11 / Water Travel and Mississippian Settlement at Bottle Creek

Christopher B. Rodning

INTRODUCTION

Water travel would have been a major component of the lifeways of native peoples in deltaic environments such as the wet landscape surrounding the Mississippian town at Bottle Creek. For this reason archaeologists have taken an interest in reports of an aboriginal canal at Bottle Creek. In this chapter I review ethnohistoric and archaeological evidence from the lower Southeast to consider what role water travel might have played in Mississippian settlement of Mound Island. I then describe the alleged canal at Bottle Creek (Figure 11.1). I draw here from my survey of the canal channel and its surroundings and aerial photos of Mound Island (Figure 11.2). These lines of evidence suggest that the presumed Mississippian canal is most likely a relict channel of the intermittent stream currently known as Dominic Creek.

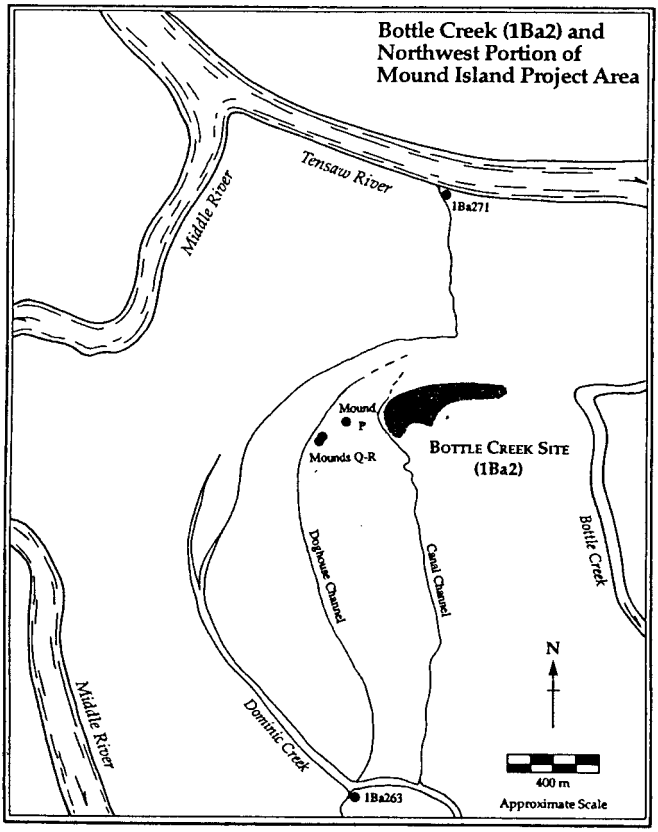
This conclusion does *not* mean that the material culture of boats and native practices of water travel did not play a significant role in the lifeways of Mississippian people in southwestern Alabama. Archaeological models of subsistence and settlement patterns in this kind of environment in the Southeast certainly highlight the significance of horticulture and foraging in estuarine and riverine settings (Brose 1984; Brown 1984; Campbell 1959; Curren 1976; Knight 1977; Larson 1980; Lewis 1988). People may have lived at scattered farmsteads or even in villages similar to early-eighteenth-century native settlements along the bluffs of the Mobile-Tensaw Delta, but they probably also maintained seasonal foraging/fishing encampments in the delta and surrounding regions (Davis 1984b:224–229; Knight 1984:209–215). Given the watery environment present in and around the Mobile-Tensaw Delta, dugout canoes like those known from archaeological and ethnohistoric evidence would have offered an essential means of travel (Fuller 1992; McWilliams 1981:42–46, 1988:8–9; McGahey 1974; Stowe 1974).

11.1. Douglas E. Jones and Ian W. Brown crossing the presumed "canal" west of mounds C and D at Bottle Creek.

My goal in this chapter is to make the simple but significant point that water travel probably *did* shape Mississippian settlement of the swampy woodland environment of southwestern Alabama. I first review ethnohistoric and archaeological evidence about native watercraft in the American South. I then describe aboriginal canals in Florida and Alabama including the alleged canal beside the mounds at Bottle Creek. These mounds represent the most prominent Mississippian center in the Alabama and Mississippi portions of the northern Gulf Coast (Greenwell 1984:151; Knight 1984:206; Walthall 1980:269). This ancient town was built in the midst of a swampy river delta. Its placement alone speaks to the significance of water travel as a force in shaping Mississippian settlement and social dynamics in the area.

DUGOUT CANOES IN THE ANCIENT AMERICAN SOUTH

European colonists described native practices of making and paddling dugout canoes (Swanton 1911:66–67, 1946:589–598). Dugout canoes were quite common in both coastal and inland areas. There were broad similarities in the ways that native people in different parts of the South built them, even though there was variation from one region of the Southeast



11.2. Location of the "canal channel" traced from an aerial photograph of Mound Island (from the *Mound Island Project*, by Fuller and Brown, copyright 1998 by the Alabama Museum of Natural History, used by permission).

