

Maize in the Political Economy of Spanish St. Augustine

The tale of Spanish involvement in St. Augustine cannot be told without a consideration of the complex and changeable history of interrelationship between Spanish and American Indian communities over the course of their nearly two centuries of coexistence. These relationships were characterized by a disparity in both power and prosperity, in which the cultivation and utilization of maize played a major role. Additionally, changes in these economic patterns of production paralleled the shifting fortunes and eventual decline of Spain's primary military presidio in Florida.

The link between agriculture and political economic development is a persistent theme in anthropological and historic analyses of communities across the globe. Explanations and models of this connection stress the effect of agricultural organization on processes of control, inequality, power, and agency.¹ Though St. Augustine lacked the characteristic *encomienda* as an institution, its social and political landscape was still very much a reflection of underlying agricultural structures. As a primary staple of both the Spanish colonists and indigenous populations, an analysis of maize's role in St. Augustine's development offers a valuable avenue of insight into these principal factors.

While the story of maize in Spanish St. Augustine must necessarily end at a certain defined point in history, the beginnings of maize's use in the region are somewhat more nebulous. When Pedro Menendez de Avilez first established St. Augustine in 1565, maize was already a well-established domesticate in the American Southeast. Archeological dating from sites along the Gulf Coast of Florida suggests that maize use was prevalent as early as AD 500. However, the

¹ Christopher Morehart, and Dan Eisenberg, "Prosperity, power, and change: Modeling maize at Postclassic Xaltocan, Mexico," *Journal of Anthropological Archaeology*, 29 (2010): 94-112, 95.

presence of maize does not necessarily indicate the presence of maize agriculture or even horticulture, and the high labor investment required is generally considered to have hindered the adoption of maize as a major food crop across much of South Florida.² This absence was noted by the De Soto party when they passed through in 1539, having been forced to such extremities of hunger by the lack of fields to plunder that they resorted to eating “roots roasted and others boiled with salt.” It would not be until they reached the vicinity of north central Florida that the first green corn was encountered.³

Therefore, the location of St. Augustine was fortuitous from a Spanish point of view in that it was adjacent to native tribes which did have a preexisting tradition of sedentary agriculture and were capable of producing an annual surplus if the conditions were favorable. From their base on the Eastern Seaboard, the Spanish would proceed to interact with a number of indigenous peoples, each with their own ways of life and horticultural traditions. These primarily included the Apalachee (Florida panhandle), Timucua (North Florida), Yamasee (North Atlantic coastal Florida), and Guale (Georgia coast). Spanish settlement and the missionary and political activities that resulted from it would enact dramatic changes in the labor patterns, demographic characteristics and diets of each of these groups to varying extents. However, the novel presence of St. Augustine must also be contextualized within a broader pattern of agricultural variation, especially concerning the adoption of maize, both before and after the arrival of Europeans.

Archeological evidence, including data from the isotopic analysis of human remains, shows little evidence of maize consumption in Florida before the mission period. An exception

² Jennifer Kelly, Robert Tykot, and Jerald Milanich, "Evidence for Early Use of Maize in Peninsular Florida," chap. 18 in *Histories of maize: multidisciplinary approaches to the prehistory, linguistics, biogeography, domestication, and evolution of maize*, ed. John Staller, Robert Tykot, and Bruce Benz (Walnut Creek, CA: Left Coast Press, Inc., 2009), 5.

³ Adin Baber, "Food Plants of the DeSoto Expedition 1539-1543," *Tequesta: The Journal of the Historical Association of Southern Florida*, 2 (1943): 34-40, 36.

to this generalization is found in the northern panhandle region, which was heavily influenced by the Mississippian Lake Jackson site.⁴ In geographic terms, the corresponding location is an area of land bounded by the Suwannee and Apalachicola Rivers, the center of which is almost two hundred miles away from St. Augustine. If the Spanish wanted large quantities of maize, then, they would either have to grow it themselves or find some way to obtain it from a significant distance. This difficulty was made more pressing by the scarcity of supplies in the fort which was “suffering much hunger” in the fall of 1565.

The French who had established themselves some forty miles north of St. Augustine were experiencing similar difficulties in keeping themselves fed. After sacking Fort Carline and investigating the area around the St. Johns, Menendez noted that “the Indians are great friends of the French who have been there three times in search of corn. These French landed there in great need of supplies... Corn they found scarce and took it almost by force.” The Adelantado was eager to woo the natives away from the French and professed to his king that “all the Indians are not more friendly to them than to us, and I will not consent to take a grain of corn from them, but prefer to give of them what I may have.”⁵ Even at this relatively early date, the issue of maize ownership was quickly becoming a question of political importance in the vicinity of St. Augustine. If either the French or Spanish were able to obtain a reliable supply of local foodstuffs, they would be one step closer towards securing the future of their tenuous coastal footholds.

