7 HOUSEHOLD EXCAVATIONS AT AVENTURA, A NORTHERN BELIZE CIVIC CENTER

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Recent research at Aventura in Northern Belize presents the first glimpse into a range of its prehistoric households from commoners to elites. In summer 2018, the Aventura Archaeology Project (AAP) excavated two elite households and conducted test pits in five commoner household groups. Drone technology provided the ability to create 3D models of household architecture and excavations. Excavations at the elite households consisted of the first horizontal exposure of buildings by AAP and provide comprehensive insight into structures, features, burials, and middens. One elite household compound, Group 48, was located adjacent to one of six civic-ceremonial plazas that make up Aventura's central precinct. Excavations at Group 48 identified a series of late occupation structures in the group's plaza areas, one of which was excavated in its entirety. The other elite household excavation at Group 22 was located directly on the edge of a microenvironment known as a pocket bajo, providing insight into the relationship between households and pocket bajos at Aventura. The earliest occupation of commoner households known to date was the Early Classic period, and all elite and commoner households were occupied in the Late Classic to the Terminal Classic/Early Postclassic, coinciding with Aventura's maximal occupation. These results suggest Aventura was a thriving community during a time period associated with "collapse" in areas outside of Northern Belize. Aventura's longevity of occupation contributes to the notion that Northern Belize was an important region in the Maya area and pushes back against traditional narratives about Classic Period "collapse."

Introduction

Aventura is a medium-sized ancient Maya city located in the Corozal District in Northern Belize (Figure 1). Previous research by Raymond Sidrys (1983), the Institute of Archaeology, and most recently by the Aventura Archaeology Project (AAP) indicates that its largest population was during the Terminal Classic/Early Postclassic Period, or 750-1100 CE. During this time, several large urban centers were de-populated in other regions such as the Petén. The most recent season of fieldwork by AAP in 2018 was the first systematic look into Aventura's households, ranging from commoner to elite, and provides insight into the socioeconomic heterogeneity of the city (Robin 2018).

Since 2015, AAP, directed by Dr. Cynthia Robin of Northwestern University, has conducted pedestrian survey of a 1 km^2 area and identified 246 archaeological features (Fitzgerald 2017). Using a total data station and Geographic Information System (GIS), project members digitally mapped these features (Figure 2). Mound features identified through the first four field seasons at Aventura were initially assigned to one of nine group types. This typology was designed based on the Xunantunich Archaeology Project and Chan Project survey work in the Belize Valley

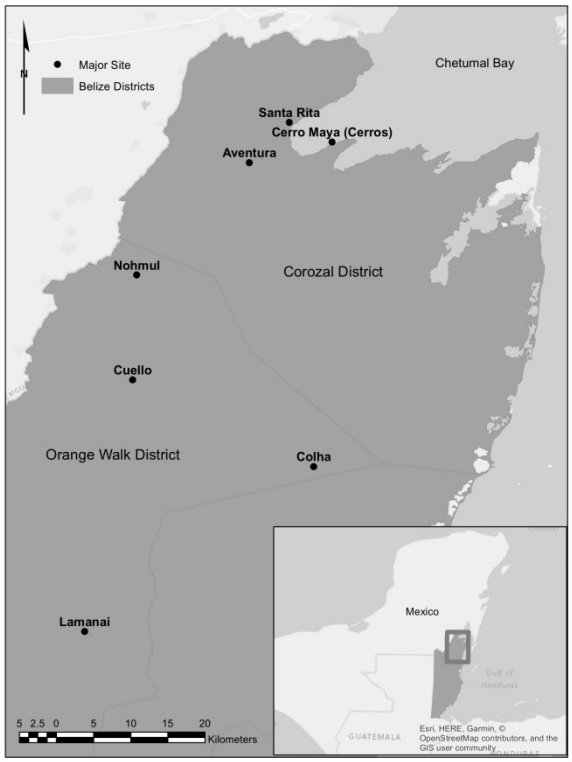

Figure 1. Map of Belize showing location of Aventura relative to other ancient Maya sites. (Map by Zachary A. Nissen).

