Archaeologists have shown that routes of travel illuminate social, political, economic, and cosmological worlds through their orientation, length, and relation to settlements (Bauer 1992; Doyle et al. 2012; Hassig 1991; Hutson et al. 2012; Hyslop 1984; Kantner 1997; Purser 1989; Snead et al. 2009; Sofaer et al. 1989; Trombold 1991). While paths of communication and exchange have been factors in archaeological interpretations of political, social, and economic interaction in many regions of the world, archaeological examination of the routes themselves has garnered relatively less explicit analysis. The study of extensive, “nonsite” features falls within the purview of landscape archaeology, an approach that considers travel, paths, and movement (Ashmore and Knapp 1999; Snead et al. 2009). Geographic information system (GIS) analysis provides a method for evaluating the favorability of different paths and place them within the context of recent archaeological and ethnohistoric research. Analysis results make the larger anthropological point that GIS route modeling should explicitly take into account the size of the party traveling. Routes for small parties are not the same as optimal routes for large armies such as de Soto’s, which included hundreds of people, pieces of equipment, and livestock. The GIS-modeled routes correlate with the distribution of contact-period archaeological sites and attested eighteenth-century routes. More accurate estimation of Spanish routes allows us to better model the Native American social, economic, and political nexus of this period, showing that the residents in far eastern Tennessee were probably part of a dynamic borderlands between the chiefdom of Coosa to the west and the ancestral Cherokee heartland to the east. This anthropological refinement in GIS modeling will be useful in investigating ancient paths of interaction in many parts of the world.
vides a way to model paths based on factors such as slope and distance. GIS modeling of routes can test the viability of paths suggested by archaeological evidence, clarifying the cultural processes that generated them (Doyle et al. 2012; Kantner 1997). Even though much archaeological and ethnohistorical analysis has been devoted to reconstructing Spanish entradas into the U.S. Southeast, no segments of the proposed routes have been evaluated with GIS in terms of least-cost paths. Recent archaeological survey and excavations in the Nolichucky Valley of Washington and Greene counties in eastern Tennessee have recovered abundant contact-period remains of settlements that permit a reevaluation of one area traveled through and recorded in the sixteenth century, the trans-Appalachian zone between Joara, near today’s Morganton, North Carolina, and Chiaha, an island settlement near the modern town of Dandridge, Tennessee (Figure 1). Documentary, linguistic, spatial, and archaeological information discussed according to locale provides a view of shifts in the complex political geographies of the Southeast in just over 20 years. Though the Spanish encounters were brief, they may have altered the dynamics of Southeastern political consolidation, hierarchy, and heterarchy (Beck 2013). The results of this study show that roads were a discursive space in the sixteenth-century Southeastern political economy: while roads linked allies and were a means of economic and social exchange, they also were the place to define cultural difference. In Purser’s words, “In the end, roads do not act, people do. But where roads go, and how they do or do not link place to place does shape the lives of the individuals and communities that use them” (1989:134). Optimal routes for small vs. large parties in this region are dramati-
CALLY DIFFERENT. THIS VARIATION SUGGESTS DIFFERENCES IN THE SCALE OF INTERACTION, WITH CONTACT-PERIOD SETTLEMENT HEAVILY FAVORING LARGE-SCALE INTERACTION. THE ANALYSIS OF TRANS-APPALACHIAN ROUTES DEMONSTRATES THAT GIS ANALYSIS CAN BE EXPLICITLY ANTHROPOLOGICAL BY TAKING INTO ACCOUNT THE SIZE OF THE TRAVELING PARTY.

Colonial Encounters of the First Kind

Several sixteenth-century accounts relate the travel of Hernando de Soto and his army in the Southeast in spring 1540 and the forays of Juan Pardo and his soldiers from the fort they established in 1567. This research builds upon previous substantial work on Spanish entradas in the Southeast (Galloway 1993; Hudson 1990; Milanich 1993; Milanich and Hudson 1993; Worth 2007). Digitized images of the Spanish manuscripts or early imprints examined include the 1605 Crasbeek imprint of Garcilaso’s *La Florida del Ynca* and Fidalgo de Elvas’s 1557 *Relação verdadeira*, accessed via the digital resources of the John Carter Brown Library. The 1851 imprint of Oviedo’s *Historia general* was the first complete edition of all the Oviedo books, some of which had existed previously only in manuscript form. Digitized manuscripts of complaints, declarations of merit, and other legal documents and reports for the de Soto and Pardo expeditions were available through the Portal de Archivos Españoles database of materials curated in several archives in Spain. Sampeck translated the passages of these primary source texts included in this analysis.

Both de Soto and Pardo were interested in becoming wealthy, being seen as loyal servants to the king of Spain, and gaining political advantage over the people they encountered in the Southeast. To this end, these accounts record in varying degrees of detail the natural resources of different regions; the names and political affiliations of the people they met; the size, location, and names of settlements; and how they traveled from place to place. Understanding political affiliation had been a key to success in other colonial ventures, so the Iberian authors were careful to note whether one settlement was part of a larger polity or not. Variations among accounts give clues as to whether the author is over- or underreporting something, while variations within an account indicate nuances of resources, production, and emphasis. In accounts of the same time period in other parts of Spanish America that are known archaeologically and abundantly documented, the notation of place-names varies depending on the matter at hand (place of a battle, center of production of a valuable commodity, and so forth). Even well-known, large settlements may not be included in an account because of the writer’s agenda (Sampeck 2007).

Political, Social, and Economic Dynamics, 1540 to 1567

After being given the official title of Governor of La Florida, Hernando de Soto began his reconnaissance in what is today the state of Florida, passing through South Carolina and eventually turning farther inland in North Carolina. His goal was to explore the full extent of his realm and ideally learn that his protectorate had great wealth in natural resources and people. He was the right-hand man for Francisco Pizarro in the conquest of Peru and had already amassed a great deal of wealth, and the Florida venture was to give him the social recognition that came with the official title and the potential for even more riches. Juan Pardo was sent on two expeditions to the interior in the 1560s by the then-Governor of La Florida, Pedro Menéndez de Avilés. His two key directives for Pardo were to establish a road from Santa Elena, on the coast of present-day South Carolina, to the silver mines of Zacatecas, Mexico, and to subdue the Indians.

