ABSTRACT

The extraction and distillation of pine sap for the naval stores industry reached its apex of production in the early decades of the twentieth century. Post-emancipation, the industry employed African American labor in the long leaf pine forests of the southeastern United States under a system of debt peonage that replaced the master-slave dynamic with a similar circumscripitive construct. Laborers rented company housing and were paid in scrip, a monetary system that limited their purchase of the basic goods of subsistence to the company commissary at inflated prices, resulting in an endless cycle of debt.

Despite the oppressive circumstances of debt peonage labor, African Americans developed venues known as “jook joints” for the expression of agency through leisure. The jook was a structure where laborers congregated on weekends to socialize, dance, drink, gamble, and fight.

The Polk County, Florida turpentine camp of Nalaka was in operation from 1919 until 1928. In 1942, the Nalaka site, and thousands of surrounding acreage, were purchased by the United States Government for use as an Air Force training range in anticipation of US involvement in World War Two.

Although no structures survive, artifact scatters from the 1920s remain in situ. No known records exist to document the spatial arrangement of the structures at Nalaka. This study reconstructs the layout of the camp based upon artifact provenience, secondary
ethnographic sources, and historical documents, to determine whether or not Nalaka supported a jook joint, and if so, where was its location.
To Barbara J. Ziel

(April 23, 1942 - September 19, 2012)

“Are you watching me now?”
ACKNOWLEDGMENTS

I extend my warmest thanks and appreciation to my committee: Drs. John Walker, Rosalyn Howard, and S. Stacy Barber. Each of you contributed to my success in a unique way. Dr. Walker, your humanity, patient guidance, and obvious dedication to enabling my success inspired me to put 110% of my effort into this thesis. Dr. Howard, we’ve traveled a road together neither one of us could have possibly predicted. In the end, we were linked by common interests, mutual respect, and tragic destiny. I am proud to call you my friend. Dr. Barber, it was a pleasure to work with you, and in addition to your valuable contribution to this thesis, you taught me to recognize that I am a mere mortal with limitations.

It is no secret that I was perhaps the most content graduate student in the anthropology department. Therefore, I extend my appreciation to all anthropology faculty and staff for making graduate school one of the most rewarding periods of my life. I especially thank Dr. Vance Geiger for convincing me I have what it takes to aim higher. I also thank my friend, Dr. J. Marla Toyne, for sharing palabras, skills, and razor-sharp wit.

Kathy Couturier, without you I would never have discovered this incredible research opportunity. You were a wonderful “assistant” and I value our friendship. I am also indebted to the staff at Avon Park Air Force Range, especially Adam Wright.
I will always treasure my young friends at UCF who never made me feel like the geezer of the group. As a bonus, it was a joy to share this experience with my “academic husband,” Bill Boynton, and my “sisters” Kristi and Trish.

I am grateful and in awe of the unconditional love and support from my family: my beautiful and devoted Mom, Barb, my handsome and generous Dad, Tom, my sister and dear friend Kelly, Lee, Susie, Kim, and Jim. Thank you Dr. Carmen Woodhall. I never could have accomplished this without you.

In retrospect, I am (ironically) indebted to the individuals who made my previous career so unbearable that I sought refuge where I should have been all along: in my destiny. Finally, I honor the ghosts of the laborers and families at Nalaka and every other situation where Americans, like me, were held in post-Emancipation slavery. “There but for the grace of God go I.” I hope I did justice to your story.
# TABLE OF CONTENTS

LIST OF FIGURES ................................................................................................................................. x
LIST OF TABLES ....................................................................................................................................... xiii
INTRODUCTION ........................................................................................................................................ 1
  Pine Tapping .......................................................................................................................................... 6
  Domesticity ............................................................................................................................................ 11
  Leisure as Agency ................................................................................................................................. 12
  Was There a Jook Joint at Nalaka? ......................................................................................................... 14
  Research Objectives ............................................................................................................................. 15
ETHNOGRAPHIC AND HISTORICAL SOURCES .................................................................................. 16
  Ethnographic Sources ............................................................................................................................ 17
  Historical Sources ................................................................................................................................ 22
METHODOLOGY ...................................................................................................................................... 27
  Site Description ...................................................................................................................................... 27
  Preservation of Artifact Provenience ...................................................................................................... 29
  Data Acquisition .................................................................................................................................... 30
  ArcGIS ..................................................................................................................................................... 30
  Fieldwork .............................................................................................................................................. 31
  Data Processing .................................................................................................................................... 33
  Spatial Analysis ..................................................................................................................................... 34
RESULTS ................................................................................................................................................... 36
  Sector Northwest (NW) ........................................................................................................................... 38
  Sector Northeast (NE) ............................................................................................................................. 38
  Sector Central West (CW) ....................................................................................................................... 39
  Sector Central East (CE) ......................................................................................................................... 40
  Sector Southwest (SW) ............................................................................................................................ 42
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Polk County, Florida location map</td>
<td>69</td>
</tr>
<tr>
<td>2</td>
<td>Avon Park Air Force Range</td>
<td>70</td>
</tr>
<tr>
<td>3</td>
<td>1920 Osceola County Railroad Map</td>
<td>71</td>
</tr>
<tr>
<td>4</td>
<td>Cat-faced pine trees with gutters and Herty cup sap collectors</td>
<td>72</td>
</tr>
<tr>
<td>5</td>
<td>Laborer housing along railroad line</td>
<td>73</td>
</tr>
<tr>
<td>6</td>
<td>Turpentine laborers carrying lunch buckets and water bottles</td>
<td>74</td>
</tr>
<tr>
<td>7</td>
<td>Turpentine laborer’s family 1936</td>
<td>74</td>
</tr>
<tr>
<td>8</td>
<td>Jook Joint at Belle Glade, Florida 1939</td>
<td>75</td>
</tr>
<tr>
<td>9</td>
<td>Pamphlet for Lewis Plantation and Turpentine Still</td>
<td>76</td>
</tr>
<tr>
<td>10</td>
<td>Migrant Workers Camp, Belle Glade Florida c.1930s</td>
<td>77</td>
</tr>
<tr>
<td>11</td>
<td>1943 Aerial photograph of the Nalaka site outlined by Couturier.</td>
<td>78</td>
</tr>
<tr>
<td>12</td>
<td>Enamel cooking pot trapped in overgrowth of saw palmetto roots</td>
<td>78</td>
</tr>
<tr>
<td>13</td>
<td>Overall Nalaka Map</td>
<td>80</td>
</tr>
<tr>
<td>14</td>
<td>Northwest Sector (NW)</td>
<td>84</td>
</tr>
<tr>
<td>15</td>
<td>Bedframe</td>
<td>85</td>
</tr>
<tr>
<td>16</td>
<td>Site Datum/Water well</td>
<td>85</td>
</tr>
<tr>
<td>17</td>
<td>Northeast Sector (NE)</td>
<td>86</td>
</tr>
<tr>
<td>18</td>
<td>Teapot or soup tureen</td>
<td>87</td>
</tr>
<tr>
<td>19</td>
<td>Violet glass vase or bowl</td>
<td>87</td>
</tr>
<tr>
<td>20</td>
<td>Forks and pocket watch case</td>
<td>88</td>
</tr>
<tr>
<td>21</td>
<td>Makeup compact</td>
<td>88</td>
</tr>
<tr>
<td>22</td>
<td>Feminine buttons</td>
<td>89</td>
</tr>
<tr>
<td>23</td>
<td>Electric doorbell</td>
<td>89</td>
</tr>
<tr>
<td>24</td>
<td>Glass electric wire insulator</td>
<td>90</td>
</tr>
<tr>
<td>25</td>
<td>Possible generator remains</td>
<td>90</td>
</tr>
<tr>
<td>26</td>
<td>Area “A” (NE) Inset</td>
<td>91</td>
</tr>
<tr>
<td>27</td>
<td>Decorative glass vase or pedestal bowl</td>
<td>92</td>
</tr>
<tr>
<td>28</td>
<td>Fancy sugar bowl or cup</td>
<td>92</td>
</tr>
<tr>
<td>29</td>
<td>Bottle glass dump</td>
<td>93</td>
</tr>
<tr>
<td>30</td>
<td>Central West Sector (CW)</td>
<td>94</td>
</tr>
<tr>
<td>31</td>
<td>Timber saw</td>
<td>95</td>
</tr>
<tr>
<td>32</td>
<td>Metal basin</td>
<td>95</td>
</tr>
<tr>
<td>33</td>
<td>Metal Bucket</td>
<td>96</td>
</tr>
<tr>
<td>34</td>
<td>Oil Barrel</td>
<td>96</td>
</tr>
</tbody>
</table>
Figure 35. Central East Sector (CE) ................................................................. 97
Figure 36. “Coleman”-style stove .................................................................. 98
Figure 37. “Coleman”-style stove burners ..................................................... 98
Figure 38. Decorative glass vase or pedestal bowl ......................................... 99
Figure 39. Clock gear ...................................................................................... 99
Figure 40. Scalloped plate rim sherd ............................................................. 100
Figure 41. Maker’s mark plate sherd (center) ................................................ 100
Figure 42. Tin plate ....................................................................................... 101
Figure 43. Tobacco tin lid ............................................................................ 101
Figure 44. Round Shovel ............................................................................. 102
Figure 45. Gear chain .................................................................................. 102
Figure 46. Automobile remains .................................................................... 103
Figure 47. Auto door handle detail ............................................................... 103
Figure 48. Shoe heel and watch lens .............................................................. 104
Figure 49. Southwest Sector (SW) ................................................................ 105
Figure 50. Intact Coke bottle ....................................................................... 106
Figure 51. Intact vinegar cruet ..................................................................... 106
Figure 52. Area "B" (SW) Inset ..................................................................... 107
Figure 53. Possible beer or liquor bottle ....................................................... 108
Figure 54. Possible beer or liquor bottle ....................................................... 108
Figure 55. Salt shaker lid ............................................................................ 109
Figure 56. Harmonica reed ........................................................................ 109
Figure 57. Cosmetic jewelry bead and utility button ...................................... 110
Figure 58. Pine tree grown through abandoned Model T ............................. 110
Figure 59. Standing seam metal roof ............................................................ 111
Figure 60. Stove part .................................................................................. 111
Figure 61. Ceramic jug top .......................................................................... 112
Figure 62. Possible beer or liquor bottle ...................................................... 112
Figure 63. Southeast Sector (SE) ................................................................. 113
Figure 64. Stove door “Banner…” ............................................................... 114
Figure 65. Stove burner cover .................................................................... 114
Figure 66. Possible vehicle or wagon hitch .................................................. 115
Figure 67. McCormick three-sided poison bottle ........................................ 115
Figure 68. Clock part .................................................................................. 116
Figure 69. Possible perfume bottle ............................................................... 116
Figure 70. McCormick spice bottle ............................................................. 117
Figure 71. Unidentified bottle .................................................................... 117
Figure 72. Ketchup bottle ........................................................................ 118
Figure 73. Sauce bottle .......................................................... 118
Figure 74. Cast iron stove legs .................................................. 119
Figure 75. Panama Mobile buttons .............................................. 119
Figure 76. Suspender buckle and button .................................... 120
Figure 77. Shoe/boot heels ....................................................... 120
Figure 78. Fence post with barbed with hardware ....................... 121
Figure 79. Glass water bottle .................................................... 122
Figure 80. Ceramic doll's ear? ................................................... 122
Figure 81. Likely spatial organization of Nalaka ......................... 123
Figure 82. Gillette razor head ................................................... 124
Figure 83. Embossed decorative metal ..................................... 124
LIST OF TABLES

Table 1. Artifact/Feature Class Symbology................................................................. 79
Table 2. Percentage of all artifacts/features per sector .............................................. 81
Table 3. Percentage of same class artifacts per sector ................................................. 82
Table 4. Map legend ............................................................................................... 83
INTRODUCTION

Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction. --1865 U.S. Constitution 13th Amendment. Section 1

Debt peonage was a systemic economic construct existing in the periphery of the thirteenth Amendment to the US Constitution, which abolished slavery in 1863. “Peonage, a practice that gave employers complete control over their laborers practically reinstituted slavery” (Daniel 1972:11). Many industries capitalized on peonage, and this practice occurred in one form or another throughout the United States. For the purpose of this study, debt peonage and subsequent laborers’ means of resistance will focus on the agricultural pursuits of the South, particularly the turpentine industry, although other industries were exploitive of labor as well:

Peonage that existed throughout the American South was most obvious in three patterns. First the cotton belt of the Carolinas to Texas and including the Mississippi Delta supplied most peonage complaints, a testimony to the enduring plantation system. Second, the turpentine areas of northern Florida, southern Georgia, Alabama, and Mississippi furnished numerous peonage complaints. Third, for a relatively brief time railroad construction camps became the scene of peonage (Daniel 1972:21).

African Americans were particularly susceptible to the exploitation of peonage following the conclusion of the Civil War. The so-called “Black Codes” legislated by southern states during Reconstruction ensured African Americans remained under the
close scrutiny and control of whites. These state laws restricted employment options for the newly-emancipated Americans, and enabled their exploitation.