LeCount and Yaeger 2010; Robin 2012, 2013). However, preliminary household excavations at Aventura have provided data that we utilized to refine this typology to more accurately reflect

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Figure 2. Survey map of Aventura. (Map by Zachary A. Nissen).

differences between the ways mound features are grouped at Aventura (Nissen 2018a). This new typology identifies important height-based architectural distinctions that have enabled us to identify preliminary status-based distinctions among Aventura's residents: commoner, mid-range, and elite. In this paper, we present an overview of the household excavations conducted in 2018 that provided the data to create this new typology. We argue that the socioeconomic heterogeneity indicates Aventura was a thriving civic center in Northern Belize during the Terminal Classic/Early Postclassic and that households ranging from commoner to elite were important in the city's urban organization.

In 2018, AAP utilized drone imaging technology for the first time to document household excavations. We used a DJI Phantom 4 Professional drone and Agisoft PhotoScan 3D modeling software. We found that drone flights in the early morning just before sunrise produced the best images because of the lack of shadows and wind. Droning in combination with Agisoft PhotoScan modeling allow for rapid, low altitude aerial photography, and the production of 2D orthomosaic and 3D models of archaeological excavations with centimeter accuracy. Drone capture enhanced our documentation of the different stages of household excavations (Figure 3). Drone documentation of excavations also allowed us to maximize field time for excavation work because producing 2D and 3D images replaced the time intensive process of creating hand-drawn plan, profile, and section maps.

The New Typology

The 2018 household excavations, along with a reexamination of the survey data, enabled Zachary Nissen (2018a) to condense the AAP survey typology into four groups that are distinguished by the maximum height of mounds within the group (Table 1). At Aventura, based on their height and pyramidal shape, mounds taller than six meters likely correspond to temple structures. Like other Maya cities, these larger mounds (the tallest of which reaches 20 m at Aventura) are concentrated in a central area, and anchor the urban settlement around a series of six formal plazas. Therefore, these central groups have been designated as Type 4 that is suggestive of monumental, civic/ceremonial functions. Groups 1-3 are composed of mounds less than 6 m in height and are interspersed across the site in groups that likely represent domestic units. Groups 1 to 3 are further subdivided to distinguish the total number of mounds in a group (see Table 1). This paper focuses on Types 1 and 3 due to the fact that 2018 excavations specifically sought to investigate Aventura's households from Type 1 and 3 groups (Figure 4).

Tpe 1: Commoner Households

Operation 11

Type 1 mound groups are composed of mounds that are less than 1 m tall. In 2018, Nissen conducted test excavations of nine 1 x 2 m units in five different Type 1 groups (Nissen 2018b). These consisted of two Type 1a groups, two Type 1b groups, and one Type 1c group (see Table 1 for subdivision descriptions). Mound groups were selected to assess the variability of commoner households across Type 1 subtypes,

Figure 3. 3D drone images of Group 48 Mound 3 excavations, showing structure collapse after topsoil had been removed (left), the exposed substructure with masonry room and benches (center), and an image from the final day of excavations showing the test pit that penetrated the room floor and substructural fill. (Images by Cynthia Robin).

Table 1. The four group types identified by the Aventura Archaeology Group. Types 1-3 are household groups ranging from commoner to elite, and Type 4 groups are civic-ceremonial groups. Table by Zachary A. Nissen.

