RIVERS, WETLANDS, CREEKS, AND ROADS: INVESTIGATING SETTLEMENT PATTERNS IN THE MIDDLE AND LOWER REACHES OF THE BELIZE WATERSHED

Eleanor Harrison-Buck, Marieka Brouwer Burg, Satoru Murata, Hugh Robinson, Adam Kaeding, and Alex Gantos

The Belize River East Archaeology (BREA) project has continued to focus on survey, mapping, and excavations of sites in the middle Belize Valley, but this season the BREA team also explored sites farther down river. Here, we present an overview of our work this past season, which included mapping the ancient Maya site of More Tomorrow. We also further investigated the site of Saturday Creek, exposing additional evidence of Spanish Contact in the context of another cache deposit in the Southwestern Plaza. Finally, our work in the second half of our season this year shifted to the lower reaches of the Belize Watershed where we performed an initial reconnaissance and mapped the site of Jabonche using a Total Station. We performed several test excavations at Jabonche that exposed middens with rich deposits of faunal remains, which shed light on the Late to Terminal Classic diet and use of neighboring wetland resources. Jabonche is a minor ceremonial center that contains a pyramid, ballcourt, and several sizeable plazas. One excavation placed in the center of the South Plaza exposed a portion of a columned wattle and daub wall dating to the Terminal Classic period (ca. AD 800-900). Three substantial stone roads (sacheob) radiate outward from the site and connect with outlying settlement. We discuss these and other scattered reports of sacheob and suggest that roads in the low-lying coastal zone of northern Belize may be more common than has been previously thought.

Introduction

The eastern Belize River valley appears to have a long history that extends from the Formative period through Colonial times (Harrison-Buck, ed. 2011, 2013, 2015a, 2015b). Here, we report our most recent archaeological investigations carried out in 2015, which marks the fifth year of the Belize River East Archaeology (BREA) project. The BREA project study area encompasses the eastern Belize watershed between Belmopan and Belize City, a roughly 6000 sq. km area. Our investigations over the last five years have mostly focused on recording sites in the middle Belize Valley, which is an area of dense settlement, particularly along the main trunk of the Belize River (Figure 1). We have investigated a number of sites in the middle Belize Valley, which we have presented in previous issues of Research Reports in Belizean Archaeology. This past season in 2015 we mapped the ancient Maya site of More Tomorrow, a sizeable center with two major plaza groups containing pyramidal architecture (Figure 2).

In previous field seasons, we carried out investigations at the nearby site of Saturday Reek in the middle Belize Valley. We produced a detailed map of the Saturday Reek core and carried out select test excavations at this site (Figure 3). During 2015, we continued our investigations at Saturday Creek and expanded our search for evidence of Spanish Contact. According to ethnohistoric accounts, a cluster of Contact period towns was located on the Belize River in the vicinity of Saturday

Figure 1. Map of Belize showing BREA study area (map prepared by M. Brouwer Burg).
Figure 2. The site of More Tomorrow (map prepared by S. Murata and H. Robinson).

Figure 3. Location of Ops. 17-24 at Saturday Creek (map prepared by S. Murata and B. Houk).
Creek (Jones 1989). According to the Spanish accounts, they entered the middle Belize Valley during the early sixteenth century, traveling south from Chetumal down the New River where they docked their canoes at the headwaters and walked south over pinal - a stretch of pine savannah that runs south from here to Labouring Creek (Jones 1989:Map 2). The Spanish description of this north-south overland route, namely the strip of pine ridge forest, closely aligns to what we have observed along the route outlined in Figure 4. The Spanish describe crossing over Labouring Creek on a travertine bridge and walking through swamp toward an entry point on the Belize River that was named “literally, “the hamlet where Chantome had been”” (Jones 1989:287-288). Elsewhere, I have suggested that Chantome may be the ancient Maya site of Saturday Creek, which was perhaps largely abandoned when the Spanish arrived in the early sixteenth century (Harrison-Buck 2010). During January of 2015 we carried out further reconnaissance along this projected overland route between Saturday Creek and Labouring Creek to the north. Extensive clearing in this area has revealed a series of settlement clusters that all seem to trend north-northeast from Saturday Creek toward Labouring Creek and suggest a transportation corridor that leads to an area we refer to as Jaeger Wetlands (Gantos 2015). Here, we have identified in Google Earth imagery modified ditched and drained wetland fields (Harrison-Buck 2014). Based on the settlement distribution and the presence of wetland fields we suspected that a large center exists somewhere in this vicinity and our reconnaissance in the summer of 2015 was aimed at accessing this area around Jaeger Wetlands. Our survey team attempted to get to this spot from the south, but it proved incredibly challenging. We tried in vain to navigate through the thick masses of flooded mangrove swamp to the south of Labouring Creek in an attempt to get to these wetland fields, but after about 12 hours of all night paddling had to abort the mission. However, we are determined one way or another to get to this location as it was recently brought to our attention that the Program for Belize found a sizeable archaeological site in the tract of high ground just south of Jaeger Wetlands and north of White Water Lagoon (Program for Belize 2000 [Figure 4]). There, PbB reported a series of mounds, including a sizeable pyramidal structure measuring roughly 13 meters in height (Program for Belize 2000:10). We will continue our efforts at reconnaissance in this area in future seasons.