to another in the kind of wood that was available and the kind of waterways there were to travel. Native boat-builders first felled selected trees by burning their trunks, perhaps doing some chopping but for the most part just letting the trees fall once the fires burned through them (Swanton 1946:Plate 74). Then they would burn the limbs from the treetops and place the log on frameworks of wooden posts designed to hold the canoe off the ground. Fires underneath the canoe would help remove bark from the outside. Shell scrapers and perhaps stone tools also would have helped in shaping the outer surfaces of canoes. In some cases, patches of bark may have been left on the ends of dugouts. Logs were hollowed out by setting fires inside them, and by scraping the insides of the logs with stone axes and shell tools. Placing mud at the ends and sides of the canoes would

have helped in controlling these fires, and throughout the whole process native boat-builders were simply alternating between burning and scraping. Hollowing out the logs created room for people and gear, and several people could sit or stand inside a dugout canoe even while carrying a considerable amount of cargo with them (Swanton 1946:Plate 52). Dugouts were commonly made of bald cypress, but it is less clear what kind of wood might have been the preferred material for making paddles. Cypress and many other woods were of course widely available to native people in the northern Gulf Coast region, and residents of Mound Island almost certainly had access to raw materials for making stone axes and stone or shell scrapers.

Archaeologists have identified several dugout canoes from southern Alabama, southern Mississippi, and northwestern Florida (Fuller 1992; Newsom and Purdy 1990:165; Stowe 1974). Some dugouts have squared or rounded platforms at their ends, in some cases with mooring holes drilled through them to serve as attachments for bow and stern lines. The insides of many dugouts bear marks from scraping and gouging, and the charring present on several canoes reflects the role of fire in shaping these boats. Holes punched in the bald cypress dugout found at the Swan Lake site in Mississippi indicate that Mississippian canoes were sometimes repaired to prolong their use lives. Radiocarbon dates of bald cypress canoes from Alabama and Mississippi indicate that this form of watercraft was indeed made by late prehistoric native boat-builders (Fuller 1992).

Hundreds of prehistoric canoes found in peat bogs and other waterlogged sites in eastern and southern Florida and in lakes in coastal North Carolina attest the great antiquity of this form of watercraft in southeastern North America (Newsom and Purdy 1990:176; Phelps 1989; Ward and Davis 1999:201–202). The oldest canoes in the Southeast are more than three thousand years old, although most date to the past two thousand years (McGahey 1974:4–5; Newsom and Purdy 1990:168–170). Ethnohistoric sources indicate that native canoes in the Southeast served many purposes, including hunting and fishing as well as transporting food and raw materials (McWilliams 1981:42–46; Newsom and Purdy 1990:176–178). Ancient native people living in the marshy landscape of eastern North Carolina seem to have cached several bald cypress dugout canoes in Lake Phelps and in other lakes and ponds within this marshy environment (Phelps 1989). This practice would have enabled them to travel across water when such transport was desirable or necessary, perhaps during seasonal visits to areas where specific resources were available. Keeping bald cypress dugouts in the water would have helped to preserve them and would have served to hide the canoes. Some of the dugouts found in Alabama and Mississippi may have been stored in select watery spots for similar reasons (Fuller 1992).

Investigators have found neither dugout canoes nor boat-building tools at Bottle Creek. However, dugouts comparable to archaeologically and ethnohistorically known watercraft in the Southeast were almost certainly paddled to and from the Bottle Creek mound center. Perhaps further archaeological study of Bottle Creek will reveal clues about the material culture of Mississippian water travel in this region. Meanwhile, what has already attracted archaeological interest is the canal that was presumably built by late prehistoric residents of Mound Island. Aboriginal canals have been identified at other localities along the Gulf Coast, especially in Florida.

ABORIGINAL CANALS IN THE GULF COAST REGION

Archaeologists have described several prehistoric canals in the Calusa domain of southwestern Florida (Luer 1989, 1998; Marquardt 1986, 1992). The Calusa chiefdom dominated the social and geopolitical landscape of southern Florida during the late prehistoric and protohistoric periods, and Calusa villages relied primarily on fishing and gathering rather than on farming as a subsistence strategy. Southwestern Florida is a wet environment characterized by many streams and marshes on the mainland and on islands off the coast itself, and several canals in the region connect different waterways and in many cases would have offered shortcuts to prehistoric paddlers. Many of these native canals demonstrate considerable engineering expertise in planning and maintenance (Luer and Wheeler 1997). Several link mound centers to villages and outlying hamlets (Wheeler 1995, 1998a). These spatial relationships between canals and native settlements as well as ethnohistoric evidence all demonstrate that canals were critical to travel routes within this watery landscape. Calusa canoeists carried tribute and conducted exchange by traveling along these canals, and thus chiefs derived benefits from the travel networks in which canals were included. Calusa chiefs convened councils and war parties, and participants were probably often mobilized by water travel. Canals and watercraft meanwhile eased the movement of fishers and gatherers to areas where they could find desired resources. Unlike their Mississippian counterparts in provinces further north, the Calusa did not practice horticulture (Larson 1980:23–34). But like Mississippian chiefdoms, the Calusa could mobilize resources and people in ways that favored the maintenance of social stratification between chiefs and commoners (Lewis 1978:31–36; Marquardt 1986:63; Widmer 1988:279).