	Total Groups Surveyed	**Composition**	**Surface Survey and SubType Distinctions**
Type 1	26 (42% of total Groups)	Group of mounds within 20 meters distance ranging from 0-1 meters in height. Excavations reveal low substructures, domestic artifacts, and no masonry architecture.	Commoner Household Group Subgroups: 1a: 1 mound feature 1b: 2-3 mound features 1c: 4+ mound features
Type 2	20 (32% of total Groups)	Group of mounds within 20 meters distance ranging from 1-2.5 meters in height. Looting reveals small to mid-sized masonry substructures and structures with domestic artifacts.	Mid-Range Household Group Subgroups: 2a: 1 mound feature 2b: 2-3 mound features 2c: 4+ mound features
Type 3	8 (13% of total Groups)	Group of mounds within 20 meters distance ranging from 2.5-6 meters in height. Excavations reveal large masonry substructures and vaulted structures with domestic artifacts.	Elite Household Group Subgroups: 3a: 1 mound features 3b: 2-3 mound features 3c: 4+ mound features
Type 4	8 (13% of total Groups)	Groups of larger mounds that surround a formal plaza. Most Type 4 groups have at least one mound that reaches 6+ meters in height.	Monumental civic-ceremonial group

as well as different locations across the city's settlement. These excavations included structure tests, posthole tests to locate middens, and then midden tests.

Based on artifact inventories, Nissen (2018b) identified that many of these mound features represented the remains of domestic units. These buildings consisted of low substructures composed of soil, gravel, and rubble fill stones covered by a plaster floor surface, and likely had perishable structures on top. Importantly, the test pits indicated that mound height differences between 0-1 m were largely the result of length of occupation. Interestingly, commoner household excavations reveal both utilitarian and fine ceramic types, such as Saxche Orange Polychrome, Achote Black, and Portia Gouged-Incised, present in

