The Hominy Foodway of the Historic Native Eastern Woodlands

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As long as the Indian can eat and drink osafki, he will not go dead.
— Creek saying

Made from boiled maize kernels exposed to an alkaline solution, hominy has been regarded as one of a number of maize dishes within the culinary repertoire of the Native cook. However, this article proposes that hominy was not a singular dish but rather the life- sustaining staple foodway for Native groups in the Eastern Woodlands and that it served as the basis for a number of resulting foods. Th e importance of this foodway, practiced well into the twentieth century by many groups, is not just in its chemical alteration of maize but also in the elements of sociality that envelop it, which helped perpetuate the culinary, nix-tamalizing practices involved long aft er they were no longer biologically essential. Th is sociality includes those domestic and community- wide practices that established a particular taste for lye and ash, important el-ements of the foodway, as well as the role of the hominy foodway within a broader social context.

Food plays a central role in our lives. It is not simply that we eat every day up to several times a day. Food is much more than nourishment—enveloping it are a number of activities, ones that involve procurement, preparation, serving, and even disposal. As such, food is surrounded by a number of cultural rules and guidelines that facilitate this process, telling us what is good to eat and what is not, when it is good to eat and when it is not, how we should eat, where we should eat, even, at times, why we should eat.[1] These rules are constantly reinforced on a daily ba-

sis, cementing them as "the original social glue that forms the bonds of family and society while creating the individual."[2] Thus, food is also shrouded in meaning, and this meaning constructs and interprets our lives and experiences.

At this point, though, we are no longer talking about just food. We are talking about foodways, or the activities, rules, and meanings that surround not only food but cuisines (or the manner in which food is prepared).[3] Unlike studies of food, foodways studies encompass the social activities that surround a specific food or dish, providing a means to discuss shared, common culinary and social practices related to specific foods and dishes. Thus, the distinct advantage of foodways studies is that they are holistic, broadening the focus from the plant or animal exclusively to also incorporate those practices surrounding their preparation and consumption, as well as the social and cultural contexts enveloping them.

An example of the important difference between these two approaches would be the study of maize versus the study of foodways in which maize is the central foodstuff. Studies of the maize plant have long stressed its versatility as a food product and its productivity as a dietary staple. Ubiquitous throughout the New World at the time of European contact, maize is heralded as a plant full of possibilities, serving as the backbone for the rise of complex societies in the Americas, as a dietary staple of European peasants from the seventeenth century on, and now as the third most utilized human food source in the world (first for ruminant fodder).

There is no question that maize was a staple among the indigenous peoples of the Eastern Woodlands. From the chroniclers of Hernando de Soto's *entrada* to the letters of Jesuit missionaries to the journals of the naturalist William Bartram, the prevalence of maize was noted throughout the region. In addition, explorers and colonists commented on the numerous, diverse ways Natives prepared the plant.[4] Jean-François-Benjamin Dumont de Montigny is often cited to the effect that among the Natchez there were at least forty-two different ways of preparing maize, each with a different name.[5] From a food studies perspective, this statement is understood to indicate that there were many unique and varied dishes that could be made with maize. However, from a foodways perspective, we begin to understand that this statement may have another meaning. Instead of forty-two wholly separate dishes, this

statement more likely indicates that there were forty-two dishes stemming from a far smaller number of common, basic foodways that incorporate specific materials, follow similar rules, and hold similar meanings by those who prepared those dishes.

Ironically in the case of maize, nutritional studies indicate that, by itself, this plant is actually *not* a biologically life-sustaining food. Unless maize is properly prepared or supplemented, a diet high in maize will lead to rampant malnutrition, which, if left untreated, is fatal. Thus, contrary to popular thought, maize itself is not a life-giver; instead, the *foodways* associated with maize are the life-givers, especially those that incorporate alkaline cooking, also known as nixtamalization. Nixtamalization is a cooking technique that not only affords a processing advantage by softening the pericarps (or hulls) of mature maize kernels but also, and perhaps more importantly, nutritionally enhances the plant kernels by increasing the available amount of essential amino acids and B vitamins. The word *nixtamalization* is derived from the Nahuatl *nixtamalli*, formed from *nextli*, meaning "ashes," and *tamalli*, meaning "unformed corn dough," or *tamal*. In modern-day Mexico, nixtamal specifically refers to maize products produced by either soaking or boiling maize in an alkaline solution, while nixtamalization refers to the process of alkaline cooking. First recorded among the Aztecs by Spanish chroniclers, nixtamalization is best known as the first culinary steps of the tortilla and tamale foodways and their resulting foodstuffs, but it also makes up the primary steps in the hominy foodway of the Eastern Woodlands.[6]

This article proposes that the hominy *foodway*, not the maize plant per se, was the dietary life-sustaining staple of the historic indigenous groups of the Eastern Woodlands. Hominy is a dish of boiled maize kernels, either ground or whole, that have been nixtamalized. As Jesuit missionary Father Paul du Poisson noted, "The most ordinary food of this country—almost the only one for many people, and especially for travelers—is *gru* [hominy]."[7] This sentiment was echoed by Pierre François Xavier de Charlevoix, who referred to *sagamité* (the French term for hominy) as "the most common food of the Indians."[8] However, while hominy has been regarded as the principal Native food dish, even as the primary cuisine, throughout the Eastern Woodlands, few researchers have referred to the dish as a foodway, missing the important distinction between maize-based versus hominy-based subsistence.[9] This oversight is perhaps best demonstrated by the Smithsonian Insti-

tution series Handbook of North American Indians: both the *Southeast* and the *Northeast* volumes lack indexical entries for hominy.[10]

Instead of acting only as a stand-alone dish, the hominy foodway was a practice akin to the tortilla foodway of Mesoamerica, in which the first few steps for making tortillas involve nixtamalizing dried, mature maize kernels and then grinding them. From this base, numerous dishes can be made, leading to a plethora of related but separate foodstuffs, much like the way pastas are the basis for a number of resulting Italian dishes. In the case of the hominy foodway, the result is a collection of dishes stemming from a common, life-sustaining culinary practice that was inseparable from the social and cultural contexts enveloping it, resulting in a surprisingly conservative tradition perpetuated throughout the historic Eastern Woodlands.

PRACTICES OF THE HOMINY FOODWAY: MATERIALS AND CULINARY STEPS

While hominy is referenced far less than the maize plant itself within the ethnohistorical record, there is still a sizeable number of references that discuss the steps involved in its preparation, as well as the history, tradition, and sociality surrounding the dish (table 1). In addition to providing the basic outline of steps and ingredients of the foodway (discussed below), these references span a considerable geographic and temporal range, encompassing most of the historic Eastern Woodlands while expressing an equally impressive amount of consistency. These factors indicate a broadly shared and practiced hominy foodway (table 2).

Before outlining the basic culinary steps and materials of this foodway, it is necessary to discuss nixtamalization, which is the key procedure transforming maize into a life-sustaining staple food. Stressing and outlining the role of nixtamalization has generative features for researchers interested in both food and foodways studies.

Nixtamalized dishes are those that follow procedures resulting in the nutritional enhancement of maize kernels, transforming them into a complete dietary staple. In order to increase the nutritional quality of the product, two basic steps must be performed either in succession or in combination: first, maize kernels must be exposed to an alkaline solution, and second, they must be boiled.[11] The chemistry behind this is twofold: while all variants of maize have kernels that are naturally high

TABLE 1. Historic terms for hominy in the historic Native Eastern Woodlands

Group	*Common names for hominy and hominy-related dishes*	*Sample description*	*Additional citations*
Algonquin (general)	*rockahominy nocake*, *ûseˇkutehémeˉn/*, *uskatahomen* (from which the English word *hominy* is derived)	"This is *Indian* Corn soaked, broken in a Mortar, husked, and then boil'd in Water over a gentle Fire, for ten or twelve Hours, to the consistence of Furmity: The Thin of this is what my Lord *Bacon* called Cream of Maise, and highly commends for an excellent Sort of Nutriment" (Beverley [1722] 2010, 150).	Gerard 1905; Pargellis 1959; Strachey (1612) 1953
Catawba	*kusimeyü*, *kuspi seratere*	"Recipe for Lye Hominy. Husked corn is corn with the skin or shell removed. We put it in ashes and boil it well. The corn skin is good. So we shell the corn, pour it out and eat it" (Speck 1934, 80).	Lawson 1860; Swanton 1918
Cherokee	*conihani*, *ganohe•ni*	"The women and girls prepared the food as is customary with other nations. The principal dish, 'Con-nau-ha-nah' (a hominy prepared with lye leached from green hardwood ash) [is] made of Corn" (Keys and Kilpatrick 1966, 192).	Anonymous (1941) 2000; Walker 1957; Wright 1958
Chickasaw	*pashofa*, *pishofa*, *picofa*, "tomfuller," *tafala*	"I have eaten *tom-fulla* (hominy, beat and boiled, a little lye dropped in it, and turned a little sour) with Tishomingo. Tom-fulla was a common diet among the Indians" (Barry Hodges in Warren 1904).	Adair 1775; Speck 2004; Wright 1958
Choctaw	*holhponi*, *tafala/tanfola*, *tafula*, *tanfula*, *tanlubo*	"Most everybody knows how to skin corn and make what we used to call bighead hominy. White people use canned lye to make this hominy, but Mother used lye made from wood ashes. One kind of *Tafulla* was made by placing corn in a mortar, sprinkle water on the corn a little at a time and beat with a pestle lightly, until the husk is off the grains; then take out, put into a riddle basket and shake the husk out; place grains back into mortar, then pound with pestle until grains are broken to desired size" (Christian 1931, 163–64).	Adair 1775; Brightman and Wallace 2004; Byington 1915; Foreman 1933; Hudson 1939

