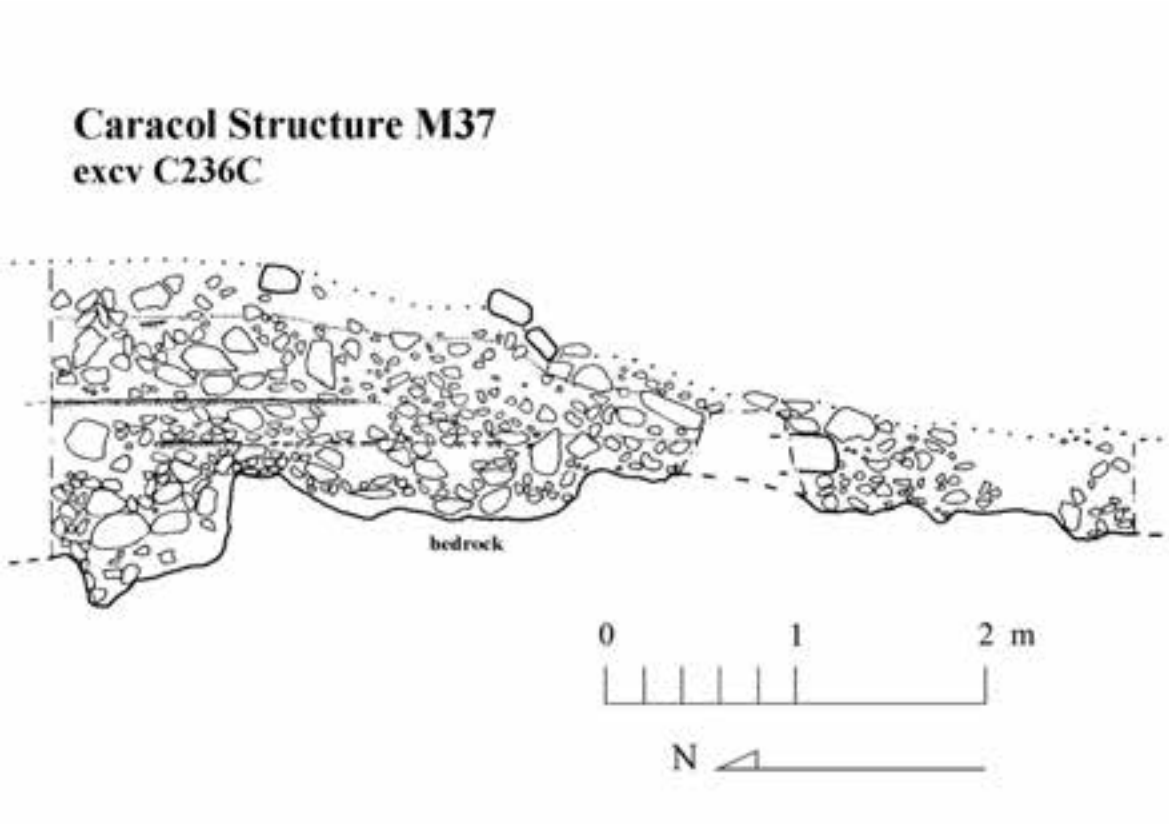

Figure 47. Section through Caracol Structure M37, as revealed by Operation C236C.

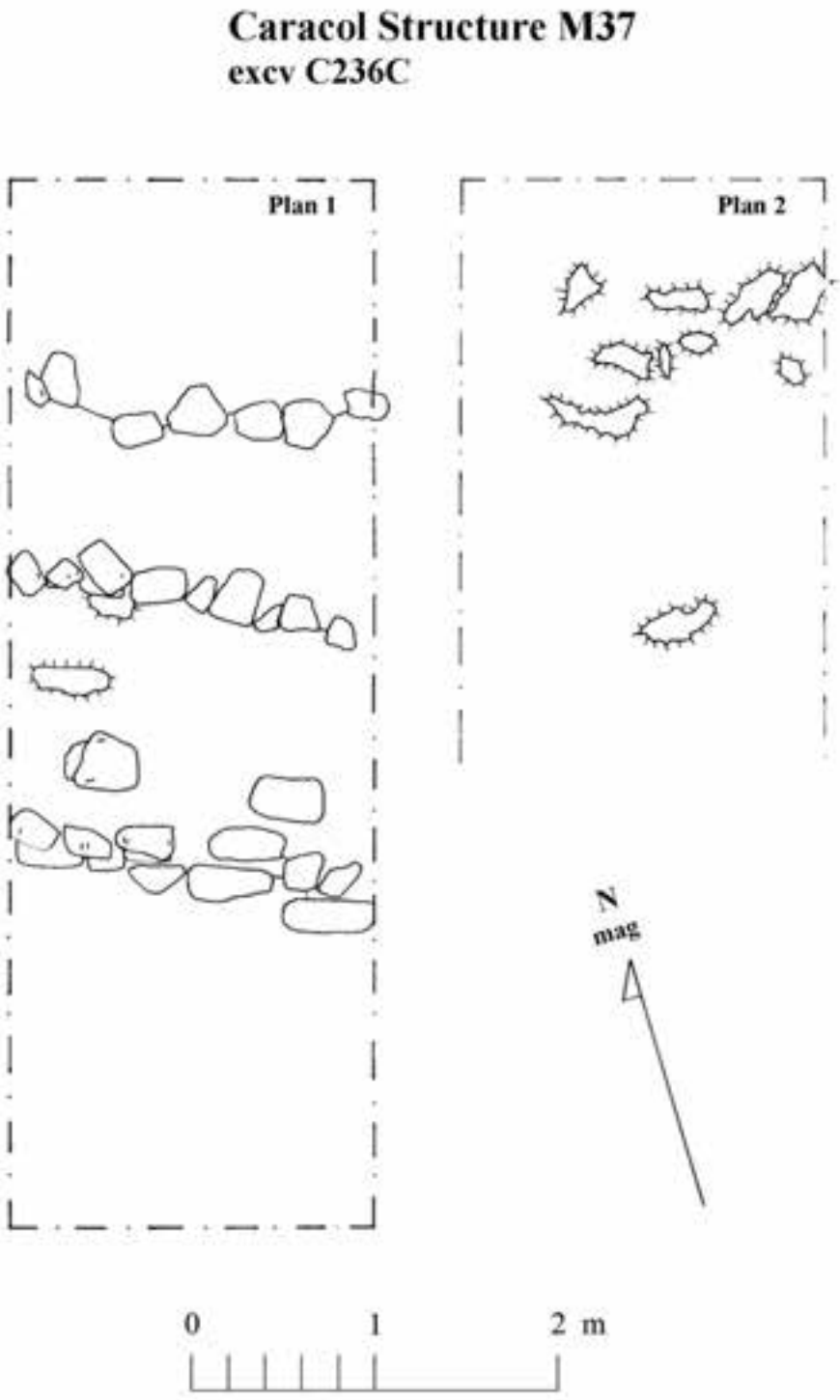

Figure 48. Plans of Operation C236C: upper steps and remnants of three floor surfaces.

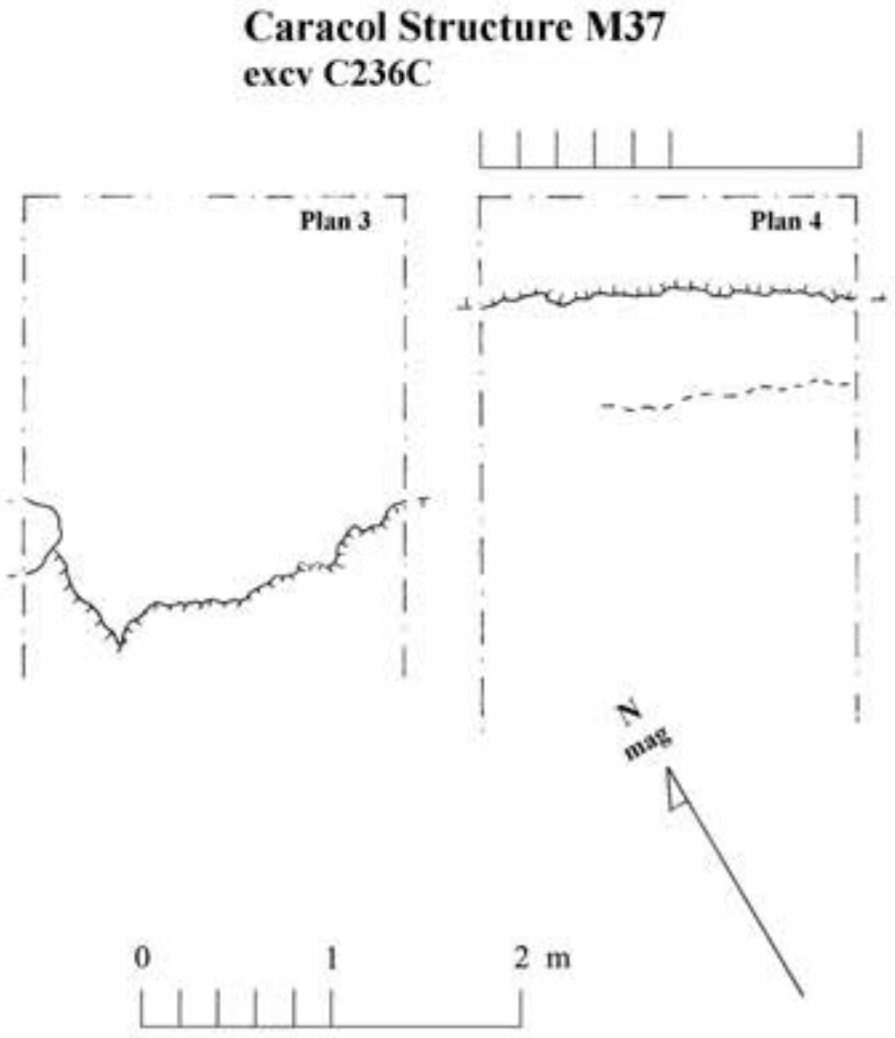

Figure 48. Plans of Operation C236C: upper steps and remnants of three floor surfaces.

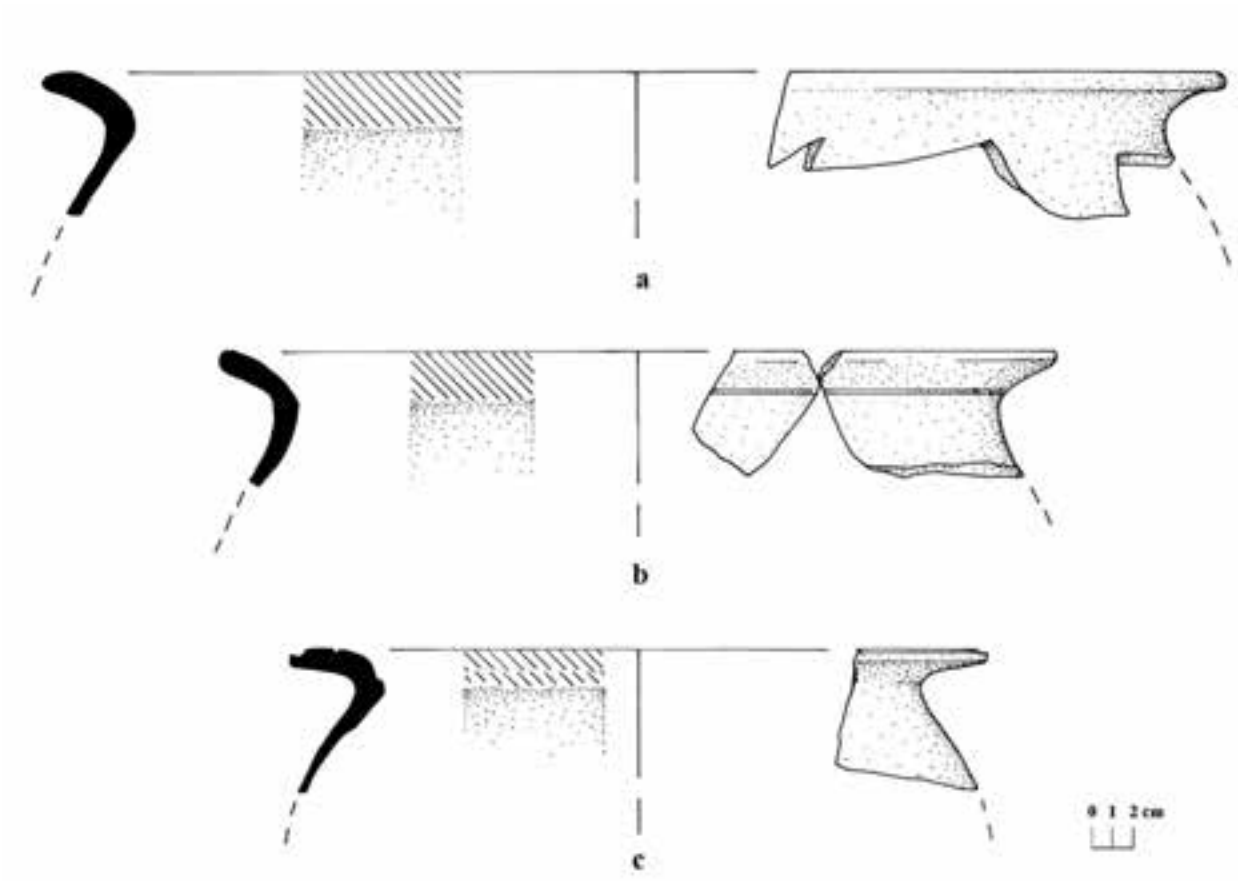

Figure 49. Partial pottery vessels recovered from within Operation C236C: undesignated type (probably Early Classic).