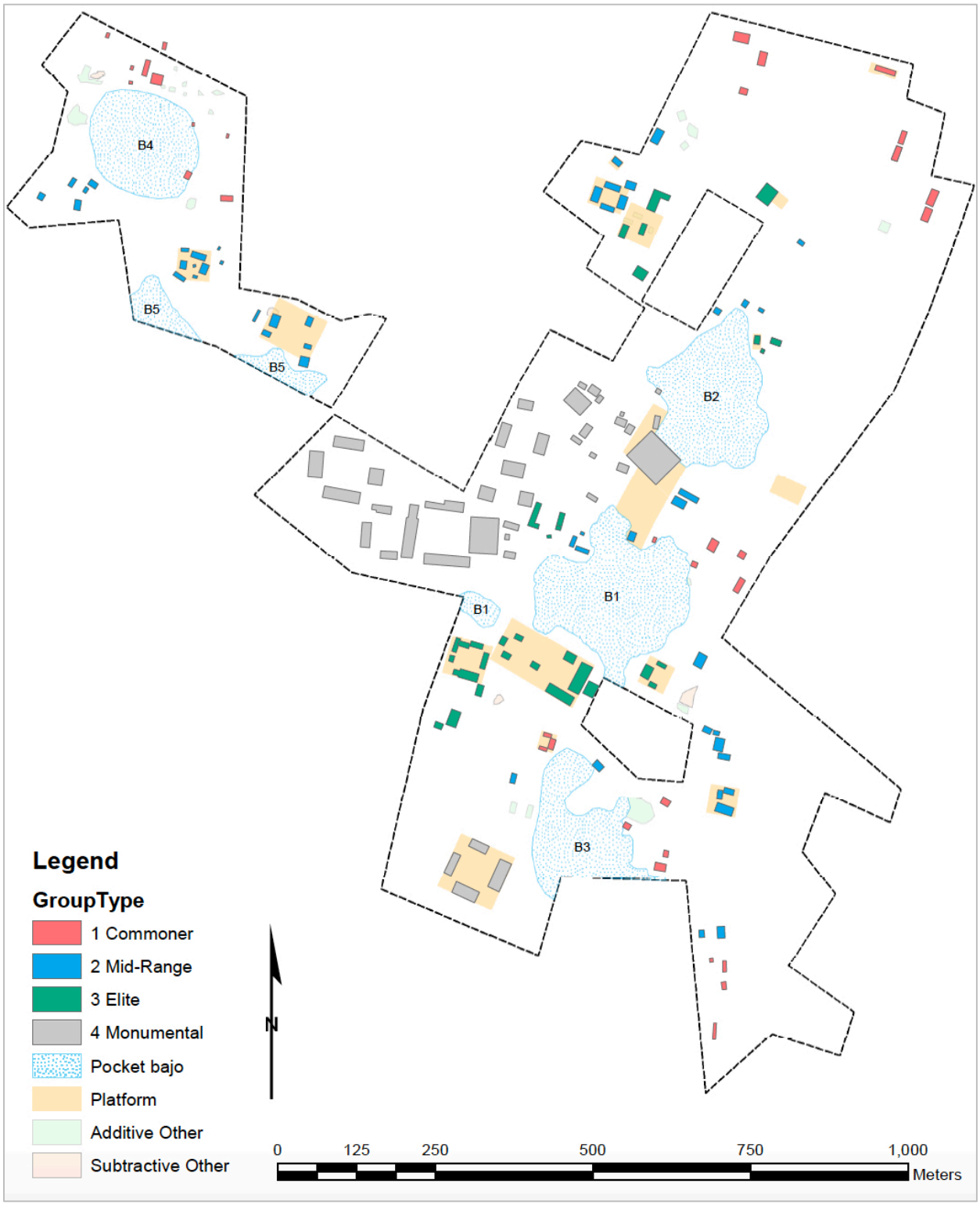

Figure 4. Map showing the location of various household types. (Map by Zachary A. Nissen).

Figure 5. Façade of the northern bench in Room 1 of Group 48 Mound 3. (Photograph by Martin Menz).

Terminal Classic/Early Postclassic occupation (Kosakowsky 2018). Other recovered artifacts include groundstone tools, a diverse array of chert types, a carved shell bead, and obsidian blades.

One key consistency across the Type 1 groups tested was a lack of masonry architecture. All groups excavated revealed households that consisted of perishable structures with rubble fill substructures and plaster floors. While one had a cut stone basal wall that would have supported a taller perishable wall, none had full masonry walls or other cut stone architectural features. This suggests commoner households constructed perishable domestic structures at Aventura.

Type 2: Mid-range Groups

In Type 2 mound groups, at least one mound is between 1 – 2.5 m tall (Nissen 2018a). Based on looter activity in Type 2 mounds, mounds in this height range are the remains of mid-sized masonry structures on stone substructures. This distinction leads us to tentatively categorize the Type 2 groups as Mid-Range households, because they have resources to construct masonry structures, unlike the Type 1 groups, but lack the larger masonry architecture and multi-level cut-stone substructures encountered in the Type 3 excavations. Refining this middle range in the typology will be a focus of future research at Aventura.

Type 3: Elite Household Groups 48 and 22

Type 3 mound groups are the household type at Aventura with the tallest construction. In Type 3 groups, at least one mound is between 2.5 – 5 m in height (Nissen 2018a). Based on the horizontal excavation of two Type 3 groups, groups with mounds greater than 2.5 m in height are the remains of large masonry structures on substantial masonry platforms. This distinction leads us to tentatively categorize the Type 3 groups as elite households, as they have resources to construct multi-level masonry architecture.

In 2018, two Type 3 households were excavated. Gabriela Dziki (2018) and Martin Menz (2018) excavated two buildings in Group 48, a Type 3c household. These excavations were conducted in two operations, Operation 9 and Operation 10. This patio group is located east of and adjacent to the east temple in Aventura's C Plaza. The mounds in Group 48 range in height from 0.43 to 2.6 meters. The Group 48 patio is bounded by mounds to the east, south, and west, and open to the north. Kacey Grauer (2018a) investigated a Type 3 household, Group 22 on the edge of a pocket *bajo,* Bajo 2. This excavation was conducted as Operation 8 and examined the relationship between architectural construction and the pocket *bajo* edge. Pocket *bajos* are depressions in the karstic bedrock less than 0.2km^2 in area that are today seasonally inundated (Dunning et al. 2015). There have been 5 pocket *bajos* mapped in and outside of the city at Aventura

Figure 6. Painted stucco on the northern bench in Room 1 of Group 48 Mound 3. (Photograph by Martin Menz).