By 1905, the Black Codes morphed into the “Jim Crow” system, becoming a fact of everyday life. This involved legally enforced racial discrimination and, usually, residential segregation (Brown 2001:203). “Separate and unequal” was a reality in nearly every public, and sometimes private venues of Jim Crow-era African Americans’ lives. Jim Crow even followed black laborers and their families into the isolation of agricultural camps well into the twentieth century.

Low-skilled white laborers were exploited by the peonage system as well. The mining and railroad industries in the North were notorious for it, as bemoaned in popular culture’s Merle Travis’ signature song lyrics “I owe my soul to the company store” (Travis 1946). In the agricultural pursuits of the South “peonage infected [it] like a cancer, eating away at the economic freedom of blacks, driving the poor whites to work harder in order to compete with virtual slave labor, and preserving the class structure inherited from slavery days” (Daniel 1972:11).

Agricultural company camps and towns, once teeming with debt peonage labor, have long since been abandoned. Today, these sites exist in various states of decay that will eventually erode to nothing. Unfortunately, they remain understudied by modern scholars.

Until recently, few archaeologists have deemed post-emancipation sites worthy of archaeological research. Yet this is not the only reason post-emancipation sites are unstudied. Interpretations of these sites are influenced by a lack of documentary
sources as well as everyday discourse that influences our perceptions of the past (Barnes 2011:7).

In this statement, Jodi Barnes implies pervasive structural amnesia. Similarly, John A. Barnes states “as has been said, [according to Culwick and Culwick] ‘a man tends to remember only those links in his pedigree which are socially important and which “place” him at once in the minds of his hearers’” (Barnes 1990:227; Culwick and Culwick 1935:180).

Bannister and Hurd reinforce structural amnesia in the sense that scholars tend to avoid research topics that are both difficult to study and often contradictory to the documented historical narrative: “turpentine [for example,] has been infrequently the subject of critical and creative work, very probably because it is now defunct in America, as well as a black mark on the economic and political power structure that benefited by it. The less said about a period of oppression, the better” (Bannister and Hurd 2010:40).

Palmer (2011:136) observes “there is also taphonomic bias. It is widely and unresistingly recognized that people who were poor and those whose opportunities were curtailed by prejudicial legal and social restrictions had fewer material goods and less substantial housing and thus left us more ephemeral archaeological remains.” This "unresisting" conception is apparent in the limited scholarship of African American sites, especially obsolete pursuits such as turpentine camps.

Armstrong addresses the conundrum of expected ephemeral evidence (or lack thereof) as a contributory factor to the dearth of published research related to the turpentine industry: “for the historian, concerns over meeting task requirements of
maintaining a camp shanty (household) might seem mundane, but ‘for the workers these were often the questions which had daily meaning in their lives’” (Armstrong 1983:436; Outland 2004:7). Investigations of these so-called “difficult and ephemeral” sites, whether they are the remnants of antebellum slavery or twentieth century debt peonage have, in the past, been left to Cultural Resource Management professionals contracted by government organizations such as the National Park Service, or the U.S. Department of Defense. The results of these investigations often remain as non-published reports.

Jodi Barnes asserts that “historical archaeology, with an emphasis on the recent past, is in a good position to make these historical places more visible and to reduce the cultural amnesia by addressing the painful histories of Reconstruction and Jim Crow…” (Barnes 2011:6). Historical archaeologists have the unique challenge to transcend the structural amnesia and taphonomic and ephemeral biases pervasive to African American archaeology. The painful histories of “Reconstruction and Jim Crow” include chapters of small victories achieved under the guise of even the most subtle acts of resistance.

Singleton highlights the vitality of African American Archaeology in the recovery of evidence of resistance:

African American archaeology is more than a moral mission or the study of ethnicity. It is a study of the historical and cultural processes that made the African experience unique in the Americas. To ignore the consequences of forced migration, enslavement, legalized discrimination and racism misses the very essence of how African Americans created their world and responded to that of the dominant culture (Singleton 1999:17).

One of the first African American sites to be explored in a scholarly context was an eighteenth century freedmen’s community in Annapolis, Maryland. This study was
part of a larger project that began in 1982 under the direction of archaeologist Mark P. Leone. Leone assigned meaning to the remains of material culture within the theoretical framework of the effects of capitalism on the equality and inequality of disparate groups within a community across time.

In the course of Leone’s fieldwork, his team discovered “spirit bundles” buried under the hearths and doorsills of wealthy Annapolis citizens who kept slaves. Spirit bundles were West African talisman used to control the spirit world. This discovery was significant because it provided both a physical and spiritual link from the New World to Africa, and also because it was evidence of resistance (Leone and Fry 1999); the enslaved Africans surreptitiously practiced their religious beliefs and secured a part of their identity that their white masters could not erase.

Most recently, African American Archaeology garnered even greater attention and publicity with the 1991 unearthing of an African burial ground at a potential construction site in New York City. This discovery captured the attention of both scholars and the general public, especially the African American community. “Although historians had long known of the African Burial Ground, the rediscovery was a revelation that struck a deep chord among many people of African descent in New York” (Harrington 1993:33; LaRoche and Blakey 1997:84).

At both sites, resistance was expressed through the practice of vestiges of West African religion; at Annapolis, it is evident in the spirit bundles assembled by the living, and at New York City, it is found in the burial ritual of the dead. For example, at least
101 coffins unearthed at the African Burial Ground bore the mark of a heart-shaped, West African, *Andinkra*, or visual symbol known as the “*sankofa*.” *Sankofa* “signifies the connections between past, present and future ancestors and the living” (Blakey 1998:55).

According to Leone, “as African, African Americans, and indigenous peoples within the diaspora bring meaningful contributions to their various fields of study, the tone and scope of the research agenda shifts away from enslavement toward freedom, away from oppression toward resistance, and away from passivity toward agency” (Leone et al. 2005:577).

In the twentieth century, thousands of African Americans, especially those residing in the southern states, experienced a new frontier of enslavement and oppression, debt peonage. African American expressed their agency through engaging in leisure activities that asserted their resistance to this new form of slavery. This study focuses on the leisure activities expressed in a turpentine camp in Polk County, Florida.

**Pine Tapping**

“Turpentine, rosin and pitch, known to the trade as ‘naval stores,’ have for centuries been staples in the world’s commerce...Soap, paper, paint, varnish, and waterproofing manufacturers are among the largest consumers” (Consolidated Tomoka Land Company 1972:35). The waterproofing properties of turpentine extracts have for centuries rendered this product invaluable to the naval industry, and this industry came to be known as "naval stores."
The extraction and distillation of pine sap, also known as “pine tapping,” for the production of turpentine and its bi-products was the most profitable venture of the southern turpentine industry. Pine tapping is a non-sustainable practice that is fatal to the individual pine trees within five years. By the late nineteenth century, pine tapping depleted the forests of the Carolinas and Georgia, and turpentine operations began migrating to northern Florida, continuing a destructive course southward through the peninsula. "Polk County [Florida] proved ideal for naval stores production [...] a few small operators already had flourished in the turpentine business in the 1880s and early 1890s. Following the 1895 freeze [that devastated the thriving citrus industry], large quantities of Polk lands became available for next to nothing. The large scale timbermen then made their move" (Brown 2001:196).

Currently operating as the Consolidated-Tomoka Land Company (CTLC), Consolidated Naval Stores (Consolidated) was founded in Jacksonville in 1902 as the result of a merger of seven separate naval stores companies. Shortly after its founding, a subsidiary enterprise was organized: Consolidated Grocery Company. The purpose for Consolidated Grocery was “to establish supply departments at convenient points, where supplies of all kinds can be purchased at the lowest possible prices” (CTLC 1972:23). By the 1920s, Consolidated had acquired 1,500,000 acres of virgin, long leaf, yellow pine and cypress timber lands in south central Florida (CTLC 1972:36). The extension of Henry Plant’s Atlantic Southern Railway through Consolidated land holdings facilitated the expansion of turpentine operations to 18 locations during the 1910s, including the camp of Nalaka (also Nalaca). The etymology of this name is unknown.
The turpentine camp named Nalaka, established in 1919, was situated in Polk County within the boundaries of so-called “Kissimmee Island,” the geographic area limited by the Kissimmee River, and Lakes Kissimmee, Arbuckle, and Istokpoga (Figures 1 and 2). The camp was one of the southernmost stops on a spur of the Atlantic Southern Railway (Figure 3). Consolidated reported that 250 individuals lived in Nalaka at the height of its population. Unlike similar operations, the turpentine still and cooperage (barrel-making shop) were located approximately one mile distant from the camp. Long-time residents of Kissimmee Island reported to previous researchers that Nalaka had its own school and church, but there is no historical evidence to verify this. However, considering Nalaka’s geographic isolation, it is most likely that Consolidated maintained a commissary in the camp to provide its laborers access to basic provisions. Nalaka was in operation for nine years until its abandonment in 1928. There is no available documentation of the circumstances of the camp’s dissolution. It is likely that nine years of sap “harvesting” decimated the longleaf pine forest.

During the Florida land boom of the 1920s, there was a great deal of competition for the acquisition of low-skilled labor to work the newly-established sawmills, corporate farms, and turpentine camps. According to Kennedy (1942:264), potential turpentine laborers were lured into employment by African American “headhunters” who were paid by their employers to entice low-skilled laborers to sign on with the company, offering promises of “perks” such as free rent and free food in return for gainful employment. This solicitation was only partially true. Rent was not free, and was automatically deducted from his first paycheck. Basic staples also came at a price with an immediate
debt to the company commissary. Before this potential laborer took to the pine woods, he was already deep in debt.

The intensity of the labor was also misrepresented to potential turpentine workers. The extraction of pine sap was physically demanding, tedious, and sometimes dangerous work conducted during the steamiest Florida months of March to October. Beside the blistering heat, “workers were always on the lookout for poisonous snakes, spiders, scorpions and hornets. Other indigenous animals included bears, panthers, wild hogs, and alligators” (Bannister and Hurd 2010:45).

The process of pine tapping required teams of laborers with specialized tasks: Bark removal from the pine trees was the responsibility of the laborer known as the “scraper.” The “chipper” cut mirroring slanted notches (called a “cat face”) into the trunk and set metal gutters into the notches to direct sap to a tin or clay receptacle (Herty Cup) nailed into the tree (Figure 4). "Pullers” were chippers who set notches and gutters on trees when the cat face extended vertically beyond reach. A “dipper” was a laborer who used dipping irons to scrape the sap from the receptacles into wood barrels. Finally, a “raker” was responsible for clearing the pine needles away from the trees during the dry winter months when fires were pervasive (Brown 2001). Wagons or movable tram lines were used to transport the barrels of virgin sap to the still, where it was processed into rosin or spirits of turpentine and transferred by railroad to Consolidated’s shipyards in Savannah, Georgia.
Compensation for the laborers was based on a task system much like the quota expectations set for enslaved Africans in the antebellum South. For example, chippers were required to tap a set number of trees per day, and dippers had a specified number of barrels to fill. Failure to meet the expectations of the camp operator precipitated serious consequences.

The use of brutality in an effort to maintain control also continued in the forest. Woodsriders attempted to rule the workers completely and harshly in order to gain their respect, maintain order, and extract efficient work. One former camp manager explained that the foreman had to cause fear and instill respect in the workers (Outland 2004:176).

Labor division in a turpentine camp was based on a caste system defined by racial (and gender) hegemony. Company managers were always Caucasian males, as were the commissary clerks. “Woodsriders” were twentieth century counterparts to antebellum overseers; they were usually Caucasians, armed with weapons, who patrolled the vast acreage of the pine forest on horseback to monitor the progress of the laborers. African American women sometimes labored alongside their male counterparts, albeit at 80% the pay rate for the men. More commonly, they served as homemakers, laundresses, nannies, and maids for the camp’s white population.

Laborers at Nalaka were paid in tokens, or “scrip.” Scrip was usually only redeemable at the company commissary, although outside merchants sometimes accepted scrip at a percentage of its face value. “[In the commissary] establishments, commonly referred to as ‘robbersaries,’ the ‘employees’ are obliged to obtain their food and other basic necessities of life at exorbitant prices which keep them perpetually in debt and preclude their receiving cash wages for their work” (Kennedy 1990:111). The basic
necessities included work clothing, household items, fuel, pharmaceuticals, and food
stuffs.

The fare afforded by the commissary is extremely limited, consisting of a few
canned goods, meal, flour, dried beans, and salted or smoked pork fat. Fresh
vegetables, meat, fruit, eggs, milk and butter are virtually unheard of. One Negro
turpentine worker at Kansas City, Florida, when asked how often fresh meat was
available in his camp, replied, "Neither weekly nor yearly" (Kennedy 1990:111).

Many laborers supplemented their limited diet by keeping chickens and hogs, cultivating
their own vegetables, fishing, and game hunting (Outland 2004:180).