Creek and Seminole (Musk-ogee)	*sofki/sofkey*, *apaski*, *oafka*	"The common food of the Creek is Indian corn, pounded and boiled, with which they mix a small quantity of strong lees of the ashes of hickory wood. It is boiled until the corn is tender, and the liquor becomes as thick as rich soup. The lees give it a tart taste, and preserve it from souring by the heat of the climate" (Caleb Swan in Schoolcraft 1860, 274).	Innes 2004; May 2004; Watson 1950; Wright 1958
Delaware	*nasaump*, *pxi•sk-té•yc*, *set•é•yo*	"Then there were set upon the floor, in the great hall, two large kettles, and many other vessels filled with *Sappaun*, which is a kind of hasty pudding made of maize or Indian corn, which grows there in abundance" (Holm 1834, 78).	Ives 1978; Penn 1912
Iroquois	*ganondagan/onon-dagan*, *onondäät*	"Hominy, Onon'däät. Hominy is prepared from flint corns. For a family of five persons, a quart of corn was thrown in a mortar and moistened with a ladleful (four table-spoons) of water. To make the pounding easier a teaspoonful of white ashes or soda is thrown in also" (Parker 1981, 73).	Fenton 1953; Morgan and Lloyd 1901; Shimony 1961; Tooker 1970
Natchez	*gru*	"The most ordinary food of this country—almost the only one for many people, and especially for travelers—is *gru*. Corn is pounded, in order to remove the outer skin, and then is boiled a long time in water, but the Frenchmen sometimes season it with oil; and this is *gru*" (Du Poisson [1727] 1901, 291–93).	Dumont (1747) 2012
Yuchi	*tsoˇci*, *sofkee*	"One of the chief articles of diet was the tsoˇci, a kind of corn soup. To make this the grains of corn, when dry, are removed from the cob and pounded in the mortar until they are broken up. These grits and the corn powder are then scooped out of the mortar and boiled in a pot with water. Wood ashes from the fire are usually added to it to give a peculiar flavor much to the native taste" (Speck [1904] 2004, 44).	Speck (1904) 2004
Other names	*sagamité* (French and Mobilian), *sapean*, *suppawn* (Dutch), thin drink, hulled corn (English)	"For the women beat in mortars their flinty corn, till all the husks are taken off, which having well sifted and fanned, they boil in large earthen pots; then straining off the thinnest part into a pot, they mix it with cold water, till it is sufficiently liquid for drinking: and when cold, it is both pleasant and very nourishing; and is much liked even by the general strangers" (Adair 1775, 416).	Carr 1895, 178–79; Swanton 1946, 353; Will and Hyde 1964

Note: Full citations for each work mentioned in this table are provided in the works cited section following the endnotes.

TABLE 2. Temporal and geographic distribution of sources by group

	1500–1599	*1600–1699*	*1700–1799*	*1800–1899*	*1900–1950*	*1951–2000*
Northeast, general			Charlevoix 1761			
Algonkian groups (Northern and Southern)	Hariot (1590) 2007	Beverley 1722; Pargellis 1959; Smith 1617; Strachey (1612) 1953	Beverley 1722			Speck 1940
Delaware			Brickell 1844	Heckewelder 1876; Warren 1912	Tantaquid-geon 1942; Speck 1937	
Iroquois			Lafitau (1724) 1974			Fenton 1978; Parker 1968; Shimony 1961
Southeast, general	Garcilaso de la Vega 1723			Adair 1775; Bracken-ridge 1814; Catesby 1754		
Catawba			Lawson 1860	Brickell 1911	Speck 1934	
Cherokee			Bartram 1853	Keys and Kilpatrick 1966	Anonymous (1941) 2001; Mooney 1982	Wright 1958
Chickasaw			Catesby 1754	Warren 1904		Speck 2004; Wright 1958
Choctaw			Campbell 1959; Romans (1775) 2009; Swanton 1993	Campbell 1959	Christian 1931; Crossett 1926; Foreman 1933; Hudson 1939	Wright 1958
Creek (including Seminole and Yuchi)			Bartram 1853; Romans (1775) 2009	Schoolcraft 1860; Speck 1911, 2004	Speck 1911, 2004; Watson 1950	Wright 1958
Natchez			Dumont (1747) 2012; Du Poisson (1727) 1901; Du Pratz 1774			

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in several B vitamins and essential amino acids, including lysine and tryptophan (the latter of which is converted into niacin), these essential compounds are tightly locked within the kernel's endosperm, making them indigestible for nonruminants such as humans.[12] Ricardo Bressani and Nevin Scrimshaw demonstrated that the combination of heat and alkaline treatment decreases the solubility of the zein portion of the seed, which is the nutritionally poorest of the maize proteins, while simultaneously increasing the relative release rate through enzymatic action (i.e., digestion) of most of the essential amino acids.[13] The result is an overall improvement in the nutritional quality of nixtamalized maize compared to nonnixtamalized maize.

Thus, if maize is not either supplemented by another foodstuff or nixtamalized, a population subsisting principally on untreated maize will experience high levels of malnutrition manifesting as pellagra.[14] Pellagra, an Italian word derived from *pelle*, "skin," and *agra*, "rough," is a chronic wasting disorder brought on by severe niacin deficiency. Although noteworthy for the rough, thickened skin developing late in the course of the disease, pellagra has other severe symptoms, such as chronic diarrhea and dementia, and if left untreated is in many cases fatal.[15] The disease was first recognized in 1762 in the Asturias region of northern Spain, where it was rampant for nearly thirty years. With the extensive exploitation of maize among peasant populations, pellagra was soon diagnosed in other areas of southern Europe, punctuated by a few key outbreaks, such as that of "corn sickness" in late eighteenth-century northern Italy when the staple wheat crop failed and untreated maize became the primary foodstuff. As maize was divorced from a nixtamalizing foodway, outbreaks of pellagra increased, eventually coming full circle back to the Western Hemisphere in the early twentieth century. During the Great Depression, many populations in the southeastern United States increased their consumption of untreated, nonsupplemented maize, elevating it to a staple food. This resulted in over thirty years of widespread, untreated pellagra, including over three million documented cases and one hundred thousand attributed deaths.[16]

An alternative to nixtamalization is to complement a maize diet with either one or several other foodstuffs. The most common complementary items are legumes, especially varieties of the common bean (*Phaseolus vulgaris*). Some of the earliest observations by European explorers among Native groups in the Eastern Woodlands include those of intercropping

maize, beans, and squash. Additionally, beans were a common ingredient added to maize dishes in general and hominy dishes in particular. However, despite the relationship between these two plants at the time of contact, they were likely separately disseminated into most parts of the Eastern Woodlands. The common bean was not introduced into the region until sometime around AD 1300, nearly two centuries after maize was elevated to a dietary staple in many Mississippian communities and a full millennium after its initial introduction to the region.[17]

I believe it likely that nixtamalization was an essential part of the hominy foodway for generations before an appropriate nutritional complement was introduced to the agricultural system.[18] One highly probable by-product of this time was the establishment of a widespread cultural taste for lye and ash that helped perpetuate this practice even during times when it served no nutritional benefit. At the point when the common bean was disseminated to the Eastern Woodlands, instead of replacing the practice of nixtamalization, the legume was incorporated into the hominy foodway as a popular supplementary ingredient. This cultural taste for ash in boiled corn, combined with the processing advantage of nixtamalizing kernels, ensured that nixtamalizing components of the foodway remained intact through most of the historic period.

THE HOMINY FOODWAY

In order to delineate the shared elements of the hominy foodway, I extensively drew on the ethnohistoric record for the Eastern Woodlands, supplemented at times with ethnographic sources. Doing so revealed a basic set of nixtamalizing steps and materials. Following is the general outline for these culinary steps:

1. Dried flint maize kernels are soaked, usually overnight but for at least several hours, in a solution made from either hardwood ashes or lye, which is made by leaching water through ash and is thus chemically the same as a wood ash solution. The kernels are ready either when their hulls are noticeably loosened or when the kernels begin to change color, turning light yellow or white.
2. Next, the kernels are processed by any combination of rinsing, rubbing, or grinding to remove the hulls and any excess lye or wood ash.

3. The kernels are then boiled in an earthenware pot, a step that lasts anywhere from one to ten hours.

The resulting product can be eaten hot or at room temperature, or it can be used as the base for other dishes, including a kind of nourishing meal (known to the French as *farine froide* and frequently eaten on journeys), various porridges, stews, and certain breads. Some of the more common ingredients used in the foodway include hickory nuts, beans, dried fish, bear oil, and other animal fats.

As mentioned above, dishes fitting this general description are referenced profusely in ethnohistoric sources for the Eastern Woodlands. References that describe this process include those to boiled maize, hulled maize, maize porridge, samp, *sagamité*, hominy (and various spellings of the word), and other maize dishes described as boiled with ash or lye but not named (table 1).

Of course, while there are considerable similarities, there are distinct, signature differences that identify different group traditions (table 1). Ethnographic sources indicate that the Creeks and Seminoles still make *sofki* by soaking kernels for a day in a solution made from hardwood lye; the kernels are then rinsed and boiled. The Choctaws make *tanfula* by following a similar set of steps: soaking dried kernels in an alkaline solution, removing the hulls by gently beating the kernels, and finally boiling the kernels. The Eastern Cherokees skip the soaking step altogether and boil their kernels in a lye solution for several hours. One way the Iroquois make *onondäät* is by moistening dried kernels with a small amount of water and soda or wood ash, then pounding the kernels until the hulls are easily removed. Among the Yuchis, *tso'ci* is made by first pounding dried maize kernels in a mortar and then boiling them with wood ashes. While it is the variation between traditions that makes each idiosyncratic and a marker of group identity, underlying all are the basic steps of nixtamalization, which enable the transformation of maize into a nutritionally complete dietary staple. These steps are enveloped within shared aspects of sociality that together define the regional foodway.