Archaeological Investigations at Saturday Creek

If we are correct that Chantome was Saturday Creek it would suggest that Saturday Creek was no longer fully occupied in the sixteenth century, but was still recognized as an important point in the landscape. If so, we would expect to find evidence of pilgrimage to the site core during the Contact period. Last year our investigations in the Southwestern Plaza of Saturday Creek offered us some

![Image of Surveyed Areas and Projected Overland Route](https://example.com/surveyed-areas-projected-overland-route.png)

Figure 4. Projected overland route with sites shown trending north-north-east with rough location of large site identified in PbB survey. Note: areas in yellow have been recently cleared and to some extent surveyed archaeologically, but not comprehensively (map prepared by M. Brouwer Burg).
exciting supporting evidence for this idea. Our excavations of Operation 23 exposed the southeastern edge of Str. 10, a long linear east-west platform. Our excavations in this area revealed the southeast corner of a cobble platform built on top of Structure 10. Here, in the southeast corner of this cobble platform we found a cache deposit (Figure 5 [Harrison-Buck et al. 2015; Harrison-Buck and Flanagan 2015]). The cache consisted of a high density of burned faunal remains (primarily marine shell) resting on an elaborately decorated Postclassic ceramic sherd. Sealed inside the concentration of burned bone and shell were three jade beads and a bone pendant, and, perhaps most significantly, a modified quartz crystal object (Figure 6). Though the nature of this cache context was clearly and undeniably Pre-Columbian, the quartz crystal object itself most closely resembles a broken bottle stopper—an undeniably post-Contact artifact. The artifact appears to be the top of a glass stopper and may have been brought here by the Spanish friars to hold communion wine or holy water for baptisms. These types of bottles have a long history and are still in use, as modern examples still sold today attest. In short, this is arguably our first clear evidence of Spanish Contact at Saturday Creek.

The find prompted us this season to further investigate this cobble platform on Structure 10. During the January 2015 season we opened up Operation 24 (Kaeding and Harrison-Buck 2015). Excavations carefully defined the surface of a cobble platform, which comprised a small, loosely square, cobble-filled platform measuring roughly 4-x-4 m with large roughly hewn boulders that was constructed over top of the eastern end of Structure 10. As archaeologists, we often appreciate how ritual deposits for the Maya are so strongly patterned. We figured that if there was a cache deposit in the southeast corner of the cobble platform, more than likely we would find another one in the northeast corner (Figure 5). Sure enough, we found a concentration of smashed ceramics on the surface of the cobble platform around the northeast corner, all of which appear to be Late Postclassic in date, including grater bowls, large amounts of flanged and appliqued vessels, and fragments of Chenmu Modeled censerwares.

![Figure 5. Idealized reconstruction of Structures 10 and 11 showing the locations of the special deposits (drawing by A. Kaeding).](image)

![Figure 6. Crystal historic objects found in corner caches at Saturday Creek (photos by E. Harrison-Buck).](image)

A cache deposit was found that appears to intrude into this ceramic deposit and into the cobble fill of the platform, suggesting the cache post-dates the ceramic deposit. The cache consists of a small Postclassic incised bowl containing four
jade beads and another piece of quartz crystal (Figures 6 and 7). This piece, fondly referred to as the “ice cube” is a large fragment of quartz crystal. It is too large to be part of the stopper, but it is clearly made of the same material. Because it has been chipped and the edges are worked its origin is difficult to ascertain, but it might possibly be part of the thick base of the bottle that was paired with the stopper.

