ARCHAEOLOGICAL INVESTIGATIONS AT DAN MAY (8LV917), LEVY COUNTY, FLORIDA

Jessica A. Jenkins
Kenneth E. Sassaman
Sean M. Buchanan
Meggan E. Blessing

Technical Report 24
Laboratory of Southeastern Archaeology
Department of Anthropology
University of Florida

ARCHAEOLOGICAL INVESTIGATIONS AT DAN MAY (8LV917), LEVY COUNTY, FLORIDA

Jessica A. Jenkins
Kenneth E. Sassaman
Sean M. Buchanan
Meggan E. Blessing

Technical Report 24
Laboratory of Southeastern Archaeology
Department of Anthropology
University of Florida
Gainesville, FL 32611

September 2017

© 2017 Department of Anthropology, University of Florida
All rights reserved

Cover photo: West-facing view of Test Unit 1 at Dan May, June 2014.

MANAGEMENT SUMMARY

As part of the ongoing Lower Suwannee Archaeological Survey (LSAS), staff of the Laboratory of Southeastern Archaeology (LSA), Department of Anthropology, University of Florida, conducted archaeological survey and test excavations at Dan May (8LV917) in March of 2014. These efforts were in accordance with the goals of the LSAS to inventory, sample, and interpret the archaeological record of aboriginal coastal settlement on the northern Gulf Coast of Florida. Dan May Island is a private inholding in the broader research area, which is comprised of the Lower Suwannee and Cedar Keys National Wildlife Refuges in Levy and Dixie counties, Florida. Reported here are the results of test excavations at Dan May, a single-component site dating to the tenth century A.D. Dan May is remarkable for straddling geographical, ecological, and temporal boundaries in the study area. Specifically, the island is located between two designated research tracts with clusters of earthen and shell mounds as well as sites of intensive occupation. Dan May is also situated between saltwater and freshwater biomes. Temporally, occupation at the site falls between two periods of aggregation and terraforming in the greater study area. Also noteworthy is the highly diverse pottery assemblage from a single-component site. The diversity in pottery at Dan May is matched by the diversity of pottery from Palmetto Mound, a mortuary facility located about 9 km to the south, which was receiving pottery during the occupation of Dan May.

ACKNOWLEDGMENTS

Fieldwork at Dan May (8LV917) was undertaken by a crew from the Laboratory of Southeastern Archaeology: Kenneth Sassaman, Ginessa Mahar, Andrea Palmiotto, Jessica Jenkins, Kris Hall, and Micah Monés. Access to Dan May Island was granted by the landowner, Mr. Allen Scott. We also acknowledge Joe Hipps, the island's caretaker, who provided technical support for field investigations. Funding for the Dan May project was provided by the Hyatt and Cici Brown Endowment for Florida Archaeology.

CONTENTS

CHAPTER 1
INTRODUCTION AND RESEARCH ORIENTATION

Dan May Island (8LV917) is among the private inholdings in the study area of the Lower Suwannee Archaeological Survey (LSAS), a 42-km stretch of largely undeveloped coastline centered on the Suwannee River Delta (Figure 1-1). The study area is comprised primarily of the Lower Suwannee and Cedar Key National Wildlife Refuges with the exception of a few private inholdings, as well as state and county lands. For analytical purposes, the LSAS research area is divided into five tracts. Dan May Island is located in the wetlands between what the LSAS has designated as the Suwannee Delta Tract to the north and the Cedar Key Tract to the south. Investigations at Dan May Island were conducted by staff of the Laboratory of Southeastern Archaeology, University of Florida in June 2014.

Investigations at Dan May align with the research orientation of the LSAS, which includes reconnaissance survey of hammocks and islands that punctuate the marshes in the study area. This project also assists in the LSAS's overarching goal to document the full range of variation in the distribution, timing, and content of archaeological sites in the study area (Sassaman et al. 2011). The results of testing at Dan May are particularly noteworthy for providing data on settlement during the tenth century A.D., a period that is poorly represented by sites in the study area. Moreover, Dan May is located in a portion of the study area that is otherwise devoid of archaeological sites, owing, in large measure, to the 10-km stretch of wetlands that extend southeast of the Suwannee River Delta. As noted above, Dan May Island lies between two established survey tracts of the LSAS. This "in-between" quality applies as well to ecological and historical dimensions of variation. Sandwiched between a distributary channel of the Suwannee River and Dan May Creek, the site occupies an ecotone between freshwater and saltwater biomes. Historically, the tenth century A.D. was a time between the civic-ceremonial centers of the Middle Woodland period—several of which were located in the study area—and the Mississippian chiefdoms of the ensuing centuries, which were not located in the study area but had cultural and political influence throughout the greater Southeast. A pattern that emerges from these multiple dimensions of "in-betweenness" is a heightened level of diversity in the material culture of Dan May, particularly the pottery.

BACKGROUND AND SETTING

Setting

Dan May Island is located within the Lower Suwannee National Wildlife Refuge, which consists of wetlands, including hardwood swamps, natural salt marshes, tidal flats and tidal creeks, as well as pine forests and scrub ridges. The refuge's wetlands provide an estuarine habitat that are feeding and breeding grounds for numerous birds and marine life. For a more detailed discussion of the broader ecological setting of the LSAS, refer to Sassaman et al. (2011).

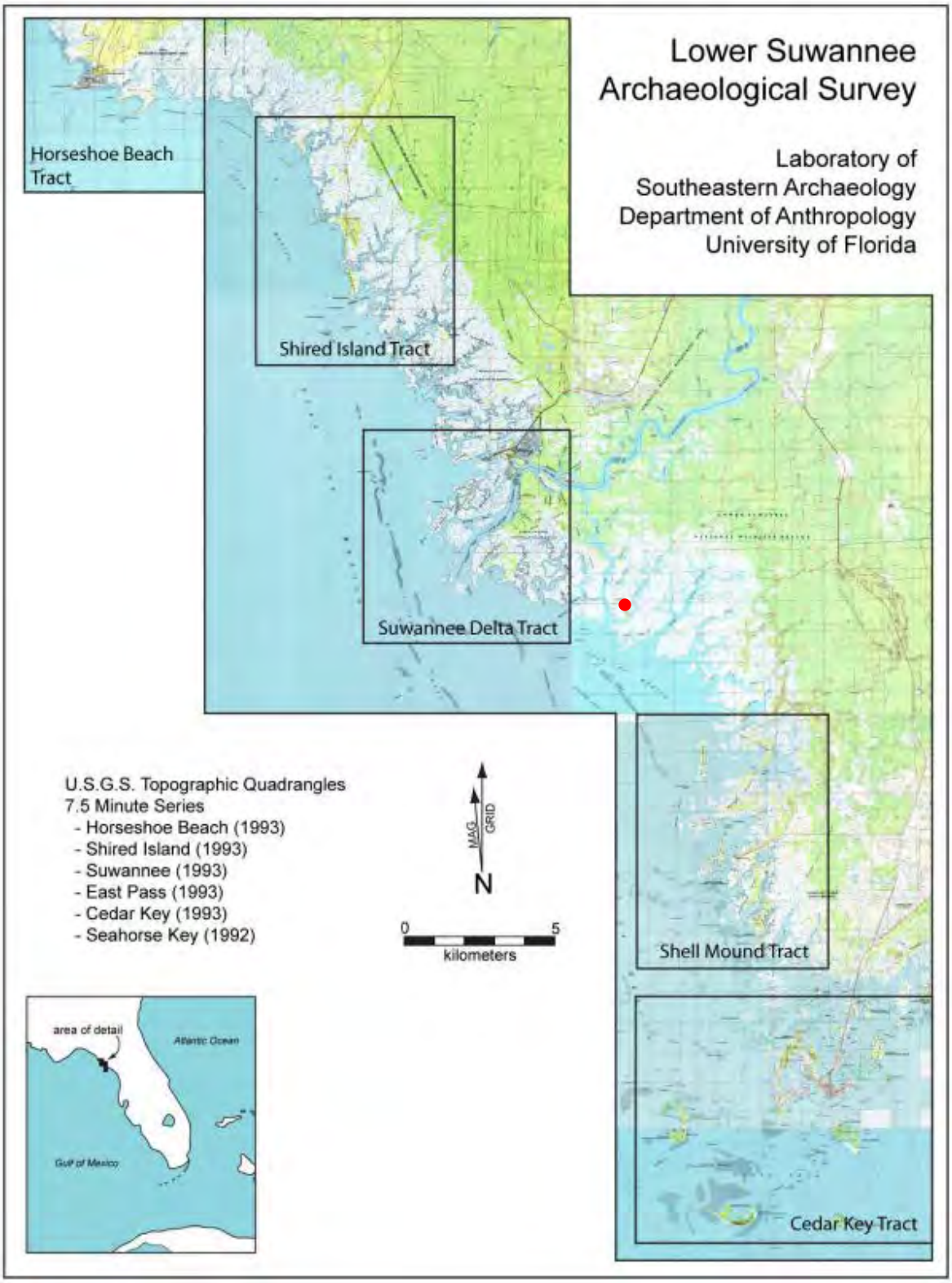

Figure 1-1. Composite topographic map of the Lower Suwannee Archaeological Survey, showing the locations of the five survey tracts and Dan May Island indicated by a red dot.

Figure 1-2. Restored cypress log hunting lodge located on Dan May Island.

Dan May is a 72-acre island that is privately owned and, as of the publication of this report, on the market. The online advertisement boasts incredible diversity in flora and fauna, noting manatees, alligators, turtles, osprey and heron, as well as superb fishing, particularly of red fish (http://www.privateislandsonline.com/islands/dan-may-island). On the island is a restored 100-year-old 1,700-square-foot cypress log hunting lodge (Figure 1-2). The island is situated in an ecologically transitional space where freshwater and saltwater interface at the confluence of the East Pass of the Suwannee River and Dan May Creek (Figure 1-3).

The water surrounding Dan May Island is typically brackish, with the most recent USGS salinity data of East Pass (1999–2000) averaging 7.40 parts per thousand (ppt) annually, with a monthly mean range of 5.6 ppt in April to 13.3 ppt in November, and daily mean salinity levels dropping as low as 1.0 ppt, which likely results from heavy rainfall (USGS 2017). The ecology of the surrounding waters of Dan May is ideal for the *Polymesoda caroliniana*, or Carolina marsh clam, which are found on many brackish marshes and near river mouths (Duobinis-Gray and Hackney 1982). The positioning of the island near the Suwannee Delta allows for direct access to the proximate Lone Cabbage and Great Suwannee oyster reefs.

Archaeological Context

Dan May (8LV917) is a single-component site dating to the tenth century A.D., coeval with archaeological deposits excavated by the LSAS at Butler Island (8DI50) (McFadden 2014), Bird Island (8DI52) (McFadden and Palmiotto 2012), and the latest

Figure 1-3. Location of Dan May Island in relation to channels that deliver freshwater to the estuarine biome of the Suwannee River Delta (orthographic image courtesy of NOAA).

component of Richards Island (8LV137) (Sassaman et al. 2016) (Figure 1-4). With the exception of these sites and deposits at Raleigh Island (8LV293), all other sites excavated as part of the LSAS predate the tenth century A.D. (Sassaman et al. 2016). The occupations at Dan May, Butler, Bird, and Richards islands mark a time of dispersed small-scale dwelling between two phases of terraforming and aggregation in the region. This period of time (ca. A.D. 700–1000) could be referred to as "post-classic," following the dissolution of local civic-ceremonial centers (Garden Patch [8DI4], Shell Mound [8LV42], and Crystal River [8CL1]), which were known for a shared tradition of elaborate monumental architecture and diagnostic material culture related to large-scale communal gatherings and mortuary practices (Pluckhahn et al. 2010; Sassaman et al. 2016; Wallis et al. 2015).

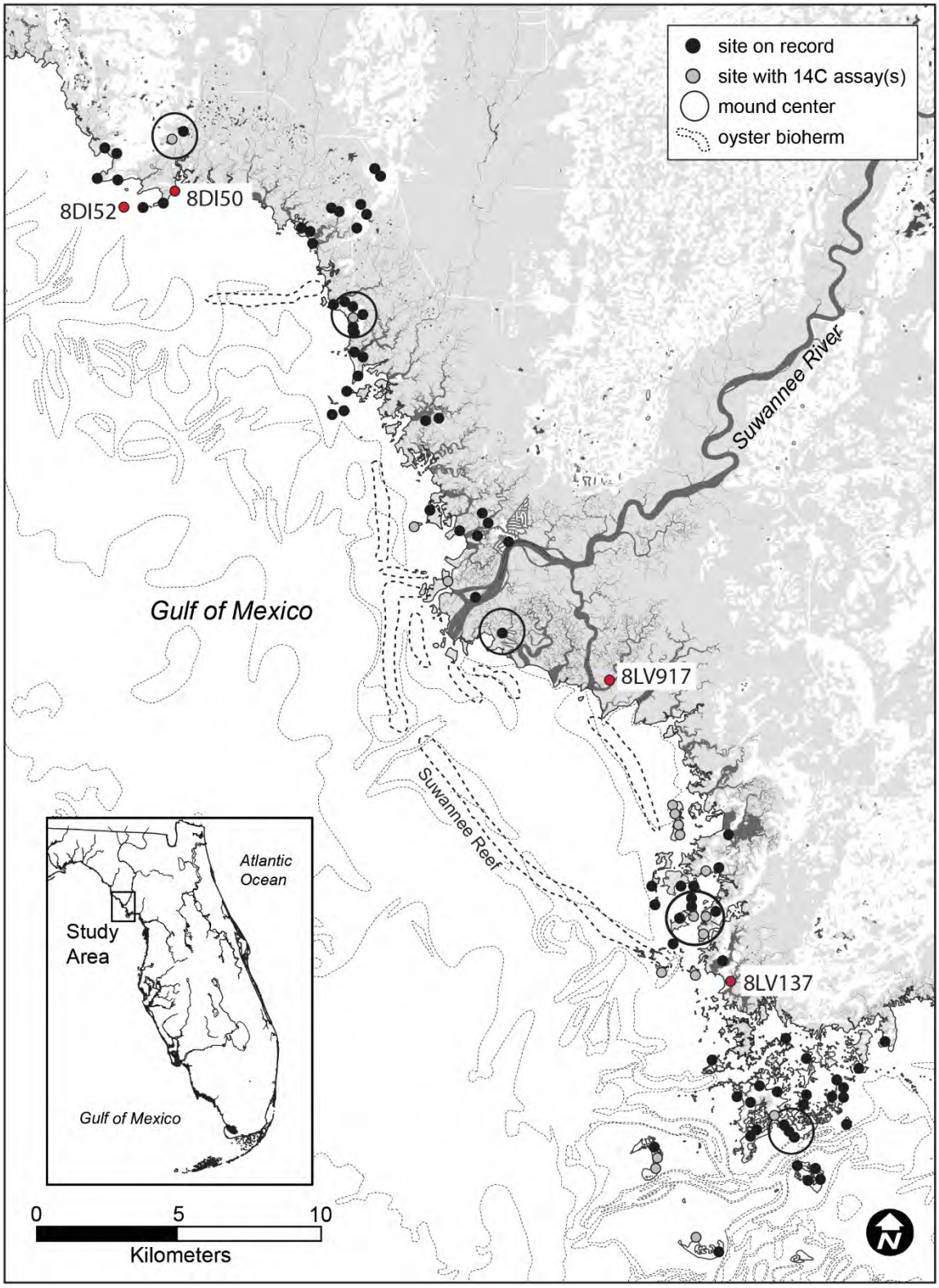

Figure 1-4. Map showing the location of recorded sites in the Lower Suwannee Research area with Dan May and coeval sites indicated in red (adapted from Sassaman et al. 2016).

Dan May is relatively distant from known civic-ceremonial centers in the research area (Figure 1-4). Although communities dispersed from civic-ceremonial centers, mortuary activities at Palmetto Mound intensified during the time of occupation at Dan May. Compared to other sites in the study area, the pottery assemblage recovered from small pits at Dan May are notably diverse in terms of paste and surface treatment (see Chapter 3). While the diversity of pottery is extraordinary in the region for a habitation site, it is similar to the diversity and types of pottery deposited with burials at Palmetto Mound at the same time.

Previous Research

No previous research has been reported for Dan May Island. Reported herein are the results of the first subsurface testing, which included a bucket auger survey, one shovel test pit, and one 1 x 2-m test unit excavation.

CONCLUSION

Archaeological survey and excavation at Dan May Island has contributed important information in accordance with the goals of the ongoing Lower Suwannee Archaeological Survey. This previously unrecognized site is remarkable in the research area for its unique, sometimes nearly freshwater habitat, single-component “post-classic” occupation, relationship to other archaeological sites in the study area in terms of time and space, and diversity of material culture, particularly pottery. The following two chapters will outline the methods and results of field excavations (Chapter 2), and recovered material culture and faunal remains (Chapter 3). The final chapter, Chapter 4, summarizes the findings, puts them into broader context and provides recommendations for further work on Dan May Island. Appendices at the back of this report include the artifact catalog (Appendix A) and radiocarbon data (Appendix B).