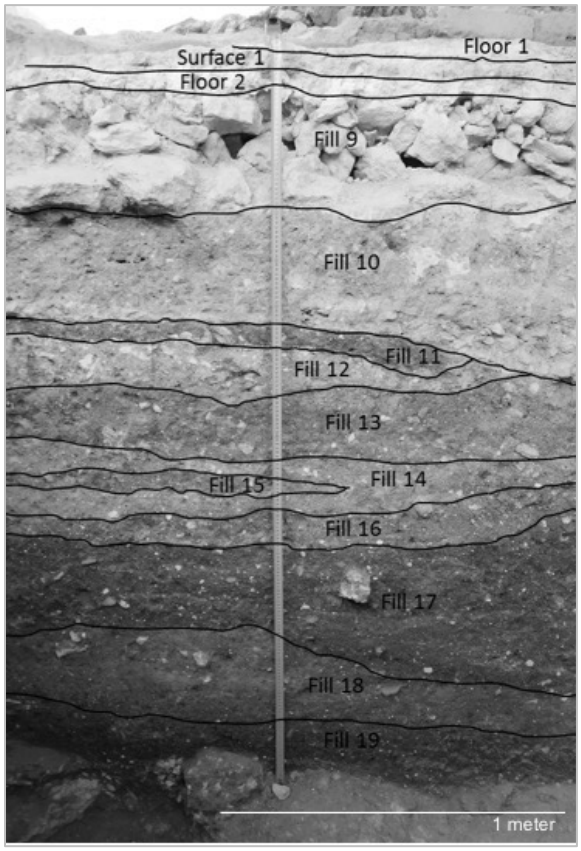

Figure 7. Image of stratigraphy in Operation 9 excavations. (Photograph by Martin Menz).

within the 1 km^2 survey area. Grauer (2018b) is currently investigating the specific ecologies and uses of pocket *bajos* at Aventura using microbotanical analysis. The excavated building, Group 22 Mound 3, is 3.1 meters in height and is oriented 92 degrees. Group 22

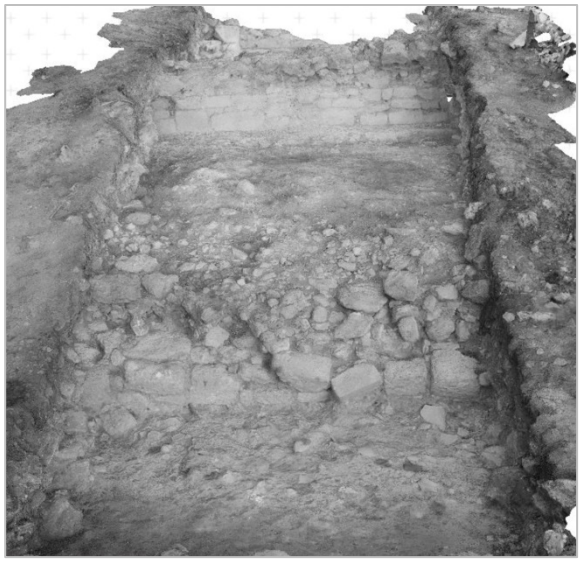

Figure 8. Drone image of the Group 48 Mound 1 substructure. (Image by Cynthia Robin).

Mound 3 sits on a platform, Group 22 Platform 1.

Group 48, Operation 9

Operation 9 uncovered a masonry structure on a 0.9 m high, single-level stone substructure, at the northern end of Group 48 Mound 3 (Menz 2018). The building had a vaulted stone roof, evidenced by the collapsed vault stones found in the room fill. Two benches were uncovered in the building, one each along the north and south walls (Figure 5). These benches were covered in painted plaster with painted stucco knobs for decoration (Figure 6).

