

Five Hundred Years on Five Thousand Acres:
Human Attitudes and Land-Use at Nassawango Creek

Mercedes Chamberlain Quesada-Embid

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Mercedes Chamberlain Quesada-Embid

This project for the
M.A. degree in History
has been approved for the
History Department by

Michael Lewis, Ph.D., Thesis Director

Christopher Briand, Ph.D., Second Reader

Melanie Perreault, Ph.D., Third Reader

Creston Long, Ph.D., Fourth Reader

Gregory Ference, Ph.D., Department Chair

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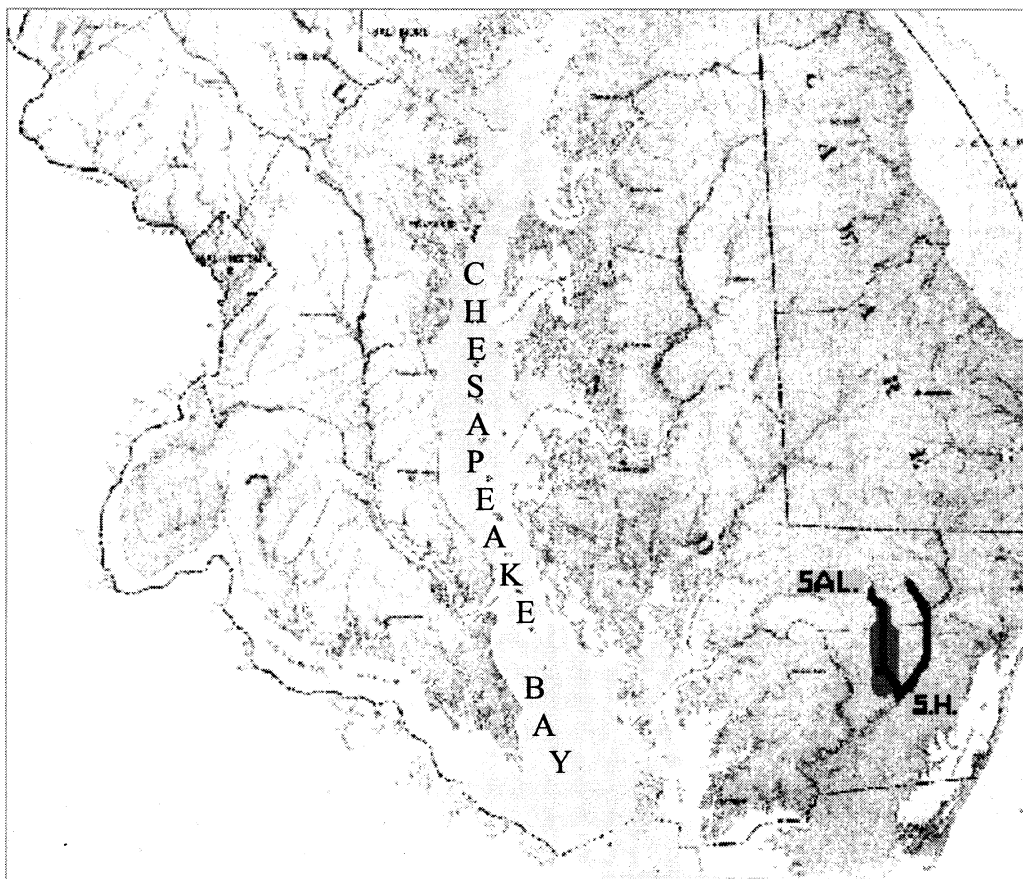
Abstract

This study describes the environmental transformations that occurred on Nassawango Creek from 1500-2000 as it went from a Native American reservation to an industrial hinterland, and presently, to a preservation site. The purpose of this research is to compile, relate, and analyze the fragmented and turbulent history of Nassawango as it was altered by and reflects each respective stage. Humans were the driving force in determining the dramatic shifts in the ways in which the land was used. Understanding the relationship between the human perception of nature and the resulting land-use, allows for a more comprehensive appreciation of Nassawango as a historical place. Expanding the knowledge of the history of this landscape also makes the continued goal of historical, cultural and ecological preservation all the more significant.

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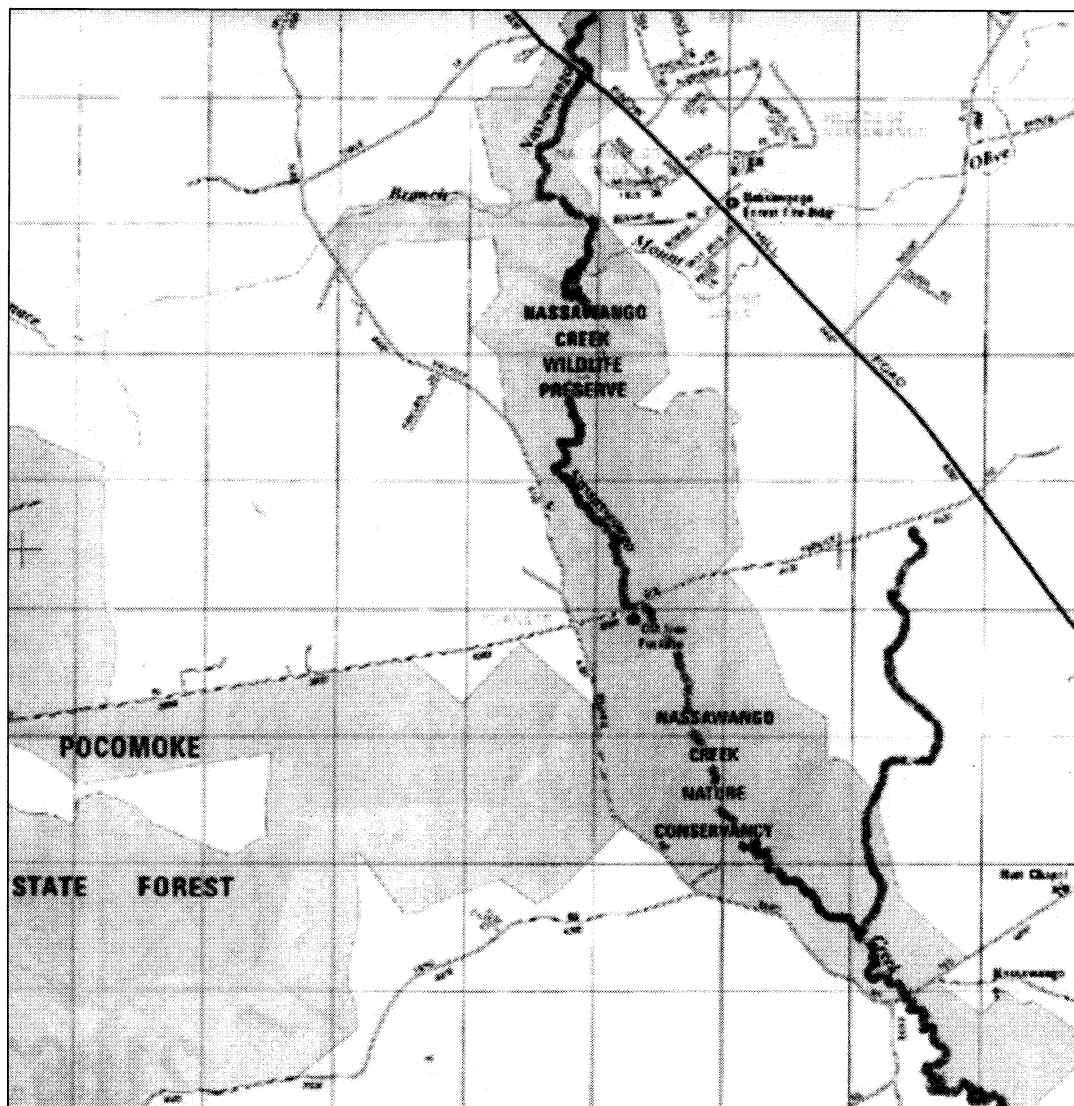
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Map 1



This map shows the Chesapeake Bay, the largest estuary in North America, as it separates Maryland's Eastern Shore from its Western Shore. Identified on the map are the approximate locations of the city of Salisbury, MD (SAL.) to the north and the town of Snow Hill, MD (S.H.) to the south. My chosen area of study of 5,000 acres is highlighted in dark gray and is somewhat oval in shape. This is a portion of what The Nature Conservancy currently owns. The study area surrounds Nassawango Creek, traced in black (left). The other body of water traced in black further to the right is the Pocomoke River. The black dot within the study area is where the Nassawango Iron Furnace lies, just slightly to the west of Nassawango Creek. The original map is courtesy of *The State of Maryland Historical Atlas: A Review of Events and Forces that have Influenced the Development of the State*. 1973. Raymond, Pine and Plavnick: Washington, D.C.

Map 2



This map shows the current Nature Conservancy holdings at Nassawango (over 5,000 acres) and the location of the Iron Furnace. The Furnacetown Living Heritage Museum owns about 20 acres around the Furnace. A black dot reflects the “point of interest” of the “Old Iron Furnace” and the shaded areas are “park, forest and wildlife areas.” Traced in black are Nassawango Creek (left) and the Pocomoke River (right) to give a general idea of the layout of the area. This map is courtesy of *Worcester County Maryland: The Map People*. 2000. Alexandria Drafting Company.

Map 3



This map shows the boundaries of the Askiminikonson "Indiantown" Reservation. Based on my study of the original *Proceedings of Maryland* from 1678, I gathered the boundaries and dimensions of the Reservation. Upon my request specifically for this research, Jason Bell, a survey engineer from Parker and Associates located in Salisbury, MD, determined the acreage of the land designated as the Reservation. It consists of approximately 40,000 acres. The Reservation is V-shaped and lies in the center of the map. Nassawango (Naseongo) Creek is the body of water delineating the western border and the Pocomoke River is the waterway delineating the eastern border of the Reservation. The Reservation land lies in between these two bodies of water, which serve as its main boundary markers; its northern boundary, determined by the landscape descriptions from the primary records, is simply marked with a thin black horizontal line.

Preface

The history of any place is a combination of fact and perception. One of the beauties of any history is that there is always the possibility of discovering something new. That is what has occurred during this study of Nassawango Creek. The chronology of events in Nassawango's history can never be changed, but over time the sources detailing this chronology gradually became less accessible. As its history was passed down through both spoken and written word, interpretations were made and assumptions followed—information was inadvertently set aside. During the course of this research, old perceptions were analyzed, challenged, and combined with new revelations about three stages in the life of Nassawango. An extensive, dedicated, and persistent search for primary sources was critical to the findings of this study. Our knowledge of human attitudes and land-use at Nassawango Creek can be better understood and appreciated only when all sources are thoroughly searched and considered.

Introduction

Nassawango Creek flows on the Lower Delmarva Peninsula, which is located on the Eastern Shore of Maryland. It is surrounded by a long riverine corridor of bald cypress and black gum bottomland forest and flanked by a mosaic of agricultural and forested landscape. The creek is the main tributary of the Pocomoke River, which empties into the largest estuary on the North American continent, the Chesapeake Bay¹ (see map 1). Within Nassawango lie acres of palustrine wetlands: bogs, spring seeps, and seasonal coastal plain ponds. Its shores also contain intertidal wetlands, including the globally rare Atlantic white cedar swamp. Wetlands are essential for filtering nutrients, chemicals, and sediments from surface and groundwater and for moderating the area's high tendency for floods.² According to The Nature Conservancy, a non-profit organization and owner of over 5,000 acres of the creek land, the forest surrounding the creek is comprised of small, open, sandy clearings that harbor more rare plant species than any other upland site in the state of Maryland.³ The Conservancy considers Nassawango Creek to be the most "pristine" stream corridor in the Pocomoke watershed and worthy of preservation. A portion of it was designated by the state as the Lower Nassawango Creek Natural Heritage Area, affirming special concern.⁴

¹ From this point onward, the land under study will be referred to simply as Nassawango or Nassawango Creek. According to Bill Bostian, formerly of The Nature Conservancy, Nassawango is an Algonquin name meaning "the land between two waters." *Land Between Two Waters*. Created by Maryland Public Television: Outdoors Maryland. Aired 27 May 2003, videocassette.

² William J. Mitsch and James G. Gosselink, *Wetlands* (New York: John Wiley & Sons, Inc., 2000).

³ The Nature Conservancy, Report on the Nassawango Creek Watershed. Furnacetown Uncatalogued Archives, 1999.

⁴ Maryland Department of Natural Resources 1991 Report. Furnacetown Uncatalogued Archives, 1991.

The Conservancy is not the only present-day owner of the Nassawango Creek land herein under study. Furnacetown Living Heritage Museum is another non-profit organization, which owns about twenty acres of Nassawango. They too believe the land to be of special concern, but rather than focus on ecological preservation, they consider that the land should be preserved for its historical merit. Their focus revolves around the still-standing hot-blast iron furnace stack. This paper will try to provide the reader with the background necessary to understand both movements of Nassawango preservation. Both The Nature Conservancy, through ecological preservation, and the Furnacetown Living Heritage Museum, through historical preservation, have found it necessary to promote an idealized understanding of Nassawango's history in order to make their goal of preservation a reality.

These organizations have selectively emphasized and/or de-emphasized the land-use regimes of previous eras in order to create the desired image deemed necessary to ensure preservation. It seems that depending on what suited the respective movement at the time, both fact and fiction were presented as history interchangeably. Although the actual history of land-use at Nassawango was sidelined in the late twentieth century due to The Nature Conservancy's and Furnacetown's idealized perception of the land in its public promotions, previous cultural values about how to use the land also guided land-use in Nassawango's preceding eras of land utilization. One could conjecture that all known land-use in Nassawango has been shaped by different ideas regarding nature.

Land-use and its relation to the human perception of nature is a key theme throughout this study. Nassawango Creek went through at least five phases of land-use over the selected study period of AD 1500–2000. Those phases are: Native Era (circa

1500–c.1607), Contact Period (c.1607–1788), Iron Era (1788–1860), Era of Abandonment (1860–1962), and the Preservation Period (1962–2000).⁵ This study will mainly focus on the following three periods: Contact Period, Iron Era, and Preservation Period.

Human land-use in what is now Worcester County began with the Native peoples of the Eastern Shore (the existence of which we can assume also predates 1500), specifically the Pocomoke and the Assateague tribes. Native peoples had been utilizing the land for their survival and in so doing gradually altered the landscape through the end of the sixteenth century. By the early 1600s European settlers from England were coming to the shore in great numbers to form New World settlements based on their Old World way of life. These two cultures, along with Nassawango, experienced a Contact Period where the dividing line between their traditional land-use regimes was blurred and, in effect, blended with one another.⁶ This cultural exchange that existed during the Contact Period brought about new ideas regarding Nassawango that made it possible for a different kind of land-use to emerge.

Following 1788 Nassawango underwent still another land-use transformation, when it came into the Iron Era. Iron ore was discovered within the swampy creek bed, and not long thereafter a hot-blast iron furnace was erected. Nassawango was converted into an industrial site and the land was mined for its iron-producing resources. By using the landscape in this way, the furnace workers converted Nassawango's forest, water, and

⁵ Although this study ends in the year 2000, in actuality the Preservation Period is ongoing. The Nature Conservancy and Furnacetown Living Heritage Museum continue to coexist on these 5,000 acres of Nassawango Creek (see Map 2).

⁶ Jane T. Merritt, *At the Crossroads: Indians and Empires on a Mid-Atlantic Frontier, 1700-1763*. (Chapel Hill: University of North Carolina Press, 2003). She speaks of a blending of cultures that took place in Pennsylvania with the European and Native American people that interacted and I believe that a similar concept can be applied to Nassawango.

fire into an East Coast iron-making hinterland which served the nineteenth-century markets of New York, Baltimore, and Philadelphia.

After the Nassawango Iron Era came to a close in 1860, the land entered its Era of Abandonment for approximately one century, and it became a natural habitat generally undisturbed by humans. It was largely due to these one hundred years of solitude (and the resulting reforestation of the land) that interested organizations attempted to draw human use upon its swampy, sandy soils once again. This land-use regime, the Preservation Period, came about in a time of cultural change within the United States—the 1960s. It was during this decade that the historical preservation of Nassawango was brought to the forefront by a group of young, local Worcester County residents interested in the still-standing brick furnace. They eventually formed the Furnacetown Living Heritage Museum. A local Worcester County family, the Fehrer family, also took an interest in Nassawango, but their interest in it was not as a historical site, but rather as a place where ecological preservation could and should occur. They encouraged The Nature Conservancy to join their efforts in preserving Nassawango.

The shift from the Contact Period to the Iron Era, and the eventual shift to the Preservation Period entailed important changes for the Nassawango landscape. Each period of land-use reflected the cultural visions of nature at the time. Perception shaped people's relationship to the land. Over a five-hundred-year period Nassawango Creek was perceived, utilized, and shaped in many different yet connected ways, with each shift making a return to the previous era no longer possible. For example, once the change from abandonment to historical and ecological preservation occurred, the cultural ideas surrounding this nature would no longer allow for an industrial site to thrive as it had in

the past. And so I have found that each of these critical eras was guided by cultural perceptions and perceived needs. The Preservation Period, however, is unique in that its very existence depends on a romanticized historical understanding that has been presented to the public throughout the twentieth century. This research is a reconstruction of the chronology of Nassawango's history in an effort to show that Nassawango's history need not impede the goal of preservation. Preservation can and should continue because of the actual history of the land but not as the result of a constructed, idealized perception. Nassawango is indeed worth preserving and understanding its history will only aid in the success of this aspiration.

Contact Period
c. 1607–1788

The Contact Period on the Eastern Shore of Maryland for the English settlers and the Pocomoke and Assateague Natives began in the early seventeenth century. By using the early settlers' and explorers' accounts, some idea of what the Native American environment looked like is ascertained. At the same time the accounts also provide insight into the impending land-use transformations that came during this critical period. These early descriptions help to explain why some of the physical changes made to the landscape reflected shifts in perception and attitude. They have come to serve as a basis for this study.

According to the Englishman John Smith, the Natives were “honest and simple” yet the “most strange people” he had ever encountered.⁷ He described the eating, foraging, and cooking habits of the Natives as fairly sensible. They gardened, roasted their corn and meat, and made their breads.⁸ Smith went on to describe many animals common to the area: sturgeon, opossum, raccoon, deer, squirrels, muskrats, and rabbits. He also specified some of the trees: white poplar, balsam, gum, cedar, sassafras, oak, elm, ash, black walnut, chestnut, mulberry, and cypress. Smith mentions these as timber and as “the ground which would soon be amended by good husbandry.”⁹

This shows the intent with which these first English came to the Chesapeake region. Smith was already viewing the land differently from how it had probably been

⁷ *The Complete Works of Captain John Smith (1580–1631): The Description of Virginia by Captaine Smith, 1612*, Transcribed by Philip Barbour (Chapel Hill: University of North Carolina Press, 1986.) p. 88.

⁸ *Ibid.* pp. 92–97.

⁹ *Ibid.* p. 90.

perceived for thousands of years prior to his arrival. Smith saw the land as a natural resource; that is, a marketable commodity. He acknowledged the native awareness of the animals and plants, but he was interested in how the Natives were using the natural landscape so as to extrapolate the “commodities” that could “be had by industrie.” He even talks of his interest in iron. He stated that eventually it would dominate much of the landscape.¹⁰

Father Andrew White, another early Englishman to set foot on Native shores, was quick to take notice of the beaver trade and tobacco culture. The fur trade and large-scale farming were two areas where the traditional ways of living on the land would be changed by English Old World influence. White commented on the abundance of animals and that “all was high woods except where the Natives have cleared for corne.”¹¹ This observation shows a strong difference between the Native utilization of the forest—only clearing small areas for cultivation—and the English method of clearing land—rooted in their own tradition of profit-based agriculture and harvested timber.¹²

The anonymous descriptions of Maryland’s Eastern Shore written for Lord Baltimore were more direct. The author wrote of the bounties of the Chesapeake region including several trees not listed by Smith or White such as fir, laurel, cherry, alder pine, and hickory. This account bolstered the attitude that this land had the ability to produce money, fame, and progress for the English people. The animals also played a role in the

¹⁰ *Ibid.* pp. 97, 103. All quotations throughout this body of work remain in their original form. No grammatical, spelling or capitalization changes were made by the author.

¹¹ Andrew White. “A Briefe Relation of the Voyage Unto Maryland, 1633” in *Narratives of Early Maryland, 1633–1684*. Transcribed by Clayton Collman Hall (New York: Charles Scribner’s Sons, 1910). pp. 10, 13, 24.