CHAPTER 2
METHODS AND RESULTS OF FIELD INVESTIGATIONS

Archaeological investigations at Dan May Island took place from June 21–22, 2014, and included opportunistic bucket auguring and the excavation of one shovel test pit (STP) and one 1 x 2-m test unit. Investigations were undertaken with permission of the landowner. The location of the auger holes, STP, test unit, and house were mapped using a Nikon Total Station (Figure 2-1). This chapter reports the methods and results of the survey and test unit excavations at Dan May Island.

AUGER AND SHOVEL TEST PIT SURVEY

Auguring to determine the extent and integrity of archaeological deposits consisted of nine auger holes, placed at discretionary locations, and one shovel test pit. Materials recovered in auger tests were collected to characterize variation in the artifact assemblage across the site. Soils from augers were screened through ¼-in hardware cloth and all artifacts were bagged. Stratigraphic information for each auger hole was recorded and included depth in centimeters below surface (cmbs), description of soil, and density of shell, bone, pottery, lithics, and historic materials. Table 2-1 provides an inventory of the materials recovered from the augers and the shovel test pit.

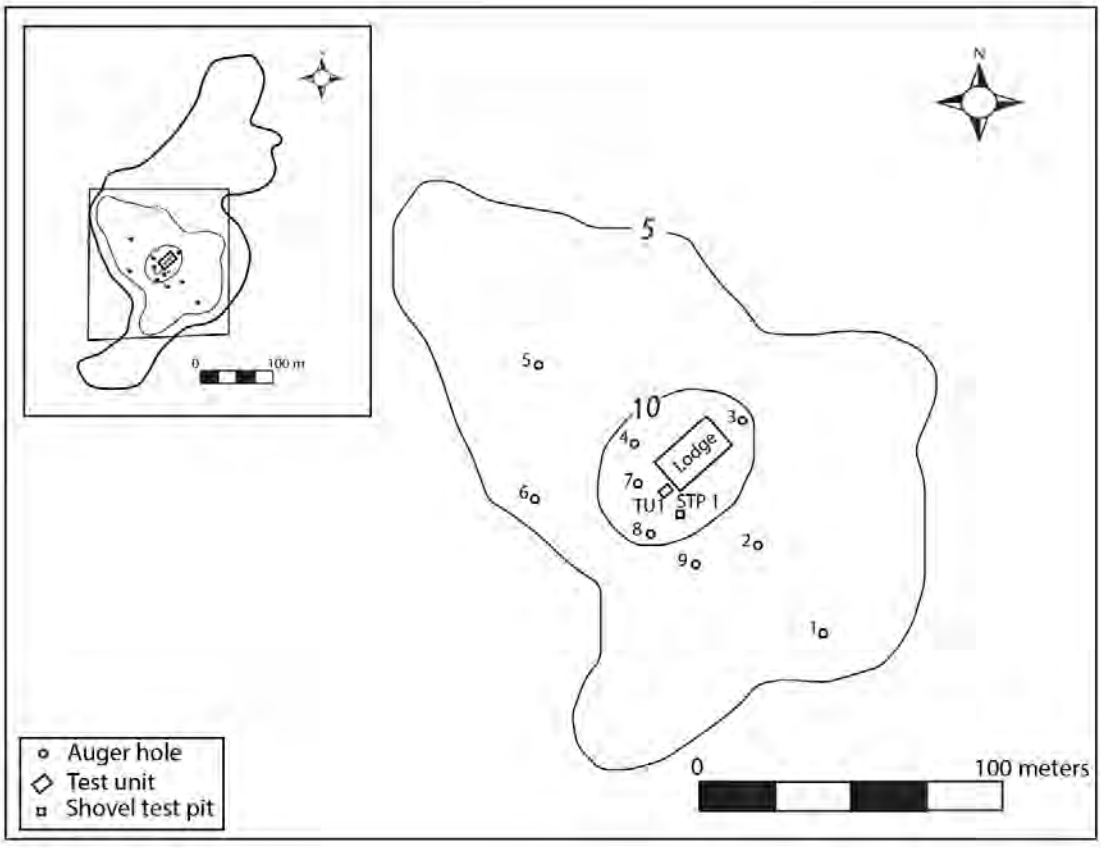

Figure 2-1. Topographic map of Dan May Island showing locations of augers, STP1, TU1, and the lodge (contour interval = 5 ft). Representations of excavation units not to scale.

Table 2-1. Inventory of Archaeological Materials Collected from Augers and Shovel Test Pit 1 (STP1), 8LV917.

Auger	Pottery Sherd (n)	Vertebrate Fauna (g)	Shell (g)	Concretion/ Pebbles (g)	Charcoal (g)	Historic (g)	Other (g)
1				1.1			
2	1						
3	1	9.3				1.4	
4		2.1					
5							
6	3						
7	4	5.1				1.2	5.1[1]
8	3	3.2					
9	3	3.8			0.1	11.5	
STP 1	64	89.0	11.1	536.7	0.4		171.4[2]
Total	79	112.5	11.1	537.8	0.5	14.1	176.5

[1]human remains
[2]limestone abrader

Auger 1 was the southernmost of the survey and yielded one piece of unmodified limestone. The matrix of Auger 1 consisted of clay with organics and shell in the upper 20 cm, a mixture of clay, sand, and peat from 20 to 140 cmbs, and peat that ended up slumping in at 160 cmbs, terminating the auger test. Auger 2 was placed to the north of Auger 1, in the direction of the lodge. The matrix of Auger 2 transitioned from very dark brown loam with sparse oyster and marsh clam in the top 50 cmbs, to light brown sand, and finally yellow brown medium-grain coarse sterile sand from 70 to 104 cmbs. One sand-tempered check-stamped body sherd was recovered from the upper 50 cm.

Augers 3 and 4 were located closer to the lodge. Vertebrate fauna remains were recovered from both augers, and Auger 3 also had one sand-tempered plain body sherd and historic metal in the upper 40 cm. Shell scatter was observed within medium dark brown sand, which transitioned to very fine light brown sand at 40 cmbs. From 40 to 75 cmbs, the sand in Auger 3 became lighter and coarser with depth. Auger 4 was only excavated to 30 cm, and revealed very dark brown soil with oyster, marsh clam, and vertebrate faunal remains.

Augers 5 and 6 were placed farther from the lodge, toward the west side of the island. Auger 5 was excavated to 90 cmbs and no artifacts or faunal remains were recovered. The matrix throughout was shell-free pale gray brown sand that lightened and became coarser with depth. Auger 6, to the south of Auger 5, contained very dark brown sand with shell, vertebrate faunal remains, and sand-tempered plain and check-stamped pottery. The matrix transitioned to light brown sand with no shell at 70 cmbs, and testing was terminated at 75 cmbs.

On the southwest side of the lodge, Augers 7 and 8 revealed two lenses of shell (interpreted in the field as possible middens) separated by medium brown sand. The top 45 cm of Auger 7 consisted of dark brown sand with marsh clam, oyster shells, and vertebrate fauna. The matrix lightened to a medium brown shell-free sand deposit from 45 to 63 cmbs.

From 63 to 90 cmbs the matrix was darker with dense marsh clam, and lightened to a pale brown fine sand from 90 to 130 cmbs. Four pottery sherds, faunal remains, and historic glass were recovered from Auger 7. Similar to Auger 7, the top strata of Auger 8 was dark brown sand with shell, vertebrate faunal remains, and pottery, which transitioned to medium brown sand at 45 cmbs. At 65 cmbs, the matrix darkened and the density of shell increased. From 85 to 108 cmbs the matrix in Auger 8 was devoid of shell and lightened to pale brown fine sand.

The final auger of the survey, Auger 9, was placed to the southeast of Augers 7 and 8 to investigate the extent of possible middens observed in the previous two augers. The matrix in the upper 20 cm of Auger 9 was compact very dark brown sand with charcoal, oyster shell, pottery sherds, and vertebrate fauna. From 20 to 58 cmbs, the sand became light brown, dry, and loose, interpreted as redeposited fill, which gave way to yellow-brown sterile sand from 58 to 85 cmbs.

A 50 x 50-cm shovel test pit (STP1) was excavated between Augers 7 and 8, off of the southwest corner of the lodge. At about 60 cmbs, a utility line was discovered and a cable was struck, and testing was halted. A variety of pottery and vertebrate fauna was recovered from the unit, along with modified *Merceneria*, a limestone abrader, and historic glass. Stratigraphic information is provided in Figure 2-2 and Table 2-2.

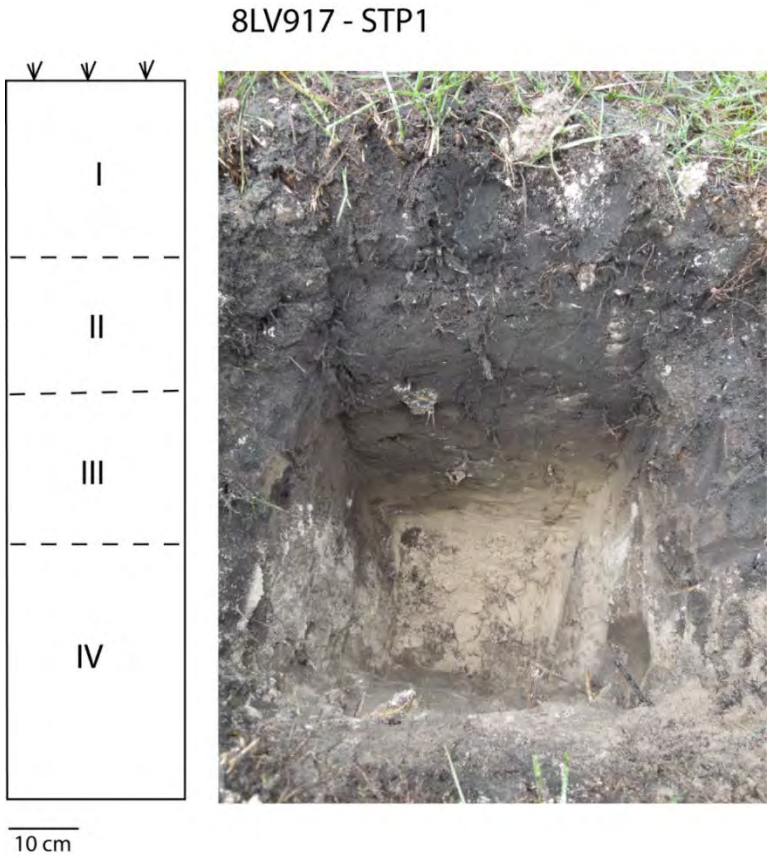

Figure 2-2. Profile drawing and photograph of Shovel Test Pit 1 at termination.

Table 2-2. Stratigraphic Units of Shovel Test Pit 1 (STP1), 8LV917.

Stratum	Max Depth (cmbd)	Munsell Color	Description
I	24	10YR2/2	Very dark brown fine sandy loam with oyster and marsh clam
II	42	10YR3/3	Dark brown fine sandy loam with oyster, clam, and vert. fauna
III	63	10YR4/4	Dark yellowish-brown fine sandy loam with sparse shell
IV	101	10YR7/4	Very pale brown fine to medium sand with no organics

TEST UNIT EXCAVATION

Based on the results of auguring, a 1 x 2-m test unit was sited adjacent to the lodge and proximate to Auger 7 (Figure 2-3). Test Unit 1 (TU1) was excavated in arbitrary 10-cm levels, with the exception of Level A which was excavated to 20 centimeters below datum (cmbd). Matrix from excavation was screened through ¼-in hardware cloth, and artifacts and vertebrate faunal remains were bagged by level. Paperwork was completed after each level, which included depths for each corner and center below the datum, observations on the content and composition of level matrix, and notes on any obvious features. Anomalies defined as features were described and photographed in plan before vertical sections were exposed. The fill from feature sections was screened through ¼-in hardware cloth, and a portion was taken as a bulk sample for further analysis. At the completion of unit excavation, all four profiles were cleaned, photographed, and drawn to scale and bulk samples were collected. The unit was backfilled by the caretaker of the island using a backhoe after all sampling and profiling was completed. All recovered materials were bagged and transported to the Laboratory of Southeastern Archaeology in Gainesville for analysis. At the laboratory, artifacts were washed, sorted, and cataloged. Bulk samples were processed in a Dausman flotation tank. The light fraction was preserved for future analysis, and the heavy fraction was further divided into ¼-in, 1/8-in and less than 1/8-in fractions, all but the latter of which was sorted and cataloged.

Four distinct strata were identified in TU1, and bulk samples were recovered from strata II and III in the east wall. Photographs and profile drawings delineating the stratigraphic units of each test unit wall are provided in Figure 2-4. Table 2-3 gives descriptions of the identified strata, and an inventory of the cultural materials recorded by level is presented in Table 2-4.

Stratum I extended to a maximum depth of 12 cmbs and consisted of very dark brown fine sandy loam, in which no shell was present. This was overlain by a shell midden, Stratum II, which was comprised of very dark brown fine sandy loam with relatively dense whole oyster and marsh clam. Stratum III consisted of very dark gray fine sandy loam with sparse shell and is the stratum from which the pit features and post holes emanate. The final stratigraphic unit, excavated to a maxium depth of 95 cmbs, was Stratum IV. This last strata consisted of fine-to-medium very pale brown sand with no artifacts or organics. Analysis of material culture from TU1 is reported in the next chapter (Chapter 3).

Figure 2-3. Excavation of Test Unit 1 by Andrea Palmiotto of the Laboratory of Southeastern Archaeology, June 20, 2014.

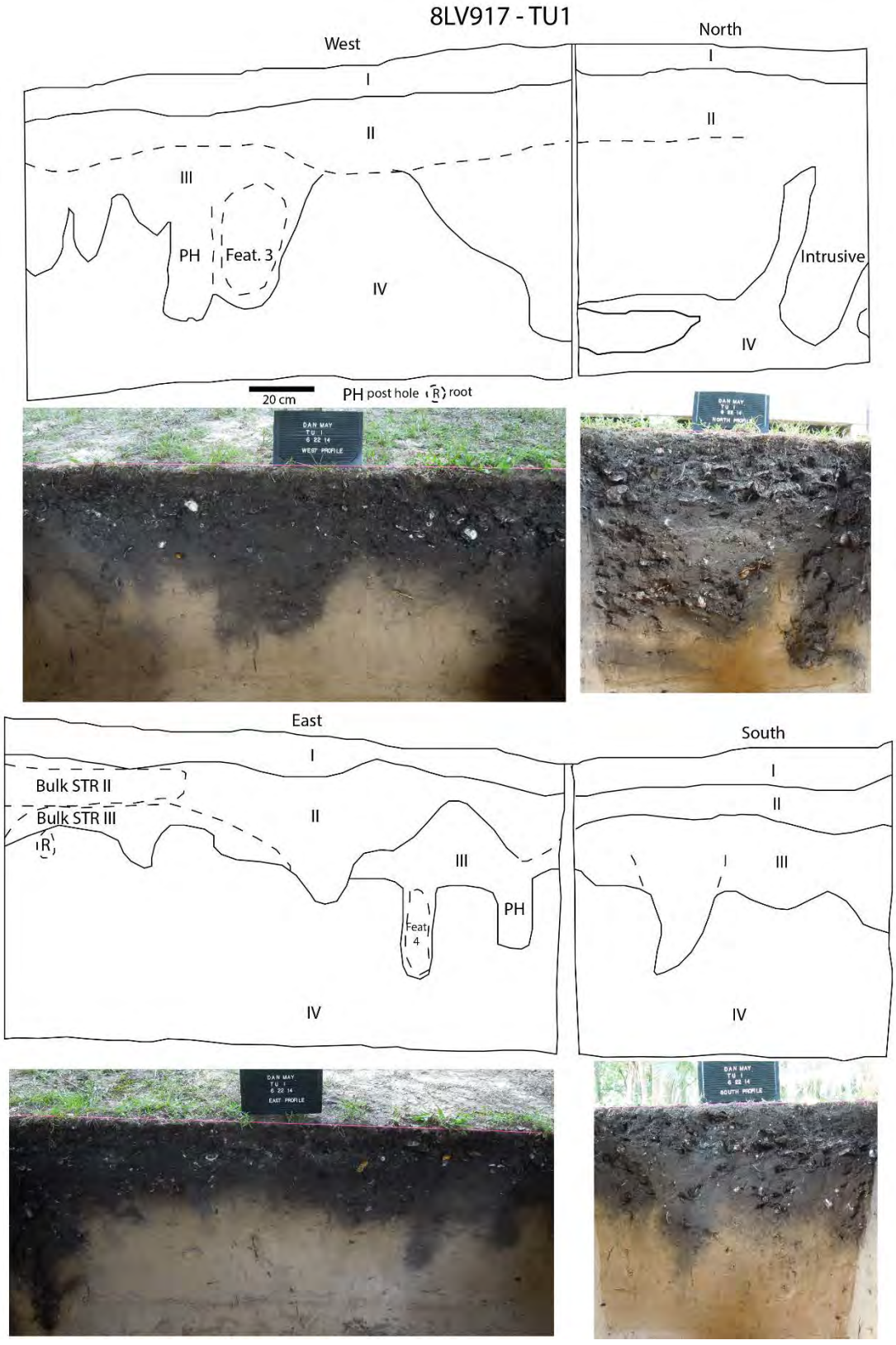

Figure 2-4. Photographs and scaled drawings of the profiles of all four walls of Test Unit 1, Dan May (8LV917). (PH = post hole).