While the Spanish would eventually prevail in Florida after a series of military encounters with the French, St. Augustine’s economic character remained a reflection of the

⁴ Dale Hutchinson, Spencer Larsen, Margaret Scheoninger, and Lynette Norr, "Variation in the Pattern of Maize Adoption and Use in Florida and Georgia," *American Antiquity*, 63, no. 3 (1998): 397-416, 400.

⁵ A. M. Brooks, Translated by Annie Averette, *The Unwritten History of Old St. Augustine, copied from the Spanish archives in Seville, Spain*, (St. Augustine: The Record Co., 1909), chap. 2.

city's role as defensive outpost. The institution of a yearly subsidy after 1578 quickly became its principal means of support, but the system was plagued with numerous problems. The *situado*, paid with funds from the treasury of New Spain, was often reduced by the viceroy in Mexico City and sometimes failed to arrive altogether.⁶ As a result, the situation in the city was generally one of poverty and hardship. Spanish documents of the time make regular note of starvation as a constant aspect of daily life in the presidio.⁷

Procuring enough maize to fulfill the demand for foodstuffs in St. Augustine would shape both Spanish-Indian relations and internal relations among the Spanish themselves over the next few decades. Examining the underlying political economy of events related to efforts made by the Spanish to supply wants and satisfy desires in this historical context may allow us to better understand social change and historical transformation in 17th century St. Augustine.⁸ However, the purpose of integrating political economic observations into this discussion is not to solely and rigorously analyze the historical economy of St. Augustine. Rather, as suggested by the noted British economist Lionel Robbins, the science of political economy is also appropriately applied to the "examination of schemes for the realization of aims whose formulation lies outside Economics: and it does not abstain from appeal to the probabilities of political practice when such an appeal has seemed relevant."⁹

Regarding Spanish political practice among the native tribes, a fundamental development was the establishment of the Franciscan mission system in 1573. Between the 1570's and the 1700's, more than a hundred missions were established across northern Florida and southern

⁶ Kathleen Deagan, "Studies in Historical Archaeology," *Spanish St. Augustine: The Archaeology of a Colonial Creole Community*, ed. Stanley South (New York, NY: Academic Press, Inc., 1983), 34-35.

⁷ John Tepaske, *The Governorship of Spanish Florida, 1700-1763*, (Durham, N.C.: Duke University Press, 1964), 83.

⁸ Vincent Mosco, *The Political Economy of Communication*, (London: SAGE Publications Ltd, 2009), 22.

⁹ Lionel Robbins, "Economics and Political Economy," *The American Economic Review*, 71, no. 2 (1981): 1-10, 8.

Georgia for the purpose of facilitating religious conversion among the local indigenous peoples.¹⁰ The primary demographic impact of these missions, however, was to consolidate diffuse Indian groups around compact population centers for the more efficient cultivation of maize. It is also important to note that Spanish diplomatic efforts and economic interactions with native groups varied according to the specific political situation.

For example, while the presence of the Spanish impacted every nearby native group negatively to one extent or another, the Spanish impact on maize cultivation among the Guale in 1600 was presumably more severe and direct than effects felt in other areas. As retaliation for the killing of four Franciscans some four years earlier, Spanish troops from St. Augustine under the command of Méndez Canzo initiated a retaliatory campaign against the Guale villages of South Georgia. According to Father Luis Jerónimo de Oré, a Peruvian Franciscan visiting the area, the result was agricultural devastation. He wrote that “they burned the maize fields and foodstuffs of the Indians. On this account and due to what followed, during the subsequent years they had no maize harvest.... Though the Indians sowed, it was little, while the Spanish destroyed it every year.”¹¹ At the same time, Canzo temporarily reduced the tribute of nearby Christianized Timucuan from twenty-five pounds of maize per married man to a token six ears.¹²

While punitive actions against the Guale in this case had been something of an unusual occurrence, it should not be assumed that the destruction of economic targets by the Spanish was in any way unusual. An earlier precedent for violently suppressing native revolts had been set by Governor Pedro Menéndez Márquez in 1579, who after describing his burning of nineteen

¹⁰ Bonnie McEwan, "The Spiritual Conquest of La Florida," *American Anthropologist*, 103, no. 3 (2001): 633-644, 633.

¹¹ Maynard Geiger, *The Martyrs of Florida (1513-1616)* by Luis Jerónimo de Oré, (New York: Joseph F. Wagner, Inc., 1936), 95-96.

¹² Amy Busnell, *Situado and Sabana: Spain's support system for the presidio and mission provinces of Florida*, (Athens, GA: University of Georgia Press, 1994), 66.

villages and the slaughter of their inhabitants, added as an afterthought, “great was the harm I did them in their food stores, for I burned a great quantity of maize.”¹³ By these and similar actions, the Spanish had demonstrated two facts. Firstly, by virtue of superior military force, they could inhibit the ability of sedentary natives to grow maize at a subsistence level, even at significant distances from their central military base in the presidio. Secondly, they were able to compel and control a sustained tribute of maize from outlying areas to St. Augustine.