¹² The term “agriculture” includes cropland, grassland and pasture, unused land left fallow, and secondary forest on formerly cleared agricultural sites. This definition was taken from Jorge A. Benitez and Thomas R. Fisher, “Historical Land-Cover Conversion (1665-1820) in the Choptank Watershed, Eastern United States” (*Ecosystems*, Vol. 7, 2004, 219-232).

profit-making. They were there to “afford pleasure to man...fit for beasts of burden and good to eat.” The author stated that the land was full of tin, iron, and other “sources of wealth” yet to be discovered. This account discussed the concept of foreign European markets, something that was an entirely new concept for the Native people in this area at this early time. According to the account, animal skins—five to six thousand per season—were to be shipped to Europe. Overall, the author claimed that Lord Baltimore had promised the people “the most prosperous success” on this new land and the settlers naturally pursued this goal.¹³

Although these accounts provide information on the landscape in this early time period, they cannot be assumed to be altogether accurate. Due to the scant existence of Native records, the majority of the information gathered from this era comes from non-Native written records and archaeological investigations. These records were not written exclusively about the Pocomoke and Assateague nor were they written specifically about Nassawango on the Eastern Shore of Maryland. These descriptions of the land cannot be used to show ecological relationships or even the exact ecology of the area because the authors’ and/or travelers’ skills as naturalists have not been evaluated; all that we have are their writings, and normally, they simply listed the resources that they saw, not really giving a clear indication of how the land was laid out. Some trees and animals may even be misnamed, but more importantly, it is necessary to keep in mind for whom these explorers were writing—they had a specific aim and a designated audience. This greatly influenced how they viewed the land and its resources, and consequently, how they wrote about both. This also influences how useful these records are for modern-day historical

¹³ n.a. “An Account of the Colony of the Lord Baron of Baltimore, 1633” in *Narratives of Early Maryland, 1633–1684*. Transcribed by Clayton Collman Hall (New York: Charles Scribner’s Sons, 1910). pp. 5–10.

research. It is because of reasons such as these, that such early descriptions carry many limitations.¹⁴

These limited descriptions give us hints about the life of the Native people at Nassawango. The forest, according to these early accounts, was comprised of a majority of hardwood trees. The animals (aerial, terrestrial, and aquatic) were abundant enough to be seen all around by these explorers and were a plentiful source of food for the Natives along with nuts, berries, planted roots, and seeds.¹⁵ A study done on the nearby Choptank watershed stated that upon colonization only about two percent of the region was cleared by the local Native people. Therefore, initial European colonists likely found a “relatively undisturbed” landscape with “92%-94% forest cover, 1%-2% disturbed,” and the remaining 6% were wetlands.¹⁶

The Native people did not impact this landscape and its animal and plant populations, in the same way the English settlers would. One reason is the Native diet changed with the seasons, so whole families and villages would move several times throughout the year. Another reason may have been because these villages were not concentrated settlements. During this time period only a few thousand people were living in the region, and Native homes were made of local perishable materials. According to archaeological studies of Native dwellings on the western shore, the average house was

¹⁴ According to William Cronon in *Changes in the Land: Indians, Colonists and the Ecology of New England* (New York: Hill and Wang, 1983), the tendency of these explorers was to view the land and its resources as “extractable units...for the interest of future undertakings.”

¹⁵ See Helen C. Rountree and Thomas E. Davidson, *The Eastern Shore Indians of Maryland and Virginia* (Charlottesville: University Press of Virginia, 1997). See this for more information on where in Maryland the Native people were able to eat particular foods due to the sandy conditions of the soil or the freshwater and saline conditions of the marshes and waterways. According to Rountree and Davidson, they incorporated potatoes, oysters and blue fish into their diet, to name a few.

¹⁶ Benitez and Fisher, “Historical Land-Cover Conversion (1665-1820) in the Choptank Watershed, Eastern United States.”

rectangular in shape with rounded ends with a capacity for about twenty people.¹⁷ When the Natives moved onto a new piece of land, the previous village was left as a small cleared area. Their homes and all material belongings were carried with them to the new site.¹⁸ If these archaeological findings are applied to the Eastern Shore as well, then Nassawango had a chance to experience forest re-growth in the small clearings when the Natives moved their non-permanent settlements.

Natives cleared parts of the forests for food, maneuverability, and for protection from enemy tribes or predatory animals. The Natives enhanced and improved access to their forest paths, harvested plants and hunted animals by clearing the areas of underbrush amid the hardwoods. These cleared passageways for hunting and gathering made the presence of any intruder far more visible to the village. An old growth hardwood forest is not one of closely connected trees; rather, the trees are spread many feet apart, meaning the underbrush that is commonly seen in the young forests of today is quite different from the underbrush the Natives cleared from the forests. This difference was due to the canopy cover from the large old growth hardwood trees. It prevented the sunlight from penetrating deep on to the forest floor, which in turn kept smaller grasses and plants from covering the soil.¹⁹

Native people cleared this underbrush with fire. It is believed by some ecologists that this practice of selective burning by these first inhabitants favored certain species over others. These evolved to become categorized as fire-tolerant and fire-intolerant

¹⁷ Helen C. Rountree, *The Powhatan Indians of Virginia: Their Traditional Culture* (Norman: University of Oklahoma Press, 1989).

¹⁸ Rountree and Davidson, *The Eastern Shore Indians of Maryland and Virginia*.

¹⁹ Timothy Silver, *A New Face On the Countryside: Indians, Colonists and Slaves in South Atlantic Forests, 1500–1800* (Cambridge: Cambridge University Press, 1990) and see also Lincoln Taiz and Eduardo Zeiger, *Plant Physiology* (Sunderland: Sinauer Associates, Inc., 1998).

species. Red maple, for example, appears to be a useful indicator species of long-term fire history. It seems to have been one of the most negatively-adaptive tree species to the Native fires. The Native burning of oak and pine forests (before European settlement) has been cited as a key factor limiting maple domination. The oak is believed to have always been extremely resistant to fire and so its seedlings and saplings grew despite the intense heat conditions and resulting ashy top-layer of the soil. Oaks have vigorous sprouting abilities and increased germination and survival on fire-created seed beds. They also have a deep, extensive rooting system.²⁰ The lessening and eventual cessation of these fires inhibited the oak species and facilitated red maple domination and black birch invasion in the forests instead. This cessation aided in the reduction of the many varieties of oak trees that once covered the region.²¹

Another way small portions of the forests were cleared was with spontaneous natural fires which usually began in dry, hot conditions and tended to aid in the growth of new trees. They were also safe for the forest as a whole because they extinguished themselves. Every so often the dry, hot weather conditions would lead to a burn, but since dense canopies impeded the growth of a thick underbrush, the fires did not generally become large-scale wildfires.²² The Native way of clearing within the forest seemed to emulate a more natural system of forest upkeep and was in strong contrast to the methods

²⁰ J.L. Kuwan and H.H. Shurgart, "Vegetation and Two Indices of Fire on the Delmarva Peninsula" (*Journal of the Torrey Botanical Society*, Vol. 127(1), 2000, 44–50.) The results to their study were obtained through an analysis of soil charcoal index.

²¹ These conclusions were drawn in a study of an area in Western Maryland, but can also be applied to the Eastern Shore oak forests. Marc D. Abrams, "Where has all the White Oak Gone?" (*BioScience*, Vol. 53(10), 2003, 927-941).

²² *Ibid.* Abram's dendroecology records show that fires occurred about every eight years during the pre-settlement and the post-settlement years.

of and motivations for forest clearing by the English settlers who succeeded them on the land.²³



Upon arrival it appeared to the Natives that the English settlers were not much of a threat at all, but throughout the Contact Period, as the relationship between these two cultures evolved, a major land-use shift took place. An increase in contact and exchange led to a rise in animosity among the groups. This inability of the English and Natives to cohabit Nassawango without conflict paralleled the transformation of the land. As Native populations decreased, the percent of land modified by English settlers and English ideas increased, thus allowing the Old World methods of land-use to impact the landscape. These cultural conflicts can be seen by way of several examples: the fur trade, the establishment of farming settlements, notions of wealth and private property, land designation by English law, and indentured servitude. All of these examples played a part in Nassawango's first land-use shift.²⁴

The English wanted to develop a fur trade with the Natives so as to be able to make capital on the hides of the animals on the shore. The colonists hoped to create a market for the furs both in the colonies and in England. Their main concern was profit. The Natives were quick to pick up on the economic goals of the English, but failed to see the downfall to their own culture in working with the English to help get trade of natural

²³ Maryland was established in 1634 with about 150 settlers. By 1700 the population grew to 34,000; by 1740 there were 100,000 and by the end of the colonial period there were 300,000. See, Henry M. Miller, "Transforming a 'Splendid and Delightful Land:' Colonists and Ecological Change in the Chesapeake 1607–1820" (*Journal of the Washington Academy of Sciences*, Vol. 76(3), 1986, 173–187.)

²⁴ Although disease and religious fervor played a large role in many of the European and Native Contact Periods, across various regions in the Americas, those issues will not be explicitly discussed in this study.

resources established on the Eastern Shore. As the Natives began hunting for furs for the settlers, they were allowing a cultural shift to take place. These Natives had not hunted for profit quite in this way in the past, and although the idea was only somewhat familiar to them, they welcomed it and participated fully in killing fur-animals for English and Native profit. This produced a nearly symbiotic relationship between the Natives and the English and started altering the Native perception of and therefore their relationship to, the land.²⁵

The fur trade flourished for a time, but soon with the decline of certain animal populations and the rise in numbers of English settlers on the Eastern Shore, the fur trade began to be less and less successful.²⁶ Colonists who never mastered successful fur trading turned their interests to permanent farming settlements, another Old World land-use regime. Farming practices did not blend well with fur trading. The colonists interested in farming eventually cleared entire forests and planted crops. According to a study done on the historical land-cover conversion of this region, forest area decreased steadily from the time of the first settlement. Their study shows that the elimination of the

²⁵ An understanding of this relationship can be seen by examining the Natives' relationship to the animals themselves. This relationship began to be broken down after the colonists came to the Eastern Shore and began hunting based on profit and not necessity. For a more controversial viewpoint, not discussed here, among the Indians and the animals see, Calvin Martin, *Keepers of the Game: Indian-Animal Relationships and the Fur Trade* (Berkeley: University of California Press, 1980). Martin argues that the Natives participated in the fur trade because they were fighting a spiritual war with the animals.

²⁶ No more than a few colonists were ever able to make the fur trade a profitable enterprise because only a very small number acquired even a basic knowledge of Native language and/or culture. This knowledge was the key to successful trading with the Natives. Henry Norwood, a successful interpreter and "friend" to the Natives, was considered to be a key player in fur dealings between the Pocomokes and the settlers. See, Henry Norwood, "Voyage to Virginia by Colonel Norwood" (1650) in *Force's Collection of Historical Tracts*. Vol. III. No. 10. Transcribed by Peter Force. (Washington D.C: Peter Force, 1836). See also Sharon Himes, *Cavalier's Adventure: The Story of Henry Norwood* (Princess Anne: Arcadia Productions, 2000).

primary forest was not constant, but grew exponentially through time until essentially all available land was converted to agricultural land.²⁷

The clearing of the forests had a variety of consequences: It seriously affected the habitats of animals in the area, which in turn directly affected the way the Natives were able to participate in the fur trade, but it also accelerated the disappearance of their traditional way of life.²⁸ The fragile and newly established balance of cultures between the English and the Natives began to diminish rapidly as large-scale farming plantations spread across the landscape.²⁹ The clearing of the forest was also tied to tobacco culture. It was a “respectable form of agriculture and conveyed a source of meaningful social identity, as well as means to a high standard of living.” English planters believed that deforestation was necessary for economic development.³⁰

²⁷ Benitez and Fisher “Historical Land-Cover Conversion (1665-1820) in the Choptank Watershed, Eastern United States.”

²⁸ English fur traders, such as Mr. John Nutall a prime trader in the Chesapeake region including Accomack County, were at times even accused of being more loyal to the Indians than to the English. The *Proceedings of the Council of Maryland, 1661–1675*, reference several cases of these English encouraging the Indians to oppose the English penetration on their territory. This demonstrated the strong interest the fur traders had in maintaining the land for the Indians for the good of the fur trade. Nutall’s interest in securing the land for the Indians can be seen in the aforementioned proceedings Liber H.H., folio 140. Dated April 9, 1662.

²⁹ The English were accustomed to the property boundaries of other colonists, only if they had bought the land with a legal patent. Being aware of this cultural aspect of the English, several prominent fur traders bought land, with the intent to let the Natives live on it under their English patent – to try and keep the fur trade alive. As long as the Indians could freely hunt, then the furs would continue to be profitable for the English as well. The lands they patented tended to be lands within Native villages. The problem with this entire system was that the Natives required the use of the area surrounding the village to hunt, not only their small villages. Although this plan slightly disrupted land-hungry planters from entering the Pocomoke and Assateague territory, it could not keep the fur trade alive, and so did not keep the English landowners satisfied. Eventually, this land which had been patented specifically for the Natives by the fur traders – to keep the market alive—was sold to colonists interested in farmland and the Natives were pushed off of the land. One area patented by John Edmondson in 1665 did not fail as quickly as the others. The hinterland surrounding Edmondson’s land became the Choptank reservation so those Natives were able to continue the fur trade and live as they chose for a while longer. Edmondson and John Pitts were “grant Lycence and Commission to trade & trafficque wth any Indians wthin the Province for Beavor and Roanoke or other Commodities.” *Proceedings of the Council of Maryland, 1661–1675*. Liber H.H., folio 271. Dated September 7, 1666.

³⁰ John R. Wennersten, “Soil Miners Redux: The Chesapeake Environment, 1680–1810.” (*Maryland Historical Magazine*, Vol. 91, 1996, 157–179.)

As the English moved into and cleared the once-forested lands, conflicts began to arise. The colonists believed the land was theirs for the taking. After all, according to the Crown of England, Maryland was primarily a land venture.³¹ The New World seemed to offer what England lacked in commodities, in infinite amounts. English society was the product of constant population growth and rapid resource consumption. It was difficult to convince planters to develop “responsible” attitudes toward the land when land itself seemed an unlimited and cheap commodity.³² English settlers were accustomed to restrictions due to land scarcity in England, thus their arrival on Maryland’s abundant shore helped to erase the need for such limitations. The settlers were surrounded by land, seemingly unoccupied and full of plenty.

According to David M. Potter, author of *People of Plenty*, the abundance of natural resources is what shaped the character of the new inhabitants in the New World. In his book he examines the individualistic incentives and institutional conditions and systems that tended to favor different kinds of economic growth.³³ In Nassawango, economic and social growth was dependent on all of the possibilities the land made available to the settlers. It is this focus on the individual that fostered such rapid expansion and rapid dominion over the forests. Personal gain and status in the New World were very real elements in the English society, and the settlers aimed to achieve high individual standing. By first using Native fur trappers, then Native land, the English

³¹ George Calvert’s intention for Maryland was for it to be a haven for Catholics and King Charles I of England granted this land to Calvert hoping for it to be the first proprietary colony in the New World.

³² Wennersten, “Soil Miners Redux.”

³³ David M. Potter, *People of Plenty: Economic Abundance and the American Character* (Chicago: University of Chicago Press, 1954.) Although this book focuses on the nineteenth and twentieth centuries, its ideas can be applied to earlier history. This can also be seen in Timothy Silver’s *A New Face On the Countryside: Indians, Colonists and Slaves in South Atlantic Forests, 1500–1800*.

achieved these aims.³⁴ The changing relationship between the English and the Natives paralleled the changes to the landscape.



The colonists did not consider the Natives to be traditional landowners and so did not resist encroaching on what the Natives considered their territory. Private property became the main issue of conflict on Nassawango. It was one of the driving forces causing this first land-use shift. The English inhabitants had taken up land at such a rapid rate that the Natives were moved off of their own land and pushed on to a portion of Nassawango known as Askiminkonson, which is an Algonquian name that describes a flora suggesting strawberries, and probably means, “stony place where they pick early berries.”³⁵ The English called this area the “Indian Town.”

In 1663, 500 acres known as “Northfield” were surveyed and claimed by Jenkins Price who said that the land was “to be seated by Indians in Acquinmacton Indian Town.”³⁶ In June 1664, William Smith surveyed and allowed the Indians to possess 300 acres within “Askimmoton Town.”³⁷ William White, Laurence Ryley, William Mastors, and John Watts also owned a section of Nassawango that consisted of 2,000 acres called

³⁴ This is not meant to imply that Native individuals did not seek personal gain and high individual standing, but it was not directly tied to a capitalistic market as it was with the Europeans. Part of the European worldview was influenced by visions of resources and progress soon to evolve into the well-known ideas of the classical and modern economists.

³⁵ The name Askiminikonson was spelled a variety of different ways by the settlers. Spelling of the English language was just being developed in this time period and so no standards had been set yet. According to Hammil Kenny, in *The Placenames of Maryland Their Origin and Meaning* (Baltimore: Maryland Historical Society, 1984), Askiminikonson has been referred to as the Askiminikanson, and Askimenkonsen Indian town. A court council held on 7 May 1686 in St. Mary’s City indicates that Nassawango Creek once bore the alternate name Askimenokonson Creek. Another reference was on the 11 of May 1686. *Proceedings of the Council of Maryland, 1684-89*, Liber B. P.R.O., folio 26,28. It has also been spelled as Nassiungo or Naseongo. Today it partly lies in the Coulbourne district in Worcester County and is most commonly called Indiantown or Nassawango.

³⁶ *Somerset County Maryland Rent Rolls, 1662–1723*. p. 39.

³⁷ *Ibid.* 10 June 1664. Land was referred to as Assacimaco.

“Partners Choice.” Their land was surveyed by William Stevens in 1665 and documented as located in “the Indian Town Asquiminicomton” but belonging to the aforementioned men, not the Indians.³⁸ In that same year, Stevens surveyed 500 acres claimed by Samuel Layfield and listed the land “in Asquimacton Indian Town and possessed by the Indians.”³⁹ The descriptions of the properties as “seated by” and “possessed by” do not indicate true possession or ownership. The person to whom the land “belongs” is the actual English owner. These tracts of land show how for a time some Englishmen allowed the Pocomoke and Assateague to live on their land even though its ownership was never in question and it did not “belong” to the Natives. Even if the Natives were allowed to temporarily live on the land, English law could remove them at any time.

By 1678, Maryland’s Lord Proprietor had decided to unofficially designate this land as Native territory. The Natives were given permission to continue “hunting, crabbing, fowling, and fishing” at this site. This was done due to the conflict that had arisen among the English and Natives regarding this “Indian Town.” The English cows, horses, and pigs proved to be a substantial part of the Native to English land-use shift because only some of these animals were fenced in. The fences were made from the hardwood trees perceived only as timber. Acres of fencing meant acres of cut-down forest. Acres of fencing also meant acres of land in which the animals were contained. The land for the cattle was cleared of trees and converted to pasture. The land that was not for cattle grazing was farmland. This land was also fenced in to keep the uncontained animals out, but more importantly the fences served to reinforce the boundaries of an

³⁸ *Somerset County Maryland Rent Rolls, 1663–1723*. p 169–170. Surveyed 17 July 1665. Lies on the north side of the Pocomoke River near the land of Thomas White.

³⁹ *Ibid.* p. 39. The land was called “Ledburn” and was situated on the north side of the Pocomoke River at the southern most bounds of the land of Phineas White.

individual's private property. The English considered these changes to be "improvements" to the landscape.⁴⁰

Court records also highlight the confusion that existed between the Natives and the colonists with regard to the permitted hunting and fowling clause. Settlers living in the vicinity of the Askiminikonson "Indian town" complained about the Natives' hunting practices and claimed that "your petitioners...some very near and some farther from the Indian town...are very much damnified by the Indians our hogs and horses and other cattle being daily killed and destroyed by them, not only in their own town but likewise out of it." The court petition went on to cite that the colonists' hogs came home "with arrows in their sides" as proof that the Natives were damaging the colonists' property. It is possible that the Natives misinterpreted the concept of land and cattle as private property, but it could also have been an example of Native resistance to the changes.

In his book, *A New Face on the Countryside*, Timothy Silver argues that Natives understood "something of private property," stating that personal goods, crops, and game became possessions of villages and individuals who invested the necessary labor to acquire or make them. So, perhaps land did not fall into their perception of property, but cattle and hogs may have.⁴¹ The clause which allowed the Natives to continue hunting in the lands around the "Indian town" was the same clause that protected the colonists' property. For the stakeholders in the agreement to know their respective limits, each party needed to understand the cultural differences that made the agreement necessary. The Natives may not have fully understood that roaming cattle were private property, but at the same time the colonists did not consider that the Natives needed their foraging rights

⁴⁰ Improvements to the land can be seen in Cronon's *Changes in the Land* and Micheal Leroy Oberg, *Dominion and Civility* (Ithaca: Cornell University Press, 1999.)

⁴¹ Silver, *A New Face On the Countryside*.

to be able to live according to their tradition.⁴² Consequently, the Pocomoke and Assateague Natives were eventually relocated by treaty and by English law to a more specified portion of Nassawango Creek just along the Pocomoke River.⁴³ Relocation of the Natives meant a land-use shift for the land.

According to the Pocomoke chief in early 1686, it was because of “the encroachments of the English” that the Natives were moved there. He continued by stating “that by the Incroachments of the English they had already been driven from Pocomoke, to Aquintica, from thence to Askiminokonson, and from thence they feare they shall be forced to some other place and soe never be fixed without some care be taken to prevent and putt a stopp to the Incroachments of the English...[taking] up land within their bounds.” He also complained of “great damage done them in their Corne Fields and other their labours and improvements by [English] Cattle and horses.” An Assateague king brought forward a very similar case, making it known that they too had been driven from place to place by the colonists until they finally settled with the other tribe at Askiminikonson.⁴⁴ These Native complaints demonstrated their inability to retain their traditional culture, especially as tied to their perception of land utilization. This mirrored the land-use transformations of the Nassawango landscape as the relationship shifted between the English and the Pocomoke and Assateague Natives.

⁴² *Somerset County Judicial Records*, September 1689–November 1690: p. 33. The Natives were made to pay their land’s rent of beaver skins, but even this proved difficult. The ruler of the settlement of the Assateague Natives on Askiminikonson, Robin, complained that although they were expected to pay this rent the English obstructed and deprived them of hunting beaver. Another Native complaint from Askiminikonson was that “John Kirk and John Carter will not suffer their Indians to hunt upon their land”; further, if they “catch any beaver” the colonists would “challenge the [ownership of the] skinns.” See, *Proceedings of the Council of Maryland, 1684–89*, Liber B. P.R.O., folio 26. May 6, 1686.