In the Eastern Woodlands, there is a surplus of available material that can be used as a substrate to make an alkaline solution.[19] There are natural limestone deposits and salt brines in many parts of the Eastern Woodlands, both lime and salt being superb alkalizing agents. Ashes, as a general class of material but specifically those derived from plants,

are also great for alkalizing. While the ashes of some plants have higher concentrations of potassium and sodium and thus can be used to make more caustic solutions, the ashes of virtually all plants, from water lilies to shrubs to both hard and soft woods, can be used as alkaline substrates. For this reason, it is surprising that throughout the Eastern Woodlands there is one particular material class that practitioners prefer as the alkaline agent essential to nixtamalization: hardwood ash. The most frequently mentioned hardwood ash is hickory.[20]

While hickory stands out as the common preference, other hardwood species identified much less regularly include locust and poplar, as well as green hardwoods in general.[21] However, more often than not, unless hickory is singled out, then no particular tree is singled out, and sources simply indicate that hardwood ashes were used (table 3). Not only is it surprising that hardwoods in general but hickory in particular was preferred but that the most numerous family of hardwoods in the Eastern Woodlands, *Quericus*, or oak, is almost never mentioned.[22] I found only one reference to *Quericus* ashes used to cook hominy, recorded among the eighteenth-century Choctaws:

> When this stew is almost done they throw into it the finest of the corn which they have reserved for thickening, and by way of seasoning they have a pot hung aloft in which are the ashes of corn silk, beanpods, or finally oak ashes, and having thrown water upon this they take the lye collected in a vessel underneath, and with it season their stew, which is called *sagamite*. This serves as their principal food.[23]

Despite its conspicuous absence as a nixtamalizing substrate, oak does play a role in several twentieth-century practices, serving as the preferred wood to make the large wooden mortar used to grind maize, with hickory used to make the pestle.[24]

In addition to the natural alkaline mediums available, baking soda, or sodium bicarbonate, is also a viable substrate and was introduced to the Eastern Woodlands as a modern alternative for using wood ash and lye.[25] However, by the time baking soda was widely available to Native practitioners, it was only sparingly used in the hominy foodway. Soda was and is more commonly used when cooking cornmeal or flour.[26] Likely, soda was first incorporated by many as part of the more specific flour or cornbread foodway, functioning not only as an alkaline sub-

strate but also as a leavening agent.[27] Instead, many groups prior to the twentieth century continued to use ash, preparing maize kernels intended for flour and hominy in a similar manner.

The cornbread foodway is likely a descendant of the hominy foodway, indicated by the fact that traditions for making cornbread tend to specify a similar set of preparatory nixtamalizing steps early in the process. However, there are distinct culinary differences. Not only is a separate variant of maize used, but practitioners making flour also consistently ground maize kernels to a much finer texture. Though cornbreads were sometimes boiled, more frequently they were baked in warm hearth basins, the dough either wrapped or placed directly in the ashes.[28] In addition to culinary differences, the sociality of cornbread is different from that of hominy, the latter strongly associated with general ideas of health, hospitality, and the prolific Green Corn ceremonies.

While wood ash or lye alkaline solutions are essential to nixtamalization, heat treatment is an equally critical element. Thus, while it is possible to combine alkaline treatment and boiling, it is not possible to skip boiling altogether or to precede alkaline treatment with boiling and still achieve the same nutritional benefit. Many traditions separate these two steps: kernels are first soaked in lye, rinsed, then boiled (table 3). Though heat is needed to nutritionally enhance kernels alone, soaking in an alkaline solution *only* facilitates hull removal. Soaking tends to last anywhere from a couple of hours to overnight or longer. In most accounts, soaking errs on the side of longer periods.

Similarly, boiling accounts are highly variable and indicate that this step could last anywhere from an hour to upward of twelve, although these longer periods are usually intermixed with prolonged periods of simmering. One of the factors that affected the period of boiling time is the type of vessel: when an earthenware pot was used, more time was needed, but when an iron kettle was used, far less time was employed, since iron kettles conduct heat better than earthenwares.[29] With an earthenware pot, cooking time would last anywhere from two to twelve hours, with most cases falling on the longer side of that continuum. Using an iron kettle cuts boiling time down to an hour or two, maybe less, although overall cooking time may still be considerable. As noted, a handful of groups combined both alkaline treatment and boiling, a process that typically reduced total cooking time to one to two hours.[30]

TABLE 3. Steps, ingredients, and sociality of the hominy foodway indicated by sources used in this article

	Lye	*Hardwood ash*	*Extended boiling*
Algonquins (Northern and Southern)	Beverley 1722, 155	Beverley 1722, 152; Hariot (1590) 2007	Beverley 1722, 150; Strachey (1612) 1953, 73
Catawba	Speck 1934, 80	Brickell 1911; Lawson 1860; Swanton 1918	Speck 1934, 80
Cherokee	Walker 1957, 202; Key and Kilpatrick 1966, 192; Mooney 1982, 610	Anonymous (1941) 2000; Walker 1957, 202; Key and Kilpatrick 1966, 192	Anonymous (1941) 2000, 190; Walker 1957
Chickasaw	Adair 1775, 116; Warren 1904		Warren 1904
Choctaw	Christian 1931, 163–64; Foreman 1933, 309–10	Christian 1931, 163; Hudson 1939, 333; Swanton 1993, 38	Campbell 1959, 17
Creek (includes Seminole and Yuchi)	Schoolcraft 1860, 274; Watson 1950, 99	Cory 1896, 18; Schoolcraft 1860, 274	Schoolcraft 1860, 274
Delaware		Penn 1912, 232; Tantaquidgeon 1942, 49	Penn 1912, 232; Tantaquidgeon 1942, 49; Williams 1643, 34
Iroquois	Parker 1968, 30	Morgan and Lloyd 1901, 28; Parker 1968, 73	Morgan and Lloyd 1901, 28
Natchez	Dumont (1747) 2012, 382–83		Du Poisson (1718) 1901, 290
Southeast, general			

Note: Full citations for each work mentioned in this table are provided in the works cited section following the endnotes.

Soaking	*Flint maize*	*Health sociality*	*Green Corn Ceremony*
Smith 1612, 17			Beverley 1722, 34; Speck 1940; Witthoft 1949
Anonymous (1941) 2000, 190		Bartram 1853, 43; Mooney 1982, 610	Bartram 1853, 74; Mooney 1982, 146; Schoolcraft 1860, 531
	Adair 1775, 416	Schoolcraft 1883; Swanton 1938, 86	Adair 1775, 105; Brightman and Wallace 2004, 490
Swanton 1946, 353–54	Hudson 1939	Swanton 1946, 353–54; 1993, 38	Mooney 1982; Swanton 1931, 21
Speck 2004, 44; Wright 1958, 163	Speck 2004, 44; Walker 2004, 375; Wright 1958, 163	Bartram 1853, 43; Romans (1775) 2009, 92; Witthoft 1949, 57	Gatschet 1884, 73; Schoolcraft 1860; Speck 2004; Witthoft 1949, 57
	Bierhorst 1995, 92	Brickell 1884, 49; Speck 1937; Tantaquidgeon 1942, 49	Brickell 1884, 49; Heckwelder 1876, 208–214; Speck 1937
Tooker 1970, 37	Heidenreich 1971; Parker 1981, 73; Waugh 1916, 82	Fenton 1953, 30; 1978, 301; Morgan and Lloyd 1901, 247	Fenton 1953; Parker 1981; Shimony 1961
Dumont (1747) 2012, 382	Du Pratz 1774, 224	Du Pratz 1774, 12–13, 227	Swanton 1911, 110; 1922, 315
	Swanton 1946, 296; Wright 1958, 158	Walker 1957, 203	Witthoft 1949

In many cases, this expedited cooking time was also partially achieved thanks to the aid of an iron kettle.[31]

Bressani and Scrimshaw indicate that in order to achieve a nixtamalized product, maize only needs to boil for upward of half an hour.[32] Accounts indicate, however, that one of the primary goals of boiling and soaking was to make the product "eatable,"[33] a condition met when kernel texture had changed, having softened.[34] Thus, kernels were soaked or boiled first until the hulls could easily be removed and second until the kernels were soft and the porridge had set. One twentieth-century Oklahoma Choctaw account indicates that "this slow boiling continued from twelve to eighteen hours, or until all the grains of corn were swollen, turned inside out, and quite soft. By this time the *tan fula* [*sic*] had acquired the consistency of a 'thick soup.'"[35]

A FUNDAMENTAL INGREDIENT: FLINT MAIZE

Generally, there are five recognized maize variants: sweet, flour, dent, pop, and flint. Each one has characteristics that make it more or less suitable for a particular cuisine. Of the five, pop and flint, while separate variants, share many of the same characteristics: they have the toughest mature kernels and also the highest relative protein content.[36] While poorly known today by most maize eaters, both historically and prehistorically, these variants were intensively used for food, undoubtedly thanks to their high protein content.[37]

As Francis King proposed, among many groups, flint was the preferred variant for making hominy (table 3).[38] There are several sources in which this connection is unequivocally made. For example, James Adair goes as far as to call flint *hominy corn*, while Annemarie Shimony indicates that among the Six Nations, the way to prepare flint-corn soup is to "boil the corn in wood ashes and water until the hulls come off."[39] Among eighteenth-century groups in the Lower Mississippi Valley, Du Pratz describes two varieties of maize grown: "Flour-maiz, which is white, with a flat and shriveled surface, and is the softest of all the kinds; Homony corn, which is round, hard, and shining; of this there are four sorts, the white, the yellow, the red, and the blue."[40]

The long-standing cultural preference for flint maize in the hominy foodway is at least partly related to observations King made regarding the differences in kernel quality and texture after being nixtamalized,

during which flour maize "tends to become soft and mushy," whereas flint maize remains firmer.[41] Nixtamalization has little effect on pops because of their extremely tough pericarps. Soaking flint kernels in an alkaline solution facilitates the removal of their hulls, and the final boiled product maintains a surprising amount of body. Nixtamalization may be a practice that was historically bound to flint variants in the eastern United States and was thus disseminated in tandem early during the Mississippian period of the late precontact era as part of a cohesive ancestral hominy foodway.[42]