The institutionalization of such native tribute into a regular system of maize redistribution was critical to the foundation of St. Augustine’s economy in the early 1600’s. As a set of implemented procedures, the payment of subsistence goods to a centralized authority can generally be characterized by D’Alroy and Earle’s proposed dichotomization of finance systems into staple finance and wealth finance. Namely, staple finance generally involves obligatory payments in kind to the state of subsistence goods such as grains, livestock or clothing.¹⁴ This method of obtaining revenue carries with it certain advantages and downsides. The obvious benefits of such a finance system are its simplicity and directness in collecting generally available products needed by the households that are involved in state activities rather than solely in subsistence production. The main disadvantage is the cost of bulk storage and transportation. Such goods are typically heavy in relation to their value, and it is inefficient to move them over long distances.

On the other hand, characterizing the relationship between Spanish St. Augustine and maize simply within the confines of a single defined financial theory would reduce the matter to

¹³ Pedro Menéndez Marqués, " Pedro Menéndez Marqués to the Audiencia of Santo Domingo," *Colonial Records of Spanish Florida, Volume II 1577-1580*, ed. and trans. Jeanette Thurber Conner (Deland, FL: The Florida State Historical Society, 1930), 225.

¹⁴ Terence D’Alroy, and Timothy Earle, "Staple Finance, Wealth Finance, and Storage in the Inka Political Economy," *Current Anthropology*, 26, no. 2 (1985): 187-206, 188.

an inappropriate level of simplicity. St. Augustine was neither its own isolated entity nor an independent polity singlehandedly controlling subject peoples. As a colony of Spain, La Florida was at least partially integrated into the greater cross-Atlantic European economy of its day. Also, religious and social norms provided disparate motivations on both the supply and demand sides of maize production in the vicinity of St. Augustine.

Out of the many governmental organizations based in St. Augustine during the 17th century, none operated more closely to the messy convergence of agricultural organization, political power, religious motivation, and redistribution of wealth than the Franciscan mission system. After the gradual dissolution of the French threat in the early 1570's, the Spanish had begun to see their Apalachee and Timucuan neighbors more as an exploitable resource than potential military allies. Chiefs from both tribes would request friars in 1608 and the Spanish were both eager to comply and quick to abandon the unselfish ideals espoused by Menendez forty-three years earlier.¹⁵ Among the Apalachee in particular, Spanish accounts are quite detailed in describing the establishment of an extractive relationship heavily balanced in favor of the colonial government in St. Augustine.

Concerning Spanish attitudes towards the Indians, it is impossible to label the missionary friars as completely selfless or completely self-serving in their works among the Apalachee. They were, without a doubt, people of their time, and the vast majority of them were convinced that they were doing a service in ministering to their new converts. Similarly, in reflecting on their contributions to American Indian agriculture in Florida, the picture is not all negative. Introduction of certain Old World crops suited to the climate of the Southeastern United States increased both horticultural diversity and abundance.

¹⁵ McEwan, 636.

However, unlike in Mesoamerica, native societies in the region of St. Augustine did not have a preexisting system of paid tribute at the extracommunal level. Even among the Apalachee, with a large, fairly sedentary population, there was thus no overarching command structure that the Spanish could easily replace and derive income from. To impose the *encomienda* on such a group would have been eminently impractical. Instead, the initial task of conversion and civilization of the tribe was left to the missionary orders and the closer form of supervision that they represented. In theory, mission settlements were to be handed over to secular authorities after ten years, and the Indians there were to provide tribute and labor in the same manner as those in an *encomienda*.¹⁶ Though this rarely happened, the eventual goal was still to extract a surplus in the form of agricultural tribute and labor. To accomplish this, the friars would have to alter the foodways of the loosely organized Apalachee, who still supplemented the products of their shifting cultivation with hunting, fishing, and gathering.

The situation of the Apalachee, as compared to that of the other native groups, was made somewhat more unique by the quality of the land that they occupied. Generally, the province was considered to be the most agriculturally promising in the vicinity of St. Augustine, as evidenced by Governor Damián de la Vega who wrote of the area, “*se seguira gran beneficio á este presidio en sus aflicciones y necesidades, por ser tierra fertil y de gran cosecha de maiz.*”¹⁷ Considered as an economic problem, fertile land was an especially important factor of production for maize cultivation in sandy Florida. Labor and capital could be coerced from the Apalachee themselves, who after all were already accustomed to agriculture. Practically

¹⁶ Linda Newson, "Indian Population Patterns in Colonial Spanish America," *Latin American Research Review*, 20, no. 3 (1985): 41-74, 50.