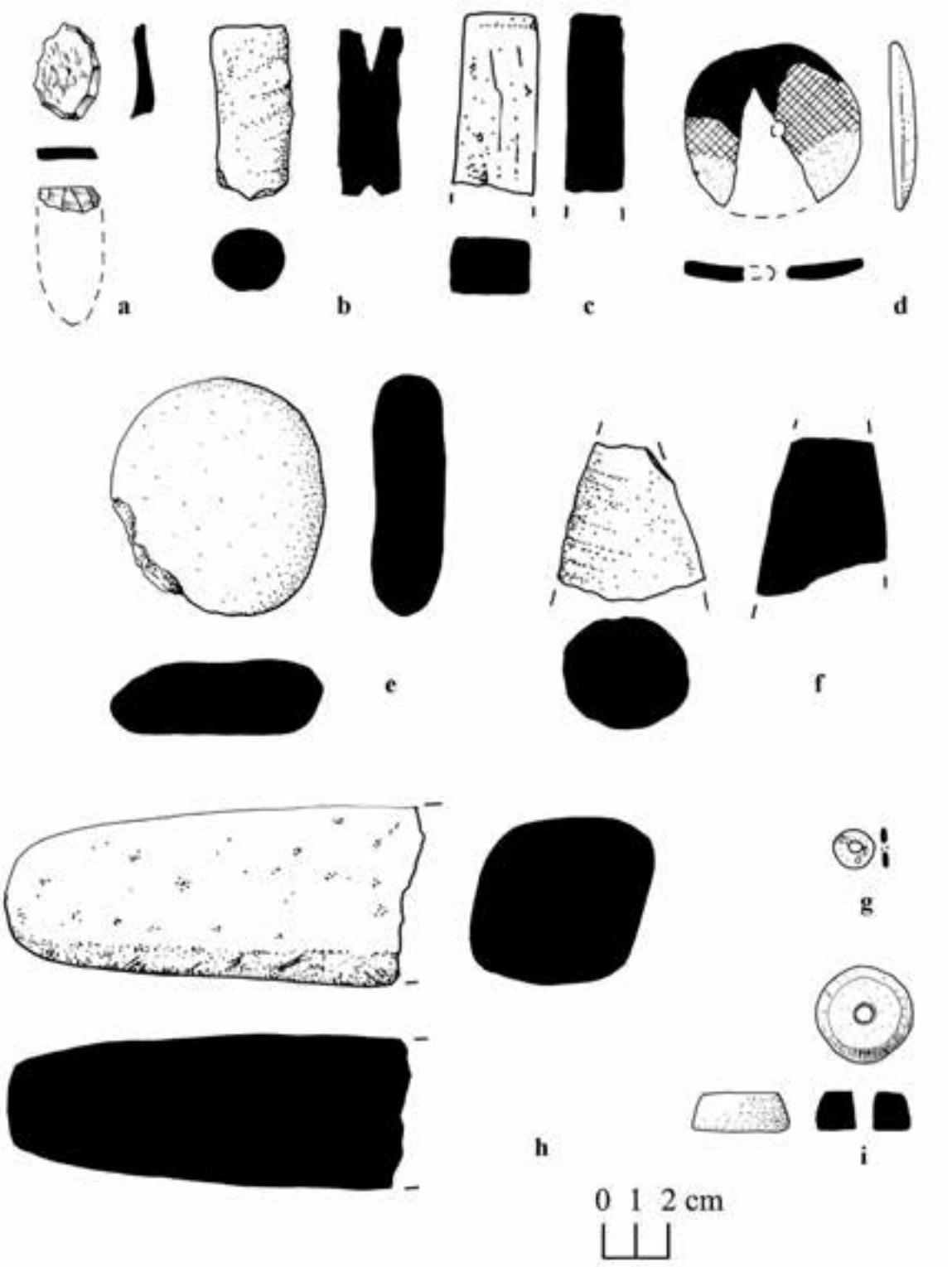

Figure 50. Artifactual material associated with Operation C236C: a. top of obsidian core; b.,f. speleothem fragments; c. partial limestone bar; d. rounded and perforated sherd; e. ground stone disk; g. shell bead; h. metamorphic groundstone mano; i. limestone spindle whorl; j. metamorphic groundstone metate fragment.

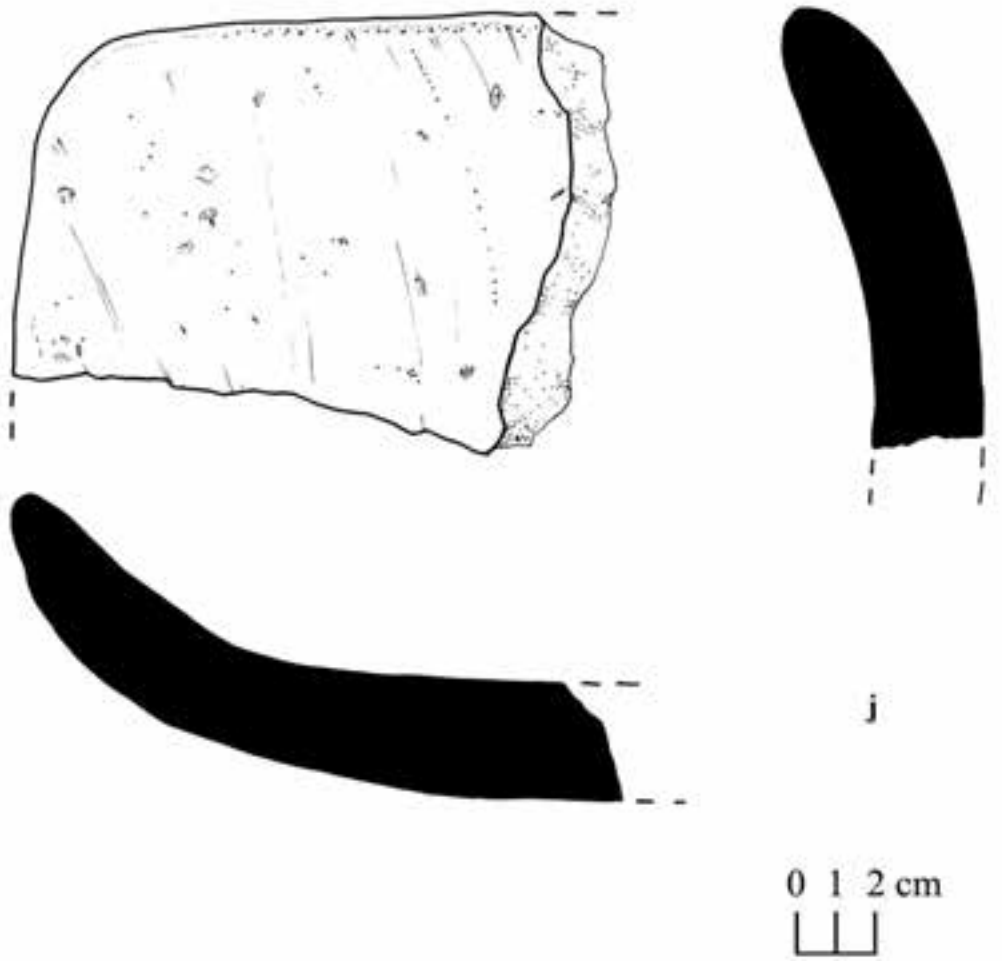

Figure 50. Artifactual material associated with Operation C236C: a. top of obsidian core; b.,f. speleothem fragments; c. partial limestone bar; d. rounded and perforated sherd; e. ground stone disk; g. shell bead; h. metamorphic groundstone mano; i. limestone spindle whorl; j. metamorphic groundstone metate fragment.

Figure 51. Photographs of Caracol Structure M35 and of Caracol Structure L70.

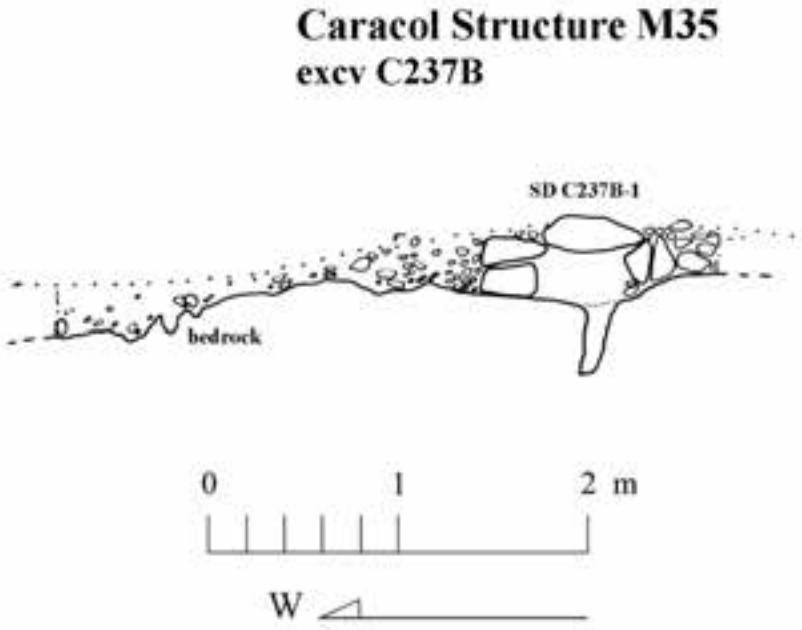

Figure 52. Section of Structure 45, as revealed by Operation C237B.

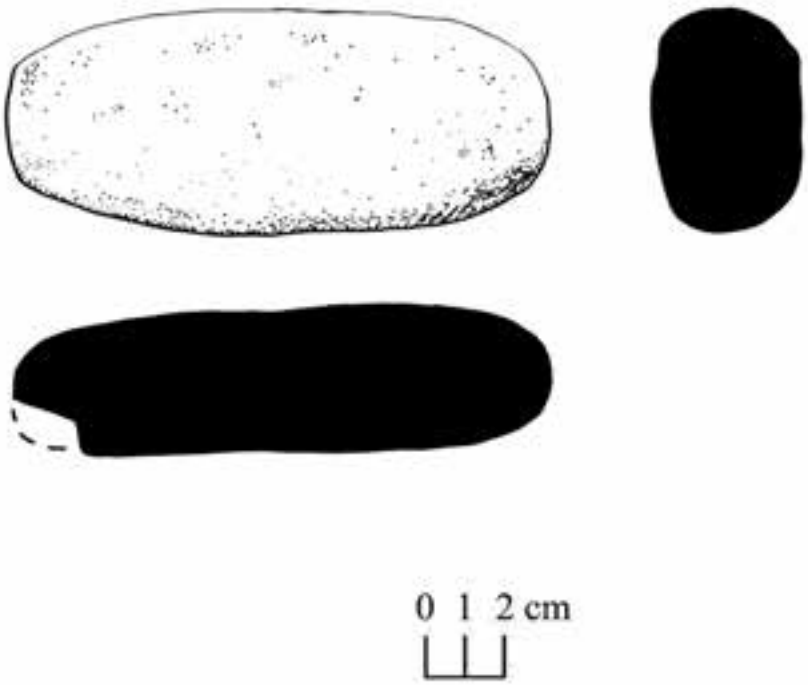

Figure 53. Artifactual material associated with Operation C237B: metamorphic groundstone mano.