Table 2-3. Stratigraphic Units of Test Unit 1, 8LV917.

Stratum	Max Depth (cmbd)	Munsell Color	Description
I	12	10YR2/2	Very dark brown fine sandy loam with no shell
II	44	10YR2/2	Very dark brown fine sandy loam with whole oyster and clam
III	78	10YR3/1	Very dark gray fine sandy loam with sparse shell
IV	95	10YR7/4	Very pale brown fine to medium sand with no organics

Table 2-4. Inventory of Archaeological Materials Recovered from Test Unit 1, 8LV917.

Level	Pottery Sherd (n)	Lithic Flake (n)	Vertebrate Fauna (g)	Shell (g)	Concretion/ Pebbles (g)	Charcoal (g)	Historic (g)	Other (g)
A	95		67.4	436.4	42.6		105.8	
B	111		260.1	88.9		1.3	16.2	
C	153		139.0	112.4	30.1	1.6		0.4[1]
D	42	2	84.2	20.3		2.5		
E	25	1	34.5	87.4		0.6		0.1[2]
F	20	4	12.9			0.8		
Subtotal	446	7	598.1	745.4	72.7	6.8	122.0	0.5
Bulk samples								
II	2		27.0	2421.8	0.8	0.1		256.5[3]
III	4		16.0	1370.4				129[3]
Subtotal	5		43.0	3792.2	0.8	0.1		385.5
Total	451	7	641.1	4537.6	73.5	6.9	122.0	386.0

[1] human tooth
[2] charred hickory nut shell
[3] less than 1/8" material

Features

Four features—three pits (Features 1–3) and one post hole (Feature 4)—were encountered during excavation of TU1. Two more post holes were also identified in the side walls, one in the west profile and one in the east profile (Figure 2-4), but were not assigned feature numbers. Photographs and drawings of Features 1 and 2 in plan and profile views are provided in Figure 2-5. Feature 3 is also drawn in plan in Figure 2-5. Features 3 and 4 can be seen in profile in Figure 2-4 in the west and east unit wall profiles respectively. Table 2-5 provides an inventory of cultural materials recovered from Features 1–4 and are described in greater detail in Chapter 3.

The top of Feature 1 was identified as a pit at 40 cmbd. The feature measured 39 cm in length, 35 cm in width, and was terminated at 75 cmbd. The pit fill consisted of black fine sand with marsh clams and crushed shell. The zone of leaching surrounding Feature 1 consisted of very dark grayish brown fine sand with no shell. The feature extended into the very pale brown sand of Stratum IV. Feature 1 was bisected, and the north half of the feature was collected as a bulk sample and the south half was screened through ¼-in

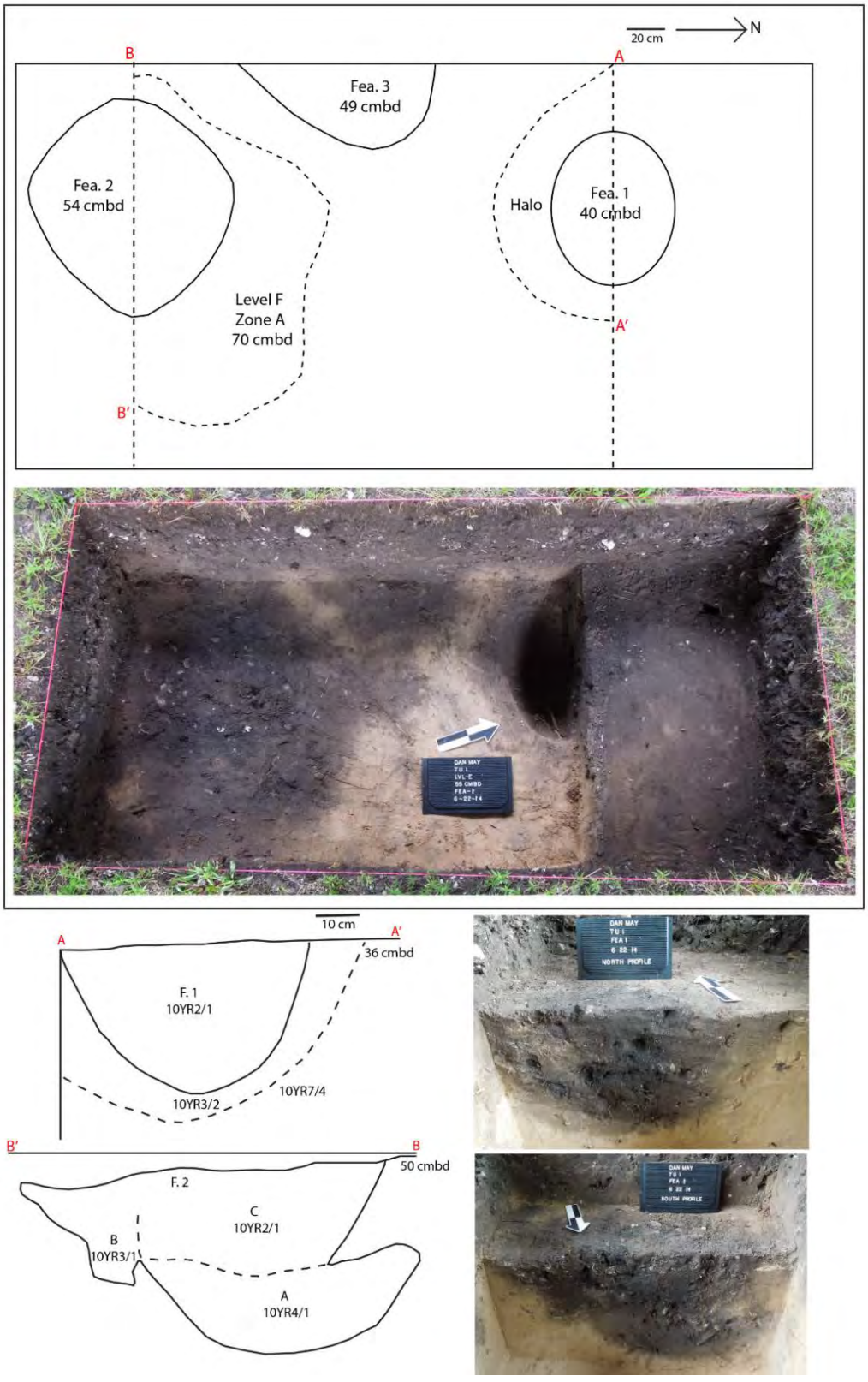

Figure 2-5. Plan and profile drawing and photograph of Features 1 and 2 in Test Unit 1, 8LV917.

Table 2-5. Inventory of Cultural Materials Recovered from Features in Test Unit 1, 8LV917.

Feature	Pottery Sherd (n)	Lithic Flake (n)	Vertebrate Fauna (g)	Shell (g)	Concretion Pebbles (g)	Charcoal (g)	Other (g)
1	93	3	215.9	2798.0	34.3	8.8	363.4
2	113		487.4	3159.0	0.4	5.9	383.9
3	12	1	22.9	199.8		1.0	54.3
4			0.8	18.7			4.9
Total	218	4	727.0	6175.5	34.7	15.7	806.5

hardware cloth. Charcoal recovered from Feature 1 yielded an AMS assay of 1090 ± 30 B.P. (calibrated at two-sigma range of A.D. 890–1015) (Appendix B).

Feature 2 was identified at 54 cmbd as a possible pit, which measured 51 cm in width and 54 cm in length. The feature, which extended 98 cmbd, was bisected and the south half was removed as a bulk sample, while the north half was screened through ¼-in hardware cloth. Upon viewing the profile, the feature was divided into three sub-features as can be seen in Figure 2-5. Feature 2A was defined as a basin-shaped pit at the bottom with fill consisting of dark gray sand and shell, Feature 2B was described as a post hole-like intrusion on the eastern margin with very dark gray sand, and Feature 2C was a basin-shaped pit with black sand and shell that was intrusive to Feature 2A and 2B. An AMS assay on charcoal from Feature 2C returned a date of 1040 ± 30 (calibrated at two-sigma range of A.D. 970–1025) (Appendix B). The leeched area surrounding Feature 2 was removed as Zone A of Level F and was screened through ¼-in hardware cloth, but may have been another discrete feature that was intercepted by Feature 2. This area consisted of a medium-brown sand that lacked shell.

Feature 3 extended to 65 cmbd and contained dark yellowish brown sand. The feature was visible in the floor of the unit and in the west unit wall profile (Figure 2-4). A bulk sample was collected from the west wall, where the feature extended 12 cm into the profile, and the remaining portion of the feature was screened through ¼-in hardware cloth. Charcoal from the bulk sample of Feature 3 returned an AMS assay of 1060 ± 30 (calibrated at two-sigma range of A.D. 900–925) (Appendix B). Of the three pit features in TU1, Feature 3 yielded the least material culture.

Feature 4 was identified in the east wall profile of TU1 emanating from Strat III to 68 cmbd. At 10 cm in diameter, Feature 4 was determined to be a post hole. The feature can be observed in profile in Figure 2-4. A bulk sample was collected from the east wall. The fill from the feature consisted of brown sand and extended 8 cm into the east wall profile.

SUMMARY

Nine augers, one shovel test pit (STP1), and one 1 x 2-m test unit were excavated at Dan May Island in June 2014. Eight of the nine augers tested positive for material culture. Test Unit 1 (TU1) exposed a buried midden and at least four features: three basin-

shaped pit features and one post hole. Other possible post holes were noted in the profiles of the unit walls but were not assigned feature numbers. Three radiocarbon dates, one from each identified pit feature, were obtained from charcoal recovered from floated bulk samples. Based on the radiocarbon dates (Appendix B), it can be concluded that Dan May (8LV917) is a single component site dating to the 10th century A.D. Description of the material culture and faunal remains recovered from general excavation, features, and bulk samples is provided in the following chapter.

CHAPTER 3
MATERIAL CULTURE AND FAUNAL REMAINS

Documented in this chapter are the artifacts and faunal remains recovered from 2014 investigations at Dan May. The bulk of the material culture consists of pottery sherds, which were analyzed by Sean Buchanan (2017) for a senior thesis project at the University of Florida. Notable among the pottery assemblage is an advanced degree of diversity in temper and surface treatment. Although Late Woodland pottery assemblages in the greater area are usually diverse (e.g., Wallis et al. 2017), the short-term and spatially discrete nature of the Dan May settlement underscores that such diversity is not simply a function of a coarse-grained occupational sequence. Other classes of material culture are sparse at Dan May, limited to the small assemblage of lithic flakes reported here.

Both invertebrate and vertebrate faunal remains are abundant at Dan May. Invertebrate remains are dominated by the shells of oysters and Carolina marsh clam. Following protocols established by Jessica Jenkins (2017) oyster shell was analyzed to determine habitat of collection and to detect any evidence for mariculture. The results of Jenkins's analysis indicate that oyster from Dan May was collected from intertidal beds, which were not conductive do mariculture. Abundant brackish-water marsh clam reflects the intermediate location of Dan May between freshwater and saltwater biomes. However, a preliminary analysis of vertebrate fauna provided by Meggan Blessing, shows only limited use of freshwater taxa compared to an abundance of estuarine and other saltwater taxa. Taken together, the Dan May assemblage reflects both localized procurement of food resources and a pottery assemblage of diverse, extralocal influences, even if all of its pottery was of local manufacture.

POTTERY ASSEMBLAGE

A total of 733 pottery sherds weighing 2652.3 g were recovered from testing at Dan May in 2014. In Table 3-1, sherd counts and weights are presented by temper and surface treatment, and also by portion represented (rim, body, base, crumb). By count, over half (n = 401) of the assemblage consists of "crumb" sherds, which are sherds that are less than ½-inch in maximum dimension. Crumb sherds are classified by temper but not surface treatment, given their small size.

Four temper types are represented in the Dan May pottery assemblage. Sand temper is the most frequent at 71 percent by count and 66 percent by weight, including crumb sherds. Limestone is the second most frequent pottery temper (22 percent by count, 25 percent by weight), followed by spicule temper (6 percent by count and weight). Eight sherds (1 percent by count, 2 percent by weight) were classified as having "assorted" temper, which is characterized by the inclusion of multiple tempering agents (sand, limestone, shell, spicule, charcoal, and grog) in varying amounts and combinations.

Six surface treatments are represented by the pottery assemblage at Dan May: plain, stamped, punctated, impressed, incised, and multiple (stamped and plain). Within

Table 3-1. Absolute Frequency and Weight (g) of Pottery Sherds from 2014 Excavation of Dan May (8LV917), by Temper and Surface Treatment.

	Plain		Stamped		Punctate		Other		Eroded/UID		Total	
Temper	ct	wt(g)	ct	wt(g)	ct	wt(g)	ct	wt(g)	ct	wt(g)	ct	wt(g)
Sand												
Body	133	784.4	49	386.6	2	12.4	3	21.2	2	27.6	189	1,232.2
Rim	10	80.4	11	145.0							21	225.4
Base			1	24.0							1	24.0
Crumb											312	265.8
Subtotal	143	864.8	61	555.6	2	12.4	3	21.2	2	27.6	523	1,747.4
Limestone												
Body	42	176.6	30	315.6	12	29.2	3	39.3	1	14.0	88	574.7
Rim	1	3.1	2	16.6							3	19.7
Crumb											67	82.2
Subtotal	43	179.7	32	332.2	12	29.2	3	39.3	1	14.0	158	676.6
Spicule												
Body	18	113.4	1	4.0							19	117.4
Rim	1	3.7	2	29.3							3	33.0
Crumb											22	14.5
Subtotal	19	117.1	3	33.3							44	164.9
Assorted												
Body	7	55.1					1	8.3			8	63.4
Subtotal	7	55.1					1	8.3			8	63.4
Total	212	1,216.7	96	921.1	14	41.6	7	68.8	3	41.6	733	2,652.3

these broad categories there is considerable variation. For example, although most of the sherds are characterized as plain, 13 of those are burnished, six have a scraped interior, and one has an incising around the rim. Sherds labeled as stamped can also be further divided: 63 are check stamped, 18 are simple stamped, one of which is stamped on the interior and exterior, 10 are dentate stamped, and five are complicated stamped.

Vessel Lots

Fifty-eight vessel lots are inferred based on sets of shared characteristics (e.g., surface treatment and paste) (Table 3-2). Crumb sherds were not considered in the determination of vessel lots. Sherds from vessel lots were refitted whenever possible to obtain portions suited to size and shape characterization. Unfortunately, none of the vessels portions were sufficiently large enough to determine vessel form with certainty. Rim profiles were drawn on only five of the vessels (Figure 3-1). Wall thickness was measured at a point 3 cm below the lip and orifice diameter was estimated on sherds exceeding five percent of the orifice circumference. Wall thickness could be measured on sherds from nine of the vessel lots, and orifice diameter was determined for five of the vessel lots. Among vessel lots of these small samples, orifice diameters range from 10 to 18 cm and wall thickness ranges from 6.0 to 9.6 mm.

Table 3-2. Description of Vessel Lots from 2014 Excavation at Dan May.

Vessel Lot	Provenience	Surface Treatment	Temper	Type	Orifice Diameter (cm)	Thickness (mm)
1	Lvl C, D, F; F.3	Simple-Stamped	Sand			
2	F.2	Dentate	Sand	Ruskin Dentate		
3	STP1	Simple-Stamped	Sand			8.4
4	Lvl C, E	Simple-Stamped	Sand			
5	F.2	Simple-Stamped	Sand			
6	STP1	Simple-Stamped	Sand			
7	F.2	Simple-Stamped	Sand			
8	F.2	Complicated-Stamped	Sand	Complicated-Stamped		
9	F.2	Complicated-Stamped	Sand	Complicated-Stamped		
10	STP1	Check-Stamped	Sand		10	
11	Lvl B	Check-Stamped	Sand	Wakulla Check-Stamped		
12	STP1	Complicated-Stamped	Sand	Complicated-Stamped		
13	Lvl C	Check-Stamped	Sand	Wakulla Check-Stamped		
14	Lvl C	Check-Stamped	Sand	Wakulla Check-Stamped		
15	F.2	Punctate	Limestone	Carabelle Punctate		
16	Lvl B	Punctate	Sand			
17	Lvl C	Simple-Stamped	Spicule	St. Johns Simple-Stamped		
18	Lvl C, F.2	Check-Stamped	Sand			9.2
19	Lvl E; F.2; STP1	Plain	Spicule, Limestone	St. Johns Plain		
20	Lvl C, D	Plain	Sand			
21	Lvl B	Incised	Sand			
22	Lvl E	Check-Stamped	Sand	Wakulla Check-Stamped		
23	Lvl E; F.2	Plain, Scraped Interior	Spicule, Limestone	St. Johns Plain		
24	Lvl E	Complicated-Stamped	Spicule	Complicated-Stamped		
25	STP1	Plain	Sand			
26	F.1	Plain	Sand		10	7.9
27	Lvl D	Plain	Sand			6.3
28	Lvl E; F.2	Cord-Marked	Limestone, Charcoal			
29	F.1	Check-Stamped	Limestone		18	9.0
30	Lvl C	Dentate	Limestone	Ruskin Dentate		
31	STP1	Check-Stamped	Limestone			
32	Lvl B, C, D	Plain, Burnished	Sand			
33	F.2	Check-Stamped	Sand	Wakulla Check-Stamped		
34	Lvl C	Check-Stamped	Sand	Wakulla Check-Stamped	18	9.6
35	Lvl B	Check-Stamped	Spicule	St. Johns Check-Stamped	18	9.1
36	F.2	Plain Burnished	Limestone	Pasco Plain		
37	F.3	Plain	Sand			6.0
38	Lvl B	Check-Stamped	Sand	Wakulla Check-Stamped		

Table 3-2 con't. Description of Vessel Lots from 2014 Excavation at Dan May.