Domesticity

Turpentine camp laborers and their families resided in one to three room wooden
shacks, hastily erected by camp operators from scrap sawmill wood. In Florida, the
dwellings were raised on cypress logs or brick piers. Shutters replaced window glass as
meager protection against the elements. Cast iron stoves were used both for cooking and
as a heat source. Communal wells supplied potable water, and hand dug privies were
located behind the dwelling units. (Bannister and Hurd 2010:44). Figure 5 depicts a circa
1920s camp similar to Nalaka located on a railroad line.

Turpentine laborers worked five, sometimes six days a week. Workers woke at
4:30 in the morning, ate a simple breakfast, and grabbed their lunch pail and water bottle
before sprinting to the pickup spot where a truck or wagon would be waiting to take them
to the woods (Figure 6). They would work from dawn to late morning, when they rested
for lunch among the pines, sometimes catching a quick nap at the height of the day’s heat
(Outland 2004:174).
The twelve to fourteen hour work day ended either at dusk or when the laborer met his daily quota. The same trucks or wagons that transported him to the woods in the morning returned him to his quarters later in the day, where supper, and family (Figure 7) were waiting for him (Outland 2004:180).

Because of the long daily work hours, on weekday evenings there was little time for rowdiness. Families in a close-knit community would visit and make their own music. On Sundays, part of the camp community attended worship services …If a camp lacked a church, religious services were held in one of the cabins (Outland 2004:182).

The laborers enjoyed the majority of their free time on weekend nights. For some, the weekend held the promise of reveling in activities generally frowned upon by camp management, namely, drinking, gambling, and fighting.

Leisure as Agency

“Agency is often associated with freedom or resistance” (Gardner 2008:96; Musolf 2003). “In this sense, a major concern of agency theory is the ability of humans to create meaningful lives for themselves in the face of material or social constraints, as well as the way those constraints can also become opportunities to shape and transform social structures” (Gardner 2008:96). In the isolation of company camps such as Nalaka, the expression of leisure was entirely the enterprise of the laborers. Leisure activities were enjoyed on weekend nights, especially upon receipt of a Saturday paycheck. African Americans stilled or procured their own moonshine and gathered at hastily constructed venues to drink, gamble, court, and dance to the entertainment of itinerant blues artists. Such a venue was colloquially referred to as a" jook" joint (Carr 2002).
“The jook joint has historically been called by many names including barrelhouse, chock-house, tunk, jukehouse, juke, jook, and supper. These different names all refer to the same type of establishment: the rural gathering places where blues music was born and incubated among the socialization practices of its inhabitants” (Debnam 2007:2). “The etymology of the word 'jook' is unclear, but it is probably of West African origin, and it has various meanings such as 'wicked,' 'disorderly,' or 'to act or dance 'wildly'” (Blocker et al. 2003:343).

The Jook culture was created by African Americans for African Americans. “[We] must recognize the truth in the assertion that ‘insofar as people develop their own culture they are not slaves’” (Creel 1988:322; Ferguson 1992:123). These de facto “enslaved” African Americans found a way to subvert the control of their white employers, even if only for two nights on the weekend.

White America was confused and troubled by the emerging jook culture. As early as the 1890s, a national magazine published an article scattered with racial stereotypes about a jook joint in an unidentified phosphate company town south of Bartow, Polk County. The article was called “The Wickedest Town in Florida”:

…Fiddlers are playing a wild, rollicking music for those who care to dance, black-necked bottles are freely passed about, and gambling goes steadily on, pool being played by some, but chiefly the game of craps, par excellence the favorite negro game…Rarely does Sunday morning break without witnessing a fight with razors or pistols between drunken and infuriated negroes….It is said that the life of a decent white man who ventures into these lobbies is in his hands (Author Unknown, quoted in Brown 2001:201).
White suspicion of the Jook culture was nothing new to the tenuous relations between blacks and whites. Historically, enslaved Africans subverted the complete control of their owners by any means they could get away with. Coded folktales made mockeries of the master; African religions were surreptitiously practiced under the guise of Christianity; drumming enabled communities to communicate over long distances; and music, particularly the woeful harmonies of "Negro spirituals," comforted a subjugated people.

The expression of agency among enslaved Africans, especially through music, evolved into the purely American musical genres of the blues, and jazz. The jook culture incubated these unique music styles, and “when the working class in Florida went jookin’ it submitted to no authority other than its own. Interpersonal skirmishes aside, jookin’ provided an antidote to daily life” (Carr 2002:38).

Was There a Jook Joint at Nalaka?

According to Carr, “The sawmill camps that preceded agricultural workers and tourists all had their own jooks. It was customary in North Florida’s moveable sawmill towns and the turpentine camps to locate a jook as a place for the men to relax. South Florida was no different” (Carr 2002:18). Anthropologists such as Zora Neale Hurston and Stetson Kennedy were participant observers of jook culture throughout Florida during the 1920s and 1930s. Outland and Brown write of the importance of leisure activities, such as “jookin’” for the African American laborers in the agricultural camps of the peninsula. Based upon these accounts and others, and considering the isolation of Nalaka, it is hypothesized the camp supported a jook joint.
By the time of Nalaka’s founding, the jook culture was over a quarter of a century old (Blocker et al. 2003:344). First person accounts by ethnographers and historians such as Zora Neale Hurston and Stetson Kennedy consistently describe the jook as a specific house or a dedicated structure (Figure 8) located distant from the dwellings of the camp’s white population. The material remnants of the jook culture may include scrip or coins, playing cards, dice, and harmonica or guitar parts. Extraordinary concentrations of bottle glass may be a good indicator that a jook likely stood nearby, especially if the assemblage includes liquor bottles.

Much like most temporary turpentine operations, there is no documentation left to describe the layout of Nalaka. Perhaps such a record never existed.

Research Objectives

The objectives of this study are twofold considering the lack of historical documentation related both to the layout of Nalaka, and the location of its jook joint. The first objective is to determine if the utilization and quantitative analysis of GPS and GIS technology to document the in situ remains of material culture will be successful methodology to recreate the spatial organization of the approximately 66 acre Nalaka camp site.

The second objective is to infuse the quantitative data with ethnographic and historic documentation for the purpose of describing the likelihood that Nalaka supported a jook joint, and analyzing the contents and spatial location of artifact assemblages that may identify the site location for “jook” activity at Nalaka.
ETHNOGRAPHIC AND HISTORICAL SOURCES

The existence of the Nalaka camp is well documented. For this reason, a multi-disciplinary approach including history, archaeology, and ethnography is appropriate. “Historical archaeology has the capacity to create analytic links among written, oral, and material forms of expression as it continues intertwining history and anthropology” (Leone et al. 2005:590). The strength of historical archaeology is the ability to derive context and structure for material culture from historical documentation and ethnographic sources. Transcending the perceived barriers to the “ephemeral” African American material remains, “[h]istorical archaeology, with an emphasis on the recent past, is in a good position to make these historical places more visible and to reduce the cultural amnesia by addressing the painful histories of Reconstruction and Jim Crow…” (Barnes 2011:6).

As of this writing, 85 years elapsed since the disbandment of Nalaka; it is highly unlikely that anyone survives to provide a first person account of camp life in the 1920s. Secondary ethnographic sources were authored contemporary to Nalaka’s existence as a viable community service to fill this void, and provide qualitative information related to the humanity of the laborers. Historical sources, especially the 1920 U.S. Census, fold quantitative data into the ethnographic accounts of turpentine laborers, and provide demographic details such as how many laborers were in a camp, and how many residents were identified as black or white?
Ethnographic Sources

Zora Neale Hurston (1891-1960) hailed from Eatonville, Florida, the first incorporated black community in the USA. She completed her collegiate studies at Barnard College, Columbia University where she was mentored by American anthropologist Franz Boas. Hurston was unique because she was a woman and an African American anthropologist and novelist active in the South during the tumultuous era of the Ku Klux Klan’s (KKK) high-profile reign of terror in the 1920s. She pioneered African American ethnography under the patronage of a wealthy, New York City socialite benefactor, Charlotte Osgood Mason (Patterson 2005). Hurston’s book titled *Mules and Men* is a compilation of folktales gathered in Polk County, Florida company camps, and includes an extensive first-person narrative of the jook joint culture.

During the Great Depression, Hurston was employed by the Works Progress Administration (WPA) Federal Writer’s Project to conduct interviews with southern laborers. Several interviews she collected from African American laborers in Florida’s agricultural industry figured prominently into her work. For example, in Hurston’s novel *Their Eyes Were Watching God*, the author places the protagonist, Janie Crawford, in a Belle Glade, Florida fruit-picking camp. Janie’s “voice” provides a poetic description of the camp’s jook joints: “All night (now) the jooks clanged and clamored. Pianos living three lifetimes in one. Blues made and used on the spot. Dancing, fighting, singing, crying, laughing, winning and losing love every hour” (Hurston 1937:131).
Hurston’s scholarly methods for collecting and publishing ethnographic data are admired to this day. For example, “Hurston’s brand of research results in an expanded personal history, a history of private life and folk knowledge with all its ‘beauty’ and tragedy, its tensions, its contradictions, and its ethos of resistance” (Bannister and Hurd 2010:42; Patterson 2005); also, “the gifted writer (Hurston) found similar delight throughout her visit [to Polk County], revealing nobility in poverty and regaling humanity and enthusiasm for life in the midst of racism and hard living conditions” (Brown 2001:291).

Hurston’s colleague, the late William Stetson Kennedy (1916-2011) was a native Floridian, folklorist, and novelist who worked in partnership with Hurston on the WPA Federal Writer’s Project. Two of his books particularly relevant to this research are Palmetto Country, published in 1942, which is a collection of stories from his WPA travels throughout Florida, and the more recent 1990 publication, Jim Crow Guide to the USA which details the oppressive restrictions placed upon African Americans and other so-called minorities, especially in the Deep South. Kennedy was a champion of civil rights, and the publicity generated by his infiltration of the Ku Klux Klan in the 1940s significantly weakened the organization (Gitlin 2009:132).

Prior to the WPA projects, the few photographs of early twentieth century turpentine laborers at work were propaganda postcard imagery bearing captions such as “Happy Negroes Tapping the Pines,” and featuring subjects who were seemingly oblivious to the exploitation of their labors. The purpose of this early (albeit misguided)
marketing campaign was to entice northerners to vacation destinations in the south, especially the State of Florida. As late as the 1950s, a brochure for Lewis Turpentine Still and Plantation attraction in Brooksville, Florida created by one entrepreneur as an ad hoc solution to the waning turpentine industry, invited tourists to “experience eighteenth century plantation life as it existed in Civil War days” (Stetson University Archives 2012 [Figure 9]). In all cases, these types of “marketing materials” were designed to promote bucolic images and false narratives reinforcing racial stereotypes for profit.

The reports of government agencies were as egregious as the marketing materials for tourist attraction operators. In 1937, the Florida State Department of Agriculture published the following:

The life of the turpentine farm is centered around the turpentine still, the big house of the owner or camp manager and, off to one side in the quarters, the cabins of the darkies. These "tar heels of the piney woods" are good natured, easy going laborers who work four to five days a week, enjoy their Saturdays, and celebrate their pay-days. With no rent to pay, a few greens in their gardens, a few hogs in the woods, their women to catch fish, and a dog or two to hunt possums at night, their lives are filled with contentment (Florida State Department of Agriculture 1937).

It is doubtful any government official associated with this report bothered to interview a single laborer. Again, the stereotype of the child-like, submissive Negro was a foregone conclusion.

Dorothea Lange and Marion Post Wolcott were employed as photojournalists by the Federal Farm Security Administration during the height of the Great Depression. Lange studied photography at Columbia University and worked as a free-lance photographer, while Wolcott’s primary avocation was teaching. The iconic 1936
photograph, “Migrant Mother” captured in a California pea-picking camp, defines Lange’s work.

Lange and Wolcott’s work shared a common purpose: to document the story of poverty and deprivation in its rawest context. Their work was not overtly staged like the propaganda material of tourism profiteers, however, according to Davis, it was tainted by the goals of the Federal Government to promote government programs providing relief for economically disenfranchised Americans; it was a subtle form of propaganda for the Roosevelt Administration (Davis 2006:70). Although Lange and Wolcott’s photographs of southern turpentine camps were created almost a decade after the final occupation of Nalaka, it is reasonable to conclude that the dominant architectural style and the spatial organization of a Florida turpentine camp had not changed. The National Archives is the primary repository of the photography of Lange and Wolcott, and is a reliable secondary source for recreating what Nalaka may have looked like before its abandonment in 1929 (Figure 10).

More recently, ethnographers Linda Bannister and James E. Hurd, Jr. traveled throughout Georgia and Florida, seeking stories from surviving turpentine workers and their descendants. James E. Hurd, Jr. is the grandson of Jake Hurd, a turpentine laborer who worked in the Florida panhandle town of Wewahitchka from 1910 to 1940. Bannister and Hurd sought out individuals who had known or knew of Jake Hurd. Bannister and Hurd’s play, “Turpentine Jake,” was the published product of their research. The play premiered in August, 2008 at the Del Rey Theater in Los Angeles, California. According
to the authors, “[their fieldwork] was ethnographic research, primarily the collecting of retrospective personal narrative in the service of dramatic art” (Bannister and Hurd 2010:41).