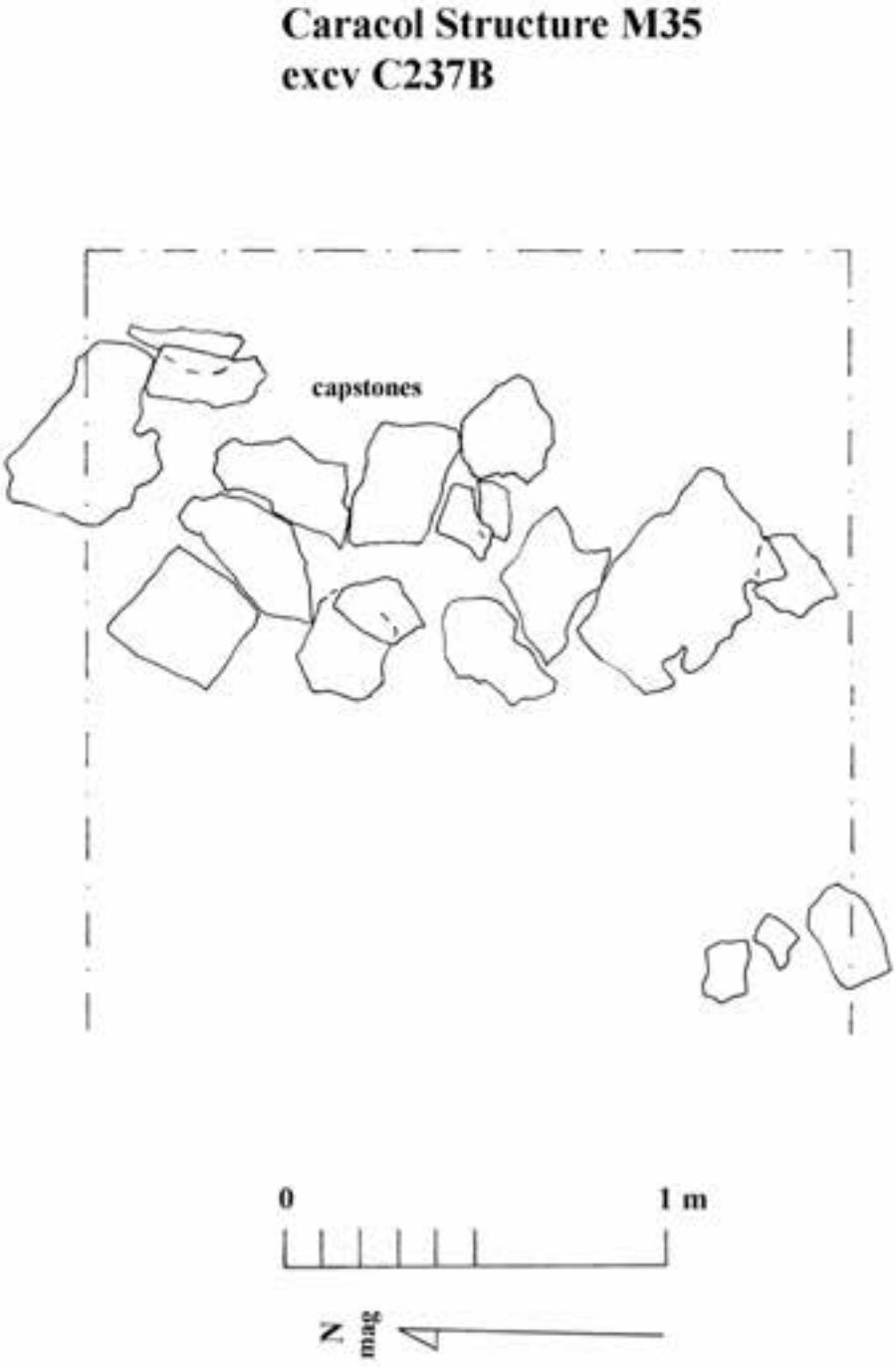

Figure 54. Plan of capstones found in Operation C237B.

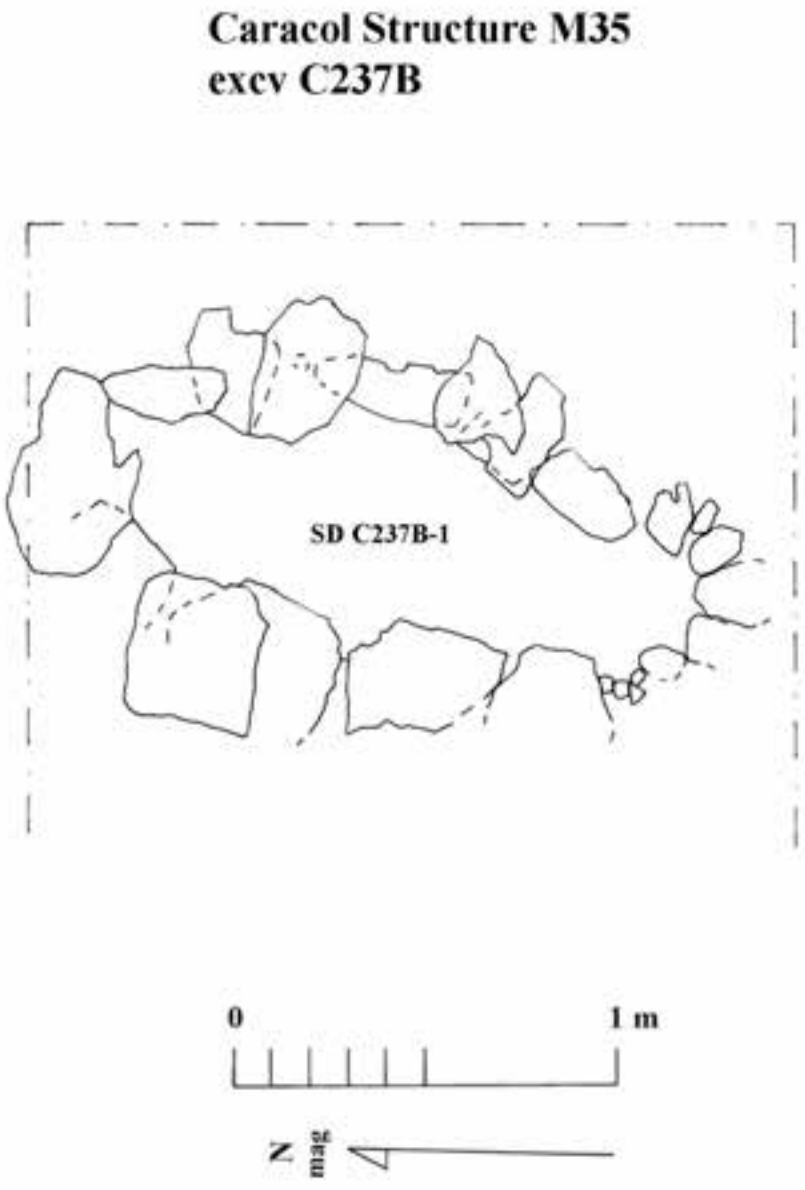

Figure 55. Plan of SD C237B-1.

Figure 56. Photograph of plaza-long trench Operations C238B and C238C

Figure 57. Section through Caracol Structure L71 and associated plaza, as revealed by Operations C238B and C238C.

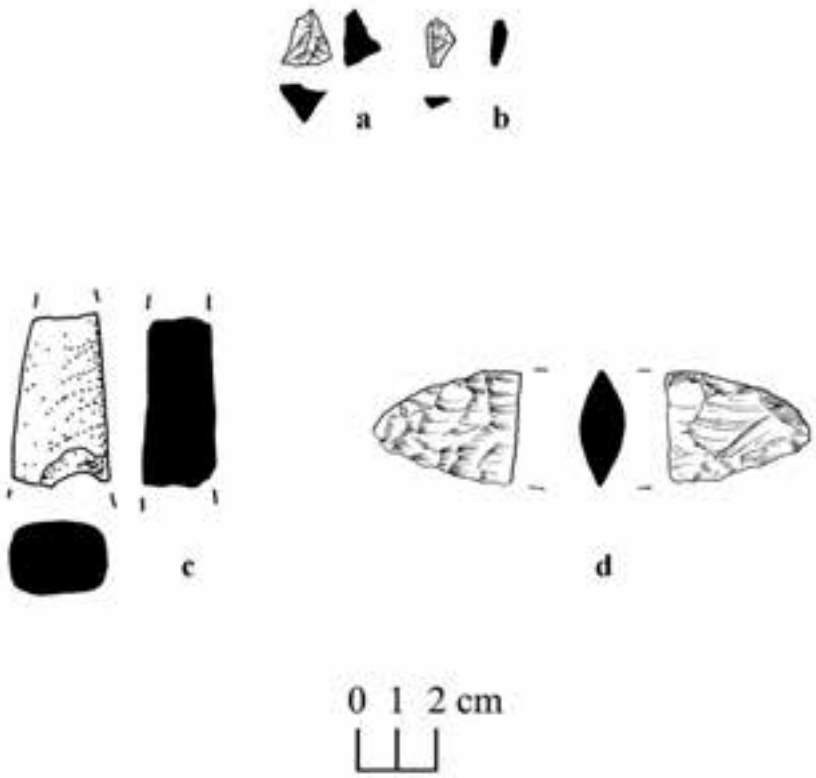

Figure 58. Artifactual materials associated with Operations C238B (a., b.) and C238C (c., d.): a., b. jadeite chips; c. partial limestone bar; d. broken chert biface.

Figure 59. Photograph of SD C238B-1 and the inlaid teeth of an individual in that deposit.

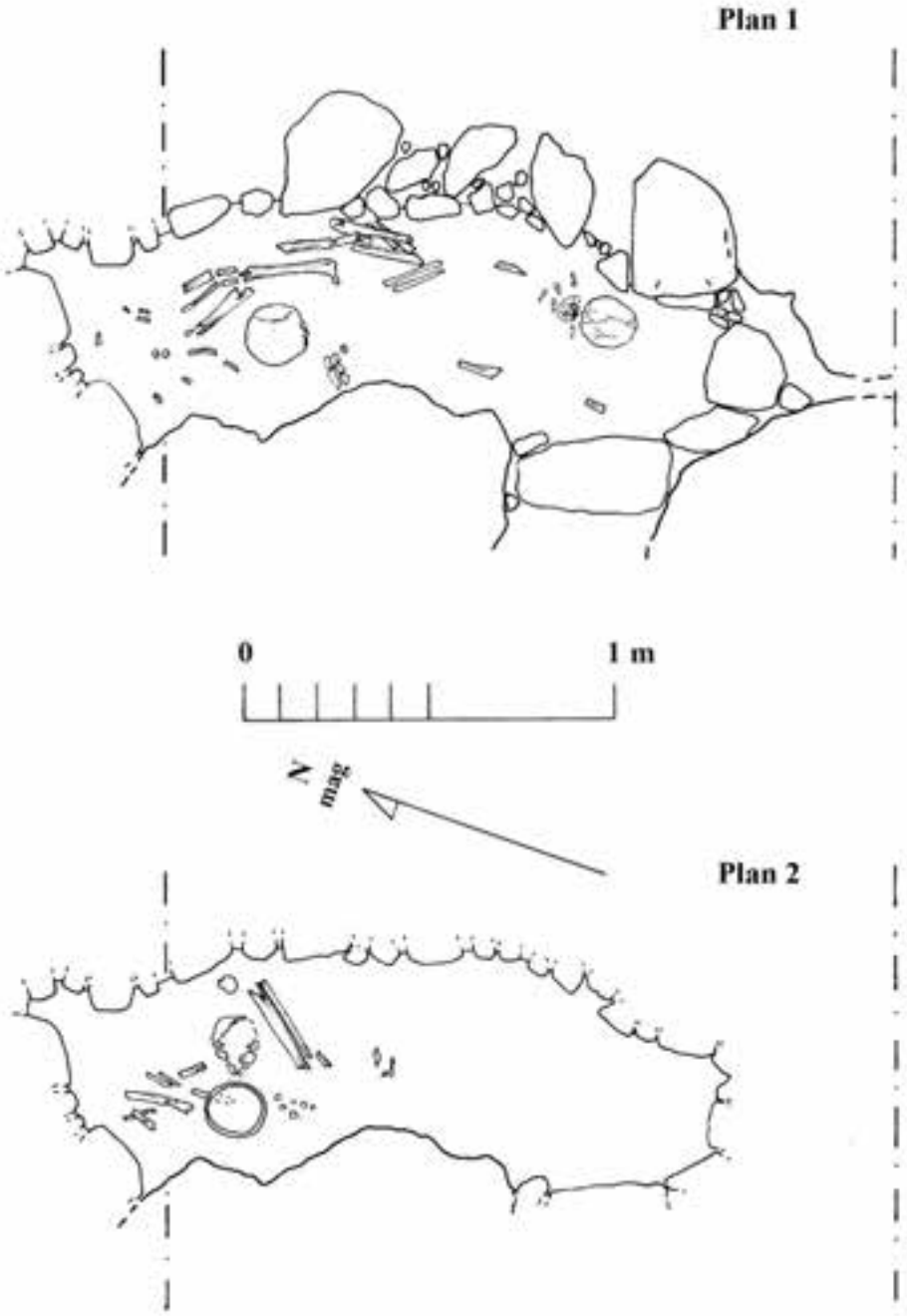

Figure 60. Plans of SD C238B-1.

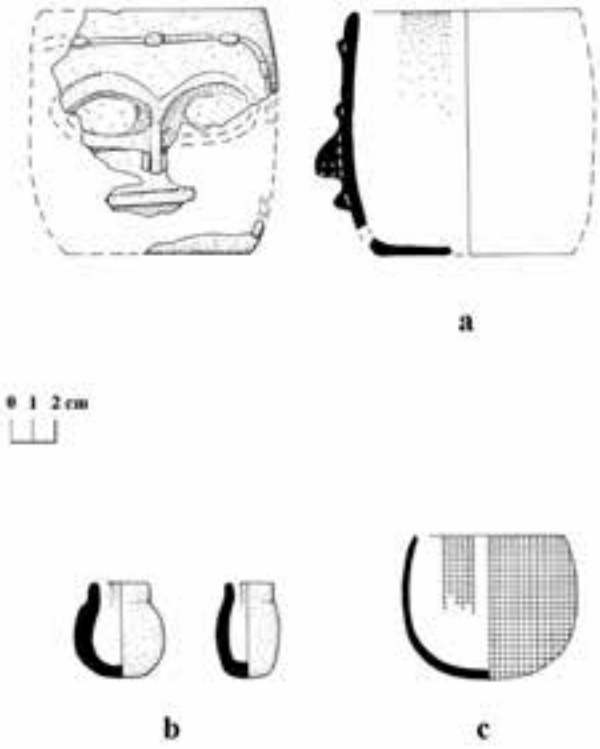

Figure 61. Pottery vessels associated with Structure L71 and SD C238B-1: a. Hebe Modeled; b. undesignated (SD C238B-1); c. possibly Tialipa Brown (SD C238B-1).