Vessel Lot	Provenience	Surface Treatment	Temper	Type	Orifice Diameter (cm)	Thickness (mm)
39	F.1; F.2	Dentate	Limestone	Ruskin Dentate		
40	Lvl A, B, C	Check-Stamped	Sand	Wakulla Check-Stamped	16	7.9
41	F.1	Plain	Sand		14	
42	Lvl B	Plain	Sand			
43	Lvl B, C, D	Plain, Incised Rim	Sand			
44	Lvl A, C	Check-Stamped	Sand	Wakulla Check-Stamped		
45	F.2	Plain	Sand		10	
46	Lvl D; F.2	Plain, Burnished	Sand			
47	Lvl D, E	Check-Stamped	Sand	Wakulla Check-Stamped		
48	Lvl E	Plain	Limestone	Pasco Plain		
49	Lvl B, E; F.1; F.2	Plain	Spicule, Limestone, Shell	St. Johns Plain		
50	Lvl B	Check-Stamped	Sand	Wakulla Check-Stamped		
51	Lvl C	Plain, Burnished	Sand			
52	Lvl B, D	Check-Stamped	Sand	Wakulla Check-Stamped		
53	STP1	Plain, Burnished	Sand			
54	Lvl B; F.1	Plain	Sand			
55	Lvl B, C, D, E; F.2; STP1	Plain	Limestone	Pasco Plain		
56	Lvl A, C; F.1	Plain	Sand			
57	Lvl B	Plain	Spicule	St. Johns plain		
58	Lvl F	Plain	Sand			

Pottery types were identified according to Willey's (1949) typology, and are based on temper and surface treatment. Plain vessels include two types: St. John's Plain (n = 4), which is characterized by a spicule-tempered paste, and Pasco Plain (n = 3), which is characterized by a limestone-tempered paste. The most common identifiable type of pottery by vessel lot in this assemblage is Wakulla Check-Stamped (n = 12), followed by Swift Creek Complicated-Stamped (n = 4), and Ruskin Dentate (n = 3). There is one vessel lot each of Carabelle Punctate, St. John's Simple-Stamped, and St. John's Check-Stamped. Twenty-nine vessel lots were not assigned a specific culture-historical type and include sand-tempered plain (n = 11), burnished (n = 4), simple-stamped (n = 6), check-stamped (n = 2), limestone-tempered check-stamped (n = 2), cord-marked (n = 1), punctated (n = 1), and incised (n = 2). Below is a description of the surface treatments and pottery types present at Dan May.

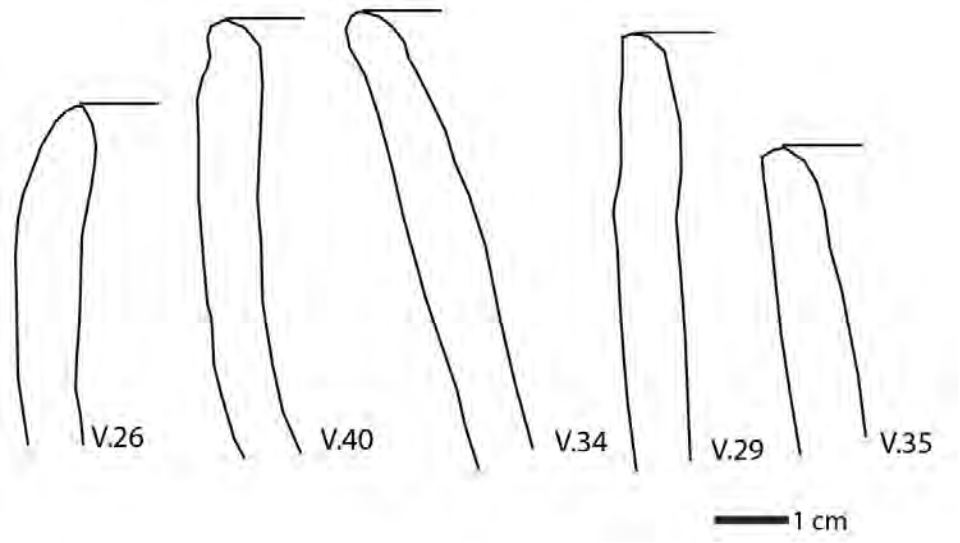

Figure 3-1. Rim profile drawings. Vessel Lot 26: sand-tempered plain; Vessel Lots 40 and 34: Wakulla Check-Stamped; Vessel Lot 29: limestone-tempered check-stamped; Vessel Lot 35: St. Johns Check-Stamped.

Plain, Burnished, Incised Rim

Twenty-three of the 58 vessel lots (38 percent) identified at Dan May are characterized as plain (Figure 2). Sixteen of the 23 plain vessels (70 percent) were tempered with sand, three (13 percent) were tempered with limestone, three (13 percent) have an assorted temper consisting of a combination of spicule, limestone, and/or shell, and one (4 percent) is spicule tempered.

Of the 16 sand-tempered plain vessel lots, 11 had no further distinguishing treatments, four had burnishing, and one had an incised rim. Sand-tempered plain wares were common throughout the region for many centuries. At Dan May, three sand-tempered plain vessels could be measured for wall thickness (6.0 mm, 6.3 mm, and 7.9

mm) and three could be measured for orifice diameter (two at 10 cm, and one at 14 cm). Sherds from the 11 plain vessels were found in multiple proveniences from Levels A, B, C, D, and F, and Features 1–3. The sherds of one sand-tempered plain vessel lot were found in STP1. The three vessels from Dan May that are sand-tempered plain with burnishing had sherds belonging to the same vessel lot that were excavated from multiple levels (B, C, and D), Feature 2, and STP1. The one sand-tempered plain vessel with an incised rim consisted of sherds excavated from levels B, C, and D.

The three limestone-tempered plain vessel lots were classified as Pasco Plain. One of the three vessel lots is burnished. Pasco Plain pottery is typified by Willey (1949) as having a coarse textured heavily tempered paste. Vessel forms noted by Willey (1949:446–447) include open and slightly constricted bowls with unmodified rims. As there are only small sherds from each vessel lot, wall thickness and orifice diameter could not be ascertained. The Pasco Plain pottery type has a wide temporal range in the region, although it is often found in contexts associated with the Weeden Island I and II Periods (Willey 1949). Pasco Plain pottery is related to an earlier pottery type found in the central Gulf coast region, Perico Plain, which also has a characteristic limestone-tempered paste. Milanich (1994:211) notes that Pasco Plain and sand-tempered plain pottery types predominate village site assemblages throughout the northern peninsular coast region after the end of the Deptford period (ca. AD 100) through the Weeden Island Period on Florida's Gulf Coast and at some inland locations.

One vessel lot of the plain variety had spicule-tempered paste, and was therefore designated St. Johns Plain. St. Johns Plain pottery has a soft, chalky feel with both rough and smooth surfaces (Willey 1949:444–445). Typical forms in the Gulf Coast region include bowls with incurved rims, large, deep, open bowls, collared globular bowls, boat-shaped bowls, and flattened-globular bowls. The rims of St. Johns pottery are typically unmodified.

Figure 3-2. Select plain sherds from Dan May. Sand-tempered plain rim (a), sand-tempered plain burnished (b), sand-tempered plain incised (c-d), Pasco Plain (e-f), St. John's Plain (g-h).

Three other vessel lots have a predominately spicule-tempered, or St. Johns, paste, although one also has limestone inclusions and one has both limestone and shell inclusions. Orifice diameter and wall thickness could not be measured on any of the St. Johns Plain vessels.

Check Stamped

After plain pottery types, check stamping comprises the most numerous surface treatment, observed on sherds of 17 of the 58 vessel lots (29 percent) (Figure 3-3). Twelve of the 17 check-stamped vessel lots (71 percent) are classified as Wakulla Check Stamped, two (12 percent) are sand-tempered check stamped of an unidentifiable culture-historical type, two (12 percent) are limestone-tempered check stamped, and one (5 percent) is St. Johns Check Stamped.

Wakulla Check-Stamped sherds were found in Levels A through E and Feature 2 in TU1. Some sherds belonging to the same vessel lot have proveniences that straddle multiple levels and sometimes occur in a combination of levels and features. According to Willey (1949), Wakulla Check-Stamped pottery is primarily found on Florida's Gulf Coast, with possible extensions inland to the east. Willey (1949:397) states that the Wakulla Check-Stamped pottery type is the ceramic indicator for the Weeden Island II Period, and has a slight overlap into the later Fort Walton period. Willey and Woodbury (1942) recognized that Wakulla Check-Stamped pottery became the most common decorated type in non-mound contexts during the Weeden Island II period. This pottery type is characterized by sand-temper and a solid field of fine- to medium-sized checks (1–5 mm) stamped lightly and carefully on a wet vessel surface, with little to no overstamping, using a cross-grooved or checked implement (Willey 1949:438).

The typical wall thickness of Wakulla Check-Stamped pottery observed by Willey (1949) is 5 to 8 mm, but is known to sometimes be thicker. Vessel forms of this type include flattened-globular bowls, bowls with incurved rims, deep bowls with out-slanting rims, pots, and jars with long and short collars. Of the 12 Wakulla Check-Stamped vessel lots from Dan May, three had rim portions that could be measured for wall thickness, with measurements of 7.9 mm, 9.2 mm, and 9.6 mm. Three orifice diameters were estimated at 10 cm, 16 cm, and 18 cm.

Two vessel lots are classified as limestone check-stamped. According to Willey (1949:447), limestone-tempered check-stamped vessels typically have smaller limestone inclusions than what are found in Pasco Plain, and vary from having small checks of 3 to 4 mm to large checks of 6 to 10 mm. Vessel forms of this type are typically bowls with incurved walls and unmodified rims. Limestone-tempered check-stamped pottery ranges from the southwestern part of central Florida and the adjacent Gulf Coast and is probably confined to the Weeden Island II period (Willey 1949:447). Of the two vessel lots, it was possible to determine orifice diameter (18 cm) and wall thickness (9.0 mm) on one. The limestone-tempered check-stamped vessel lots are comprised of sherds from Feature 1 and STP1.

Figure 3-3. Select check-stamped sherds. St. John's Check-Stamped rim (a), Wakulla Check-Stamped rim (b), limestone-tempered check-stamped (c), sand-tempered check-stamped (d-f).

Sherds from one St. Johns Check-Stamped vessel lot from Dan May were excavated from Level B of TU1. This vessel has an orifice diameter of 18 cm and a wall thickness of 9.1 mm. In terms of paste, St. Johns Check-Stamped pottery is described by Willey (1949:445) to be identical to St. Johns Plain. The stamping is typically deep and clear, and the size of the checks, which may be oblong or square, vary from 5 mm to 1 cm. Typical St. Johns Check-Stamped vessel forms include large, deep, open bowls or pots, with straight or slightly out-slanting walls, flattened-globular bowls, and simple jars. Geographically, St. Johns Check-Stamped pottery is most prevalent in east Florida, but can occur in abundance along parts of the Gulf Coast, with the exception of the northwest Gulf region where it is uncommon (Willey 1949:446). Chronologically, St. Johns Check-Stamped pottery first appears at the start of the Weeden Island II period, and continues into the Englewood and Safety Harbor periods along the Gulf Coast (Willey 1949:446).

Two check-stamped vessels are undiagnostic of a particular culture-historical pottery type, although both have characteristics similar to Deptford Period check-stamped types. No two check-stamped vessel lots appear as though they were stamped with the same implement, making the check-stamped vessels from Dan May extremely diverse.

Complicated Stamped

There are four complicated-stamped vessel lots identified from the pottery assemblage at Dan May, comprising seven percent of the total vessel lots (Figure 3-4). Each vessel lot consists of only one sherd, each with a unique stamping. As each vessel lot consist of only a single sherd, it was not possible to determine wall thickness or

orifice diameter for any of the identified vessels. Three of the vessel lots, excavated from Feature 2 and STP1, have sand temper, and one, found in Level E, has spicule temper, which is uncharacteristic of Swift Creek Complicated-Stamped pottery. Vessels with a spicule paste and Swift Creek motif have been noted by Milanich (1994:261) as being found in mounded contexts dating to the St. Johns Ia period (AD 100–500) in eastern and central Florida, as part of the pottery assemblage that replaced earlier Deptford vessels. Milanich (1994:261–262) goes on to note similarities in the overall artifact assemblage of some St. Johns Ia mounds, which include spicule-tempered Swift Creek pottery, to contemporaneous artifact assemblages from the northern peninsular Gulf Coast.

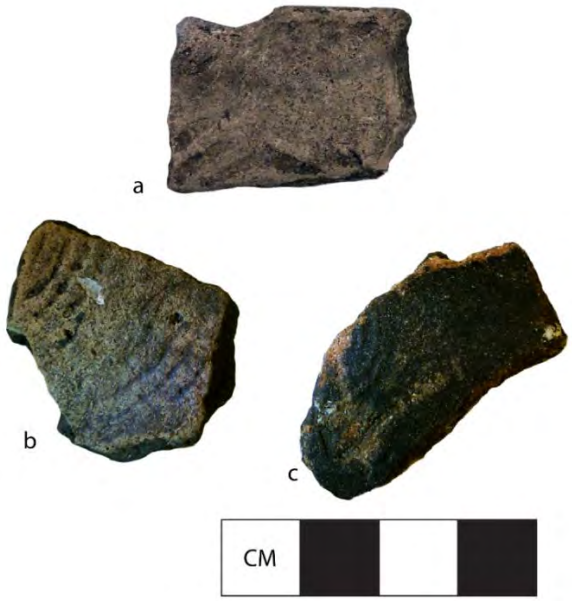

Figure 3-4. Select complicated-stamped sherds. St. Johns complicated-stamped (a), sand-tempered complicated stamped (b-c).

Swift Creek Complicated-Stamped pottery became popular ca. AD 100 and continued to be produced until about AD 850 (Wallis 2011). This type of pottery is easily identified given the presence of a predominantly curvilinear design stamped onto the vessel using a wooden paddle before firing. Willey (1949) identifies early and late series of Swift Creek Complicated Stamping, which share many characteristics, including a sand-tempered paste. Recent work by Neill Wallis at the Florida Museum of Natural History has been able to trace the exchange of Swift Creek vessels (or paddles) using paddle matches on pottery found at multiple sites (Wallis 2011). Wallis (2011) has identified over 400 unique designs, and has determined, given its ubiquity and deposition in mundane contexts, that Swift Creek Complicated-Stamped pottery could be considered utilitarian.

Ruskin Dentate

There are three Ruskin Dentate vessel lots from TU1 at Dan May (Figure 3-5). The Ruskin Dentate pottery type is identified by rows of small dentations arranged in an irregular fashion by a small tooth-edge implement applied to unfired clay (Willey

1949:441). The dentations are about 1 mm across and can be rectangular or semilunate. Ruskin Dentate vessels are typically sand-tempered with a wall thickness averaging 8 to 9 mm. Only one of the three Ruskin Dentate vessel lots has the traditional sand temper, and the other two are tempered with limestone. Typical Ruskin Dentate vessel forms include globular bowls, jars with short collars, and open bowls. Orifice diameter and wall thickness could not be measured on any of the Ruskin Dentate vessel lots from Dan May. Sherds that make up these vessel lots were found in Features 1 and 2 and Level C.

Figure 3-5. Ruskin dentate sherds. Limestone-tempered Ruskin Dentate (a, c), sand-tempered Ruskin Dentate (b).

Punctated

Two vessel lots from Dan May have a punctated surface treatment (Figure 3-6); one is sand-tempered and not diagnostic of a particular type, and the other is classified as Carrabelle Punctated. Typical Carrabelle Punctated pottery has a sand temper, although the one vessel lot of this type at Dan May, excavated from Feature 2, has limestone temper. Carrabelle Punctated pottery has punctations that were made in unfired clay, typically arranged in a field around the upper portion of the vessel below the rim. Punctations vary from fingernail punctations, stick-made punctations, round-bottomed indentations, hollow-reed punctations, and double-rowed fingernail punctations (Willey 1949:425). Typical vessel forms include globular bowls with flared orifice, flattened-globular bowls, short-collared jars, and jars with cambered rim. Carrabelle Punctated vessels are found primarily in the Gulf Coast area between the Apalachicola River and Cedar Key during the Weeden Island I and II Periods. It was not possible to measure orifice diameter or wall thickness for either of the punctated vessel lots.