⁴³ This land acreage exceeds the study area of 5,000 acres of this research, but the research area is included within it (see Map 3).

⁴⁴ *Proceedings of the Council of Maryland, 1684–89*. Liber B. P.R.O., folio 25.

Maintaining the rights to the land they once had became a daily challenge for the Natives at Nassawango. Their cultural traditions, including their previous land-use regimes were encroached upon by the English perceptions of “proper” land-use. The king of the Assateagues complained to the proprietary officials that “severall of the English...were come and seated among them in the very Towne where they live.”⁴⁵ The Native ruler begged the government to insist that “some certain provision may be made for their quiett and peaceble cohabitation, and that a convenient portion of land...may be set out to them, the place where they now live being all swampy and barren sandy ground and that noe Incroachments may be made upon them.”⁴⁶ The Natives were not happy with the shift in land-use perceptions because it made their traditional way of life no longer possible. They could not even decide where they wanted to live because English law made the decision for them.

In contrast, authors Rountree and Davidson claim that swampland or low wooded land was the favored ecological zone that Native Americans found good for foraging, while Europeans tended to avoid it because it could not be farmed extensively without the labor of draining it.⁴⁷ This is debatable. Although the Natives may have been skilled in finding food on such swampy land, it does not mean that they necessarily preferred it, as can be seen by the Assateague king’s previous complaint. Also, the wet condition of the soil did not keep the English from eventually taking this section of the Native’s land, just as they had taken the drier open woods and mixed deciduous forests.

⁴⁵ Edward Hammond was one of the Englishmen the Natives complained about. He came to Old Somerset County (now Worcester) in 1669. He was transported. This normally meant he indentured himself to another in servitude in order to “pay” for passage across the Atlantic from England. By 1681 he was transporting people himself to obtain “headrights” or land in return for payment of passengers. He was given 700 acres called “Chasbury” in October 1681. *Land Office (Patent Record)* 1682–1688. Folio 70.

⁴⁶ *Proceedings of the Council of Maryland, 1684–89*. Liber B.P.R.O.

⁴⁷ Rountree and Davidson, *The Eastern Shore Indians of Maryland and Virginia*.

This swampland provided an environment for bald cypress trees and emergent plant species that, with enough sunlight, could grow in the standing water.⁴⁸ In all of Maryland, Nassawango is one of two locations where these trees are found.⁴⁹ Other plants, such as smooth alder bushes, grow in the overly moist areas of non-standing water and have an inner bark that is edible. It is unknown if the bark's possible medicinal properties were used by the Natives. Higher places in the swamp supported various nut-bearing trees, berries, shoots, and roots. These plants attracted raccoons, deer, foxes, opossums, squirrels, and the black bears, which are now locally extinct. Otters, beaver, turkeys, and even two-foot long snapping turtles used to live in the swamps pools as well.⁵⁰

Despite the problematic Maryland Proprietor designation of this area to the Natives, their request for "a convenient portion of land" was only partly taken into account, as the English were not forced to leave their settlements in Nassawango, even though it was supposedly an "Indian Town."⁵¹ Colonel William Stevens, along with a committee of five other men, was ordered by law on May 11, 1686 to decide where to put the Natives.

This was when the Native relocation site became an official reservation site, the Askiminikonson Reservation. The proprietor's recognition of "Indian" land in 1678 had

⁴⁸ For more information on bald cypress trees and the mysterious role of the "knees" that surround them see, Christopher H. Briand "Cypress Knees: An Enduring Enigma" (*Arnoldia* Vol. 60(4), 2000-2001.) pp. 19-20, 21-25.

⁴⁹ The other place is Battle Creek in Southern Maryland. Battle Creek is also presently owned by The Nature Conservancy. More information on Maryland vegetation can be found in Russell G. Brown and Melvin L. Brown, *Woody Plants of Maryland* (Baltimore: Port City Press, 1972.)

⁵⁰ Rountree and Davidson, *The Eastern Shore Indians of Maryland and Virginia*.

⁵¹ The English were not forced off the land because they had "paid" the Natives for the land with matchcoats. Matchcoats were a cloak-like garment made of European cloth sometimes referred to as trading cloth. This was apparently not an equitable system, not only because land is worth much more than cloth and it was an unfair way to "pay" for Indian land, but even within itself it was not well organized. For instance, one colonist paid forty-two matchcoats for 3,000 acres while another colonist paid forty matchcoats for 500 acres. *Dorchester County Land Records*, Liber 6: folio 6, 3, Liber 5 folio, 214.

not been enough to keep the English and Natives satisfied, so Stevens and his team decided to keep the Natives on Nassawango since it is where they had come to be. They decided this portion of Nassawango “shall seeme meete and convenient, least injurious to the English, and most satisfactory to the Indians, the said land soe to be ascertained, to be layd out and marked and bounded where it shall be necessary. To the end that as well the Indians as also the English themselves may know each others bounds, and not incroach upon, annoy, or disturb one the other.”⁵²

The Natives, once informed of the land they were being given, were still not happy. They were not satisfied because they argued that they were continually given land that was “barren and good for nothing” and “desired to have some Land over the Creek which this Board told them they could in noe wayes grant by reason that Land is already taken up by other persons, at which the Indians seemed much dissatisfied.”⁵³ They had requested land more to the west of Nassawango Creek, but they were denied because English colonists had already taken it as theirs.⁵⁴ This newly designated land became the largest reservation on the Eastern Shore of Maryland.

Although the government officially placed this land aside for the Pocomoke and the Assateague Natives, the proprietors did not ever survey the boundaries of the Askiminikonson reservation, so the land did not technically “belong” to the Natives. The English kept the land in the hands of the settlers. The description of the meets and bounds for the land was written as follows:

⁵² *Proceedings of the Council of Maryland, 1684–89*. Liber B. P.R.O., folio 28–29. The court went on to suggest that a swinging gate “that will shut of itself” be placed at the Pocomoke River bridge and the Nassawango/Askiminikonson Creek to keep out the horses and Cattle for the security of the Indians’ fields and labors.

⁵³ *Proceedings of the Council of Maryland, 1684–89*. Liber B. P.R.O., folio 68–69.

⁵⁴ These examples of encroachment can also be found in the *Archives of Maryland*, Transcribed by William Hande Browne (Baltimore: Maryland Historical Society) Vol. 5 p. 312–328.; Arch. Vol. 15 p. 390; Arch. Vol. 17: p. 50–51, 55–56.

...English ordered that the land on the North west side of Pocomoke River in a neck called Askinemeconson bounded on another side by a creek called Nassiongo Creek and from the mouth of the said creek up the creek 2 miles above the Horse Bridge⁵⁵ and up the said River one mile above Edward Hamon's house, and from a marked tree there by a line drawn Northwest twelve hundred and eighty perches, then by a line to a marked tree two miles above the Horse bridge on Nassiongo Creek ordered alsoe John Kelmne forthwith make four swinging gates att the two Bridges well and substantially to shutt of themselves and open both wayes.

The entry went on to detail and explain the work of the surveyors. Then there was a page and a half left blank followed by an addendum written on 3 November 1686 stating that "the space below in this folio and that on the other side in fo: 71 was left to enter the Plot of the Indians Land laid out for them in Askiminikonson Neck, but the said Plot being delivered to the Clerk of the Assembly for their perusal could never afterwards be obtained by." In other words, this additional ending added six months after the land was decided on claimed that the land was never surveyed at all for the Natives. If boundaries were unclear, then confusion could erupt and the court would have no ability to lawfully dispute the Englishmen encroaching on Native reservation land. This kept English Old World culture, as per English law, as the main factor determining the Native loss of land and thus their loss of tradition, leading the shift in cultural land-use regimes at Nassawango.

It was not until December 2003, that I requested that this land be surveyed. Jason Bell, Survey Engineer of Parker and Associates located in Salisbury, MD, estimated the Askiminikonson reservation land at Nassawango to be 40,844 acres, based on the boundaries given in the original entry. He wrote, "beginning at the apex of Nassawango Creek and the Pocomoke River; northeast along the eastern shore of Nassawango Creek,

⁵⁵ There is now a golf course at this location at the northern point of Nassawango. The horse bridge is no longer there, but the name has persisted.

extending east to the western shore of the Pocomoke River; the northern boundary was determined by the mouth of Horsebridge Creek on the Nassawango due east to the Pocomoke River.” This does not include a three-mile buffer zone that was put in place to keep the English and Natives from interacting. In theory, this buffer zone was to keep the English from getting too close to the Natives’ reservation land, but it was not enforced.⁵⁶

Without being properly surveyed, the boundaries themselves could not be enforced either. This allowed for the Native land to continue to be swapped and bartered amongst the settlers, changing once again the way in which the land was perceived and used henceforth. For example, an area of land within the bounds of Askiminikonson that was later surveyed for an Englishman, was recorded as “Assigned to William Stevens on the northside of the Pocomoke River, Belongs to William White but is in possession of the Indians of Askiminkansen Town.”⁵⁷ Establishment of the reservation seemed to be more of a tactic of the Maryland authorities to appease the Natives rather than to allow them to retain their culture, meaning their traditional land-use regime. The reservation also failed to discourage the settlers from taking the reservation land.

These surveyed lands helped to solidify the questionable ownership of the reservation while maintaining unquestionable English control over the property. The land ownership laws obviously favored the English more than the Natives, even though it was made to seem as if the Natives were given rights to own and use the land.

⁵⁶ This estimation was not done out in the field and so “all distances are approximate and are in no way guaranteed or recordable for an official survey.” The size in square miles was 63.81901. For the three mile buffer reference see, *Archives of Maryland* 5 p. 480. It is in the three-mile buffer zone that the Nassawango Iron Furnace was built. To clarify, the study area for this research is a 5,000 acre portion of the Askiminikonson reservation, including the surrounding buffer zone.

⁵⁷ *Somerset County Maryland Rent Rolls, 1662–1723.*

Although the land the Natives were given was the land the colonists did not find desirable, many settlers, primarily former indentured servants, entered the Natives' reservation anyway with the intention of making a permanent settlement there. This land was attractive to these men because to them it was considered free land. Taking land from the Natives was a way for these former indentured servants to obtain land without paying for it. These indentured servants had few options: They could go out and search for free land outside the governed area or hire themselves out and work for wages. The former was risky, and the search for land within the governed area was unappealing since most had very little money with which to buy land. The servants were freed from servitude with nothing and so this was an apparent way for them to obtain status (land) in society. Their masters gained status and power with property and so, too, did they aspire to improve their lot in society.

The Natives, on the other hand, did not connect land ownership to wealth in the same way, nor did they improve land according to English standards. According to these English, if the Natives truly owned the land then they would have cleared forested areas to put up permanent home structures with fences laying out the boundaries, and have a fairly substantial farm area as their plantation. As history has shown, the Natives did not live that way. Permanent structures, which were so much a part of English culture, were not an aspect of local Native culture.⁵⁸ Thus, the Natives were not allowed to actually own land and were forced to live on Nassawango without true rights to the property, meaning they could not use the land as they traditionally had. They were not entitled to the benefits of landowners, including an active and helpful response from the court when

⁵⁸ More information on the ways in which the English improved their land can be found in Cronon, *Changes in the Land* and Oberg, *Dominion and Civility*. Information just on improvement through fences can be found in *Archives of Maryland*: 26 p. 443; *Arch*. 35 p. 369.

trespassers came onto the land. These former English servants took advantage of the Natives' place in society for their own personal advancement. The English made it common practice to threaten the Indians and put pressure on their Native lifestyle, ultimately forcing them to leave their reservation and Nassawango altogether.

These differences show the contrasting perceptions and land-use tactics of each culture. The differences were reflected on the landscape. As the positive aspects of the English and Native relationship lessened, so did the traditional manner in which the Natives shaped Nassawango. English perceptions and their Old World land-use regimes came to dominate and shape the land. This occurrence was irreversible. The new transformations made the previous way of life on Nassawango no longer possible.

In the early 1690s, the ruler of the Assateagues, Robin, made several complaints on behalf of his people in response to the threatening acts of the colonists. He said that the colonists had threatened "to beat them and break their guns" and, "to make the Indians more afraid, beat one of the young men with a hickory stick." Another member of the Askiminikonson reservation stated that he had been attacked. He argued that he was approached in the forest by John Howard who saw him with "three green skins" on his back and "seized his [gun] and brake it, broke his head, knocked him down with it, and left him for dead, and that he lay ill of the wound for three days."⁵⁹

These complaints also help to illustrate the differences between the two cultures and made the motivations driving the opposing attitudes in land-use much more clear. The English were willing to reach their land acquisition goal at any cost. Society provided very limited avenues for upward movement in the English class system, so these former servants who had nothing were left to obtain their land and, therefore, their

⁵⁹ *Archives of Maryland* Vol. 15 p. 312–328, 351, 390; *Arch.* Vol. 17 p. 50–51, 55–56.

wealth, in any way they could. Taking land from the Natives proved to be one way of accomplishing this goal.

The Natives' attempts at petitioning and pleading with the Maryland Eastern Shore authorities were ineffective. Even arguments made by Robin that he and his tribesmen were "ancient inhabitants" of this country, "a quiet peaceable people towards the English nation," but who had "suffered of late years by being disturbed and expulsed from their several settlements in town [and] are now settled in a town but are continually threatened to be driven from thence likewise." The Natives' complaints, although made according to English law, went unheeded, and as time progressed the land was more and more economically appealing to the settlers. After all, the settlers had been drawn to the Eastern Shore in the 1660s by the promise of cheap and readily available unpatented land, but by 1700 there was little such land left in areas deemed livable by the English in this early time—except in a few places such as the Nassawango reservation area. The Eastern Shore planters and former indentured servants, or soon to be planters, could expand their landholdings cheaply and easily by taking land from the Natives. At this point, local Englishmen saw the Pocomoke and the Assateague as the main impeding factor keeping the colonists from social improvement in this colony.⁶⁰

Throughout the eighteenth century, complaints were continually made by the Pocomoke and Assateague Natives "that these English live on their land without their consent, and say they will do so whether they will or no, and that particularly John Parker did so and that there were seven others who lived in the same manner on their land."

⁶⁰ *Somerset County Judicial Records*, 1707–11: 96, 131, 1727–30: 154, 222. Interestingly enough, as time went on, the Maryland authorities were less threatened by the Natives. They did not fear an attack and so did not attempt to appease the Natives in the ways they had before. The Natives, even after complaining to the court system, rarely won their cases. It was nearly impossible for the local juries to convict English defendants in these cases.

These same Natives protested because the colonists “have entered their [the Natives’] towns against their will, and have made plantations so near [that the Natives] shall quit their said towns unless they [the colonists] be removed.”⁶¹ The reservation had become so small that the Natives were not only unable to live in their traditional manner, but they were unable to live there at all. The shift had taken place and land-use would not return to what it had been before the Contact Period.

During this period the settlers and the Natives demonstrated how land ownership could be a very powerful means with which to dominate aspects of society and other people. It showed how English culture regarding property and class status contributed to the land-use shift that occurred at Nassawango. It showed how this change in land tenure ultimately began a chain of events that would change the composition of the Nassawango Creek land forever. According to Marc Abram in his ecological study of eastern forests, he stated that the settlers dramatically altered the composition and structure of these forests over a short period of time, and that many of these changes were probably irreversible.⁶² In addition, William Cronon in his book, *Changes in the Land* argued that, in New England, the overall changes the English made to the land made the Native way of life no longer possible.⁶³ The same can be said for Nassawango. The applied pressure to the Pocomoke and the Assateague reflected the way the English perceived the land and

⁶¹ *Archives of Maryland* Vol. 5 p. 312–328; Arch. Vol. 15 p. 390. John Parker, a freed indentured servant, began an almost 30-year battle with the help of his father (George) and son (John Jr.) against the Pocomoke and Assateague over the Askiminikonson reservation land. He was a freed indentured servant and actually began surveying his own property in the territory. He emerged as one of the largest landowners in the reservation land by 1760.

⁶² Abram, “Where Has All the White Oak Gone?”

⁶³ Cronon, *Changes in the Land*.

the Native people. The Natives finally realized that in order to retain any semblance of their traditional culture and land-use they had to leave Nassawango.⁶⁴

After 1729 there were no further references to the Askiminikonson Natives or the Askiminikonson Reservation in Somerset County, except on two occasions. The penultimate mention of “the Indians of Askiminoconson Town” was in 1740, when reference was made to a small group of about 50 Natives that was living on a small remnant of what had been the reservation in the newly created Worcester County. After 1750, one final mention was made in the Maryland provincial records, but it is not clear if at that point any Natives were still actually living there.⁶⁵ The previous land-use regime disappeared from Nassawango along with many of the Natives as the land continued to be transformed and shaped according to new perceptions and attitudes about land-use.

The clearing of the forests resulted in three major ecological consequences: important shifts in the species composition of forest cover, a period of sustained soil erosion, and feedback interactions between land cover and population density. The previous land-use regime caused little impact on soil properties, but conversion of primary and secondary forests to cropland increased sedimentation and rapid clearing.⁶⁶

⁶⁴ It is believed that, of these remaining Natives, those who chose to leave joined fellow Algonquian tribes in northern Pennsylvania. Rountree and Davidson, *The Eastern Shore Indians of Maryland and Virginia*.

⁶⁵ To examine these references see, *Archives of Maryland* Vol. 17 p. 50–51, 55–56. *Somerset County Judicial Records*, September 1689–November 1690: 40. *Somerset County Judicial Records* 1675–77: 81. *Archives of Maryland* Vol. 25 p. 392, 457. *Somerset County Judicial Records* 1727–30: 154. To see references to the last mentions of the reservation see, *Worcester County Land Records* A: 475, *Archives of Maryland* Vol. 28 p. 268, and *Worcester County Land Records* B: 311.

⁶⁶ Benitez and Fisher, “Historical Land-Cover Conversion (1665-1820) in the Choptank Watershed, Eastern United States.” For more information on changes in the soil see, P.B. Bapst, K.R. Lewis, W.W. Miller, L.R. Lal, and R. Fausey, “Soil Carbon Sequestration Under Different Management Practices” (Ohio State University, n.d.)



Toward the end of the Contact Period in 1773, pre-industrial activity also began to shape Nassawango. Thomas Martin and his family deeded a tract of land called “Defiance Enlarged” to James Martin consisting of 1,147 acres.⁶⁷ Martin constructed a grist and sawmill along Nassawango Creek. Other mills were also created by another owner, Joshua Morris, and his land became known as “Morris’ Mill Supply” and “Second Addition to Morris’ Mill Supply.”⁶⁸ An artificial pond was constructed to power the mills.⁶⁹ A dam was also built along the creek in order to create the pond. The dam acted as a creek impoundment and altered the natural hydrology of the area, industrially modifying the existing swamp wetland. Dams alter streamflow, sedimentation, temperature and dissolved oxygen concentrations, impairing the ability of the creek to support native fauna.⁷⁰

According to the Mill Act of 1756, all dams were required to be twelve feet wide in order to serve as roadbeds and people had the “Liberty of falling any Timber...for building the said Mill.”⁷¹ This millpond primarily provided power for grinding grain and sawing timber. In order to create this pond much of the land was dug and drained. These activities affected the acidity of the soil by changing the pH and modifying the existing balance of microorganisms within the soil composition. According to a study done on the

⁶⁷ The original tract was a 20-acre parcel called “Defiance.” Furnacetown Uncatalogued Archives.

⁶⁸ Later bequeathed to his son John Morris. The land is currently referred to as “Adkin’s bog.” Nature Conservancy Files found in Furnacetown Uncatalogued Archives.

⁶⁹ By 1916, there were “a total of 51 large mill and timber operations.” F.W. Besley, *The Forests of Maryland* (Annapolis: The Advertiser-Republican, 1916.)

⁷⁰ Catriona E. Rogers and John P. McCarty “Climate Change and Ecosystems of the Mid-Atlantic Region” (Washington, D.C.: U.S. Environmental Protection Agency, n.d.)

⁷¹ Bacon’s Laws of Maryland, 1756. *Archives of Maryland*. Vol. 75, p. 717.

Mid-Atlantic States, increases in activities such as these also brought reduced vegetation cover, habitat loss, and resulting declines in species diversity.⁷²

Through the descriptions given in the annual valuations of land in the Orphan Court records, one can get an idea of what the plantations surrounding these industrial areas were like in Worcester County. Within these records the “View and Estimate” reports provided in numbered detail the layout of the land, the trees, and the out buildings. One plantation in particular was dressed with “forty some small apple Trees and Eleven peach trees and One Cherry Tree, we also find Sixteen hundred and forty fore pannels of fenceing that will Average nine logs each.”⁷³

These plantations served as suppliers for the development of more modern commerce and trade. Trade increased in sophistication as the Natives and the English bartered goods on the Eastern Shore with other Native and European groups. Both the Natives and the English began to extend their commercial reaches to the greater Chesapeake area with the increase in New World markets of crops, fruit, and timber.

Apple trees were especially necessary because these were times of cider, not water drinking. Even one of the main currencies used, which was pounds of tobacco, was obtained and grown from the land. Tobacco, as a crop, is particularly exhausting to the soil and requires a set turnaround time so that the soil is able to replenish itself with the earth’s cycle of flowing nutrients. Although this was generally not practiced by the newly settled inhabitants on a regular basis, some knowledge did exist on resourceful treatment

⁷² The study was done by J.W. McAtee and D.L. Drawe, “Human Impact on Beach and Foredune Microclimate on North Padre Island, Texas” (*Environmental Management* Vol. 5, 1981, p. 121-134.) Interesting references to it can be found in Lori M. Hunter, *The Environmental Implications of Population Dynamics* (Santa Monica: Rand, 2001.) For a discussion on soil properties see S.I. Dodson, T.F.H. Allen, S.R. Carpenter, A.R. Ives, R.L. Jeanne, J.F. Kitchell, N.E. Langston, and M.G. Turner, *Ecology* (New York: Oxford University Press, 1998.)