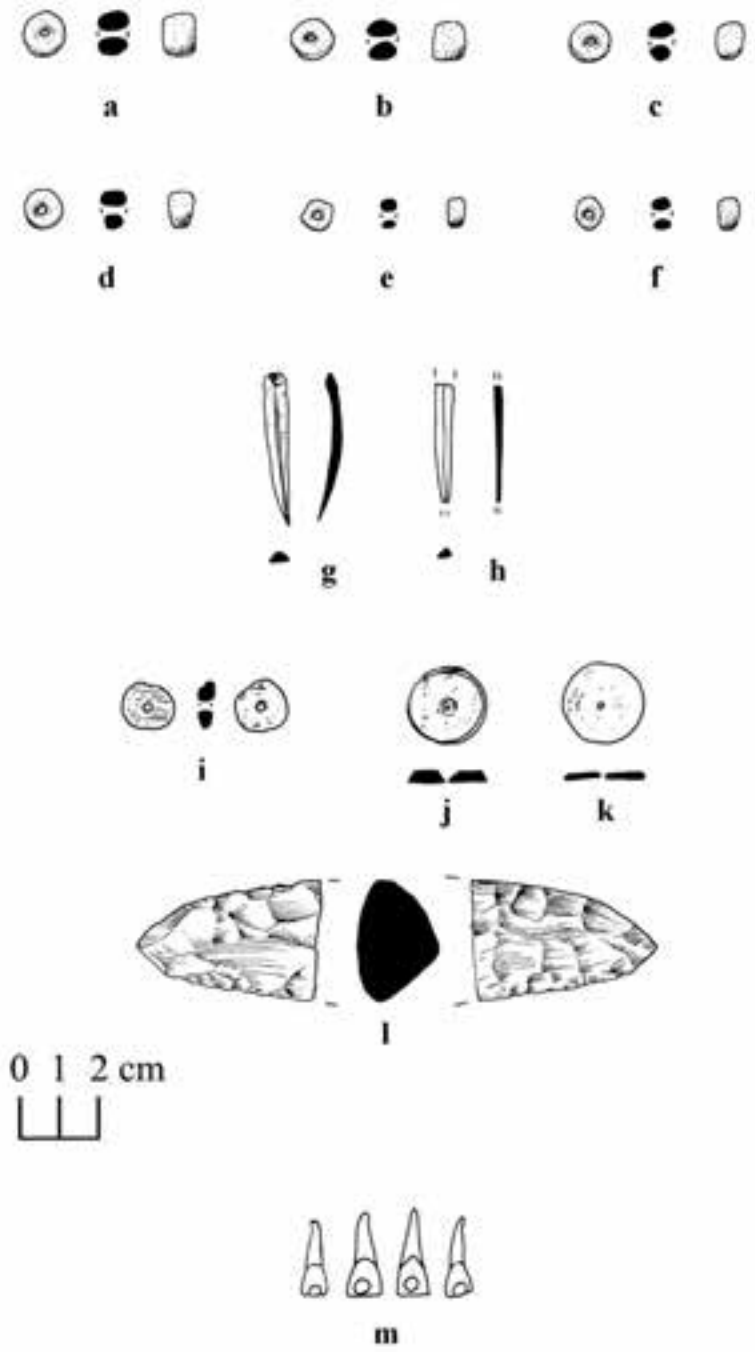

Figure 62. Artifactual material associated with S.D. C238B-1: a.-f. jadeite beads; g.,h. obsidian lancets; i. spondylus shell bead; j.,k. shell disks; l. chert biface fragment; m. jadeite inlays (in three right teeth).

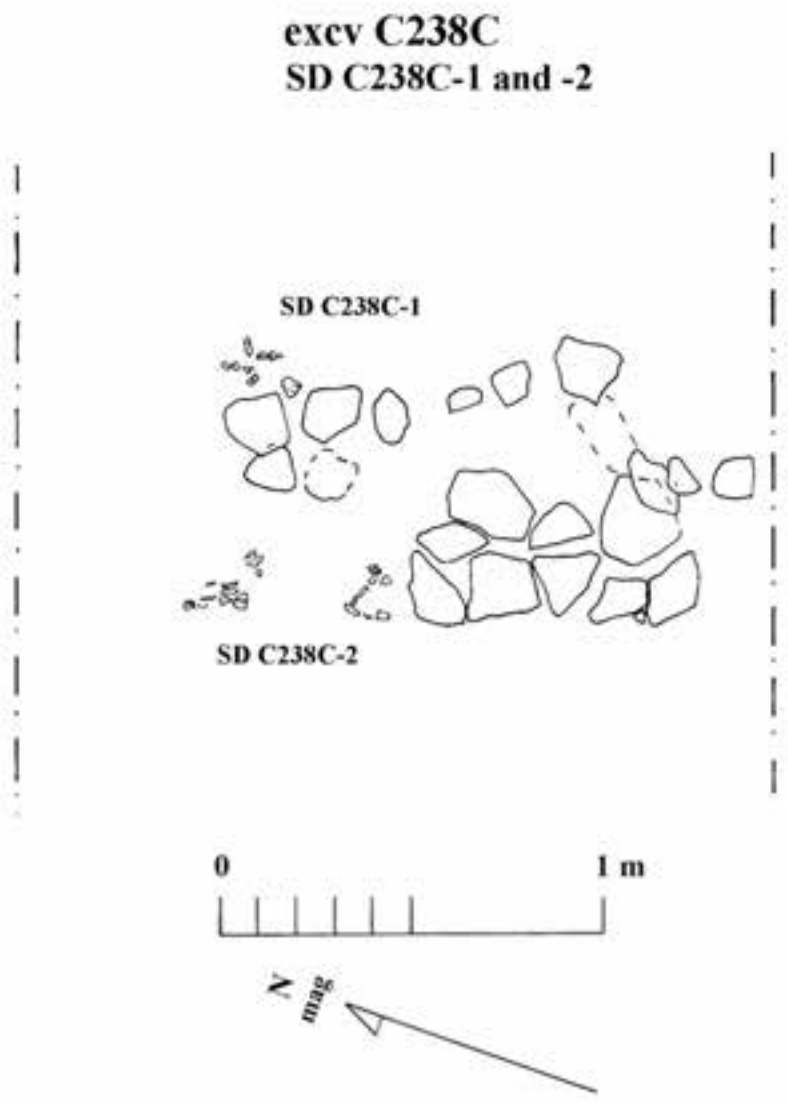

Figure 63. Plans of SD 238C-1 and SD C138C-2.

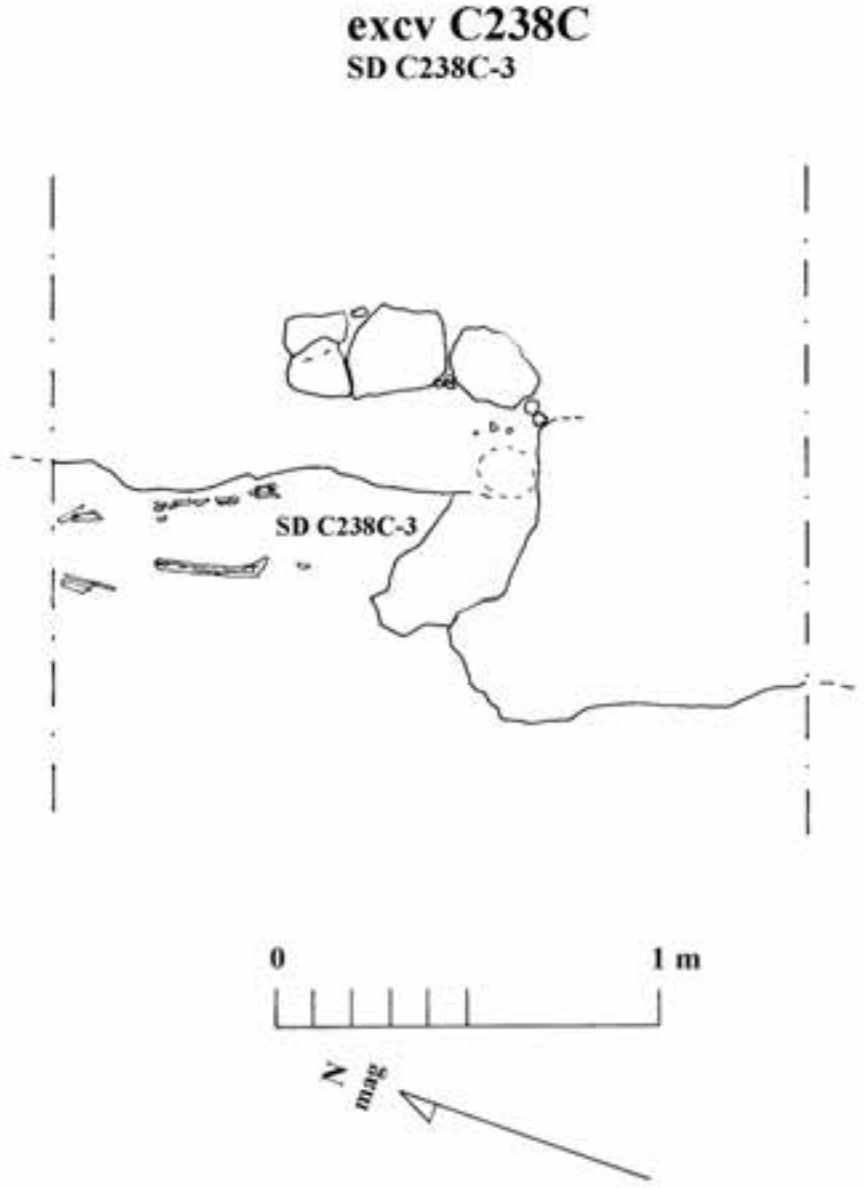

Figure 64. Plan of SD C238C-3.

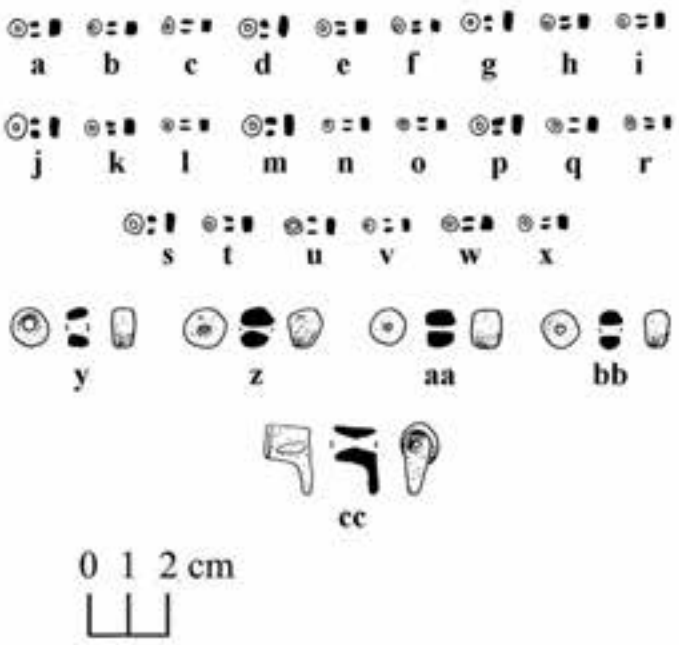

Figure 65. Artifactual material associated with S.D. C238C-3: a.-x. shell heishi beads; y.,z. shell beads; aa. hematite bead; bb. jadeite bead; cc. shell earflare.