The building was constructed in a single phase during the Late Classic to Terminal Classic, based on ceramic analysis performed by Dr. Laura Kosakowsky (2018), from fill beneath the building floor. Stratigraphy of the subfloor fills was complex, and the room floor was resurfaced at least once. Subfloor fill layers were primarily composed of soil (Figure 7), as also was the case for the fill of the supporting platform to the west. This is in contrast to fill layers in the supporting platform to the east, which were composed of stone rubble, which is a more typical fill material in the Maya area. The east and west construction walls of the excavated room of G48M3 did not extend to bedrock, but instead were seated upon a 20-centimeter layer of soil fill.

Figure 9. Drone image of the Group 48 Mound 5. (Image by Cynthia Robin).

Excavation beneath the room floor revealed a burial containing two individuals, and two more single burials were encountered during excavation into the substructure along the eastern wall and doorway of the room. The two individuals found beneath the room's floor were oriented in opposite directions, with one facing east and the other west. Both had bowls with kill-holes placed over the cranium; an Achote Black bowl for the east-facing individual, and a Savinal Cream bowl for the west-facing individual (Kosakowsky 2018). Both burials in the substructure fill faced west and neither had ceramic bowls over the crania. A polished and engraved groundstone pendant was encountered near the hip of an individual in one of the sub-structure burials.

Excavations on the western side of Mound 3 revealed a complex, stratigraphic sequence of soil fills; among these were a thin layer of ash and a layer of sascab. These soil fills extended under the western side of the Mound 3 substructure. Ceramics from the fill layers date to the Terminal Classic and Early Postclassic (Kosakowsky 2018).

Group 48, Operation 10

Operation 10 excavations of a second mound in Group 48 Mound 1 identified masonry architecture (Dziki 2018). Group 48 Mound 1 contained a single vaulted masonry room, with an exterior apron molding, on a 1.6 m high single-level stone substructure. The room had two doorways, one facing east and one facing west. A fragment of a bench floor was identified in excavations, and if the room was similar to that of Group 48 Mound 3, it likely contained two benches on either end of the room, but extensive looting in Mound 3 precluded the full identification of room architecture. The substructure of Group 48 Mound 1 was built in three construction phases, and preliminary ceramic analysis by Dr. Kosakowsky (2018) from various fill layers suggests the earliest phase of construction was in the Early Classic/Early Late Classic and the final phase was during the Late Late Classic/Terminal Classic (Figure 8). This ceramic analysis is ongoing.

The platform that formed the plaza area for Group 48 was constructed with a sequence of six fills dating from the Early Classic/Early Late Classic to the Late Late Classic/Terminal Classic (Kosakowsky 2018). The platform east of Group 48 Mound 1 was constructed with a sequence of ten floors and fill layers, ceramic analysis of which is ongoing.

A midden, dating to the Terminal Classic Period, was identified and excavated at the base and east of Mound 1's substructure. This midden contained a variety of artefacts including utilitarian and fine ceramics, chert, obsidian, jade, carved shell, net needles, bone, a carved greenstone axe as well as manos and metates. A particularly interesting metate was identified at the top of the midden. It was a large, upside

down, trough shaped metate measuring 0.69 m by 0.46 m. The finding of the trough shaped metate in Midden 1 offers more insight into the possible connections that Aventura had with the northern Maya lowlands. During Sidrys' 1974 survey (1983:160), large, trough-shaped metates were found at the sites of Sarteneja and Santa Rita, also located in Corozal District, and were associated with the Postclassic style metates that were found in large quantities at the site of Mayapan in Yucatan.

In the process of excavating the midden east of Group 48 Mound 1, a low-lying structure, Group 48 Mound 5, was encountered (Figure 9). Ceramic analysis is ongoing, and preliminary analysis from artifacts from fill indicates a Terminal Classic to Early Postclassic Period date (Kosakowsky 2018). Group 48 Mound 5 differs from other architecture in Group 48. It had a basal wall construction consisting of two courses of well-cut stone that supported a wattle and daub structure, indicating it was part masonry part perishable.