Like the stopper, the selective incorporation of the ice cube that may have been part of a bottle that contained holy water or wine was likely one reason for its selective use in this special Maya deposit, but the association with other precious materials like jade and its ability to sparkle brightly in the sun (which it still does today) reflects indigenous values. Arguably, its sacred value as an object expresses native beliefs rather than Christian ones. Together, the two cache deposits found at Saturday Creek suggest a very early Colonial period Maya occupation in this portion of the site core involving Maya who by this time had encountered Europeans, likely Spanish missionaries looking to baptize them. However, Contact may have been more indirect and less sustained than at places like Tipu and Lamanai, where Spanish presence is characterized by a church and high densities of Spanish ceramics in association with elite residences. In contrast, the nature of the deposits and their context at Saturday Creek more closely resembles Contact period sites like Zacpeten documented by Timothy Pugh in Peten, Guatemala. Here, European artifacts were found restricted to ritual contexts such as caches deposited along the central lines of buildings and termination deposits that cap the upper levels of Pre-columbian architectural features (Pugh 2009). In this sense, the caches found at Saturday Creek resemble the indirect Contact context of Zacpeten, which also included a post-Contact cache containing a crystal object (Pugh 2009:381). Our future investigations at Saturday Creek will continue to investigate evidence of Spanish Contact at this site in the future, specifically looking at the western side of Structure 10.

BREA Survey and Mapping in the Lower Reaches

During the second half of our field season in 2015, we left the middle Belize Valley and moved downriver to the lower reaches of the Belize Watershed. Our reconnaissance team performed intensive reconnaissance in the eastern part of the Belize Watershed. In less than three weeks, our team identified roughly 1000 mounds, doubling the total number of mounds we had identified during our first four years of fieldwork in the BREA study area. Figure 8 shows a preliminary map of where the recon team focused their efforts in 2015. The sites in the lower reaches range in size, but generally consist of average size house mounds with pyramidal architecture being a rare occurrence. Sites range from single house mounds to groups of mounds, on average containing between 5-25 mounds. While these
sites do not tend to have large ceremonial complexes, there are a few sites that consist of dense settlement. Among the densest settled areas is the Canton site (Figure 9). Its size is likely due to its close proximity to Altun Ha, located several kilometers away along the Old Northern Highway that leads to Altun Ha. Over 385 mounds were identified primarily in open pasture on the Canton property.

In addition to documenting settlement in the hinterlands of Altun Ha, our survey team focused their attention on mapping the site center of Jabonche with a Total Station (Figure 10). Jabonche is located on the east side of Black Creek, just off the Northern Highway around the village of Biscayne. It is one of the largest centers within the area between Chau Hiix and Altun Ha. The center consists of several large, contiguous plaza groups, including a central plaza with a pyramid and ballcourt, large range structures, and a sizeable elite residential plaza to the south (Figure 10). Three sacbeob (stone roads) radiate out from the site center. One sacbe constructed of large stone slabs visible on the surface extends south from the southern plaza to the bank of Black Creek. Our last day in the field one of our workman informed us that there is another site they call Engine Hill located directly across the creek from where the sacbe terminates. The other two sacbes radiate out to the north and northeast of the site. Again, substantial stone slab
week before recorded a total of 28 mounds at which time locals pointed out to them stone on the surface and described it as remnants of a sacbe, which turned out to be the ancient road that leads directly to Jabonche.

Time did not permit us to follow out the third sacbe, but the survey team noted that it takes a turn to the east-northeast. Knowing that Altun Ha was roughly 15km to the northeast of Jabonche, we projected a line from Jabonche in a northeasterly direction toward Altun Ha (Figure 11). The result was somewhat surprising. We found that the line runs through some fairly marginal environments where we might not expect to find settlement and crosses a narrow split in Jones Lagoon. Right at this exact spot is a berm feature and a series of 10-12 mounds that emerge from wet areas, nearby but not right on the lagoon. According to our local informants, Jones Lagoon is brackish and gets very salty in the middle of the dry season. It is possible the lagoon was used by the Maya for salt-making. Such an environment with similar mound formations devoid of stone have been found at the nearby site of Wits Cah Ak'al at Mile 12 on the Western Highway, where Satoru Murata documented a combination of both salt-making and ceramic production at this site (Murata 2011). As part of the reconnaissance team, Murata visited the mounds at Jones Lagoon and confirmed their resemblance. If Jones Lagoon is another Wits Cah Ak'al its location right between Altun Ha and Jabonche is significant and may suggest that as a production center it served the needs of both sites. Our plan in the future is to further investigate Jones Lagoon and the possibility of a sacbe connecting these locales. If so, it may have served not only a ritual but also a practical function for moving salt and ceramics between these centers.