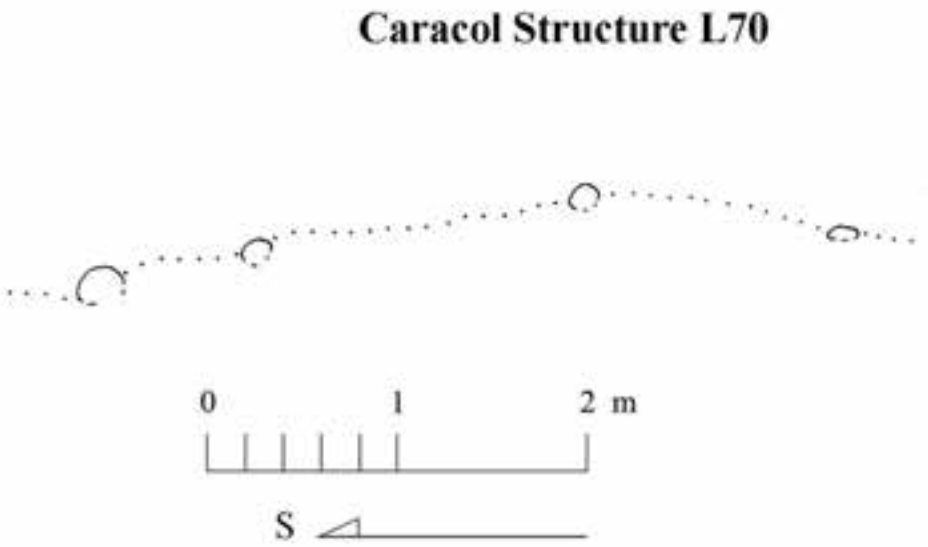

Figure 66. Elevation of Caracol Structure L70.

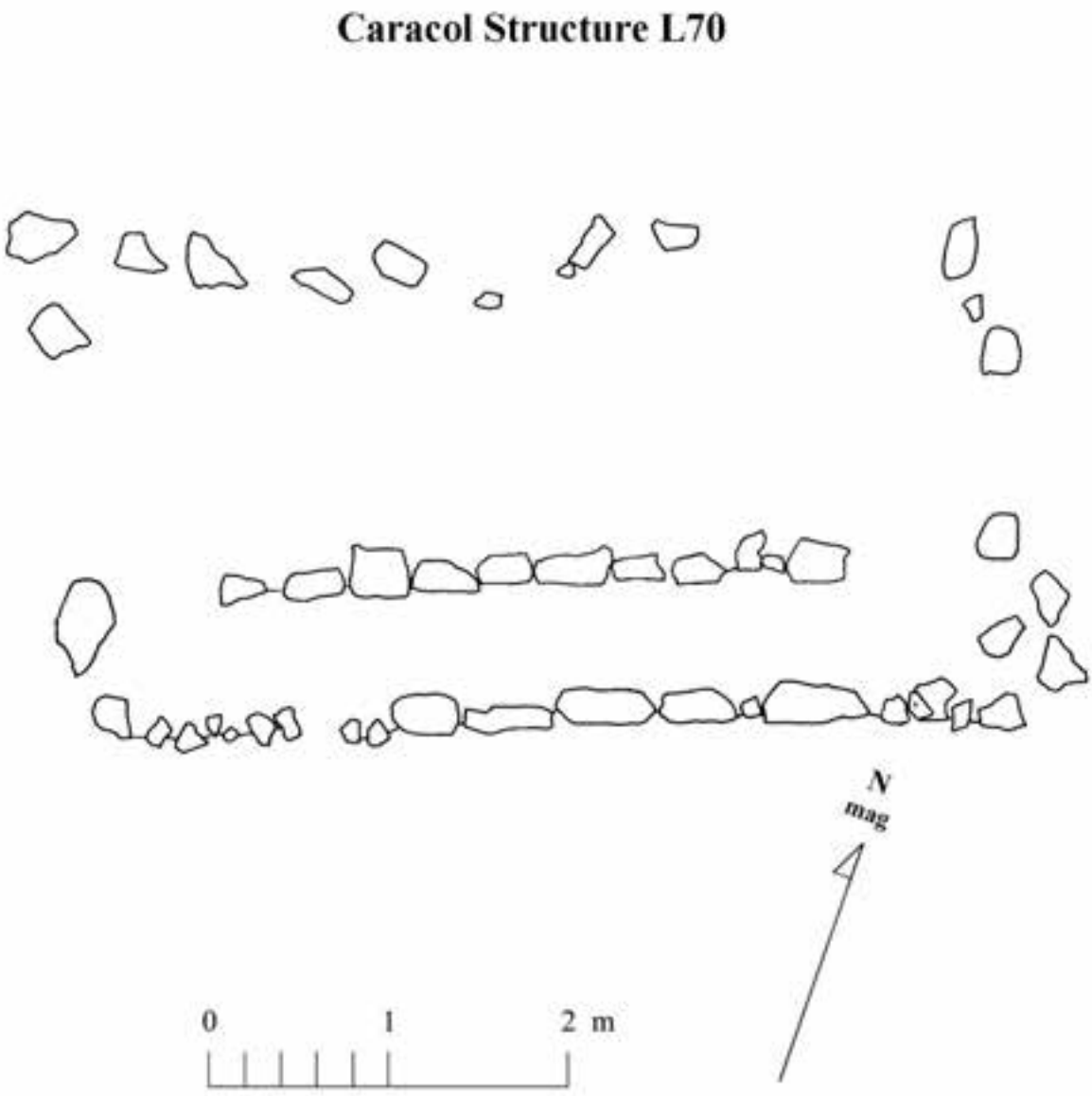

Figure 67. Plan of Caracol Structure L70.

Figure 68. Photographs of Structure L88 and cache vessels in front of the building.

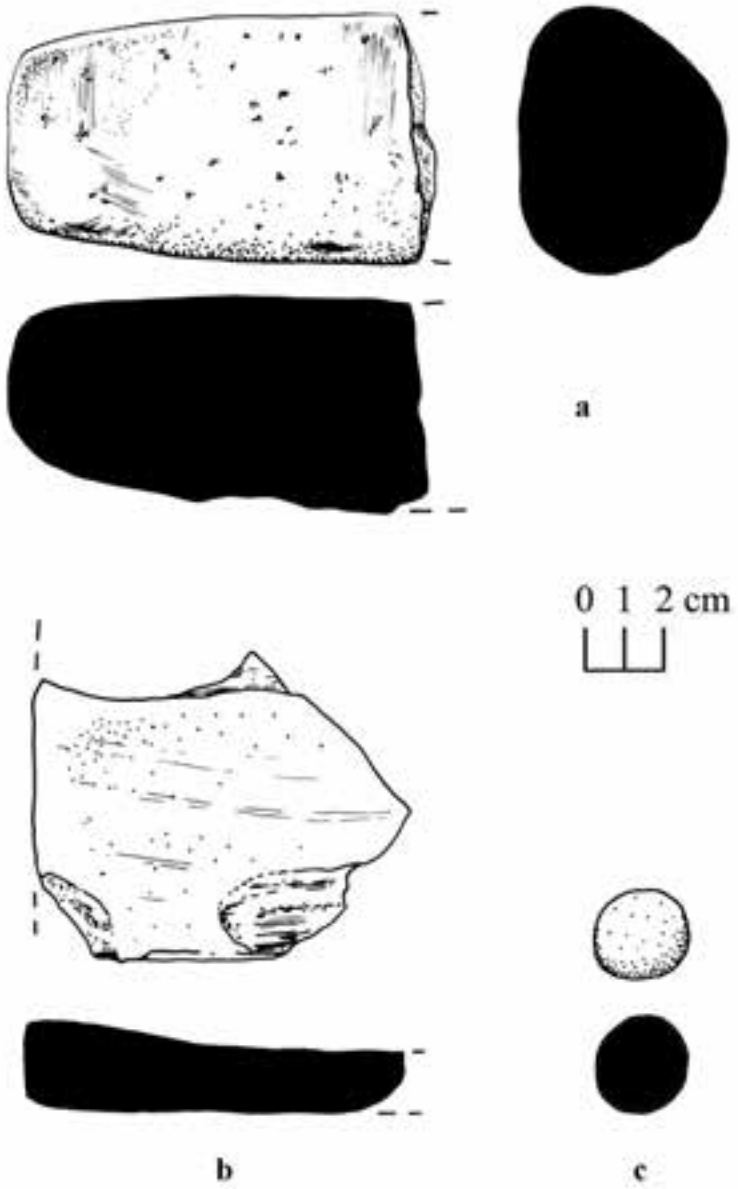

Figure 69. Artifactual materials associated with Operations C239B (a.), C239C(b.), and C239D (c.): a. groundstone mano fragment; b. ground slate object; c. limestone sphere.

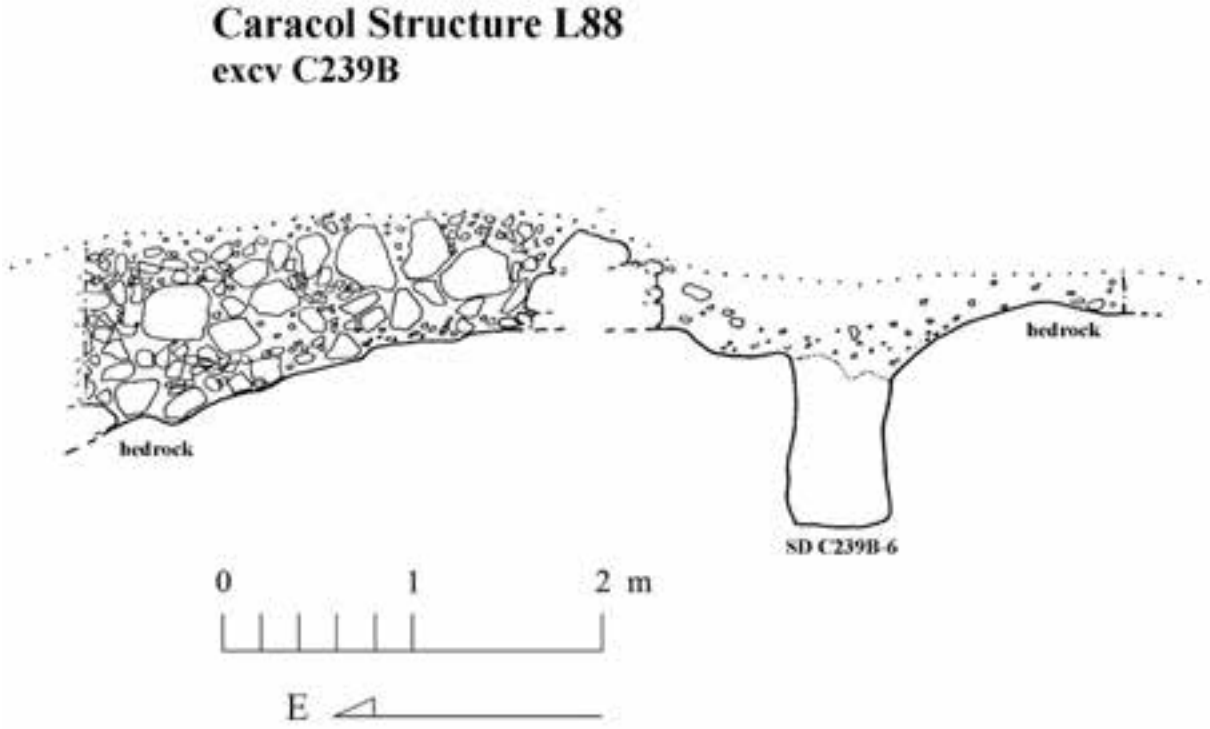

Figure 70. Section of Caracol Structure L88, as revealed by Operation C239B.

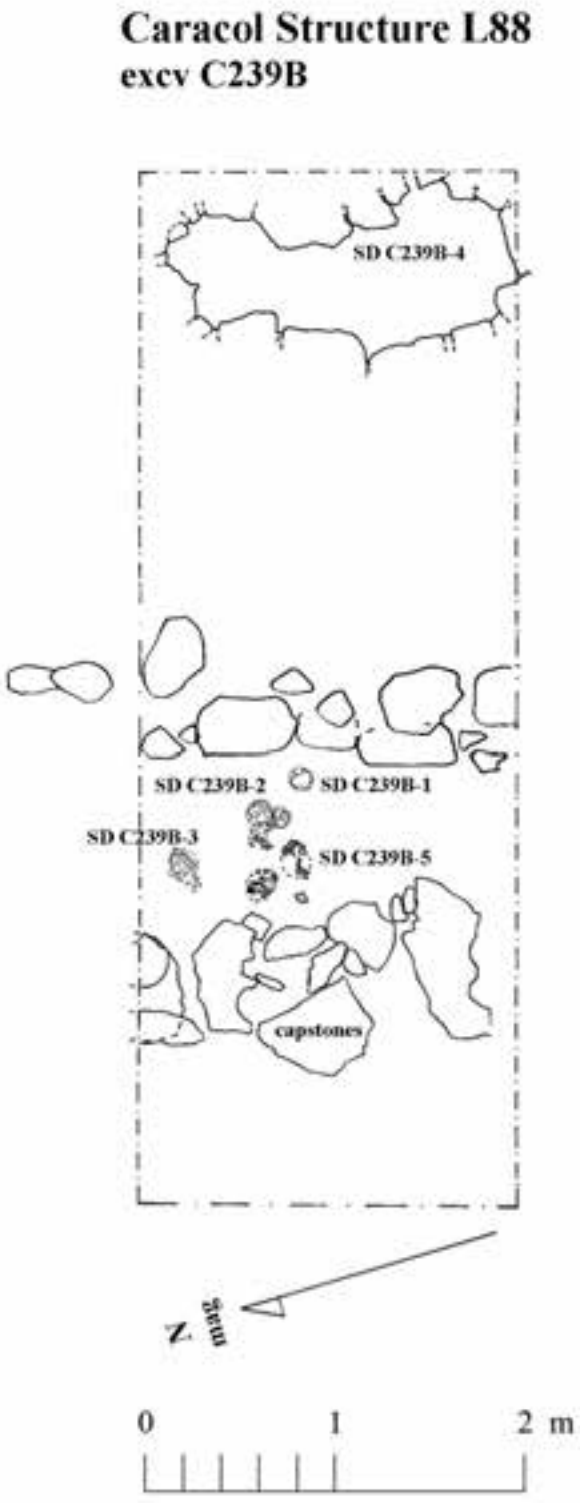

Figure 71. Plan of Caracol Structure L88 showing front step and locations of Special Deposits.