⁷³ *View and Estimates*, Worcester County Orphans Court Proceedings, 1797–1802. LH 8.

of the land. Court orders in the late eighteenth century encouraged plantation owners not to plant tobacco more than once every two years so as not to leave the earth expunged of nutrients.⁷⁴ Court orders also requested that a limit be placed on the trees being cut down on certain plantations. The people were advised not to cut down standing trees in the forest, but instead to use the already fallen trees for firewood, fence repair, and other needs.⁷⁵ Official laws were passed—but were not necessarily enforced—on timber acquisition in general. It is not known to what extent these laws were obeyed. As a quote from William Cronon's *Changes in the Land* states, "Pastoralism for commercial ends...cannot continue without progressive deterioration of the habitat."⁷⁶

To illustrate this, the remaining Natives, English, and descendents of both, were living with a new relationship to the land and they altered Nassawango's bald cypress swamp, the drier highland areas, the water flows of the Nassawango Creek and Pocomoke River, and created a new landscape that was more susceptible to overgrowth and eventual weed species infestation. Pine invaded fields left fallow from exhaustive harvests that had once consisted of oak and other hardwoods. In general, pine does little to reconstruct the forest floor humus.⁷⁷ The people were fostering an area ideal for thickets by creating these open-woods areas—some denser than others—of scattered boundary trees surrounded by large and small cleared areas.

These open areas also invited a change in animal species populations as well. For example, deer might have been very attracted to the edge-effect perimeter zones of the

⁷⁴ *Archives of Maryland*, Vol. 34, p. 460. For more on tobacco and soil exhaustion see Wennersten, "Soil Miners Redux."

⁷⁵ *View and Estimates*, Worcester County Orphans Court Proceedings, 1797–1802. LH 8. The regulation on tree cutting was considered mostly for the benefit of the orphan. It was so that when the orphan came of age, the land would not be void of forest or contain exhausted soil.

⁷⁶ Fraser E. Darling, "Man's Ecological Dominance Through Domesticated Animals on Wild Lands" excerpt taken from Cronon, *Changes in the Land*. p. 141.

⁷⁷ Wennersten, "Soil Miners Redux."

wooded landscapes lying beside the open spaces of the plantations. These antlered animals might have thrived on large agricultural lands and might have increased in number since the larger predatory animals would have slowly dwindled down as a consequence of deforestation and bounty hunting. According to travelers in the late eighteenth century, the populations of these predators were reduced for reasons of sport and reasons of fear as well. At one point “bears were so plentiful in the great cypress swamp that one had little trouble killing 30 in a day”; wolves and cougars were also reported to have been present in abundance.⁷⁸

The final inhabitants of the Contact Period altered the land in many other ways as well. Land, whether cleared, drained, ditched, tilled, overharvested, or all of the aforementioned, had a large impact on the natural processes of Nassawango. “Humans have dramatically and most likely permanently altered the face of the eastern forests in ways that natural processes never could.”⁷⁹ Over time these impacts grew from sporadic and non-intensive with the Natives, to seemingly permanent with these final inhabitants. They not only shipped Nassawango’s marketable nature to very distant lands, but also linked the forests, the fields, and the furs to these far-off hinterlands of commodity exchange. The equation of land plus exploitation (of people and resources) equals wealth, continued to be the driving force motivating the colonists on how to utilize the land on into the late eighteenth century.⁸⁰

⁷⁸ Henry Norwood’s “Voyage to Virginia” and Himes, *Cavalier’s Adventure*. Bear quote excerpted from *Bay Journal* March 2004 issue.

⁷⁹ Abram, “Where Has All the White Oak Gone?”

⁸⁰ Another growing market on the Eastern Shore was the slave market. Most of the hard plantation work was done by slave labor. John R. Wennersten *The Chesapeake: An Environmental Biography* (Baltimore: Maryland Historical Society, 2001.)

Summary

By contrasting English culture and Native culture, comprehension of seventeenth- and eighteenth-century attitudes toward the land and its use can be better understood. These two distinct perceptions of nature are what led to the different ways its inhabitants used it. The Contact Period shows the first shift in attitudes toward the land that shaped the way Nassawango Creek was utilized.

Old World ideas about land, wealth, and status affected the way the English chose to use the land. They were initially driven by the idea that Nassawango had unlimited forest resources, but as they cleared the land of trees, animal populations diminished and nutrients were washed out of the soils. This created problems for fur trading with the Natives—no forests meant no profit. As forests turned into plantations, the space necessary for both cultures to live without conflict became smaller as well. The relationship between the English and the Pocomoke and Assateague tribes worsened.

Increase in personal gain and status was a big motivator for the English as they enforced their private property boundaries with acres of trees as fencing, encroached upon Native villages, and designated the meets and bounds of where they thought the Natives should be placed. These were ways the English could maintain control over the land and its “improvements” in order to benefit the most from them. Meanwhile the Natives’ influence in this shift lessened with each petition they made in the English courtrooms. Their complaints demonstrated that this shift in regimes was not to their liking. They were relocated against their will, encroached upon, and eventually most were convinced that they were better served leaving the area altogether. They experienced a change in cultural traditions and a transformation in the way they had once

lived on the land. After this land-use shift occurred there was no return to the previous regime of land-use. It had been altered henceforth. The impacts this transformation left on the land would only augment as trade and industrialization increased. Soil pH changed, pine dominated, and the habitat for the animals and the people of the previous era decreased. Nassawango became a money-making resource. A shift in the human perception of nature encouraged a shift in land-use to occur, and there was no turning back as long as private property continued to dominate the area.

Iron Era
c. 1788–1860

As the eighteenth century came to a close and the nineteenth century took hold, Nassawango Creek underwent another period of rapid change in how it was perceived, and, as a result, experienced a shift in land-use practices as well. The industrial operations of a developing country encouraged discovery and exploration of new areas outside of the populated eastern cities. Through the adventures of several businessmen trying to make money, Nassawango became an iron-making, industrial site owned by the Philadelphian, Benjamin Jones and his family, and rented by a Worcester County local, Thomas A. Spence.⁸¹ The combination of distant ownership and industrial iron-making had a different kind of impact on Nassawango than anything that had come before. The iron-makers had a new plan for Nassawango, a new way of perceiving, utilizing, and shaping the land, yet competition and national trends within the iron market would limit Nassawango's success. Despite this fact, the Nassawango Iron Era erased any possibility of returning to the land-use regimes that preceded it. The previous regimes became impossible on the industrial landscape.

⁸¹ Benjamin Jones lived from 1761–1849. T.A.S. lived in Worcester County and he had relatives in the local area, but likely traveled to Philadelphia. He was married to Eleanor Spence. After his “ironing” days he became involved in an extremely controversial court case. He filed a petition “contesting the election of John R. Franklin, as Circuit Judge of the Twelfth Judicial Circuit of Maryland.” He felt he should have been elected instead (Vol. 107, p. 1450). Spence claimed that “many illegal votes were received and counted” and if only the legal votes had been counted then he “would have received a majority of the votes cast in the counties composing said circuit” (Vol. 107, p. 1317). The case went on and on with people such as Levin T. Parker stating “If I had been allowed the privilege of voting, I would have voted for Thomas A. Spence” (Vol. 107 p. 1316). More details about this controversy can be found in the volumes mentioned in the *Archives of Maryland under the Proceedings and Acts of the General Assembly*. The case seems to have run from the election day of November 7, 1865 to January 1866 and beyond.

According to Worcester County legend, or what has come to be accepted by Worcester County residents as fact, Nassawango's Iron Era began in 1788.⁸² It began with Joseph G. Widener, a prominent Philadelphian interested in iron works. He is believed to have visited Nassawango in 1788. Although no primary written record has been found which states Widener's purpose on the Eastern Shore of Maryland, legend claims that he discovered the bog ore deposits in the swampy creek land. Not much else is known of Widener and his connection to Nassawango.

If he did actually come to the shore and discover iron ore, he did not have the means or sufficient dedication to erect an iron furnace. This feat was accomplished by Mark Richards, and this is where Worcester legend and actual documents come together.⁸³ He was another Philadelphian drawn to Nassawango by the resource-rich Nassawango forested swamp.

Richards may have gotten his idea for the "Eastern Shore Ironworks" from the Principio Company that lay at the head of the Chesapeake Bay.⁸⁴ Iron making was

⁸² Due to a lack of primary source documentation to support this belief, I will refer to this kind of information as Worcester County legend. It will be made clear when the information is legend-based or document-based. There was a book written about this era – George Alfred Townsend, *The Entailed Hat* (New York: Harper and Brothers, 1884.) The book will not be discussed in this study, but is an interesting fictional story about the place that has come to be known as Furnacetown. The book also goes by another title, *Patty Cannon's Time*.

⁸³ *Snow Hill Messenger*, April 1832. Mark Richards passed away in Philadelphia on June 30, 1843. The following statement was said about him by a member of the Jones family hoping that he died "calmly and I hope in peace for with all his faults and he had many, yet there were some redeeming qualities." Correspondence from Benjamin Jones to Andrew Jones dated July 6, 1843. Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania (Box 3).

⁸⁴ The Principio Company was one of the most important commercial enterprises in the early days of Maryland. It was organized in 1722 and began the erection of a furnace in Cecil County near the mouth of Principio Creek. During the revolutionary war the company's furnaces and forges supplied bar iron and cannon balls to the Continental Army. It also supplied cannon balls, cannon, and "guns as large as 32-pounders" were made for the government in the War of 1812. *Maryland Geological Survey*, Volume 1, 1897. Found in *Archives of Maryland*, Vol 423, p. 218. A full description and analysis of the Principio Company and the legislation can be found in Joseph T. Singewald, *The Iron Ores of Maryland* (Baltimore: Johns Hopkins University Press, 1911.) It is also discussed in Michael Warren Robbins, *The Principio Company: Iron-Making in Colonial Maryland, 1720–1781* (Ann Arbor: University Microfilms, 1972.)

endorsed by the Maryland legislative government in 1732 and it passed an “Act to encourage Adventurers in Iron Works” with the intent of promoting iron manufacturing within the state province.⁸⁵ This law granted several hundred acres to any team of men who promised to produce iron, known as pig iron, within seven years. Richards took on this challenge. He incorporated the Maryland Iron Company and received a charter from the Maryland General Assembly on March 12, 1829. The stated purpose of the company was to “have and use, exercise and enjoy, as a corporate body, the powers, rights, and privileges, proper and necessary for the purpose of manufacturing and vending iron, with power, for the said purposes, to purchase, hold and use, estate real, personal and mixtid; and to construct such buildings and improvements on their land...to sell or otherwise dispose of ...in relation to the objects and business of their corporation.”⁸⁶ The land that Richards claimed was 5,000 acres of cypress swamp and native forest, including the grist and sawmill, millpond—built there during the end of the Contact Period—and a large portion of the creek.⁸⁷

In a November 1831 newspaper, the *Snow Hill Messenger*, an advertisement stated that a grain and saw mill, situated on Nassawango Creek “contains cypress and pine timber, and part contains a large portion of iron ore on which an iron furnace might be erected.”⁸⁸ Several months later in the same newspaper the following was printed, “Furnace erected 5 miles from town by Maryland Iron Company,” just to the west of the

⁸⁵ Proceedings and Acts of the General Assembly, 1733–1736. Found in *Archives of Maryland* Vol. 39. p. 486.

⁸⁶ *Session Laws, 1828, 1829* by Daniel Martin Esquire, Governor. *Archives of Maryland* Vol. 540. p. 194.

⁸⁷ The 5,000 acres were within the 40,000 acres of the Askiminikonson Native reservation discussed in the previous section. The acres surround Nassawango Creek in Worcester County.

⁸⁸ *Snow Hill Messenger*, November 1831.

creek⁸⁹ (see Map 1 and 2). An area of commercial plantations, forests, and swamplands was quickly converted into a purely industrial, capitalistic venture. The furnace came to dominate the landscape, and with the perspective of the money-making iron-makers combined with the fluctuating iron-market, the furnace also dictated the use of the land which surrounded it.

This is about the extent of what Richards is known to have done based on the primary sources available. Some believe that he proceeded to erect a “furnace town” that was comprised of small streets, company stores, blacksmith’s shop, dressmaker’s shop, an area of farmland, a hotel, a church, and a post office, but the exact layout of the “town” and who was responsible for its construction remain a conjecture. This information was obtained from an oral history done by Kathy P. Fisher, current director of the Furnacetown Living Heritage Museum, which presently owns about twenty acres of the 5,000 acres under study. According to her, the information given by the interviewees is questionable with regard to the site description and is not backed up by any archaeological work done in the 1980s.⁹⁰

In spite of the lack of information on the description of the site there are records about the need for labor at the furnace. An advertisement for work was printed in the *Snow Hill Messenger* in 1832 indicating the availability for work at the furnace: “Wood Choppers wanted at Naseongo Furnace Fifty good steady hands, will meet consistent employment, at forty cents per cord—Apply to the manager at the works.”⁹¹ This showed

⁸⁹ *Snow Hill Messenger*, April 1832. The actual furnace stack stood within the previous three-mile buffer zone of the Askiminikonson reservation.

⁹⁰ Oral history by Kathy P. Fisher of local Worcester County residents “Jean and Bill,” n.d. Located in the Uncatalogued Furnacetown Archives. Some of this information also appears in the newspaper, *The Democratic Messenger*, 1976.

⁹¹ *Snow Hill Messenger*, May 20, 1832.

that wage labor was needed in addition to slave labor. It is unknown how many slaves, if any, Richards and the Maryland Iron Company possessed, but labor forces in iron furnaces in the Chesapeake region generally included a substantial slave community.⁹²

Richards sold the land through a deed of trust to E.H. Richards, Mr. Hemphill, and Benjamin Jones.⁹³ By 1834, this area of Nassawango belonged in full to Benjamin Jones. It is at this point in the chronology that we depart entirely from local, traditional information. It was not until May 2004 that I discovered apparently new business correspondence at the Historical Society of Pennsylvania regarding the iron works at Nassawango. Prior to this discovery, the historical information surrounding the operation of the furnace was mostly taken from county legend and other furnaces of the time period. The following will attest to a new interpretation of Nassawango. This is the first time this history has been told.



Benjamin Jones was a wealthy Philadelphian interested in owning and renting out an array of furnace properties in order to make a profit. He proceeded to name the Nassawango Furnace tract “Shade Lands,” but it was also commonly referred to as “Naseongo Furnace” and even called “Snow Hill Property” (after the town near which it

⁹² For information on slaves see Ronald L. Lewis, “Slave Families At Early Chesapeake Ironworks” (*The Virginia Magazine of History and Biography*, Vol. 86 (2), 1978, 169–179.)

⁹³ Correspondence from W.H. Postlethwait to Andrew M. Jones dated January 3, 1849 and Correspondence from W.H. Postlethwait to Andrew M. Jones dated January 11, 1849. Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. (Box 3). Although the Maryland Iron Company did not own the Nassawango Furnace Land for very long, they had a substantial amount of other lands in the area. Some of these lands may be found on pgs. 39, 142 and 411 in the *Worcester County Maryland Land Records*, 1742-1844.

resides).⁹⁴ There is some mystery as to how Jones managed to end up with sole ownership of Nassawango in 1834; even his own contemporaries in the year of his death were puzzled as to how Jones “became the owner of the interest which he held in the Shade Lands.”⁹⁵

According to nineteenth-century correspondence, the deed of trust from Richards could not be found on record in Worcester County, and so it was unknown what powers were given to the assignees (people involved in the land transaction). Also unknown is whether or not authority over the land was “given to the whole of assignees, to a majority,” but either way, by 1834 Jones was the designated owner of the territory.⁹⁶ He was interested in profit through industry. He lived in Philadelphia, and according to the records, he did not make any trips to the Shade Lands himself. He owned the land and managed it from a distance. This ownership from afar created a new perception of the land, one of obvious detachment and selective concern. He did not live on or even near the land, so his relationship to it was not that of a homeland, but rather one of strict business to be dealt with only on paper.

An example of this cultural idea of how to use Nassawango, unique to the Iron Era, is the conversion of the land into an industrial hinterland. Under Jones, Nassawango became a resource-rich hinterland for the big markets of large, distant cities. Hinterlands could be seen all across the United States. In William Cronon’s *Nature’s Metropolis: Chicago and the Great West*, the city of Chicago depended on surrounding natural areas

⁹⁴ Correspondence from Benjamin Jones to Andrew M. Jones dated July 18, 1834 (Box 3) and Correspondence to Benjamin Jones from W.H. Postlethwait dated June 4, 1845 (Box 1). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. (Box 1).

⁹⁵ Correspondence from W.H. Postlethwait to Andrew M. Jones dated January 3, 1849. Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. (Box 3).

⁹⁶ Correspondence from W.H. Postlethwait to Andrew M. Jones dated January 11, 1849. Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. (Box 3).

to supply it with natural resources for its economic growth.⁹⁷ The same was true for the cities of the east coast. Nassawango provided growing cities such as Philadelphia, New York, and Baltimore with the natural resources that many industrial companies and industrious individuals sought. The hinterland remained an anonymous landscape that produced materials for far-off people in cities who were generally unaware of where the products came from.

Industrial hinterlands seemed to promote a detached relationship to the land even more than the agricultural exports to distant markets that existed in the Contact Period. To be connected to the land at Nassawango, for example, the city dweller would need to know that iron came from ore in a swamp. Without this knowledge there is no connection of iron products to land-use. As a hinterland, the role of Nassawango and its natural resources stayed hidden while the place itself was turned into a money-making, capitalistic industry. The ugliness associated with the iron furnace stayed out of the city, but the city extended its reach to the unknown land through purchases and sales. The land was cultivated into an industrial site to feed the growing demands of expanding east coast cities. This became Nassawango's role in the mid-nineteenth century under the ownership of Benjamin Jones.

Jones was intent on preparing the furnace for its second era of "ironing" and dedicated himself and his family to this endeavor. In a letter to his son, Andrew, he stated that the business at Nassawango had been poorly managed (by the Maryland Iron Company) and went on to say that "the [iron] works would not go on unless we carry them on ourselves." In the same letter he named Andrew his "chief commander" of the

⁹⁷ William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991.)

furnace property, making it a family business. Jones never gave up his participation in the Nassawango furnace until his death fifteen years later.⁹⁸

The family actually owned more than one furnace; they also owned Hanover Furnace, Mary Ann Forge, Franklin Furnace, and Paddle Furnace in Philadelphia and New Jersey.⁹⁹ They ran a large, well-organized business, and it is through their business correspondence that Jones and his sons continued to direct its growth from Philadelphia. His plan was to rent the land and lease the existing grist and saw mills to trustworthy friends who would make payments (including interest payments) to his family during the course of their stay at the Shade Property. Although Jones was able to accomplish this, to an extent, throughout the course of his ownership, his relationship to Nassawango became somewhat of a burden. The year after his purchase he was already interested in selling the land.

Upon purchase, Jones was the official owner of the land but there was some confusion about the deed of transfer from the Maryland Iron Company to him. Because record of this transaction could not be found in the county, Jones was allowed to own the land and use it, but not sell it until the court case regarding this issue came to a close. The court resolved the problem in 1840, but this whole situation probably added to Jones' frustration about Nassawango and his desire to sell.¹⁰⁰ Seeing the land as Jones did, as a marketable commodity and solely as a money-maker, it is easy to imagine the urge to sell

⁹⁸ Correspondence from Benjamin Jones to Andrew M. Jones dated July 18, 1834 (Box 3). Benjamin Jones final will and testament. Approved by the Commonwealth of Pennsylvania on 25 May 1849 (Box 5). Benjamin's son, Andrew M. Jones, and his son-in-law, Anthony S. Morris, were the executors to the estate. Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

⁹⁹ Correspondence from Richard Jones to Andrew M. Jones dated July 11, 1850 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹⁰⁰ Correspondence from Thomas A. Spence to Benjamin Jones dated April 11, 1840 (Box 1). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

if it was not functioning as such. Jones' reasons for not selling after one year were probably also due in part to an inkling that Nassawango could indeed be an ideal swampy environment in which to make iron. Whether because of irresponsible renters or the declining market for this low-grade iron, Nassawango did not turn out to be the ideal investment Jones was hoping for after all.

As part of one of his unsuccessful attempts to sell, an advertisement appeared in the August 4, 1835 issue of the Snow Hill paper, *The Borderer*, stating:

On Thursday, the twenty-seventh instant, at one o'clock, at the Exchange, all that Valuable Tract of Land, Furnace, and Grist Mills, situate in Worcester and Somerset Counties, MD. known as Nasseongo Furnace and Mills. The tract consists of SEVEN THOUSAND acres of Land, well wooded and embracing immense beds of IRON ORE, to which access is made more readily and cheaply had then to any other work on the seaboard.

The Furnace is driven by Nasseongo River, a powerful and constant stream, and attached to it is a good GRIST & SAW MILL, which finds abundant business...

There have been recently erected a first rate DWELLING HOUSE and a sufficient number of workmen's houses, all of which are nearly new, with a Store-house, Barn and other capacious out houses.

This advertisement also stated that all tools and fixtures needed for utilizing the furnace were included in the offer along with twenty bushels of coal, 650 tons of ore on the banks, and another 1,000 tons in the ore beds of the creek. Prospective owners were to direct their inquiries about the Nassawango tract to Andrew M. Jones or to the local liaison to the property, George H. Springer.¹⁰¹

The language describing the land in the advertisement focused on the acreage of land, the timber, and waterpower, but most of all on the land's value as an iron venture.