PRACTICES OF THE HOMINY FOODWAY: DOMESTICITY, TASTE, AND CEREMONIALISM

While the culinary steps facilitating nixtamalization are critical elements, divorcing the practice from the rest of the foodway highlights it as the a priori purpose behind its perpetuation. Part of this proposal stresses not only how the hominy foodway produced a biologically life-sustaining food product but also how the sociality of the foodway created a second and equally important *social*-sustaining quality. Because of the deep connection food has with group identity, foodways are some of the most persistent aspects of societies that have experienced upheaval from migration, warfare, diasporas, or contact with new social and cultural system.[43] With European contact and subsequent colonization of eastern North America, indigenous groups experienced dramatic population losses related to disease and warfare, and many also relocated, coalescing with other groups either to ensure strength in numbers or to increase access to new European trade items. During this time, a number of new plants and cooking technologies were introduced, including the watermelon, the peach, rice, and the iron kettle.[44]

However, despite the potential for change, as late as the twentieth century Native groups still followed traditional guidelines for the hominy foodway.[45] Technological innovations like the iron kettle were only slowly incorporated into the foodway, while the overall exploitation of maize itself only slightly waned with the introduction of European domesticates.[46] Usually, introduced plants and animals were instead folded into dishes built on the hominy foodway; pork, for example, became a popular addition to soups, stews, and porridges partially as a replacement for bear and other endemic animal oils. As discussed, even the

introduction of commercial baking soda as an alkaline agent was only largely incorporated during the twentieth century, despite the fact that baking soda is a viable, less bitter substitute for wood ash and lye.

Explaining this conservatism as the sole product of nixtamalization misses the social and cultural roles fulfilled and even generated by its daily practice. Just as sociality was imposed on the foodway, specific elements of the foodway, on the other hand, shaped the social lives of the people who practiced it.

Much broader than the biological enhancement of maize kernels, lye and ash appear to have cultural connotations with and at times direct bearings on health. There are several references to the use of beanstalk ash in maize dishes, usually not as a nixtamalizing agent.[47] In these accounts, beanstalk ash is added in the final preparatory stages, indicating that it is used more for seasoning than as an active, chemically altering ingredient. According to William Bartram, the Creeks and the Cherokees had a very specific reason for adding these ashes to their dishes:

> But (besides their well-known remedy, *spigelia anthelmintica*), to prevent the troublesome and fatal effects of this disease [whooping cough], they use a strong *lixivium* prepared from ashes of bean-stalks and other vegetables, in all their food prepared from corn (*zea*), which otherwise, they say, breeds worms in their stomachs.[48]

While this addition may in fact have a preventative and even curative effect for a person plagued with worms, the relationship between ashes and maize dishes explicitly made here indicates a general conception that adding ashes to food made it healthier.[49] The specific association between maize and worms is also echoed by James Adair, who notes that before the *busk*, or Green Corn Ceremony, Creeks were charged not to eat any "unsanctified, or impure food, otherwise they will get full of worms, and be devoured by famine and disease."[50]

The association between maize, ash, and health is also apparent in the sociality of the hominy foodway, specifically the status of hominy as a sick food:

> When the natives are sick they eat no fish and very little meat, and they even abstain from that entirely if the nature of the malady demands it. Then they take only hominy or meal cooked in meat

> broth. If the sick person is worse they have a small quantity of coarse meal cooked in the same rich broth, and give of this broth [itself] only to one who is doing well.[51]

The only biomedical function associated with hominy in this sense would be as an easy-to-digest, high-energy food. More likely, the significance of hominy in this context is to provide comfort. As the dietary staple of the Natives of the Eastern Woodlands, hominy was very likely associated with both childhood and the idea of home.[52]

While we see the use of hominy as a comfort food on the individual level, we also see it on a social level as well in the Pishofa Ceremony, practiced by both the Chickasaws and Choctaws. While pishofa (hominy prepared with meat) is not used as a food to nourish a patient (instead, the patient must follow a strict set of food and lifestyle prescriptions), it is the primary dish prepared and eaten by the attending doctor, friends, and family who maintain a multiday vigil to provide support for the patient.[53]

Perhaps because of its strong associations with the home, or perhaps simply because it was such a prolific food dish, hominy was also broadly recognized as hospitality food, one served to any and all visitors. Bernard Romans notes that when a stranger arrived among the Creeks, he was quickly offered the pipe, "while the good women are employed to prepare a dish of venison and homany."[54] This association was and still is so entrenched among the Northern Iroquois that the iron kettle used by women to make hominy beginning in the twentieth century is generally viewed among the community as a sign and symbol of hospitality.[55]

A TASTE FOR ASH AND LYE

A common observation made by Europeans was that Natives frequently salted their dishes with wood ash or lye. Rarely, however, were observers actually witnessing the addition of salt.[56] For example, Adair noted that domestic salt was made from "a saltish kind of grass, one that grows on rocks," which was also used to make lye.[57] John Lawson stated, "The Salts that the Indians in these parts make use of in their Meat, Bread, and Soup, to give them a grateful relish are Alkalies, viz, Ashes made of the Wood of Hickery and calcin'd Bones of Deers and other Animals."[58]

These observations represent the common interpretation that Na-

tives were adding substances to their dishes in order, first and foremost, to make them taste saltier.[59] However, as James Mooney stated, "Lye enters into almost all the food preparations of the Cherokees, the alkaline potash taking the place of salt, which is seldom used among them, having been introduced by the whites."[60] Thus, while adding wood ash to a dish may make it a little saltier, doing so will also make it more bitter. While many of these observers consider adding ash a means of salting a dish, it seems more likely that ash and lye were added as condiments to make the dish "much to the native taste."[61]

As mentioned, perceptions of food are largely social products, a process that in turn culturally constructs taste.[62] While Europeans and European Americans favored salty dishes, Natives in the Eastern Woodlands demonstrated a distinct proclivity for bitter and sour dishes. While some observers grew accustomed to the taste, the common sentiment is that adding ash was distasteful. One Jesuit missionary considered the addition of ashes to *sagamité* as a way Natives paid penance:

> These fasting women toiled strenuously all day—in summer, working in the fields; in winter, cutting wood. These austerities were almost continual. They mingled ashes in their portion of Sagamite; they put glowing coals between their toes, where the fire burned a hole in the flesh.[63]

Regardless of whether the hominy foodway added to or established a taste for bitter foods in the broader realm of Eastern Woodland Native foodways, the pervasiveness of ash and lye in indigenous cuisine perpetuated a distinct taste for bitterness, in turn contributing to the conservatism of the hominy and other related foodways.

While the sociality described above included daily, if not weekly, traditions, both ash and maize play key roles in annual renewal ceremonies, including the widely celebrated Green Corn ceremonies of the Eastern Woodlands.[64] These are first foods observances celebrated when the first crop of maize begins to ripen (generally sometime between July and September). Researchers have identified some variations in the ceremony; among the Iroquois, for example, the Green Corn Ceremony is a solemn event centered on giving thanks, while among the Creeks, Cherokees, and Delawares, the ceremony focuses more on celebration and world renewal.[65] In all groups, however, the ceremony is a community-wide event, occupying multiple days during which

that year's maize crop is used to support a number of ritual observances, events, and feasts. Among the foods and drinks connected with this ceremony are the famous black drink (a tea made from *Ilex vomitoria*), roasted maize ears (which were only prepared before maize had fully ripened and was in its milk stage), and hominy.[66]

To highlight one particular tradition among the widespread practice, Benjamin Hawkins noted that during the Creek *busk* held in the town of Kasihta in the 1790s, on the first, second, and eighth days men would rub ashes from the new fire over their chins, necks, and bellies, then head to the river. Ceremonial ash was specific, and only certain classes of ash were used during the *busk*. Hawkins notes that on the first and eighth days the ash comes from the new fires started at the beginning of the ceremony, while on the last day, ash is prepared from old maize cobs and pine burs. Maize-ash ceremonialism is further echoed in the Creek rite of passage into adulthood, known as the *puskita*, during which only "boiled grits" are eaten, and near the end of the ritual, the initiate covers himself with maize-cob ash.[67]

Not only was specific ash used during the *busk*, but at its annual conclusion, all ash generated during the ceremony was curated in a small corner of the town's square grounds, a collection that was carefully added to each year.[68] Ash curation dates back at least to the late precontact Mississippian period, during which it was an important material class in the world renewal ceremonies underpinning the construction and maintenance of earthen platform mounds.[69] World renewal is also a central theme in the broadly shared oral Eastern Woodland maize origin traditions. Maize is a gift given to humans to keep them from starving, transformed from the body of the Corn Mother.[70] In the traditions of the Iroquois, Narragansetts, and Delawares, maize is delivered to humanity from the south by a crow.[71] However, among many Eastern Woodland groups, maize comes from the body of the Corn Mother, who is killed, burned, and sometimes banished after her children come to believe that what she feeds them comes from her excrement. She consequently leaves after delivering instructions that they must now grow, care for, and prepare maize themselves.[72] In many versions, hominy is featured as the principal maize dish that Corn Mother made for her children.[73]

There are notable deviations from this general outline. The Yuchis, for instance, have an origin story that bears a closer resemblance to the Shawnee tradition: maize was discovered one day by a man out in the

wilderness who heard a whining voice similar to that of a baby. As he grew closer, he found a small stalk of corn behind a bush that asked for his help:

> He gave him instructions what to do
> Clean up and cultivate that . . .
> Cultivate that corn
> And that little corn said:
> "I'm here to help your people."
> "I am going to help you all through your life."
> "You must remember and never forget."
> "I am going to help a l l o f y o u r people."[74]

The Yuchis also have a second, separate origin story for hominy:

> It is commonly believed, as regards the origin of this favorite dish, that a woman in the mythical ages cut a rent in the sky through which a peculiar liquid flowed which was found to be good to eat. The Sun then explained its preparation and use, from which fact it was called tso'ci, inferably "sun fluid."[75]

