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Apalachee Identity on the Gulf Coast Frontier

PATRICK LEE JOHNSON

University of West Florida excavations discovered a mid-eighteenth-century Spanish mission of the Apalachee Indians north of Pensacola, Florida, and discovered that as a whole the pottery appears more similar to that of contemporary Creek Indians than that of the seventeenth-century Apalachees who lived near present-day Tallahassee, Florida. In an attempt to quantify and explain this change in material culture, I present a synthesis of ethnohistoric and ceramic data for the Apalachees and other local Indians. Extensive examination of primary documents coupled with pottery type data from various sites occupied by the Apalachees demonstrates the effects of their changing alliances on material culture, in this case ceramics. In a similar vein, evaluation of data from Creek sites reveals potential influence on Apalachee pottery. Qualitative and quantitative analyses show how different Apalachees shifted production of particular ceramic types at the community level in reaction to changing social relationships with the French and Spanish. Careful spatial and temporal comparisons of Native American pottery, guided by extensive historical research, thus illuminate Spanish, French, and Native perspectives.

Previous studies of Spanish Florida and French Louisiana have demonstrated the economic, social, and political interplay inherent in colonial and Indian alliances that structured and were structured by the colonial frontier.¹ Individuals and groups produce and maintain social relationships through an interplay of social, political, and economic capital as well as through Bourdieu's concept of *habitus*—the internal “systems of schemes . . . of perception, thought, appreciation, and action which are durable and transposable.”² This connection of ritual mean-

ing to material experience and subjective perception leads people to interpret and use materials according to changing traditions.³ Objects are constituents of practice—symbols and meanings of objects do not exist without consideration of the biographies or histories of those objects. Such an approach examining the biographies of objects instead of considering only the final deposition of those objects helps consider the broader social context, and perhaps the persistence of a community of practice.⁴

Daily practices, including changing combinations of material culture, express social identity as individuals consciously or unconsciously identify with a particular group.⁵ Following this perspective, potters in certain circumstances broadcast feelings of similarity through their ceramics. Design elements can serve as something familiar to a particular individual, household, or community.⁶ Material culture, such as ceramics, reflects the same social connections discussed in historical documents. Evidence from both lines of inquiry describes changing social relationships, offering insight into how individuals balanced traditions and regulations with frontier realities to create and maintain communities.

This social approach within historical anthropology considers the term “identity” to be how people see themselves, with styles in material culture serving as a learned social phenomenon that reflects the creation and recreation of identity.⁷ In other words, people use style in dress, ceramics, art, and other forms of material culture to connect to other people. Because trade goods in the eighteenth-century South served as economic and diplomatic tools to create and maintain social networks, the emergence of stylistic similarities between the Apalachee and Creek Indians might signify any number of relationships. However, this article raises questions concerning the validity of an understanding of material styles as indicating tightly bounded, internally homogeneous identities. Instead I present evidence of communal practices that shifted in response to distinct social pressures. In this context Apalachees that lived with the Creeks for about a generation before moving back to Spanish territory made use of a variety of ceramic designs deriving from a variety of social contexts. Elements such as designs and tempering agents (added to the clay) might be seen as indexing either Apalachee or Creek, but such an index more closely corresponds to specific social connections to place and community and may thus change in response to so-

cial and physical movements.⁸ The Apalachees and Creeks shared ideas within new social networks forged in the eighteenth century, leading to a new combination of pottery. In this case study, indigenous synthesis of ideas, such as hybrid ceramics, shows a shift from refugee ceramic styles to new styles as a new generation of potters born to varying tribal affiliations succeeded in creating a new communal identity.⁹

In other words, rather than acculturating, individuals persist in new material realities by blending traditions and practices across so-called ethnic boundaries.¹⁰ Following perspectives of social memory and object biography, which emphasize who used objects and how they used them rather than where objects originated, I consider how Native ceramic types were shared across ethnic boundaries in the Native South of the eighteenth century.

HISTORICAL CONTEXT

Despite the fact that Apalachees fought against each other at times during the eighteenth century, they nonetheless manipulated Europeans by maintaining political and economic connections on their own terms. For example, Scarry examines precontact Apalachee political changes and considers the social norms, such as the protection of women and children, that drove them to attack Spanish explorers.¹¹ Such actions started when the Spanish brokered an agreement with the Apalachee and Timucua Indians in 1608. Both Europeans and Native Americans wanted to expand their control; Apalachee leaders hoped to do so via European goods, and Spaniards hoped to expand their territory via Indian alliances. During the seventeenth century and the growth of the Spanish mission system in La Florida, demographic, economic, and political shifts led to a northwest Florida mission identity as new social ties and material culture emerged. At this time, eleven largely independent major Apalachee villages each possessed one to five satellite villages. Documents hint at instances in which the Spanish caused local political change; some satellite chiefs became major chiefs and various towns grew in size and social standing while others shrank. In addition, Apalachee towns increasingly included Indians from other areas, and a few towns in the Apalachee province were composed almost entirely of non-Apalachee Indians. Primary documents show that although it is tempting to consider the Apalachees's response to the Spanish presence

as a series of unanimous decisions, town leaders did not always agree.¹²

In the late seventeenth and early eighteenth centuries, in response to British aggression, the Spanish stepped up military activity. New expeditions and construction efforts led to increased labor drafts on the Apalachees, which—coupled with new restrictions on Apalachee trade with the Apalachicolas (a province of what would later be the Lower Creeks)—led several Apalachees to abandon the Spanish and move to Apalachicola, on the Chattahoochee River.¹³ Meanwhile, the northernmost Apalachicola towns of Coweta and Cussita hosted British traders. Spanish aggression and British economic strength caused the chiefs of Coweta and Cussita to look east toward Carolina for trade alliances.¹⁴ In 1696 they moved to the Ocmulgee River to be closer to South Carolina.