¹⁰¹ *The Borderer*, August 4, 1835. Worcester County legend believed that Benjamin Jones actually did sell the land after just one year, but in actuality he and his family owned it for over twenty years.

The land promised to be capable and productive at minimum expense to the new owner. The advertisement hoped to attract the attention of new buyers, but perhaps due to the pending court case, inefficiency of local advertisement, or due to the fact that Jones was notified of an interested renter the land did not acquire new ownership. Jones continued his reign over Nassawango from Philadelphia and signed on Thomas A. Spence (T.A.S.), a Philadelphian turned Snow Hill local, to be the main renter of the Shade Furnace Lands.

Spence was a young friend of Jones who was interested in making a fast profit. Spence was in his twenties.¹⁰² He and his wife were not strangers to Worcester County. Before moving there as renters in 1835, Spence and his wife, Eleanor, bought and deeded land in the early 1830s continuing through 1844.¹⁰³ He signed on with Jones to rent Nassawango and was entitled to the Shade Furnace stack, the mills, and any natural resource such as timber, water power, sea shells, and iron ore that the land offered him. All of this was at his disposal, and, in addition, he was allowed to keep all profits made by the iron sales as long as his rent (and interest) was paid. He was also in charge of the upkeep of the property.¹⁰⁴

Spence shared Jones' perception of the land as a profitable endeavor. He was intent on making good iron from the swamp so that he could sell it and make money. It was, therefore, not surprising to see that throughout all of the business correspondence

¹⁰² Worcester County 1840 and 1850 Census Records, Transcribed by Ruth T. Dryden (Westminster: Family Line Publications, n.d.)

¹⁰³ Spence was very active buying and selling land in Worcester County. For more information on this see, the *Worcester County Maryland Land Records*, 1742-1844. Just to give a few examples, in 1832 and 1835 T.A.S deeded land to Thomas Purnell. Liber R, folio 49, 345 and in 1838 he received land from Benjamin Weston Liber GMH no. 1 folio 101. He and his wife deeded land together as well and can be found in Liber GMH no. 7 folio 22, dated 1843-1844 and also in Liber GMH No. 5 folio 189, dated 1841-1842.

¹⁰⁴ Correspondence from Richard Jones to Andrew M. Jones dated July 11, 1850 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. Worcester County legend believed Spence to be the actual owner of the Furnace Property, but he was only a renter and the owner was Benjamin Jones.

there was only one reference that implied the land had limitations. Perhaps the limitations Jones referred to in the following were monetary, but in the only letter surviving for the year 1837, Jones advises:

Not to have so much wood cut beyond what is wanted for the ensuing blast as it is attended with some inconvenience in several ways which will readily occur to thee [his son] and him [Spence]... I mention it because it has been the case more than once, enough is enough it is poor economy to pay for cutting wood two years before you want it. The wood decays in some degree. Impress also upon his [Spence's] mind not to employ more hands than is necessary to attain the wished for end.¹⁰⁵

This industrial land-use regime necessitated an extreme land-use shift because to maintain a furnace in operation required endless energy from Nassawango's natural resources and also energy from the people working the land. The furnace was designed to smelt bog ore, which was mined from the beds of swampy soil along Nassawango Creek.¹⁰⁶ Every twenty-four hours three tons of ore were loaded into the top of the almost forty-foot-tall furnace stack. Three hundred bushels of charcoal were used as heat to melt the iron ore. The charcoal was obtained from the forest surrounding the furnace.

¹⁰⁵ To deal with the shortage of trees many iron-makers combined the tree-made charcoal with bituminous coal which raised the sulfur content of the furnace to a level far beyond its capacity of slag de-sulfurizing. This made the tree supply last longer but made poor quality iron and damaged the actual furnace itself by lining it with tar "from the incomplete combustion of the bituminous coal." This information came from the Eaton (Hopewell) Furnace. There was discussion about the necessity of a new lining for the Nassawango furnace toward the end of its operation, but it is unclear if at Nassawango coal was used in its iron works. Correspondence from Thomas A. Spence to Andrew M. Jones dated August 13, 1848. Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. See, John R. White, "The Rebirth and Demise of Ohio's Earliest Blast Furnace" (*Midcontinental Journal of Archaeology* Vol. 21(2), n.d., 217-245.) According to the *Maryland Geological Survey* from (Vol. 1) 1897, it is "where the rocks have been but little disturbed [that] the coal contains a high proportion of volatile gases, or less than 70 per cent of carbon. This coal, known as bituminous coal, is especially valuable for the manufacture of coke and gas." In MD (also PA and WV) coal contained 70-84 percent making it semi-bituminous coal. The *Geological Survey* stated that the "Maryland coal is unsurpassed in quality...yielding the highest temperature for a definite quantity of combustible material." Found in *Archives of Maryland*, Vol. 423, p. 220-221.

¹⁰⁶ Bog iron ores can be used in uncovering information about land-use history, mining history and agricultural history. An interesting study was done in 2003 using these kind of data see, Danuta Kaczorek and Micheal Sommer, "Micromorphology, Chemistry, and Mineralogy of Bog Iron Ores from Poland" (*Catena* Vol. 54, 2003, 393-402.)

Hardwood and softwood trees were chopped and cut into four-foot lengths and stuffed into thirty-foot charcoal pits for charcoal burning. A mound of wood formed the entire diameter of the thirty-foot hearth and was approximately twelve feet high. The hearth was then lit and covered to keep the wood smoldering and continuously making charcoal. Each pit contained fifty to sixty cords of timber daily which produced about 2,000 bushels of charcoal. Within five months, generally five hundred acres of timber were used.¹⁰⁷

Once the charcoal was made it filled the furnace and the temperature reached 30,000 degrees Fahrenheit. Along with the seventy pounds of charcoal charged into the furnace, 800 pounds of creek ore and eighty pounds of limestone were fired. In this twenty-four-hour period this process was completed three times. The intense heat melted the iron ore by consuming the oxygen from the ore. The limestone also helped to draw out impurities, forming the “slag.” The molten iron collected at the bottom of the furnace, while the slag floated out of the top of the furnace, covering the land. The furnace needed to be in constant operation if success were to be expected.¹⁰⁸

The actual chemical conditions necessary to produce iron are complicated and require a certain land-water chemistry that Nassawango fulfilled through its ecological wetland properties. Nassawango’s pre-existing chemical conditions, those that are required to produce iron ore in the creek, allow for the process that eventually reduces iron oxide to pure iron by heating the ore to a liquid state. The leftover oxide bonds with the carbon from the charcoal fuel and forms carbon mono- and di- oxides as by-products. Smelting iron requires balanced quantities of iron ore, oxygen, and carbon in a controlled

¹⁰⁷ “Iron Furnace Charcoal Blast Method Circa 1820–1850,” Furnacetown Uncatalogued Archives, n.d.

¹⁰⁸ *Ibid.*

process aided by intense heat and constant pressure. These chemical elements of smelting are found in iron ore (ferrous oxide), charcoal or coke (carbon), and the air blast of the furnace (oxygen). The actual smelting process relies greatly on the quantity and purity of each of its chemical elements. Without these prerequisites there could be no iron-making furnace.¹⁰⁹

The sandy soils at Nassawango are porous; in other words, they have few layers of clay acting as barriers in the depths of the soil. The lack of clay walls allows water to flow down into the depths of the soil rather than flowing across the surface of the land in an erosive manner or as “eroding sheet flow.” But it is ultimately the chemistry of the groundwater that causes iron to be leached from these sandy soils. This groundwater reacts with the air and light as it emerges from the underground springs. It forms small, lightweight particles of iron (more technically, iron-oxyhydroxide) in the water. As these particles settle out, they are eventually deposited on the creek land and form hard, iron-rich minerals known as iron ore (or as limonite or goethite). The iron ore deposits were discovered at Nassawango back in 1788 and are what encouraged the furnace stack to be built.¹¹⁰

The iron ore was mined out of the creek and barged to the furnace. The furnace was fired with locally made charcoal and “a flux of oyster shell to carry away impurities.”¹¹¹ Seeing the forest simply as the ingredients for charcoal also implied a bit about the industrial ideas of nature dictating Nassawango’s land-use. The charcoal itself was made by chopping trees down, burning them, and then smoldering the trees under a

¹⁰⁹ “Iron Smelting,” Furnacetown Uncatalogued Archives, n.d.

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

thick cover until the intense heat converted the wood into black charcoal.¹¹² This process produced the low-grade, phosphate-intensive iron Spence oversaw at the Nassawango furnace. Then the iron was prepared for shipping. It entered Nassawango Creek, floated down to the Pocomoke River and into the Chesapeake Bay where it was directed to its final destinations. Climate was also a key factor in the production of iron. Ideal ironing was done from the beginning of spring and on into the fall months. Frozen waterways could not generate machine (flow) power and in addition were an impediment to the ships.¹¹³



Economics was always on the mind of Jones due to his industrial outlook. Records indicate that it was important for him to keep his land in proper, industrial shape creating quality iron and above all else, maintaining his good name. He could have used this untarnished reputation in any future sale of Nassawango, and such a perspective kept the idea of selling the land never far from his mind, especially if it was not as productive as he expected.¹¹⁴

Richard, Jones' other son, tried to come up with plans to get the most benefit of the iron ore and how to make the iron more profitable. "We must find some way of making good iron from rich stock...if we expect to continue the furnace in operation." He

¹¹² The Pocomoke Swamp that is neighbor to Nassawango is believed to have contained trees twelve to eighteen feet in girth which Chesapeake woodmen transformed into lumber and charcoal for pig iron furnaces. Wennersten, "Soil Miners Redux." See also, George Francis Beaven and Henry J. Oosting, "Pocomoke Swamp: A Study of a Cypress Swamp on the Eastern Shore of Maryland" (*Bulletin of the Torrey Club* Vol. 66, 1939, 367-389.)

¹¹³ Correspondence from Richard Jones to Andrew M. Jones dated July 11, 1850 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹¹⁴ *Ibid.* Even in 1850 they were still referring back to 1839.

continued by referring to the amount of timber, stating that the business had the possibility of “breaking up...more so as the wood we use.” He described to his father his assured means of success: “I am confident that our rich coldshort ore with proper roasting and a judicious mixture of foreign ores can be made into a very propable foundry iron, it may not have the strength of the best [Pennsylvania] iron but I expect to make a close grey iron which will be very easily melted and when melted it will be very fluid...to mix with.” He also declared that they would proceed to make a full appointment of orders for castings, pipes, and ores that would be enough to ensure “our capability of making good iron,” despite the “great scarcity” of loam.¹¹⁵ Richard claimed as well that “when some of the swamp which have been burned is well searched” some loam may be discovered but that if not “we will not be greatly injured.”¹¹⁶ His confidence in Nassawango was not shared by his father or brother, Andrew. Richard saw the land as marketable until the end, but his family did not share his enthusiasm and was interested in selling with every opportunity they got.¹¹⁷

By April 1840, the court case was settled and Jones was finally free to sell the property. It was also apparent at this time that Spence was not the responsible renter that Jones had hoped he was. In a letter to Jones, Spence claimed that, “a sale of the property or any part of it might be attended with very serious consequences to me...in addition...I have made improvements of the property.”¹¹⁸ Three months later in July 1840 the Jones

¹¹⁵ Pipes and castings were brought to Nassawango from other industrial sites. There is no record of an actual cast at Nassawango. Also just to clarify, loam is an earthy, clay-like soil.

¹¹⁶ Correspondence from Richard Jones to Benjamin Jones dated April 14, 1839. (Box 1). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹¹⁷ Correspondence from Richard Jones to Andrew M. Jones dated July 11, 1850. (Box 3) and Correspondence from Richard Jones to Andrew M. Jones dated September 15, 1850 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹¹⁸ Correspondence from Thomas A. Spence to Benjamin Jones dated April 11, 1840 (Box 1). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

family had “nothing encouraging to say in regard to business.”¹¹⁹ The iron trade was “dull” and maintaining a furnace at Nassawango seemed to be more of an expensive endeavor than a lucrative one, especially since the main renter was not paying his debts on time. Benjamin Jones stated that in his opinion, “the business is now in such a state of revolution and will be for some years to come that no reliance can be placed on any calculations we can or may now make.” He pondered closing the furnace and turning to another money-making land-use, such as harvesting timber, but upon receipt of another letter regarding much of the same about Spence, he decided otherwise.¹²⁰ Jones wanted to allow Spence to continue to rent Nassawango as a favor to Spence, his indebted friend. Jones also hoped he could continue to profit from the land in some way although he felt that “whenever he [Spence] is ready for it I wish the business adjusted as at my time of life such matters should be closed.” Jones was 74-years old, and he meant that when Spence was ready he either wanted to have a new renter able to pay his bills or transfer the land to another owner altogether.¹²¹

Through several letters they analyzed the state of the foundry, given the “deforested conditions of the iron business” and the resulting impossibility of making a

¹¹⁹ Correspondence from Benjamin Jones to Andrew M. Jones dated July 23, 1840 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹²⁰ *Ibid.*

¹²¹ Correspondence from Benjamin Jones to John Taylor dated June 22, 1841 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. The age of Benjamin Jones was calculated from his Will and Testament which was approved May 25, 1849 by the Commonwealth of Pennsylvania. Andrew M. Jones (his son) and Anthony S. Morris (his son-in-law) were the executors to his estate. In his 1850 obituary found in the *North American Gazette*, May 1850 it stated that Jones died at 82 and that “for many years [he was] merchant of our city, and an extensive iron manufacturer.” The obituary stated, “The Society of Friends of which he was a member, loses in him one of the best examples of its silent but powerful means of doing good.” Jones was a member of the Quaker religion. An “inventory and appraisement of goods and chattels rights and credits” of the estate of Jones “late of the city of Philadelphia” were taken by Moses Johnson and Samuel Grants on May 25, 1849 as well. Found in the Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

sale.¹²² According to a local connection, Jones was informed that refraining from selling was probably a good idea due to the “present unsettled state of the public mind” and after all, the land was by no “means an El Dorado nor as yet flowing with milk and honey.”

Jones decided that until he could find a suitable buyer, sell the land, and receive his payments from Spence, the riches at Nassawango would be found through “industry and perseverance,” the only means, in his opinion, by which to “make them available.”¹²³

The belief that it was possible to make riches available went part and parcel with the perception of land as an industrial money-maker.

This determination was greeted with one of several positive letters from Andrew Jones in 1845 to his father disproving (at least temporarily) the rumors that Spence was “destroying” the property.¹²⁴ “I can see from Spence’s showing I think iron can be made there cheaper than at any place I know of. He has been in blast about 3 weeks using the hot blast...the whole appearance of the property is that of improvement.”¹²⁵ Despite this report from his son, Jones returned again to his original sentiment to sell the “Shade Forge” tract.¹²⁶

¹²² Correspondence from Rich S. Newbold to Andrew M. Jones dated October 9, 1848 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹²³ Correspondence from Benjamin Jones to Andrew Jones dated July 6, 1843 (Box 3) and Correspondence from W.H. Postlethwait to Benjamin Jones dated on November 25, 1844 (Box 1). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹²⁴ Rumors abound that this was due to his personal conduct, such as his problems as a “drinker” and his habit of “risking his money on cards at Washington.” It was the bad mouthing of his political enemies that caused the rumors according to his letter. Richard’s visit to the furnace and his conversations with the locals gave him the impression that “the opinion of the people in this part of the country about him [Spence]” is that “he is popular.” Correspondence from Richard Jones to Benjamin Jones dated December 1, 1844 (Box 1). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹²⁵ *Ibid.* The hot blast process was considered the most efficient form of “ironing.” It was developed in Scotland in 1828. Hot blast iron is more malleable while cold blast is more durable. “Iron Smelting,” Uncatalogued Furnacetown Archives, n.d.

¹²⁶ All of the following reflect Jones’ interest in selling Nassawango: Correspondence from W.H. Postlethwait to Benjamin Jones dated June 4, 1845 (Box 1); Correspondence from L.G. Miller to Benjamin Jones dated August 13, 1845 (Box 1); Correspondence from L.G. Miller to Benjamin Jones dated August 20, 1845 (Box 1); Correspondence from W.H. Postlethwait to Benjamin Jones dated September 1, 1845 (Box 1); Correspondence from W.H. Postlethwait to Benjamin Jones dated September 22, 1845 (Box 1);

The Joneses decided that in order to have success they needed to apply estimates to Spence's iron works at Nassawango. "What was the cost of making iron in Maryland? The quantity of wood land? assuming the usual average of 1000 cords to the 100 tones of iron...so 800 tons would take at 20 cords to the acre, 400 acres...to be cut...as the growth of pine takes say 20 years to be of full coaling size, it will thus require a tract of 800 acres to render the works a full supply in perpetuity." The other requirement was the availability of shells, lime, flux, and ore, all which needed to be readily accessed at minimal cost to Spence and Jones. In addition hired hands and horses were needed, but it was difficult "keeping them." Of course they also had to consider the cost of sending the loaded iron to its landing place and across the Chesapeake Bay to the cities and "ready markets of New York, Philadelphia and Baltimore."¹²⁷

In reference to the labor force that was to stock Nassawango's Furnace, Spence was to need about 10 hands per month:

2 keepers.....	\$50
2 Tillers.....	50
1 Founder.....	35

and Correspondence from W.H. Postlethwait to Benjamin Jones dated November 26, 1845 (Box 1). In the meantime, Spence had some bad luck, his home burned down and he was described as having "met with a pretty smart loss...about \$3000," but he was determined to settle the payment issues with Jones. References to this can be found in these letters: Correspondence from John M. Taylor to Andrew M. Jones dated June 24, 1846 (Box 3); Correspondence from Benjamin Jones to Andrew M. Jones dated July 5, 1846 (Box 3); and Correspondence from Benjamin Jones to Andrew M. Jones dated May 26, 1847 (Box 3). All of these letters are from the Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. John M. Taylor named in these letters is the son-in-law of Benjamin Jones. He lived in Worcester County and made several claims about needing money. On September 18, 1868, he wrote that his land named "Shirley" in Worcester County was not yet rented and he feared "it would be but a poor man that I can get. There is so much difficulty about hands. They will leave you at any moment." About ten years later he wrote, "I am as poor as a church mouse." Correspondence from John M. Taylor to Andrew M. Jones (his brother-in-law) dated September 18, 1868 and March 6, 1879. He died in Worcester County, his Will and Testament was recorded August 28, 1886 and his inventory recorded November 8, 1886. There was no mention of the furnace in either document. Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹²⁷ Correspondence from Andrew M. Jones to R. S. Newbold dated October 6, 1848 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. The reference to the ready eastern markets can be found in the Maryland Geological Survey Vol. 1, 1897. Found in the *Archives of Maryland*. Vol. 423, p. 221.

1 Bankman.....	25
1 Gutterman.....	25
1 Night Stocker.....	20
1 Blacksmith.....	25
1 Clerk.....	25

This totaled \$255.¹²⁸ This estimate of prices was based on the Jones family Hanover Furnace operations in New Jersey, but in Maryland at this time slave labor was not yet outlawed as it had been in the more northern states, so Spence could save money and utilize slaves to work the land for his benefit. At Nassawango, Spence was listed as having twenty-eight slaves in his most productive years 1840 to 1850.¹²⁹ With twenty-eight slaves at his disposal, yet only needing ten workers to be “productive,” Spence was doing more than well. He had almost three times the labor force he needed per month and had them for free. Twenty-eight overworked slaves meant he could keep the number of paid workers to a minimum or get rid of wage labor at the furnace altogether. Slave labor was heavily exploited in Nassawango because charcoal iron production demanded hard work and an unrelenting vehemence to keep the furnace flames blazing. Ironmasters all over the Chesapeake region continued to pursue slaves for their labor, while their northern contemporaries hired poor white workers as their main workforce by as early as the late eighteenth century. The enslaved African Americans represented an extension of the plantation labor force and were considered workers that a furnace operator could have coercive control over.¹³⁰

¹²⁸ Correspondence from Andrew M. Jones to R. S. Newbold dated October 6, 1848 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹²⁹ Worcester County Census, 1840 and 1850.

¹³⁰ John Bezis Selfa, “Planter Industrialists and Iron Oligarchs: A Comparative Prosopography of Early Anglo-American Ironmasters” (*Business and Economic History* Vol. 23(1), 1994, 62–70.) It is known that that the slaves were worked hard at the furnace because in the year 1866 when slavery was officially abolished and “our negroes are free” there were complaints from other Jones properties that “we are having great trouble in hiring hands, the negroes want work only by the day and that does not suit...it is expensive for a man to rent land without he is sure of hands to carry it on.” Correspondence from John M.

In October 1848, under an agreement, Jones decided to give Spence six months to “iron,” release a shipment, and sell. According to the terms of the contract the proceeds of the sold iron would be given directly to Jones.¹³¹ He was to receive his first payment by April 1st, 1849. The contract stated that this method of payback would be accomplished with “one favorable blast.”¹³² He wanted to sell 440 tons of iron at \$24 a ton to secure his payments, claiming that he had 600 tons waiting to be fired.¹³³ As March 1849 approached, the Joneses were informed by a local friend, William Handy, that Spence had not made one payment nor did he think he would, due to his “past experience.”¹³⁴

Spence was warned and “knew the consequences of failure” and so tried to make another agreement with the Jones family by applying for an extension of another four months. By May 1849, Spence was fulfilling Nassawango’s role as an industrial hinterland and making iron shipments to a New Yorker by the name of Mr. Fox. Spence was shipping out the iron at a rate of a shipment every three or four weeks, but in June

Taylor to Andrew M. Jones dated July 21, 1866 (Box 3) and Correspondence from John M. Taylor to Andrew M. Jones dated August 4, 1866 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹³¹ Spence was to pay \$2500 of the \$4800 he owed Jones within six months of the agreement.