¹⁷ Manuel Serrano y Sanz, "Carta de Damián de la Vega. Año 1639.," *Documentos históricos de la Florida y la Luisiana, siglos XVI al XVIII.*, (Madrid: Imprenta de Fortanet, 1912), 201.

speaking, this meant that the Spanish were very highly motivated to increase maize cultivation in the area.

From an Apalachee standpoint, the Spanish desire for maize as a foodstuff must have resonated with certain cultural connotations. Prior to the arrival of Europeans, and the consequential activities of Catholic missionaries, maize cultivation was already linked to political power. In particular, the production and redistribution of a surplus was critical to sociopolitical complexity among tribes in the Southeast. Once stored, the grain was used to finance public ventures as well as the aggrandizement of elites.¹⁸ Whether or not the Spanish realized it, maize was indeed the primary source of both literal and symbolic capital among the Apalachee, and therefore a recognized form of wealth.

Given that maize was commoditized, as opposed to simply being grown at a subsistence level, it is appropriate to evaluate the Spanish goal of more intensified maize production in economic terms. In attempting to increase the agricultural output of a group that was presumably already working to the limits of their inclination, the options available to the authorities in St. Augustine were fairly limited. As Adam Smith observed in his *Wealth of Nations*, “the annual produce of the land and labor of any society can be augmented only in two ways; either, first by some improvement in the productive powers of the useful labor actually maintained within it; or, secondly by some increase in the quantity of that labor.”¹⁹ It is telling of the Spanish desire for maize that they proceeded to exercise both of these techniques.

The first innovation in regard to increased productive powers was known as the labor repartimiento, in which a labor levy was drawn from the provincial reserves of single men. This

¹⁸ Cameron Wesson, "Chiefly power and food storage in southeastern North America," *World Archeology*, 31, no. 1 (1999): 145-164, 147.

¹⁹ Adam Smith, *The Wealth of Nations*, (London: J.M. Dent, 1910), 170.

was done on a rotating basis calculated off of a friar created census. The men were escorted to St. Augustine, where they would work on the king's fields and be fed by the king's grain. Given tools of European make, these "*indios de cava*" cycled through the entire agricultural process, with a different group each responsible for the separate agricultural processes of planting, hoeing, and harvesting.²⁰ Whether or not this system was inherently more productive than the direct extraction of tribute can only be speculated at, but the Spanish appreciated it both for the greater level of control that it offered, and its potential for more reliable harvests close to their main population center. After his implementation of the repartimiento, the governor at the time noted that the "presidio was better provisioned and sustained than ever before." Unfortunately, the effects on the Apalachee were not nearly so rosy. In 1656 Fray Alonso Moral wrote the following description of the agricultural labor system:

"Each year from Apalachee alone more than three hundred are brought to the fort at the time of the planting of the corn, carrying their food and the merchandise of the soldiers on their shoulders for more than eighty leagues with the result that some on arrival die and those who survive do not return to their homes because the governor and the other officials detain them in the fort so they may serve them and this without paying them a wage...This is the reason according to the commonly held opinion that they are being annihilated at such a rate."²¹

A second, less grim, trend facilitated by the mission system was increasing sedentism among the native communities. By introducing iron tools and encouraging two yearly plantings in some areas, the friars strongly facilitated a more sedentary agricultural economy. True intensive agriculture, however, remained beyond the reach of the Apalachee. With no large animals to produce fertilizer, replanting maize in the same fields would have slowly drained them of nutrients. During the Rebolledo investigation of 1657, the cacique of Santa María

²⁰ Bushnell, 121-123.

²¹ John Hann, *Apalachee: The Land between the Rivers*, (Gainesville, FL: University of Florida Press, 1988), 141.

complained of this very problem. His village was an old one, and its fields had lost much of their fertility, resulting in poor harvests. Also, much of the local vegetation had been denuded for fuel, and obtaining firewood required a significant journey away from home. Rebolledo gave the Indians permission to relocate their village half a league away to a spot “where there existed sufficient land to satisfy their demands.”²²

The missionaries also attempted to ban the ballgame played by their converts, fearing that the fields went unattended during bouts of competitive play.²³ Naturally, these initiatives were not without advantage to the Spanish colonists, especially since special fields were set aside for the benefit of friars and the garrison in St. Augustine. This was a continuation of the previous practice of commoners farming land for caciques, a practice which involved the entire community, with men opening trenches and women sowing the seed.²⁴

Once all of this maize was produced, there was still the inherent problem of transporting from its place of origin, where there was a surplus, to St. Augustine, where there was a significant want for food. Unfortunately for the Mission Indian population, in lieu of draft animals, direct application of labor still remained the principal means of transporting goods across the interior of Florida. Having produced this bulky staple food, it then fell to the very owners of the maize to transport it from various towns and villages to St. Augustine. As with systems of staple finance in areas like Mesoamerica or Peru, much of the heavy load would have

²² Fred Lamar Pearson Jr. *Spanish-Indian Relations in Florida: A Study of Two Visitas, 1657-1678*, (New York: Garland Publishing, Inc., 1990), 96.