Archaeologists have described several categories of native canals found in mainland marshes and on islands off the coast of southwestern Florida (Luer 1989:125–126). Some of these canals are moats or ponds incorporated *within* sites. Others are much longer connections *between* sites or

between different navigable waterways. For example, the Pine Island canal runs from the Pineland village on the western side of this island at the mouth of Charlotte Harbor to burial mounds on the eastern edge of the island. Both sites date to the late prehistoric period. The canal, which averages 9 m wide and 4 km long, would have enabled canoeists to paddle *across* rather than *around* Pine Island. Although its existence is unconfirmed, another mainland canal may have led from the coast to the Corbett mound. Even without the Pine Island canal, prehistoric paddlers could have traveled from the sound or Charlotte Harbor some 15–20 km south to the mouth of the Caloosahatchee River, and then 25 km upriver to Corbett. The possible mainland canal may have offered a more direct route that would have been as many as 20 km shorter than traveling along natural waterways, including the Caloosahatchee River, en route to Corbett. Further south was a canal that ran some 1.3 km from Naples Bay to the Gulf of Mexico and had embankments that ranged from 1.2 to 2.4 m in height (Luer 1998). Further inland was a network of some 5.9 km of canals connecting the Ortona mounds to Lake Okeechobee and the Caloosahatchee watershed (Wheeler 1995). Much further south in Florida are the Mud Lake and Snake Bight canals, which skirt the Bear Lake mound and connect Whitewater Bay to Florida Bay and the Gulf (Wheeler 1998a). Another canal in northwestern Florida was designed primarily for convenience and calm passage, connecting Choctawhatchee Bay to the Gulf (Wheeler 1998b).

These canals served as conduits for water travel that shaped regional settlement patterns and social dynamics within the ancient chiefdoms of southwestern Florida (Luer 1998:33–34). The canal at Naples Bay demonstrates a significant reliance on water travel. Its embankments are the result of a vast earthmoving project. The scale of this investment reflects not only the presence of a chief or group of chiefs but the capability of such leaders to mobilize the laborers needed to build and maintain the canal and the resources to support them. The Naples Bay and Pine Island canals both demonstrate an interest in making water travel routes shorter and safer and perhaps even controlling what and who traveled through them. Certainly, canals demanded significant investment in construction and maintenance. However, canals may have offered great benefits to societies reliant on water travel in estuarine and riverine environments, and to community leaders interested in the traffic of people and resources that moved across them.

Mississippian chiefs at Bottle Creek clearly possessed the kind of authority needed to build a canal. Elites at Bottle Creek were probably the most powerful Mississippian chiefs in southern Alabama and southern Mississippi and may have had close ties with paramount chiefs at Moundville (Knight 1984:206; Walthall 1980:269; Johnson, Chapter 8). The

mounds at Bottle Creek are themselves material manifestations of the authority and status of its chiefs (Morgan, Chapter 3). Constructing these mounds may have taken place in communal events that built community ties while creating platforms for ritual practices and elite residences. Digging a canal probably would have been a relatively easy task in terms of engineering and mobilizing labor compared to building the major mounds themselves.

It is less clear why Bottle Creek residents would have needed or wanted to build a canal. One reason may have been that the mounds themselves are 1 km away from the Tensaw River and half that distance from the navigable waters of Bottle Creek, and canals would have facilitated travel between these earthworks and destinations in the delta and surrounding regions. Another related reason may have been that local residents relied on resources brought to Mound Island from other parts of the delta and from Mobile Bay, whether as tribute to Bottle Creek chiefs or as resources brought back from the seasonal farmsteads and foraging camps maintained by Bottle Creek households in outlying areas.

Archaeologists have recorded aboriginal canals along the northern Gulf Coast. One known as Walker's Canal has been identified at Four Mile Point near the southeastern corner of Choctawhatchee Bay in northwestern Florida (Wheeler 1998b:180). This canal was 1.19 km long and ranged from 3.0 to 3.7 m deep. It connected two dune lakes in an area characterized by shifting sand dunes and high water tables. Ceramics and other artifacts found along the course of the canal suggest that it was built during the late prehistoric period. Another canal has been recorded at the Ryan site near Strong's Bayou at the southeastern edge of Mobile Bay in southern Alabama (Trickey 1958:389). Shell middens and other archaeological evidence of settlement are present at both ends of this canal. Unfortunately, this and two other reported canals near the coast in southern Alabama are no longer visible on the landscape, and thus it is difficult to confirm whether they were aboriginal canals or not (Trickey 1958:389). However, the canal in northwestern Florida was indeed built during the late prehistoric period by a group of people who must have considered canoe travel significant enough to devote the energy needed to build and maintain a canal (Wheeler 1998b:179). The main point to make here is simply that late prehistoric native peoples of the northern Gulf Coast were entirely capable of the engineering and labor mobilization needed to build canals, and life in their watery environment may have favored the placement of canals in select localities. It follows that residents of places like Mound Island may have found canals to be helpful or desirable alterations to their landscape, and also that modifications to natural waterways may have served them well.

THE ARCHAEOLOGY OF THE PRESUMED CANAL AT BOTTLE CREEK

Mississippian townspeople at Bottle Creek were certainly capable of building great mounds, and building a canal from the mounds to navigable streams such as Dominic Creek or Bottle Creek may not have been a major challenge by comparison. Some of the fruits of foraging and farming in the surrounding deltaic and estuarine environment may have been brought to Bottle Creek in dugout canoes, and this mode of travel and transport would seem preferable to traveling overland through the wet and seasonally inundated swamps. Was water travel significant enough to the lifeways of the Mississippian community at Bottle Creek for them to have built a canal? And did such a canal link the Bottle Creek mounds themselves to navigable streams that led downriver to the bay and upriver toward Moundville and other destinations?