While the Yuchis are distinctive in having a hominy origin myth, other deviations include having at least two separate maize origin stories corresponding to different maize variants. Among the Seneca, there is one myth in which maize is given to humans by the Corn Mother, while a second details the origin of white corn, first given to the Tuscaroras and then passed to the Senecas.[76] In this instance, both stories follow the general guidelines John Witthoft outlines for Corn Mother stories, making it unclear if they are, in fact, two entirely separate traditions. However, there is a clear separation among the Koasatis. In one story, maize is a gift, again, from Corn Mother, while in the second, maize kernels are transformed from the blood of a hunted bear and collected by a young man who has spent several nights camping with two supernatural beings.[77]

WOMEN AND HOMINY

A common thread running through each of the above elements of sociality is the link between the hominy foodway and female-gendered roles

and responsibilities. Part of this relationship is derived from the simple fact that among Native societies in the Eastern Woodlands, women not only were primarily involved in food preparation but also were the primary caretakers of both agricultural fields and household gardens.[78] While men assisted to varying degrees in clearing fields, numerous accounts indicate that women were the planters, the weeders, the caretakers, and the harvesters of agricultural products, roles that ran contrary to the English perception of gender division.[79] After harvesting, women dried and stored maize for food preparation and for the next year's crop. Finally, those kernels reserved for consumption were treated as detailed above, feeding a nearly constantly simmering pot of food found in most Native houses, kept warm and plentiful by the women of a household.[80]

After European contact, maize became even more valuable to Native women in the Eastern Woodlands as food became one of the primary goods for trade with early European explorers and colonists. Several accounts indicate that women were able to directly trade with Europeans by bartering with surplus food materials from their household supplies.[81] By doing so, women not only were granted greater individual access to materials but also were provided a new avenue through which they could provide for their households.[82]

Clearly, the conservation and perpetuation of the hominy foodway throughout the historic period are closely tied to this intimate relationship between food, identity, and womanhood. Maize and maize products were the primary medium through which women were able to fulfill their social duty to their family and their community. Thus, while warfare and the hunt were essential activities that defined Native manhood, maize agriculture and food preparation were those essential activities that bolstered Native womanhood.[83] The corn origin stories perhaps best encapsulate this relationship—through the fruits of her body, Corn Mother is able to provide for and nourish her children until the day they become skeptical and unappreciative of her work. This connection fostered the connotations of hominy as healthful, nourishing, and comforting, carrying several of the defining characteristics of Native womanhood.

HOMINY, THE STAPLE

In the focus on food, it is easy to lose sight of how culturally and socially enmeshed our food choices are. Historically, the intensification

of maize agriculture has undeniably at times fostered social complexity. But the irony is that alone, maize cannot sustain human life. That is why, in major parts of the Americas, maize is tied to nixtamalizing foodways, a tendency that may point to a larger phenomenon taking place prior to European contact during which maize was primarily disseminated through the Western Hemisphere not as a plant but as various foodways. While local groups incorporated these foodways into their dietary systems in different ways, adding ingredients and altering steps to make the final product more to their liking, many of the basic, primary practices used to process maize remained the same.

As a result, in postcontact times, hominy was the principal nixtamalizing foodway among indigenous groups in the Eastern Woodlands, serving as the dietary staple throughout the region, and perpetuated even after the common bean was widely adopted. After the dissemination of the bean, there would have been little biological or even functional reason to continue nixtamalizing maize kernels. Thus, if the only motive behind alkaline treatment was chemical alteration or even processing, it is unlikely that practitioners would have continued to add wood ash or lye to their kernels once a suitable complementary foodstuff was available.

As demonstrated, though, there was a shared hominy foodway practiced throughout the historic Eastern Woodlands that was based on a fundamental set of culinary practices, resulting in a nixtamalized maize product. To explain this perseverance, we must look at the sociality of the foodway. First, we must not dismiss the conservative emotional attachments granted to the culinary tastes of Native foodways, which placed a premium on bitter, sour, even tart items, especially those that included lye and wood ash. In addition, to a greater degree than any other regional foodway, the hominy foodway has extensive associations with sociality, both domestically and communally. It is not only a comfort food but also a special occasion dish, not only a hospitality food but also a feasting food, one served to family, to friends, and to strangers alike. Thanks to this sociality, even when nixtamalization was no longer a critical nutritional practice, the activities and ingredients associated with it were inseparable from the larger cultural and social role the foodway played, affording it an incredible amount of conservatism.

Thus, for all the focus on the importance of maize as a cultigen in the

Eastern Woodlands, there are perhaps greater reasons to refocus our attention on the importance of the hominy foodway.

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NOTES

Epigraph. Muriel H. Wright, "American Indian Corn Dishes," *Chronicle of Oklahoma* 36 (1958): 163.

1. Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (London: Routledge, 1984); Douglas, "Deciphering a Meal," in *Food and Culture*, ed. Carole Counihan and Penny VanEsterik (New York: Routledge, 1997), 36–54; Claude Lévi-Strauss, *The Raw and the Cooked* (New York: Harper and Row, 1969); Roy A. Rappaport, "Ritual Regulation of Environmental Relations among a New Guinea People," *Ethnology* 6, no. 1 (1967): 17–30; Mary Weismantel, *Food, Gender and Poverty in the Ecuadorian Andes* (Prospect Heights: Waveland Press, 1988).

2. Sonya Atalay and Christine A. Hastorf, "Food, Meals, and Daily Activities: Food Habitus at Neolithic Catalhotyuk," *American Antiquity* 71, no. 1 (2006): 284. See also Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 1977).

3. Paul Welch and C. Margaret Scarry, "Status-Related Variation in Foodways in the Moundville Chiefdom," *American Antiquity* 60, no. 3 (1995): 397–419.

4. For example, see Frederick W. Waugh, *Iroquois Foods and Food Preparation* (Ottawa: Government Printing Bureau, 1916), 235.

5. Jean-François-Benjamin Dumont de Montigny, *The Memoir of Lieutenant Dumont, 1715–1747: A Sojourner in the French Atlantic*, trans. Gordon M. Sayre and Carla Zecher (1747; Chapel Hill: University of North Carolina Press, 2012), 32–34.

6. Sophie D. Coe, *America's First Cuisines* (Austin: University of Texas Press, 1994), 14. Margaret Beck, "Archaeological Signatures of Corn Preparation in the U.S. Southwest," *Kiva* 67, no. 2 (2001): 189–90. Coe provides a cursory over-

view of nixtamalization among the Aztecs, while Beck details the nixtamalizing foodways of the Southwest.

7. Father Paul du Poisson, "Report by Paul du Poisson," in Jacques Bigot, *The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France 1610–1791*, ed. Reuben Gold Thwaites (1727; Cleveland: Burrow Brothers, 1901), 67:291–93.

8. Pierre François Xavier de Charlevoix, *Journal of a Voyage to North-America Undertaken by Order of the French King: Containing the Geographical Description and Natural History of That Country, Particularly Canada: Together with an Account of the Customs, Characters, Religion, Manners and Traditions of the Original Inhabitants, in a Series of Letters to the Duchess of Lesdiguières* (London: R. & J. Dodsley, 1761), 2:122–23.

9. Those sources that cite hominy as the principal Native food are William N. Fenton, "Northern Iroquoian Culture Patterns," in *Northeast*, ed. Bruce G. Trigger, Handbook of North American Indians, vol. 15 (Washington, DC: Smithsonian Institution, 1978), 296–321; Ives Goddard, "Delaware," in Trigger, *Northeast*, 213–39; Charles Hudson, *The Southeastern Indians* (Knoxville: University of Tennessee Press, 1976); John R. Swanton, *Indians of the Southeastern United States*, Bulletin of the Bureau of American Ethnology 88 (Washington, DC: Government Printing Office, 1946), 352. David J. Hally, "The Identification of Vessel Function: A Case Study from Northwest Georgia," *American Antiquity* 51, no. 2 (1983): 267–95, cites hominy as the primary cuisine. Finally, the only source that argues for a hominy-based subsistence is Thomas Myers, "Hominy Technology and the Emergence of Mississippian Societies," in *Histories of Maize: Multidisciplinary Approaches to the Prehistory, Linguistics, Biogeography, Domestication, and Evolution of Maize*, ed. John E. Staller, Robert H. Tykot, and Bruce F. Benz (Berlin: Academic Press, 2006), 511–20.

10. Raymond Fogelson, ed., *Southeast*, Handbook of North American Indians, vol. 14 (Washington, DC: Smithsonian Institution, 2004); Trigger, *Northeast*. While both volumes have ample indexical entries for maize, neither has an entry for hominy.

11. Ricardo Bressani and Nevin Scrimshaw, "Effect of Lime Treatment on In Vitro Availability of Essential Amino Acids and Solubility of Protein Fractions in Corn," *Journal of Agricultural and Food Chemistry* 6, no. 10 (1958): 774–78. Few researchers have been able to expand on their research.

12. Solomon M. Katz, M. Hediger, and L. Valleroy, "Traditional Maize Processing Techniques in the New World," *Science*, n.s., 184 (1974): 765–73.

13. Bressani and Scrimshaw, "Effect of Lime Treatment," 777. See also Ricardo Bressani, R. Paz y Paz, and Nevin Scrimshaw, "Chemical Changes in Corn during Preparation of Tortillas," *Journal of Agricultural and Food Chemistry* 6, no. 10 (1958): 770–74.

14. Katz et al., "Traditional Maize Processing," 766; Roy Waterson, "Kwashiorkor," *BMJ* 301, no. 6,763 (1990): 1276, indicates that another disease that can be brought on by subsisting largely upon a diet of nonnixtamalized maize is kwashiorkor. Kwashiorkor, from the Ga language and roughly translated as "the sickness a baby gets when another baby comes along," was first diagnosed during the early half of the twentieth century and develops in children shortly after they are weaned. While the etiology of the disease is still unknown, it is no longer thought to be related to a high carbohydrate / low protein diet. Though there is some correlation between consuming a high level of nonnixtamalized, nonsupplemented maize and kwashiorkor, the nature of this relationship is unknown.