²³ Kathleen Deagan, "Spanish-Indian Interaction in Sixteenth-Century Florida and Hispanola," *Cultures in contact: the impact of European contacts on native American cultural institutions, AD 1000-1800.*, ed. William Fitzhugh (Washington, DC: Smithsonian Inst Pr, 1985), 281-319, 284.

²⁴ Gabriel Díaz Vara Calderón, *A 17th Century Letter of Gabriel Díaz Vara Calderón, Bishop of Cuba, Describing the Indians and Indian Missions of Florida*, trans. by Lucy L. Wenhold (Washington DC: Smithsonian Institution, 1936), 13.

been carried by human porters, perhaps by means of something similar to the *cacaxtli* carrying frame used by Aztec merchants.

For the Apalachee, hauling loads of corn to St. Augustine and returning to their home villages required a round trip of nearly two hundred miles. On one particular trip out of many, two hundred bearers made the journey, but only ten returned, the rest having died of starvation and fatigue along the way.²⁵ Trips such as this were not necessarily uninspired by hopes for profit, as the Spanish authorities often bought maize when not requiring it as tribute, but even these exchanges were heavily balanced in favor of the Europeans. Frequent trade between St. Augustine and Havana meant that Cuban rum, or *aguardiente*, was easily introduced into the vicinity of Apalachee to pay for maize sold to the presidio. There is even specific record of the Royal Accountant, Tomás Menéndez Marqués, bringing a presidio ship with his private cargo of rum up the Suwannee in 1676.²⁶ One can only speculate as to the havoc that this new, intoxicating beverage would have created among indigenous families and communities previously unaccustomed to alcohol.

While the Apalachee may have indeed experienced the most severe consequences of mandated transportation duty, it is the Timucua who enter the historical record as being the most evidently dissatisfied with their lot. Due to a shortage of food in the year 1656, Governot Diego de Rebolledo had ordered the Indians of Timucua to bring grain to St. Augustine. What particularly angered the Timucuan caciques was that Rebolledo did not distinguish between the upper and lower class members of their society, and instead insisted that the elites also assist in the carrying of grain. This meant that the *principales* would have to each carry three *arrobas* (75

²⁵ James Covington, "Apalachee Indians, 1704-1763," *The Florida Historical Quarterly*, 50, no. 4 (1972): 366-384, 369-370.

²⁶ Amy Bushnell, "That Demonic Game": The Campaign to Stop Indian Pelota Playing in Spanish Florida, 1675-1684," *The Americas*, 35, no. 1 (1978): 1-19, 9.

pounds) of maize for the duration of the journey, something that they found to be a grave insult. When the cacique of Tarihica refused to send his *principales* to St. Augustine, the stage was set for rebellion.²⁷

Though the uprising was eventually crushed by sixty infantrymen under the command of Sergeant-Major Adrián de Cañizares y Osorio, there are certain inferences which can be drawn from the Spanish accounts of the short lived event. Firstly, the Timucuan caciques were not protesting the giving of maize itself, but rather the participation of their elite personages in a form of physical labor that was seen as degrading. It could be that this was simply a convenient rationalization that they made to justify the keeping of a staple resource in a time of scarcity. If their protestations are taken literally, however, the caciques suggest implicit acceptance of the Spanish right to demand maize, whether for purchase or otherwise, at the direct expense of their own community's prosperity. Here, it is not maize as an economic and agricultural commodity that is not the sole issue. Its possession and redistribution was instead linked to deep seated social inequality and lack of agency that characterized the relationship between the Indians and the Spanish of the presidio.

Besides directly obtaining maize from their erstwhile native allies, the Spanish also indirectly decreased Timucuan and Apalachee maize stores by requisitioning their labor during critical periods of the agricultural cycle. In 1658, the principal people of Santiago de Tolomato wrote to the king describing this practice, noting that the garrison in St. Augustine was continually asking them "to unload vessels arriving at the Garrison, cut timber from the forests and other services not in their line of duty, taking them from their principal labor when planting

²⁷ Fred Lamar Pearson Jr., "Timucuan Rebellion of 1656: The Rebolledo Investigation and Civil-Religious Controversy," *The Florida Historical Quarterly*, 61, no. 3 (1983): 260-280, 260-261.

corn, which is the principal sustenance for themselves and their families, causing them to lose their crops and suffer hunger.”²⁸ Clearly, this labor was not a voluntary contribution on the parts of the inhabitants of Santiago de Tolomato, and such work at the behest of the Spaniards clearly galled them. Once again, a dispute over maize had devolved into some level of social and political unrest.