Excavations at Jabonche: Operations 26, 27 and 28

Angela Keller (2009:154) and others have drawn attention to the small, low platform structures found alongside sacbes at the entrance to major plazas. At Jabonche, there are a number of these small platforms adjacent to the roadways, including Structure 24. Here and also at nearby Structure 26 we placed two 1-x-2 meter test units during the 2015 season, targeting construction made these relatively easy to follow out and our survey and mapping team at Jabonche followed the northwestern sacbe to the Saguro site a little over a kilometer and a half away (see Figure 8). Here, our recon team the
middle or trash deposits (see Figure 10). Our excavation (Operation 28) adjacent to Structure 24 yielded a rich midden deposit heaped up against the eastern side of the platform’s exterior retaining wall (Flanagan et al. 2015). The midden yielded a high density of faunal remains with lots of turtle. In the assemblage, our faunal specialist Lori Philips (personal communication, June 2015) also identified large quantities of parrot fish, a marine reef fish that most have surmised was probably salted on the coast and then brought inland. Elsewhere, Angela Keller (2009) argues that small platforms, similar to Structure 24, found adjacent to causeways may have served as resting places and key points of transition and may mark the junction or crossroads in the course of one’s journey. This idea is intriguing when we consider the possibility of causeways connecting production sites and facilitating the overland movement of heavy loads of ceramics, salt, and perhaps salted fish, among other goods.

Importantly, the midden appears to date to the Terminal Classic period and includes diagnostics such as Roaring Creek Red, Belize Molded Carved, Sibun Red Neck jars and an unidentified unslipped jar that might be Tu Tu Camp. What was among our most exciting discoveries in this assemblage was the presence of tan slipped Northern Yucatec slatewares. The evidence may reflect increased interactions along coastal Yucatan and Belize during the Terminal Classic, possibly fueled by Itza incursions from Chichen Itza in northern Yucatan (for further discussion see Harrison-Buck 2007, 2012; Harrison-Buck and McAnany 2013; Harrison-Buck et al. 2013).

At Jabonche, we not only have evidence of northern slatewares, but also have identified a distinctive columned structure in the center of the Southern Plaza that appears to date to the Terminal Classic and may offer additional evidence of a northern presence in this area of Belize during this time. Structure 13 contains a series of large, finely carved columns that were visible on the surface prior to excavation. The columns are broken and none appear to be in situ with possibly the exception of one in Square A in the far western side of Op. 26 (Figure 12). The only intact walls of a platform that we could identify were on the opposite side of the unit to the east and seemingly unassociated with any of the columns. The walls appear to form a small platform measuring roughly 3-x-3 m that was infilled with large cobbles and boulders. The preservation was poor with few intact walls
Figure 12. a. Planview of Structure 13 at Jabonche (drawn by E. Harrison-Buck; digitized by M. Brouwer Burg); b. Structure A20 at Xunantunich (photo courtesy of J. Awe).
suggesting the building was purposefully dismantled, the plaster floors were pitted, and the columns were broken and scattered in such a way that suggests purposeful destruction.

We are still trying to make sense of Structure 13, but certainly looking at more comparative examples of columned buildings might help to clarify what it originally looked like, such as one example from Xunantunich (Figure 12). It is also worth noting that Kip Anders (2009) reported a C-shaped columned structure at the nearby center of Chau Hiix (see Figure 1). Although the columns appear to have been wood not stone and did not preserve, the building appears to date to the same time period — Terminal Classic into the Early Postclassic. Preliminary analysis of the ceramic assemblage from Op. 26 suggests that the columned building at Jabonche was built in the Terminal Classic but may also have had an Early Postclassic component if the orange slipped types found are in fact Zakpah Orange Red. There may also be Rio Juan Unslipped and More Force Unslipped in this assemblage, which further suggests an Early Postclassic component. We hope that with further study the chronology as well as the layout of this distinctive building will become clear, along with the nature of a northern presence in this area beginning as early as the ninth century Terminal Classic.