15. Elizabeth Chacko, "Understanding the Geography of Pellagra in the United States: The Role of Social and Place-Based Identities," *Gender, Place, and Culture* 12, no. 2 (2005): 197–212; Jurai Hegyi, Robert A. Schwartz, and Vladimir Hegyi, "Pellagra: Dermatitis, Dementia, and Diarrhea," *International Journal of Dermatology* 43 (2003): 1–5.

16. For histories on the occurrence of documented pellagra, see Betty Fussell, "Translating Maize into Corn: The Transformation of America's Native Grain," *Social Research* 66, no. 1 (1999): 41–65; Alan Osborn, "Limitations of the Diffusionist Approach: Evolutionary Ecology and Shell-Tempered Ceramics," in *The Transfer and Transformation of Ideas and Material Culture*, ed. P. J. Hugill and D. B. Dickson (College Station: Texas A&M University Press, 1988), 23–44. See also Chacko, "Understanding the Geography."

17. Sources that discuss the timing of the common bean include John P. Hart and C. Margaret Scarry, "The Age of the Common Bean (*Phaseolus vulgaris*) in the Northeastern United States," *American Antiquity* 64, no. 4 (1999): 653–58; Richard A. Yarnell, "The Importance of Native Crops during the Late Archaic and Woodland Periods," in *Foraging and Farming in the Eastern Woodlands*, ed. C. Margaret Scarry (Gainesville: University of Florida Press, 1993), 13–26. For a discussion of the earliest occurrence of the common bean in Mississippian communities, see C. Margaret Scarry, "Domestic Life on the Northwest Riverbank at Moundville," in *Archaeology of the Moundville Chiefdom*, ed. Vernon J. Knight, Jr., and Vincas P. Steponaitis (Tuscaloosa: University of Alabama Press, 2007), 63–101. For information on the introduction of maize in the Southeast, see Thomas Riley, Gregory Waltz, Charles Baries, Andrew Fortier, and Kathryn Parker, "Accelerator Mass Spectrometry (AMS) Dates Confirm Early *Zea mays* in the Mississippi River Valley," *American Antiquity* 59, no. 3 (1994): 490–96.

18. While animal protein, including deer and fish, is also an excellent complementary foodstuff for diets high in nonnixtamalized maize, it is extremely difficult to intensify the exploitation of wild taxa to levels that would adequately nourish large populations.

19. Elizabeth Benchley, "Mississippian Alkali Processing of Corn," *Wisconsin Archaeologist* 84, no. 1 (2003): 127–28.

20. Anonymous, *The Cherokee Perspective: Written by Eastern Cherokees* (1941; Boone: Appalachian Consortium Press, 2000), 190; Robert Beverley, *The History of Virginia, in Four Parts* (1722; Gale ECCO Editions Online, 2010), 152; John Lawson, *The History of Carolina Containing the Exact Description and Natural History of That Country Together with the Present State Thereof and a Journal of a Thousand Miles Traveled through Several Nations of Indians, Giving a Particular Account of Their Customs, Manners, &c., &c.* (Raleigh: Strother & Marcom, 1860), 361; Henry Rowe Schoolcraft, *Historical and Statistical Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States* (Philadelphia: Lippincott, 1860), 5:274.

21. Anonymous, *The Cherokee Perspective*, 190; Lucy Keys and Jack Frederick Kilpatrick, *The Wahnenauhi Manuscript: Historical Sketches of the Cherokees; Together with Some of Their Customs, Traditions, and Superstitions* (Washington, DC: Government Printing Office, 1966), 192.

22. Richard J. Preston, Jr., and Richard Braham, *North American Trees* (Ames: Iowa State University Press, 2002).

23. John R. Swanton, *Source Material for the Social and Ceremonial Life of the Choctaw Indians* (Birmingham: Birmingham Public Library Press, 1993), 38; Daniel Usner, Jr., *Indians, Settlers, and Slaves in a Frontier Exchange Economy: The Lower Mississippi Valley before 1783* (Chapel Hill: University of North Carolina Press, 1992). Both indicate that this quote comes from an unknown French source.

24. Annemarie Shimony, *Conservatism among the Iroquois at the Six Nations Reserve*, Yale University Publications in Anthropology, no. 65 (New Haven CT: Yale University Press, 1961), 146; Wright, "American Indian Corn Dishes," 156.

25. Fussell, "Translating Maize into Corn," 50.

26. Anonymous, *The Cherokee Perspective*, 190–91; Wright, "American Indian Corn Dishes," 163–64, 166.

27. Harold McGee, *On Food and Cooking: The Science and Lore of the Kitchen* (New York: Scribner, 2004).

28. Elizabeth Tooker, *The Iroquois Ceremonial of Midwinter* (New York: Syracuse University Press, 1970), 36, discusses the culinary technique of boiling cornbread among the Iroquois. For sources that discuss cooking cornbread in hearth ashes, see Beverley, *The History of Virginia*, 151–52; Goddard, "Delaware," 235; John Gottlieb Ernestus Heckewelder, *Manner, and Customs of the Indian Nations Who Once Inhabited Pennsylvania and the Neighboring States* (Philadelphia: Historical Society of Pennsylvania, 1876), 195; Thomas Campanius Holm, "A Short Description of the Province of New Sweden," in *Memoirs of the Historical Society of Pennsylvania*, trans. P. S. DuPoncean (Philadelphia: Ameri-

can Philosophical Society, 1834), 121; Arthur C. Parker, *Parker on the Iroquois* (Syracuse, NY: Syracuse University Press, 1968), 31; Bernard Romans, *A Concise Natural History of East and West Florida* (1775; Whitefish: Kessinger Publishing, 2009), 92.

29. T. N. Campbell, "Choctaw Subsistence: Ethnographic Notes from the Lincecum Manuscript," *Florida Anthropologist* 12, no. 1 (1959): 9–24; G. A. Crossett, "A Vanishing Race," *Chronicles of Oklahoma* 4, no. 2 (1926): 106.

30. Anonymous, *The Cherokee Perspective*, 190; Wright, "American Indian Corn Dishes," 162.

31. Parker, *Parker on the Iroquois*, 31.

32. Bressani and Scrimshaw, "Effect of Lime Treatment," indicates that only thirty minutes are needed for nutritional enhancement.

33. George F. Will and George E. Hyde, *Corn among the Indians of the Upper Missouri* (Lincoln: University of Nebraska Press, 1964), 149–51.

34. Edwin James, *Early Western Travels, Vol. 14: Part I of James's Account of S. H. Long's Expedition, 1819–1820*, ed. Reuben Gold Thwaites (Chicago: Lakeside Press, 1823), 303; Schoolcraft, *Historical and Statistical Information*, 274.

35. Campbell, "Choctaw Subsistence," 17.

36. Coe, *America's First Cuisines*, 14; McGee, *On Food and Cooking*.

37. John E. Staller, Robert Tykot, and Bruce Benz, eds., *Histories of Maize: Multidisciplinary Approaches to the Prehistory, Linguistics, Biogeography, Domestication, and Evolution of Maize* (Burlington: Academic Press, 2006).

38. Francis King, "Variability in Cob and Kernel Characteristics of North American Maize Cultivars," in *Corn and Culture*, ed. Sissel Johannessen and Christine Hastorf (Boulder, CO: Westview Press, 1994), 35–54.

39. Shimony, *Conservatism*, 146. See also James Adair, *The History of the American Indians: Particularly Those Nations Adjoining to the Mississippi, East and West Florida, Georgia, South and North Carolina, and Virginia* (London: Edward and Charles Dilly, 1775), 407.

40. Antoine-Simon Le Page du Pratz, *The History of Louisiana*, trans. Joseph G. Tregle, Jr., Louisiana American Revolution Bicentennial Commission (1774; Baton Rouge: Louisiana State University Press, 1975), 226.

41. King, "Variability," 38.

42. Rachel V. Briggs, "The Hominy Foodway in the Historic Eastern Woodlands," paper presented at the 71st Annual Southeastern Archaeology Conference, November 12, 2014, Greenville, South Carolina.

43. Atalay and Hastorf, "Food, Meals, and Daily Activities"; Pierre Bourdieu, *Distinction: A Social Critique of the Judgment of Taste* (Cambridge, MA: Harvard University Press, 1984).

44. Robbie Ethridge, *From Chicaza to Chickasaw: The European Invasion and the Transformation of the Mississippian World, 1540–1715* (Chapel Hill: Uni-

versity of North Carolina Press, 2010); Marvin Smith, "Aboriginal Population Movements in the Postcontact Southeast," in *The Transformation of the Southeastern Indians, 1540–1760*, ed. Robbie Ethridge and Charles Hudson (Jackson: University Press of Mississippi, 2002), 3–20; Hudson, *The Southeastern Indians*.

45. For example, see Anonymous, *The Cherokee Perspective*; Peter J. Hudson, "Choctaw Indian Dishes," *Chronicles of Oklahoma* 17, no. 3 (1939): 333–35; Parker, *Parker on the Iroquois*; Wright, "American Indian Corn Dishes."

46. For citations on the use of earthenware pots versus iron and copper kettles, see Charles H. Fairbanks, "Excavations at Horseshoe Bend, Alabama," *Florida Anthropologist* 15, no. 2 (1962): 41–56; Wright, "American Indian Corn Dishes."

47. Du Pratz, *The History of Louisiana*, 227; Wright, "American Indian Corn Dishes," 166.

48. William Bartram, "Observations on the Creek and Cherokee Indians, 1789," *Transactions of the American Ethnological Society* 3 (1853): 43.

49. Gladys Tantaquidgeon, *A Study of Delaware Indian Medicine Practice and Folk Beliefs* (Philadelphia: Commonwealth of Pennsylvania, Pennsylvania Historical Commission, 1942), 47.