At the end of the seventeenth century the colonial rivalry in the South had grown intense. The Spanish barely settled Pensacola in 1698 before the French arrived in the area in 1699, and subsequently settled Mobile in 1702. A new Florida governor attempted to address concerns over competing imperial rivalries for Native allies, but the 1701–1714 War of the Spanish Succession drained Spain's coffers. Florida had to rely on her Native allies for protection, but a lack of manpower and funds meant they could not protect mission Indians from intensive British-sponsored slave raiding.¹⁵ After unsuccessful efforts in 1702, in 1704 Colonel James Moore led Englishmen and about one thousand Indian allies to raid and destroy Apalachee Province. During these attacks, many Apalachees—about thirteen hundred by John Hann's estimation—surrendered to Colonel Moore and his allies, who took another thousand as slaves. This combination of factors embittered, alienated, and demoralized Spanish-allied Indian groups such as the Apalachees. Afterward other Apalachees remained with the Spanish, moving to either St. Augustine or Pensacola, although some bitterly refused. Others moved to French Mobile or to British-allied Lower Creek territory, where they joined those Apalachees who had earlier moved there.¹⁶ Figure 1 depicts these movements.

At Pensacola, Spaniards provided rations for the Indian groups seeking refuge from English slavers and offered official titles—such as governor—for their leaders, thus attracting hundreds of Apalachees and Yamasees to Spanish territory. In 1704 leaders of Mission San Luís led 800 Indians—most of the San Luís Mission, part of the Escambe Mission, and some Chacatos and Yamasees—to Pensacola.¹⁷ Small groups

Fig. 1. Raiding and retreat, 1659–1711. Map created by John Worth and reproduced with permission from his website: <http://www.uwf.edu/jworth>.

of Native Americans already lived close to Pensacola Presidio Santa María de Galve. In 1705, about 200 Indians lived on the Perdido River with at least 80 Indian laborers receiving rations in 1707. In addition 400 Apalachees and 200 Chacatos had moved to French Mobile in 1704.¹⁸ However, in 1707 food shortages led the Pensacola commandant to reduce the daily bread ration, leading most of their remaining Indian allies, about 100 Apalachees and 150 Chacatos, also to migrate to Mobile.¹⁹

In 1707 the Royal Officials of Florida stated that three Apalachee villages emerged in South Carolina.²⁰ The British in 1708 described a town

of Apalachees with 250 gunmen on the Savannah River as “very submissive to the government.”²¹ Several other Apalachees lived among the eleven Lower Creek towns along the Ocmulgee River.²² Those Apalachees on the Savannah River developed a close alliance with South Carolina. Apalachees hunted, worked as pack bearers and field hands, and even fought for the English in the Tuscarora War in 1711.²³ As a result the British soon moved some Apalachees closer to Charleston for easier trade and defense, leading to the quick emergence of a heavy trade in skins and slaves.²⁴ However, some Carolinians enslaved Apalachee individuals, and the inability of the British to rectify such abuses would lead the Apalachees to join the Yamasee War against Carolina in 1715.²⁵

The maritime dominance of the French meant that they, rather than the Spanish, possessed the economic strength to challenge the British. The French had gloated about their position, stating they had “10,000 Indians who breathe nothing but war” with the British unable to push into French territory and the Spanish unable to compete.²⁶ Pensacola officials quickly recognized French success, but the inability of the Spanish to successfully mimic French efforts led those at Mobile to consider Pensacola to be another buffer against the British.²⁷

By 1715 Carolina’s Native allies grew weary of the constant raiding necessary to feed the British slave economy and prepared for war against South Carolina. The 1715–1717 Yamasee War temporarily destroyed British control of Native alliances and opened up possibilities for increased French and Spanish influence. A few historians relying on British sources described the Apalachees as hostages during this time, speculating that the Lower Creek towns of Oconee and Apalachicola “may have functioned as sentry towns to monitor and control a captive population.”²⁸ That conclusion ignores evidence of the social standing of the Apalachees among the Creeks detailed by Spanish documents. Diego Peña, among others in Florida, noted several Apalachee leaders among the Lower Creeks—including Emperor Brims’s wife and a Christian Apalachee who led a few hamlets.²⁹ After the war those Apalachees who survived the Yamasee War (638 of about 1,300) and were living with the Creeks on the Ocmulgee River moved with them back to the Chattahoochee River. These groups included the Cowetas, Apalachicolas, Savanas, Yuchis, and Oconees.³⁰

Later, some of the Yamasees and Apalachees living among the Creek Indians moved near Fort San Marcos in present-day Tallahassee. At this

time there were at least three distinct groups of Apalachees—one near Spanish-controlled Tallahassee, one at French Mobile, and one with the British-allied Creek on the Chattahoochee River. Historical evidence indicates that the Apalachees served as middlemen between the three European powers. The Spanish at Pensacola described their loyal Apalachees and Yamasees as providing valuable connections to the Creeks.³¹ The Creeks likely encouraged that connection; historian Steven Hahn makes a convincing case that a later 1717–1718 Apalachee migration from Creek to Spanish territory was a strategy of Lower Creek Emperor Brims to expand Creek territory.³² Brims had only a few years earlier sought goods and ammunition from the Spanish. In 1718 his Coweta Resolution sought peace with all the European powers and preserved the Creek balance of power in the area.³³ As such the Apalachees preserved social connections with the Creeks while seeking to maintain political connections with the French and Spanish.