The root of the problem, insofar as related to this specific situation and resource, can be linked back to the inability of the Spanish to grow enough food for their own requirements. Though early governors had attempted to make St. Augustine agriculturally self-supporting, the initial colonists were either unable or unwilling to accomplish this feat.²⁹ That the inhabitants of St. Augustine didn’t experience widespread starvation was likely due in part to the fact that they weren’t economically isolated. Besides receiving monetary and material assistance from the annual situado, the government in St. Augustine had also placed itself in a position to receive goods and services from the indigenous population, and was fully determined to defend this position with military action. Given the consequences of such a policy, it is perhaps understandable that the Timucuan decided to revolt. As stated by Fred Gottheil “with the imposition of privilege, the social welfare in the colonized region, as perceived by the population in the region, declines.”³⁰

The question then begs as to why St. Augustine needed so much maize, even at such evident cost to its neighbors. The simple answer, of course, is that the maize was eaten. On the

²⁸ Brooks, 111.

²⁹ Maynard Geiger, "The Franciscan Conquest of Florida (1573-1618)," *The Spanish Borderlands Sourcebooks: The Missions of Spanish Florida*, ed. David Hurst Thomas (New York: Garland Publishing, Inc., 1991), 234.

³⁰ Fred Gottheil, "On an Economic Theory of Colonialism," *Journal of Economic Issues*, 11, no. 1 (1977): 83-102, 86.

other hand, analyzing who was eating it, and why, as well as its nature as a commodity, is essential to understanding the demand side of the equation.

In addition, the consumption and utilization of maize was highly interrelated to class and social standing within the presidio itself. This is especially apparent when the wages of Indian and Spanish laborers are compared. For example, during the early stages of work on Castillo San Marcos in 1671, an unskilled Spanish *peone* received four *reales* per day whereas an unskilled Indian only received one plus a ration of maize. At first glance, the fact that the Indian laborers received a currency wage at all might seem like an improvement from previous practices. However, Fray Alonso Moral, the same Franciscan who complained about the repartimiento, noted disapprovingly in 1676 that the sum of one real was usually given to his parishioners “in the form of old rubbish of little or no value or utility to them.”³¹ If this practice was indeed widespread, the Spanish were effectively excluding their Indian laborers from the cash based economy of St. Augustine.

Furthermore, workers were faced with fluctuating rations of maize, and it was only the Europeans who received a stipend of wheat and meat with their pay.³² The first evident irony is that the natives were probably being paid with the very maize that their communities had produced in the first place. Culturally speaking, though, it is quite revealing that identity was to some extent linked to dietary reliance on a particular staple foodstuff. Seeing as maize wasn't inherently less edible for the European colonists, this disparity would have likely been due to the progressive racialization of Indians during the colonial period. This was characterized by an

³¹ Hann, 141.

³² Jason Palmer, "Forgotten Sacrifice: Native American Involvement in the Construction of the Castillo de San Marcos," *The Florida Historical Quarterly*, 80, no. 4 (2002): 437-454, 445-446.

assumed Spanish superiority, as well as the formation of a unique identity among the new inhabitants of Florida.³³

If maize was consumed to the exclusion of other foods by one particular social class, be it either Indians or poor colonists, significant medical consequences may have resulted. In particular, eating a predominantly maize based diet carries the inherent risk of a vitamin deficiency disease known as pellagra, especially if the kernels are not treated with lime prior to cooking.³⁴ Though this disease was only first identified by the scientific community in 1735, and therefore would have been unknown by name to the chroniclers of the colonial era, some degree of inadequate dietary intake may have contributed to the much harped upon lethargy of the natives, as well the many plagues and diseases which afflicted them during the period after the Spanish conquest of Florida.

Additionally, maize is contains both carbohydrates with significant amounts of sugar, as well as phytate, a substance that prevents the absorption of iron.³⁵ With this knowledge in mind, bioarcheological studies conducted by a number of individuals, including Clark Larsen of Ohio State University, suggest that increased dependence on maize resulted in more numerous dental caries, chronic anemia, and changes in skeletal structure among populations near St. Augustine.³⁶ While some of these factors would have been directly related to changing diets, an additional factor was the labor inherent both to maize agriculture, as well as the preparatory steps used to transform the hard kernels of maize into a form suitable for human consumption. Whatever the

³³ Daniel Murphree, *Constructing Floridians*, (Gainesville, FL: University of Florida Press, 2006), 10-11.

³⁴ Daphne Roe, *A Plague of Corn: The Social History of Pellagra*, (London, WI: Cornell University Press, 1973), 60-62.