Details of jook joint culture are rare in the modern scholarly record. Certainly the genesis of “the blues” as a southern genre of music is commonly documented in musicology. However, there appears to be a disconnect between the study of the music and the culture. Two Florida scholars, Madeline Hersiger Carr (2002) and Kristopher Ian Debnam (2009), published ethnographic research of the jook joint culture; Carr approached the subject matter from an historical perspective, highlighting the importance of the jook culture to black laborers embracing expressions of identity apart from Jim Crow and the watchful eyes of their white employers. “Jooks symbolized an underclass alliance and brought the fears of the unknown to the interpretations of these locations” (Carr 2002:66).

Debnam researched the cultural, social, and historical aspects of modern jook culture by utilizing ethnography and participant observation. His study highlighted the connection between modern jook joints and similar venues of the early twentieth century, ultimately concluding that the function of the juke remains the same. “The different elements that comprise this establishment as a whole, from its physical structure and unique decorations to its colorful history and loud music, all contribute towards allowing its patrons to define it as an important place of meaning, both personally and communally” (Debnam 2009:118).
Historical Sources

Census records are a good resource to reconstruct a snapshot of the demography of the American population at a specific date in time, in this case, the Nalaka camp. The first decennial US Census was conducted in 1790, and recorded heads of household by name, while spouses, children, and slaves were anonymously enumerated in age and sex categories. The same minimal information was repeated in the four censuses to follow. In 1850, the US Census Bureau expanded the data to include all members of a household by name. Slaves were enumerated separately in both the 1850 and 1860 censuses, albeit anonymously, by age and sex categories. After the Civil War, all individuals were documented by name. Unfortunately, in 1921 a fire at the Commerce Building in Washington DC consumed most of the 1890 census, leaving a decade long hole in genealogical research (Ancestry.com).

According to Federal privacy laws related to the circulation of detailed census data, 72 years must pass before release of the decennial census records. This assumes that most of the recorded population will be deceased by the time of publication. For example, in 1992, the 1920 census data was released for public scrutiny. Considering that the occupation of Nalaka existed from 1919 to 1928, the researcher is limited to the 1920 US Census to provide a temporal snapshot of the demography of this turpentine camp (Appendix A).

Further examination of images of the original 1920 Census pages for Nalaka reveals that in addition to capturing the demography of Nalaka, the pages starkly illustrate the racial segregation of the camp. That is, the small white population is listed
first, followed by the numerically dominant black population. It was the practice of census takers to systematically survey from house to house, without “skipping around.” This fact becomes extremely significant to reconstructing the spatial arrangement of Nalaka.

Sixty five years following the 1920 Census, archaeologists compiled three Cultural Resource Management (CRM) surveys for the Nalaka site at the request of the United States Air Force (USAF). The first survey, prepared in 1985 by Piper Archaeology, Inc., is an application for the site's inclusion in the Florida Master Site File (FMSF) (NPS, Form S-HSP-3C). The FMSF is the state’s official inventory of historical and cultural resources. The FMSF “maintains copies of archaeological and historical survey reports and other manuscripts relevant to history and historic preservation in Florida” (Florida Department of State 2013).

The second survey, prepared in 1994 by Janus Research/Piper Archaeology is a National Register of Historic Places Registration Form (NPS, Form 10-900, 1994) that identifies Nalaka as a significant site because the "property is associated with events that have made a significant contribution to the broad patterns of our history [and the] property has yielded or is likely to yield information important in prehistory or history” (NPS, Form 10-900, 1994). The final survey is FMSF Archaeological Site Form (HR6E06401-97) prepared by Parsons in 2003. It documents peripheral areas of the site, such as the turpentine still and a possible prehistoric mound, not previously investigated.
in the 1985 Piper survey. The site of the turpentine still is approximately one mile north of Nalaka, and was also located on the now defunct Atlantic Southern Railroad spur.

Temporal analysis of the features and artifact scatter plans presented in these surveys revealed the gradual degradation of the provenience of the surface material the author observed during preliminary reconnaissance of the site. Artifacts collected in conjunction with these surveys are catalogued in the Avon Park Air Force Range (APAFR) CRM office. The author’s research plan included cross-referencing those collected artifacts with the Piper maps for the purpose of projecting their provenience onto a 2013 map. In theory, this method would reduce the historic interval of final site occupation (1928) from 85 years to 57 years.

Archival material such as newspapers, government records, and unpublished histories provide details that may not exist in published sources. The Avon Park Depot Museum, located in the former Seaboard Coastline Depot that opened in 1926, is the repository for partial volumes of local newspapers such as *The Avon Park Times*, and *The Highlands Pilot*. This newspaper “database” is not digitized, and is only searchable by hand. Since the circumstances surrounding the dismantling of Nalaka are unknown, and an intriguing research project in its own right, the author conducted a search of the 1928 and 1929 editions of these two newspapers seeking any published clue for the impetus of Nalaka’s abandonment. Unfortunately, no relevant articles were found, therefore the research focus shifted to 1918 and 1919 editions of both papers, searching for articles regarding the establishment of Nalaka. While no press report identified the establishment
of Nalaka by name, several 1919 newspaper articles pertaining to the land acquisition activities of Consolidated Naval Stores’ president Walter C. Coachman in the Kissimmee Island region of Florida hinted at the company's plans.

In approximately 1972, Consolidated, currently operating as the Consolidated-Tomoka Land Company (CTLC), compiled a narrative of the history of their organization. The author is unknown. This manuscript includes copies of historic documents such as stock certificates, correspondence, meeting minutes, and invoices, which are invaluable in reporting dates and quantitative data, though scant, for the Nalaka camp. Additionally, the accompanying narrative provides insight to turpentine operations from the corporate perspective.

A preeminent source for historic research is the scholarly work of Dr. Canter Brown, Jr. He was born in Ft. Meade, Polk County, Florida, and is the author of several books on the history of south central Florida and its prominent citizens. His 2001 book, *In the Midst of All that Makes Life Worth Living: Polk County, Florida Until 1940* includes extensive details of the turpentine industry as it once existed in Polk County.

Perhaps the most comprehensive source for historical documentation of the history of the American turpentine industry is historian Robert Outland III. In his 2004 book, *Tapping the Pines: The Naval Stores Industry in the American South*, Outland acknowledges Consolidated as a significant presence in the turpentine economy of the early twentieth century, and utilizes primary ethnographic sources to describe the impact
of the economics of the naval stores industry on the day to day existence of turpentine laborers.
METHODOLOGY

Ethnographic and historical sources provide clues to locating the jook joint at Nalaka. Applied archaeological methods investigate the hypotheses that arise when examining these scholarly and historical materials. In November 2012, the author met with Kathy Couturier, CRM/Archaeologist for Avon Park Air Force Range (APAFR). Objectives of the research project were discussed including a review of the three primary guidelines for physically conducting research on an active bombing range: all site work would be supervised by Couturier according to the operation schedule of the USAF; before any work could commence on the site the author must view a short video pertaining to the safety issues inherent to encountering possible live ordinance on an active bombing range; the final peer-approved thesis and copies of all raw data, including electronic ArcGIS files will be submitted to the USAF upon completion of the project.

Site Description

The 106,074 acres of APAFR straddles the counties of Polk and Highlands in south central Florida. Most of the acreage was purchased by the US Department of Defense in 1942 from Consolidated and private Kissimmee Island cattle operations for the purpose of setting up a bombing practice range in anticipation of American involvement in World War 2 (Austin 1987). The Nalaka site occupies a Polk County sector. Access to Nalaka ultimately involves navigating sand “roads” that become nearly impassable during the Florida rainy season coinciding with the months of June through September.
The environment of this area of Florida “is characterized…by large expanses of pine/palmetto flatlands and prairie grasslands interspersed with oak hammocks and isolated stands of scrub oak and sand pine” (Austin 1987:287). It is very easy to become disoriented, unless aided by a compass. The Nalaka turpentine camp is unrecognizable to the casual observer; no structures survive, and the sole evidence that the site once supported a thriving community is scattered among the native flora within a perimeter of approximately 66 extant acres. Nalaka appears on a 1920 Florida railroad map for Polk county and is described in only one published source after that: a 1987 article authored by Robert J. Austin, a principal investigator with Piper Archaeology, Inc..

The historic railroad line illustrated in the 1920 map exists as an unofficial vehicular sand road, and remains as the most prominent feature. The rails and ties were long ago removed, perhaps used as salvage material. The road runs in a north-south direction, dividing the Nalaka site into two distinct ordinal parcels. Further examination of the site reveals that a secondary road, most likely contemporary to Nalaka, bisects the site from west to east. Drainage ditches criss-cross the property, directing rainwater run-off to a shallow lake located to the southeast (Figure 11).

Preliminary reconnaissance revealed that several categories of material culture were preserved in situ on the surface of this site. Bottle glass of various consumable products contemporary to the 1920s was immediately identifiable. Ceramics, dimensional lumber, automobile and tool remains were also prevalent. Assessment of the site led to the conclusion that a methodological pedestrian survey would be used to “flag” artifact
scatters whose subsequent provenience could be recorded with GPS and digital photography. This pedestrian survey would be conducted at 4 m intervals due to the high density of artifacts in many areas throughout the site. The author established a datum at the only permanent site feature, a water well pipe, located in the northeast sector of the site.

Preservation of Artifact Provenience

The preservation of artifacts, in situ, for long periods of time (85 years in the case of this study) is subject to both natural and man-made events. The forces at play at Nalaka are both natural (flooding), and man-made (looting and bombing). Before starting fieldwork, the author discussed with Couturier the ramifications of these events to the maintenance of in situ artifacts and was informed they were negligible.

The subtropical Florida climate dictates that torrential rains, flooding, and the occasional hurricane are pervasive during the summer months. It is unlikely artifacts were scattered by natural events because Nalaka is located on a slight topographic ridge that drains westerly to Lake Arbuckle. Had there been discernible movement of artifacts, the western limits of the site would have produced significantly more data. The ArcGIS maps prove this was clearly not the case.

Human intervention also had a very low impact on the Nalaka site. First, the 1942 purchase by the US Government of the land surrounding Nalaka decreased the site’s public exposure to 14 years. It is possible looting of recyclable materials such as railroad tracks, dimensional lumber, and bricks occurred during that time period; so few of these
items were documented in this study. After 1942, the site was a designated military installation with restricted access by civilians. Over the years, occasional hunting parties were permitted to pass through or near the site, however there is scant material evidence of their presence.

Second, although APAFR has been a bombing training facility for 70 years, records indicate that the Nalaka site has seen little of such action, save for some light artillery training exercises evidenced by the numerous spent 50 mm full metal jacket shells the author encountered during the pedestrian survey. Designating Nalaka as a veritable time capsule of 1920s turpentine camp life is accurate due to the limited natural and man-made forces exerted on the site over the years.

Data Acquisition

ArcGIS

Couturier furnished the author with shapefiles of a base map for APAFR prior to fieldwork. The projected geographic coordinate system for the APAFR files is WGS_1984_UTM_ZONE_17N. A base map of Polk County, Florida was downloaded to ArcGISv.10 (Student license courtesy of UCF) from the public access map site for the Polk County Property Appraiser (Polkpa.org), georeferenced to the APAFR coordinate system, and set up as a layer, with data sets unnecessary to the research ultimately edited out. Modern satellite imagery acquired from Google Earth was also incorporated and georeferenced to the same geographic coordinate system as the APAFR and Polk County shapefiles. Road, fence, and drainage features were created by tracing over the Google Earth image, and saved as three separate layers.
Georeferencing is an ArcGIS operation that aligns non-compatible spatial data with a known coordinate system. Unfortunately, the author’s attempts to georeference the hand-drawn Piper maps to the 2013 ArcGIS map were unsuccessful. The Piper maps were generated by analog methodology standard to 1980s research, and may be a useful resource for future efforts to georeference the analog data to digital data.

Fieldwork

The fire management team at APAFR conducted a controlled burn of Nalaka to assist my pedestrian survey. The burn occurred February 1, 2013 on the western half of the site, and on February 20th on the eastern half. Controlled burns destroy most opportunistic vegetation, thus rendering non-combustible items such as glass, metal, and ceramics readily identifiable. Mature trees are generally unharmed.

Field work to map and document in situ Nalaka artifacts began on February 5, 2013. Prescribed fire crew member, Adam Wright, and Couturier assisted the author with the pedestrian survey. The team members were positioned 4 m apart, executing 100% site coverage by pacing east west transects, keeping “true” to the north with the aid of compasses and the author’s verbal instruction. Significant surface finds, that is, artifacts that were whole or relatively intact to render them diagnostic based on shape, material, or markings were tagged with survey flags. Significant scatters, defined by the author as concentrations of artifacts, at least some of which were diagnostic were also flagged. Features such as depressions, drainage ditches, clearings, and fence posts were also identified. Glassware, ceramics, and metal items with no diagnostic significance were not
flagged. The pedestrian survey of approximately 66 acres of Nalaka West and Nalaka East required 10 field days to complete.