50. Adair, *The History*, 166. A third reference to the association between maize and worms was given by Will West Long, a member of the Eastern Cherokee who noted that a prophylactic medicine prepared and taken before the Green Corn Ceremony was intended to "prevent the increase of stomach and intestinal worms, which otherwise would flourish on this choice food." However, there is no indication that either ash or lye is part of the treatment. See John Witthoft, *Green Corn Ceremonialism in the Eastern Woodlands*, Occasional Contributions from the Museum of Anthropology of the University of Michigan, no. 13 (Ann Arbor: University of Michigan Press, 1946), 45.

51. Du Pratz, *The History of Louisiana*, 12–13.

52. For a citation on the use of hominy as a high-energy food, see William Bartram, *Travels through North and South Carolina, Georgia, East and West Florida* (Philadelphia: James and Johnson, 1791), 454. For an excellent source on comfort food among college freshmen, see Julie L. Locher, William C. Yoels, Donna Maurer, and Jillian van Ells, "Comfort Foods: An Exploratory Journey into the Social and Emotional Significance of Food," *Food and Foodways: Explorations in the History and Culture of Human Nourishment* 13, no. 4 (2005): 273–97.

53. John R. Swanton, *Chickasaw Society and Religion* (1938; Lincoln: University of Nebraska Press, 2006), 86.

54. Romans, *A Concise Natural History*, 92. For a source on hominy as a hospitality food, see B. Hen-Toh Walker, "Mon-dah-min and the Redman's Old Uses of Corn as Food," *Chronicles of Oklahoma* 35, no. 2 (1957): 203.

55. Fenton, "Northern Iroquoian Culture Patterns," 301.

56. For example, see Jacques Bigot, *The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France 1610–1791*, ed. Reuben Gold Thwaites (Cleveland: Burrows Brothers Company, 1900), 64:307; John Brickell, *The Natural History of North-Carolina. With an Account of the Trade, Manners, and Customs of the Christian and Indian Inhabitants* (Raleigh: North Carolina Public Libraries, 1911), 410; Du Pratz, *The History of Louisiana*, 12–13; Walker, "Mon-dah-min," 202.

57. Adair, *The History*, 116.

58. Lawson, *The History of Carolina*, 361.

59. Bigot, *The Jesuit Relations*, vol. 64; Mark Catesby, *The Natural History of Carolina, Florida and the Bahama Islands: Containing the Figures of Birds, Beasts, Fishes, Serpents, Insects, and Plants: . . . To Which Are Added Observations on the Air, Soil, and Waters: With Remarks upon Agriculture, Grain, Pulse, Roots &c. To the Whole, Is Prefixed a New and Correct Map of the Countries Treated Of,* http://xroads.virginia.edu/~ma02/amacker/etext/home.htm, 1754, 2:173–74; Thomas Hariot, *A Briefe and True Report of the New Found Land of Virginia, Complete 1590 Theodor de Bry Edition* (1590; Charlottesville: University of Virginia Press, 2007), 39–40; James Mooney, *Myths of the Cherokee and Sacred Formulas of the Cherokees* (Nashville: C. Elder Bookseller, 1982), 610.

60. Mooney, *Myths of the Cherokee*, 610.

61. Frank Speck, *Ethnology of the Yuchi Indians* (Lincoln: University of Nebraska Press, 2004), 44.

62. See Bourdieu, *Distinction*.

63. The quote is from Bigot, *The Jesuit Relations*, 64:218–19. For a source on European colonists growing accustomed to the taste, see Charlevoix, *Journal*, 2:122–23.

64. Swanton, *Indians of the Southeastern United States*; John Witthoft, *Green Corn Ceremonialism in the Eastern Woodlands*, Occasional Contributions from the Museum of Anthropology of the University of Michigan, no. 13 (Ann Arbor: University of Michigan Press, 1949), 5.

65. Witthoft, *Green Corn Ceremonialism*.

66. Stephanie May, "Alabama and Koasati," in Fogelson, *Southeast*, 410; Schoolcraft, *Historical and Statistical Information*, 5:268; Frank Speck, *Oklahoma Delaware Ceremonies, Feasts, and Dances,* Memoirs of the American Philosophical Society 7 (Philadelphia: American Philosophical Society, 1937).

67. Benjamin Hawkins, *Creek Confederacy and a Sketch of the Creek Country in the Years 1798 and 1799* (1848; Kraus Reprint Company, 1971), 75–77. For the use of ash from old maize cobs and pine burs during the Green Corn Ceremony, see Hawkins, *Creek Confederacy*, 77. For initiates eating boiled grits, see Hawkins, *Creek Confederacy*, 79.

68. Witthoft, *Green Corn Ceremonialism*, 64.

69. Joffre Coe, *Town Creek Indian Mound: A Native American Legacy* (Chapel Hill: University of North Carolina Press, 1995), 17; Vernon J. Knight, Jr., "The Institutional Organization of Mississippian Religion," *American Antiquity* 51, no. 4 (1986): 675–87.

70. Witthoft, *Green Corn Ceremonialism*, 77; Greg Urban and Jason Baird Jackson, "Mythology and Folklore," in Fogelson, *Southeast*, 710.

71. Jeremiah Curtin and J. N. Hewitt, *Seneca Fiction, Legends, and Myths*, Bureau of American Ethnology Annual Report 32 (Washington, DC: Government Printing Office, 1918), 642–48.

72. Mooney, *Myths of the Cherokee*, 244–45; John R. Swanton, *Myths and Tales of the Southeastern Indians,* Bulletin of the Bureau of American Ethnology 88 (Washington, DC: Government Printing Office, 1929), 9, 230–31.

73. Swanton, *Myths and Tales*.

74. Jason Baird Jackson, *Yuchi Ceremonial Life: Performance, Meaning, and Tradition in a Contemporary American Indian Community* (Lincoln: University of Nebraska Press, 2004), 209–10. Following David Dinwoodie's recommendations, Baird recorded the oral traditions of the Yuchi in a manner that indicates the different voices and speech acts inherent in and essential to each story. Thus, when the small stalk of corn speaks, this is spaced farther right than the narrator's speech, while "a l l o f y o u r p e o p l e" is spaced to express the momentousness of this segment of the story. David Dinwoodie, "Textuality and the 'Voices' of Informants: The Case of Edward Sapir's 1929 Navajo Field School," *Anthropological Linguistics* 41 (1999): 165–92.

75. Speck, *Ethnology*, 44.

76. Curtin and Hewitt, *Seneca Fiction*, 642–48, 652–53.

77. Swanton, *Myths and Tales*, 167–68.

78. C. Margaret Scarry and John Scarry, "Native American 'Garden Agriculture' in Southeastern North America," *World Archaeology* 37, no. 2 (2005): 259–74.

79. John Smith, *A True Relation of Such Occurrences and Accidents in Virginia*, Virtual Jamestown, http://etext.lib.virginia.edu/etcbin/jamestown-browse?id=J1007 (1608); Helen C. Rountree and E. Randolph Turner III, *Before and After Jamestown: Virginia's Powhatans and Their Predecessors* (Gainesville: University of Florida Press, 2002).

80. Rountree and Turner, *Before and After Jamestown*, 92–99.

81. Lawrence A. Clayton, Vernon J. Knight, Jr., and Edward C. Moore, *The De Soto Chronicles: The Expedition of Hernando de Soto to North American in 1539–1543*, 2 vols. (Tuscaloosa: University of Alabama Press, 1993). See also Michelle LeMaster, *Brothers Born of One Mother: British–Native American Relations in the Colonial Southeast* (Charlottesville: University of Virginia Press, 2012).

82. See LeMaster, *Brothers Born*, 129; Usner, *Indians, Settlers, and Slaves*.

83. For a discussion of gender roles among the early historic Powhatan, see Rountree and Turner, *Before and After Jamestown*, 92–105. See also Kathryn E. Holland Braund, *Deerskins and Duffels: The Creek Indian Trade with Anglo-America, 1685–1815* (Lincoln: University of Nebraska Press, 1993), for a comprehensive discussion of the Creek deerskin trade and its importance to Native concepts of masculinity.

WORKS CITED

Adair, James. 1775. *The History of the American Indians: Particularly Those Nations Adjoining to the Mississippi, East and West Florida, Georgia, South and North Carolina, and Virginia*. London: Edward and Charles Dilly.

Anonymous. (1941) 2000. *The Cherokee Perspective: Written by Eastern Cherokees*. Boone: Appalachian Consortium Press.

Bartram, William. 1853. "Observations on the Creek and Cherokee Indians, 1789." *Transactions of the American Ethnological Society* 3.

Beverley, Robert. (1722) 2010. *The History of Virginia, in Four Parts*. Gale ECCO Editions Online.

Bierhorst, John. *Mythology of the Lenape: Guide and Texts*. Tucson: University of Arizona Press.

Brackenridge, Henry. 1814. *Views of Louisiana, Together with a Journal of a Voyage Up the Missouri River, 1811*. Pittsburgh: Cramer, Spear and Eichbaum.

Brickell, John. 1844. "Narrative of John Brickell's Captivity Among the Delaware Indians." In *American Pioneer*, 43–56. Cincinnati: Logan Historical Society.

———. 1911. *The Natural History of North-Carolina. With an Account of the Trade, Manners, and Customs of the Christian and Indian Inhabitants.* Raleigh: North Carolina Public Libraries.

Brightman, Robert A., and Pamela S. Wallace. 2004. "Chickasaw." In *Southeast*, edited by Raymond Fogelson, 478–95. Handbook of North American Indians, vol. 14. Washington, DC: Smithsonian Institution.

Byington, Cyrus. 1915. *A Dictionary of the Choctaw Language*. Edited by John Reed Swanton and Henry Halbert. Washington, DC: Government Printing Office.

Campbell, T. N. 1959. "Choctaw Subsistence: Ethnographic Notes from the Lincecum Manuscript." *Florida Anthropologist* 12 (1): 9–24.

Carr, Lucein. 1895. "The Food of Certain American Indians and Their Methods of Preparing It." *Proceedings of the American Antiquarian Society* 10:155–90.