In 1717 Apalachee leader Juan Marcos and Creek leaders renewed diplomatic ties with Spanish Florida, and were invited to Mexico City to meet with the viceroy of New Spain and receive formal titles. Now “Governor of the Apalachees,” Juan Marcos established a town for his own people near Pensacola, and several more Apalachees left the Creek Indians and French Mobile to join him. His first town, Mission Nuestra Señora de la Soledad y San Luís, grew such that he established another town at San Marcos de Apalachee.³⁴

During the short-lived War of the Quadruple Alliance, the French captured Pensacola from May to August 1719, lost control during August to the Spanish, and regained control from September 1, 1719, until the war’s end in 1722. During France’s brief control of Pensacola, the Apalachees remained at Mission Nuestra Señora de Soledad. During Spain’s tenuous hold of the area in August of 1719, a Frenchman led an Indian force including Apalachees to retake Pensacola. Outnumbered, he agreed to depart peacefully, and spent the night at the Pensacola Apalachee mission.³⁵ His peaceful night at the mission indicates that his Indian allies had clearly maintained some degree of social ties with the Apalachees allied with the Spanish, despite the fact that Spain and France were at war. Such relationships between the different Apalachee groups likely grew once hostility between France and Spain diminished. In 1724 the Spanish supplied the Mobile-allied Apalachees with weapons.³⁶ By 1726 the French estimated Apalachee immigrants to Mobile at 400 and Chacato

at 200, with another 100 Apalachees and 150 Chacatos leaving Pensacola for Mobile a few years later. In addition, from 1722 to 1740 the Spanish describe 120 “domesticated Indians” coming and going as laborers in exchange for rations from Pensacola Presidio Santa Rosa.³⁷ The term “domesticated,” rather than terms such as “Hispanicized” or “Christian” that often described Apalachees, implies that as a group these Indians probably did not speak Spanish or practice Christianity, but that they could be relied upon for labor. Although the ethnicity of these groups is not listed, most of them were likely Apalachees or Yamasees.

During the 1740s Apalachees moved from Nuestra Señora de Soledad y San Luís to San Joseph de Escambe.³⁸ The success of these Pensacola-area missions and ranches helped convince the viceroy of New Spain to invest a considerable amount of money, supplies, and personnel in Pensacola in 1756.³⁹ The resulting success proved short lived, as 1761 attacks by the Creeks destroyed the Apalachee mission as well as the Yamasee mission Punta Rasa, resulting in the establishment of an Indian Town composed of both groups just east of the garrison in present-day downtown Pensacola.⁴⁰ By 1760 the Apalachees on the eastern side of the upper delta of Mobile Bay operated a ferry to Mobile and thus became integral to the trade between Mobile and Pensacola.⁴¹

CERAMIC COMPARISONS

As the preceding historical narrative demonstrates, Apalachees used the French, Spanish, and British to acquire resources, exchange goods, and gain alliances—and moved between the three imperial rivals. By consistently referring to the groups as Apalachees, documents imply some continuation of Apalachee identity during the eighteenth century. However, colonial shifts of populations and towns likely affected Apalachee material culture. For example, ceramic types typically considered Creek, including Chattahoochee Brushed and Ocmulgee Incised, occur frequently at the Apalachee site of Mission San Joseph de Escambe.

To contextualize the difference between the ceramics found at Missions San Luís and Patale (occupied by Apalachees from the seventeenth century to 1704) and those at Mission San Joseph de Escambe (occupied by Apalachees returning from Creek country from 1741 to 1761), I consider temper, surface treatment, and decorations from sites that were home to the Lower Creek or Apalachee Indians. Comparisons

between ten securely dated occupations allows for evaluation of how Apalachee material culture changed due to movement into new social and environmental conditions. In this section I present spatial comparisons of the pre-1719 sites of Apalachee Missions San Luís and Patale and Presidio Santa María de Galve, the French site of Old Mobile, and the Tarver sites on the Creek-occupied Ocmulgee River as well as the post-Yamasee War sites Apalachee Mission San Joseph de Escambe, Presidio Santa Rosa, the French site Dog River where multiple Indian groups took refuge, Jackson site (a Lower Creek site), Fort Toulouse (a French fort in Upper Creek country), and Zimmerman Hill (occupied by Apalachees).⁴² I describe results from a temporal comparison of ceramic assemblages from the Spanish sites of Presidio Santa María de Galve and Santa Rosa, French sites of Old Mobile and Dog River, and Lower Creek sites of Tarver and Jackson. Figures 2 and 3 depict these comparisons. These comparisons between sites occupied solely by Apalachees (San Luís, Patale, San Joseph de Escambe, and Zimmerman Hill), occupied by Apalachee and other Native Americans (Santa María, Santa Rosa, Old Mobile, and Dog River), and by non-Apalachee Creek Indians (Jackson, Tarver, and Fort Toulouse) quantifies the extent to which Apalachee ceramic traditions fluctuated through time and space.⁴³