The invasive saw palmetto is abundant along the perimeter of the old railroad line and proved significant for this research because this hardy plant can survive for several hundred years, and its root system entangles material culture during the plant’s very slow growth cycle. Many artifacts encountered by the research team had been “captured” in their abandonment by this plant, rendering them identifiable, yet unrecoverable. Enamel cooking pots were particularly vulnerable (Figure 12), as were iron stove parts, timber saw blades, and unidentifiable ferrous objects (UFOs).

Upon completion of the pedestrian survey of Nalaka west, Couturier and the author began collecting GPS coordinates and photographs for approximately 400 flagged data points in the western sector of the site. Couturier recorded coordinates for the item(s) associated with each flag using a Trimble Juno SB Series GPS unit. According to the specifications for this instrument, 2 m accuracy is attainable depending upon the number of satellites available. The process was repeated for Nalaka east after the February 20th burn.

Prior to conducting the fieldwork, a spreadsheet was prepared (Appendix B) to coordinate photographic documentation with its concurrent GPS data point. In tandem with Couturier calling out the GPS identification number, the author photographed the artifact(s) with a Nikon Coolpix P510 16.1mp digital camera, and catalogued the number of the photo with the GPS data identification number so the photo could be hyperlinked
to the respective feature on the ArcGIS map. The survey flags were collected in conjunction with data recording. Couturier, retrieved recorded artifacts at her discretion for future curation at APAFR. Among the items she collected were diagnostic glass and ceramics, buttons, harmonica reeds, cutlery, saw blades, enamel pots, and unusual personal items such as shoe heels and pocket watch parts. Couturier downloaded the Trimble data using TerraSync version 4.0 software to convert the raw GPS data to ArcGIS shapefiles (.shx).

Data Processing

After each research trip, the ArcGIS shapefiles of the data were subsequently uploaded as a layer to the comprehensive ArcGIS map of Nalaka. There are six (6) artifact layers that correlate to the same number of data recording sessions. Initially, the layers were not merged because it was far more manageable to assign, as the research proceeded chronologically, symbology and hyperlinked digital photographic images to smaller data sets than the 720 plus total GPS points collected on site. Across each layer, graphic symbology was assigned to unique artifact classes for quantitative analysis, including, but not limited to glass bottles, ceramics, tools, personal items, food/pharmaceutical bottles, architectural debris, automotive parts, fence posts, and soil depressions. Table 1 identifies a comprehensive description of assigned symbology, and serves as the basis of a legend for all ArcGIS maps.

Depressions, defined as noticeable, generally circular, concave inclusions in surface soil, have the propensity to be significant historic time capsules. Some depressions may simply be the taphonomic evidence of a previous shallow-root tree.
However, other depressions may be indicative of a trash pit or a privy. In rare cases, anomalies such as oblong depressions that measure 1 m by 2 m may possibly indicate a clandestine burial, however, without invasive archaeological techniques or remote-sensing technology, this assumption cannot be verified.

The author designed the ArcGIS maps so that the selection of any data symbol on the map not only prompts a drop down menu including the properties and description of the data but also enables the user to view the photograph(s) of the artifact taken in situ. Each photographic image includes a north arrow with marked centimeters for both orientation and scale. Orientation, although recorded, is not a key component of in situ artifacts for this study, however scale is significant for future research for the proprietary identification of the individual artifacts.

*Spatial Analysis*

To calculate density across the artifact types, the author merged the six layers of data points into a single attribute table, and divided the site into six equal area ordinal sectors. The boundaries of the site were pre-determined to be defined by the most remote artifacts located during the pedestrian survey. That is, the artifact with the most extreme ordinal location was chosen as a limit for the north, west, east, and south sectors (Figure 13). Each sector defines an area of 44,750 m² or approximately 11 acres, and is coded according to its orientation (i.e. northwest = NW, central west = CW, etc.)

In ArcGIS, the attribute table for each layer lists the properties for every feature (or data point) recorded in that layer, in numerical order, sorted by unique feature
identification numbers. Performing a count of all like artifacts is simplified by the “select by attribute” function. For this study, the feature name is the defining attribute to sort artifacts by class (i.e. architectural, tools, ceramics, etc.). Like artifacts/features (i.e. of the same class) were enumerated per sector across the 17 classification categories.

The author prepared a table (Table 2) to display the density of artifacts (as a percentage of the total for site) per sector, calculated as follows:

\[
\% \text{ all artifacts per sector} = \frac{\text{Total for sector}}{\text{Total for site}} \quad (1.0)
\]

A second table was prepared (Table 3) to compare the percentage of like artifacts (i.e. per category) per sector, across the 15 categories, calculated as follows:

\[
\% \text{ like artifacts per sector} = \frac{\text{Total for sector}}{\text{Total for all sectors}} \quad (2.0)
\]

Maps of the six sectors graphically depict the data presented in the tables pertaining to type and density of all artifacts across the site.
RESULTS

Table 1, “Artifact Symbology,” describes the 17 classes of artifacts and features identified at Nalaka. These classes were defined by the author based upon the artifacts documented on the first day of fieldwork. Additional categories were assigned as fieldwork progressed when new classifications were identified. The resultant classifications are: architectural, automobile, ceramics, fence posts, glass jars, personal items, pharmaceutical/consumable, railroad, scatters, soda bottles, tools, and unidentified metal. The feature classifications are: clearings, datum, depressions, ditches, and oblong depressions. A modified version of Table 1, which includes symbology for the site features, serves as a legend for all of the author’s maps of the Nalaka site (Table 4).

Table 2, “Percentage of all artifacts/features per sector,” quantifies the density of artifacts/features across all six site sectors for the purpose of determining which sector of the site contains the most artifacts/features, regardless of class type. The resultant percentages of artifacts/features per sector listed from highest concentration to lowest concentration are as follows:

- 34.6% Southwest (SW)
- 28.8% Central East (CE)
- 17.4% Northeast (NE)
- 15.4% Southeast (SE)
- 3.5% Central West (CW)
- .52% Northwest (NW)
According to these results, sectors SW and CE contained 63.4% of all artifacts documented at Nalaka. Therefore they have the highest artifact/feature density.

Table 2 also enumerates the quantity of artifacts/features across all six sectors. The resultant quantities listed from highest to lowest with feature classifications bolded are as follows:

(126) Pharmaceutical/consumable  
(93) Architectural  
(88) Personal Items  
(74) **Depressions**  
(69) Scatters  
(58) Tools  
(53) Fence Posts  
(44) Glass Jars  
(42) Soda Bottles  
(42) Unknown Metal  
(33) Automobile  
(25) Ceramics  
(11) **Clearings**  
(8) **Oblong Depressions**  
(8) Railroad  
(771) **Total Artifacts/Features**

According to these totals, domestic items such as pharmaceuticals/consumables accounted for the majority of the artifact assemblage at Nalaka. This class includes medicine bottles, spice/extract bottles, ketchup and mustard bottles, pickle bottles, milk bottles, and miscellaneous poison bottles.
Table 3 represents the percentage, per sector, of each artifact/feature type, and highlights the artifact/feature classes pertinent to the proximity of a jook joint: architectural remains, clearings, soda/liquor bottles, glass jars (masonry jars were often improvised as drinking vessels), consumable items such as sauce bottles and mustard jars, and personal items like coins/scrip, musical instrument remains, jewelry, buttons, and shoe heels. With the exception of sector CE where clearings represent the highest percentage of features, the greatest concentration of jook joint-related artifacts are located in sector SW.

Sector Northwest (NW)

Sector NW has the fewest artifacts (Figure 14). The most significant find was an intact bed frame (Figure 15). Possible clearings where structures may have once stood were present in this sector, however they were not readily identifiable by changes in soil color or compaction. This sector is populated by saw palmetto and slash pine with little evidence of disturbance. The bed frame, overgrown by native plants, may indicate a household was once located nearby, however this cannot be established. A tin cup was the only personal item found in this sector.

Sector Northeast (NE)

The Nalaka datum, a fixed well pipe (Figure 16), is located in the southwestern corner of sector NE (Figure 17). This sector straddles the railroad line from west to east, contains the north terminus of a contiguous fence line, and reveals a diverse assortment of artifacts and features. The artifacts recovered here represent quality domestic and personal items such as decorative ceramics and china, a possible tea kettle or soup tureen
(Figure 18), decorative glass (Figure 19), a pocket watch case and forks (Figure 20), a bed frame, a makeup compact (Figure 21), and feminine buttons (Figure 22). Potential architectural items unique to this sector include three electric wire insulators (Figure 23), an electric door bell (Figure 24), and possible generator parts (Figure 25).

Two distinct areas in sector NE include dense concentrations of artifacts. Figure 26 is an inset "Area A" designated on the NE map. Domestic/personal artifacts in this concentration include bottles for various food items, a decorative vase (Figure 27), a ceramic cup, or sugar bowl with unintelligible script (Figures 28), a Panama Mobile Button, and a harmonica reed. This is also the same area where the electric doorbell was recovered. The second site in sector NE is located in close proximity to the railroad line, and consists of a heavy concentration of bottle glass shards (Figure 29).

Two clearings were documented in sector NE. The northerly clearing measures 10 m by 20 m, and is devoid of artifacts. The southerly clearing measures 8 m by 11 m, and bears a dense scatter of glass, ceramic, and unknown metal materials.

Sector Central West (CW)

Sector CW is mostly barren of artifacts and features, except for a scattering documented in the extreme southeast (Figure 30). This concentration contains tools, such as a two-man timber saw (Figure 31), a metal basin (Figure 32), a metal bucket (Figure 33), and two oil/gas cans (Figure 34). Architectural items such as metal roofing, and window glass were also present. Drainage ditches pass through the site, however most of
these 11 acres is occupied by saw palmetto and slash pine, and appears to be relatively undisturbed.

Sector Central East (CE)

The CE sector contains the second largest percentage (28.8%) of all artifacts/features at Nalaka. The old railroad line runs north to south along the western third of the sector (Figure 35). The fence line described in sector NE is continuous along the northern three quarters of the site. At least four drainage ditches are present, as are six clearings that are identifiable by their compact soil and lack of foliage. Dimensional lumber and bricks were present in three of the clearings, while two clearings contained dense artifactual debris (namely glass or rusted metal bits). The clearings varied in size from 70 m² to 160 m².

Architectural, domestic, and personal artifacts dominate the eastern side of the railroad line, with very few tools or automobile parts present. Tools, automobile remains, and unidentified metal (objects and rusted bits) dominate west of the railroad line, although many domestic and personal items are scattered throughout this area of sector CE.

The artifact assembly of the eastern side of sector CE is similar to the artifact assembly of sector NE. Architectural items are represented by dimensional number, furniture springs, and iron stove parts. The remains of a portable Coleman-type stove (Figures 36 and 37) were a unique find. Decorative items such as a glass vase (Figure
38), a clock gear (Figure 39), a violet glass jar, a scalloped plate rim sherd (Figure 40), and a maker’s mark plate sherd (Figure 41) were documented east of the fence line.

Pharmaceutical/consumable artifacts were distributed throughout the northern two thirds of the eastern side of sector CE. These artifacts varied from spice/sauce bottles to possible medicinal vessels. Personal items documented on the eastern side of sector included one shoe heel, a harmonica reed, a tin plate (Figure 42), at least six enamel pots, Panama Mobile buttons, and the lid from a tobacco tin (Figure 43).

Five oblong depressions were present on the eastern side of sector CE beyond the fence line. These depressions were approximately 1 m by 2 m in size, and did not resemble the generally circular-shaped geometry of most other depressions documented at Nalaka.

Among the 20 tools identified on the western side of sector CE were metal buckets and basins, a shovel (Figure 44), a saw, a steel cable, a gear chain (Figure 45), and barrel rings. Automobile remains consisted of two intact vehicles (Figures 46 and 47), and numerous scattered auto parts.

Domestic and personal items were documented on the southerly two thirds of the western area of sector CE. Notably, a watch lens and a shoe heel were recovered (Figure 48), as were a decorative plate sherd, some plain white ware, and a glass vase. Pharmaceutical/consumable artifacts were also contained in this same area.
Sector Southwest (SW)

The SW sector contains the greatest percentage (34.6%) of all artifacts/features documented at Nalaka (Figure 49). These 11 acres contained 36 depressions. The sector is divided by the old railroad line into western and eastern halves.

Western Half of Sector SW

Most of the artifactual evidence in the western half of Sector SW includes the classes of architectural, pharmaceutical/consumable, personal, soda bottles, and scatters. Tools, railroad, and automobile-related items were distributed throughout this sector in close provenience to domestic and personal items.

The architectural items identified in the western half of Sector SW include window glass, dimensional lumber, a door hinge, clay tile, and stove parts. 38 pharmaceutical/consumable artifacts were documented. This total includes spice/condiment bottles and jars, pickle bottles, milk bottles, and probable medicine vessels. 19 soda bottles were identified; Coca Cola bottles were the dominant proprietary item (Figure 50).