Mid-sixteenth-century Spanish colonists were already creolized by previous experience in other parts of Latin America. Several from the de Soto and Pardo efforts maintained strong ties and held royal offices in Guatemala, demonstrated by the vocabulary they used to name items that Southeastern communities gave to the armies: *tameme* (human porters) and *petaca* (a woven wicker hamper), both Nahuan (a Mesoamerican Nahua language), not Southeastern terms (Fernández de Oviedo y Valdés 1851:562; Fidalgo delvas 1557:62v; Karttunen 1992:192). Rather than precious metals, agricultural products and indigenous slaves were the key to wealth in Guatemala, preoccupations evident in the Spanish accounts.
De Soto himself owned and operated a slave ship (MacLeod 2008:52). De Soto and his army ate corn and dogs, followed indigenous lines of political schism and alliance, and enslaved people (Fernández de Oviedo y Valdés 1851:562).

In the 1540s an acrid debate about the humanity and civil rights of indigenous peoples eventually resulted in the abolishment in 1542 of the enslavement of Indians and recognition of their rights through new policies and procedures, a matter not yet settled when de Soto was in the Southeast in 1540. His party’s interactions with Native Americans contrasted markedly with the post-1542 venture of Juan Pardo, who exerted much more effort to secure alliances with local leaders.

The Spanish arrived when Southeastern Native Americans were substantially reconfiguring local and regional social, political, and economic relationships (Beck 2013). Archaeological investigations of Late Mississippian settlements show that the fifteenth to the sixteenth century was a period of widespread, profound demographic shifts, with regions such as the Asheville Basin and the Savannah and Etowah river valleys largely abandoned during the 1400s and 1500s (Anderson 1994; Beck 2013; King 2003; Milner and Chaplin 2010; Rodning 2008:2–3; Smith 1987). Large ritual and administrative centers grew in places distinct from the locations of Middle Mississippian antecedents. Communities and social groups created new ways to position themselves within a highly dynamic environment affected in part by falling population levels in the 1500s (Milner and Chaplin 2010). Indigenous residents paid tribute, helped build forts, and placed European objects in sacred spaces as part of political and social realignment in the sixteenth century.

Because roads connected places, they facilitated management, but at the same time they crossed boundaries that people created and/or maintained through actions such as overt hostility (warfare), polity naming, and stylistic variation in material culture. Identifying the location of routes helps better characterize the nature of political shifts by identifying who was connected to whom and the nature of their linkages. The various accounts indicate that de Soto’s army relied upon indigenous guides who took them to centers of population along the main route from one region to the next, what Garcilaso called the camino real (Vega 1605:176r).

Spaniards measured route distance in leagues. Several different kinds of leagues were in use during the sixteenth century; to make our estimates comparable to earlier work, we calculate distances in the legua común of 5.57 km (3.47 mi). A daily marching speed of 19 to 32 km per day is a standard estimate for army foot travel (Hassig 1988:67), so a legua común falls in the middle of the range of 5 or 6 leagues of travel per day that Garcilaso indicated (Beck 1997; Chardon 1980; Hudson et al. 1984:66; Vega 1605:1767v). It is possible that some discrepancies among accounts may exist because some chroniclers used legua to refer to distance traveled in an hour (Swanton 1939:Appendix E, in Gallloway 1993:311–354). None of the accounts indicate that the distances were measured by instruments such as chains, in contrast to voluminous metes-and-bounds surveys conducted in the colonies during this and later periods (Hunter and Sluyter 2011; Sampeck 2014).

Spanish Entradas and Native American Roads

In the 1930s the U.S. Congress appointed John Swanton to head a commission to propose the probable route for Hernando de Soto as part of an effort in historic conservation. Swanton (1985) compiled extensive historical documentation and archaeological knowledge to propose a probable route, which in general skirted northern Georgia and passed into Alabama. Advances in archaeological, linguistic, and historical research during the 1970s to the 1990s fostered a thorough reevaluation of the Swanton Commission results. Charles Hudson, Chester DePratter, Marvin Smith, and other colleagues proposed a more northerly route for de Soto, passing through North Carolina and east Tennessee. Subsequent work by Robin Beck (1997) further refined the particular segment that is the focus of this study, pushing the location of Joara a little farther north, to the Berry site (31BK22), and suggesting that Pardo’s soldiers traveled in some instances along routes not traveled by de Soto (Beck et al. 2006). Our recent work in Greene and Washington counties in east Tennessee further supports some of
the identifications suggested by Beck and colleagues and indicates refinements to the probable route of Spanish expeditions and our understanding of cultural interactions in this area.

Who lived in these places? Place-names and other linguistic evidence in Iberian chronicles suggest the locations of a complex array of southeastern Native American language groups in the sixteenth century (Booker et al. 1992:410). Iroquoian Cherokee appears to have been centered in the mountainous regions of eastern Tennessee, western North Carolina, and adjacent areas; Catawban languages and dialects, in the Carolina Piedmont; and Yuchi, in an uncertain location near the Appalachians (Booker et al. 1992:410–411; Goddard 2005; Rudes 2004). Muskogean languages of Choctaw, Chicasaw, and Hitichi appear to have been used for naming in present-day Mississippi, western Alabama, Georgia, and Tennessee (Booker et al. 1992:410–411; Goddard 2005). After presenting the methodology and results of the GIS least-cost analysis between Joara and Chiaha, specifics of routes are considered in the context of previous interpretations, archaeological data, and linguistic and ethnohistoric evidence.

GIS Least-Cost Route Analysis

This analysis concentrates on an area anchored by two fairly securely identified points. The easternmost point is a province that the Spanish identified as Joara, correlated with the Berry site (31BK22) near Morganton, North Carolina, by Robin Beck, David Moore, and Christopher Rodning (2006), while the western end of the route is the province the Spanish recorded as Chiaha (Olamico), identified as Zimmerman’s Island near Dandridge, Tennessee (DePratter et al. 1983). The area between these two places is much less well known.

The digital elevation model (DEM) used in this analysis uses the Shuttle Radar Topography Mission data collected by the U.S. space shuttle Endeavor in February 2000 (Rabus et al. 2003) and corrected and cleaned per standard methodologies (Jarvis et al. 2008; Reuter et al. 2007). The spatial resolution of these data is 90 m, a resolution appropriate for evaluating route favorability. Mike Moore and archaeologists of the Tennessee Division of Archaeology provided registered information about sites used in this spatial analysis.

Following standard methodology, the shortest three-dimensional path between two points on the DEM was identified by the least-cost path procedure (DeMers 2003:276–284). Least-cost analysis pathways based on slope tend to move along canyon bottoms, where changes in elevation are minimized. The result of a least-cost path analysis depends on the cell width of the DEM over which the path is being constructed. As a general rule, features on the earth’s surface should be at least twice as wide, at the smallest dimension, as the width of the DEM’s cells (Jensen 2005:14–18). In essence, valleys narrower than 180 m are too fine to be represented in the Shuttle Radar Topography Mission DEM data set. Degrading the spatial resolution of the data reduced the number of elevation values recorded in the degraded model to one-quarter of the number used in the original model. Degrading the spatial resolution does not affect the accuracy of the DEM data; it merely restricts the realm of route choices to paths large enough for hundreds of people. Narrow canyons were thus removed from the model as longer viable routes for the least-cost pathway, which resulted in two significantly different pathways.