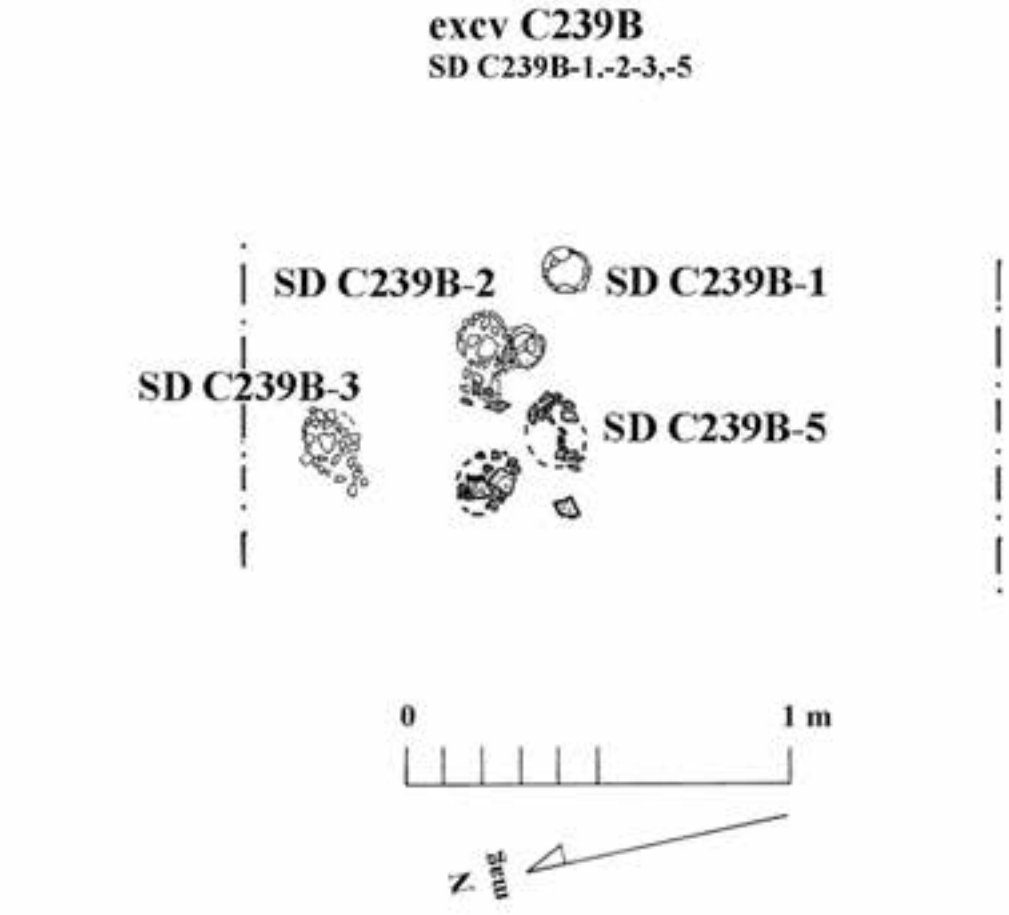

Figure 72. Detailed plan of SDs. C238B-1, C238B-2, C238B-3, and C238B-5.

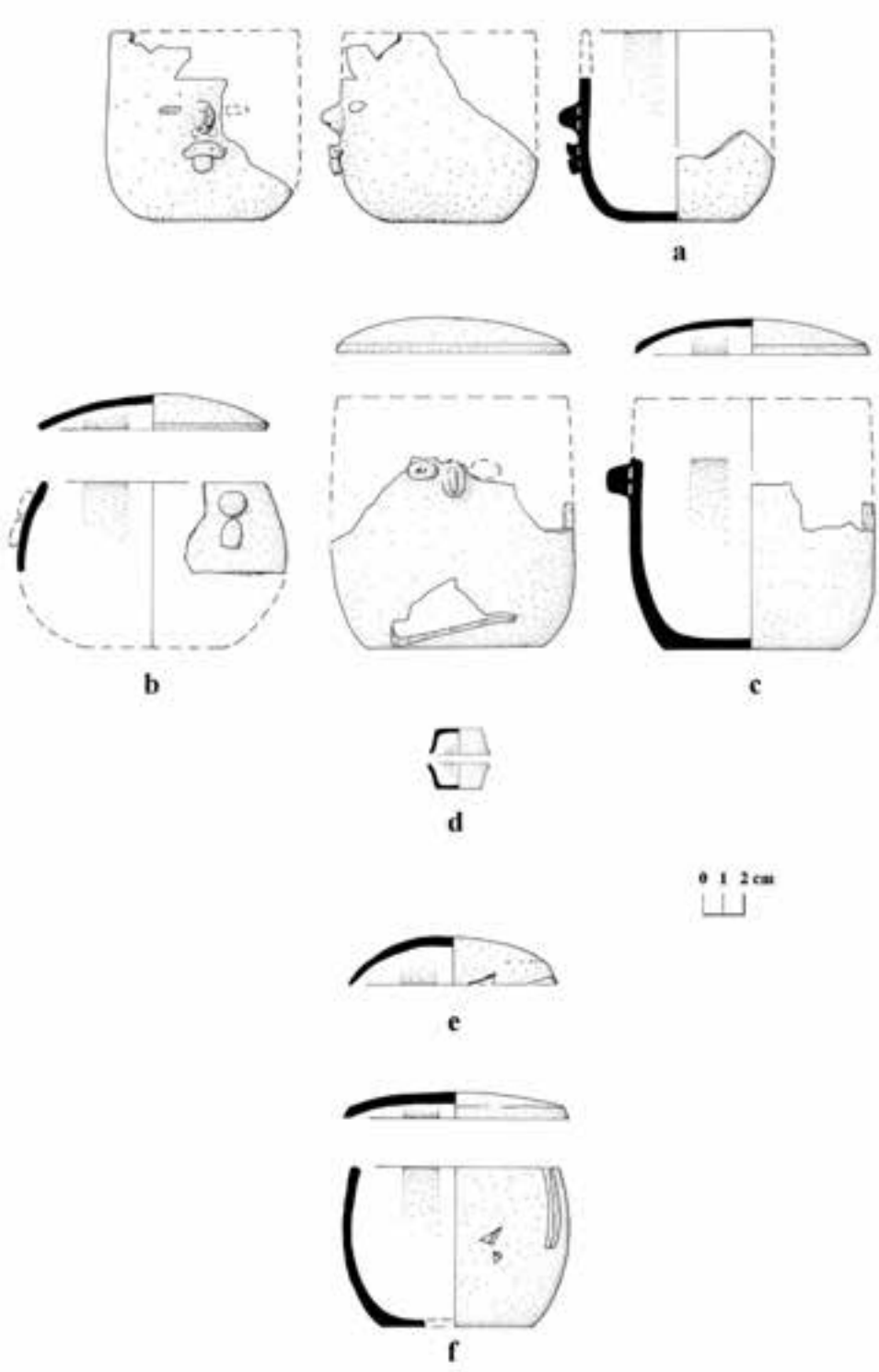

Figure 73. Pottery cache vessels associated with Structure L88: a. Hebe Modeled (SD C139B-1); b. Hebe Modeled (SD C239B-2); c. Hebe Modeled (SD C239B-2); d. Ceiba Unslipped (SD C239B-2); e. probably Hebe Modeled (SD C239B-3); f. probably Hebe Modeled (SD C239B-5).

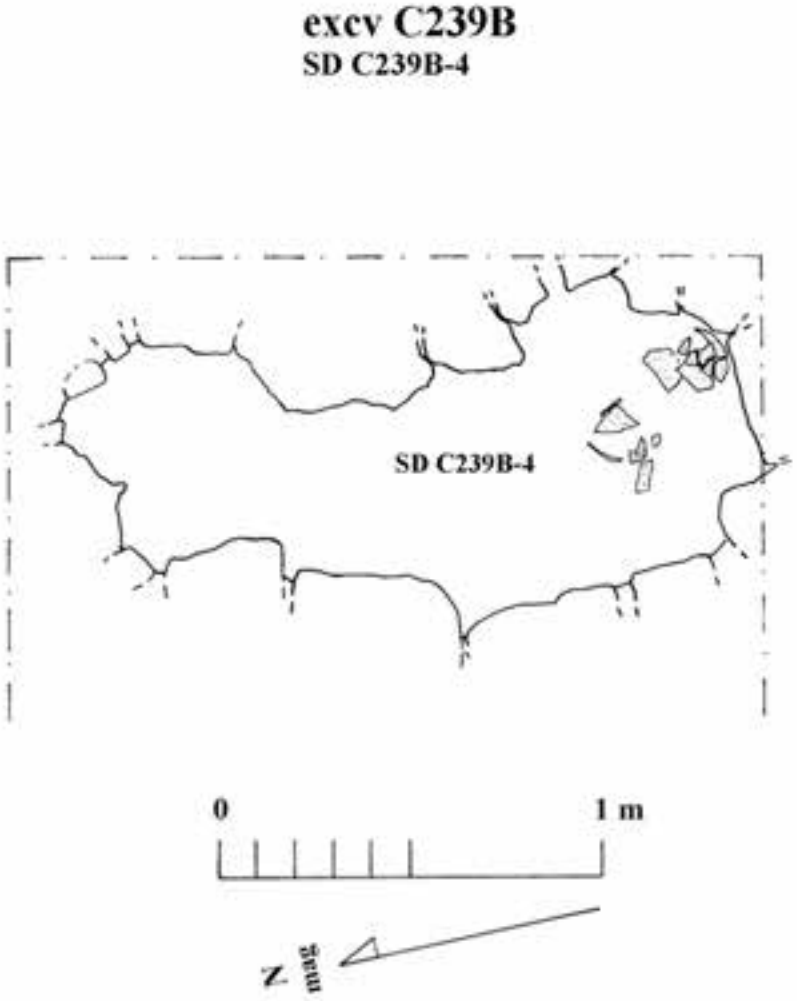

Figure 74. Detailed plan of SD C239B-4.

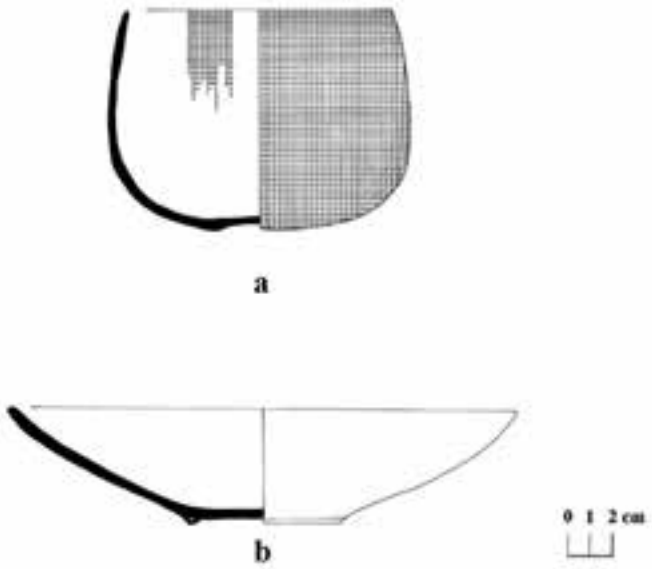

Figure 75. Pottery vessels associated with SD C239B-4: a. Molino Black; b. eroded Machete Polychrome.

Figure 76. Photographs of SD C239B-6 and SD C238C-3.

Figure 77. Detailed plan of SD C239B-6.