Correspondence from Thomas A. Spence to Andrew M. Jones dated November 4, 1848 (Box 4) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹³² Spence had a bad blast but was ready for a good one to recuperate his debts. In the beginning Jones declined Spence’s offer for a new contract, but then realized if Spence did not succeed it would be “disastrous” only to him. Correspondence from Thomas A. Spence to Andrew M. Jones dated October 21, 1848 (Box 4); Correspondence from William Handy to Andrew M. Jones dated October 26, 1848 (Box 4); Correspondence from Benjamin Jones to Andrew M. Jones dated October 30, 1848 (Box 3); Correspondence from Thomas A. Spence to Benjamin Jones dated November 2, 1848 (Box 4); Correspondence from William Handy to Andrew M. Jones dated October 14, 1849 (Box 4); and Correspondence from William Handy to Andrew M. Jones dated November 3, 1849 (Box 4). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹³³ Correspondence from Thomas A. Spence to Andrew M. Jones dated November 4, 1848 (Box 4) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹³⁴ Correspondence from William Handy to Andrew M. Jones dated March 16, 1849 (Box 4) and Correspondence from Benjamin Jones to Andrew M. Jones dated March 29, 1848 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

stated, “I fear that iron will go down.” This meant that the market for iron was diminishing and iron was not in demand. It was getting hard to sell. This difficulty was expressed in July 1849 when Mr. Fox stated that the iron would have “to go in store a while” until the market rose again.¹³⁵ The iron market, however, would not rise again for Nassawango.

On December 3, 1850 Spence only had one more night to remain at the furnace property. He requested more time promising payments, but after the death of their father (Benjamin Jones) in 1849, the Jones heirs were tired of Spence’s unreliable behavior. “I [Richard Jones] have always had my doubts that he did not intend to act fairly but was procrastinating to keep possession as long as possible of every timber, ore &c for his benefits.”¹³⁶ Also, motivating their disinterest in Spence was that they were receiving letters from an interested New Yorker.¹³⁷

They had wanted “to sell to a friend who is a capitalist” and W.H.P, their local aid in sales, advised them to sell the Nassawango property closer to spring so “the attention of some of the New York capitalists will be drawn to these lands and a much higher price

¹³⁵ Correspondence from Thomas A. Spence to Andrew M. Jones dated June 5, 1849 (Box 4); Correspondence from Mr. Fox to Andrew M. Jones dated July 9, 1849 (Box 4); and Correspondence from Mr. Fox to Andrew M. Jones dated July 13, 1849 (Box 4) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹³⁶ Spence was accused of stealing pipes and bellows from the furnace property, cutting trees and making logs. Correspondence from Richard Jones to Andrew M. Jones dated July 11, 1850 (Box 3) and Correspondence from D. Williams to Andrew M. Jones dated December 1, 1850 (Box 4). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. Benjamin Jones’ Will and previously mentioned Obituary state the year of his death.

¹³⁷ Correspondence from Collins-Vore Company to Andrew M. Jones dated August 24, 1850 (Box 4); Correspondence from Collins-Vore Company to Andrew M. Jones dated September 25, 1850 (Box 4); Correspondence from Collins-Vore Company to Andrew M. Jones dated September 27, 1850 (Box 4); Correspondence from Collins-Vore Company to Andrew M. Jones dated October 10, 1850 (Box 4); Correspondence from F.Vore to Andrew M. Jones dated October 31, 1850 (Box 4); Correspondence from F. Vore to Andrew M. Jones dated November 26, 1850 (Box 4); Correspondence from F. Vore to Andrew M. Jones dated December 7, 1850 (Box 4); Correspondence from F. Vore to Andrew M. Jones dated December 14, 1850 (Box 4) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

obtained for them.” He went onto say that “great sacrifice” would be made if he sold in the winter because the value of land, for example, that cost \$6,250 would only sell for \$200.¹³⁸ This dramatic difference may be attributed to exaggeration, or to the fact that iron-making cannot be done in the winter months because the water power cannot be obtained from frozen waterways, nor can the iron be barged and shipped in frozen waters. But as Richard stated just prior to the prospective New York sale in 1850, “I feel that... good iron from Naseongo” can be made and it is worth it to “risk the climate for the sake of the profit.”¹³⁹

Richard was against selling the property with “haste” and he wanted to maintain it as Jones property declaring, “I feel sure that a new day is dawning upon coldshort iron,” and he “does not know of any other place where charcoal iron can be made cheaper than there.” The reasons for keeping Nassawango were based on the availability of natural resources at the site, but were always described in terms of money. The plan for the final monetary decisions on the Shade Lands were made in December 1850 when Andrew Jones stated that he had chosen to sell the land for \$12,000 to the interested New Yorker capitalist, F. Vore.¹⁴⁰ The future of Nassawango, although the purchase was to be made by Vore’s private account, seemed to be headed in the direction of another industrial venture; it appeared that “the business of the furnace would be conducted by New Collins-Vore Co.”¹⁴¹

¹³⁸Correspondence from W.H. Postlethwaite to Andrew M. Jones dated December 12, 1849 (Box 4) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹³⁹ Correspondence from Richard Jones to Andrew M. Jones dated July 11, 1850 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹⁴⁰ Correspondence from F. Vore to Andrew M. Jones dated December 14, 1850 (Box 4) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹⁴¹ Correspondence from F. Vore to Andrew M. Jones dated November 26, 1850 (Box 4) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

This New York attempt to own and work the furnace, however, is not backed up by any Eastern Shore primary document. According to the business correspondence available, the actual sale never took place, and the last attempts to fire a blast were made by Thomas A. Spence, under the guidance of the Jones family. The final letters in the Jones' collection support the county legend—that perhaps Richard's attempts not to sell did not go unheeded, or perhaps Vore did not follow through with his purchase. Environmental historian Joseph Petulla, claims that the inability to sell furnace lands stemmed from their “voracious appetite for charcoal.” The lands surrounding the furnace “were so broken and denuded that the land could not be sold.”¹⁴² For whatever reason, the Nassawango furnace was not sold and in May 1852 a letter written to Andrew Jones from his brother-in-law stated, “I have just returned from visit to Snow Hill and the Furnace...it is very much out of repair ...by the men who have rented.” In a letter written the following month, he advised a sale of the property to the highest bidder, a Mr. Richardson, who offered \$6,000. He added, “my own impression is that the property will be worth at least \$2000 less next year. Now it is for you to decide either to sell or hold on.”¹⁴³

Nassawango's value diminished as its natural resources were used up. Also affecting the industrial hinterland of iron-making was the decline in the state of the national iron-market, affecting the sales of iron made there and determining the future of the land itself.¹⁴⁴ Another interesting possibility as to why Nassawango was not the ideal

¹⁴² Wennersten, *The Chesapeake: An Environmental Biography* and Wennersten, “Soil Miners Redux.”

¹⁴³ Correspondence from J.M. Taylor to Andrew M. Jones dated June 10, 1852. (Box 3) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹⁴⁴ Correspondence from Richard Jones to Benjamin Jones dated January 15, 1845 (Box 2); Correspondence from W.H. Postlethwaite to Benjamin Jones dated June 4, 1845 (Box 1); Correspondence from L.G. Miller to Andrew M. Jones dated August 13, 1845 (Box 1); and Correspondence from L.G.

place for an iron furnace was that, according to the Maryland Geological Survey taken several years after the last mention of Shade Furnace in the Pennsylvania papers, “great Maryland iron industries depend now to a very inconsiderable extent upon local iron ores.” It states that the discovery of extensive deposits in other sections of the country such as “Michigan, Minnesota and Alabama, coupled with the wonderful extension and cheapening of transportation, have resulted in the past few years in driving out the charcoal furnaces and thus leaving no place for the lean ores of Maryland.”¹⁴⁵



Looking back at history, it is easy to see the impact that industrial use had on Nassawango. It is not difficult to imagine the changes that occurred in the Nassawango ecosystem through erosion, groundwater seepage, direct iron runoff from the furnace stack, and improper methods of waste disposal of the iron slag. The chemical process of the reduction of iron ore also tended to leave a residue of silica, alumina, lime, and other by-products in the slag. The chemical composition of this leftover slag was mainly based on the original chemistry of the ore, but “the addition of special fluxes and the contamination with fuel ash and furnace lining” also influenced its composition.¹⁴⁶

Walking through the forest today there are still faint remnants of the slag heaps that accumulated during Nassawango’s most “productive” era, an approximate twenty-

Miller to Andrew M. Jones dated August 20, 1845 (Box 1). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹⁴⁵ Maryland Geological Survey, Vol. I. 1897. Found in *Archives of Maryland* Vol. 423, p. 219.

¹⁴⁶ Geochemical research has been done to try and determine the environmental impact of iron production from estimations of the charcoal consumption, the non-metallic elements from the ore that were concentrated in the slag phase, and the metallic elements gathered in the iron phase. I. Joosten, J.B.H. Jansen, and H. Kars, “Geochemistry and the Past: Estimation of the Output of a Germanic Iron Production Site in the Netherlands” (*Journal of Geochemical Exploration*, Vol. 62, 1998, 129-137.)

year operation. A modern opinion on the iron industry can be found in a statement made by the Environmental Protection Agency. Although not specifically referring to the iron industries of the past, they nevertheless ranked the iron industry (along with the steel industry) as one of “the largest industrial sources of toxic environmental contamination.”¹⁴⁷

The waste was not limited to the ground, it was airborne as well. Black soot and iron ore dust shot out of the furnace stack day and night. It is likely that the dust affected the physiological processes of many Nassawango trees by impeding proper leaf function. In a recent study on the effect of iron dust on mangrove trees, the small dust particles were not shown to enter and block the stomata, they did, however, increase leaf temperature, shading, and they also interfered with plant photosynthesis and transpiration.¹⁴⁸ In addition, the iron fly ashes and dust probably affected the topsoil horizon by increasing its magnetic properties.¹⁴⁹ Burning flames also gave off chemical varieties of gases from the formation of the iron due to the combination of products

¹⁴⁷ This statement can be found in an article which discusses the changing environmental strategies of the steel and iron industries over time, attempting to show that these industries have cleaned up their production process and are no longer the environmental hazards that they once were. B. Clemens, “Changing Environmental Strategies Over Time: An Empirical Study of the Steel Industry In the United States” (*Journal of Environmental Management*, Vol. 62, 2001, 221-231.)

¹⁴⁸ E.I. Paling, G. Humphries, I. McCardle and G. Thompson, “The Effects of Iron Ore Dust on Mangroves in Western Australia: Lack of Evidence for Stomatal Damage” (*Wetlands Ecology and Management*, Vol. 9, 2009, 363-370.)

¹⁴⁹ This study claims that magnetic measurements on soils can be used to determine the affects of the iron industry on soils. Magnetite is present in the metallurgical and industrial dusts and fly ashes that come out of the furnace. For more specific details on the magnetite increases in topsoil horizons for areas surrounding iron furnaces and the effects on the soil from the industrial dusts and ashes, see Hélène Lecoanet, Francois Léveque and Jean-Paul Ambrosi, “Magnetic Properties of Salt-Marsh Soils Contaminated by Iron Industry Emissions (Southeast France),” (*Journal of Applied Geophysics*, Vol. 48, 2001, 67-81.)

within the furnace.¹⁵⁰ Moreover, fueling the entire industrial movement at Nassawango was the cypress swamp and its forest of trees.

Nassawango's existence prior to this industrial land-use regime was altered as the ore was mined and dredged out of the creek, the trees were cut down, and the smoke and smell engulfed the area. This swamp environment likely had high levels of iron-making by-product accumulated in its sediments, which were then trapped in the surviving vegetation, as is typical in wetland systems.¹⁵¹ As a result, the soil chemistry of the forest changed. Sediment levels likely rose in the creek causing the waters to become turbid. Sediments reduced water clarity, smothered bottom organisms, and clogged waterways.¹⁵² Without canopy cover from the old growth trees, the soil temperature was altered. These increased levels of human activity resulted in significant ecological consequences; changes in soil pH and average soil temperature all had ultimate impacts on ecosystem sustainability.¹⁵³

Killing the trees removed the roots from the ground, which caused the soil saturation level to increase with rainfall and ground stability to decrease. With the nutrient levels already diminished due to the elimination of detritus on the forest floor, the nutrients that were left were washed out of the soil with the rainwater as it drained into the creek. The organic matter along the forest floor was much reduced without the fallen dead leaves and branches. Without that decaying matter, not only were nutrients

¹⁵⁰ Furnace operators even added "nitrate of soda" that was acquired from South America to help with the quality of the iron. Also potash or potassium carbonate was a typical by-product of burnt forests. Correspondence from Richard Jones to Benjamin Jones dated January 15, 1845 (Box) Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania. See also Wennersten, *The Chesapeake: An Environmental Biography* for contamination information.

¹⁵¹ Rogers and McCarty, "Climate Change and Ecosystems of the Mid-Atlantic Region."

¹⁵² *Ibid.*

¹⁵³ McAtee and Drawe, "Human Impact on Beach and Foredune Microclimate on North Padre Island, Texas."

not recycled back into the system, but other creatures could not survive such as fungi, worms, snails, and the microscopic anaerobic and aerobic bacteria that kept the soil and forest healthy.¹⁵⁴ Those small creatures were what made the forest livable for the bigger creatures. On a larger scale, all of the industrial changes helped to affect climate, too; winters were colder and summers were hotter. In general, the seasons in this region were recorded as more extreme than ever before. Contributing to this change in temperature was the deforestation of the Chesapeake Bay region altogether. By the mid-nineteenth century over 80% of the land surrounding the bay was cleared.¹⁵⁵ Climate variability may have affected the Nassawango ecosystem due to its already weakened state from the intense agricultural and industrial activity.¹⁵⁶

As years passed, a slow, “natural” transformation overwhelmed the furnace land. It entered into its Era of Abandonment. This was the time from approximately 1860 through 1962, when few if any descriptive records exist because the land was abandoned by capitalist interests, which had been the bulk of its written history accounts of human use thus far. Information can be surmised about occurrences during this Era of Abandonment from the knowledge of ecological succession in the region.

The swampland became an area of rejuvenation and new life where the natural resources that had been harvested for agricultural and industrial utilization were able to grow uninhibited by human intervention. The first forms of life were likely opportunistic plants and animal species, those that were able to live in a variety of conditions, even on

¹⁵⁴ Mitsch and Gosselink, *Wetlands* and Dodson, et al., *Ecology*.

¹⁵⁵ See, Antonio Mannino, Forrest Hall, Frank Hoge, Randy Kawa, Robert Knox, Charles McClain, Elizabeth Middleton, Robert Swift, Alexander Chekalyuk, Lawrence Harding, John Moisan, and Tiffany Moisan, “The Chesapeake Bay-Mid-Atlantic Bight (CMAB): A Proposed NACP Coastal Ocean Field Intensive Site,” 2003. See also Silver, *A New Face on the Countryside*.

¹⁵⁶ Rogers and McCarty, “Climate Change and Ecosystems of the Mid-Atlantic Region.”

disturbed or changed lands.¹⁵⁷ As the plants and sapling trees grew, the soil and microbial matter increased in number as well, beginning the cyclic way of life of the forest. Each aspect of the forest was dependent on another for evolutionary success. From the smallest creatures to the largest, there was an ecological cycle that altogether enhanced the health of the land. These natural processes took place without any human interference or human influence for approximately the next one hundred years. The land passed through the hands of different owners, but the furnace was not fired and the trees were not cut. The canal, small bridges and dams, saw and gristmills, millponds, and the Nassawango Furnace stack and building structures became overgrown and abandoned. The land was not utilized for its mineral content nor for its timber supply. Ecological niches were filled, leaves fell, death decayed, and life reproduced.

There is a description written in 1939 of a neighboring swamp that can give an idea as to the condition of Nassawango at this time of relative abandonment.¹⁵⁸ It describes the Pocomoke Swamp and its surrounding land; it serves as a description of the possible states of Nassawango's rejuvenation process. For example, the cypress trees were stated to be "mostly of second growth with the exception of a few gnarled and misshapen specimens." It continued to state that the bald cypress trees were "rather uniformly" eighty years of age.¹⁵⁹ This was an accurate estimation, because if the trees in Nassawango's swamp did indeed begin to re-grow in between the years 1850-1860, when the Jones-Spence business relationship failed, then the age of most of the trees in Nassawango and its surrounding area would be along the lines of seventy to eighty years

¹⁵⁷ D.R. Foster, G. Motzkin and B. Slater, "Land-Use History as Long-Term Broad-Scale Disturbance: Regional forest dynamics in Central New England (*Ecosystems*, Vol. 1, 1998, 96-119.)

¹⁵⁸ Beaven and Oosting, "Pocomoke Swamp: A Study of a Cypress Swamp on the Eastern Shore of Maryland."

¹⁵⁹ *Ibid.*

old. This article gives strong support to the intense deforestation that occurred during the Iron Era.

Due to its close proximity, sections of the Pocomoke forest likely contributed to the early and most productive stages of iron-making at Shade Furnace, and for that reason the trees were very near in age to those of neighboring Nassawango. The article also discusses the areas “near where bog iron ore was dug” and stated that the decayed stumps and logs were covered with a variety of plants such as *Mitchella repens* (partridgeberry), *Trillium sessile* (toadshade), *Anemone quinquefolia* (windflower), *Viola cucullata* (blue marsh violet), to name a few species. The article goes on to describe the many species that lived in the area, such as *Phragmites communis* (common reed) – found “in pure stands at the mouth of Nassawango Creek but is rare elsewhere” – *Rosa Carolina* (pasture rose), *Quercas nigra* (willow oak), *Liriodendron tulipifera* (tulip poplar), *Fagus grandifolia* (beech), *Sambucus canadensis* (elderberry), *Dryopteris intermedia* (fancy fern) and many other tree and plant species. The article concludes by stating that the area was of “particular botanical interest” and it would be wise to allow it to remain that way.¹⁶⁰ This article accurately described the likely state of the land in the Era of Abandonment, but in its conclusion it also stated that the land was “little disturbed by man.” This is an apparent contradiction since “man” was responsible for the deforestation connected to the furnace. Thus this lone article also seems to be one of the foundations for the idealized perceptions that would come to dominate Nassawango and its land-use in its Preservation Period.

¹⁶⁰ *Ibid.*

Summary

Nassawango Creek experienced its second shift in land-use when iron ore was discovered in the creek bed and the Maryland Iron Company, led by Mark Richards, proceeded to construct an iron furnace. After the land was sold to Benjamin Jones, it became an industrial hinterland of commodity exchange for the markets of eastern cities such as New York, Baltimore, and Philadelphia. Under distant ownership, Nassawango was viewed simply as a money-maker for Jones and his local Worcester County tenant, Thomas A. Spence. Both parties were interested in extracting the necessary resources from the land in order to make a fast profit.

The landscape was shaped and impacted greatly during the Iron Era. Acres of its forest were cut and converted into charcoal to heat the furnace, the creek and the soil were saturated with iron slag runoff, and the air was filled with chemical gases, not to mention the heavy smoke both from the furnace hot-blast system and the burning of the trees. Not only was the land exploited, but people were as well. Slaves were the main source of labor, and Spence had almost triple the amount, deemed necessary at the time, for the iron enterprise to succeed. Nassawango, however, still failed as an iron-making hinterland despite its expected productivity.

After the last blast was fired, the land was abandoned for approximately one century. It was during this Era of Abandonment that the saplings, soils, animals, and waters had time to grow, replenish, repopulate, and purify. As mentioned earlier, there is one known document that describes, in part, the ecology of the area during this period of abandonment.

Industrial values on how to use the land were the driving force that determined this land-use regime at Nassawango. It was yet another way of perceiving and shaping the land than those that had come before, but just as with the Contact Period a return to the former cultural vision of nature was no longer possible in quite the same way; the Iron Era led to the next stage of land utilization. Nassawango would come to be transformed into a resource presented to the public for preservation, with idealized and carefully chosen language.

Preservation Period
1962–2000

“There’s something about vines. They work their way into things, burrow into the night until they have a foothold and then, when they have the chance, they take over. The human presence will be diminished, the vines will return, and the world will begin again.”¹⁶¹

For approximately one hundred years Nassawango was left to the vines with no human tilling, planting, damming, cutting, or living. There was essentially no human use of the land. It was these vines, however, that made it possible for the third stage in Nassawango’s land-use history. This third different, yet connected way of perceiving, utilizing, and shaping the land came about in the 1960s and is still present today in 2004. Several people from the local community—Frank R. Jones, Kathy P. Fisher, and Joseph and Ilia Fehrer—managed to convince Worcester County, the state of Maryland, and The Nature Conservancy (TNC), an international non-profit organization, that the furnace and Nassawango Creek were worth preserving.

This is a different kind of land-use than what Nassawango had experienced in the Contact Period and in the Iron Era, yet this age of historical and ecological preservation is one that stems directly from the English settlers, the Pocomoke and Assateague tribes, the “ironing” at the Shade Furnace, and the land’s century of solitude. Preservation could not have come to fruition the way it did without this chronology of Nassawango’s history. As with the Contact Period and the Iron Era, this Preservation Period also began in a time of cultural change. In this case, in the 1960s, people were encouraged, even on a small local level, to get together to cause big change at Nassawango. This change was the preservation of the land.

¹⁶¹ For more on Tony Beckwith’s vision of humanity and the natural world see John Hanson Mitchell, *Ceremonial Time* (New York: Anchor Press, 1984.)