Route 1: Southern, Narrow Path

The least-cost path found using the original 90-m DEM passes westward along Highway 70, around the south side of Asheville, and then north along the French Broad River toward Douglas Lake and the island on which Chiaha was located (Figure 2). This southern, narrower route is 272.5 km long, including changes in elevation (Figure 3). Its maximum elevation is 879.0 m, and the mean slope of the route is .83 degrees (1.5 percent grade). The steepest slope is 17.3 degrees (31.1 percent grade), but only 7.6 percent of the route has a percent grade greater than 5.0 percent.

Route 2: Northern, Wide Path

The least-cost path found using the degraded 180-m DEM moves northward more or less along Highway 181 toward Elizabethton, Tennessee. It next passes southwestward through Johnson City, Tennessee, along the Nolichucky River, generally following Highway 34, and then turns to the north
side of Greeneville, Tennessee. It stays south of Interstate 81 and remains on the north side of the Nolichucky River just before it drains into Douglas Lake (Figure 2). This route is 294.7 km long, including changes in elevation (Figure 3). Its mean elevation is 496.5 m, and its maximum elevation is 1,197.04 m. The mean slope along this route is .69 degrees (1.2 percent grade). The steepest slope is 9.6 degrees (16.9 percent grade), although only 4.9 percent of the route has a percent grade greater than 5.0 percent.

**Comparative Cost Distance**

The cumulative cost distance (distance [km] x percent rise of slope) is an estimate of the effort required to travel each route. The cumulative cost of the northern route is 667.9, and that of the southern route is 764.5. While the northern route is 8.16 percent longer than the southern route, its cost distance is 12.6 percent less, indicating that it requires considerably less effort to use the northern route. The slope of the terrain traversed along the northern route is more gradual than that of the southern route. The mean and maximum slopes are less dramatic, and except for the climb on the east side of the mountains, the overall route is more relaxed.

The relative gentleness and broader pathways of the northern route make traveling with a large group easier. Large caravans traveling along the southern route would have to squeeze their herds through narrower passages and push them up steeper slopes. Tactical reasons for large armies to travel along a wider path include protection from attack and less time to get the entire army on the road (Hassig 1988:68). If the company of travelers were few, the shorter but steeper southern route might be faster. How do these results reconcile with other archaeological, linguistic, and historical data? We address this question by discussing each place between Joara and Chiaha named in the de Soto and Pardo accounts.
Archaeological and Ethnohistoric Evidence for Native American Places and Roads

Joara: Resources, Polities, and Route Planning

The relatively long stay of de Soto’s army in Joara depended upon its ample resources (Fernández de Oviedo y Valdés 1851:562). The well-preserved archaeological remains of the sixteenth-century Native American village and Spanish fort and town make up one of only two mound sites in the upper Catawba Valley and one of the largest Burke phase (A.D. 1400–1600) sites in the region (Beck 1997; Beck et al. 2006; Moore 2002). Juan Pardo built his principal base of operations, the city (ciudad) of Cuenca and Fort San Juan, at Joara in early January 1567, citing the large resident population and the fertile, mile-wide alluvial floodplain that forms an ecotone between the Piedmont and the highly dissected uplands of the Blue Ridge (Bandera 1990:f5 [1569]; Beck 1997:163; Fernández de Oviedo y Valdés 1851:562; Vega 1605:178r). Although Ranjel recognized Joara’s potential for prospecting and gold mines (Fernández de Oviedo y Valdés 1851:562), Pardo’s men were the first to try prospecting. “In these mountains is gold and silver” labels the Appalachians on maps that postdate 1540, even though Joara itself appears inconsistently on sixteenth-century and later maps. Places farther west, such as Guasili, appear as often as Joara (e.g., de Laet 1625).

Joara’s roads defined ethnic and political boundaries. Even though “Xuala” was a province separate from “Cofachiqui,” Joara was under the cacica (female ruler) of Cofitachequi’s rule (Fidalgo delvas 1557:61v; Vega 1605:179r). Cofitachequi was an extensive polity based in the vicinity of present-day Camden, South Carolina (Hudson 1990:83). The female leader of Cofitachequi was important enough that, depending on the account, she either was kidnapped by or willingly accompanied the Spanish army on its journey to Joara. Garcilaso (Vega 1605) described Joara as part of “Cofachiqui’s” señorío, a system of rule in which nobles control access to land and all subjects are vassals. The residents of Joara served the Spanish because they treated them as though they were from the cacica’s señorío; honor shown to them was honor shown to her (Vega 1605:179r). Mooney recorded that the Cherokee name of the Swannanoa Gap was “Suwali-Nuinahi, or ‘Suwali Trail,” that being the pass through which ran the trail from the Cherokee to the Suwali, or Ani-Suwali, living east of the mountains” (1894:57). Even earlier, seventeenth-century maps likewise name the mountain range north of Xuala (Joara) the “Suwala Range,” suggesting that Joara perhaps acted as gatekeeper of

Figure 3. Comparison of profiles of the relative costs of paths found using the original 90-m digital elevation model vs. the degraded 180-m digital elevation model.
trans-Appalachian routes. The path described by Mooney is the narrow but efficient southern GIS path (Figure 2).

A linguistic break seems to have occurred east of Joara in the 1540s. Hudson (1990:83) proposes that the people of Cofitachequi probably spoke Muskogean and Catawban as well as other South-eastern languages. Booker et al. (1992:423, 425) suggest that the people of Joara spoke a linguistic isolate such as Yuchi, but Goddard (2005) makes a strong case that “Joara” can be equated with the name of the Catawba dialect of Saraw. Another linguistic boundary probably existed west of Joara: the first settlements west of the Blue Ridge may have been of Cherokee speakers, as other interpreters were used by the Pardo army in addition to the Muskogean-speaking Rufín (Booker et al. 1992:425). By most accounts, de Soto’s army left Joara on Tuesday, May 25. They headed for “Guaxule” because the cacica of Cofitachequi’s lands reached that far (Fidalgo delvas 1557:61v). In the 1540s Guasili was the next notable place west and a border region.