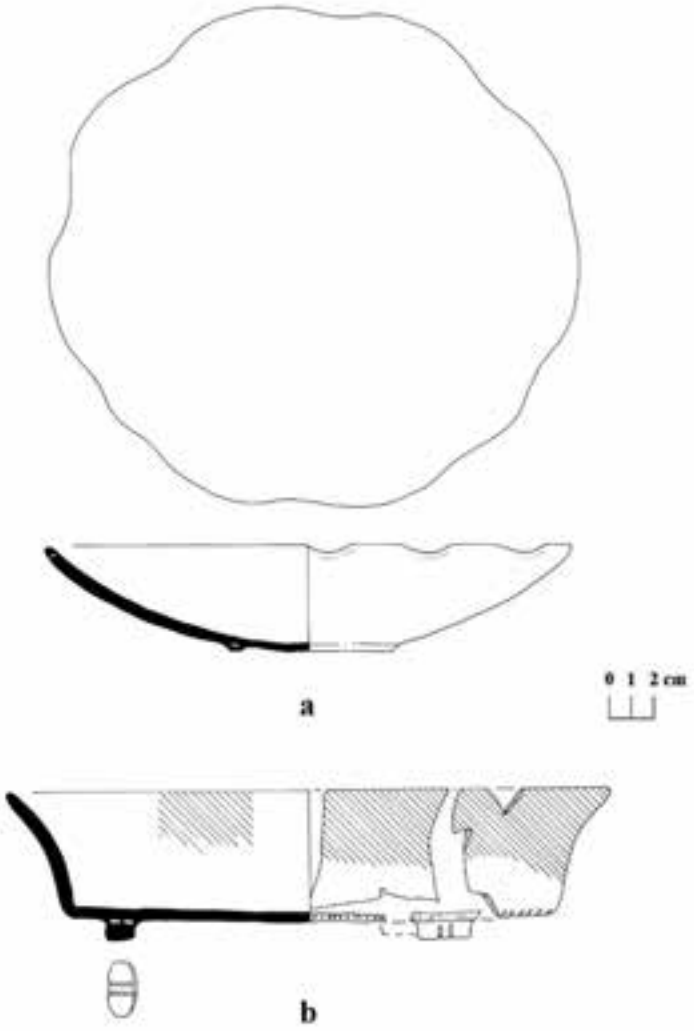

Figure 78. Pottery vessels associated with SD C239B-6: a. Tialipa Brown Fluted; b. Belize Red.

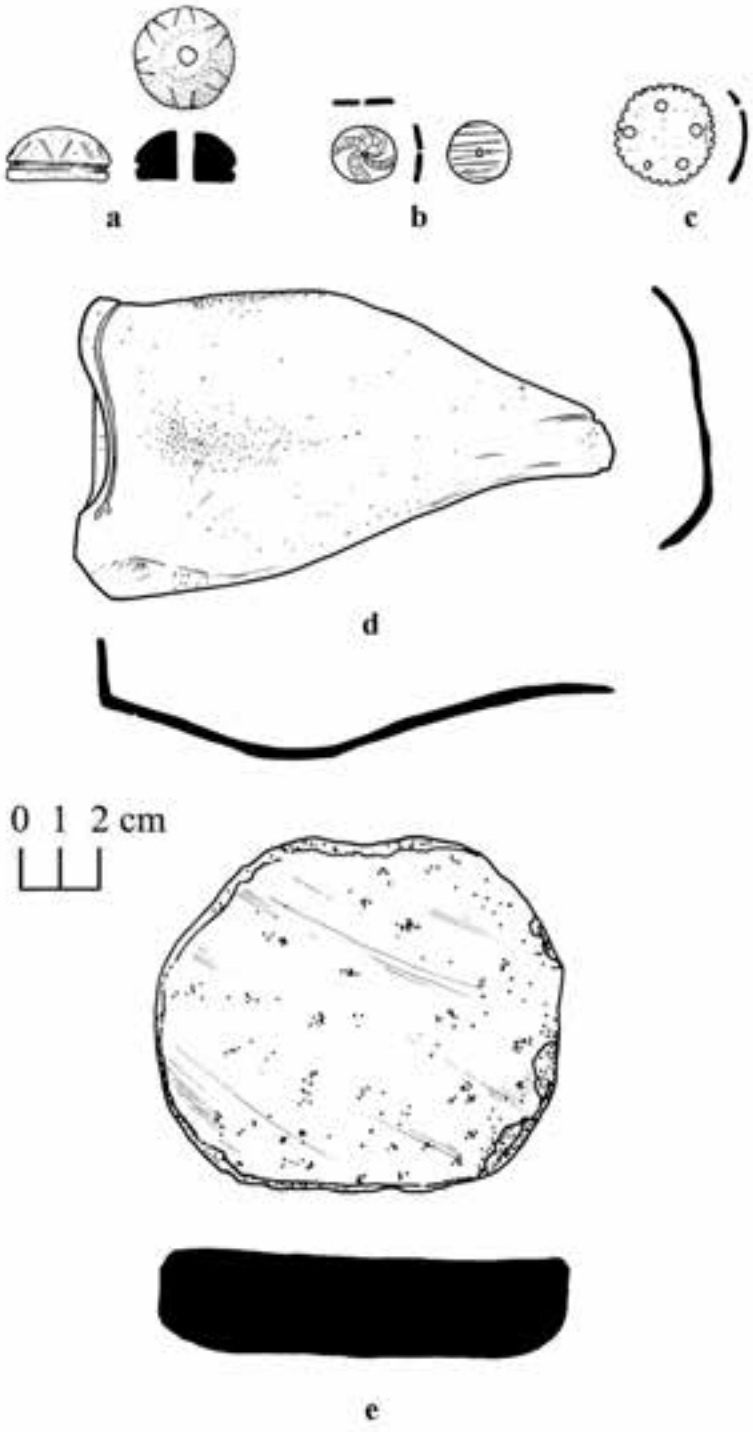

Figure 79. Artifactual materials associated with SD C239B-6: a. limestone spindle whorl;

b.,c. shell disks; d. shell scoop; e. groundstone circular metate.

Figure 80. Photographs of Caracol Structures L87 (upper) and L86 (lower).

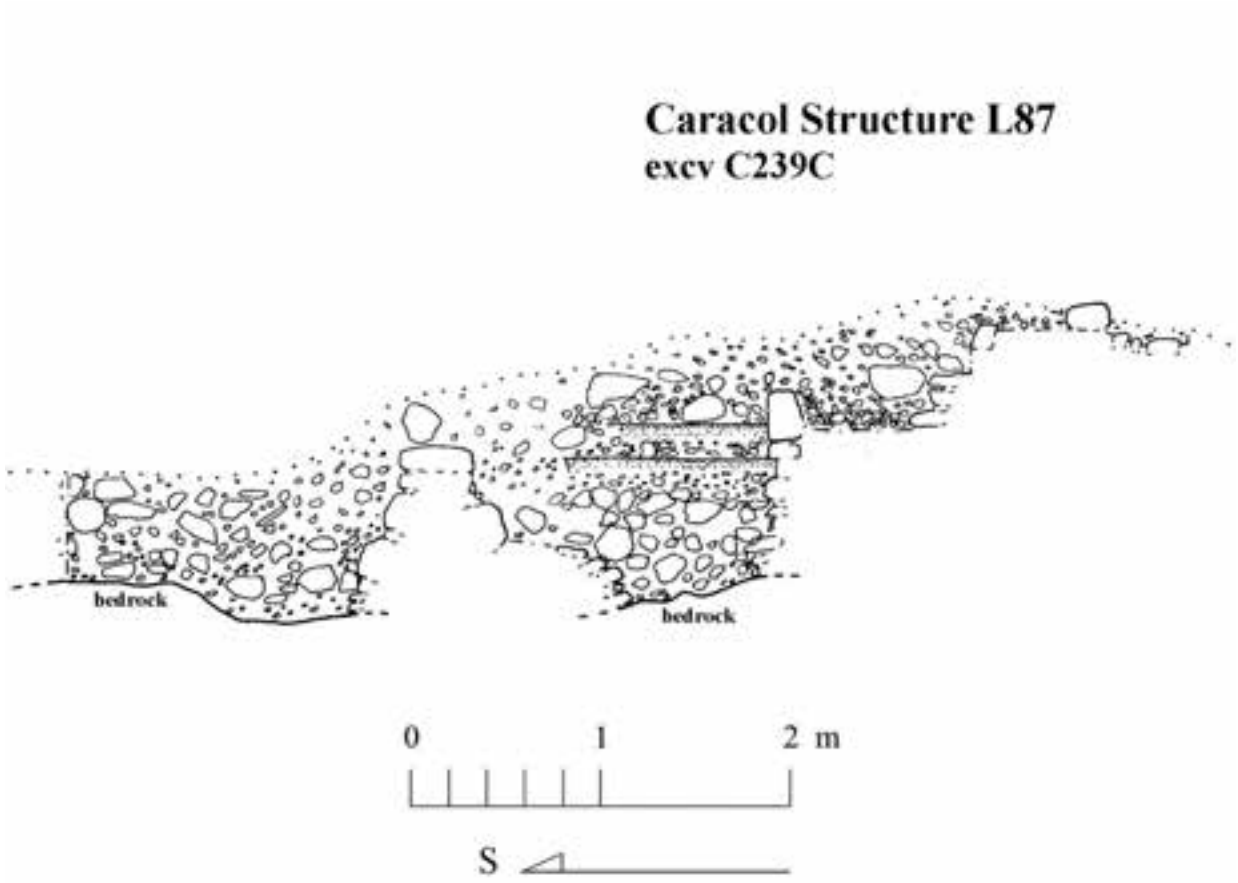

Figure 81. Section of Caracol Structure L87, as revealed by Operation C239C.

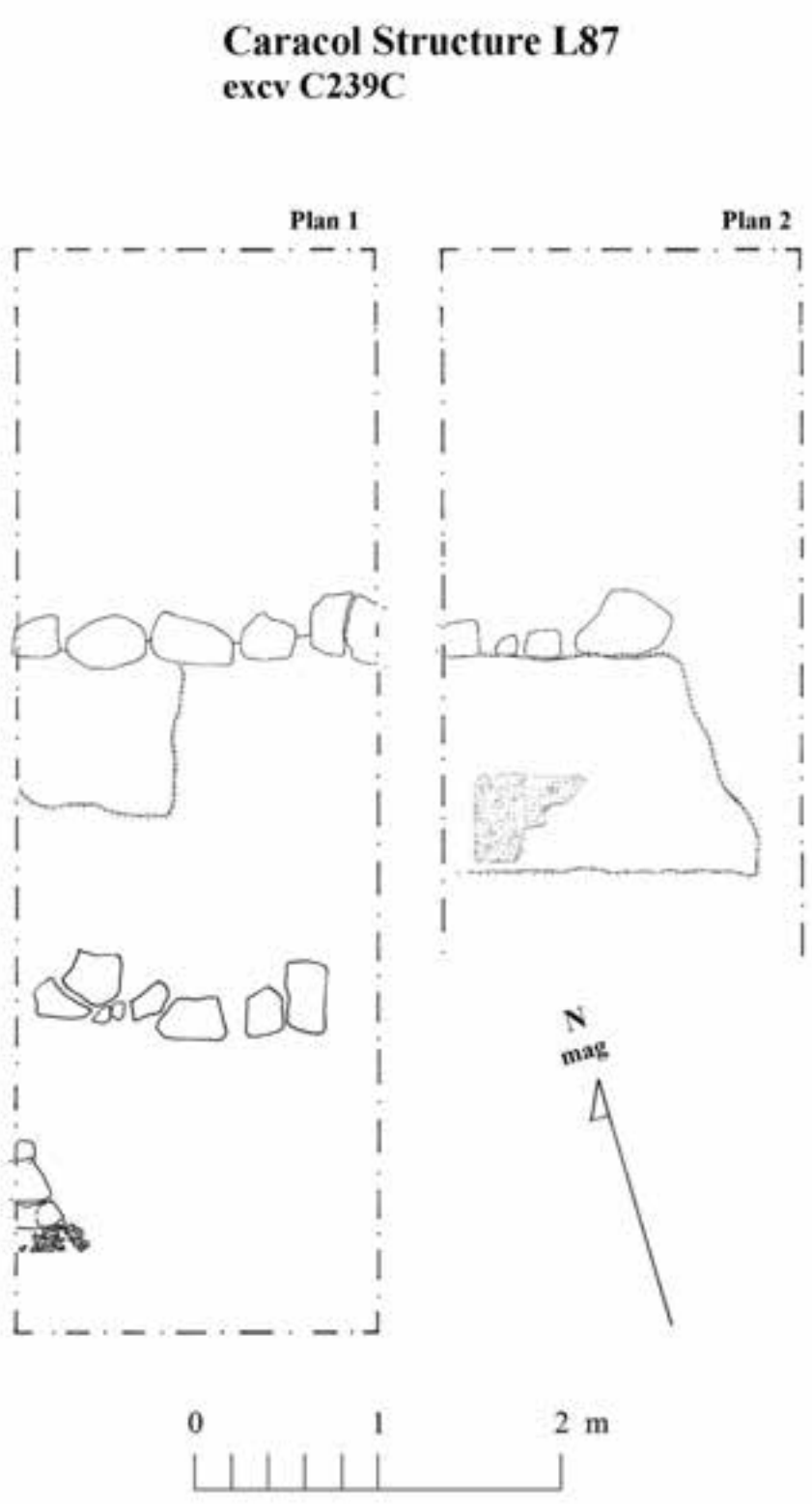

Figure 82. Plans of Caracol Structure L87 showing sequential floors.