³⁵ Clark Spencer Larsen et al., "Frontiers of Contact: Bioarchaeology of Spanish Florida," *Journal of World Prehistory*, 15, no. 1 (2001): 69-123, 75.

³⁶ *Ibid.*, 92-105.

source, these health problems would have also uniformly affected the quality and productivity of native labor as utilized by the Spanish for various means.

The crux of the problem was evident in issues unearthed by Captain Joaquín de Florencia during his investigation of Spanish Timucua in 1695. Indians were being forced to grind grain for the provincial lieutenant and other, ordinary Spaniards, a task which took them away from labors in their own households. Perhaps in retaliation, the Indians were altering prices when selling maize to the presidio. Florencia reacted by strictly forbidding both practices and outlining a punishment of fifty lashes for selling maize at unfair prices.³⁷

In the first of the two discovered abuses, the Spanish inhabitants of Timucua were utilizing a position of power to economically exploit their somewhat subservient neighbors. In the second case, the ability of the Timucua to arbitrarily raise prices suggests something of their monopoly on the production of maize. The brief mention of an alteration in prices by Florencia is suggestive of a tactic used by haciendas in New Spain to raise the price maize. Throughout the 1700s, when harvests were good, they stored grain to raise prices artificially and, in a display of economic power, sold their stores at extremely high prices when harvests were poor.³⁸ As would have been the case in Florida, there was no real alternative to the consumption of maize. Fiddling with the economy only served to aggravate occurrences of widespread hunger and social tensions. Were the Spanish able to produce sufficient amounts of maize for their own use in St. Augustine, such actions would have been a nonissue. On the contrary, maize produced by the Indians was essential to both the religious and military components in St. Augustine and its associated missions.

³⁷ Fred Lamar Pearson Jr., "The Florencia Investigation of Spanish Timucua," *The Florida Historical Quarterly*, 51, no. 2 (1972): 166-176, 173.

³⁸ Magnus Mörner, "Economic Factors and Stratification in Colonial Spanish America with Special Regard to Elites," *The Hispanic American Historical Review*, 63, no. 2 (1983): 335-369, 342.

On the part of the friars, maize produced by the converted natives was responsible for their very subsistence. Generous quantities of maize were given to the Franciscans as offerings to the dead at masses said for the departed, the proceeds of which helped to supplement their income from the irregular situado shipments. Though this system was likely mutually well intentioned to start with, the essentially unregulated position of the friars may have led to certain abuses. Captain Francisco de Fuentes, the Spanish commander in Guale, complained in 1681 that the friars were making Indian women grind maize and obtaining more than their share of the crop from certain villages. A few years later, Governor Cabrera even went so far as to ban the friars from taking Indian produce to support themselves.³⁹

These sorts of complaints were somewhat symptomatic of an unstable economic situation. Fuentes and his ilk represented the soldiery of the presidio, who also required maize for their daily meals and to use as rations during forays into the countryside. With maize being the principal wealth produced by the native inhabitants of Florida, there was significant demand from the hungry Spanish. This demand was placed opposite to a highly limited supply, seeing as the Indians needed to both feed themselves and save some portion of the crop for each successive planting. Therefore, it was only the remaining surplus that could be divided in some manner among the Spanish inhabitants of the colony.

Due to the nature of their occupations, the Franciscans and soldiers of the presidio are especially worthy of focus due to the fact that as two distinct parts of the population, they were completely unproductive agriculturally. Therefore, as two competing recipients of a limited resource, competition was probably inevitable. At issue was a question of economic and political

³⁹ Robert Alan Matter, "Economic Basis of the Seventeenth-Century Florida Missions," *The Florida Historical Quarterly*, 52, no. 1 (1973): 18-38, 32.

power. Out of the two consumers and one producer, who would receive the largest quantity of maize? In siding with the soldiers and banning the taking of produce by friars, Governor Cabrera made his views on the situation quite clear. His single action, however, was not the solution to a deep seated problem. Even if the friars completely acceded to his decree, which was doubtful given their great distance from the presidio, they still complained vociferously and insistently to both him and the king in Spain. As new governors came and went, the policy would shift according to the situation in the colony.⁴⁰ Throughout it all, the two groups were still dispatched together to outlying provinces, and were isolated for long periods of time from the administrative center in St. Augustine.⁴¹ As a result, the problem stubbornly refused to go away.

As a particular aside, the grinding and preparation of maize, remarked upon by both Florencia and Fuentes, also has particular economic significance. Physically reducing the size of maize particles by grinding increases their digestibility and requires a significant input of labor. By requisitioning this labor without repayment, those few Spanish who did so were essentially reducing the economic potential of native households, and were maybe even using labor that would have otherwise been devoted to agriculture. Secondly, modern studies suggest that the cooking of maize requires fuel on an order of magnitude more than that needed to cook such foods such as fish, meat, and rice.⁴² This fact may have explained the fuel shortage experienced by the cacique of Santa María.