**Crossing the Mountains**

The first day of travel west of Joara passed through cultivated fields, and the accounts agree that the next segment of the journey was over “tough and high” mountains (*agras y altas serras*) that were difficult to cross (Fidalgo delvas 1557:61v). The de Soto army spent five days after the first one leaving Xuala traveling through “uninhabited” mountains, with a stated distance of about 20 leagues (69.4 mi) between Xuala and Guaxule (Vega 1605:180r). The GIS northern route agrees with this time frame for travel starting at the Berry site and entering the mountains quickly, in contrast to the more southerly route proposed by Hudson et al. (1984). Beck (1997:164) proposes that the route passed along State Highway 181, past Table Rock and Hawks-bill Mountain, so that the army entered the uplands only 15 mi from the Berry site. The GIS route is even more direct, following Warrior Fork, eventually uniting with the route of Highway 181. The key difference between this route and Beck’s (1997) is that part of the GIS path is farther north and east to take advantage of an efficient path.

According to Ranjel, the army crossed a very high ridge and camped “a un montecillo” (Fernández de Oviedo y Valdés 1851:562). *Montecillo* can be translated as either “small forest” or “hillock” or “hummock” (Clayton et al. 1995:281 n. 48 [by John Worth]). The second meaning is correct, as the preposition in Spanish is to sleep *en* (a) a forest but *on* (á) a hill or plain, the usage found in other places in the Ranjel account (Fernández de Oviedo y Valdés 1851:562). A small hill just west of the steep easternmost slopes of the mountains is the likely location for the first campsite during the mountain crossing; one of the few relatively low hills between Parks Mountain and Cold Mountain lies just west of the first stopping place estimated by the GIS analysis.

By Wednesday, May 26, the de Soto army reached the summit of the range, where they camped on a plain (*á una savana*) and suffered great cold even though it was the end of May (Fernández de Oviedo y Valdés 1851:562). Beck (1997:164) suggests that they camped near Jonas Ridge. The GIS-estimated spot for the camp is a flat between Elk Park and Laurel Fork, the relatively broad fields in the area of Taylor Chapel. In fact, part of the Appalachian Trail is in this vicinity.

Next, the army “crossed, in water up to their shins, the river by which they afterward left in the brigantines that they made and that emptied into the sea, shown by the navigation chart that it is the Spiritu Sancto” (Fernández de Oviedo y Valdés 1851:562). Ranjel was referring to the cosmographic chart of Alonso de Chaves, made per the royal order of 1536 by Charles V (Santa Cruz 1892:18 [1542]). Beck (1997:164) argues that the army crossed over near the present town of Ingalls, North Carolina, to a trail that ran alongside the North Toe River, where U.S. Highway 19E is now (Cumming 1966:23–27). We suggest instead that the army had crossed more of the mountain range, so that the notable crossing was of the Watauga River, which also empties into the Mississippi (“Spiritu Sancto”).

After the de Soto army crossed this river, probably in the late evening, the lady of Cofitachequi escaped along with two slaves (Fernández de Oviedo y Valdés 1851:562). The area was wooded heavily enough that the small detachment could not find them (Fidalgo delvas 1557:62v). The cacica and her companions used the steep terrain to their advantage; the detachment had to return
through the challenges they had largely left behind them. It may be that the Nolichucky drainage represented a political as well as a linguistic border or that the lady had reached the limit of her tolerance of the Iberians.

By Friday, May 28, the de Soto expedition descended enough in altitude to spend the night in an oak wood (robredo) (Fernández de Oviedo y Valdés 1851:563). The GIS route places the army in the vicinity of Elizabethton, Tennessee. Beck (1997:164) argues that the army turned north again, following a path incorporated into the Washington County–Burke County Road of 1777 (today’s U.S. Highway 226) and camping near Webb, North Carolina, where the Toe and Cane rivers join to form the Nolichucky. In our model, the party did not have to turn north; they had already made a turn to the south, down the valley.

As the group continued to move westward on Saturday, May 29, they spent the night by a “large stream” that they had crossed often during their journey (Fernández de Oviedo y Valdés 1851:563). The GIS route in fact follows the Nolichucky closely, and the camp was probably in the area of Johnson City. Beck (1997:164) suggests that they were along the Nolichucky, pitching camp near Erwin, Tennessee. The Erwin route has a significant bottleneck where the Nolichucky passes westward into the valley. This bottleneck is not encountered in the more northerly GIS route.

Guasili

The de Soto army reached Guasili early in the morning on Sunday, May 30, 1540 (Fernández de Oviedo y Valdés 1851:563). No mention of an alliance of Guasili and Joara, even though Guasili was perhaps within the sphere of Cohi-tachequi, and the flight of the ruler of Cohi-tachequi well before she arrived at Guasili suggest that any political affiliation was tenuous at best; Guasili was a place apart. The phonetic structure of the place-name is consistent with Cherokee. Labiovelar clusters, such as /gw/, are common in Cherokee but rare to nonexistent in Muskogean and other languages of the Southeast (Booker et al. 1992). The suffix may be the Cherokee locative /-yi/. Guasili does not appear in the Pardo accounts, though another name in the Pardo accounts may be its 1560s equivalent, just as Chiaha is also called Olamico in the Pardo accounts. It could also be that Guasili was abandoned by the 1560s.

The northern GIS route locates Guasili at the Jackson Farm/Plum Grove site (40WG17), a correlation first suggested by Beck (1997:Figure 1). The combination of late Pisgah shell-tempered and Burke-like sand-tempered ceramics (Boyd 1986; Dickens 1980; Keel 1976) suggests that Plum Grove was occupied during the de Soto era (Beck 1997:164). Sixteenth- and seventeenth-century European glass beads, an iron ax, and a brass gorget from 40WG17 confirm this dating (Smith 1987:49). The middle French Broad, where Hudson et al. (1984:74) locate Guasili, has no known late prehistoric–protohistoric sites (Beck 1997).

On Monday, May 31, the company left Guasili and camped in an oak wood by a river (Fernández de Oviedo y Valdés 1851:563). Beck (1997:164) suggests that the army camped along the Nolichucky near Philadelphia, Tennessee. The GIS route places the de Soto party along the Nolichucky until they reached the next settlement, Canosahaqui. This point in the journey is the one exception to daily travel distances. The only way for the rest of the trip to concur with physiographically distinct features is for the army to have lingered for a day along this section of the Nolichucky. A reason for this pause in the trip may have been to interact with the dense settlement in the region. The oak forest camp was probably along the GIS-defined route, at a slight remove from the many settlements adjacent to the Nolichucky.

Canosahaqui (Canasoga)

Ranjel stated that they passed “Canasoga” on Tuesday, June 1, and camped in the open country (al campo) “beyond Canasoga” that evening. Elvas and Beidma concur that the army spent two days in the vicinity of Guasili and Canosahaqui (Fernández de Oviedo y Valdés 1851:563; Fidalgo delvas 1557:62v). The implication is that Canosahaqui (the name used in the Pardo accounts; “Canasagua” in Elvas) was reached sometime during June 1, and they passed farther west from there (Fidalgo delvas 1557:63v).