This study utilizes diversity statistics to measure the extent to which archaeological assemblages belonging to Apalachee and Creek potters were relatively uniform or variable. Diverse assemblages, and thus transmission of diverse pottery traditions from multiple Native American groups do not necessarily indicate the presence of individuals from those different groups since these ceramic techniques could have been learned by outsiders.⁴⁴ In a statistical sense the term “diversity” refers to the variability in a set of values, typically counts of nominal scale (i.e., categorical) variables such as pottery types or ethnic groups. Diversity may be measured as richness, the number of categories present in an assemblage, and evenness, the extent to which a uniform count of objects are found in each category.⁴⁵ This allows for consideration of more specific variation than correspondence analysis, for example, which combines the total variation between multiple variables.⁴⁶

A variety of diversity statistics exist. For this study, I rely on dominance, Simpson, Shannon, evenness, equitability, Menhinick, Margalef, and Fisher as calculated by the Paleontological Statistics Software Package (PAST).⁴⁷ Tables 1 and 2 represent these calculations.

Fig. 2. Map of compared sites and averaged diversity values. Map data © 2013 Google.

Fig. 3. Comparison chart of Apalachee and Creek sites.

TABLE 1. Diversity comparisons for pre-1719 sites

<i>Diversity Test</i>	<i>San Luís/Patale</i>	<i>Santa María</i>	<i>Old Mobile</i>	<i>Tarver Sites</i>
Ceramic Types	8.000000	16.00000	14.00000	8.00000
Sherds	12421.000000	4659.00000	13724.00000	2347.00000
Dominance:				
Dominance	0.798800	0.35870	0.23410	0.41350
Berger-Parker	0.892400	0.47500	0.33830	0.58410
Evenness:				
Evenness e^H/S	0.212500	0.22300	0.39160	0.38530
Equitability J	0.255200	0.45880	0.64470	0.54140
Diversity:				
Shannon H	0.530700	1.27200	1.70200	1.12600
Simpson index	0.201200	0.64130	0.76590	0.58650
Menhinick	0.071780	0.23440	0.11950	0.16510
Margalef	0.742500	1.77600	1.36500	0.90200
Fisher alpha	0.832400	2.07300	1.53900	1.03500
Average of 5 Diversity Tests	0.475716	1.19934	1.09825	0.76292

One measure, Berger-Parker dominance, simply divides the number of object in the dominant category by the total number of objects.⁴⁸ The Simpson index, one minus dominance, measures the evenness of individuals within the category of a community from zero to one.⁴⁹ Simpson's index of diversity provides a less biased estimator than other approaches, but as the sample size increases, the measure lends an increasing bias toward the more rare classes.⁵⁰ The Shannon index measures entropy, ranging from zero, which indicates a community with a single category to high values for communities with many categories possessing a few individuals.⁵¹ Buzas and Gibson's evenness measures the evenness with which individuals are divided among the categories. Equitability, a similar measure, divides Shannon diversity by the logarithm of the number of categories. Other diversity statistics include Menhinick's richness index, which divides the number of categories by the square root of sample size, and Margalef's richness index of the number of categories minus 1 divided by the natural logarithm of the number of individuals. Fisher's alpha (α), the final diversity statistic used in this study, also analyzes the prevalence of individuals in a cat-

TABLE 2. Diversity comparisons for sites occupied from 1715 to 1763

Diversity Test	Jackson	Ft. Toulouse	Dog River	Santa Rosa	Escambe	Zimmerman Hill
Ceramic Types	8.00000	11.000000	13.0000	18.0000	17.00000	4.00000
Sherds	6008.00000	14262.000000	4561.0000	1374.0000	486.00000	582.00000
Dominance:						
Dominance	0.39810	0.561400	0.3815	0.1189	0.33270	0.41350
Berger-Parker	0.45160	0.715700	0.5850	0.2504	.55350	0.58410
Evenness:						
Evenness e^H/S	0.38270	0.204900	0.3264	0.6382	.32560	0.38500
Equitability J	0.53810	0.338900	0.5635	0.8446	.60390	0.54140
Diversity:						
Shannon H	1.11900	0.812700	1.4450	2.4410	1.71100	1.12600
Simpson index	0.60190	0.438600	0.6185	0.8811	0.66730	0.58650
Menhinick	0.10320	0.092110	0.1925	0.4856	0.77110	0.16510
Margalef	0.80450	1.045000	1.4240	2.3530	2.58600	0.90200
Fisher alpha	0.90950	1.169000	1.6390	2.9250	3.42600	1.03500
Average of 5 Diversity Values	0.70762	0.711482	1.0638	1.8171	1.83228	0.76292

Fig. 4: Tri-plot of temper frequencies.

egory via the natural logarithm series.⁵² To accommodate the requirements for producing diversity statistics, I combined ceramic types and varieties into twenty-one classes that also allowed for comparisons of surface treatments and decorations, as well as tempers, to evaluate potential trends.

Comparisons of ceramic tempers at the regional level provide valuable insight in evaluating the effect of the 1704 attacks on Apalachee traditions. Tempers are external material mixed with clay that aid in binding the clay to aid in structural integrity. In this case, common tempers include sand or crushed stone (also known as grit), crushed shell, or crushed ceramic (also known as grog). Figure 4 plots percentages of the three temper types for each site, demonstrating clusters of French-allied Apalachee, Spanish-allied Apalachee, and Creek Indian ceramic groups.