After visiting Bottle Creek, an antiquarian from Wesleyan College—A. Bigelow—described an ancient aboriginal canal (1853). He only mapped the section of the canal beside the known mounds (Figure 1.4). He reasoned that the canal wound its way through the swamp from the mounds to the navigable waters of the Tensaw River or Bottle Creek itself (I shared this impression when I began writing my college honors thesis on this topic), and that much of the material for building the mounds themselves may have come from the canal. Archaeological literature from the twentieth century describes this channel as a prehistoric canal, and in some cases maps place it at the edge of the Bottle Creek site (Holmes 1963; but see Fuller and Brown 1998:134). In recent years Waselkov (1997) redrew the map of the mounds and canal at Bottle Creek (Figure 1.3), while Fuller and Brown (1998) reviewed aerial photos and conducted intensive archaeological surveys of Mound Island.

I myself conducted a surface survey one day during the summer of 1993 to learn where this presumed aboriginal canal led once it left the vicinity of the mounds at Bottle Creek. I did this survey as a member of the 1993 GCS field crew at Bottle Creek. My companions in this bushwhacking adventure were Kai Rodning and Clay Gentry. The design of this brief survey was simple—basically, we just walked along the canal and tried to follow its course. I expected the canal to run north to the Tensaw River or northeast to Bottle Creek itself, but neither expectation was borne out. Close to the mounds the canal has clearly defined edges. It ranges between 3 and 4 m wide, and is as much as 2 m deep in some places. The channel runs about 200 m north to south, bending around mounds C and D and turning southeast from where it passes Mound P. Several channels extend outward from both ends of the canal, but they are all natural formations. Beaver

dams and lodges are and have been present along the canal, and these modifications to the landscape probably have helped to keep the canal full of water. Not far north and south of the mounds themselves, the canal is not visible at all.

Aerial photos of Mound Island further help assess the Bottle Creek canal. Photos taken during the winter of 1986 show a relict channel of Dominic Creek running through the Bottle Creek mound site itself. This relict channel is not clearly visible on photos taken during the summer when vegetation is much thicker. The canal is part of this relict stream channel. This evidence confirms our findings on the ground in 1993 that the presumed canal does not create a water route linking the mounds with any currently navigable streams. A more recent map shows the "Canal Channel" running parallel to the "Doghouse Channel" west of the main mound group toward the south end of Mound Island (Figure 11.2; Fuller and Brown 1998:133–134). A protohistoric site (Dominic Creek, 1Ba263) is present at the point where these channels meet Dominic Creek (Fuller and Brown 1998:105–115).

The significance of these relict channels to the history of native settlement at Bottle Creek does deserve further consideration. Were the mounds built along an ancient course of Dominic Creek? Did native earthmoving activities at this locality affect drainage patterns on Mound Island? The mounds at Bottle Creek are an outcome of a series of earthmoving efforts, conducted at a grand scale. It is conceivable that Bottle Creek residents widened or otherwise altered the course of the stream running through their settlement, either intentionally or unintentionally. After all, the section of the canal running just west of mounds C and D is very easily identified. And unlike other streambeds and swales in the surrounding swamp, this canal is always full of water. Perhaps mound-building or other intentional earthmoving activities "carved out" this section of a natural streambed. Maybe the so-called canal is an outcome of both ancient aboriginal activities and natural agents, including geomorphological processes and modifications by beavers of the local landscape.

Surveying the canal has led to valuable clues about late prehistoric settlement at the Bottle Creek mounds if not to any direct evidence of native watercraft or canal building. After trying to follow the canal channel north, we eventually came to Dominic Creek and followed it to its northern end (see Walthall 1980:269). Potsherds and the remnant of a shell midden (Tensaw River, 1Ba271) are present near the bank of the Tensaw River (Fuller and Brown 1998:54–55). West of the canal channel, we noticed a low mound (P) that is now included on the Bottle Creek site map (Figure 1.3; Walthall 1980:266). Formal surface collection and mapping of this and other mounds west of the main mound group was done in 1994 as part of the GCS survey of Mound Island (Fuller and Brown 1998:100–105). Cur-

rently, there is little direct evidence of watercraft or the practice of water travel at the Bottle Creek site itself. However, there are some clues that reflect the likely significance of water travel to late prehistoric lifeways at Mound Island and surrounding areas.

WATER TRAVEL AND THE MISSISSIPPIAN SETTLEMENT OF MOUND ISLAND

Several sources of evidence offer clues about the role of water travel in native settlement at Bottle Creek during the late prehistoric period. First, written descriptions and visual depictions by early European visitors to the Southeast show native people making and paddling dugout canoes. Second, archaeological evidence of Mississippian canoes from southern Alabama and Mississippi and at waterlogged sites in other parts of the South demonstrates widespread reliance on watercraft and water travel. The third piece of evidence is the placement of the mound center itself within a vast river delta. It is likely that people relied on water routes as much as or even more than overland trails for traveling across a wet woodland landscape and for transporting cargo. At a regional scale, water travel may have been critical for people visiting seasonal foraging and fishing camps in coastal and estuarine settings south of Mound Island. At a broader interregional scale, water travel may have been the primary means of interaction between Mississippian chiefs at Bottle Creek and their counterparts at Moundville several hundred kilometers to the north. Meanwhile, the seasonal floods that cover much of Mound Island every year may have made it advisable for households to have dugout canoes or other watercraft on hand.