Hudson (1990:98) suggests that Pardo’s Canosahaqui is equivalent to de Soto’s Canasoga and located in the vicinity of Hot Springs, North Carolina. Hot Springs is located along the south-
ern GIS route, but well in the mountains. The de Soto accounts do not mention difficult terrain in this part of the trip. Lowery (1901) and Mooney (1900:26) identified Canasoga as a frontier town of the Cherokee. Hudson (1990:98) suggests that the best etymology of Canosoga is kanosaka, Muskogeian for “those of the mound.” Mooney reconstructed Canasoga as “Gansâgi (or Gansâgiyi)” (1900:518–519), a name for several former settlements—on the Tuckasegee River; on the lower part of Canasauga Creek in McMinn County, Tennessee; at the junction of Conasauga and Coosawatee rivers in Gordon County, Georgia; and de Soto’s Canasoga. It is probably misleading to think of these towns as absolutely fixed in space. Cherokee towns moved during the historic period, yet the identity of the town persisted (Booker et al. 1992:415).

We suggest that Canasoga, Canasahaqui, and Nolichucky are variants of the same name based on the morphological similarity of these place-names and archaeological remains dating to the time span in question. Ramsey (1853:110–111) stated that the original name of the river was “Nonachunheh,” which appears on Jacob Brown’s 1775 deed of conveyance and plat for the Nolichucky Valley lands. The orthography in the sixteenth-century versions of the name indicated a saltillo (glottal stop), making the word morphologically similar to Nonachunheh, what later became Nolichucky.

The border of this polity was defined by a welcoming party of 20 Indians, each carrying a basket filled with mulberries (cesto damoras) (Fidalgo delvas 1557:63v). Mooney suggested that the berries were “more probably the delicious service-berry of the southern mountains, which ripens in early summer, while the mulberry matures later” (1900:26). The significance of mulberries is less as a food source and more how it related to commercial production. The de Soto to Pardo time span (1540s to 1560s) was during the economic boom of silk in Mexico (Borah 1943). Garcilaso commented that “There were likewise among the foliage many trees with diverse fruits, and large mulberry trees and more abundant, than those up until that point one had seen. We always take particular note of this tree because of its nobility and for the utility of silk, and its universally high value” [auia assi mismo entre las ramadas muchos arboles con diuersas frutas, y grandes moraes mayores y mas viscosos, q los q hasta allí se auia visto. Damos siempre particular noticia deste arbol por la noble a del, y por la vtilidad de la seda, q dò quiera se deue estimar en mucho] (Vega 1605:163r). The published translation, “which ought to make it valuable everywhere,” misses the point (in Clayton et al. 1993:289). Silk and mulberry fodder for it were already a means to great wealth (Borah 1943). Naturally occurring mulberry trees must have seemed an unusual bounty to these Spanish venturers, as they consistently noted them.

Beck (1997:164) suggests that Canasahaqui could be 40GN9 or 40GN11. Archaeological survey and excavation confirm that 40GN9 was a large settlement, while 40GN11 was a hamlet. Several kinds of artifacts confirm 40GN9’s sixteenth-century occupation, including altajía (enameled brass) buttons and an iron bar, recovered in previous excavations (Smith 1987:49). Our recent intensive survey and excavations at 40GN9 have recovered more Spanish artifacts that further support this dating.

Carefully defined borders between Guasili and Canasahaqui may have been important because sixteenth- to seventeenth-century towns and polities were tightly packed in the Nolichucky Valley.

**40GN9 Spatial Organization and Material Culture**

Our work in the Nolichucky Valley has employed the methodologies of intensive survey of artifact distributions and the study of “nonsite” landscape features such as roads, viewsheds, and access to resources, as well as excavation of structures and features. The survey to define site limits was systematic, comprehensive, and intensive. The overall size of the 40GN9 town, 2 ha, is comparable to large towns of about the same time period, such as the 4.2-ha Coweeta Creek in North Carolina (Rodning 2008) and the 2.2-ha King site in Georgia (Hally 2008). The core of the town had structures that surrounded a wide plaza (Figure 4). Six 2-x-2-m excavation units tested the northern and southern edges of the central cluster of archaeological remains, recovering a wealth of well-preserved artifacts and features. All of the excavated soil was water-screened to recover small historic artifacts and faunal and botanical
remains. The preservation of materials at the site was excellent, and items included bone tools and a wide array of wild food remains. Even though this site has been plowed for agriculture, remains from sub-plow-zone levels were undisturbed, including an extensive sheet midden and post molds of varying size and construction methods (Figure 5). The northern excavation units recovered evidence of a wall constructed of large posts, which could have been part of a palisade (Figure 6).

Analysis of the material culture is still under way, but enough has been completed to suggest a substantial Middle Qualla (A.D. 1500–1700) ceramic assemblage accompanied by Spanish artifacts (Rodning 2008). Forms and decorations correlate with three distinct ware types, a blend of several traditions much like Franklin et al. (2010) observed farther north and east at Holliston Mills (Figures 7, 8, and 9; Supplemental Table 1). Neither Overhill nor Little Egypt (Coosa) during the Barnett phase has the nearly equal proportion of grit-tempered, shell-tempered, and sand-tempered vessels as do the Nolichucky Valley assemblages (Hudson 1990:101). Tin-enamed earthenware (majolica) was also present among the ceramics (Figure 10). These Spanish
wares included Columbia Plain and Yayal Blue-on-white vessels (Deagan 1987; Goggin 1968). As at Joara and Fort San Juan, the Spanish artifacts at 40GN9 include quotidian Spanish ceramics, not just trade goods. Common vessels may be a good marker of Spanish presence.

Historic beads include wire-wound blue glass beads and green seed beads (Figure 11). Wire-wound beads of several solid colors co-occur with Nueva Cadiz and faceted chevron beads, which securely date from the early to mid-sixteenth century (Mitchem and Leader 1988). Green seed beads also co-occur with well-dated beads of the sixteenth and seventeenth centuries (Smith and Good 1982).

40GN11: A Hinterland Occupation

After leaving Canasahaqui, the de Soto party crossed the Nolichucky, probably near Ripley Island as it is one of the best fords of the river in this region (Beck 1997:164). Adjacent to the ford on the south side of the river is 40GN11. Beck (1997:164) suggests that crossing the Nolichucky here avoided more treacherous fords downriver and also implies that they knew where they were going or were following a well-established route. Excavations at the Yellow House site (40GN11) recovered evidence of a few structures without extensive rebuilding, indicating a relatively short-term occupation (Figure 12). The bulk of the ceramic assemblage is stylistically much like that of 40GN9 and includes a mix of wares but no Spanish artifacts.