Perceptions of nature also guided this new kind of land-use regime. Nassawango experienced two kinds of preservation: historical and ecological. The ultimate goals of the Furnacetown Living Heritage Museum and TNC, the organizations involved, were to preserve Nassawango according to their own perceptions of what it represented historically and ecologically. They often disagreed about how Nassawango should be utilized. By developing their own vision of Nassawango and also of the furnace, an idealized image of the land emerged that necessitated selectively intertwining fact with fiction.

The historical movement began in 1962 with Frank R. Jones, a descendent of the Iron Era's Benjamin Jones family. Frank Jones' interest in the land was based around the furnace stack and his family's historical connection to it, even though he was not the owner of the property. He wanted the public to support his goal of restoring and preserving the furnace and its history. It is unknown if Frank R. Jones knew that Benjamin Jones had been the owner of the Nassawango Furnace throughout its twenty-year iron-making period, or if he believed that Benjamin Jones had only owned it for one year and that Thomas A. Spence had been the actual owner, as county legend dictated. Either way, the irony that the Jones family played a key role in bringing to reality two somewhat opposing modes of land-use at Nassawango illustrates larger cultural changes, and also reflects the apparent physical changes that occurred on the land.

This twentieth-century effort was an attempt to restore the legacy that Benjamin, Andrew, and Richard Jones created in their ownership of the Nassawango property. It would have been quite fitting, according to the ironmongering Richard Jones, that Frank Jones promote their good name. In a letter written in 1850, Richard told his brother that

he would “endeavor to preserve the good name that has descended to us untarnished either before the world or in the mirror of my conscience which reflects back with more keenness the dark spots than the bright. May he be foremost to defend the throne and save his Father’s honor and his own.”¹⁶² In Frank R. Jones’s case, the throne he was defending was his forefather’s furnace, and he was defending it against the land. It was the land’s forests and wildlife that, through time, were hiding and covering what Jones felt was his family’s piece of history—it was the furnace stack that Jones wanted to preserve.¹⁶³

Jones was a retired employee of the Maryland Department of Forests and Parks. In order to “historically restore” Nassawango he set out to find an organization to take on the task of preservation; that organization was the Worcester County Historical Society (WCHS).¹⁶⁴ In the span of two years, from 1962 to 1964, he made substantial progress in preserving the stack. He contacted the Fosters, the current owners of the twelve acres where the furnace stack stood. They too began to make public their interest and intrigue with regard to the history of the furnace, and they wrote a letter to an archaeological consultant in Massachusetts describing the furnace and requesting advice as to how to proceed (since it was on their personal property). The consultant was the well-known New England archaeologist, Roland Wells Robbins. He was an expert on colonial and early American landmarks and was known for the restoration of several famous sites. The discovery for which he was given the most credit was locating the original site of the

¹⁶² Correspondence from Richard Jones to Andrew M. Jones dated July 11, 1850 (Box 3). Jones and Taylor Family Papers. Housed in the Historical Society of Pennsylvania.

¹⁶³ J.R. McNeill, *Something New Under the Sun: An Environmental History of the Twentieth Century World* (New York: W.W. Norton and Company, 2000.) McNeill discusses sacrifice areas. These were areas of ecological importance that were sacrificed for the good of the country. Once the country had become “developed” it could afford to preserve these areas. In a way, Nassawango was a sacrifice area for the U.S. as it was deforested and made to serve the development of the larger eastern cities of New York, Baltimore, and Philadelphia. Now this previous area of sacrifice could be honored for its significant role in the development of this country’s history.

¹⁶⁴ *The Daily Times*, “Land Given To Historical Society,” January 11, 1982.

Walden Woods cabin, belonging to the author and natural historian, Henry David Thoreau. He was also well known for his work with the Saugus Ironworks restoration in Pennsylvania and the Katahdin hot-blast furnace in Maine.¹⁶⁵

With the Fosters' permission, Jones requested financial support from the Snow Hill Civic Club—of which he was a member—and managed to hire prisoners from the local penitentiaries to supply the labor to clear away the overgrowth of trees and vines from the land immediately surrounding the stack. This was one of the first steps necessary in promoting preservation of the furnace. He also attempted to deter vandals by placing a chain link fence around the stack. The prisoners were armed with the tools to remove the plant growth, and to their surprise, there were even trees growing out of the furnace stack. After cutting down the furnace trees, they sprayed herbicide into the furnace and along the outside area closest to the brick structure to prevent any more growth of weeds, vines, or saplings.¹⁶⁶ As the preservation project got underway more people became interested in Frank R. Jones' effort.

Robbins also responded with interest to the Fosters' letter and suggested they deed the land to a non-profit organization in Worcester County, so in 1962 the Fosters donated the twelve-acre furnace land to the Worcester County Historical Society.¹⁶⁷ Robbins was now interested in planning the restoration of the Nassawango Furnace, but the WCHS was an organization with little funds. The president of the Historical Society was the Honorable Daniel Prettyman, and he was now the main contact for Robbins and all of the restoration and eventual preservation efforts of the group. The Nassawango

¹⁶⁵ *Worcester County Messenger*, December 21, 1977.

¹⁶⁶ "Plan for Development for Nassawango Furnace," Furnacetown Uncatalogued Archives, n.d.

¹⁶⁷ *Ibid.*

Furnace managed to enter the National Register of Historic Places in the late 1960s.¹⁶⁸ At this point, however, there was a lapse when preservation came to a halt. It is unknown if this happened due to the lack of WCHS money to proceed or because of a loss of public interest, but for whatever reason, nine years passed, and Jones and the WCHS' public efforts ceased.

At the close of these nine years, two naturalists, Joseph and Ilia Fehrer, were also becoming interested in Nassawango, but for more ecological reasons.¹⁶⁹ In 1974 as trustees of the Worcester Environmental Trust, the Fehrer family joined the Maryland chapter of TNC. TNC was founded in 1951 in the District of Columbia for scientific and educational purposes. It is a non-profit, tax-exempt corporation by law. "The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive."¹⁷⁰ The Fehrers joined TNC "hopeful that perhaps some day [they] could work with [TNC] in acquiring some of the unique resources in this area" for preservation.¹⁷¹ Several months later Fehrer stated that he wanted TNC's cooperation in "protecting outstanding natural areas" in Worcester County that "may be available for acquisition."¹⁷²

TNC mainly obtains land and support through "Gifts of Land" which are given in various forms: basic charitable donations, cash contributions, unappreciated property,

¹⁶⁸ Interview with Kathy P. Fisher by Mercedes Quesada-Embid (author) 21 November 2003 at the Furnacetown Living Heritage Museum. See also "Data to Support A Bill to be Introduced Before the Maryland State Legislature for Support for Stabilization and Restoration Work on the Nassawango Iron Furnace," Furnacetown Uncatalogued Archives, n.d.

¹⁶⁹ Joseph was a retired land acquisition specialist.

¹⁷⁰ "50 Years of Saving Great Places," The Nature Conservancy, Special 50th Anniversary Issue. January/February 2001. Furnacetown Uncatalogued Archives.

¹⁷¹ Correspondence from Joseph W. Fehrer to William F. Nickel, III dated May 14, 1974. Nickel was the Coordinator of the Conservancy's Chesapeake Bay Program. Furnacetown Uncatalogued Archives.

¹⁷² Correspondence from Joseph W. Fehrer to William F. Nickel, III dated November 6, 1974. Furnacetown Uncatalogued Archives.

appreciated property (long term), or gifts of land by will. TNC accepts “into its care land judged to be of ecological, environmental, scientific, or educational value” and due to their non-profit status the donors are able to receive a tax deduction and “other financial advantages for natural area preservation.”¹⁷³

In 1976, TNC moved on to the Eastern Shore of Maryland, but had not yet purchased or been given any land along Nassawango Creek. They were getting closer to the area due to their 54-acre purchase of a “forested inholding” along the Pocomoke River.¹⁷⁴ In December 1977, the Fehrer’s requested that “the swamp along Nassawango Creek,” currently owned by different residents of Worcester County, be considered for its “ecological value...rare bird and endangered plant species.” The Fehrer’s offered to take people by canoe to see the “relatively inaccessible” land.¹⁷⁵ In 1978, E. Stanton Adkins, president of Adkins Lumber Company in Salisbury, MD, a neighboring town, donated 154 acres to TNC. This land was named “Adkin’s Gift” and became an official TNC preserve. It was described as “prime bald cypress swamp forest.”¹⁷⁶ This is an example of the cultural change that had taken place: viewed primarily as a money-maker in the previous eras, it would have been unheard of for any portion of Nassawango to be donated for preservation. Land-use perception had shifted to include historical and ecological outlooks as well as those monetary.

¹⁷³ The Nature Conservancy publication, “Gifts of Land” pamphlet. Furnacetown Uncatalogued Archives.

¹⁷⁴ “The Nature Conservancy Annual Report 1976.” p. 15. At this point they had acquired a 400-acre sanctuary in Caroline County, planned to obtain another in Talbot County and expected within a few weeks to announce the purchase of a “pristine 2,500-acre tract in Dorchester County that would eventually be added to the Blackwater National Wildlife Refuge there. Frank Megargee, “Nature Group Buying Shore Areas for Game Refuges,” (*The Evening Sun*, November 11, 1976, Vol. 134-No. 22.) Furnacetown Uncatalogued Archives.

¹⁷⁵ Correspondence from Ilia Fehrer to David Weissert, TNC Maryland Chapter Chairman, dated December 11, 1977. Furnacetown Uncatalogued Archives.

¹⁷⁶ “Newsletter of the Maryland Chapter: Land Preservation Through Private Action,” Spring 1979. Vol. 3(1). Furnacetown Uncatalogued Archives.

In the 1978 annual TNC report the following description was written of Nassawango, “It’s rare to find a piece of real wilderness on the northeast or mid-Atlantic coast of the U.S.; rarer still to locate a prime bald cypress swamp harboring a highly uncommon bird...the Swainson’s warbler...the only locality where this warbler is found in the state.” The article continued to describe Nassawango, “A forest comprised of sweet gum, willow oak, loblolly pine, and maple trees mixed with bald cypress...several rare or unusual plant species, such as crossvine and dwarf trillium” and concluded by stating that the Smithsonian Institution ranked the area as “a unique semblage of plant and animal species found nowhere else in the state.”¹⁷⁷ This report portrayed Nassawango as a “wilderness” giving the impression that it was untouched by humans and that its “unique” attributes came from the lack of human influence on the land.

This initial acquisition of Nassawango land by TNC helped to encourage a dialogue between the Worcester County Historical Society’s Furnacetown branch—which separated and became Furnacetown Incorporated and eventually the Furnacetown Living Heritage Museum in the 1980s—and TNC’s Maryland chapter. As TNC became more interested in gaining acreage at Nassawango for ecological preservation, interest in the historical preservation of the furnace stack and its surrounding twelve acres also gained new momentum, and the two forms of preservation were temporarily at odds.

During TNC’s acquisition period in 1977 Kathy P. Fisher, member of WCHS, active member of the Furnacetown organization and local to the Snow Hill area, contacted Robbins to let him know that “efforts are being made to preserve and make attractive the old furnace site for public use and appreciation” despite the almost decade-long lapse in activity that had passed. Robbins responded by stating that he was anxious

¹⁷⁷ “The Nature Conservancy Annual Report.” 1978. Furnacetown Uncatalogued Archives.

to lend his time and efforts, but needed funding to support his research. Robbins proposed restoration ideas to Furnacetown and to the WCHS, but his suggested plans quickly gained opposition from the Fehrer family.¹⁷⁸

Joseph Fehrer contacted WCHS and stated that some of the intended plans outlined for the furnace property should be reconsidered. Fehrer was against the planned re-establishment of the millpond and the creation of a fifteen-foot wide nature trail. To accomplish this WCHS was planning to clear and flood about 300 acres along Nassawango Creek.¹⁷⁹ Fehrer stated that he wished greater care would be taken in the restoration of the area. He claimed that the “beauty and natural interest of this area in its present state” was “outstanding” and that a “type 7 wetland” had developed.¹⁸⁰ Fehrer used this numeric classification system of the U.S. Fish and Wildlife Service in order to show WCHS the reasons to reconsider their some of their plans. The different “type” categories distinguish between the many different kinds of wetlands and their site characteristics. A “type 7” wetland is an inland, wooded, freshwater swamp and, in particular, Nassawango consisted of a diverse grouping of cypress, holly, red maple, sweet gum, river birch, and oak, just to name a few trees.¹⁸¹

Fehrer continued to remind WCHS that this area had emerged as a wildlife habitat for songbirds, waterfowl, and even rare birds like the pileated woodpecker, Swainson’s

¹⁷⁸ Correspondence from Kathy P. Fisher to Roland Wells Robbins dated March 2, 1977 and Correspondence from Robbins to Fisher dated March 19, 1977. Furnacetown Uncatalogued Archives. Robbins wrote letters in 1962, 1963, 1965, 1968, 1971 and 1973 in the “dormant” period trying to maintain contact with WCHS and Furnacetown, Inc., but there was never any funding. Kathy P. Fisher is currently the Director of the Furnacetown Living Heritage Museum.

¹⁷⁹ “The Nature Conservancy Nassawango Creek Nature Preserve: How it Began,” Spring 1992. From the files and Recollections of Ilia J. and Joseph W. Fehrer, Sr.

¹⁸⁰ *Ibid.* This special type of wetland developed after the close of the Iron Era.

¹⁸¹ *Ibid.* and Mitsch and Gosselink, *Wetlands*.

warbler, prothonotary warbler, and wood ducks. Endangered plants would also be threatened if the millpond and fifteen-foot wide nature trail were created.

The aquatic resources of Nassawango Creek included anadromous fish—river herring, yellow perch, white perch, and shad—and Fehrer claimed that these fish ascend well into the fresh water for spawning purposes, but could be negatively affected by the restoration efforts.¹⁸² Fehrer claimed that reconstruction of the artificial pond would “destroy this valuable environment” and cypress swamps in Worcester County had already been “reduced through drainage and development” enough. He suggested other alternatives to the pond such as an interpretive sign for the public and completed his correspondence with: “Due to lack of complete data, reconstruction of the furnace site and village can never be totally authentic, and future operation of the furnace for smelting bog iron is unlikely. Why, then, destroy a valuable wooded swamp to simulate the original pond? I feel strongly that the destruction of a wooded swamp area for historical reconstruction of a pond is not a fair tradeoff.” With regard to the nature trail, Fehrer concluded by stating that he hoped the remaining trail work would be done “with more sensitivity toward [ecological] preservation, rather than destruction of nature” and that the historical society remove all of the trash their workers have accumulated because it is only an invitation for visitors to litter as well.¹⁸³

Response to this letter showed the differences in perspective between TNC’s ecological preservation campaign and Furnacetown’s historical preservation goal. These were different ways of perceiving the land and thus incorporated seemingly opposing

¹⁸² Correspondence from Joseph Fehrer to Fred Brueckman dated December 17, 1977. Furnacetown Uncatalogued Archives.

¹⁸³ Correspondence from Joseph Fehrer to Fred Brueckman, then president of WCHS dated November 7, 1977. Furnacetown Uncatalogued Archives.

uses of the land. The disputes arose from the predicted impacts the various uses would have on Nassawango: TNC, through the Fehrer family, defended ecological preservation and Furnacetown, through Robbins archaeology, focused on historical preservation mainly around the furnace stack and its early operation. These differences in opinion came from the way these two groups wanted to portray Nassawango, but neither was entirely fact or fiction. Each had a blend of both, creating an idealized image and an image that would be easiest to “sell” to the public. With public support of their preservation movement, both groups could not only achieve their ecological and historical goals, but they could maintain them.

Robbins was sent a copy of Joseph Fehrer’s letter by Furnacetown and WCHS, and responded by saying that Fehrer’s letter was “long” and that “Joe would like to establish a natural habitat predating the area’s first white settlers’ occupation.” Robbins could not understand why Fehrer was in opposition to the millpond and the wide nature trail, but implied that it would be best to try and pacify Fehrer. Robbins continued by advising the historical organizations, “...DON’T TALK ABOUT ANYTHING ELSE TO DISTRACT HIS [Fehrer’s] THOUGHTS! LET HIM THINK YOU ARE CARRYING OUT HIS IDEAS AND RECOMMENDATIONS!” Robbins also claimed he had been waiting sixteen years for this project to “forge ahead,” and it was from this excitement that he felt justified in his plans for Nassawango.¹⁸⁴

Fehrer, on the other hand, was approaching this issue from a different side of the preservation movement at Nassawango. One member of Furnacetown even referred to Fehrer as one of the extreme people who give “the environmental movement a reputation

¹⁸⁴ Correspondence from Roland Wells Robbins to John Graham dated December 27, 1977. Furnacetown Uncatalogued Archives.

for being unreasonable—which results in less support from the public and legislators.”¹⁸⁵ Fehrer thought that it was possible to preserve the historical, along with the preservation of the ecological, but that the ecological preservation efforts took precedence because restoration of the furnace was never going to be authentic to the 1830s industrial site. He wanted to be involved in the decision-making process through TNC and thought that historical and ecological preservation did not have to be in competition. Suddenly in 1978, Furnacetown voiced a dramatic change in sentiment by agreeing with Fehrer that there was no need for competition simply because they did not share the exact same vision. They declared that TNC’s participation was welcome and that they were certain “a reasonable compromise [could] be made between historic interpretation of an early industrial site and the natural assets of the Nassawango Cypress Swamp.”¹⁸⁶

Such conflicts, however, continued to occur as the furnace restoration project got underway. For example, the Fehrers were concerned with the manner in which Furnacetown was planning to develop its twelve-acre parcel and communicated this concern in June 1978 to TNC’s Mid-Atlantic Region Director:

About Nassawango Creek—one of the most beautiful natural areas in the county—our local county extension agent, George Monroe, who is secretary to the infamous Pocomoke River Advisory Committee... who is the man responsible for cutting 15 ‘ wide ‘nature trails’ through the forest north of the Nassawango Iron Furnace, and who is the man responsible for a vast amount of clearing around the Furnace and for draglining an old channel below the Furnace which hadn’t been used for more than 100 years and which had become grown up with beautiful cypress trees and knees, etc. etc.,—(inhale!)...we are dealing with an aggressive man with no appreciation of natural values...I fear he might take steps to do some clearing in the present conservation zone—as he

¹⁸⁵ Correspondence from John L. Graham (Furnacetown) to Steve Hamblin (TNC) dated August 22, 1978. Furnacetown Uncatalogued Archives.

¹⁸⁶ Correspondence from John L. Graham (Furnacetown) to Steve Hamblin (TNC) dated August 22, 1978. Furnacetown Uncatalogued Archives. Simply using the term “assets” shows the difference in perspectives of preservation at Nassawango.

intimated last night—which would destroy the enchanting natural beauty of the area as well as wildlife habitat, and possibly some endangered plant species.¹⁸⁷

Within four years Monroe became the director of the Furnacetown Foundation, and it was not until the early 1980s that the two organizations realized that true cooperation was necessary in order to continue as neighbors at Nassawango. There would be more likelihood for success if they decided to cooperate. Prior to this realization, they functioned as separate entities. Historical preservation grew within its twelve-acre border while TNC expanded outward and continued to acquire more land surrounding the furnace. Due to the contrasting efforts in their goals of preservation, it was interesting to see the differences in the way each preservation organization viewed the Nassawango landscape and how they chose to present it to the public. As TNC publicized its land acquisitions at Nassawango, the language with which they described the land became ecological propaganda for the region they were trying to preserve. For example, a TNC newsletter wrote, “This tract is large enough and has been so lightly used by man that it retains the authentic plant community commonly referred to as a lowland swamp forest.”¹⁸⁸

The language TNC chose to use in this case was based more on their chosen fictive perceptions of Nassawango than on the actual history of the land. To claim that an area was “lightly used” when grist and sawmills, dams, canals, and a brick furnace remained on the landscape is an example of the selectivity that was used in promoting TNC’s preservation goal. It was the romanticized way in which the people of these

¹⁸⁷ Correspondence from Joseph Fehrer to Steve Hamblin dated June 9, 1978. Furnacetown Uncatalogued Archives.

¹⁸⁸ “Newsletter of the Maryland Chapter: Land Preservation Through Private Action.” Spring 1979. Vol. 3(1). Furnacetown Uncatalogued Archives.

organizations chose to perceive the land that dictated the manner that they and their public supporters were to view and understand it.

TNC viewed the land as “our version of the California Redwoods program” with “many rare and environmentally sensitive bald cypress trees, some of which are more than 200 years old.”¹⁸⁹ In its Nassawango “Bald Cypress Rescue Project” campaign TNC also described the land as a “1,500-year-old cypress swamp” that needed to be “saved.” According to the TNC Director of the Nassawango mission, “Man has an inventive mind. He can find 10,000 ways to destroy a natural area but there’s only one way to save it.”¹⁹⁰

As history has shown, the oldest trees in this area were approximately one century old, growing since the abandonment of the furnace operation in 1860, but it was the way in which TNC wanted to use the land and the way in which they wanted others to perceive the land that guided the use of this language and its overall efforts toward preservation.

As the campaign gained momentum, TNC continued to speak out on its preservation goal of Nassawango using terminology that implied the land had not undergone the historical transformations of the preceding eras of human use. For example, in the summer of 1980 TNC stated that Nassawango Creek was one of the few “relatively untouched areas” and that TNC “seeks undisturbed areas with rare species” for the “preservation of ecological diversity.”¹⁹¹ In a TNC newsletter, the descriptive language on Nassawango stated that it was “a remnant of the towering cypress wilderness that greeted the first settlers” and that “one of the last true pieces of wilderness in the

¹⁸⁹ “Nassawango Creek Expansion Set,” *The Daily Times*, May 30, 1980.