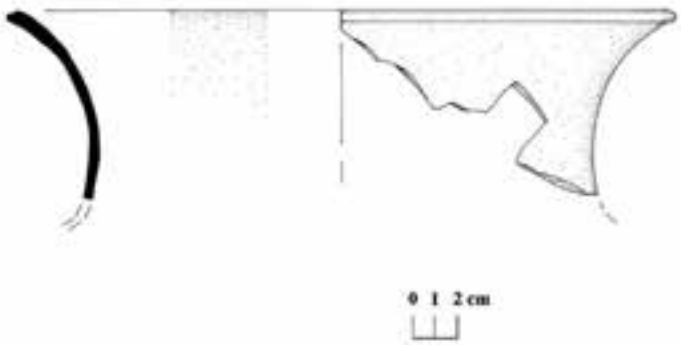

Figure 83. Pottery vessel rim associated with Caracol Structure L87: Ceiba Unsllipped.

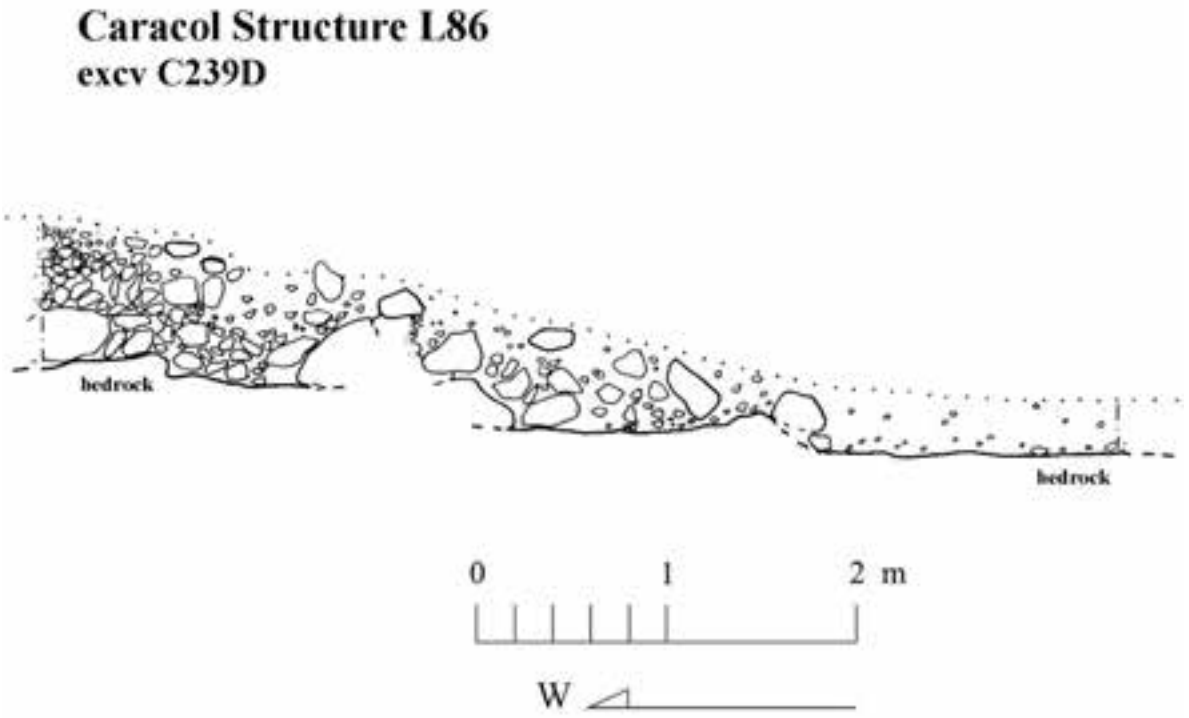

Figure 84. Section of Caracol Structure L86, as revealed by Operation C239D.

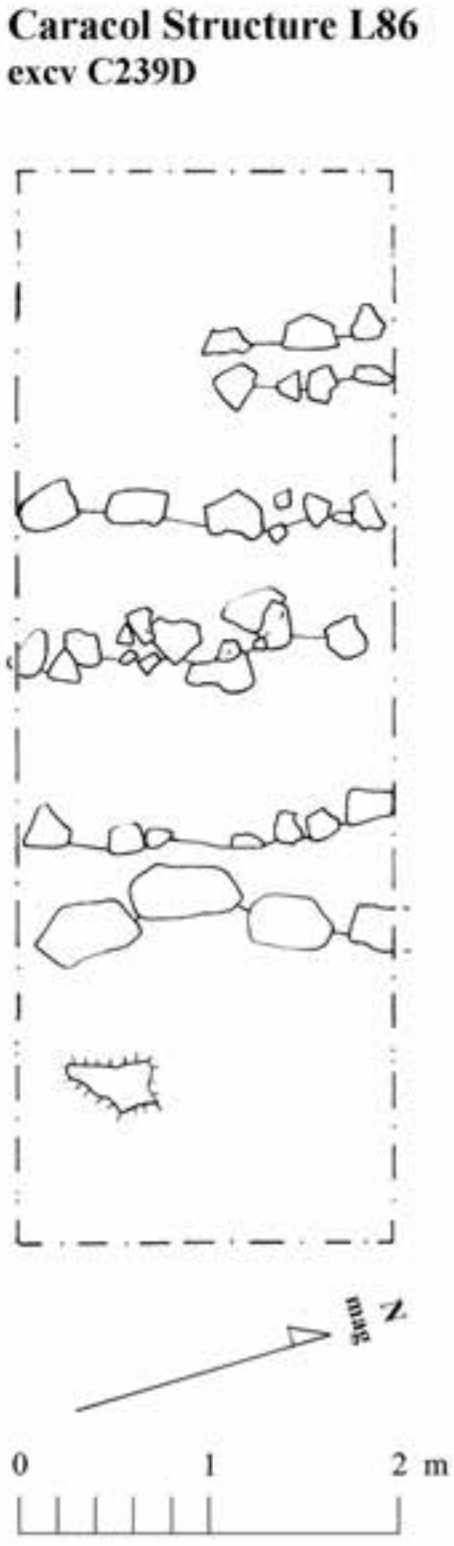

Figure 85. Plan of Caracol Structure L86.

Figure 86. Photographs of the potential reservoir being excavated (upper) and Caracol Structure L85 (lower).

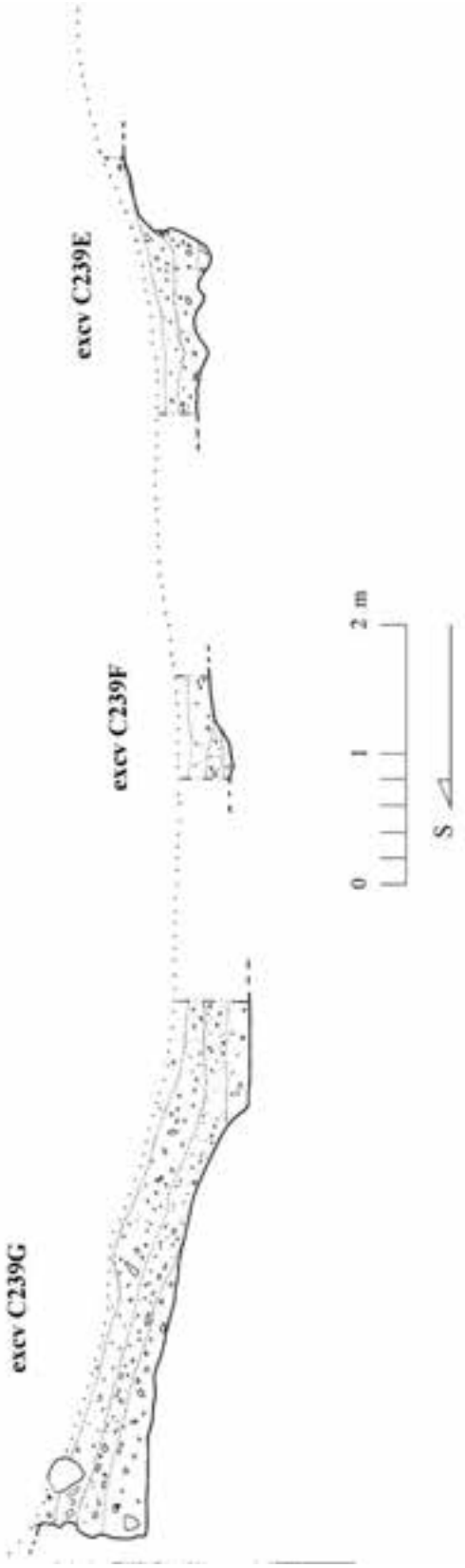

Figure 87. Section through potential reservoir, as revealed by Operations C239E, C239F, and C239G.

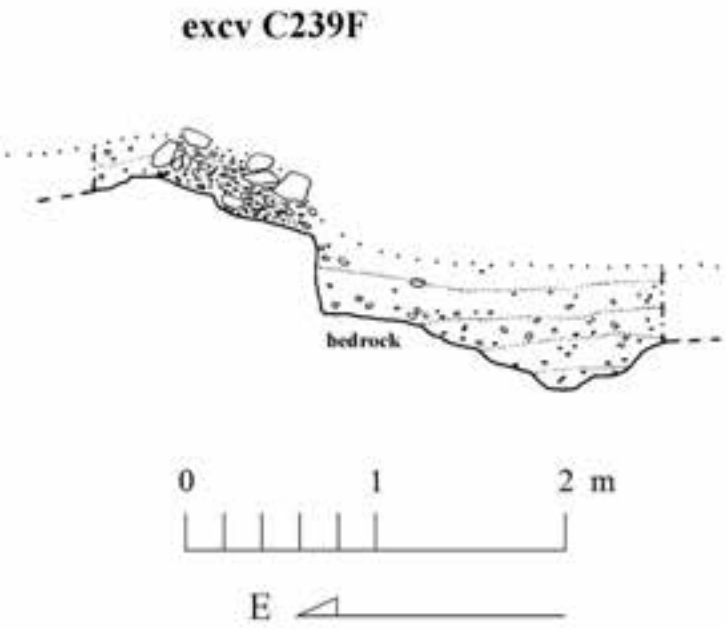

Figure 88. East-west half-section of potential reservoir, as revealed by Operation C239F.

Figure 89. Section of Caracol Structure L85, as revealed by Operation C240B.

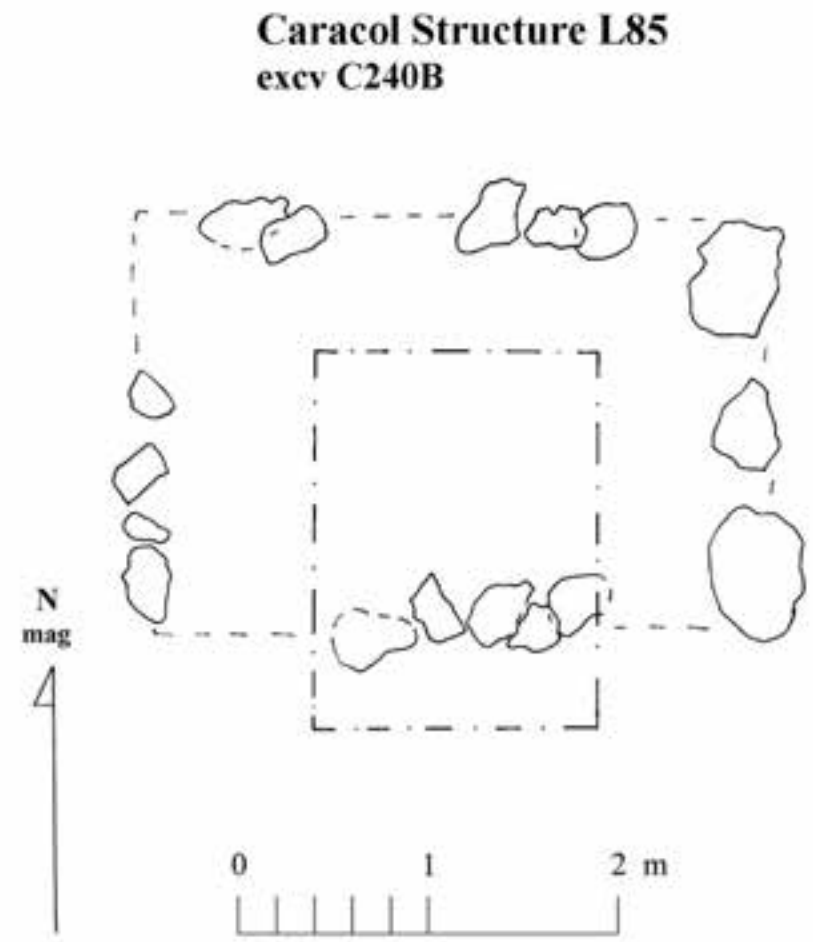

Figure 90. Plan of Caracol Structure L85 and Operation C240B.

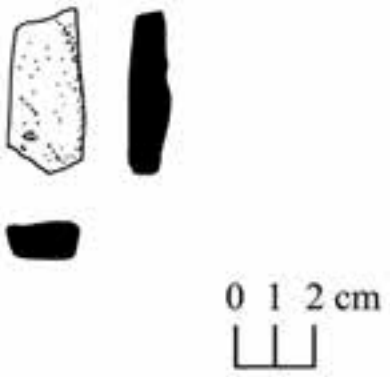

Figure 91. Artifact associated with Structure L85: partial limestone bar.