Other chapters in this book raise some interesting issues related to the study of Mississippian water travel in the greater Mobile Bay region. Quitmyer (Chapter 7) notes the presence of many marine and estuarine species in zooarchaeological assemblages at Bottle Creek. Arguably, these resources were transported at least part of the way from Mobile Bay to Bottle Creek by boat and most likely by dugouts. Furthermore, some species of barnacles found at Bottle Creek probably arrived there in boats that had traveled across Mobile Bay or the Gulf itself. Scarry (Chapter 5) argues that considerable amounts of maize were processed elsewhere before being brought to the mounds at Bottle Creek. Does this represent tribute brought to Bottle Creek chiefs? Was it brought to Bottle Creek by boat? Tribute or not, it is very likely that dugout canoes were an important means of getting foodstuffs and other resources to Bottle Creek from outlying areas. How else could they have gotten there, after all? Given the scale of the Bottle Creek earthworks, it certainly seems likely that many people in the region were drawn to this mound center for social and ritual reasons. And if there

were several hundred people living at the Bottle Creek site, they probably needed to travel by water to places where they could farm and forage for the resources needed to sustain a major Mississippian town.

Continuing archaeological study of Mound Island and the surrounding landscape should yield more evidence about Mississippian watercraft and water travel. Further fieldwork may recover remnants of dugout canoes and boat-building tools. Regional settlement studies will shed light on patterns of movement and social interaction by different native communities in this watery landscape. Even though this chapter has challenged the identification of the canal at Bottle Creek as an intentional addition to the landscape of this major mound center, water travel almost certainly played a major role in Mississippian settlement and lifeways at this town and in its environs.

Acknowledgments. This chapter grew out of my senior honors thesis in anthropology at Harvard College. Thanks to Ian Brown for giving me the opportunity to participate in archaeology at Bottle Creek and for offering very valuable guidance. Thanks to Richard Fuller for sharing with me his knowledge of aboriginal dugout canoes and the archaeology of Mound Island and surrounding areas. Thanks to Stephen Williams, Robert Preucel, Carole Mandryk, Gordon Willey, William Marquardt, Eliot Pratt, Alan Grumet, Joshua Swidler, Kai Rodning, Soren Rodning, Clay Gentry, Melissa Chang, Beth Messmore, and Becky Frank for their contributions and guidance. Thanks to all of these people and to Greg Waselkov, Cameron Wesson, Vernon Knight, David Brose, Bram Tucker, Hunter Johnson, David Morgan, Tony Boudreaux, Jon Marcoux, and Margaret Scarry for helping me mold this paper into its current form. I appreciate the support I received as an undergraduate anthropology concentrator in the Department of Anthropology at Harvard University, and I am grateful for the support of the Ford Undergraduate Research program. I am grateful to my parents, Charles and Mary Rodning, for supporting and encouraging my participation in archaeology. This paper owes much to them and to generous encouragement and sound advice from Hope Spencer.

Bottle Creek

A Pensacola Culture Site in South Alabama

EDITED BY IAN W. BROWN
FOREWORD BY DAVID S. BROSE

With contributions by
Penelope B. Drooker
Richard S. Fuller
Paul D. Jackson
Hunter B. Johnson
David W. Morgan
Irvy R. Quitmyer
Christopher B. Rodning
C. Margaret Scarry
Diane E. Silvia

A Dan Josselyn Memorial Publication

THE UNIVERSITY OF ALABAMA PRESS
Tuscaloosa and London

Contents

Foreword

> It ain't what I don't know that gets me in trouble. What gets me in trouble is what I know that just ain't so.
>
> Will Rogers

I found it difficult to resist the editor's invitation to write a foreword to this volume. It was not merely because I was one of the two discussants to the SEAC symposium at which the original field reports were presented, and it was certainly not because, with uncharacteristic exaggeration, the editor opined I might be the oldest archaeologist yet alive to have visited the Bottle Creek site ("see Bottle Creek and die"). It is because over the last two decades I have grown increasingly aware of the key that knowledge about this site may hold for understanding the end of Mississippian hegemonies along the central Gulf Coast and I have communicated that belief widely.

My awareness grew slowly. First exposed to southeastern archaeology in the 1970s, my views matured with work at the Fort Walton Cayson and Yon sites in west Florida (Brose et al. 1976). Although carefully initiated into the revealed truths of west Florida archaeology (especially Willey's monumental work [Willey and Woodbury 1942; Willey 1949]), it became increasingly apparent to me that published descriptions of Fort Walton–Pensacola culture were inapplicable to what we were excavating on the banks of the Apalachicola River (Brose and Percy 1978). We were finding a distinctly home-grown Mississippian Fort Walton society centuries before shell temper or Pensacola motifs appeared in Alabama north of Mobile Bay.

In interpreting the significance of these Apalachicola River sites as a responsible colleague, thesis chair (e.g., White 1982; Scarry 1984), or survey director, I constantly was forced to return to thinking about this Pensacola side of the traditional equation for late prehistory on Florida's westernmost coast and I learned about Bottle Creek.