After crossing the river, the de Soto group camped in the open near Greeneville, Tennessee (Beck 1997:164). The next place along the route, encountered on Wednesday, June 2, can be positively identified on the basis of physiography. Beck (1997:164) suggests that the army traveled west along the north side of the Nolichucky (today’s State Highway 340, noted in Carey’s 1801 map and a postal route in the 1790s), which agrees with the GIS route (Phillips 1990:30). There, the de Soto army ate a “very great infinity” of mulberries and eventually camped beside a bog/marsh: “á par de una ciénaga” (Fernández de Oviedo y Valdés 1851:563). Published English translations use “swamp,” but ciénaga indicates
a seasonally inundated place, while pántano is a permanently inundated area. The “swamp” is almost certainly where Lick Creek meanders through a broad, deflated karstic flat near the intersection of Highway 11E and Interstate 81 (the location of the Lick Creek mound site) (Beck 1997:164; cf. Hudson et al. 1984:74), one of few places in the region that floods seasonally at about the time of year of de Soto’s travel.

On Thursday, June 3, 1540, the de Soto army continued to follow the Nolichucky along its north side (Fernández de Oviedo y Valdés 1851:563). Beck argues that the army continued northwest from Warrensburg to the Morristown area and “then turned south and camped just north of present Witt” (1997:164). The GIS analysis places the army in this vicinity, near Susong and a recorded archaeological site.

Chiaha

The people of Chiaha marked their eastern boundary with several welcoming parties. The first was of 20 Indians, each carrying a basket of mulberries. On Friday, June 4, more Chiaha Indians “came in peace and brought corn” (Fernández de Oviedo y Valdés 1851:563), after which the army continued south, pitching camp beside Long Creek near Dandridge, Tennessee (Beck 1997:164). That the welcoming parties greeted the army so far from the main settlement suggests that this was indeed a province with a large territory and multiple set-
tlements. Two leagues before arriving at Chiaha, 15 Indians again brought maize, told the army about *barbacoas* full of maize awaiting them, and pledged that everyone was at their service (Fidalgo delvas 1557:63r–63v). The pattern of the first town of Chiaha being a zone of encounter/gatekeeper, with the center of political power farther west, occurred in the Pardo accounts as well. The time spent traveling to Chiaha varies among different accounts, but they all agree that the day of arrival was July 5. Overall, the time frame for arriving at Zimmerman’s Island along the Nolichucky route fits better than Hudson et al.’s (1984) French Broad route (Beck 1997:165; DePratter et al. 1983:145–156).

Events in the de Soto and Pardo accounts support that Chiaha was a secondary center of the paramount chiefdom of Coosa and relatively larger than centers such as Maniatique (Beck 1997:167; Booker et al. 1992:408; DePratter et al. 1983:146; Hudson et al. 1984:75; Hudson et al. 1985). Chiaha played a crucial role in the Iberian occupation of

---

**Figure 10.** Yayal Blue-on-white majolica from 40GN9 excavations.

**Figure 11.** Glass beads recovered from 40GN9 excavations.
the Southeast as a place that the Spanish felt comfortable enough to linger, build a fort, and rely upon during excursions to other areas (Fidalgo delvas 1557:64v). Pardo and his officers also depended upon Chiaha as an ally, with Moyano building a small fort in the principal town of the chief of Chiaha in 1567 (Martinez 1990:320). The town plan of a palisaded village was different from places farther east. Booker et al. (1992) make a convincing case that the people in the region of Chiaha spoke Koasati, and Koasati place-names are found west of there. The chief’s florid welcoming speech indicated that he was sent from Guaxulle, suggesting some degree of political interaction, but the western edge of what may have been the northern reaches of Cherokee settlement did not extend much beyond present-day Greene County (Fidalgo delvas 1557:63v). The overall impression is that Chiaha was a political, linguistic, and social entity distinct from areas to the east.

Chisca

Chisca was a political player that did not lie along the camino real and therefore is unlikely to have been along the Nolichucky (Beck 1997:166). Chisca was to the north of Chiaha and had a metal foundry, piquing Spanish interest (Fidalgo delvas 1557:67r, v). A primary reliance on Southeastern instead of Great Lakes copper sources occurred relatively late during the Mississippian period (Beck 1997:166; Goad 1978; Treveylan 2004), along with a settlement shift farther west and south of the Fort Ancient region on the northeastern Mississippian periphery, perhaps contributing to more interaction with eastern Tennessee (Pollack et al. 2002:207; Williams and Shapiro 1990). After A.D. 1500, Fort Ancient—region mortuary contexts contain the second-greatest concentration of Citico-style rattlesnake gorgets outside of eastern Tennessee (Drooker
Scouts sent by de Soto returned after 10 days of travel in mountain ranges so steep that camping or marching was impossible, making the distance to Chisca about 25 leagues (86.75 mi) (Fernández de Oviedo y Valdés 1851:564; Fidalgo delvas 1557:64v, 66v). Pardo accounts indicate that Chisca included Maniatique and Guapere, towns destroyed by Moyano in 1567. Guapere could have been on the Watauga River in upper east Tennessee (cf. DePratter et al. 1983:131) but could not be Cherokee, as Cherokee has no /p/ (Booker et al. 1992). Luisa Mendez, cacica of Maniatique, reported that her town had salt springs (Hudson 1990:190, 201; Martinez 1990:320), perhaps those of Saltville (Beck 1997:166). A cost distance analysis comparing the route to Saltville vs. a Fort Ancient site, Hardin Village, shows that the cost is very high to head north, while the northeastern route to Saltville better fits distance estimates given in the Spanish accounts; but the foray returned along part of the camino real, something accounts typically would have noted (Figure 13). Those of Chisca never sent reinforcements to Chiaha during Spanish incursions; the political break present in 1540 appears to have persisted in Pardo’s time. The copper working, salt sources, and non-Iroquoian linguistic affiliation all point to some degree of Fort Ancient affiliation for Chisca.

Alternate Routes

Pardo and soldiers of Fort San Juan made two forays from Joara to the west in 1567, and those accounts name places not mentioned in the de Soto chronicles. The Pardo expedition that left on September 24, 1567, was small and trying to reach Moyano quickly to rescue him from a siege at his fort in Chiaha. Both Beck (1997) and DePratter et al. (1983) suggest that the route they took was through the Swannanoa Gap, along the quick southern route of the GIS analysis, but evidence supports travel along the north route. The new town names in 1567 may reflect a rise to prominence of polities in the Holston and Nolichucky drainages in the years since de Soto’s expedition.