While these political and economic issues were important in and of themselves, a still greater threat was looming on the horizon as the seventeenth century drew to a close. When the Spanish king died without a natural born heir, war engulfed continental Europe. Upon learning

⁴⁰ Ibid.

⁴¹ A. H. Phinney, "Florida's Spanish Missions," *The Florida Historical Society Quarterly*, 4, no. 1 (1925): 15-21, 17.

⁴² Martin Biskowski, "Maize Preparation and the Aztec Subsistence Economy," *Ancient Mesoamerica*, 11, no. 2 (2001): 293-306, 294.

this news in 1702, Governor Moore of English South Carolina began formulating his plans for a military expedition against the Spanish Presence in St. Augustine.⁴³

Though his subsequent siege of St. Augustine has been well documented elsewhere, two specific military actions serve to explain the role of maize in this conflict. Firstly, when faced with the overwhelming might of Moore's forces, one of Governor Joseph de Zuniga y Zerda's first actions to ensure the provisioning of the fort for a potential siege was as to collect all "of the supply of corn from the harvests of the neighboring settlers, which by proclamation and orders they were obliged to bring in."⁴⁴

On the other side of the fort's walls, Moore was equally determined in his actions to deny the Spanish any sort of sustenance. The Spanish Council of War reported in 1703 that his burning of the city itself was only exceeded by "the great disaster of the enemy's having burned all the farms and planting and destroyed all the cattle and crops."⁴⁵ Just as Méndez Canzo had burned the crops of the Guale one hundred and three years ago, the English were now attacking the Spanish economic base in Florida.

The bleak nature of this new political and economic reality was prominently displayed when Moore retreated back to South Carolina, burning the missions of Apalachee as he went. As a result of these attacks, and later depredations following the Yamasee War, most of the inhabitants of the region either fled north or east, or relocated themselves to the immediate

⁴³ Charles Arnade, *The Siege of St. Augustine in 1702*, (Gainesville, FL: University of Florida Press, 1959), 4.

⁴⁴ Mark Boyd, and Joseph Zuniga y Zerda, "The Siege of Saint Augustine by Governor Moore of South Carolina in 1702 as Reported to the King of Spain by Don Joseph de Zuniga y Zerda, Governor of Florida," *The Florida Historical Quarterly*, 26, no. 4 (1948): 345-353, 346.

⁴⁵ Arnade, 58.

vicinity of St. Augustine.⁴⁶ From an economic perspective, those refugees camped beneath the walls of the fort had transformed themselves directly and unprofitably from producers to consumers. Such an influx of hungry mouths must have greatly taxed the abilities of the Spanish to feed themselves and their allies, given the state of their supplies even before the near total destruction of Apalachee. Spanish inability to prevent this sack of their missions therefore deprived them of not only much of their religious motivation for remaining in the area, but also a significant portion of their agricultural base.

Looking backwards from this ignoble end, the history of maize use and redistribution in Spanish Florida can be characterized by three overarching trends. Firstly, the Spanish imposed an inequitable economic relationship on their Indian neighbors, focusing on the acquisition of maize for their own sustenance and resulting in the economic marginalization of the indigenous peoples they encountered. Secondly, this extractive relationship was cemented into place by political institutions, including the mission and repartimiento systems. Lastly, just as this economic foundation was being put into use by funding public works including the Castillo itself, the base of agricultural producers was wiped out by English and Native American attacks.

Throughout this time, the effects on the Apalachee and Timucua populations were anything but positive. Inextricably linked to the Spanish presence by social and economic ties, their history during the colonial period was one marked largely by precipitous demographic decline.⁴⁷ Although this pattern was experienced in much the same way by every indigenous group that came into contact with Europeans, the survival of the Indians near St. Augustine was

⁴⁶ John Hann, "St. Augustine's Fallout from the Yamasee War," *The Florida Historical Quarterly*, 68, no. 2 (1989): 180-200, 180.

⁴⁷ Rabinal Arnaud, "Estructura de la población de una sociedad de frontera: la Florida española, 1600-1763," *Revista complutense de historia de América*, 73 (1991): 93-120, 95.

certainly not aided by Spanish agricultural policy. In this sense, the Spanish desire for maize was very much linked to processes of control, inequality, power, and agency in the immediate area.

As modern observers, our understanding of such weighty consequences should remain undimmed. There are still contemporary groups which largely rely on a single agricultural commodity as the mainstay of their subsistence economies. In the same vein, the motivations of profit, greed and hunger, so prevalent in Spanish St. Augustine, still affect us with a similar urgency today. Henry Kissinger, for one, famously quoted that history “teaches by analogy, not by maxims.” The lessons which were learned by the Spanish in St. Augustine still remain with us as of this day.

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