Guided by N. Read Stowe, Ned Jenkins, Rusty Weisman, and I first saw the Bottle Creek site and its ritual guardian spiders on Mound Island while conducting a survey of the seaward end of the Tombigbee Waterway in 1979 (Brose 1991; Brose et al. 1983). A year earlier, Jim Knight had reviewed a paper on Fort Walton that George Percy and I had prepared for a volume on Mississippian settlement patterns (Brose and Percy 1978). Perhaps because he was still thinking of the Fort Walton–Pensacola definition that Willey had proposed, Knight (1980) commented on our failure to discuss the Bottle Creek site. While Knight was correct, it would have been difficult for any but N. Read Stowe or Rick Fuller to have said much new about Bottle Creek in 1977 when our paper was written. Indeed, had we tried to discuss Pensacola at the time it might have been as much beyond our talent as it then appeared beyond the scope of our assignment: I was convinced (and George Percy joined me in saying) that Pensacola was no component of Fort Walton, but was a veneer, overlain on western Fort Walton coastal sites in Florida. And all of the evidence garnered up to 1981 and all of the work over the decades since has strengthened that characterization of peripheral and non-conformable relationships between the once-conjoined Fort Walton and Pensacola complexes (see also Brose 1984; 1985). It is not too much to say that in the technology-rich and stratigraphically sophisticated half century since Willey's work, there is little excuse for perpetuating his initially limited glimpse into chronology and society. Worse, there is absolutely no justification for confecting Willey's limited data with fallacious historical models born of geo-aphasia and innumeracy (see Brose 1985; Marrinan and White 1998).

It is certainly true (Brose 2002) that without the Bureau of American Ethnology and scholars such as Gordon Willey southeastern archaeology would be unrecognizable. Yet one can hardly escape the belief that the Bottle Creek site and the misnamed Pensacola culture would have fared better if Willey had more closely followed C. B. Moore (Brose and White 1999) and begun his monumental stratigraphic-building survey in Mobile Bay rather than Perdido Bay. But it was to that historical accident and to an over-reliance on ceramics from uncontrolled surface collections and extremely limited test excavations (detailed in notes to a subsequently published paper [Brose 1985]) that led to a hyphenated Pensacola–Fort Walton culture. It has long been clear that southeastern archaeology needed to cut the spurious umbilical cord by which Willey had tied what he assumed to be a largely protohistoric Fort Walton to an equally misnamed Pensacola culture (Brose and Percy 1978; Brose 1984; 1985; Knight 1980). So if Pensacola is not some mysterious component of Fort Walton culture, what is it? This study of the Bottle Creek site offers the first clear answers to that question.

Long ignored amidst the twisting tidewater channels and fetid vegetation of the Mobile-Tensaw Delta, the Bottle Creek site seems an antipodal

version of Machu Picchu. Opening this volume, one might hope for a comprehensive picture of the society that built and occupied this large site as North America was wrenched into history. In many ways this impeccable study, created and edited by Ian Brown, reveals why no broad reconstruction of a Pensacola culture is yet possible with any level of intellectual honesty. That is only one of the triumphs of this volume, for more than half a century ago southeastern archaeologists had been lulled into believing they already had the kind of interpretation of Pensacola culture they deemed indispensable for understanding archaeology as anthropology (i.e., Willey and Phillips 1958).

Now, with diligence and intelligent commitment, Ian Brown, his colleagues and their students here finally document some of the basic characteristics of the Bottle Creek site and, thus in many ways, aspects of Pensacola as a separate and very unusual economic, ideational, and social system. They have moved us to a first, necessarily simple model of how Bottle Creek and the central Pensacola culture might fit into its regional natural and cultural environments.

This series of papers is tied together by the ceramic analysis of Rick Fuller, one of those whose knowledge of Pensacola has both great scope and depth. He has defined a series of tightly timed ceramic sets that put sequence and dates to the culture's history. Fuller sees Pensacola ceramic industry derived from Moundville, but perhaps his most interesting conclusion (to me) is that the flourishing of Pensacola—and its period of greatest connection with Fort Walton—occurred after the fourteenth-century decline of the interior Mississippian centers. The detailed stratigraphic analysis of David Morgan provides the prehistoric site managers' work plans and gives us the structural skeleton on which to hang Fuller's Pensacola ceramic chronology.

Cross-cutting Fuller's detailed and long needed (and used) ceramic set analyses, Hunter Johnson has developed a series of culturally sensitive vessel assemblages and linked them to differing site areas and levels associated with mounds A and C. Through the long growth of the site, vessel finish and composition as well as (always rare) decorative motifs distinguish and correlate with evidence of often striking functional and/or social differences by locations whose geomorphological complexity also differs. Of especial interest from an eastern perspective is Morgan's interpretation of the post–A.D. 1250 Mound B lower construction stages where watertight clay lined walls were pulled and the former post holes covered by different sand layers—the same sequence as identified in the A.D. 1150 expansion of the plaza precinct walls at the Fort Walton Cayson site (Brose et al. 1976). Morgan has shown that this activity at Bottle Creek was repeated three or more times, usually accompanied by deposits of the burnt remains of special foods, as the mound grew in size.