Catesby, Mark. 1754. *The Natural History of Carolina, Florida and the Bahama Islands: Containing the Figures of Birds, Beasts, Fishes, Serpents, Insects, and Plants: . . . To Which, are Added Observations on the Air, Soil, and Waters: with Remarks Upon Agriculture, Grain, Pulse, Roots &c. To the Whole, is Prefixed a New and Correct Map of the Countries Treated of, vol. II*. http://xroads.virginia.edu/~ma02/amacker/etext/home.htm.

Christian, Emma Ervin. 1931. "Memories of My Childhood Days in the Choctaw Nation." *Chronicles of Oklahoma* 9 (2): 155–65.

Cory, Charles Barney. 1896. *Hunting and Fishing in Florida*. Boston: Barta Press.
Crossett, G. A. 1926. "A Vanishing Race." *Chronicles of Oklahoma* 4 (2): 106.
De Charlevoix, Pierre François Xavier. 1761. *Journal of a Voyage to North-America Undertaken by Order of the French King: Containing the Geographical Description and Natural History of That Country, Particularly Canada: Together with an Account of the Customs, Characters, Religion, Manners and Traditions of the Original Inhabitants, in a Series of Letters to the Duchess of Lesdiguières*. Vol. 2. London: R. & J. Dodsley.
De la Vega, El Inca Garcilaso. 1993. "La Florida." In *The De Soto Chronicles: The Expedition of Hernando de Soto to North America in 1539–1543*, edited by Lawrence A. Clayton, Vernon James Knight Jr., and Edward C. Moore, 2:25–559. Tuscaloosa: University of Alabama Press.
De Montigny, Jean-François-Benjamin Dumont. (1747) 2012. *The Memoir of Lieutenant Dumont, 1715–1747: A Sojourner in the French Atlantic*. Translated by Gordon M. Sayre and Carla Zecher. Chapel Hill: University of North Carolina Press.
Du Poisson, Paul. (1727) 1901. "Report by Paul Du Poisson." In *The Jesuit Relations and Allied Documents*, edited by Reuben Gold Thwaites, 67:276–325. Cleveland: Burrow Brothers.
Du Pratz, Antoine Le Page. (1774) 1975. *The History of Louisiana*. Translated by Joseph G. Tregle Jr. Baton Rouge: Louisiana State University Press.
Fenton, William. 1953. *The Iroquois Eagle Dance: An Offshoot of the Calumet Dance*. Syracuse: Syracuse University Press.
———. 1978. "Northern Iroquoian Culture Patterns." In *Northeast*, edited by Bruce G. Trigger, 296–321. Handbook of North American Indians, vol. 15. Washington, DC: Smithsonian Institution.
Foreman, Grant. 1933. *Advancing the Frontier*. Norman: University of Oklahoma Press.
Gatschet, Albert S. 1884. *A Migration Legend of the Creek Indians*. Philadelphia: D. G. Brinton.
Gerard, William R. 1905. "Some Virginia Indian Words." *American Anthropologist* 7 (2): 222–49.
Goddard, Ives. 1978. "Delaware." In *Northeast*, edited by Bruce G. Trigger, 213–39. Handbook of North American Indians, vol. 15. Washington, DC: Smithsonian Institution.
Hariot, Thomas. (1590) 2007. *A Briefe and True Report of the New Found Land of Virginia*. Complete 1590 Theodor de Bry ed. Charlottesville: University of Virginia Press.
Heckewelder, John Gottlieb Ernestus. 1876. *Manner and Customs of the Indian Nations Who Once Inhabited Pennsylvania and the Neighboring States*. Philadelphia: Historical Society of Pennsylvania.
Heidenreich, Conrad E. 1971. *Huronia: A History and Geography of the Huron Indians, 1600–1650*. Toronto: McClelland and Stewart.
Holm, Thomas Campanius. 1834. "A Short Description of the Province of New Sweden." In *Memoirs of the Historical Society of Pennsylvania.* Translated by P. S. DuPoncean. Philadelphia: American Philosophical Society.
Hudson, Peter J. 1939. "Choctaw Indian Dishes." *Chronicles of Oklahoma* 17 (3): 333–35.
Innes, Pamela. 2004. "Creek in the West." In *Southeast,* edited by Raymond Fogelson, 393–403. Handbook of North American Indians, vol. 14. Washington, DC: Smithsonian Institution.
Keys, Lucy, and Jack Frederick Kilpatrick. 1966. *The Wahnenauhi Manuscript: Histori-*

cal Sketches of the Cherokees; Together with Some of Their Customs, Traditions, and Superstitions. Washington, DC: Government Printing Office.
Lafitau, Joseph-François. (1724) 1971. *Huronia: A History and Geography of the Huron Indians, 1600–1650*. Toronto: McClelland and Stewart.
Lawson, John. 1860. *The History of Carolina Containing the Exact Description and Natural History of That Country Together with the Present State Thereof and a Journal of a Thousand Miles Traveled through Several Nations of Indians, Giving a Particular Account of Their Customs, Manners, &c., &c*. Raleigh: Strother & Marcom.
May, Stephanie. 2004. "Alabama and Koasati." In *Southeast,* edited by Raymond Fogelson, 407–14. Handbook of North American Indians, vol. 14. Washington, DC: Smithsonian Institution.
Mooney, James. 1982. *Myths of the Cherokee and Sacred Formulas of the Cherokees*. Nashville: C. Elder Bookseller.
Morgan, Lewis Henry, and Herbert Lloyd. 1901. *League of the Ho-De-No-Sau-Nee or Iroquois*. Vol. 3. New York: Dodd, Mead and Company.
Pargellis, Stanley. 1959. "An Account of the Indians of Virginia." *William and Mary Quarterly* 16 (2): 228–43.
Parker, Arthur C. 1968. *Parker on the Iroquois*. Syracuse: Syracuse University Press.
Penn, William. 1912. "Letter from William Penn to the Committee of the Free Society of Traders." In *Narratives of Early Pennsylvania, West New Jersey, and Delaware*, edited by A. C. Myers, 217–30. Philadelphia: Historical Society of Pennsylvania.
Romans, Bernard. (1775) 2009. *A Concise Natural History of East and West Florida*. Whitefish: Kessinger Publishing.
Schoolcraft, Henry Rowe. 1860. *Historical and Statistical Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States*. Vol. 5. Philadelphia: J. B. Lippincott and Co.
———. 1883. *Indian Tribes of the United States: Their History, Antiquities, Customs, Religion, Arts, Language, Traditions, Oral Legends, and Myths*. Vol. 1. Edited by Francis S. Drake. Philadelphia: J. B. Lippincott and Co.
Shimony, Annemarie. 1961. *Conservatism among the Iroquois at the Six Nations Reserve*. Yale University Publications in Anthropology 65. New Haven: Yale University.
Smith, John. 1612. *Map of Virginia*. Mariners Museum, www.marinersmuseum.org/sites/micro/cbhf/colonial/map/map.html.
Speck, Frank. 1911. *Ceremonial Songs of the Creek and Yuchi Indians*. Washington, DC: Library of Congress.
———. 1934. *Catawba Texts*. Columbia University Contributions of Anthropology 24. New York: Columbia University Press.
———. 1937. *Oklahoma Delaware Ceremonies, Feasts, and Dances*. Memoirs of the American Philosophical Society 7. Philadelphia: American Philosophical Society.
———. 1940. *Penobscot Man*. Philadelphia: University of Pennsylvania.
———. 2004. *Ethnology of the Yuchi Indians*. Lincoln: University of Nebraska Press.
Strachey, William. (1612) 1953. *The Historie of Travell into Virginia Britannia*. London: Hakluyt Society.
Swanton, John R. 1918. "Catawba Notes." *Journal of the Washington Academy of Sciences* 8. Edited by Adolph Knopf, A. S. Hitchcock, and J. Franklin Meyer, 623–29. Baltimore, MD: Waverly Press.

——— . 1922. *Early History of the Creek Indians and Their Neighbors*. Washington, DC: Government Printing Office.
——— . 1931. *Source Material for the Social and Ceremonial Life of the Choctaw Indians*. Washington, DC: Bureau of American Ethnology.
——— . 1946. *Indians of the Southeastern United States*. Bulletin of the Bureau of American Ethnology 88. Washington, DC: Government Printing Office.
——— . 1993. *Source Material for the Social and Ceremonial Life of the Choctaw Indians.* Birmingham: Birmingham Public Library Press.
Tantaquidgeon, Gladys. 1942. *A Study of Delaware Indian Medicine Practice and Folk Beliefs*. Philadelphia: Commonwealth of Pennsylvania, Pennsylvania Historical Commission.
Tooker, Elizabeth. 1970. *The Iroquois Ceremonial of Midwinter*. New York: Syracuse University Press.
Walker, B. Hen-Toh. 1957. "Mon-dah-min and the Redman's Old Uses of Corn as Food." *Chronicles of Oklahoma* 35 (2): 194–203.
Warren, Harry. 1904. "Some Chickasaw Chiefs and Prominent Men." *Publications of the Mississippi Historical Society*, edited by Franklin L. Riley, 8:555–70. Oxford: Mississippi Historical Society.
Watson, Irwin. 1950. "Creek Indian Burial Customs Today." *Chronicles of Oklahoma* 28 (1): 95–102.
Waugh, Frederick W. 1916. *Iroquois Foods and Food Preparation*. Ottawa: Government Printing Bureau.
Will, George F., and George E. Hyde. 1964. *Corn among the Indians of the Upper Missouri*. Lincoln: University of Nebraska Press.
Williams, Roger. (1643) 1827. *A Key to the Language of America*. Providence: Rhode Island Historical Society.
Witthoft, John. 1946. *Green Corn Ceremonialism in the Eastern Woodlands*. Occasional Contributions from the Museum of Anthropology of the University of Michigan 13. Ann Arbor: University of Michigan Press.
Wright, Muriel H. 1958. "American Indian Corn Dishes." *Chronicle of Oklahoma* 36:155–66.