As we know from the documents, some Apalachees and Chacatos moved from the Tallahassee area to ally with the French at Old Mo-

bile, and from there eventually moved to present-day Dog River site and Blakely Park site and ultimately central Louisiana. Their ceramic assemblage likewise shifted from about 90 percent grog temper to 90 percent shell temper as a result of this westward movement. Apalachee individuals who remained allied with the Spanish, however, worked and traded with the Pensacola garrisons of Santa María and Santa Rosa, and were even living at missions in the area including Escambe. Here we still see a transition in ceramic assemblages, but these transitions involved shifts toward sand or grit temper because the Apalachees in these sites earlier had lived with the Creek Indians, whose assemblages made a similar shift toward sand or grit temper over time. Each of these noticeable shifts in ceramic temper may thus reflect sociopolitical shifts during the first two decades of the eighteenth century.

Ceramic decorations and surface treatments provide another useful regional comparison. Incisions, or cuts into the ceramic surface, in the indigenous ceramics dominate at the contemporary sites of Santa María de Galve and at Old Mobile. Incisions also dominate earlier occupations in the area, so the later prevalence of this design likely reflects the adoption of a local tradition by refugee groups. When refugees moved from the Old Mobile site to the Dog River site, they also changed their decorations on their pots and now made them with fewer incisions and an equal amount of stamping, a design for which a paddle is used to stamp designs on the surface. When people moved from Santa María to Santa Rosa, we see the virtual disappearance of incising in favor of brushing and roughening—designs that use hair, cord, or nuts to respectively brush or roughen the surface and that are typical of eighteenth-century Creek pottery (fig. 5). Both of those shifts in the Mobile and Pensacola areas thus represent a shift toward Creek designs, echoed in the fact that Mission Escambe and Santa Rosa have similar proportions of roughened and painted sherds. Creek changes in their ceramics through time involved the increased domination of roughening and brushing, largely at the expense of incising. Lower and Upper Creek ceramic assemblages are very similar. At the Apalachee site of Zimmerman Hill filming, in which a thin film of clay is applied, is the most common decoration. This decoration is also common to that region of central Louisiana, reflecting potential refugee adoption of local designs, or perhaps the presence of this technique might indeed correspond to the presence of an Apalachee pottery tradition.

Fig. 5: Relative frequency of decorations and surface treatments.

RESULTS OF PRE-YAMASEE WAR COMPARISONS

All of the diversity tests support the idea that Apalachee missions of San Luís and Patale represent the least diverse ceramic assemblages. A much higher dominance and Berger-Parker value indicate that most sherds fit into a particular type—grog plain. Other values also demonstrate what archaeologists have already known—that undecorated grog temper dominates the seventeenth-century Apalachee ceramic assemblage. Assuming this lack of diversity reflects a social reality, there are two interpretations: that there were few immigrants to these communities, or that immigrants to these sites changed their material culture to fit into the large population. In other words, the immigrant population began to make ceramics similar to the host population; norms of tradition and decoration became shared as a new combination of groups interacting socially in the same space.⁵³

Conversely, fairly low dominance values of 0.36 and 0.47 evidence a fairly diverse ceramic assemblage at Presidio Santa María. Sand or grit and grog temper exist in nearly equal numbers—2,317 and 1,884 sherds, respectively. Perhaps for this reason, evenness values at 0.22, 0.64, and

o.46 vary more widely, as a few groups of ceramics, rather than one or many, make up the majority of the assemblage. A few combinations of temper and decoration are thus nearly co-dominant, whereas others are rarer. Most of the statistical tests show that Santa María possesses the most diverse assemblage of the pre-Yamasee War sites. This diverse pottery represents a variety of temper and decoration choices, but this might not necessarily extend to a variety of Native American groups in the vicinity of the garrison.

The Old Mobile assemblage of indigenous ceramics shows French reliance on several local Indian groups. The lowest dominance score and highest evenness scores both demonstrate that no particular class of tempered decoration is more common than another, and that the classes are fairly evenly distributed. The Shannon-Weaver result indicates Old Mobile has the most diverse Native ceramics by a fair margin. However, the Menhinick measure shows Old Mobile is only half again as diverse as San Luís/Patale and nearly that much less diverse than the Tarver sites. Finally, Margalef as well as Fisher alpha values support that Old Mobile diversity falls about halfway between that of Santa María and Tarver. The ratio of grog temper to total assemblage at Old Mobile roughly equals that of Santa María, yet shell temper dominates rather than sand or grit and does so much more obviously. In other words, whereas the ceramics from Old Mobile indicate some diversity, the diversity at Tarver, Santa María, and San Luís/Patale was greater than that at the French site.

As a whole, diversity values at the Tarver sites represent an interesting median between San Luís/Patale and Old Mobile and Santa María. Evenness at Tarver roughly equals that of Old Mobile, whereas the equitability value falls between that of Santa María and Old Mobile. Most notably, the dominance of Tarver falls between that of the seventeenth-century Apalachee assemblage and later sites in the Pensacola and Mobile area. In other words, no class of ceramic dominates the Tarver assemblage, while other assemblages have a class that is more dominant.

Averaging differences between these diversity values shows that San Luís/Patale is 37.6 percent less diverse than the Creek Indian Jackson site. The Jackson site, in turn, is 29.8 percent less diverse than Old Mobile, which, in turn, is 8.9 percent less diverse than Santa María. Following these values, seventeenth-century Apalachee sites maintained a distinct homogeneity in their ceramic assemblage. The Lower Creek sites

demonstrate an intermediate value of homogeneity when compared to French Old Mobile and Spanish Santa María. Old Mobile and Santa María possess very similar diversity values.