Tocae’e

After traveling three days from Joara, Pardo reached Tocae’e (TocaE, with the saltillo indicated by E; Tocae’e was also spelled Tocae, Tocar[e], and Toca), “a place that is over the top of the ridge,” the western side of the Blue Ridge (Bander 1990:266 [1569]). Booker et al. (1992:425) suggest that Tocae’e was Toqua or possibly Dakwai, along the French Broad River according to nineteenth-century Cherokees, about 6 mi above Hot Springs in Madison County, North Carolina (Hudson 1990:95). The stated distance of a little more than 14 leagues and the potential for six-
teenth-century settlement convinced DePratter et al. (1983:143) and Beck (1997:167) that Tocae'e was near the present town of Asheville, North Carolina. The GIS routes show that the southern route spends the first leg of the journey on relatively flat ground and would be near the highest elevation after three days’ worth of travel, whereas on the northern route the travelers could indeed have crossed the range.

Tocae'e was linguistically distinct from Joara, as other interpreters besides the Muskogean-speaking Rufín were needed to communicate with its orata. Pardo met with four Cherokee-speaking oratas at Tocae'e, and Tocae'e is consistently associated with Cherokee towns (Hudson 1990:96). The travel distance and physiographic description fit well with Watauga Old Fields, near Elizabethton, Tennessee.

Cauchi

On October 2, 1567, after leaving Tocae'e, Pardo next encountered Cauchi, in an area of very large bottomlands. Suggested locations of Cauchi include the vicinity of present-day Marshall, North Carolina (Hudson 1990:96), and the Garden Creek site, on the upper Pigeon River near Canton, North Carolina (Beck 1997:167; DePratter et al. 1983:144; Dickens 1976:207). Cauchi fits better with the upper Pigeon than with the middle French Broad, where alluvial lands are narrow, and the Swannanoa River may have been abandoned by the time of the de Soto and Pardo entradas (Hudson 1990:100). The upper Pigeon, however, is still much narrower than the Nolichucky Valley. One of the best clues about Cauchi’s location is a set of distances in the “long” Bandera (1990:f18v [1569]) relación. In the list of distances to several other Spanish forts/towns from Joara, Cauchi is northeast from Joara, which makes it impossible for it to be in the Asheville Basin to the southeast but does place it within the Nolichucky Valley (Table 1). Booker et al. (1992:437) and Hudson (1990:97) tentatively identify Cauchi as Cherokee and as de Soto’s Guasili (Booker et al. 1992:406). If Cauchi was Guasili, then it was likely in the Nolichucky Valley. The dense concentration of contact-period settlements was a strategic locale for a Spanish fort to manage tribute collection and foster political alliances. The upper Pigeon does not appear to have the same human resources, nor is the valley as broad.

Why did Pardo name some settlements that de Soto did not? Established settlements were not always noted in each account, and some settlements may have shifted even closer to the camino real during the 20 or so intervening years since de Soto’s visit. The route may have acted as a magnet, drawing closer new or consolidating established alliances as part of political jockeying within the context of Spanish tribute demands. Tocae'e and Cauchi reiterated ties between them, as well as Cherokee towns whose names persisted into the eighteenth century. Cauchi was probably just east of a cultural, linguistic, and political divide, beyond which lay the polity of Coosa, where no Cherokee oratas met with Spaniards (Beck 1997:167; Booker et al. 1992:408, 429; Hudson 1990:97).

Overall, the locations of sixteenth- and seventeenth-century towns align along the two proposed GIS routes. Further, the locations of many of the towns correspond with 5-league stopping points along both paths. This finding suggests that typical army travel time affected settlement location in the sixteenth-century Southeast.

A Revolutionary-Period Route

A later historical example supports the GIS northern route and offers important refinements. The closest approximation of Spanish expeditions in terms of the number of people, pieces of equipment, and livestock is the military foray of the Overmountain Men from Sycamore Shoals, Tennessee, to Quaker Fields on their way to fight the Battle of King’s Mountain in fall 1780 (Alderman 1970; Draper 1881; U.S. Congress 1928). Like de Soto’s army, the Overmountain Men numbered about 400 and brought weapons and livestock with them. From their start near Elizabethton, Tennessee, they traveled along the Doe River to

| Table 1. Distances to Native American and Spanish Towns and Forts from Joara. |
|-----------------|-----------------|--------|
| Sixteenth-Century Town/Fort Name | Direction | Distance (Leagues) |
| Chiaha/San Pedro | West | 50 |
| Cauchi/San Pablo | Northeast | 28 |
| Guatari/Santiago/Salamanca | Southeast | 40 |
| Canos/Santo Tomás | South | 45 |
| Canos to Santa Elena | South | 55 |
its headwaters and then passed to the North Toe headwaters. The route is close to the GIS path and farther north than Beck’s (1997), but the Sycamore Shoals approach offers an even wider passage to the mountains.

Discussion and Conclusion

This research shows that routes in the Southeast were vectors of political and social affiliation and difference, as well as how GIS modeling of paths can take into consideration the crucial factor of the scale of interaction that created these social dynamics. How many people traveled together at a time is a question relevant to many parts of the world in different periods. The way Nolichucky Valley residents related to others via their roads lends a more nuanced view of their place as cultural pioneers and shows that the movement of large groups of people might have been a basis for dramatic changes of the period. Sixteenth- to seventeenth-century settlement was aligned to access the wide, northern travel route, a main artery of exchange in the Southeast interior that continued in use from de Soto’s to Pardo’s time despite substantial shifts in the political landscape. The emphasis on the movement of large groups seems to have fostered power for Nolichucky and Joara polities compared with Cofitachequi and Coosa; perhaps an emphasis on mobility and flexibility rather than a large territory made polities more durable. Social and political power often involves issues of scale, but in this case it is engagement with the scale of traveling groups and flows of people more so than the size of territory, factors that come to light through the analysis of roads.

Sixteenth-century accounts of the Nolichucky support Cherokee linguistic affiliation and status as a distinct polity, defined along these pathways by social displays of welcoming parties. The material culture of the Nolichucky settlements has strong stylistic ties to known Cherokee towns on the east side of the Blue Ridge, yet also Burke and Dan River wares as well as possible precursors of later Overhill Cherokee ceramics. This unusual combination of material culture traditions was facilitated by the close association of Nolichucky towns with the wide highway and the interaction and movement of large groups of people as well as the efficient travel of small parties to the Cherokee heartland. Archaeological evidence indicates that Nolichucky sixteenth- to seventeenth-century towns were new and did not last long, evacuated before any influx of Charles Town trade goods. Nevertheless, they were the old towns of note to Cherokees in the 1760s:

The only settlements noticed by the Cherokees were near Nolichucky; but having been long settled there, they could not go farther back to others . . . prior to the year 1652, or as early as the period when Cornelius Dogherty came to the nation, Mr. Hicks says about the year 1697 [Haywood 1823:237].