¹⁹⁰ Quote given by Steve Hamblin of TNC. “Campaign Begins to Save a 1,500-year-old Cypress Swamp,” *The Daily Times*, May 23, 1980.

¹⁹¹ “Group Plans Purchase Along Creek,” *The Daily Times*, July 17, 1980.

state of Maryland” was now “near the brink of disaster” if it was not protected from the disastrous effects “from just one pass of the chainsaw, forever altering this 80,000 year-old relic of the Pleistocene age.”¹⁹² This same “Pleistocene” ecological verbiage was seen in at least three different sources throughout the course of this research. It was used to encourage prospective landowners to donate their land in an effort to keep the land “unchanged” so that “Nassawango will remain that way forever.”¹⁹³

As recently as May 2003, a public television special was made about how TNC came to preserve the site. It used much of the same ecological language as before to describe Nassawango, such as the landscape being a remnant of the Pleistocene age, cypress trees as redwoods, and TNC’s vision that this was the “last piece of wilderness in the Mid-Atlantic” and the place “most worth preserving in the state of Maryland.” The heads of the project, Steve Hamblin and Bill Bostian, discussed the rare species of flora and fauna, the “400-500 year old cypress trees,” and the beauty of the landscape TNC preserved with the help of science and the land’s own “lack of disturbance.” The only historical reference they made was to the “Indians...that almost seem as if they will appear around the bend...” just as they had “one thousand years” prior. TNC has successfully preserved Nassawango, but accurate history played little to no role in their fictive representation of this landscape.¹⁹⁴ It is interesting to think about the success the organization may have had if in its campaign it had incorporated the actual historical events as they originally unfolded. Perhaps they would have had even more success.

¹⁹² “Newsletter of the Maryland Chapter: Land Preservation Through Private Action.” The Nature Conservancy, Summer 1980. Furnacetown Uncatalogued Archives.

¹⁹³ Eric Siegal, “Nature’s Treasures: Conservation in Maryland” and “Saving Open Land,” *The Sun Magazine*, July 6, 1980. Furnacetown Uncatalogued Archives.

¹⁹⁴ *Land Between Two Waters*. Created by Maryland Public Television: Outdoors Maryland. Aired 27 May 2003, videocassette.

TNC wanted to protect “Maryland’s last unprotected wilderness” and made every effort in its campaign to do so. It used ecological and economic reasons to augment the Nassawango Preserve Campaign’s progress. The more members and donors TNC had in its Maryland chapter, the better their chance of setting aside the desired acreage (eventually reaching over 5,000 acres in the 1990s). The challenge of Nassawango’s ecological goal was achieved over the following fifteen years with descriptive statements such as: Nassawango has “Maryland’s last extensive forest of Atlantic white cedar, 300-year old cypress trees that can live to be 2,000 years old, eighteen species of nesting warblers, three species of carnivorous plants, river otters, laurel-leaved greenbrier, resurrection fern, carpenter frogs, bald eagle families, mink, blue heron...”¹⁹⁵

As TNC was steadily acquiring land and support for Nassawango’s ecological preservation, so too was Furnacetown making progress on preserving the history of the furnace stack. In 1982, Furnacetown was given an additional parcel of land, containing 13.8 acres, by the Salisbury, MD office of the Pennsylvania-based Glatfelter Pulpwood Company.¹⁹⁶ Even until the late twentieth century, Nassawango was still serving Pennsylvania as a prospective distant hinterland of natural resources, in this case, for its lumber.

TNC also acquired land from Glatfelter Pulpwood (267.75 acres), which, in addition to other acquisitions, helped to stabilize the Nassawango campaign. TNC stated that “the [Maryland chapter of the] Conservancy had dropped all other projects when it

¹⁹⁵ “Newsletter of the Maryland Chapter: Land Preservation Through Private Action.” The Nature Conservancy, Fall 1981. and “Timber Market Threatens Cypress Trees,” *Maryland Coast Press*, January 30, 1981. The mink reference can be seen in a “Nassawango Forest is Donated,” *Worcester County Messenger*, December 30, 1981. The heron reference can be found in “Nassawango Wonderland,” *Maryland Coast Press*, June 26, 1981.

¹⁹⁶ “Land Given to Historical Society,” *The Daily Times*, January 11, 1982.

began the Nassawango project” and due to their required financial dedication to other new projects they had just recently taken on, they would not be able to purchase any more of the remaining Nassawango lands, but only accept donations of this “exceptionally unique natural area.”¹⁹⁷

By 1983 the Nassawango Creek Nature Preserve was not only open for canoe rides guided by the Fehrers (Joseph had now become known as “Nassawango Joe”), but it also had hiking trails open to the public as well. According to the “Executive Summary” of that same year, the land was to be sustained for “the greatest number of visitors with the least damage to the preserve.” Furnacetown created a nature trail on part of TNC territory, and TNC agreed to maintain the trail since it was there that the two properties were adjoined. Collecting plants, animals, fossils, or other archaeological artifacts was strictly forbidden as was any hunting or trapping on the grounds.¹⁹⁸

Both organizations began to become well known by the public. Furnacetown hosted the annual Iron Works Symposium for several years in the early 1980s, where people from all over the country would come and investigate the Nassawango Furnace lands and get up close to one of the last standing hot-blast furnaces in the country, surviving from the mid-1800s.¹⁹⁹ The Iron Symposium was held at Nassawango, but did not continue as a chosen fall-season fund-raising activity. Oddly enough, the chosen fall

¹⁹⁷ “Nassawango Creek Preserve Striving Towards Land Goal,” *The Daily Times*, January 1, 1983.

¹⁹⁸ The Nature Conservancy, “Nassawango Creek Nature Preserve Executive Summary,” January 1983. Furnacetown Uncatalogued Archives. Before being strictly forbidden, hunting and fishing were permitted during certain seasons, although duck blinds, etc. were never allowed to be nailed to trees “as they damage trees.” Also rather than paying fees, the hunters were to be given the privilege to hunt on the preserve in exchange for services “so as to give them a better idea of our [TNC’s] protection goals.” Another interesting note on the hunting aspect prior to its forbiddance, was this statement made on a TNC memo dated June 30, 1981 to Steve Hamblin stating, “Our stated rationale should be based on a biological need to control excessively high deer populations, not on the need to keep the locals happy (even though the latter is the real reason).” Other references to previous hunting policies can be found in the article “Nassawango Creek: Our Natural Heritage Preserved,” *Salisbury News and Advertiser*, May 12, 1982.

¹⁹⁹ Interview with Kathy P. Fisher by Mercedes Quesada-Embid (author) 21 November 2003 at the Furnacetown Living Heritage Museum.

Furnacetown activity became an extremely popular Celtic festival celebrating that which has little or nothing to do with the actual history of the furnace lands. Furnacetown also built a gift shop to generate revenue for the intended continued restoration of the industrial site, pending archaeological research.²⁰⁰

Furnacetown was interested in the archaeology of the land, especially in the newly acquired 13.8 acres from Glatfelter Co. The members of Furnacetown believed that remnants of the homes of the original furnace workers were buried there; unfortunately, this was never determined for sure and, eventually, a part of the 13 acres was cleared and converted into a parking lot. This decision may have been due in part to Furnacetown's inability to hire an expensive professional crew, and consequently, amateur groups did the bulk of the archaeological work on these lands.²⁰¹

The inexperience of the archaeologists involved in the Furnacetown digs can be seen in log descriptions of several artifacts uncovered at the site, some of which were smoothed antler tips and hollowed bones. Along with these items, was found a three-inch long arrowhead made of slate.²⁰² According to the archaeologist's logbook this last artifact was "highly out of place" and the researchers wrote, "What is it doing here?" The passage was highlighted and peppered with questions marks. Further research on a local level would have shown that Native groups had lived for many years in this area of Nassawango. According to the *Handbook for Delmarva Archaeology*, all three of these artifacts are from "middle woodland" (Native American) contexts.²⁰³ This Worcester

²⁰⁰ "Land Given to Historical Society," *The Daily Times*, January 11, 1982.

²⁰¹ Interview with Kathy P. Fisher by Mercedes Quesada-Embid (author) 21 November 2003 at the Furnacetown Living Heritage Museum.

²⁰² Artifact labeled MHK10COFW7, 017. Archaeology Folder. Furnacetown Uncatalogued Archives.

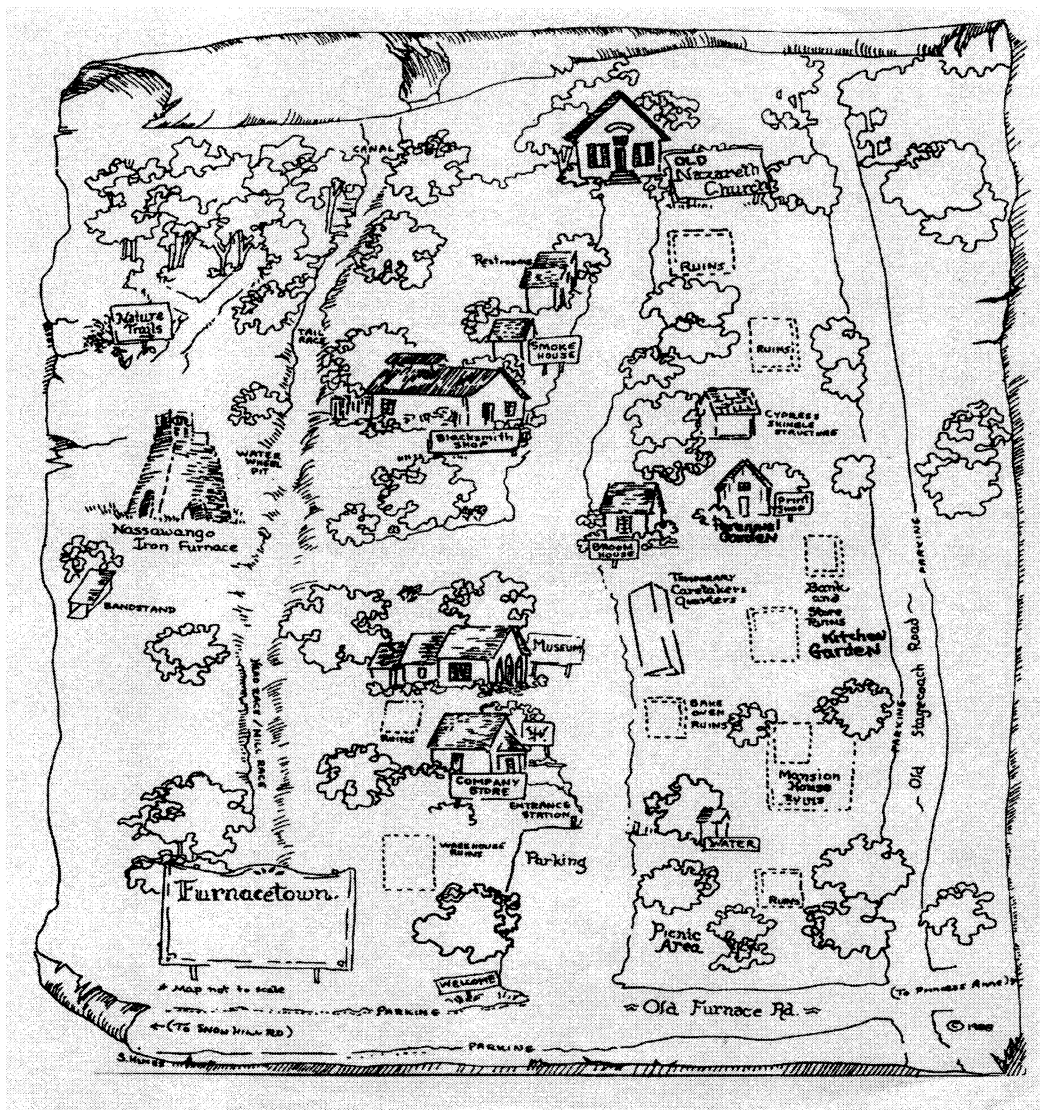
²⁰³ Clara L. Lewis, *Handbook for Delmarva Archaeology*, (Department of State, State of Delaware. Made for the Office of Archaeological Division of Historical and Cultural Affairs, 1993.)

County area in particular, although not previously researched by the Office of Archaeological Division of Historical and Cultural Affairs in the making of the Delmarva handbook, indicates that these kinds of artifacts are found all over Maryland's Eastern Shore. This is true especially where Natives were known to have lived.²⁰⁴ This information was not known to the archaeologists nor to Furnacetown members. General disputes on archaeological methods arose throughout the course of the digs that went on and, as a result, many of the artifacts disappeared from the furnace grounds. Fortunately, other artifacts remained and do give an idea of the layout of the Nassawango lands during its industrial, iron-making period as Shade Furnace.²⁰⁵

The following hand-drawn diagram shows Furnacetown's interpretation of the archaeological research conducted at Nassawango. The dotted lines show the areas believed to be the ruins of the original buildings built by the Maryland Iron Company. This drawing was made in 1988 as the Furnacetown historical preservation project was reaching its desired goal of restoration. There are nine dotted areas representing ruins, only four of which are labeled and only one of which, the store, is replicated (in name) in the current village Furnacetown created. Archaeological work and data did not dictate the restoration of the present-day buildings.

²⁰⁴ *Ibid.*

²⁰⁵ Interview with Kathy P. Fisher by Mercedes Quesada-Embid (author) 21 November 2003 at the Furnacetown Living Heritage Museum.



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As can be seen in the drawing, Furnacetown created a village, not a replica of the industrial site that existed in the nineteenth century. The modern-day village is a craft village with broom-makers, a church, a print shop, and other small buildings that were brought in from Pocomoke City and other surrounding towns as donations to the historical preservation effort.²⁰⁷ The only authentic 1830s structure in the recreated village of today is the original Nassawango Furnace stack. Even the trees depicted and

²⁰⁶ Hand-drawn map of Furnacetown site, 1980. Furnacetown Uncatalogued Items.

²⁰⁷ "Moving to Nassawango," *Eastern Shore Times*, July 14, 1977.

the “kitchen garden” are not accurate representations; a real portrayal of the industrial site as it existed from 1830 until 1850 would probably not be aesthetically appealing to visitors. A primary source does exist, however, describing some of the buildings that were constructed on site. An 1835 newspaper advertisement lists that there was a “DWELLING HOUSE and a sufficient number of workmen’s houses...a Store-house, Barn and other capacious out houses,” but none of these have been reconstructed in the present-day village.²⁰⁸

An exact replica of the industrial site was nearly impossible to recreate, due in part to the uncertainty regarding the archaeological artifacts, not to mention the amount of forest that would have needed to be cleared. Other reasons that made it improbable were the necessary large holes in the earth needing to be dug where the trees would be burned, covered and smoldered to make the charcoal; or even the creek bed mined for its iron ore, and finally the black soil, soot-filled air, and altered water environment that would greet the visitors as they approached from miles away.

Furnacetown and TNC were interested in preserving Nassawango. They were guided by a somewhat idealized perception of Nassawango, which to them gave the place value and a reason for preserving it. They wanted it to be supported and attractive to the public as an educational and recreational place where their respective views of the historical and the ecological events could be preserved. TNC and Furnacetown succeeded in transforming the landscape into a romanticized place where its past became a creative blend of historical truth and human construction. It was in this way that they believed they could best achieve preservation of Nassawango Creek and of Nassawango Furnace.

²⁰⁸ *The Borderer*, August 4, 1835.

Summary

The Preservation Period began with Frank R. Jones in 1962 after the Era of Abandonment had taken over the landscape. Frank Jones was a descendent of Benjamin Jones, the owner of Nassawango in its period of iron-making. The Worcester County Historical Society (and eventually the Furnacetown Living Heritage Museum) joined his cause, and historical preservation of the furnace stack became an official movement. Simultaneously, Nassawango Creek also came under the watchful eye of The Nature Conservancy, with regard to its ecological preservation, due to the interests of Joseph Fehrer and his family.

The people involved with these preservation organizations had a selectively constructed human perception of Nassawango that they shared with the public in order to gain support for their respective movements. It is interesting to consider why these organizations chose to portray their somewhat fictive images on to the Nassawango landscape in order to use the land in the way they deemed necessary. The historical movement idealized the furnace lands as a craft village, not the industrial site that it was. These preservationists did not allude to the contamination the furnace created or mention the slave labor that made it all possible. The Native and English historical presence on the land also seemed inconvenient to the new story overlaid on the land. For them, history at Nassawango began with the furnace and did not include the implications of it as an industrial site. The ecological movement also gave an idealized portrayal of Nassawango. According to TNC, Nassawango was a remnant of “untouched wilderness” that needed to be saved through preservation from chainsaws that could in minutes

destroy what nature had taken millennia to create. For them, the fundamentally transformative role that the Natives and English settlers played on the landscape of Nassawango and the extractive and destructive elements of the iron furnace in Nassawango's human land-use history contradicted their "Pleistocene" vision. This veneered story of preservation involved a selective erasure of the past as well.

Both preservation movements have succeeded in their idealized rendering of this landscape, but the question remains: Could efforts not have been made to preserve the land in spite of what had happened to it and how it was used? Furnacetown could have still developed its craft village, simply not claiming it to be a representation of what came before, but rather a new, more appropriate land-use for the twentieth century historical movement. Furnacetown could present its interpretation of Nassawango by including the preceding eras that led to its existence. TNC presented their perception of Nassawango as the truth as well, yet may also have had more success had they spoken of the land with regard to its various preceding, significant stages of land-use. They could have described the land with just as much passion and fervor; but instead of a place untouched by humanity, they could have been better served to describe it as a place that managed to survive intense and constant human use. It was a true history of Nassawango—the Native Era, Contact Period, Iron Era, and Era of Abandonment—that actually made the Preservation Period possible, but the Furnacetown Living Heritage Museum and The Nature Conservancy determined the land-use of Nassawango Creek through their idealized, blended image of this place, rather than its authentic historical narrative.

Epilogue

This study has been an attempt to show the history of Nassawango Creek. It has been a reevaluation of the present-day perception of Nassawango by returning to the primary sources that best tell its story. The result of this research has been the discovery of new history: in the Contact Period, finding the exact location and size of the Askiminikonson reservation, learning more about the almost-forgotten Pocomoke and Assateague tribes and their resulting interaction with the English; in the Iron Era, determining that Benjamin Jones was the most significant owner and uncovering the lost business correspondence regarding the Shade Furnace and the actual reasons for its failure; and in the Preservation Period, realizing that the Furnacetown Living Heritage Museum and The Nature Conservancy did not base their historical and ecological visions of Nassawango on its actual chronology, but rather on their own idealized impressions and postulations.

All of these eras played their role in the historical significance of Nassawango and all had their own way of shaping and impacting the landscape. Knowing the Native Era, the Contact Period, the Iron Era, and the Era of Abandonment are crucial to understanding the way in which the land has been used in the twentieth century (and into the twenty-first) in the Preservation Period. Without the historical chronology of Nassawango, the tangible clues that remain on and beneath the land's surface either go unnoticed or can be misconstrued, and can withhold instead of provide insight into the past. The knowledge gained from Nassawango's historical record can only enrich its present and future land-use. This case study of Nassawango shows that human

misunderstanding of the land—whether from lack of access to source material or a well-intentioned disregard for it—led in part to its preservation, but preservation could have been equally possible or even more so with the support of historical evidence.

The success of the Preservation Period depends largely on public interest and especially on the endorsement from the residents of Worcester County. If full disclosure is given to the public, they will have the satisfaction of knowing what events took place on this landscape that they live near, visit, and help protect. It will make Nassawango's preservation all the more meaningful. A true history of its land-use has never been told up until now; and it is this retelling through research, this unveiling of new findings that has brought the once hidden beauties and ills of Nassawango into full view. Nassawango has been, in some way, both enhanced and hindered by each of its respective eras, but it is through an understanding of these historical layers that Nassawango's intrinsic value becomes more apparent, which makes honoring its cultural and natural heritage through preservation all the more worthwhile.

The organizations in charge of its preservation have declared Nassawango as having both historical and ecological merit, but now the true reasons for its value as a Furnacetown Living Heritage Museum and Nature Conservancy site can be more fully appreciated. The efforts and dedication of these two organizations was and is necessary for the preservation of Nassawango; and they are now better equipped with accuracy and authenticity to defend and continue to promote the preservation of this landscape.

It is in the name of history that this research study of these five thousand acres was done. I realize, however, that possible future discoveries, i.e., of documents, artifacts, or interpretations, may alter the record of events that has been written here. New insights

and re-visionings of history are always welcome contributions. This study does not attempt to bring closure to the history of Nassawango, but instead endeavors to open new pathways in order to enhance the undertaking of future research on Nassawango and its surrounding Eastern Shore landscape. It has been my research goal to give the people interested in Nassawango as accurate a sequence of events as possible, in the order they occurred, so that the missing pieces of this chronological puzzle would no longer remain hidden either in the primary documents or within the landscape itself. This study is my contribution to that goal.

The historical sources and the ecological resources have finally come together to clearly demonstrate that perception really does guide land-use, but it is the changing human attitudes that are the influential forces that shape and mold perception. As is true with any traditionally-peopled landscape, it is the historical and ecological blending of human use that comes to reveal the essence of its past. Nassawango is an example of this multifaceted merging. Although its full essence and truths can never be entirely regained, a thorough and valid narrative of events at Nassawango can enrich its present-day land-use and provide an opportunity for people to build a new comprehensive land-use relationship with Nassawango Creek through a more complete understanding of its layered and fascinating history.



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