Figure 3-6. Punctated sherds. Sand-tempered punctated (a), Carabella Punctated (b).

Cord Marked

One cord-marked vessel was recovered from TU1 at Dan May, with sherds from Level E and Feature 2 (Figure 3-7). Willey (1949:388) denotes early and late varieties of what he calls Late West Florida Cord-Marked pottery, which are local expressions of cord-wrapped paddle marked pottery found in the Lower Mississippi Valley and the lower Southeast. This pottery type is relatively scarce in Florida (Willey 1949:338). Tempering varies for this type of pottery, although Willey (1949:338) notes that most sherds are sand-tempered. At Dan May, the one cord-marked vessel lot recovered is limestone and charcoal tempered. Typical wall thickness is described as ranging from 4 mm to 1 cm, averaging 6 mm. Wall thickness and orifice diameter could not be determined on this vessel lot. Typically, the cord-marking is deep and clear and the cord marks are closely spaced. Vessel forms include pots with both slightly flared and slightly converged orifices (Willey 1949:388). Late West Florida Cord-Marked pottery has a geographic range defined by Willey (1949:389) as northwest and central-west Florida Gulf Coast. The early variety is found in contexts dating to the Santa-Rosa Swift Creek Period and the late variety is associated with the Weeden Island Period.

Figure 3-7. Limestone and charcoal tempered cord-marked sherd.

Simple Stamped

Five of six vessel lots classified as simple stamped did not fit comfortably into any particular type as defined by Willey (1949), and one was classified as St. Johns Simple-Stamped (Figure 3-8). Simple-stamped pottery has grooves stamped into unfired clay. Willey (1949) defines a Deptford Simple-Stamped pottery type which is sand tempered and occurs as a minority type on the Gulf Coast, even as it had a long life span.

A later, Weeden Island Period simple-stamped variety is Thomas Simple-Stamped, which is also sand tempered and found primarily in the Manatee region and around Tampa Bay (Willey 1949:439–440). It was not possible to measure orifice diameter on any of the simple-stamped vessel lots, and wall thickness was only able to be measured on one at 8.4 mm.

Figure 3-8. Simple-stamped sherds. Sand-tempered (a-b, d-e), St. Johns simple-stamped (c).

Incised

One vessel lot consisting of a single incised body sherd was identified in the pottery assemblage from Dan May (Figure 3-9). Unfortunately, this sherd is not diagnostic of any particular pottery type as defined by Willey (1949). It is sand tempered and expresses two parallel incised lines. Given the small size of the sherd, no other information could be obtained about this vessel lot.

Figure 3-9. Sand-tempered incised sherd.

LITHIC ASSEMBLAGE

In general, archaeological investigations in the greater study area do not produce an abundance of stone artifacts, and Dan May is no exception. A small assemblage of flaked stone artifacts was recovered, totaling 11 chert flakes from TU1: two from Level D, one from Level E, four from Level F, two from the leeched zone of Feature 1, one from the perimeter of Feature 1, and one from Feature 3. No flakes were recovered from the auger survey or STP1. Two limestone abraders were recovered from STP1. One piece

of quartzite fire-cracked rock (FCR) was recovered from TU1 in Level B. The only other lithic artifacts in the inventory from Dan May consist of occasional limestone clast or pebble, quartz pebble (identified as modern driveway gravel), and mudstone pebble.

INVERTEBRATE FAUNA

Given the high density of shell in the middens and pit features at Dan May and other sites in the research area, the LSA has developed a sampling strategy in which all gastropods recovered during general excavation are kept and all bivalves, with the exception of modified or unique shells, are left at the site as part of the unit backfill. Bulk samples are collected from shell-rich deposits and features in order to characterize the invertebrate assemblage without the bias of selective recovery methods. Modified gastropods and other modified shells are collected from all contexts as part of normal recovery operations. However, no shell tools were recovered from the 2014 investigations at Dan May in general level excavation or from bulk samples.

Carolina marsh clam (*Polymesoda caroliniana*) and Eastern oysters (*Crassostrea virginica*) comprise nearly the entire invertebrate assemblage in bulk samples from Dan May. Oyster is the dominant invertebrate species in the midden deposits (Strata II and III), whereas Carolina marsh clam is the primary species found in the pit features (Features 1–3). In addition to Carolina marsh clam and Eastern oyster, other species of invertebrates present include: crown conch (*Melongena corona*), quahog clam (*Mercenaria* sp.), marsh periwinkle (*Littorina irrorata*), lightning whelk (*Busycon sinistrum*), shark eye (*Neverita duplicate*), barnacle (Balanidae), and unidentifiable bivalves (Bivalvia) and gastropods (Gastropoda). All invertebrates were weighed (Table 3-3) and further analysis was conducted on the Carolina marsh clam and Eastern oyster, as they are the dominant species present.

Carolina Marsh Clam and Eastern Oyster

The Carolina marsh clam and Eastern oyster discussed below are from the six bulk samples recovered from TU1: two bulk samples from the east wall of the unit, one each from two shell-rich deposits (Strata II and III), and from each of the four features, three pits (Features 1, 2A, 2C, and 3) and one post hole (Feature 4). There were no invertebrates recovered from Feature 2B. The proveniences of bulk samples are provided in Chapter 2.

Absolute frequencies of shell by taxa and strata for both the Carolina marsh clam and Eastern oyster are provided in Table 3-4. Shells were sorted by side (right vs. left) when the diagnostic hinge elements were present, which allowed for determination of the minimum number of individuals (MNI). When comparing the MNI of oysters and marsh clams from the shell-rich deposits, there are 12 oysters for every marsh clam per liter of fill in Stratum II and nine oysters for every marsh clam per liter of fill in Stratum III. When comparing the MNI of oysters and marsh clams by feature, there is a ratio of two clams for every oyster in Feature 1, and nine clams for every oyster in Feature 2A and 2C. In Features 3 and 4, there is less than one oyster and one marsh clam per liter of fill. Overall, there is a 3:1 ratio of marsh clam to oyster from all bulk matrix recovered from TU1.

Table 3-3. Bulk sample invertebrates by weight (g).

Feat.	Oyster	Marsh Clam	Crown Conch	Merc.	Misc. Gastropod	Misc. Bivalve	Barnacle	UID	1/8"	Total
1	820.8	1758.8	27.1			3.0	0.1		188.2	2798.0
2	401.0	2926.8		11.2	9.8	1.4		158.0	143.4	3156.6
3	52.1	114.2			5.7				27.5	199.5
4	0.2	18.1							0.4	18.7
Subtotal	1274.1	4817.9	27.1	11.2	15.5	4.4	0.1	158.0	359.5	6172.8
Strat.										
II	2104.0	64.3				1.6	0.1	0.2	251.6	2421.8
III	1233.0	24.7					0.3	0.1	112.3	1370.4
Subtotal	3337.0	89.0				1.6	0.4	0.3	363.9	3792.2
Total	4611.1	4906.9	27.1	11.2	15.5	6.0	0.5	158.3	723.4	9965.0

Table 3-4. Absolute Frequency, Weight, MNI, and Ratio of Taxa for Oysters and Carolina Marsh Clams by Bulk Sample.

Oyster	Right Valve		Left Valve		Fragment	Total	MNI	MNI/	Ratio of
	ct.	wt. (g)	ct.	wt. (g)	wt (g)	wt. (g)		Liter	Taxa
II	90	551.9	64	838.2	713.9	2104.0	90	12	12:1
III	53	246.5	59	448.0	538.5	1233.0	59	9	9:1
F.1	28	142.6	35	361.7	316.5	820.8	35	3	1:2
F.2A	4	28.8	3	1.6	40.8	71.2	4	1	1:9
F.2C	16	107.1	15	76.2	145.5	328.8	16	2	1:9
F.3	3	17.1	3	5.0	30.0	52.1	3	<1	0:1
F.4	0	0	0	0	0.2	0.2	0	0	0:1
Total	194	1094.0	179	1730.7	1785.4	4610.1	207	4	1:3
Marsh Clam									
II	3	26.8	3	16.2	21.3	64.3	3	<1	1:12
III	2	2.9	2	10.8	11.0	24.7	2	<1	1:9
F.1	79	620.3	91	683.2	417.5	1721.0	91	7	2:1
F.2A	9	21.5	3	10.9	49.2	81.6	9	9	9:1
F.2C	151	1178.3	165	1424.0	212.2	2814.5	165	17	9:1
F.3	2	14.1	7	40.3	59.8	114.2	7	1	1:0
F.4	1	8.6	1	5.8	3.7	18.1	1	1	1:0
Total	247	1872.5	272	2191.2	774.7	4838.4	278	6	3:1

Oyster Niche and Mariculture

The oyster shells were further analyzed to determine harvesting niche (intertidal versus subtidal) and to infer maricultural practices, specifically shelling and culling. In order to do so, a series of attributes of the archaeological shell was recorded on each whole left valve: height, length, height-to-length ratio, presence or absence of sponge parasitism, presence or absence of an attachment scar, and presence or absence of sponge parasitism on the attachment scar. Also relevant is the ratio of right-to-left valves described in Table 3-4. A more detailed review of the methods used in this section are

described elsewhere (Jenkins 2016, 2017). The results of the analysis are summarized in Table 3-5. Only a comparison of the number of left and right valves could be obtained from Feature 3, as there were no whole left valves which are required for the rest of the analysis. It is important to note the small sample sizes used in this analysis. Regardless, this secondary analysis of the oyster provides a pilot study from Dan May that can help form hypotheses to be tested with the addition of more excavated samples from the island, (see Chapter 4).

The size (height) of oysters is the most common variable recorded in the study of archeological oyster shell and can be used to answer questions concerning size selection and resource decline or overharvesting. Height is the longest measurement of the oyster from the dorsal to the ventral ends. Also relevant is the measurement of length, perpendicular to the height, measured from the dorsal to the ventral end of the oyster shell. The average height of the oysters in the bulk samples from TU1 is 53.20 mm and the average length is 32.68 mm. In Stratum II, the mean height is 51.19 mm and the mean length is 32.71 mm. In Stratum III, the mean height is 52.67 and the mean length is 32.08 mm. The largest oysters on average are from Feature 1, measuring 62.94 mm, and the smallest oysters are from Feature 2A, measuring 21.64 mm on average. Based on the mean heights of the samples, there is no evidence of overharvesting or resource decline of oysters deposited at Dan May.

Mirroring the trends in height, the longest oysters are from Feature 1, with an average length measurement of 36.64 mm, and the shortest are from Feature 2A, with an average measurement of 12.48 mm. While the oysters in the features have the largest and smallest oysters on average from the collected samples, the oysters from the shell-rich strata are within 2 mm of each other in both height and length, and fall in the middle in terms of average size.

Height-to-length ratio (HLR) is determined by dividing the height of each oyster by its length. This measurement helps to determine resource niche as intertidal oysters are typically elongate, with an HLR close to 2, whereas subtidal oysters are typically more round with a HLR closer to 1 (Kent 1988; Lawrence 1988). It is important to note that there is local variation with this measurement and the inferential potential is made stronger in conjunction with other variables that help determine resource niche. The average HLR of all of the oysters from TU1 is 1.63. The highest HLR is from Feature 2C (1.87) and the lowest HLR is from Stratum II (1.58).

Attachment scars are formed on oysters with an imprint of the substrate to which they attach. Typically oysters attach to the shells of their own species, which is how oyster bars and reefs are created (Kennedy 1996). Attachment scars are most prevalent on the left, or cupped, valve of intertidal oysters which grow in tight burrs or clumps (Lawrence 1988). The overall percentage of oysters with attachment scars in TU1 is 65 percent. The highest percentage of oysters with attachment scars is 68 percent in Stratum III, and the lowest is 50 percent of shells with attachment scars in Feature 2A.

Table 3-5. Summary of Attributes Indicative of Resource Niche and Mariculture.

Sample	*n*	Right		Left		Mean	Mean	Mean	Scars		Parasitism		Parasitism on Scar	
		n	%	*n*	%	Height	Length	HLR	*n*	%	*n*	%	*n*	%
II	154	90	58	64	42	51.19	32.71	1.58	27	63	7	16	0	0
III	112	53	47	59	53	52.67	32.08	1.61	15	68	14	64	1	5
F.1	63	28	44	35	56	62.94	36.64	1.73	12	67	1	6	0	0
F.2A	7	4	57	3	43	21.64	12.48	1.74	1	50	0	0	0	0
F.2C	31	16	52	15	48	48.36	26.31	1.87	2	67	0	0	0	0
F.3	6	3	50	3	50									
Total	373	194	52	179	48	53.20	32.68	1.63	57	65	22	25	1	1

Sponge parasitism is a bioindicator of high salinity (above 15 parts per thousand) and subtidal conditions (Shumway 1996). Sponge parasitism on archaeological shell is evident by the presence of small cylindrical holes which are formed by the sponge boring into the shell and chemically etching it out in order to anchor itself. Twenty-five percent of the oysters from TU1 have evidence of sponge parasitism. Stratum III has the highest percent of shells with sponge parasitism present (64 percent), and of the features, only Feature 1 has any evidence of sponge parasitism, with only one of 18 shells affected (6 percent).

The presence of sponge parasitism on the attachment scars of oyster shells is one way to infer culling, a maricultural practice in which oysters are separated from each other and their substrate and returned to the water as singles to continue growing. When an oyster is culled, the attachment scar becomes more vulnerable to parasitic attack. Therefore, if an oyster has an attachment scar with sponge parasitism present, it is likely that it was culled, although it is possible for natural processes to separate oysters. Only one oyster from Stratum III has any evidence of sponge parasitism on the attachment scar, accounting for less than one percent of oysters from TU1 at Dan May.

The final relevant variable recorded, the ratio of right-to-left oyster valves, is used to infer shelling, a maricultural practice in which dead shell is returned to extant reefs to encourage spat attachment when the resource is in danger of providing inadequate substrate due to elevated harvesting pressure. If there is an imbalance of right-to-left valves in a sample, it is possible that one of the valves was typically returned to the water while the other was deposited in midden or pits. Across the samples, the ratio of left-to-right valves stays close to 50/50, with an average of 52 percent right valves to 48 percent left valves. The sample with the largest imbalance of valves is from Stratum II, with 58 percent right valves and 42 percent left valves.

Due to the small sample number of oysters per sample, inferences on practices regarding oysters excavated from Dan May are made based on the totality of oysters collected from TU1. These inferences can be substantiated with further testing at Dan May. On average, the recovered oysters are relatively small (mean height = 53.20 mm, mean length = 32.68 mm) and elongate (mean HLR = 1.68), have attachment scars (65 percent present), and lack sponge parasitism (75 percent absent). Based on these results,

it appears that the majority of the oysters harvested and deposited at Dan May are from near-shore, intertidal conditions. Intertidal oysters are easy to collect at the water's edge, especially when they are exposed at low tide. Oysters from intertidal conditions are typically smaller than subtidal oysters as they are not able to feed while tidal water is low, limiting their growth rates. Intertidal oysters are also more likely to have attachment scars and are typically elongate as they grow in tight clusters and must compete for resources. Only oysters that are constantly underwater in high-salinity conditions would have evidence of sponge parasitism as boring sponges cannot survive in intertidal waters. Some of the oysters, primarily in Stratum III, appear to be harvested from subtidal reefs as this sample has the highest percentage of shells with sponge parasitism (64 percent present) and the second lowest HLR (1.61), but this seems like a secondary source overall.

Both of the maricultural practices tested for, shelling and culling, are primarily practiced on subtidal oyster reefs as they are less dynamic and those particular practices have a higher chance of success. For example, at Shell Mound (8LV42) evidence of maricultural practices is strongest after there was a transition from harvesting primarily intertidal oysters to harvesting primarily subtidal oysters (Jenkins 2016). Moreover, compelling evidence of mariculture occurs only when the scale and intensity of harvesting increases to support a ritual economy and terraforming at Shell Mound (Jenkins 2017). There is almost no evidence of mariculture being employed by the inhabitants of Dan May as less than one percent of the oysters have evidence of culling and the ratio of right-to-left valves remains close to 50/50. This is to be expected given the relatively low rate of harvesting and the apparent selection for mostly intertidal oysters.

VERTEBRATE FAUNA

A comprehensive analysis of vertebrate fauna has not been completed for the Dan May assemblage, but a species list was compiled by Meggan Blessing (Table 3-6). Based on Blessing's analysis, the majority of the fauna from TU1 are saltwater and/or estuarine species, and the assemblage is dominated by fish. Freshwater taxa include the golden shiner (*Notemigonus crysoleucas*), freshwater catfish family (*Ictaluridae*), largemouth bass (*Micropterus salmoides*), shellcracker (*Lepomis microlophus*), other bream species (*Lepomis sp.*), river cooter (*Pseudemys sp.*), softshell turtle (*Apalone ferox*), and alligator (*Alligator mississippiensis*). The relatively low numbers of freshwater species present in the assemblage could be a product of sampling, as the species that are represented, aside from largemouth bass, tend to be on the smaller side. Overall, the bone is well preserved and there was little-to-no burning. Blessing observed two notable patterns: first, Level B has a greater number of black drum individuals, which appear to be large given the size of the otoliths, compared to the other levels; and second, Feature 1 is dominated by hardhead catfish, followed by black drum.