RESULTS OF POST-YAMASEE WAR COMPARISONS

Dominance values are roughly a median among the Creek sites. The Jackson site has slightly higher dominance values than Dog River but lower than Fort Toulouse, with higher dominance values than Santa Rosa. Evenness values are either second only to Santa Rosa or lower than both Santa Rosa and Dog River. As a whole diversity statistics demonstrate that the Lower Creek Jackson site ceramics essentially tie for least diverse with those from the Upper Creek Fort Toulouse site.

The Upper Creek site of Fort Toulouse has the highest dominance values and lowest evenness values. Other diversity statistics for Fort Toulouse have either the lowest values or barely surpass those of Jackson. A striking similarity exists between the Lower Creek site of Tarver and the Upper Creek ceramic assemblages at Fort Toulouse—these sites have a very similar distribution of ceramic classes. In short, ceramics from both Upper and Lower Creek sites show much homogeneity.

The Dog River site, like Old Mobile, reflects French reliance on local Indians. However, Dog River has surprisingly high dominance values and low evenness values, indicating that one ceramic class is particularly prevalent, although historical documents describe a variety of Native American groups at the site. Other diversity statistics place the ceramic diversity at Dog River somewhere between that of the Jackson and Santa Rosa sites. While some homogenization in the ceramic assemblage likely occurred, the lack of seventeenth-century sites for comparison leaves open the possibility that these groups were already making similar ceramics before they moved to the Dog River site.

The ceramics from the Santa Rosa site, a site occupied by a variety of Indians, possesses a diverse assemblage. This site has by far the lowest dominance scores, with one test showing nearly zero dominance, and the highest evenness scores, with both tests showing a nearly even distribution of ceramic classes. The roughly contemporary site of Mission San Joseph de Escambe is even more diverse, in part due to the identification of a new hybrid temper type of both shell and grog inclusions. To make more precise comparisons, I halved frequencies at Mission San

Joseph de Escambe from the shell or grog Escambia type into shell and grog types that previous excavations utilized. Diversity values from Escambia still defy expectations by remaining above those of Santa Rosa. Since the mission mostly or entirely comprised Apalachee Indians, it should be less diverse than Presidio Santa Rosa, which included ceramics from the Apalachee, Yamasee, and possibly other groups. The results at Escambe may be explained by changes in Apalachee ceramic traditions through time, or may in part reflect the small sample size.

Averaging diversity measures shows that the diversity of ceramics at the Fort Toulouse site stands as 5.4 percent less diverse than the Jackson site, which is 39.4 percent less diverse than the Dog River site, which is 70.8 percent less diverse than the Santa Rosa site, which is less than 1.0 percent less diverse than San Joseph de Escambe. As such, the sites of Tarver and Fort Toulouse, both located within Creek country, show a noticeable homogeneity during the eighteenth century. Dog River stands as the median assemblage, noticeably more diverse than Creek sites and less diverse than the Spanish sites. This demonstrates immigrants to Dog River likely assimilated with the local culture more thoroughly. The most diverse sites of Presidio Santa Rosa and Mission San Joseph de Escambe, show such an extreme similarity that it is clear the assemblages overlap. Apalachee in name, those individuals at mission Escambe thus made roughly the same assemblage as those at Presidio Santa Rosa, but both assemblages show a newfound diversity based on Apalachee experiences during the eighteenth century.

RESULTS OF A COMPARISON OF PRE-YAMASEE WAR AND POST-YAMASEE WAR SITES

The diversity measures between Presidio Santa María (1698–1722) and Presidio Santa Rosa (1722–1752) reflect a significant decrease in dominance and increase in evenness, with at times a very high increase in diversity (34.0 percent). This echoes earlier work that maintained the differences in ceramic types between the two garrisons stemmed from an increase in illicit trade.⁵⁴ Although the increase in trade is a reasonable hypothesis given the establishment of New Orleans in 1718, these particular shifts more likely reflect increased Spanish success in tempting Native American allies after the 1715 Yamasee War—particularly the Yamasees themselves, some of whom left St. Augustine for Pensacola by 1747.⁵⁵

The difference between Old Mobile (1702–1711) and Dog River (1720s–1763) appears undramatic. An increase in dominance by 70 percent to 72 percent corresponds with a roughly 30 percent decrease in evenness. However, diversity statistics provide an odd range: two indicate an 8 percent increase, one a 40 percent increase, and the fourth a 15 percent decrease. It is difficult to conclusively explain difference between the tests without mathematical proofs, except to say that a few ceramic classes rather than one or none are most common and that an average shift of only 2.1 percent difference seems to demonstrate a high degree of similarity.