Sector SW contained the most personal items (32) across all sectors. The types of personal items documented in the western half were enamel pots, vinegar cruets (Figure 51), glass vase remains, two harmonica reeds, four shoe heels, two buttons, and a coin bank lid. Scatters in the western half of sector SW contained glass shards and pieces of ceramic items.
To the north of this half of the sector’s only clearing (inset "B" Figure 52), is a concentration of artifacts that included items unique within the Nalaka site: two possible beer or liquor bottles (Figures 53 and 54). These were documented in association with two shoe heels, a perforated salt shaker lid (Figure 55), a harmonica reed (Figure 56), two buttons, a possible tobacco tin lid, a stove part, glass vase remains, a costume jewelry bead (Figure 57), broken, human mandibular molar, and various pharmaceutical or consumable items.

An abandoned automobile occupies the clearing (Figure 58). The clearing is bounded by four mature pine trees and measures 129 m² in area. Other than an additional automobile part and a saw blade, the surface of the clearing is devoid of artifacts.

Eastern Half of Sector SW

To the east of the railroad line, architectural and personal items dominate the artifact assemblage. Architectural items documented in the eastern half of Sector SW include dimensional lumber, cinder blocks, standing seam tin roofing (Figure 59), bed springs, clay pipe, and seven stove parts. One stove part bears embossed proprietary identification (Figure 60). Personal items documented in the eastern half of Sector SW include five buttons, a shoe heel, enamel pots, three glass vases, a drinking glass, and two metal buckets.

Ceramic items documented in the eastern half of Sector SW include white ware and crock pot sherds, a rim sherd of a plate decorated with a blue line, and the top of a large (one gallon) ceramic jug (Figure 61). Pharmaceutical/consumable artifacts consisted
of milk bottles, mustard jars, and spice/condiment bottles. No intact soda bottles were
documented in this area. One bottle that resembled a beer or liquor bottle was identified
within a scatter (Figure 62).

The Eastern half of Sector SW contains a clearing that is located nearly due east
of the clearing to the west of the tracks. The eastern clearing measures 90 m$^2$ in area. It is
bounded to the southeast by architectural remains (standing seam roofing and
dimensional lumber.) Otherwise, the surface of this clearing is devoid of artifacts.

Sector Southeast (SE)

Artifacts similar to those documented in the eastern half of Sector SW were
identified in sector SE (Figure 63); they are primarily related to domestic activity. A
well-defined fence line (a continuation of the fence line identified in sectors NE and CE)
is present, and parallels the old railroad line approximately 50 m to the east. A shallow
lake occupies half of the eastern area of sector SE.

20 artifacts from the architectural class were documented, including seven stove
parts, one of which was a stove door bearing an incomplete proprietary name (Figure 64),
and another that was a stove burner lid (Figure 65). Dimensional lumber, window glass,
one ceramic tile, and furniture springs were also documented, along with a blue electric
wire insulator.

One automobile-related artifact was found in sector SE, and a possible hitch was
also documented (Figure 66). The tool class was represented by lumber saws, and a metal
file. Pharmaceutical/consumable artifacts included spice/condiment bottles and jars.
medicinal bottles, and two McCormick poison bottles, one broken, and one intact (Figure 67). Soda bottles were present in Sector SE, however none were intact.

Ceramic items included a plate sherd with a maker’s mark, a coffee cup, and scatters of white ware. Personal items were represented by three vinegar cruets, a makeup compact, a clock part (Figure 68), a drinking glass, enamel pots, a tin cup, and a possible perfume bottle (Figure 69).

Sector SE was the site of a 7 m by 7 m clearing, 13 depressions, and three oblong depressions. The 1 m by 2 m oblong depressions were located to east of the fence line like the placement of the five oblong depressions in Sector CE.
DISCUSSION

According to the 1920 US Census (Appendix A), 213 individuals were enumerated in Nalaka; 26 were white, and 187 were black or mulatto. There were 7 white households, 43 black households, and 3 “dormitories” for single black men. In total, a minimum of 53 dwelling units once occupied the camp. The census schedule hints at the spatial segregation of Nalaka. At the time of the 1920 US Census, census enumerators usually methodologically proceeded from house to house. The railroad would have dictated a northern approach to the camp. Thus, the 7 white households that likely occupied sectors NW and NE would have been the first to be listed. The enumerators then would have proceeded south to the remaining four sectors. All 46 dwelling units presumably south of the white sectors are, according to the Census, occupied by black/mulatto individuals.

This spatial segregation is reinforced by an informant of Kennedy’s: “The white fokes [sic] live in fairly good houses at one side of the camp, and the niggers live in their quarters at the other side in two or three-room cabins. We always aimed to have separate quarters for the single niggers to keep them from messin’ up with the married men’s wives….” (Foreman [white], Kennedy 1942:265).

Although the 1920 census provides a snapshot of the demography of Nalaka for that year, the in situ artifacts left behind date to 1928, the year of Nalaka’s abandonment, and may support the spatial segregation implied by the earlier census.
Table 2 Quantitative Spatial Observation

Table 2 provides a percentage of all artifacts and features per sector, and a sum of artifacts per class. According to this table, artifacts and features are most abundant (in descending order) across Sectors SW, CE, NE, and SE. In comparison, Sectors NW and CW are mostly devoid of artifacts. Domestic items across the classes dominate Sectors NE, SW, SE, and the eastern half of Sector CE. The western half of Sector CE is dominated by tools and automobile remains continuing southward into Sector SW where non-domestic artifacts become less plentiful than domestic ones.

Domestic items are common in a north-south progression through Sectors NE, CE (eastern half), and SE. Sections of a crude barbed wire fence that once ran parallel to the railroad line remain in situ. Approximately one third of the artifacts and features documented for Sectors NE, CE (eastern half) and SE were located beyond the fence line to the east.

Table 2 accounts for quantities per artifact/feature class, not qualitative data describing the specific types of artifacts and features within a class. Therefore, documenting the spatial transition between what were likely white-occupied dwelling units in Nalaka North, versus the likely black-occupied dwelling units in Nalaka South will require the analysis of qualitative data.

ArcGIS Qualitative Data

ArcGIS data and hyperlinked photographs must be examined to describe the types of artifacts and features across the class typology documented at Nalaka. The following
narrative identifies specific items per class, and is presented in descending order according to quantity.

*Pharmaceutical/Consumable (126)*

It is difficult to differentiate proprietary consumable food items from pharmaceuticals. Paper labels decomposed long ago, and unless the bottle is embossed, one can only guess at its contents. In the 1920s, “patent” medicine was still common. Patent medicine can be attributed to itinerant entrepreneurs who peddled various tonics and pills promising instant cures to almost every known ailment. As a result, the likes of “Liver Pills,” and "Grove's Tasteless Chill Tonic" were desirable products. Nalaka revealed many of these receptacles, although the presence of unidentifiable consumable food stuffs dominated by a ratio of approximately two to one.

All bottles documented were machine-made, dating them after 1917, and few bottles had an external screw top closure. This type of closure was uncommon until the late 1920s (Society for Historical Archaeology 2011).

The most prevalent bottles in the consumable category were rectilinear “McCormick” spice bottles (Figure 70), followed by smaller cylindrical bottles with no proprietary markings (Figure 71). Attempts to identify these bottles were unsuccessful. Vinegar proprietary bottles and cruets were some of the most common domestic artifacts at Nalaka. Vinegar has many uses, including food seasoning, vegetable pickling, and house cleaning. The brand, "White House Vinegar" was the most common diagnostic receptacle.
Other types of bottles that were diagnostic due to their unique shape were ketchup bottles (Figure 72) sauce bottles (Figure 73), and poison bottles. As late as the 1920s, many Americans remained illiterate. Pharmaceutical companies devised an ingenious method to render poison bottles identifiicable to consumers who could not read; they manufactured the bottle in unique shapes, such as this three-sided “McCormick” poison bottle, with prominent tactile surfaces.

Presumed pharmaceutical bottles of many shapes and sizes were documented throughout the four most populous sectors of Nalaka (NE, CE, SW, and SE). Some were embossed with the proprietary name or calibrated markings for ounces, while many revealed no identification except for the bottle manufacturer’s maker’s mark embossed on the base.

**Architectural (93)**

Architectural-related artifacts were identified across all Sectors of Nalaka, however these were most prevalent in Sectors SW, followed by Sectors CE and SE. Dimensional lumber, window glass, and cast iron stove parts were present in nearly equal quantities. Dimensional lumber was present in the form of finished cypress structural members (i.e. 2 x 4 or 2 x 6). Window glass was common across the site, although none was present in Sectors NW or CW. Cast iron stove parts are included in the architectural class because they would presumably have been too difficult to relocate. Stove legs were the most common find (Figure 74).
Bricks were also common, usually found without provenience to other bricks, and there was no evidence of brick structures. Also present were concave sections of terra cotta, the purpose of which is indeterminate. Less common architectural items were electric wire insulators (4), bed frames (3), hinges (2), doorknobs (2), and an electric doorbell.

*Personal Items (88)*

Buttons were among the most common personal items recovered at Nalaka. A total of 24 buttons were collected, 18 of which were metal, bearing the stamp “Panama Mobile” (Figure 75). Panama Mobile was a line of work overalls manufactured by the Mobile, Alabama-based enterprise Kahn Manufacturing Company beginning in 1915 (McGehee 1997). It is likely that Kahn Manufacturing had a contract with Consolidated to supply the Nalaka commissary with their limited line of clothing. The Panama Mobile buttons were found in the NE, CE, SW, and SE sectors of the site. A suspected overall fastener was also found in association with a Panama Mobile button (Figure 76).

Enamel cooking pots were the second most common personal item. Most of these pots bore a blue-on-white sponge design, and were found in various sizes at differing stages of decay. Enamel pots were plentiful throughout the site except for the NE and NW sectors. According to 1920s era Sears Roebuck catalogues, enamel cookware was inexpensive yet sturdy.
Three harmonica reeds were recovered at Nalaka. One reed was found in Sector CE, while the remaining two reeds were located in close association in Sector SW. A plain brass locket and watch glass lens were also found in sector CE.

Another common personal item was rubber shoe/boot heels. Eight intact heels were recovered primarily in the SW and SE sectors, and although they varied in condition and size, the heels appear to be of the same style, with similar distinctive nail patterns (Figure 77). The uniformity in style may indicate that in addition to Panama Mobile overalls, work shoes were also a proprietary commissary item.

One decorative personal/domestic item that appears to be a common possession in the densely domestic sectors SW and SE is a heavy glass item that may have been used as a vase or pedestal serving bowl. At least six of these were documented, and none were intact. Perhaps it was a status symbol item sold at the commissary or obtained through a catalogue store.

*Depressions (74)/Oblong Depressions (8)*

Depressions were recorded throughout five of the sectors of the entire Nalaka site, however they were the most numerous in sector SW. As described previously, noticeable depressions in the landscape may be indicative of privies, trash dumps, or previous floral root systems. The depressions ranged in size from 1 m to 3 m in diameter, and were no more than .5 m deep. Munsell soil color readings were not recorded for the depressions. In most cases, they were a darker grayish/brown color than the surrounding light yellow/brown soil. There is no means to determine which category such depressions
represent without excavation. The darker appearance of the soil for some of the depressions may be indicative of a privy or trash dump.

Eight 1 m by 2 m oblong depressions were identified beyond the fence line of Nalaka East in Sectors CE and SE. According to the reports of long term Kissimmee Island residents, when a turpentine laborer died, he/she was interred in the family back yard; there usually was no common graveyard in itinerant turpentine camps. It is questionable whether or not these depressions are graves. Specifically, the custom of Christian burial is to place the body in an east-west orientation, with the feet to the east, so the decedent rises on Judgment Day to face the morning sun (Jamieson 1995). Three of the eight oblong depressions conform to this custom, while the remaining five do not.

**Scatters (69)**

Scatters of both diagnostic and non-diagnostic materials were common occurrences throughout sectors NE, CE, SW, and SE. The largest and most visible scatter was the bottle dump site in sector NE. The artifact types contained in scatter concentrations generally matched the type of materials recovered in proximity. For example, domestic scatters were not common in proximity to items with non-domestic association. In most instances, small, personal items, especially buttons were recovered in provenience with a glass or ceramic scatter.

**Tools (58)**

Timber saw blades were, by far, the most common tools left behind in Nalaka. These two-man crosscut saw blades are approximately 2 m in length; their wooden
handles long since rotted away. This tool is not associated with “pine tapping,” however it may be evidence of clearing the camp site for initial occupation, or felling trees for building materials or fire wood.

A total of six metal files were recovered across most sectors of Nalaka. These files would have been used to sharpen tools. Three shovel blades were also identified. The author designated wood barrels as tools, and the remnants of these vessels existed as vacant metal straps which were present in most sectors of the site, some of which were entangled in the roots of saw palmettos. Buckets and wash basins were included in the “tools” class. In all cases, the remains of metal buckets were entirely flattened. Metal wash basins were documented in various stages of decay.