Table 3-6. Table Showing Presence or Absence of Vertebrate Fauna Taxa by Context.

Taxon	Common Name	Levels A-F	Strat. II	Strat. III	Fea. 1	Fea. 2	Fea. 3	Fea. 4
Menippe sp.	Stone Crab				x	x		
Euselachii	Shark	x	x					
Carcharhinidae	Requiem Shark				x			
Rajiformes	Ray	x			x	x	x	
Acipenser oxyrhincus desotoi	Gulf Stergeon	x			x	x		
Lepisosteus sp.	Gar	x	x	x	x	x	x	
Amia calva	Bowfin	x			x	x		
Elops saurus	Lady Fish	x			x	x		
Clupeidae	Shad/Herring		x				x	
Notemigonus crysoleucas	Golden Shiner				x		x	
Ictaluridae	Freshwater Catfish	x		x	x	x		
Ariopsis felis	Hardhead Catfish	x	x		x	x	x	x
Fundulus sp.	Topminnow				x			
Micropterus salmoides	Largemouth Bass	x			x	x	x	
Lepomis sp.	Bream		x		x		x	
Lepomis microlophus	Shellcracker	x				x		
Caranx crysos	Blue Runner	x						
Caranx hippos	Crevalle Jack	x	x	x	x	x		
Orthopristis chrysoptera	Pigfish					x		
Archosargus probatocephalus	Sheepshead	x	x	x	x	x	x	
Lagodon rhomboides	Pinfish			x	x			
Cynoscion sp.	Sea Trout	x			x	x		
Micropogonias undulatus	Atlantic Croaker	x				x		
Pogonias cromis	Black Drum	x	x	x	x	x		
Sciaenops ocellatus	Red Drum	x			x	x	x	
Mugil sp.	Mullet	x		x	x	x	x	
Paralichthys sp.	Flounder				x	x	x	
UID Large Fish Species	UID Large Fish	x						
Testudines	Turtle			x				x
Kinosternidae	Mud/Musk Turtle	x	x					
Kinosternon sp.	Mud Turtle							
Pseudemys sp.	River Cooter	x			x			
Malaclemys terrapin	Diamondback Terrapin	x						
Cheloniidae	Sea Turtle	x			x	x	x	
Apalone ferox	Softshell Turtle				x			
Serpentes	Snake	x						
Alligator mississippiensis	American Alligator	x	x			x	x	
Aves (Small)	Small Bird	x						
Aves (Medium)	Medium Bird	x						
Eudocimus albus	White Ibis				x			
Mammalia	Medium-Large Mammal	x						
Sigmodon hispidus	Hispid Cotton Rat	x						
Procyon lotor	Racoon	x		x				
Sus scrofa	Pig	x						
Odocoileus virginianus	White -Tailed Deer	x			x	x		

CONCLUSION

Few lithics were recovered from the 2014 excavations at Dan May, with the exception of a small assemblage of chert flakes and two possible limestone abraders. No shell tools were recovered. The most notable aspect of the material culture from Dan May is the diversity in pottery, especially considering it is a single-component domestic site. Fifty-eight vessel lots were identified, the majority of which have a plain surface treatment, although the paste varies among sand tempered, limestone tempered, and spicule tempered. The most frequent surface treatment after plain is check-stamping. Most of the check-stamped vessels are Wakulla Check-Stamped, which is typically associated with the Weeden Island II Period. Of the check-stamped pottery, it appears that no two vessels were stamped with the same implement. Vessel lot surface treatments also included punctated, burnished, simple stamped, incised, cord-marked, Ruskin Dentate, and complicated-stamped. Based on Willey's (1949) typology, most of the vessel lots are associated with the Weeden Island Period.

Oysters and Carolina marsh clams dominate the invertebrate assemblage. Oysters were most abundant in the bulk samples excavated from stratigraphic levels, whereas marsh clams were most abundant in features. Based on a series of attributes, it is inferred that the majority of the oysters harvested and deposited at Dan May are from intertidal conditions, and maricultural practices, specifically shelling and culling, were not being practiced.

The vertebrate faunal assemblage is primarily comprised of saltwater and estuarine species, with few freshwater species present. The low number of freshwater species may be a sampling bias where small bones are not represented in ¼-inch samples. The main component of the assemblage is fish, with high numbers of black drum and hardheaded catfish. Birds, mammals, turtles, and reptiles are also present.

CHAPTER 4
CONCLUSIONS AND RECOMMENDATIONS

Archaeological investigations of Dan May (8LV917) in 2014 by the staff of the Laboratory of Southeastern Archaeology, University of Florida, consisted of an auger survey, one shovel test pit, and one 1 x 2-m test unit excavation. There had been no previous testing of the island, and auger testing was done opportunistically in order to decide where to perform secondary testing. Nine auger tests revealed little material culture except in the center of the island, particularly on the west side, adjacent to the lodge. In the center of the island, auger tests exposed at least one intact midden, and this area was chosen for the placement of a 1 x 2-m test unit. The results of the unit excavation revealed intact shell midden deposits, three pit features, and at least one posthole. Three radiocarbon dates were obtained, dating the site to the tenth century A.D.

A unique feature of Dan May Island is its "in-between" spatial and temporal dimensions. Dan May Island is a privately owned island located in the wetlands that extend southeast of the Suwannee River Delta, between saltwater and freshwater biomes. The island is positioned between two research tracts designated by the Lower Suwannee Archaeological Survey, some distance from known civic-ceremonial centers and other sites in the area. Moreover, Dan May is a single-component site dating to the tenth century A.D., a period that is underrepresented in the study area, between two phases of aggregation and terraforming in the region. It is possible that the high degree of pottery diversity found at Dan May is an expression of this "in-betweenness."

Components of three other sites in the Lower Suwannee Research Survey area date to the same period (A.D. 700–1000) as Dan May: Butler Island (8DI50), Bird Island (8DI52), and Richards Island (8LV137). Occupations at these sites mark a time of dispersed small-scale settlement after the decline of Middle Woodland civic-ceremonial centers in the area. Civic-ceremonial centers were abandoned during this time, even as activities at the mortuary complex on Hog Island intensified. Although the diversity of pottery is unusual in the area for a habitation site, the high diversity of pottery at Dan May is matched, if not exceeded by the pottery deposited at Hog Island during these centuries.

Using Willey's 1949 typology, the majority of the pottery excavated from Test Unit 1 (TU1) at Dan May is characteristic of the Weeden Island culture-historical period. The most common pottery type is plain, followed by stamped, and punctated. Although stamping was a common surface treatment, it was apparent that no two vessels excavated from TU1 were stamped using the same implement. Pottery was tempered primarily with sand, but also with limestone, spicules, and assorted tempers which included shell and charcoal. Given the small size of most of the sherds, it was not possible to discern vessel forms, although orifice diameter, rim angle, and wall thickness were able to be measured on some of the vessels. Sherds belonging to one vessel lot were frequently found across multiple contexts, including multiple pit features, confirming their contemporaneity. Little other material culture was recovered, with the exception of a small assemblage of chert flakes and two possible limestone abraders. No shell tools were recovered from excavations at Dan May.

A variety of faunal remains were recovered from Test Unit 1. Eastern oyster and Carolina marsh clam dominated the invertebrate assemblage. Oysters were dominant in the midden, whereas marsh clams were dominant in the pit features. Most of the oysters deposited in the midden and features at Dan May were from intertidal conditions and there was no evidence that the inhabitants of Dan May were practicing mariculture. The vertebrate assemblage consisted primarily of saltwater fish and other estuarine species. Freshwater species were present, but may be underrepresented in the ¼-inch fractions of samples.

RECOMMENDATIONS

The results of survey and test excavations reported here show the potential and need for additional archaeological investigations at Dan May. Further testing at Dan May would provide important information concerning a period of time between two phases of aggregation and terraforming that is not well understood in the research area. Likewise, continued identification and testing of contemporaneous sites in region would ultimately assist the goals of the LSAS to document the full range of variation in the distribution, timing, and content of archaeological sites in the study area (Sassaman et al. 2011). Following these recommendations would help clarify the era identified here as the post-abandonment period of civic-ceremonial centers (A.D. 700–1000) in the Lower Suwannee region.

REFERENCES CITED

Buchanan, Sean M.

2017 Dispersed and Diverse: Accounting for Ceramic Variation at Dan May (8LV917). Paper presented at the 69th Annual Meeting of the Florida Anthropological Society, Jacksonville.

Duobinis-Gray, Eileen M. and Courtney T. Hackney

1982 Seasonal and Spatial Distribution of the Carolina Marsh Clam *Polymesoda caroliniana* (Bosc) in a Mississippi Tidal Marsh. *Estuaries* 5(2):102–109.

Jenkins, Jessica A.

2016 *Archaeological Evidence of Oyster Mariculture in the Lower Suwannee Region of Gulf Coastal Florida.* M.A. thesis, Department of Anthropology, University of Florida, Gainesville.

2017 Methods for Inferring Oyster Mariculture on Florida's Gulf Coast. *Journal of Archaeological Science* 80:74–82.

Kennedy, Victor

1996 The Ecological Role of the Eastern Oyster, *Crassostrea virginica*, with Remarks on Disease. *Journal of Shellfish Research* 15(1):177–183.

Kent, Bretton

1988 *Making Dead Oysters Talk: Techniques for Analyzing Oysters from Archaeological Sites.* Annapolis: Maryland Historical Trust, Historic St. Mary's City, Jefferson Patterson Park and Museum.

Lawrence, David R.

1988 Oysters as Geoarchaeologic Objects. *Geoarchaeology* 3(4):267–274.

McFadden, Paulette S., and Andrea Palmiotto

2012 *Archaeological Investigations at Bird Island (8DI52), Dixie County, Florida.* Technical Report 14. Laboratory of Southeastern Archaeology, Department of Anthropology, University of Florida, Gainesville.

McFadden, Paulette S.

2014 *Archaeological Investigations at Butler Island Northeast (8DI50), Dixie County, Florida.* Technical Report 20. Laboratory of Southeastern Archaeology, Department of Anthropology, University of Florida, Gainesville.

Milanich, Jerald T.

1994 *Archaeology of Precolumbian Florida*. Gainesville: University Press of Florida.

Pluckhahn, Thomas J., Victor D. Thompson, Brent R. Weisman

2010 Toward a New View of History and Process at Crystal River (8CI1). *Southeastern Archaeology* 29(1):164–181.

Sassaman, Kenneth E., Paulette S. McFadden, and Micah P. Monés
2011 *Lower Suwannee Archaeological Survey 2009–2010: Investigations at Cat Island, Bird Island, and Richards Island*. Technical Report 10. Laboratory of Southeastern Archaeology, Department of Anthropology, University of Florida, Gainesville.

Sassaman, Kenneth E., Ginessa J. Mahar, Mark C. Donop, Jessica A. Jenkins, Anthony Boucher, Cristina I. Oliveira, Joshua M. Goodwin
2015 *Lower Suwannee Archaeological Survey 2013–2014 Shell Mound and Cedar Key Tracts.* Technical Report 23, Laboratory of Southeastern Archaeology, Department of Anthropology, University of Florida.

Sassaman, Kenneth E., Neill J. Wallis, Paulette S. McFadden, Ginessa J. Mahar, Jessica A. Jenkins, Mark C. Donop, Micah P. Monés, Andrea Palmiotto, Anthony Boucher, Joshua M. Goodwin, and Cristinia I. Olieira
2016 Keeping Pace with Rising Sea: The First Six Years of the Lower Suwannee Archaeological Survey, Gulf Coastal Florida. *Journal of Island and Coastal Archaeology* 12(2):173–199.

Shumway, Sandra E.
1996 Natural Environmental Factors. In *The Eastern Oyster: Crassostrea virginica*, eds Victor S. Kennedy, Roger I.E. Newell, and Albert F. Eble. Pp. 467–513.

United States Geological Survey
2017 Salinity Information. Electronic document, https://waterdata.usgs.gov, accessed May 15, 2017.

Wallis, Neill J.
2011 *The Swift Creek Gift: Vessel Exchange on the Atlantic Coast*. Tuscaloosa: University of Alabama Press.

Wallis, Neill J., Paulette S. McFadden, and Hayley M. Singleton
2015 Radiocarbon Dating the Pace of Monument Construction and Village Aggregation at Garden Patch: A Ceremonial Center on the Florida Gulf Coast. *Journal of Archaeological Science: Reports* 2:507–516.

Wallis, Neill J, Ann S. Cordell, Erin Harris-Parks, Mark C. Donop, and Kristen Hall
2017 Provenance of Weeden Island "Sacred" and "Prestige" Vessels: Implications for Specialized Ritual Craft Production. *Southeastern Archaeology* 36(2):131–143.

Willey, Gordon R., and Richard B. Woodburry
1942 A Chronological Outline for the Northwest Florida Coast. *American Antiquity* 7:232–254.

Willey, Gordon R.
1949 *Archaeology of Florida's Gulf Coast*. Smithsonian Miscellaneous Collections 113. Smithsonian Institution, Washington D.C.

APPENDIX A:

CATALOG

ABBREVIATIONS

Assort. – Assorted
Brnstd. – Burnished
Chk. – Checked
Comp. – Complicated
Dent. – Dentate
Feat. – Feature
Gastro. – Gastropod
HR – Human Remains
Int. – Interior
Invert. – Invertebrate
Lmstn. – Limestone
Mat. – Materials
Misc. – Miscellaneous
Mod. – Modified
Mrkd. Marked
Prov. – Provenience
Stmp. – Stamped
STP – Shovel Test Pit
Temp. – Tempered
TU – Test Unit
UID – Unidentified
Unmod. – Unmodified

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.1.1	Auger 1		Misc. Rock	Lmstn.				1	1.1
8LV917.2.1	Auger 2		Pottery	Sand Temp.	Body	Stmp.	Chk. Stmp.	1	4.6
8LV917.3.1	Auger 3		Pottery	Sand Temp.	Body	Plain	Plain	1	4.1
8LV917.3.2	Auger 3		Vert. Fauna						9.3
8LV917.3.3	Auger 3		Historic	Metal				10	1.4
8LV917.4.1	Auger 4		Vert. Fauna						2.1
8LV917.6.1	Auger 6		Pottery	Sand Temp.	Body	Stmp.	Chk. Stmp.	1	4.3
8LV917.6.2	Auger 6		Pottery	Sand Temp.	Body	Plain	Plain	1	3.3
8LV917.6.3	Auger 6		Pottery	Sand Temp.	Crumb			1	1.3
8LV917.7.1	Auger 7		Pottery	Sand Temp.	Body	Plain	Plain	1	7.2
8LV917.7.2	Auger 7		Pottery	Sand Temp.	Body	Plain	Brnstd.	1	4.3
8LV917.7.3	Auger 7		Pottery	Sand Temp.	Crumb			1	1.2
8LV917.7.4	Auger 7		Pottery	Spicule Temp.	Crumb			1	0.3
8LV917.7.5	Auger 7		Vert. Fauna						5.1
8LV917.7.6	Auger 7		Historic	Glass				1	1.2
8LV917.7.7	Auger 7		HR					4	5.1
8LV917.8.1	Auger 8		Pottery	Sand Temp.	Body	Stmp.	Comp. Stmp.	1	8.5
8LV917.8.2	Auger 8		Pottery	Sand Temp.	Crumb			2	4.2
8LV917.8.3	Auger 8		Vert. Fauna						3.2
8LV917.9.1	Auger 9		Pottery	Sand Temp.	Body	Plain	Plain	2	6.2
8LV917.9.2	Auger 9		Pottery	Lmstn. Temp.	Body	Plain	Plain	1	2.2
8LV917.9.3	Auger 9		Vert. Fauna						3.8
8LV917.9.4	Auger 9		Botanical	Charcoal				2	0.1
8LV917.9.5	Auger 9		Historic	Metal				13	11.5
8LV917.10.1	TU1	A	Pottery	Sand Temp.	Rim	Stmp.	Chk. Stmp.	3	16.3
8LV917.10.2	TU1	A	Pottery	Sand Temp.	Body	Plain	Plain	12	44.0
8LV917.10.3	TU1	A	Pottery	Assort. Temp.	Body	Plain	Plain	1	7.4
8LV917.10.4	TU1	A	Pottery	Lmstn. Temp.	Body	Plain	Plain	4	22.4
8LV917.10.5	TU1	A	Pottery	Spicule Temp.	Body	Plain	Plain	3	7.3
8LV917.10.6	TU1	A	Pottery	Sand Temp.	Crumb			61	51.5
8LV917.10.7	TU1	A	Pottery	Lmstn. Temp.	Crumb			7	9.2
8LV917.10.8	TU1	A	Pottery	Spicule Temp.	Crumb			4	1.8
8LV917.10.9	TU1	A	Misc. Rock	UID	Pebble			1	0.1
8LV917.10.10	TU1	A	Misc. Rock	Quartz	Pebble			6	42.5
8LV917.10.11	TU1	A	Invert.	Crown Conch	Mod. Shell			1	3.1
8LV917.10.12	TU1	A	Invert.	Merceneria	Mod. Shell			26	237.2
8LV917.10.13	TU1	A	Invert.	Marsh Clam	Mod. Shell			66	127
8LV917.10.14	TU1	A	Invert.	Periwinkle	Unmod.			2	2.5