Irvy Quitmyer and Margy Scarry's several seasons' work with a fine

screen forcefully presents the lesson that recovery methods do, indeed, matter very much. Samples from a late fourteenth-century construction of Mound A (important, but perhaps not yet the apogee of Pensacola culture) reveal intensive but short episodes of exploiting all of the diverse protein resources of the local estuarine environment. Contemporary and later samples from Mound C represent less diverse and less rich faunal collecting, suggesting a lower caste pantry not yet dignified as Lower Alabama Cuisine. The dietary studies demonstrate that Bottle Creek occupants did not grow or process maize on the site, although they were thoroughly articulated with maize farmers and their ceremonial herbal purgatives. As do others, these studies reveal that the different precincts and mounds on Mound Island were used for a series of changing socioeconomic functions, some more akin to Moundville's Mississippian elites and others merely quotidian domestic activities. But it's not really clear to me that the site was not usually abandoned or that there were ever any non-elite or non-ceremonial events using Mound Island in prehistory. One can imagine the location as one staffed by a small cadre of "gamekeepers" responsible for providing occasional elaborate feasts for visiting ceremonious persons with their traveling retainers. At any rate, Jim Knight and Sherée Adams first suggested an econometric model for the Mobile-Tensaw Delta in 1981 and Brown's task will still be to find those mundane bottomland or upland or coastal sites from which the sustenance and occupants for Bottle Creek came.

Chris Rodning's very careful and precise historical and archaeological work at the canal on Mound Island clearly shows that this waterway, whether natural or not, was a key element in the site's functionality and was a factor in the mental geography of the site builders. His reprise of water transport again illustrates that Pensacola is an estuarine and coastal culture despite the ceramic similarities it has with riverine Mississippian sites inland. This point is reinforced by Penelope Drooker's insights on the saltpan fabric textures suggesting a possible functional origin for the site distinct from similar stations associated with major Mississippian centers further north—and the lower Tombigbee River valley is replete with the evidence of late prehistoric non-Moundvillian salt extraction (Brose et al. 1983).

Earlier and less sophisticated ethnohistory pictured the Mobile-Tensaw Delta as home of the last true *Mauvila* or *Mobilian* culture. Yet critical review shows eastern migrants to the area at least as early as A.D. 1700. The Bottle Creek site is something else. It is clear from these studies that the site was first occupied as a smaller, nearly undifferentiated Mississippian location some time around A.D. 1100–1250, a period of major Moundvillian and Coosan hegemony in the river valleys that feed the Mobile Delta from the north. It is also a period of major maturation for Plaquemine societies to the east and the equally pedigreed and soon to be largely

transfigured Roods/Fort Walton societies in the Chattahoochee and Apalachicola river valleys to the west. As those societies disaggregated or relocated and/or recombined in the period after A.D. 1250, the Bottle Creek site grew, becoming the incubation chamber for a host of design motifs which have come to characterize the Pensacola culture, post A.D. 1450 aspects of which have been recognized from Bay St. Louis to Cedar Key.

I once tagged Pensacola as a society which, like early mammals finding a niche among the ponderous steps of the latest dinosaurs, grew strong and spread widely in the aftermath of the decline of more traditional Mississippian polities but only for a brief time. That was certainly an oversimplified view, now clearly needing rethinking: One must wonder not only when Bottle Creek was built, but when Pensacola developed—which may be separate questions. And one must also wonder whether the growth of Bottle Creek and the spread and development of its Pensacola design repertoire really represents the maturing of a self-identified culture. Unlike Fuller, I do expect that sites along Mobile Bay below Mound Island will eventually provide the evidence of local populations that participated in the origin and early growth of the Bottle Creek site, although the ceramics they used on Mound Island derived from and probably were ritually representative of Moundville itself. And, in a slightly different position than that advocated by Brown in his summary chapter, whatever its middle Mississippian origins, I doubt the expansion of Pensacola ceramic sets could have occurred prior to that post-1450 interior Mississippian pattern of disaggregated social capital which appears to characterize their response to economic and demographic instability.

Years ago, John Walthall and Ned Jenkins (1976) concocted the productive term "Gulf Formational" to describe that period when across the Gulf Coast cultural changes coincided to create new and dynamic modes of expression. Surely this study shows us the need for a bookend "Gulf Dissolutional" to describe the cultural dynamics during that period when late prehistoric sociocultural, military, and economic worlds across the Gulf Coast began to founder under the buffeting of climate change, European colonization, and ever less altruistic neighbors. And the historic end of this site's use is every bit as intriguing as its origins.

The problems of using early historic accounts to flesh out the thin archaeological record are certainly amplified when critical historiography is applied to their authors' purposes and frames of reference (Galloway 1993; Brose 2001). Overcoming this difficulty, Diane Silvia gives us a wonderful picture of marginalized native life in the early years of French occupation of the region. It is a long-needed corrective to the interpretative data drawn from heavily acculturated aboriginal groups in Florida or the Mississippi Valley (or in the Great Lakes whence and whither the French sojourned annually [Walthall and Emerson 1992; Brose 1983]).

It is worth remembering that southeastern archaeology began in south

Alabama and it was directed to the late Renaissance antiquarian desire to join New World archaeological and ethnographic objects with the arts of the ancient world (Brose 2002). As Ian Brown reminds us, in 1702 Bienville with an Indian guide visited an island in the Mobile-Tensaw Delta. Perhaps it was one of the mounds of the Bottle Creek site and perhaps not. What is certain is that this quasi-archaeological expedition was designed to augment the Parisian Cabinet of the learned King of France with statues taken from a pagan shrine. And behind that sacrilegious eighteenth-century Mobile Indian who led Bienville to secure the sacred tribal or family gods from Mound Island (perhaps) one must wonder whether there yet were priests who served them and if so was their service akin to that of the last faithful acolytes of an old, dying religion or were those priests like Caesar's Celtic Druids, re-purposing Stonehenge for their own contemporary needs?