However, the shift from Dog River to Zimmerman Hill (1760s–1834) appears quite dramatic. Although the small sample size of the Zimmerman assemblage restricts comparisons, the much higher dominance values reflect the new prevalence of shell-tempered plain pottery. Evenness values are comparable between the two sites, although this might simply result from the fact that the Zimmerman Hill site has four groups of artifacts whereas Dog River has thirteen. Accordingly the Zimmerman assemblage is about half as diverse. The shift toward shell temper, with some exclusive sand temper, likely reflects access to new tempering resources. The lack of decoration in 75.6 percent of the assemblage might indicate some assimilation of styles. Such a potential assimilation likely echoes Hunter's evidence that a variety of migrant Native American groups lived in the area.⁵⁶

A variety of research has examined historic period Lower Creek ceramic shifts and concludes that few measurable changes occurred in the seventeenth and eighteenth centuries, and recent research has instead focused on investigating changes through space.⁵⁷ The findings here corroborate that few changes occurred within ceramic assemblages of these groups over time. The ceramic changes seen from the Tarver site (occupied until the Yamasee War) to the Jackson site (occupied after the Yamasee War) represents a 4 percent or 23 percent decrease in dominance and about 1.0 percent decrease in evenness, indicating only a slight decrease in ceramic diversity. The decrease in diversity includes a wide range of low values: 0.6 percent, 11 percent, and 37.5 percent. Averaging the values shows that ceramics from the Jackson site are merely 7.2 percent less diverse than those from Tarver. As such, these values merely provide more evidence that there are only slight differences between seventeenth- and eighteenth-century Lower Creek ceramics.

SUMMARY OF RESULTS

Diversity indices provide an underutilized yet valuable tool for regional ceramic comparisons. In general, sites occupied by Native Americans are noticeably (at least 28.3 percent) less diverse than those occupied by Europeans.⁵⁸ The results here appear to reflect responses by groups of Native American potters to colonial pressures. For example, Mission San Joseph de Escambe and Fort Toulouse both hosted trade, but Escambe's assemblage is about 2.5 times as diverse. Low diversity values for San Luís/Patale, on the other hand, reflect a homogeneous seventeenth-century Apalachee ceramic assemblage, and the low values for Jackson, Fort Toulouse, and Tarver reflect the same for the eighteenth-century Creeks. Broadly speaking, then, the Apalachee and Creek assemblages are both fairly uniform. The ceramic diversity values from the Old Mobile, Santa María, and Dog River sites could reflect material changes that the Apalachees went through after fleeing the 1704 destruction of their missions. According to primary documents, these three sites also hosted a variety of immigrant Native Americans and had fairly short occupations; these and other factors restrict interpretation of the results as a straightforward indicator of material response to this event. A regional analysis would not notice that Apalachee potters utilized less elaborate stylistic motifs than potters at the earlier Mission San Luís. Cordell made such a comparison and concluded that local Mobilian Indians imitated Apalachee styles, if not tempers, at Old Mobile.⁵⁹ These local potters thus likely adopted a refugee pottery type because of the sudden influx of new people, even as those refugees adapted to new social and environmental conditions.

The high ceramic diversity at Santa Rosa and Escambe likely reflects Spanish success at tempting Apalachees and Yamasees away from the Creeks after the Yamasee War. For example, the high diversity score at the 1741–1761 Apalachee site of Escambe reflects a combination of both Creek and Apalachee tempering and decorating strategies. Low diversity scores at the Apalachee site of Zimmerman Hill, on the other hand, reflect amalgamation with groups in the Lower Mississippi valley, though further comparisons should test the identification of the site as Apalachee. Put briefly, diverse assemblages do not correspond with heterogeneity in the number of ethnic groups living at a site; historical records remain better equipped to answer such questions.

The ceramic evidence from Escambe thus shows that in the mid-eighteenth century the Apalachees, after leaving the Creeks and living on their own, began to utilize a variety of Creek and Apalachee elements in their pottery. Although this is valuable information, several questions remain unanswered. I believe that the Apalachee material culture at Escambe represents a resurgence of Apalachee ceramic tradition, due to some combination of factors: returning from Creek territory to ally with the Spanish, incorporating Apalachees from the Creek and French territories, or perhaps simply living back in an Apalachee community.

Quantitative comparison of the diversity among Native American ceramic assemblages largely supports the historical record, but gives more specific information by pointing out which sites possessed ceramic diversity and the varying degrees of diversity. Unsurprisingly grog temper (typical of Apalachee ceramics) dominates San Luís and Patale. Diversity scores for contemporary sites Santa María and Old Mobile are fairly similar to each other, as are non-contemporary Lower Creek sites of Tarver and Jackson. Such tests evidence a certain assimilation or amalgamation of ceramic tempers and decorations at Dog River but not at Santa Rosa. Zimmerman Hill demonstrates this assimilation and amalgamation even more dramatically. Most critically, although still considered Apalachee in the historic record, those at the eighteenth-century Mission San Joseph de Escambe, compared to seventeenth century Apalachee at San Luís/Patale, had an assemblage dominated by sand or grit temper rather than grog, with an assemblage 50 to 236 percent more even and at least three times as diverse.

However, the diversity comparisons remain limited. Systematic study of Native ceramic vessel forms has not been done at any seventeenth-century Apalachee assemblage. Further regional comparisons incorporating forms may offer further evidence of Native participation in market demands and potential identity shifts. In addition, factors other than Native American migration might explain the diversity values at particular sites. Perhaps the difference between European and Native dominance of a site could affect the diversity of that site's assemblage, whereas low values at sites where excavators largely focused on the European occupation—such as San Luís, Patale, and Fort Toulouse—appear similar to Creek Indian sites of Tarver and Jackson. These similar values, despite the differing presence of Europeans, imply that occupation by Europeans did not dramatically affect diversity values. Ability to trade

directly with foreign ports may have also affected diversity values. However, the high diversity at Santa Rosa and equivalent diversity at Escambe, coupled with the fact that the peripheral occupations of Escambe, Dog River, and Fort Toulouse reflect such varied diversity values, implies that direct participation with foreign trade did not dramatically affect diversity values.