Based on the Operation 9 and 10 horizontal excavations, Group 48 was an elite household with masonry architecture and associated domestic artifacts both local and imported including jade, greenstone, marine shell, obsidian, granite, chert, bone, and ceramic. Its earliest occupation is yet to be determined, but it was certainly occupied by the Late Early/Early Late Classic and into the Terminal Classic/Early Postclassic Period.

Group 22, Operation 8

Operation 8 investigated a Type 3 household, Group 22 on the edge of a pocket *bajo,* Bajo 2, and examined the relationship between architectural construction and the pocket *bajo* edge. Pocket *bajos* are depressions in the karstic bedrock less than 0.2km^2 in area that are today seasonally inundated (Dunning et al. 2015). There have been 5 pocket *bajos* mapped in and outside of the city at Aventura within the 1 km^2 survey area. Grauer is currently investigating the specific ecologies and uses of pocket *bajos* at Aventura using microbotanical analysis. The excavated building, Group 22 Mound 3, is 3.1 m in height and is oriented 92 degrees. Group 22 Mound 3 sits on a platform, Group 22 Platform 1.

Operation 8 excavations (Grauer 2018a) and subsequent ceramic analysis by Kosakowsky (2018) reveal that human occupation at Group 22 Mound 3 started as early as the Late Preclassic. The first signs of landscape modification are from the deposition of a layer of *sascab*, eroded limestone, in the Early Late Classic. This layer of *sascab* contained a cut with a single human ilium bone, remnant either of a poorly preserved burial, or possibly a ritual event such as ancestor veneration (Grauer 2019). Group 22 Platform 1 was constructed in a single building phase during the Terminal Classic, atop several layers of soil fill. The substructure of Group 22 Mound 3 consists of three terraced levels and was constructed on top of Group 22 Platform 1, during the Terminal Classic to Early Postclassic. It was built in two construction phases during the same time period. The masonry superstructure of Group 22 Mound 3 was constructed on top of a layer of soil on top of bedrock similar to the structures at Group 48. It consisted of a single vaulted masonry room. As excavations at Group 22 Mound 3 were designed to investigate the relationship between the structure and the pocket *bajo,* excavations did not penetrate the floor of the Group 22 Mound 3 superstructure, and thus we do not know the nature or dating of the earlier phases of Group 22 Mound 3.

The room of the superstructure had a single doorway measuring 1.65 m that faced west, overlooking Bajo 2. Horizontal wall exposure excavations revealed that the room had masonry walls and a vaulted stone roof. This room contained at least one 50 cm-tall bench along the south side of the room. If this room was similar to the room of Group 48 Mound 3, there was likely a corresponding bench on the north side of the room (Figure 10).

The recovery of a variety of domestic artifact types from Operation 8 excavations suggests that Group 22 Mound 3 was indeed a household. In addition to utilitarian and fine ceramics, chert and obsidian tools, a bark beater, a whistle, marine shell, several mano fragments, and a complete metate were encountered. Ceramics ranged from utilitarian (such as jars), to ritual (such as figurines). These excavations show Bajo 2 was significant to the household at