The hundred years or so of this component occurred during the waning of Cofitachequi and rise of Joara sovereignty, defined by material and social actions along the northern route (Beck 1997; Booker et al. 1992:406; Ethridge 2010; Merrell 1989). Later Qualla pottery at Overhill sites probably represents the movement of some Cherokee households and towns to Overhill settlements during the late 1600s and 1700s (Goodwin 1977) as a response to encroachment by Europeans in the southern Appalachians, as well as destabilization due to the deerskin and slave trade and new kinds of conflict and warfare (Ethridge 2006; Gallay 2002; Marcoux 2008; Smith 1987). This research suggests that Cherokee reshaping of the political landscape to include westward movement began before any European arrived in the region.

This study of routes emphasizes that crucial elements of human activity are not just “sites”—single, discrete, bounded units of human activity (Dunnell 1992). The road is a dynamic force, a place of encounter for people that also creates physical constraints. Rather than neutral backdrops for movement, the roads themselves affect how and where time is spent and with whom travelers interact. The ethnohistoric and archaeological data support that sixteenth-century road networks were least-cost paths and that Spanish entradas followed them. Factoring in the size of the traveling party in the GIS analysis resulted in two significantly different pathways, with only the northern route conforming to the vivid accounts of the de Soto expedition. The surprising correlation of both routes and their 5-league stopping points with protohistoric archaeological sites underscores that not only the routes themselves...
but typical travel times also affect settlement location. Roads are human routes and need to be modeled in anthropological terms.

Acknowledgments. Several seasons of archaeological research were made possible by institutional support from Illinois State University, several grants from the Tribal Historic Preservation Office of the Eastern Band of Cherokee Indians, and a grant from the Cherokee Preservation Foundation. This research would not have been possible without the very generous cooperation of Mike Moore and Susanne Hoyal at the state of Tennessee Archaeology Division. Susan Danforth, George S. Parker Curator of Maps and Prints, and Ken Ward, Maury A. Bromsen Curator of Latin American Books at the John Carter Brown Library, Brown University, both graciously provided invaluable assistance for this research. We also wish to thank Russ Townsend, Chris Rodning, Beau Carroll, Johi Griffin, Miranda Panther, Brian Burgess, and Tyler Howe for their insightful comments and support of our endeavors. Joey and Angie Webb, Bobby Bryoles, and Billy and Rosa Lea Profitt provided invaluable logistical support and encouragement, for which we are thankful. Any errors or omissions are our own.

Data Availability Statement. The artifacts, survey and excavation records and drawings, and ecodata are all being curated at Illinois State University in collaboration with the Eastern Band of Cherokee Indians Tribal Historic Preservation Office while analysis is ongoing. The digital databases of site age and location are managed by the state of Tennessee, Division of Archaeology.

Supplemental Materials. Supplemental materials are linked to the online version of the paper, which is accessible via the SAA member login at www.saa.org/members-login.

Supplemental Table 1. Characteristics of Sixteenth to Seventeenth-Century Indigenous Ceramic Wares in the Nolichucky Valley.

References Cited

Alderman, Pat

Anderson, David G.

Ashmore, Wendy, and A. Bernard Knapp (editors)

Bandera, Juan de la, II

Bauer, Brian

Beck, Robin A.


Beck, Robin A., Jr., David G. Moore, and Christopher B. Rodning

Booker, Karen M., Charles M. Hudson, and Robert L. Rankin

Borah, Woodrow

Boyd, C. Clifford, Jr.

Chardon, R.

Clayton, Lawrence, Vernon James Knight, Jr., and Edward C. Moore (editors)

Cumming, William P.

DeMers, Michael N.

DePratter, Chester, Charles Hudson, and Marvin Smith

Dickens, Roy S.

1980 Preliminary Report on Archaeological Investigations at the Plum Grove Site (40W gl7), Washington County, Tennessee. Unpublished MS on file, Department of Anthropology, Georgia State University, Atlanta.

Doyles, James A., Thomas G. Garrison, and Stephen Houston

Draper, Lyman C.
1881 King’s Mountain and Its Heroes: History of the Battle of King’s Mountain, October 7th, 1780, and the Events Which Led to It. Cincinnati.

Drooker, Penelope B.


Haywood, John 1823 *The Aboriginal and Natural History of Tennessee, Up to the First Settlements Therein by the White People This Year 1768*. George Wilson, Nashville.


MacLeod, Murdo 2008 *Spanish Central America: A Socioeconomic History, 1520–1720*. University of Texas Press, Austin.


Milanich, Jerald T.

Milanich, Jerald T., and Charles Hudson

Milner, George R., and George Chaplin

Mitchem, Jeffrey, and Jonathan Leader

Mooney, James


Moore, David

Phillips, P. J.

Polhemus, Richard
1987 The Toqua Site, 40MR6: A Late Mississippian, Dallas Phase Town. Tennessee Valley Authority, Knoxville.

Pollack, David, A. Gwynn Henderson, and Christopher T. Begley

Purser, Margaret

Rabus, Bernhard, Michael Eineder, Achim Roth, and Richard Bamler

Ramsey, J. G. M.
1853 The Annals of Tennessee to the End of the Eighteenth Century: Comprising Its Settlement, as the Watauga Association, from 1769 to 1777: A Part of North Carolina, from 1777 to 1784: The State of Franklin, from 1784 to 1788: A Part of North Carolina, from 1788 to 1790: The Territory of the U. S. States, South of the Ohio, from 1790 to 1796: The State of Tennessee, from 1796 to 1800. J. Russell, Charleston, South Carolina.

Reuter, H. I., A. Nelson, and A. Jarvis

Rodning, Christopher

Rudes, Blair

Sampeck, Kathryn


Santa Cruz, Alonso de

Schroedl, Gerald F.

Smith, Marvin

Smith, Marvin, and Mary Elizabeth Good

Sned, James E., Clark L. Erikson, and J. Andrew Darling (editors)

Sofaer, Anna, Michael Marshall, and Rolf Sinclair

Swanton, John R.

Trevelyan, Amelia M.

Trombold, Charles D. (editor)

U.S. Congress

Vega, Garcilaso de la
1605 La Florida del Yne: Historia del adelantado Hernando de Soto, gobernador y capitán general del reyno de la Florida, y de otros heroicos caualleros espaioles e índios. Impreso por Pedro Crashbeek, Lisbon.

Williams, Mark, and Gary Shapiro (editors)

Worth, John

Submitted February 3, 2014; Revised July 9, 2014; Accepted July 19, 2014.