CONCLUSIONS

Varying alliances affected the social geography of the lower South. Broad social processes, inspiring and inspired by continuity and change in communal tradition, thus allow for a nuanced understanding of this area of the eighteenth-century South. Global and regional structures influenced and were influenced by individual actions at the local level. Social, economic, and political dealings often occurred simultaneously and led to a mixture of tradition, innovation, resistance, and adaptation. Such negotiations in many cases throughout the South led to noticeable transformations in the form of ethnogenesis when groups such as the Creeks, Choctaws, Catawbas, Yamasees, and others formed. Native leaders, by responding to both European and Native pressures, largely made the colonial system work and created hybrid cultures. Depending on specific conjunctures of Native action and larger structures, varying levels of transformations occurred in a variety of ways. Although research has outlined Apalachee responses to colonization from precontact through the seventeenth century, precise quantitative comparisons of archaeological data, guided by extensive historical research, allow for new insights into changes between the seventeenth- and eighteenth-century Apalachees.⁶⁰

Different Apalachee groups and individuals succeeded during the first two hundred years of European contact due to their own abilities and alliances with the French, British, or Spanish. In the seventeenth century, Native groups such as the Apalachees chose to ally with the Spaniards and, as a result, their leaders sacrificed political autonomy and accepted the labor draft in order to use European trade goods to build social and political capital.⁶¹ When faced with a similar option, interior groups merely traded.⁶²

In some cases potters, whether entirely Creek or Apalachee or some combination of ethnicities, participated in community-specific ce-

ramic practices that might have contributed to a shared social identity. Such communal acts complexly wove families and individuals together, but specific identity construction differed depending on the context.⁶³ Documents indicate that the Apalachee language and other traditions survived into the eighteenth century, despite friars' efforts at teaching Spanish and Christianity. Individual Apalachees attempted to maintain power and success after the 1704 destruction of their province by allying with the Spanish, Creek, or French. At a regional level, the Apalachees acted as capable middlemen. Select Apalachees within Creek society proved a necessary connection for the 1718 Coweta Resolution and resultant Creek neutrality position. Apalachee communities stood at the Perdido River site, and later at the Blakely Park site, both key areas between French Mobile and Spanish Pensacola. Those at the Pensacola missions stood between Pensacola and interior Creek settlements. Put briefly, despite the fact that the Apalachees after the 1704 raids existed in far fewer numbers when compared to larger groups, the eighteenth century represented such a turbulent time for European colonists in the South that even small groups enjoyed conditions described by DuVall as a "Native ground."⁶⁴

The less diverse sites such as Dog River and Zimmerman Hill demonstrate consistent adoptions of local ceramic traditions such as shell tempering. The reduction in diversity at these sites likely reflects the assimilation of immigrants into local communities.⁶⁵

Material culture represents a tool selectively used to interpret social interactions and act within them.⁶⁶ Put briefly, these assemblage comparisons demonstrate that even if ceramics reflect some conscious form of identity communication, that communication would not represent a precisely bounded measure of time and space, but instead fall somewhere within a continuum.⁶⁷ As such, assemblage comparisons must be corroborated—whether through archaeometry, documents, or other methods—to ensure that the comparisons are being made with as much precision as possible.

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48. Dominance, where ni is number of individuals of category i , as a general term is one minus the Simpson index and ranges from a value of zero in which

all category occur in equal amounts to one in which a single category occurs:
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For critical perspectives into the Lower Creek, see John E. Worth, "The Lower Creeks: Origins and Early History," in *Indians of the Greater Southeast: Historical Archaeology and Ethnohistory*, ed. Bonnie G. McEwan (Gainesville: University Press of Florida, 2000), 265–98. Thomas H. Foster III, *Archaeology of the Lower Muskogee Creek Indians: 1715–1836* (Tuscaloosa: University of Alabama Press, 2007).

58. Further work to quantify shifting assemblages of trade goods remains necessary to evaluate the success of European markets; see for example Roberts, "Secret Exchange."

59. Cordell, *Continuity and Change in Apalachee Pottery*.

60. Scarry, "Native Agency and Practice."

61. Worth, *Timucuan Chiefdoms*.

62. At the same time, Apalachee ceramics appear in Timucua territory to the east indicating either new Apalachee influence there or a spread of similar ceramics from the north; see Hann, *Apalachee*; Worth, *Timucuan Chiefdoms*, 2:36; Jerald T. Milanich, *The Timucua* (Malden MA: Blackwell, 1999), 106.

63. Ginn, "Creating Community in Spanish California," 292–94.

64. Kathleen DuVall, *The Native Ground: Indians and Colonists in the Heart of the Continent* (Philadelphia: University of Pennsylvania Press, 2006).

65. Reanalysis of the assemblage from the French-allied Apalachees at Blakeley Park also shows a tentative similarity to the roughly contemporary Spanish-allied Apalachees at Escambe. Jennifer Melcher, personal communication, 2011.

66. Andrew B. Fisher and Matthew David O'Hara, *Imperial Subjects: Race and Identity in Colonial Latin America* (Durham, North Carolina: Duke University Press, 2009), 23.

67. John E. Worth, "Ethnicity and Ceramics on the Southeastern Atlantic Coast: An Ethnohistorical Analysis," in *From Santa Elena to St. Augustine: Indigenous Ceramic Variability (A.D. 1400–1700)*, ed. Kathleen Deagan and David Hurst Thomas, American Museum of Natural History Anthropological Papers no. 90 (New York: American Museum of Natural History, 2009), 179–207.