I elsewhere (Brose 2002) bewailed the confusion caused by taxonomically minded museums, which defined core cultural complexes in terms of earlier named sites later seen to be ephemeral or marginal. In that same essay I noted how geocentric pride in naming often created spurious cultural structures with historical and spatial parameters based on the carelessly named artifact types claimed to be their products—even specific languages have been assigned to complexes built up from such prehistoric artifact attributes without much intervening social information. Naturally, once such archaeological structures have begun talking it seems eminently reasonable to think of them in terms of biological analogues, replete with vital processes such as growth, homeostasis, death and progeny, and evolutionary parameters (Brose 2002).

That has not been a problem with these studies, but at the risk of usurping the editor's prerogative, I would offer a few thoughts to hold in mind while reading this study and while contemplating the next steps needed in this region: Ceramics are not a culture; not even a National Historic Landmark is a culture. We may not yet see clearly Pensacola's economic or political connections with Fort Walton groups to the east, but then, we know little about late Fort Walton societies of the Red Hills region and only through hubris do we attribute those tentative concepts to significantly earlier and more westerly Fort Walton societies whose emergence into history is still unwritten (Scarry 1984; *contra* Brose 1984; 1985; Marrinan and White 1998).

The kinds of information we now have for Pensacola seem different in most respects than what we have for Fort Walton, and by meticulously constructing for us the first good chronological, stratigraphic, environmental, and material cultural structure of the Bottle Creek site, the scholars here writing move us from our comfortable belief that we understand Pensacola to a realization of what must yet be done to fill the remaining

gaps in our knowledge. While we do not know nearly enough about this system, we do know that in many respects it was unlike any traditional riparian Mississippian society and perhaps it was unlike any prehistoric American Indian society north of the Huastecan coast. Indeed, based on this project we are able to sense just how interesting Mississippian societies may have become in the waning days of pre-Columbian North America.

David S. Brose

Preface

This volume grew out of a symposium that was presented at the 51st Annual Meeting of the Southeastern Archaeological Conference in Knoxville, Tennessee, in 1995. The seeds for this symposium were sown in 1932 when David L. DeJarnette of the Alabama Museum of Natural History began a project at the Bottle Creek site (1Ba2), deep in the heart of the Mobile-Tensaw Delta. The principal purpose of his investigations was to determine the relationship between the Mississippian culture represented at Moundville as compared to that represented at Bottle Creek. In the ensuing years, the Mississippian variant along this portion of the Gulf Coast became known as the Pensacola culture. Its exact relationship with Moundville is far from understood, and remains an issue today. I hope this book takes us one step closer to comprehending the dynamic interaction between these cultures, which were once linked by a river system, with Moundville in the north and Bottle Creek in the south.

A BOTTLE CREEK GUIDEBOOK: ADVICE FOR A FIELD DIRECTOR

You launch your boat at Mt. Vernon Landing. Make sure you have plenty of life preservers, a paddle, and an extra tank of gas. An extra motor wouldn't hurt either, as you never know. Check to make sure you have your poncho, as you do know. Instruct crew on importance of safety as you head out into the Mobile. When fog doesn't lift, proceed gingerly into the channel. Avoid barge by steering sharply to the right. Provide another lecture on safety and await atmospheric clearing.

Arrange man on bow to serve as sentry in crossing the river. Turn left into Tensaw River. Skies will immediately clear. Cruise at medium speed down this gently meandering river. Spot egrets, ospreys, and other forms of wildlife, but take care. If water is high, watch out for floating debris. If

low, look for sawyers—required reading, *Life on the Mississippi.* Mark Twain is more than an author.

Continue on Tensaw River, avoiding Middle River to your right. Less than a mile turn right at Bottle Creek, aptly named. There's a bottleneck at the headwaters, so if the water is low, steer well to the right (starboard, west, whatever, just do it). Proceed at rapid clip; everyone else does. There is not much traffic at this time of day, but look out for logs hanging from helicopters. Stop at high bank to the right and tie up to poison ivy vine–wrapped tree. Tie loosely as tidal waters sink boats, or so I've been told. Form a human chain and empty boat of equipment. Store boat accessories beneath palmettos. First check underside of palmettos for hornets' nests.

Dole out daily jobs and responsibilities, as there may never be another chance. Rearrange backpack and don deerfly headgear. Have a crew member take the lead (advisable to choose a different person each day). Keep one hand free to slap face as you approach trail. Trail is recognizable as a thin stream, bordered by slightly higher land on either side. Watch out for water moccasins on slightly higher land. They will see you, so not to worry. Note scuffmarks made by alligator tails on the ground and bear claw marks high on trees. Refrain from obvious curiosity and stay on trail.

About a half mile into your walk stop abruptly at a mountain. This is Mound A. Note that you are standing on pottery, shell, and other debris. Apply more bug spray and listen to owl call your name. Walk back a bit and admire smaller mounds that you had already passed. You are now standing on the Bottle Creek site, one of the most important archaeological sites in the Southeast. For a thousand years others have made the same trek, but without all your conveniences. Be respectful, enjoy your work, and carry a big stick, not necessarily with the crew in mind.

Ian W. Brown