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.10.15	TU1	A	Historic	Brick				20	31.7
8LV917.10.16	TU1	A	Historic	Slag				6	11.9
8LV917.10.17	TU1	A	Historic	Plastic				1	0.3
8LV917.10.18	TU1	A	Historic	Glass				10	18.1
8LV917.10.19	TU1	A	Historic	Misc.				2	11.2
8LV917.10.20	TU1	A	Historic	Metal				19	32.6
8LV917.10.21	TU1	A	Invert.	Lightning Whelk	Mod. Shell			1	14.0
8LV917.10.22	TU1	A	Invert.	Marsh Clam	Unmod.			9	52.6
8LV917.10.23	TU1	A	Vert. Fauna						67.4
8LV917.11.1	TU1	B	Pottery	Sand Temp.	Body	Plain	Plain	21	124.3
8LV917.11.2	TU1	B	Pottery	Lmstn. Temp	Body	Plain	Plain	8	31.5
8LV917.11.3	TU1	B	Pottery	Spicule Temp.	Body	Plain	Plain	2	8.4
8LV917.11.4	TU1	B	Pottery	Sand Temp.	Body	Stmp.	Chk. Stmp.	10	63.7
8LV917.11.5	TU1	B	Pottery	Sand Temp.	Body	Punctated	Linear	1	2.4
8LV917.11.6	TU1	B	Pottery	Lmstn. Temp.	Body	Impressed	Cord Mrkd.	1	5.4
8LV917.11.7	TU1	B	Pottery	Sand Temp.	Body	Inc.	Linear	1	2.9
8LV917.11.8	TU1	B	Pottery	Sand Temp.	Rim	Plain	Plain	2	5.8
8LV917.11.9	TU1	B	Pottery	Sand Temp.	Rim	Stmp.	Chk. Stmp.	1	3.4
8LV917.11.10	TU1	B	Pottery	Sand Temp.	Crumb			41	35.8
8LV917.11.11	TU1	B	Pottery	Lmstn. Temp.	Crumb			15	22.4
8LV917.11.26	TU1	B	Pottery	Sand Temp.	Rim	Inc.	Brnstd.	1	6.4
8LV917.11.28	TU1	B	Pottery	Sand Temp.	Body	Plain	Brnstd.	2	12.5
8LV917.11.27	TU1	B	Pottery	Spicule Temp.	Rim	Stmp.	Chk. Stmp.	1	23.9
8LV917.11.12	TU1	B	Pottery	Spicule Temp.	Crumb			4	3.8
8LV917.11.13	TU1	B	Lithic	Quartzite	FCR			1	113.7
8LV917.11.14	TU1	B	Invert.	Merceneria	Mod. Shell			11	59.8
8LV917.11.15	TU1	B	Invert.	Marsh Clam	Mod. Shell			20	22.0
8LV917.11.16	TU1	B	Invert.	Misc. Gastro.	Outer Whorl			2	4.0
8LV917.11.17	TU1	B	Invert.	Moon Snail	Mod. Shell			1	1.9
8LV917.11.18	TU1	B	Invert.	Periwinkle	Mod. Shell			1	0.7
8LV917.11.19	TU1	B	Invert.	Misc. Gastro.	Unmod.			2	0.1
8LV917.11.20	TU1	B	Invert.	Misc. Bivalve	Mod. Shell			3	0.2
8LV917.11.21	TU1	B	Invert.	Misc. Bivalve	Unmod.			1	0.2
8LV917.11.22	TU1	B	Vert. Fauna						260.1
8LV917.11.23	TU1	B	Botanical	Charcoal				10	1.3
8LV917.11.24	TU1	B	Historic	Ceramic				1	8.6
8LV917.11.25	TU1	B	Historic	Metal				5	7.6

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.12.1	TU1	C	Pottery	Sand Temp.	Crumb			64	60.9
8LV917.12.2	TU1	C	Pottery	Sand Temp.	Body	Plain	Plain	13	90.3
8LV917.12.3	TU1	C	Pottery	Sand Temp.	Body	Plain	Brnstd.	6	30.3
8LV917.12.4	TU1	C	Pottery	Sand Temp.	Body	Stmp.	Chk. Stmp.	8	52.8
8LV917.12.5	TU1	C	Pottery	Sand Temp.	Body	Stmp.	Simple Stmp.	4	19.6
8LV917.12.7	TU1	C	Pottery	Sand Temp.	Rim	Stmp.	Chk. Stmp.	2	67.4
8LV917.12.8	TU1	C	Pottery	Sand Temp.	Body	Stmp.	UID	1	16.5
8LV917.12.9	TU1	C	Pottery	Sand Temp.	Rim	Plain	Plain	1	4.4
8LV917.12.10	TU1	C	Pottery	Sand Temp.	Rim	Plain	Inc. Rim	1	6.3
8LV917.12.11	TU1	C	Pottery	Lmstn. Temp.	Crumb			12	16.1
8LV917.12.12	TU1	C	Pottery	Lmstn. Temp.	Body	Plain	Plain	10	40.9
8LV917.12.13	TU1	C	Pottery	Sand Temp.	Body	Plain	Brnstd.	9	77.3
8LV917.12.14	TU1	C	Pottery	Lmstn. Temp.	Body	Stmp.	Chk. Stmp.	8	78.8
8LV917.12.15	TU1	C	Pottery	Lmstn. Temp.	Body	Stmp.	Dent. Stmp.	1	18.6
8LV917.12.16	TU1	C	Pottery	Spicule Temp.	Crumb			10	7.4
8LV917.12.17	TU1	C	Pottery	Spicule Temp.	Body	Plain	Plain	4	14.8
8LV917.12.18	TU1	C	Pottery	Spicule Temp.	Body	Stmp.	Simple Stmp.	1	4.0
8LV917.12.19	TU1	C	Misc. Rock	Lmstn.	Pebble			4	30.1
8LV917.12.20	TU1	C	Invert.	Misc. Gastro.	Columella			6	21.0
8LV917.12.21	TU1	C	Invert.	Merceneria	Mod. Shell			6	32.4
8LV917.12.22	TU1	C	Invert.	Marsh Clam	Mod. Shell			3	1.7
8LV917.12.23	TU1	C	Invert.	Lightning Whelk	Outer Whorl			2	25.4
8LV917.12.24	TU1	C	Invert.	Crown Conch	Unmod.			1	29.9
8LV917.12.25	TU1	C	Invert.	Misc. Gastro.	Unmod.			1	1.2
8LV917.12.26	TU1	C	Invert.	Misc. Bivalve	Mod. Shell			2	0.8
8LV917.12.27	TU1	C	Vert. Fauna						139.0
8LV917.12.28	TU1	C	Botanical	Charcoal				15	1.6
8LV917.12.29	TU1	C	HR	Tooth				1	0.4
8LV917.13.1	Feat.1		Invert.	Oyster					820.8
8LV917.13.2	Feat.1		Invert.	Misc. Bivalve					3.0
8LV917.13.3	Feat.1		Invert.	Barnacle					0.1
8LV917.13.4	Feat.1		Invert.	Marsh Clam					1720.5
8LV917.13.5	Feat.1		Vert. Fauna						52.7
8LV917.13.6	Feat.1		Misc. Rock	Lmstn.	Pebble			5	34.1
8LV917.13.7	Feat.1		Botanical	Charcoal				20	2.6
8LV917.13.8	Feat.1		Pottery	Sand Temp.	Crumb			13	7.8
8LV917.13.9	Feat.1		Pottery	Sand Temp.	Rim	Plain	Plain	2	21.1

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.13.10	Feat.1		Pottery	Sand Temp.	Body	Plain	Plain	9	70.6
8LV917.13.11	Feat.1		Pottery	Lmstn. Temp.	Body	UID	Eroded	1	14.0
8LV917.13.12	Feat.1		Pottery	Lmstn. Temp.	Body	Stmp.	Dent. Stmp.	6	90.1
8LV917.13.13	Feat.1		Pottery	Lmstn. Temp.	Rim	Stmp.	Chk. Stmp.	2	16.6
8LV917.13.14	Feat.1		Pottery	Lmstn. Temp.	Body	Stmp.	Chk. Stmp.	4	32.1
8LV917.13.15	Feat.1		1/8" Vert. Fauna						75.1
8LV917.13.16	Feat.1		1/8" Invert.						188.9
8LV917.13.17	Feat.1		1/8" Botanical	Charcoal					12.3
8LV917.13.18	Feat.1		1/8" Pottery						2.1
8LV917.13.19	Feat.1		1/8" Misc. Rock						0.1
8LV917.13.20	Feat.1		1/8" Concretion						0.1
8LV917.13.21	Feat.1		<1/8" Assort. Mat.						348.9
8LV917.14.1	TU1	D	Pottery	Sand Temp.	Body	Plain	Plain	5	24.1
8LV917.14.2	TU1	D	Pottery	Sand Temp.	Body	Plain	Brnstd.	2	15.5
8LV917.14.3	TU1	D	Pottery	Sand Temp.	Body	Stmp.	Chk. Stmp.	4	29.9
8LV917.14.4	TU1	D	Pottery	Sand Temp.	Base	Stmp.	Chk. Stmp.	1	24.0
8LV917.14.5	TU1	D	Pottery	Sand Temp.	Rim	Plain	Plain	1	13.5
8LV917.14.6	TU1	D	Pottery	Sand Temp.	Crumb			13	9.0
8LV917.14.7	TU1	D	Pottery	Lmstn. Temp.	Body	Plain	Plain	4	22.1
8LV917.14.8	TU1	D	Pottery	Lmstn. Temp.	Body	Plain	Brnstd.	1	4.6
8LV917.14.9	TU1	D	Pottery	Lmstn. Temp.	Crumb			7	7.9
8LV917.14.10	TU1	D	Pottery	Sand Temp.	Body	Stmp.	UID	1	6.8
8LV917.14.11	TU1	D	Pottery	Assort. Temp.	Body	Plain	Plain	1	21.2
8LV917.14.12	TU1	D	Pottery	Spicule Temp.	Crumb			2	0.8
8LV917.14.13	TU1	D	Lithic	Chert	Flake			2	2.1
8LV917.14.14	TU1	D	Invert.	Crown Conch	Unmod.			1	9.7
8LV917.14.15	TU1	D	Invert.	Lightning Whelk	Outer Whorl			1	3.6
8LV917.14.16	TU1	D	Invert.	Misc. Gastro.	Columella			2	1.7
8LV917.14.17	TU1	D	Invert.	Misc. Gastro.	Unmod.			1	1.1
8LV917.14.18	TU1	D	Invert.	Marsh Clam	Mod. Shell			4	4.2
8LV917.14.19	TU1	D	Vert. Fauna						87.2
8LV917.14.20	TU1	D	Botanical	Charcoal				19	2.5
8LV917.15.1	Feat.1	Perimeter	Pottery	Sand Temp.	Body	Stmp.	Chk. Stmp.	1	4.2
8LV917.15.2	Feat.1	Perimeter	Pottery	Assort. Temp.	Body	Impressed	Fabric	1	8.3
8LV917.15.3	Feat.1	Perimeter	Pottery	Sand Temp.	Body	Plain	Plain	6	42.1
8LV917.15.4	Feat.1	Perimeter	Pottery	Sand Temp.	Rim	Plain	Plain	1	11.7
8LV917.15.5	Feat.1	Perimeter	Pottery	Lmstn. Temp.	Body	Stmp.	Chk. Stmp.	2	36.8

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.15.6	Feat.1	Perimeter	Pottery	Assorted	Body	Plain	Plain	1	6.5
8LV917.15.7	Feat.1	Perimeter	Pottery	Sand Temp.	Crumb			5	2.1
8LV917.15.8	Feat.1	Perimeter	Pottery	Lmstn. Temp.	Crumb			1	0.8
8LV917.15.9	Feat.1	Perimeter	Lithic	Chert	Flake			2	3.1
8LV917.15.10	Feat.1	Perimeter	Invert.	Crown Conch	Mod. Shell			2	9.6
8LV917.15.11	Feat.1	Perimeter	Invert.	Marsh Clam	Unmod.			6	38.3
8LV917.15.12	Feat.1	Perimeter	Vert. Fauna						38.8
8LV917.15.13	Feat.1	Perimeter	Botanical	Charcoal				44	4.8
8LV917.16.1	STP1		Pottery	Lmstn. Temp.	Body	Stmp.	Chk. Stmp.	4	39
8LV917.16.2	STP1		Pottery	Lmstn. Temp.	Body	Plain	Plain	7	26.5
8LV917.16.3	STP1		Pottery	Sand Temp.	Rim	Stmp.	Chk. Stmp.	1	7.9
8LV917.16.4	STP1		Pottery	Sand Temp.	Rim	Stmp.	Simple Stmp.	1	15.5
8LV917.16.5	STP1		Pottery	Sand Temp.	Body	Stmp.	Simple Stmp.	4	29
8LV917.16.6	STP1		Pottery	Sand Temp.	Body	Plain	Plain	5	21.4
8LV917.16.7	STP1		Pottery	Sand Temp.	Body	Plain	Brnstd.	3	6.1
8LV917.16.8	STP1		Pottery	Spicule Temp.	Rim	Plain	Brnstd.	1	3.7
8LV917.16.9	STP1		Pottery	Spicule Temp.	Body	Plain	Plain	1	2.6
8LV917.16.10	STP1		Pottery	Sand Temp.	Body	Stmp.	Comp. Stmp.	1	3.6
8LV917.16.11	STP1		Pottery	Sand Temp.	Body	Inc.	Linear	1	2.0
8LV917.16.12	STP1		Pottery	Lmstn. Temp.	Crumb			11	10.1
8LV917.16.13	STP1		Pottery	Sand Temp.	Crumb			24	23.9
8LV917.16.14	STP1		Historic	Glass				1	3.5
8LV917.16.15	STP1		Misc. Rock	Lmstn.	Clast			13	536.7
8LV917.16.16	STP1		Lithic	Lmstn.	Abrader			2	171.4
8LV917.16.17	STP1		Invert.	Merceneria	Mod. Shell			3	11.1
8LV917.16.19	STP1		Botanical	Charcoal				3	0.3
8LV917.16.20	STP1		Botanical	Hickory Nut				1	0.1
8LV917.16.21	STP1		Pottery	Spicule Temp.	Crumb			1	0.4
8LV917.16.18	STP1		Vert. Fauna						89
8LV917.17.1	TU1	E	Pottery	Sand Temp.	Body	Plain	Plain	1	4.5
8LV917.17.2	TU1	E	Pottery	Sand Temp.	Crumb			12	9.0
8LV917.17.3	TU1	E	Pottery	Lmstn. Temp.	Crumb			1	1.6
8LV917.17.4	TU1	E	Pottery	Assorted	Body	Plain	Plain	3	17
8LV917.17.5	TU1	E	Pottery	Spicule Temp.	Body	Plain	Plain	1	9.6
8LV917.17.6	TU1	E	Pottery	Sand Temp.	Body	Stmp.	Chk. Stmp.	2	6.8
8LV917.17.7	TU1	E	Pottery	Sand Temp.	Body	Multiple	Chk. with Plain	1	16.3
8LV917.17.8	TU1	E	Pottery	Lmstn. Temp.	Body	Impressed	Cord Mrkd.	1	13.0