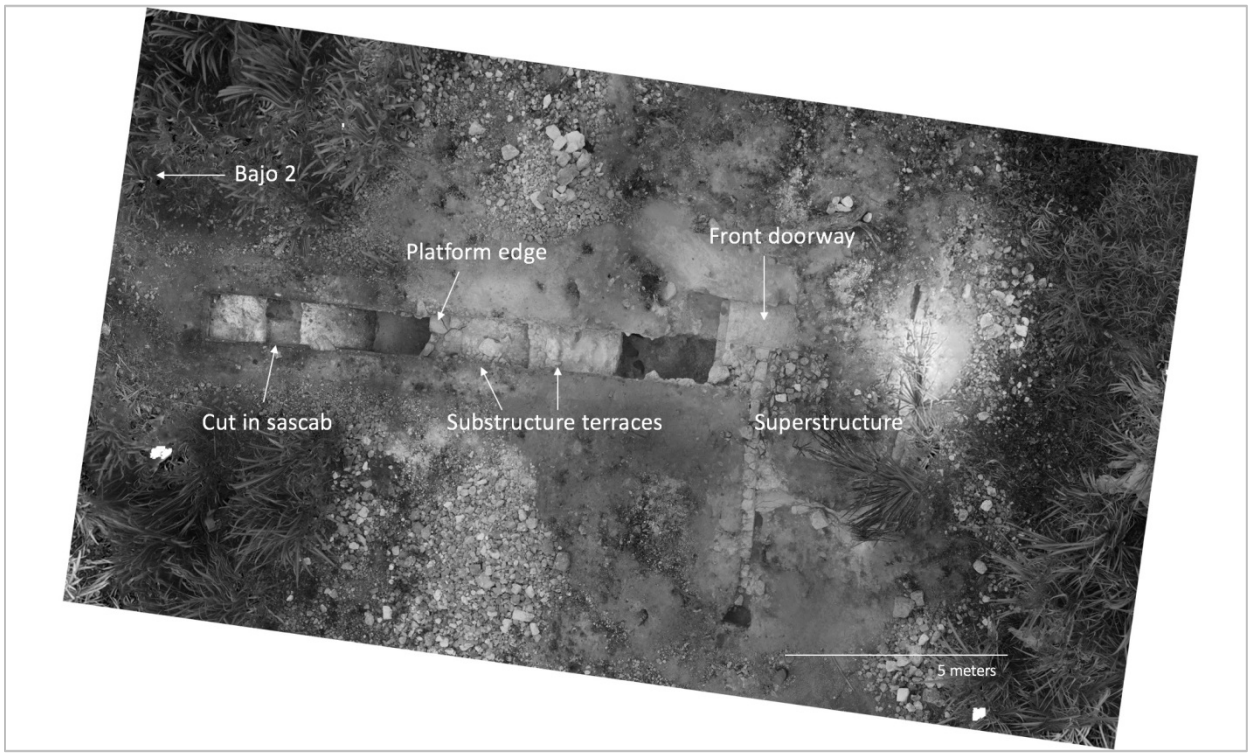

Figure 10. Drone image of Operation 8 excavations. North is at the top of the image (Image by Kacey Grauer).

Group 22. Instead of facing nearby smaller mounds, which excavations by the Institute of Archaeology in 2007 reveal date to the same time period, Group 22 Mound 3 faces the pocket *bajo* on whose edge it sits.

Conclusion

In conclusion, there was a range of socioeconomic heterogeneity at Aventura during the Terminal Classic to Early Postclassic Period. The results from the 2018 household excavations at Aventura indicate the city was a thriving civic center during this time. These results push back on traditional narratives of ancient Maya "collapse," or urban decline, after the Classic Period. Such narratives suggest the abandonment of large sites during the Terminal Classic to Early Postclassic, however, our 2018 research contributes to a long established and still growing body of research that shows sites in Northern Belize, including Aventura, Lamanai, Caye Coco, Nohmul, and Santa Rita, persisted and even grew during this period (Chase 1985, 1990; Chase and Chase 1988; Graham 2002, 2004; Hammond et al. 1985, 1987, 1988; Pendergast 1985, 1986; Rosenzweig and Masson 2002; summarized by Walker 2016).

Our excavations at Aventura sought to understand these broader regional trends at the household level. Cities are more than their ceremonial core, and household archaeology demonstrates that a range of inhabitants, from commoners to elites, were important to the organization of urban communities. Household archaeology is well situated to highlight how dynamic urban centers were in the ancient Maya past, and the socioeconomic variety of households suggests that Aventura was a heterogenous and vibrant community during the Terminal Classic to Early Postclassic.

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