Conclusions

In the BREA study area, we find that most of the ancient Maya settlement hugs the bank of the Belize River, likely because it served as the ancient "highway" between the coast and inland centers. Yet, the Belize Watershed comprises numerous creeks, like Black Creek where we find Jabonche, and a large expanse of wetlands to the north, such as Western Lagoon where we find the large center of Chau Hiix. These bodies of water formed a network of waterways that facilitated the movement of people and goods from Preclassic through colonial times. While waterways were critically important, our investigations are highlighting the central importance of potential overland routes and more formally constructed roads or sacbeob in the central part of Belize and there are others that have been previously reported. For instance, Shirley Mock reported a sacbe between

NRL and Colha, connecting an inland center with the Caribbean coast where evidence of salt production has been found. The northern half of Belize east of the escarpment of the Three River's Region is a low-lying coastal zone and is filled with mangroves, creeks, lagoons, and wetlands and overall tends to get inundated in the rainy season. We know from our own personal experience that this part of Belize is difficult to navigate on foot, especially in the rainy season, without a raised walkway. Although Belize is an area that is usually not considered in discussions of roadways, I cannot help but wonder whether further ground-truthing and careful examination of site reports might reveal more evidence of sacbes in the northern half of Belize. While we might not totally understand the ritual and cosmological significance of ancient Maya sacbes, all of us who work in Belize in the rainy season can easily see the practical benefits of a raised causeway for facilitating the movement of goods and people across the landscape.

1I am grateful to Alex Gantos for pointing out this reference.

Acknowledgements The 2015 BREA field season was incredibly productive and this would not have been possible without the all-star staff of the BREA project. I would like to take this opportunity to personally thank Marieka Brouwer Burg, David Buck, Alex Gantos, Kelin Flanagan, Kate Frederick, Adam Kaeding, Satoru Murata, Joe Nigro, Brian Norris, Lori Philips, Hugh Robinson, and Astrid Runggaldier. Their hard work and commitment to the BREA project are what made this season such an enormous success. Together with my co-authors, we also wish to thank our group of UNH field school students—Ellis Codd, Steven Cowley, Grace Dietz, Candace French, Brian Meleisciu, Heather Sweeney, and Liam Tanner—for their participation and contribution to the BREA project during the January 2015 season. I am especially grateful to the Alphawood Foundation for their generous support of the BREA project and I also wish to acknowledge the University of New Hampshire for providing additional financial support for the 2015 season. Finally, I would like to thank the
Institute of Archaeology, particularly Dr. John Morris and Ms. Melissa Badillo, for their continued support of our work and for granting me a permit to conduct the investigations reported herein.

References Cited

Andres, Christopher R.

Flanagan, Kelin, Kathryn Frederick, and Eleanor Harrison-Buck

Gantos, Alex

Harrison-Buck, Eleanor

Harrison-Buck, Eleanor
2010 At the Crossroads in the Middle Belize Valley: Modeling Networks of Ritual Interaction in Belize from Classic to Colonial times. Research Reports in Belizean Archaeology 7:85-94.

Harrison-Buck, Eleanor

Harrison-Buck, Eleanor

Harrison-Buck, Eleanor (editor)


Harrison-Buck, Eleanor (editor)

Harrison-Buck, Eleanor (editor)

Harrison-Buck, Eleanor (editor)

Harrison-Buck, Eleanor, Marieka Brouwer Burg, Mark Willis, Chester Walker, Satoru Murata, Brett Houk, and Astrid Runnaldier

Harrison-Buck, Eleanor and Kelin Flanagan

Harrison-Buck, Eleanor and Patricia McAnany

Harrison-Buck, Eleanor, Ellen Spensley Moriarty, and Patricia A. McAnany

Jones, Grant D.
Kaeding, Adam and Eleanor Harrison-Buck

Keller, Angela

Murata, Satoru
2011 Maya Salters, Maya Potters: The Archaeology of Multicrafting on Non-residential Mounds at Wits Cah Ak’al, Belize. Unpublished Doctoral dissertation. Department of Archaeology, Boston University, Boston, MA.

Pugh, Timothy W.

Programme for Belize