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.17.9	TU1	E	Pottery	Sand Temp.	Body	Stmp.	Simple Stmp.	1	4.0
8LV917.17.10	TU1	E	Pottery	Spicule Temp.	Rim	Stmp.	Comp. Stmp.	1	5.4
8LV917.17.11	TU1	E	Lithic	Chert	Flake			1	0.5
8LV917.17.12	TU1	E	Invert.	Merceneria	Mod. Shell			2	73.7
8LV917.17.13	TU1	E	Invert.	Crown Conch	Columella			1	5.4
8LV917.17.14	TU1	E	Invert.	Crown Conch	Outer Whorl			1	8.3
8LV917.17.15	TU1	E	Vert. Fauna						34.5
8LV917.17.16	TU1	E	Botanical	Charcoal				10	0.6
8LV917.17.17	TU1	E	Botanical	Hickory Nut				1	0.1
8LV917.17.18	TU1	E	Pottery	Spicule Temp.	Body	Plain	Scraped Int.	1	4.5
8LV917.18.1	Feat. 2C	S. 1/2	<1/8" Assort. Mat.						335.7
8LV917.18.2	Feat. 2C	S. 1/2	1/8" Invert.						107
8LV917.18.3	Feat. 2C	S. 1/2	1/8" Vert. Fauna						91.4
8LV917.18.4	Feat. 2C	S. 1/2	1/8" Botanical						1.9
8LV917.18.5	Feat. 2C	S. 1/2	1/8" Pottery						0.3
8LV917.18.6	Feat. 2C	S. 1/2	1/8" Lithic						0.1
8LV917.18.7	Feat. 2C	S. 1/2	Pottery	Lmstn. Temp.	Body	Plain	Plain	1	3.3
8LV917.18.8	Feat. 2C	S. 1/2	Pottery	Spicule Temp.	Body	Plain	Scraped Int.	2	12
8LV917.18.9	Feat. 2C	S. 1/2	Pottery	Sand Temp.	Body	Stmp.	Simple Stmp.	1	3.5
8LV917.18.10	Feat. 2C	S. 1/2	Pottery	Lmstn. Temp.	Body	Punctated	UID	6	13.8
8LV917.18.11	Feat. 2C	S. 1/2	Pottery	Lmstn. Temp.	Body	Stmp.	Chk. Stmp.	1	5.4
8LV917.19.19	Feat. 2C	S. 1/2	Pottery	Spicule Temp.	Body	Plain	Plain	1	13.7
8LV917.18.12	Feat. 2C	S. 1/2	Pottery	Sand Temp.	Crumb			16	8.9
8LV917.18.13	Feat. 2C	S. 1/2	Vert. Fauna						92.9
8LV917.18.14	Feat. 2C	S. 1/2	Botanical	Charcoal				2	0.2
8LV917.18.15	Feat. 2C	S. 1/2	Invert.	Marsh Clam	Unmod.			286	2561.4
8LV917.18.16	Feat. 2C	S. 1/2	Invert.	Marsh Clam	Mod. Shell			206	254.7
8LV917.18.17	Feat. 2C	S. 1/2	Invert.	Oyster					330.6
8LV917.18.18	Feat. 2C	S. 1/2	Invert.	Misc.					158
8LV917.19.1	Feat. 3	W. Profile	Pottery	Sand Temp.	Crumb			4	1.6
8LV917.19.2	Feat. 3	W. Profile	Invert.	Misc. Gastro.	Columella			2	5.7
8LV917.19.3	Feat. 3	W. Profile	Invert.	Marsh Clam	UnMod.			5	48.2
8LV917.19.4	Feat. 3	W. Profile	Invert.	Marsh Clam	Mod. Shell			98	66.3
8LV917.19.5	Feat. 3	W. Profile	Invert.	Oyster	Unmod.			1	11.6
8LV917.19.6	Feat. 3	W. Profile	Invert.	Oyster	Mod. Shell			51	40.5
8LV917.19.7	Feat. 3	W. Profile	Vert. Fauna						8.6
8LV917.19.8	Feat. 3	W. Profile	1/8" Botanical	Charcoal					0.7

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.19.9	Feat. 3	W. Profile	1/8" Vert. Fauna						9.0
8LV917.19.10	Feat. 3	W. Profile	1/8" Invert.						27.5
8LV917.19.11	Feat. 3	W. Profile	1/8" Pottery						0.1
8LV917.19.12	Feat. 3	W. Profile	<1/8" Assort. Mat.						53.5
8LV917.20.1	Feat. 2C	N. 1/2	Pottery	Sand Temp.	Rim	Stmp.	Simple Stmp.	1	12.8
8LV917.20.2	Feat. 2C	N. 1/2	Pottery	Sand Temp.	Body	Plain	Plain	5	49.7
8LV917.20.3	Feat. 2C	N. 1/2	Pottery	Sand Temp.	Body	Plain	Scraped Int.	1	23.0
8LV917.20.4	Feat. 2C	N. 1/2	Pottery	Sand Temp.	Body	Stmp.	Comp. Stmp.	1	9.0
8LV917.20.5	Feat. 2C	N. 1/2	Pottery	Lmstn. Temp.	Body	Stmp.	Chk. Stmp.	2	5.8
8LV917.20.6	Feat. 2C	N. 1/2	Pottery	Sand Temp.	Body	Plain	Brnstd.	1	2.8
8LV917.20.7	Feat. 2C	N. 1/2	Pottery	Lmstn. Temp.	Body	Plain	Plain	1	3.5
8LV917.20.9	Feat. 2C	N. 1/2	Pottery	Lmstn. Temp.	Body	Punctated	UID	5	12.9
8LV917.20.10	Feat. 2C	N. 1/2	Pottery	Lmstn. Temp.	Body	Impressed	Cord Mrkd.	1	20.9
8LV917.20.11	Feat. 2C	N. 1/2	Pottery	Lmstn. Temp.	Crumb			5	4.5
8LV917.20.20	Feat. 2C	N. 1/2	Pottery	Spicule Temp.	Body	Plain	Scraped Int.	1	19.0
8LV917.20.12	Feat. 2C	N. 1/2	Pottery	Sand Temp.	Crumb			18	12.9
8LV917.20.13	Feat. 2C	N. 1/2	Misc. Rock	Mudstone	Pebble			1	0.4
8LV917.20.14	Feat. 2C	N. 1/2	Invert.	Merceneria	Mod. Shell			4	9.3
8LV917.20.15	Feat. 2C	N. 1/2	Invert.	Misc. Bivalve	Mod. Shell			1	1.3
8LV917.20.16	Feat. 2C	N. 1/2	Invert.	Marsh Clam	Unmod.			4	29.6
8LV917.20.17	Feat. 2C	N. 1/2	Vert. Fauna						147.9
8LV917.20.18	Feat. 2C	N. 1/2	Botanical	Charcoal				21	2.4
8LV917.20.19	Feat. 2C	N. 1/2	Invert.	Misc. Gastro.	Columella			1	9.8
8LV917.21.1	Feat. 3		Pottery	Sand Temp.	Rim	Plain	Plain	1	11.2
8LV917.21.2	Feat. 3		Pottery	Sand Temp.	Body	Plain	Plain	1	3.3
8LV917.21.3	Feat. 3		Pottery	Lmstn. Temp.	Body	Plain	Plain	1	1.7
8LV917.21.4	Feat. 3		Pottery	Sand Temp.	Body	Plain	Brnstd.	1	1.7
8LV917.21.5	Feat. 3		Pottery	Sand Temp.	Crumb			3	1.6
8LV917.21.6	Feat. 3		Pottery	Sand Temp.	Body	Stmp.	UID	1	4.4
8LV917.21.7	Feat. 3		Lithic	Chert	Flake			1	1.7
8LV917.21.8	Feat. 3		Vert. Fauna						5.3
8LV917.21.9	Feat. 3		Botanical	Charcoal				15	1.0
8LV917.22.1	Feat. 2	Zone A-F	Pottery	Sand Temp.	Body	Plain	Plain	1	6.9
8LV917.22.2	Feat. 2	Zone A-F	Pottery	Sand Temp.	Body	Stmp.	Comp. Stmp.	1	6.5
8LV917.22.3	Feat. 2	Zone A-F	Pottery	Sand Temp.	Body	Stmp.	Simple Stmp.	1	8.3
8LV917.22.9	Feat. 2	Zone A-F	Pottery	Sand Temp.	Rim	Stmp.	Chk. Stmp.	1	17.5
8LV917.22.4	Feat. 2	Zone A-F	Pottery	Sand Temp.	Crumb			4	2.5

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.22.5	Feat. 2	Zone A-F	Invert.	Merceneria	Mod. Shell			1	11.2
8LV917.22.6	Feat. 2	Zone A-F	Invert.	Marsh Clam	Mod. Shell			1	1.1
8LV917.22.7	Feat. 2	Zone A-F	Vert. Fauna						12.1
8LV917.22.8	Feat. 2	Zone A-F	Botanical	Charcoal				18	1.1
8LV917.23.2	TU1	F	Pottery	Sand Temp.	Body	Stmp.	UID	1	10.0
8LV917.23.3	TU1	F	Pottery	Sand Temp.	Body	Plain	Plain	3	8.3
8LV917.23.4	TU1	F	Pottery	Sand Temp.	Crumb			12	15.7
8LV917.23.5	TU1	F	Pottery	Lmstn. Temp.	Body	Plain	Plain	1	4.0
8LV917.23.6	TU1	F	Pottery	Lmstn. Temp.	Crumb			2	2.6
8LV917.23.7	TU1	F	Pottery	Assort. Temp.	Body	Plain	Plain	1	3.0
8LV917.23.8	TU1	F	Lithic	Chert	Flake			4	12.0
8LV917.23.9	TU1	F	Vert. Fauna						12.9
8LV917.23.10	TU1	F	Botanical	Charcoal				16	0.8
8LV917.24.1	Feat. 2A	S. 1/2	Pottery	Lmstn. Temp.	Body	Plain	Plain	1	3.2
8LV917.24.2	Feat. 2A	S. 1/2	Pottery	Lmstn. Temp.	Crumb			2	1.4
8LV917.24.3	Feat. 2A	S. 1/2	Pottery	Sand Temp.	Crumb			1	1.2
8LV917.24.4	Feat. 2A	S. 1/2	Vert. Fauna						10.0
8LV917.24.5	Feat. 2A	S. 1/2	Invert.	Misc. Bivalve				1	0.1
8LV917.24.6	Feat. 2A	S. 1/2	Invert.	Marsh Clam	Unmod.			2	9.3
8LV917.24.7	Feat. 2A	S. 1/2	Invert.	Marsh Clam	Mod. Shell			113	72.3
8LV917.24.8	Feat. 2A	S. 1/2	Invert.	Oyster					71.2
8LV917.24.9	Feat. 2A	S. 1/2	1/8" Vert. Fauna						10.0
8LV917.24.10	Feat. 2A	S. 1/2	1/8" Invert.						36.4
8LV917.24.11	Feat. 2A	S. 1/2	1/8" Botanical	Charcoal					0.1
8LV917.24.12	Feat. 2A	S. 1/2	<1/8" Assort. Mat.						45.8
8LV917.25.1	Feat. 2A and C	Interface	Pottery	Sand Temp.	Body	Stmp.	Dent. Stmp.	3	97.9
8LV917.25.2	Feat. 2A and C	Interface	Pottery	Sand Temp.	Body	Plain	Plain	5	19.1
8LV917.25.3	Feat. 2A and C	Interface	Pottery	Lmstn. Temp.	Body	Punctated	UID	1	2.5
8LV917.25.4	Feat. 2A and C	Interface	Pottery	Sand Temp.	Body	Plain	Brnstd.	3	28.2
8LV917.25.5	Feat. 2A and C	Interface	Pottery	Sand Temp.	Rim	Stmp.	Chk. Stmp.	1	4.2
8LV917.25.6	Feat. 2A and C	Interface	Pottery	Lmstn. Temp.	Rim	Plain	Brnstd.	1	3.1
8LV917.25.11	Feat. 2A and C	Interface	Pottery	Spicule Temp.	Body	Plain	Scraped Interior	1	16.3
8LV917.25.10	Feat. 2A and C	Interface	Pottery	Spicule Temp.	Body	Plain	Plain	1	5.2
8LV917.25.7	Feat. 2A and C	Interface	Pottery	Sand Temp.	Crumb			7	5.0
8LV917.25.8	Feat. 2A and C	Interface	Vert. Fauna						81.5
8LV917.25.9	Feat. 2A and C	Interface	Botanical	Charcoal				20	2.0
8LV917.26.1	Feat. 1	Perimeter	Pottery	Sand Temp.	Body	Stmp.	UID	1	2.7

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.26.2	Feat. 1	Perimeter	Pottery	Lmstn. Temp.	Body	Plain	Plain	2	10.7
8LV917.26.3	Feat. 1	Perimeter	Pottery	Lmstn. Temp.	Crumb			4	5.6
8LV917.26.4	Feat. 1	Perimeter	Pottery	Sand Temp.	Body	Plain	Plain	3	25.0
8LV917.26.5	Feat. 1	Perimeter	Pottery	Sand Temp.	Crumb			5	7.1
8LV917.26.6	Feat. 1	Perimeter	Lithic	Chert	Flake			1	0.9
8LV917.26.7	Feat. 1	Perimeter	Invert.	Crown Conch	Mod. Shell			1	17.5
8LV917.26.8	Feat. 1	Perimeter	Vert. Fauna						46.3
8LV917.26.9	Feat. 1	Perimeter	Botanical	Charcoal				16	1.4
8LV917.28.1	Feat. 2B		Pottery	Sand Temp.	Body	Plain	Plain	2	3.4
8LV917.28.2	Feat. 2B		Vert. Fauna						0.2
8LV917.28.3	Feat. 2B		Botanical	Charcoal				3	0.1
8LV917.29.1	Feat. 2	Perimeter	Pottery	Sand Temp.	Body	UID	Eroded	2	27.6
8LV917.29.2	Feat. 2	Perimeter	Pottery	Sand Temp.	Body	Plain	Plain	2	6.5
8LV917.29.3	Feat. 2	Perimeter	Pottery	Sand Temp.	Crumb			2	1.5
8LV917.29.4	Feat. 2	Perimeter	Botanical	Charcoal				4	0.1
8LV917.29.5	Feat. 2	Perimeter	Vert. Fauna						41.4
8LV917.30.1	TU1	Wall Clean	Pottery	Sand Temp.	Body	Plain	Plain	4	16.5
8LV917.30.2	TU1	Wall Clean	Vert. Fauna						13.6
8LV917.31.1	Feat.4		Vert. Fauna						0.5
8LV917.31.2	Feat.4		Invert.	Marsh Clam	Unmod.			2	14.4
8LV917.31.3	Feat.4		Invert.	Marsh Clam	Mod. Shell			7	3.7
8LV917.31.4	Feat.4		Invert.	Oyster					0.2
8LV917.31.5	Feat.4		1/8" Vert. Fauna						0.3
8LV917.31.6	Feat.4		1/8" Invert.						0.4
8LV917.31.7	Feat.4		1/8" Botanical						0.1
8LV917.31.8	Feat.4		1/8" Misc. Rock						0.1
8LV917.31.9	Feat.4		<1/8" Assort. Mat.						4.7
8LV917.32.1	TU1	II	Invert.	Oyster					2103.8
8LV917.32.2	TU1	II	Invert.	Marsh Clam					64.3
8LV917.32.3	TU1	II	Invert.	Barnacle					0.1
8LV917.32.4	TU1	II	Invert.	Misc. Bivalve					1.6
8LV917.32.5	TU1	II	Invert.	Misc.				2	0.2
8LV917.32.6	TU1	II	Pottery	Sand Temp.	Crumb			2	0.9
8LV917.32.7	TU1	II	Botanical	Charcoal				1	0.1
8LV917.32.8	TU1	II	Vert. Fauna						5.0
8LV917.32.9	TU1	II	Misc. Rock	Sandstone				3	0.8
8LV917.32.10	TU1	II	1/8" Vert. Fauna						22.0

Cat. Number	Prov.	Level	Material	Material Type	Form	Surface Treatment	Decoration	Count (n)	Weight (g)
8LV917.32.11	TU1	II	1/8" Misc. Rock					8	0.6
8LV917.32.12	TU1	II	1/8" Pottery					2	0.1
8LV917.32.13	TU1	II	1/8" Botanical						0.2
8LV917.32.14	TU1	II	1/8" Invert.						251.6
8LV917.32.15	TU1	II	<1/8" Assort. Mat.						255.6
8LV917.33.1	TU1	III	Pottery	Lmstn. Temp.	Body	Stmp.	Chk. Stmp.	2	9.0
8LV917.33.2	TU1	III	Pottery	Sand Temp.	Body	Plain	Plain	1	1.9
8LV917.33.3	TU1	III	Pottery	Sand Temp.	Crumb			1	0.2
8LV917.33.4	TU1	III	Vert. Fauna						5.1
8LV917.33.5	TU1	III	Invert.	Marsh Clam					24.7
8LV917.33.6	TU1	III	Invert.	Barnacle					0.3
8LV917.33.7	TU1	III	Invert.	Misc. Bivalve					0.2
8LV917.33.8	TU1	III	Invert.	Other Shell					0.1
8LV917.33.9	TU1	III	Invert.	Oyster					1232.7
8LV917.33.10	TU1	III	1/8" Invert.						112.3
8LV917.33.11	TU1	III	1/8" Vert. Fauna						10.9
8LV917.33.12	TU1	III	1/8" Botanical						0.2
8LV917.33.13	TU1	III	1/8" Misc. Rock						0.1
8LV917.33.14	TU1	III	<1/8" Assort. Mat.						128.7

APPENDIX B:

RADIOCARBON DATA

Prov.	Material	Beta Lab Number	Measured 14C Age BP	13C/12C Ratio	Conventional 14C Age BP	2-sigma Cal AD	2-sigma Cal BP
TU1-F.1	charcoal	421083	1090±30	25.3 o/oo	1090±30	890-1015	1060-935
TU1-F.2C	charcoal	458225	1020±30	23.6 o/oo	1040±30	970-1025	980-925
TU1-F.3	charcoal	458226	1070±30	25.6 o/oo	1060±30	900-925	1005-930