_Fence Posts (53)_

Fence posts line the north to south axis of Nalaka on the eastern side of the site. The posts are crude, un-worked tree branches. In most cases, they retain evidence of u-shaped metal fasteners supporting barbed wire (Figure78). The majority of the posts remain standing, in situ, while several other posts have fallen down. The ArcGIS maps illustrate this by graphically connecting only the posts that were standing. The result is a delineated eastern barrier. No fence posts were located on the western side of the site.

The presence of a fence on the eastern boundary of the site may be attributed to the existence of a large cattle operation on Kissimmee Island, contemporary to Nalaka. Two years prior to Nalaka’s establishment, Consolidated organized another subsidiary
entity: Kissimmee Island Cattle Company, and conveyed to it 133,506 acres of land. By the end of 1917, there were 24,000 cattle on the ranch (CTLC 1972:31).

Glass Jars (44)

Seven types of glass jars were identified at Nalaka. The most common were the cobalt blue, 6 cm height, Vick’s mentholated ointment jar. Second to the Vick’s jars were milk glass cold crème receptacles. “Baby food”-sized jars were also a common find, as were mason jars, mustard jars, and the remnants of jelly jars that likely served the dual purpose of drinking glasses.

The remains of many oversized (i.e. one gallon plus) clear glass jars/jugs were recovered throughout the site. It is likely these were proprietary items repurposed as water vessels for the laborers to take into the pine woods (Figure 79).

Soda Bottles (42)

The most common beverage bottle left behind at Nalaka is Coca Cola. By the 1920s, Coca Cola had already established itself as the standard bearer of carbonated beverages. The highly recognizable contour bottle shape was introduced to the market in 1916 and remains relatively unchanged to this day. Most of the Coca Cola bottles documented bear an embossed Avon Park Bottling Company label on the bottom. Sanborn Maps corroborate that Avon Park had its own bottling works in the 1920s. However, Coca Cola bottling plants were also located throughout Polk County in towns such as Bartow and Winter Haven, to name a few. In addition to those locations, bottles from Tampa, Orlando, and far away Jacksonville were also recorded.
The second most common beverage bottle was J.S. Francis Company. J.S. Francis purchased the Avon Park Coca Cola Bottling Company in 1923. He continued to bottle the patented Coca Cola beverage in its original bottle. The unique bottle of the new company held flavors such as “Orange Crush,” “Lemon Crush,” and “Cherry Blossom.” Less common soda bottle types embossed with labels such as “Royal Palm,” “Bruce,” and “Southland Grapefruit Soda” were also identified.

In 1920, Prohibition became Federal law with the ratification of the Volstead Act, the eighteenth amendment to the US Constitution. This law banned the production and consumption of alcoholic beverages. Enforcement of Prohibition varied across Florida’s counties. Some counties vociferously pursued anyone for mere possession. Other counties cast a blind eye to the private operation of stills and surreptitious consumption. Rural counties such as Polk, tended to embrace enforcement of the Volstead Act, while counties such as Dade adopted a liberal interpretation of the law due to its proximity to rum-running countries such as Cuba and the Bahamas (Florida History.org).

This does not imply that illegal production of alcohol did not occur in Polk County. Historical newspapers occasionally reported the apprehension of local still operators. Four bottles recovered at Nalaka bore the ubiquitous shape of beer or liquor bottles, two of which were located in close provenience. However, they were undiagnostic, save for bottle manufacturer maker’s marks. It is possible these bottles predate prohibition, but there is no proof of their identity.
The author collected broken bottle glass in Sector CE from a single vessel that when reassembled, revealed the embossed label: “Champion Co. [...]balming Fluid.” Internet research indicated that the Champion Company of Springfield, Ohio produced embalming fluid in the 1920s. If there was an undertaker present at the Nalaka site, there would likely have been more artifactual evidence of this trade. Further research uncovered the grim reality that the ingredients of moonshine often included embalming fluid. In *Mules and Men*, Hurston describes a sometimes lethal concoction that substituted for liquor:

Someone had squeezed the alcohol out of several cans of Sterno and added sugar, water, and boiled-off spirits of nitre [nitric acid] and called it wine. It was dealt out with the utmost secrecy. The quarters boss had a way of standing around in the dark and listening and he didn’t allow a drop of likker [sic] on the job (Hurston 1935:122).

One artifact with the possibility of association with a recipe for moonshine does not prove that the illegal beverage was produced on site in significant quantity. The embalming fluid bottle may either be a remnant of an undertaker’s trade, or merely an anomaly.

*Unidentified Metal (42)*

Unidentified ferrous objects, nicknamed by the author “UFOs” were present across the entire site, although in highest concentration in sectors NE and CE. Most moderately diagnostic items, that is, artifacts that have not rusted beyond recognition are likely car parts, machine/generator parts, or stove pieces.
**Automobile (33)**

While the poverty of the African American laborers in camps such as Nalaka implies they had no access to automobiles, the artifactual record, here, suggests otherwise. In addition to four intact vehicles, automobile parts such as mufflers, mirrors, headlamps, running boards, fuel tanks, axles, etc. were common in sectors CE and SW. Fuel cans were included in the automobile class. The greatest concentration of intact vehicles, car parts, and fuel cans were located in Sector CE (western half), suggesting that some sort of service area was once located in the vicinity.

“During the boom years of the twenties the Model T Ford was cheap and plentiful […] Cars were so cheap that when one was wrecked it was often just left there” (Brown 2001:271). The four intact vehicles rusting away at Nalaka appear to be the same model. This correlates to the fact that the 1920s Sanborn Insurance Map for Avon Park reveals that there was a Ford automobile plant in town.

**Ceramics (25)**

Plain white ware dominates the ceramic record at Nalaka. Most of the white ware sherds recovered were the remnants of plates or mugs. A limited number of decorated ceramic sherds were identified, some of which included a maker's mark. Decorated sherds were found in Sectors NE, CE, SW, and SE, however sector NE produced the most. The only sherd of genuine porcelain china (undecorated) found at Nalaka was recovered in the northern clearing of Sector NE. Two other curious items collected in this Sector were a colorful ceramic cup or sugar bowl that bore an unintelligible inscription,
and a ceramic sherd in the shape of a human ear (Figure 80). It may have once been part of a doll's head.

Pottery, in the form of jugs and crocks was another common type of ceramics found at Nalaka. Sherds for these items were either brown/tan or blue glazed. The remains of single-handled tops were also documented in association with the generally non-diagnostic sherds.

**Clearings (11)**

There were at least 11 areas documented on the Nalaka site devoid of plant life with compacted sand and mature pine trees growing on the periphery. These features were identified as clearings. Some of the clearings contained diagnostic material culture, while others were essentially sterile. Sector CE has six of the 11 documented at Nalaka.

The china sherd, discussed in subsection "Ceramics," was recovered in a large essentially sterile clearing (20 m x 10 m) in sector NE. In close association was another clearing that measured 11 m x 8 m. Conversely, this clearing contained a large concentration of glass and ceramic scatter.

Most of the clearings bordered the rail line to the east. However, two clearings located in sector SW bordered the rail line to the west. The first clearing, to the north, was densely covered with ferrous metal bits, and many unidentifiable metal objects. This may be the location of a depot or a mechanic's shop, however the artifactual evidence is inconclusive.
Further south of this in the same SW sector, another clearing was obvious; an abandoned Model T with a mature pine tree growing through it markers one corner of this clearing. This was the only clearing that was present in an otherwise predominant sector of domestic assemblage. In close association with this clearing were personal artifacts such as two harmonica reeds, two shoe heels, a possible tobacco tin lid, a salt shaker top, raincoat and Panama Mobile buttons, architectural items such as stove parts, and finally, two long-necked bottles that were neither soda bottles nor pharmaceutical/consumable bottles; the dark hues of these bottles indicate they are either liquor or wine bottles.

**Railroad (8)**

At one time, the Atlantic Southern Railroad passed through Nalaka, and continued on to the west coast. Sometime after Nalaka’s disbandment, the rail line was rendered obsolete. Salvage of the rails and ties was extensive; a few remnants of the rails along with iron spikes were recorded in sector CE, and tram rail, likely related to transportation of turpentine sap, was documented in association with the heavy rail.

**Summary of the Spatial Organization of Nalaka**

According to the 1920 Osceola County Railroad Map (Figure 3), the only public access to Nalaka was via a rail spur approaching from the North. A visitor to Nalaka would pass the turpentine still site before arriving at the camp (Figure 81). This is most likely the same approach US Census employees traveled to collect the 1920 Census data from the camp’s residents.
The enumerator(s) for Nalaka recorded race for each individual as white, black, or mulatto. The first seven households documented in the 1920 Census (Appendix A) were occupied by white individuals. Enumerators walked their territory systematically so as not to skip a household, therefore it is highly likely these white households were the first dwellings encountered; all seven were located to the north.

These residences were located in Sectors NE and CE (east). Eight clearings documented in these sectors on the eastern side of the railroad line were likely the sites of structures. Seven of these clearings would have been the sites of dwelling units, and one may have been dedicated to an alternative use. It is likely some of these structures may have had limited access to electricity because glass electric wire insulators and possible generator parts were documented in Sector NE.

The anomalous eighth clearing may have served the purpose of a public building to which the electric doorbell was associated with. Perhaps this building was Nalaka’s commissary, operated by Consolidated Naval Stores. According to contemporaneous recollection, commissaries were usually open for limited hours throughout the week. It may have served as a post office and an ad hoc “credit union” as well. Security concerns necessitated the use of a doorbell for the laborers to announce their arrival.

South of the commissary is a significant glass scatter or bottle dump. There are two likely scenarios for the presence of so much bottle glass in this area of the site. The first possibility is that this may have once been a shady spot where laborers gathered to await the opening of the commissary so they could collect their wages or spend their
scrip for the pay period. The second possibility is that this was the pickup and drop off rendezvous point for laborers commuting to and from the pine forest every work day.

Proceeding southward on the site, a small portion of the southeast area of Sector CE (west) of the railroad tracks appears to be some type of service/maintenance area due to the abundance of automobile parts and tools. A clearing in Sector CE (west) is populated by so many unknown metal items and ferrous bits that the density of the debris scatter reveals an obvious rectangular building footprint. Window glass was also documented in this clearing. If Nalaka had a train depot, this would likely be the site.

On the other side of the tracks (east) in Sector CE, domestic artifacts dominate the archaeological record. A transition between white and black dwellings could have occurred in this Sector based on the assumption that the eight clearings supported seven households and a commissary. The archaeological record is insufficient to delineate where that transition took place.

Domestic artifacts appear in provenience with non domestic in the northeast area of Sector SW. This area appears to be a transition between a work yard and dwelling units. The remainder of Sector SW primarily contains domestic artifacts. Across the railroad tracks, Sector SE is also dominated by domestic artifacts.

After documenting the 26 white residents in Nalaka north, the enumerators of the 1920 Census worked their way south to collect data from the 231 black and mulatto residents. Evidence presented here indicates that the dwelling units for non-white laborers and their families were relegated to the SW and SE sectors of Nalaka. According to the
map, the limits of domestic artifacts in Sectors SW and SE occupy an area of approximately 12 acres. Therefore, an average of .25 acres were dedicated to every non-white dwelling unit, including yards and roads or pathways.

Table 3 Jook Joint Classes per Sector

Table 3 lists the percent of like artifacts (i.e. belonging to the same class) per sector. It also highlights the highest percentages of likely jook joint artifacts and features per Sector. In review, these classes include: architectural, clearings, glass jars, personal items, consumables, scatters, and soda bottles.

Sector Northwest (NW)

This Sector contains no evidence to suggest a jook joint was once located here.

Sector Northeast (NE)

Sector NE contains artifacts from the seven classes of probable jook joint items, but in much lower percentages compared to Sector SW. A dense bottle dump is located south of the possible commissary. This site meets only one criteria for a jook joint location: an abundance of bottle glass. In 1985, Piper Archaeology conducted shovel tests of the bottle dump, but did not uncover any other artifacts significant to a jook joint. Most significant is the Census record which supports the theory that Nalaka’s white residents occupied this area of the site.

Sector Central West (CW)

This Sector contains no evidence to suggest a jook joint was once located here.
Sector Central East (CE)

Sector CE contains artifacts from the seven classes of probable jook joint items. With the exception of clearings and soda bottles, the percentages range from 12% to 50% lower than the artifact percentages for Sector SW. Clearings are 300% times more prevalent in Sector CE than Sector SW, and soda bottles are 79% scarcer in Sector CE than in Sector SW. The investigation of a large glass scatter in Sector CE revealed mostly domestic items. This scatter is located in what appears to be the southern limit of the proposed white occupation.

Sector Southwest (SW)

According to Table 3, Sector SW produced the highest percentages of artifacts across six classes of the seven for probable jook joint artifacts, with the exception of clearings. A concentration of artifacts representing six of the seven classes of jook joint artifacts was identified near the extreme southern boundary of Sector SW. The concentration was located 15 m north of a 110 m² clearing. An abandoned automobile is also located here.

Sector Southeast (SE)

This Sector produced the third highest percentage of jook joint-related artifacts. The third liquor bottle documented at Nalaka was recovered east of the SW Sector clearing, on the other side of the railroad tracks. Although artifacts significant of jook joint were documented throughout this sector, none were found in provenience.
Summary of the Likely Jook Joint Location

The spatial layout of Nalaka reinforces the intentional segregation of African Americans from the white residents. Drobney’s study of the lives of men and women in the lumber company towns of northern Florida between 1900 and 1940 illustrates that “separate and unequal facilities were the norm for black workers, and labor practices varied widely….‘jook joints’ with illegal gambling, dancing, and prostitution remained firmly in the black sections” (Drobney 1997, Miller 2006:91).

There are two concentrations of broken bottle glass (or bottle dumps) at Nalaka. The first site, located in Sector NE, is approximately 45 m south of the possible commissary site and is next to the railroad line. This bottle dump is well within the white quarters and an unlikely location for a jook joint.

The second concentration is located further south in sector CE. In addition to a large concentration of bottle glass, the author recovered five buttons in this location. All but one button was brass, and stamped “Panama Mobile.” To recover so many like buttons in such close proximity suggests that a pair of overalls may have been discarded in this location, the fabric having deteriorated long ago.

The head of a 1920s Gillette razor (Figure 82), and a small decorative metal plate (Figure 83) collected here suggest a domestic occupation. This site is also on the southern limit of the white dwelling units, which would not have been an ideal place to operate a noisy jook joint.
The final location, situated in sector SW, did not have as high of a density of broken glass as the previous two sites, however, its location at the remote south end of Nalaka reflects period descriptions of camp jook joint placement. Artifacts associated with this location include two harmonica reeds, two shoe heels, a tobacco tin lid, a salt shaker top, a raincoat button, a Panama Mobile button, two possible liquor bottles, a stove part, a costume jewelry bead, a broken human, mandibular molar, and random scatters of bottle glass and pharmaceutical/consumable bottles.

These artifacts are situated in proximity to a discernible clearing. The body of a Model T occupies the clearing, along with a muffler, and a timber saw blade. While this SW Sector site matches the criteria for artifactual evidence and spatial location of a jook joint, the archaeological record is inconclusive.
CONCLUSION

For most post-Emancipation African Americans in the South, debt peonage was the only employment situation available. Debt peonage was an alternative to antebellum slavery whereby laborers voluntarily signed up for employment, unaware that they had offered themselves over to bondage in a system that was designed to keep them in perpetual debt without legal recourse to escape their employment situation. Debt peonage prevailed well into the twentieth century.

The agricultural economy of the South was dependent upon low labor costs, and prior to the Great Depression, the need for inexpensive labor was pervasive in the fruit-picking, timber, and turpentine industries. By the 1920s, African American labor was in demand for work in the long leaf pine forests of Florida for the purpose of extracting pine sap for the production of turpentine. Turpentine laborers were rarely Caucasian, unless they were employed as foremen or “woodsriders.”

In the early twentieth century, turpentine laborers lived an itinerant existence, following the long leaf pine from place to place as long as the sap flowed freely. Their settlement camps were temporary, subject to the abrupt relocation plans of their employer.

The turpentine camp of Nalaka in Polk County, Florida, operated between 1919 and 1928, and its apparently abrupt abandonment left behind a record of material culture in the form of in situ artifacts. Although no structures survive at Nalaka, the patterns of
the remnants of material culture were significant enough to reconstruct the spatial organization of Nalaka using GPS and ArcGIS technology, and the support of secondary ethnographic sources and historic documents.

Many ethnographic sources contemporary to Nalaka describe the function of a jook joint as the laborer’s means of resistance to a system designed to enslave them. The Jook was a structure where the laborers gathered on weekend evenings to drink, dance, gamble, flirt, and sometimes fight. Furthermore, this venue was vital to the expression of identity for working-class African Americans. Considering the isolation of Nalaka, the size of its labor force, and both historical records and ethnographic accounts, it is very likely Nalaka supported a jook joint.

A concentration of seven classes of artifacts and features are proposed as indices of a jook joint site: architectural remains, landscape clearings, glass jars, personal items, pharmaceutical/consumable items, artifact scatters, and soda bottles. With the exception of landscape clearings, the southwest sector of the site contains the greatest percentages of these classes of artifacts over the total for all 66 acres of Nalaka. One concentration of artifacts near the southern limits of the southwest sector supports both the artifact criteria and ethnographic reports that jook joints tended to be located at the far edge of a camp. This artifact concentration is also the only one that includes two possible liquor bottles. Invasive archaeological methods could reveal more decisive evidence such as dice, playing cards, and scrip, but for now, the location of the jook joint is inconclusive.
Although the location of a jook joint at Nalaka cannot be confirmed, the camp has potential for future research on several fronts. So many proprietary items were identified in situ that the data set renders itself to research of consumerism and proprietary consumer goods in a micro economy supported by a company store. Another area of research may be the use of remote sensing devices to study the many depressions found at Nalaka. Finally, the turpentine still site, located north of the camp, has the potential for intensive research beyond the singular CRM survey compiled for it two decades ago.

The once forgotten African American laborers of Nalaka deserve a voice. Likely, they seized their voice to express agency through leisure against an oppressive system of racism and paternalism; to sing songs, challenge another at gambling pursuits, whisper their love for a sweetheart, or shout their animosity for a rival. The collective voices of the laborers of Nalaka, and others held in debt peonage, have much to contribute to the historical archaeological record of the little known reality that a post-Emancipation form of slavery existed in America well into the twentieth century.
Figure 1. Polk County, Florida location map
Figure 2. Avon Park Air Force Range
Source: USAF, Avon Park Air Force Range
Figure 3. 1920 Osceola County Railroad Map
Note: Map is not to scale
Source: University of South Florida
Figure 4. Cat-faced pine trees with gutters and Herty cup sap collectors
Source: Dorothea Lange, Library of Congress Collection
Figure 5. Laborer housing along railroad line.
Source: State Archives of Florida. Florida Memory
Figure 6. Turpentine laborers carrying lunch buckets and water bottles
Source: State Archives of Florida, Florida Memory

Figure 7. Turpentine laborer’s family 1936
Source: Dorothea Lange, Library of Congress Collection
Figure 8. Jook Joint at Belle Glade, Florida 1939
Source: Marion Post Wolcott, Library of Congress Collection
Figure 9. Pamphlet for Lewis Plantation and Turpentine Still
Source: Stetson University Archives  2012
Figure 10. Migrant Workers Camp, Belle Glade Florida c.1930s
Source: Marion Post Wolcott, Library of Congress Collection
Figure 11. 1943 Aerial photograph of the Nalaka site outlined by Couturier. Source: USAF, Avon Park Air Force Range

Figure 12. Enamel cooking pot trapped in overgrowth of saw palmetto roots.
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SYMBOL</th>
<th>DATA SET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>🏡</td>
<td>Dimensional lumber, window glass, door hinges/knobs, roofing material, stove parts, furniture remains, bricks, insulators</td>
</tr>
<tr>
<td>Automobile</td>
<td>🚗</td>
<td>Abandoned vehicles, auto parts</td>
</tr>
<tr>
<td>Ceramics</td>
<td>🍴</td>
<td>Plates, cups, bowls (whiteware and crock)</td>
</tr>
<tr>
<td>Clearing</td>
<td>🌱</td>
<td>An area devoid of plant growth suggesting a structure once populated the site</td>
</tr>
<tr>
<td>Datum</td>
<td>🐣</td>
<td>Drilled well on site defined by a vertical steel pipe</td>
</tr>
<tr>
<td>Depression</td>
<td>🎈</td>
<td>Noticeable circular depressions that may be the remains of trash pits, privies, burnt out trees, or other unknown taphonomy</td>
</tr>
<tr>
<td>Ditch</td>
<td>🎈</td>
<td>Noticeable depression that extends linearly to a water source</td>
</tr>
<tr>
<td>Fence Post</td>
<td>🎈</td>
<td>Vertical (in situ) or horizontal dimensional lumber or unfinished tree branches with evidence of presence of eyelets and barbed wire</td>
</tr>
<tr>
<td>Glass Jars</td>
<td>🎈</td>
<td>Mason jars, pickle jars, small non-descript jars</td>
</tr>
<tr>
<td>Oblong Depression</td>
<td>✗</td>
<td>Linear depressions &lt; 1 m x 2 m</td>
</tr>
<tr>
<td>Personal Items</td>
<td>🎈</td>
<td>Shoe heels, pocket watches, pendants, beads, buttons, enamel pots, wash basins, tin cups, decorative non-utilitarian glass or ceramics, harmonica reeds, shaving razors, forks, cosmetic compacts and cold crème jars</td>
</tr>
<tr>
<td>Pharmaceutical/</td>
<td>🍴</td>
<td>Medicine bottles, spice/extract bottles, ketchup and mustard bottles, pickle bottles, milk bottles, vinegar bottles, tonic bottles, embalming fluid bottle, poison bottles</td>
</tr>
<tr>
<td>Consumable</td>
<td>🍴</td>
<td></td>
</tr>
<tr>
<td>Railroad</td>
<td>🚞</td>
<td>Tracks or ties</td>
</tr>
<tr>
<td>Scatter</td>
<td>🎈</td>
<td>A mix of items in concentration whether falling into the same category, or occurring across disparate categories</td>
</tr>
<tr>
<td>Soda Bottles</td>
<td>🍴</td>
<td>Coca-Cola, Bruce, Royal Crown, J.S. Francis</td>
</tr>
<tr>
<td>Tools</td>
<td>🪚</td>
<td>Saw blades, Herty cups, shovel blades, barrel rings, heavy gauge cable/chains, axe heads</td>
</tr>
<tr>
<td>Unidentified Metal</td>
<td>🪚</td>
<td>Unidentifiable generally ferrous objects</td>
</tr>
</tbody>
</table>
Figure 13. Overall Nalaka Map
<table>
<thead>
<tr>
<th>Sector</th>
<th>Arch</th>
<th>Auto</th>
<th>Ceramics</th>
<th>Clearing</th>
<th>Depress.</th>
<th>Fence</th>
<th>Gl. Jar</th>
<th>Ob. Dep.</th>
<th>Personal</th>
<th>Consumne</th>
<th>Road</th>
<th>Scatter</th>
<th>Soda</th>
<th>Tools</th>
<th>Unk. Metal</th>
<th>Area Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0.52</td>
</tr>
<tr>
<td>Northeast</td>
<td>16</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>23</td>
<td>2</td>
<td>0</td>
<td>14</td>
<td>12</td>
<td>5</td>
<td>16</td>
<td>4</td>
<td>14</td>
<td>12</td>
<td>134</td>
<td>17.4</td>
</tr>
<tr>
<td>Central West</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>27</td>
<td>3.5</td>
</tr>
<tr>
<td>Central East</td>
<td>23</td>
<td>16</td>
<td>9</td>
<td>6</td>
<td>14</td>
<td>17</td>
<td>11</td>
<td>5</td>
<td>28</td>
<td>29</td>
<td>2</td>
<td>14</td>
<td>6</td>
<td>20</td>
<td>22</td>
<td>222</td>
<td>28.8</td>
</tr>
<tr>
<td>Southwest</td>
<td>32</td>
<td>10</td>
<td>6</td>
<td>2</td>
<td>36</td>
<td>0</td>
<td>17</td>
<td>0</td>
<td>32</td>
<td>58</td>
<td>1</td>
<td>26</td>
<td>29</td>
<td>13</td>
<td>5</td>
<td>267</td>
<td>34.0</td>
</tr>
<tr>
<td>Southeast</td>
<td>20</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>13</td>
<td>13</td>
<td>10</td>
<td>3</td>
<td>12</td>
<td>22</td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>117</td>
<td>15.2</td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td>30</td>
<td>25</td>
<td>11</td>
<td>74</td>
<td>53</td>
<td>44</td>
<td>8</td>
<td>88</td>
<td>126</td>
<td>8</td>
<td>69</td>
<td>42</td>
<td>58</td>
<td>42</td>
<td>771</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 3. Percentage of same class artifacts per sector
(Likely Jook classes in bold)

<table>
<thead>
<tr>
<th>Class</th>
<th>Northwest</th>
<th>Northeast</th>
<th>Central West</th>
<th>Central East</th>
<th>Southwest</th>
<th>Southeast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch</td>
<td>1.1</td>
<td>17.2</td>
<td>1.1</td>
<td>24.7</td>
<td><strong>34.4</strong></td>
<td>21.5</td>
</tr>
<tr>
<td>Auto</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>53.3</td>
<td>33.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Ceramics</td>
<td>4</td>
<td>20</td>
<td>0</td>
<td>36</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td>Clearing</td>
<td>0</td>
<td>18.2</td>
<td>0</td>
<td><strong>54.5</strong></td>
<td>18.2</td>
<td>9.1</td>
</tr>
<tr>
<td>Depress.</td>
<td>0</td>
<td>8.1</td>
<td>6.8</td>
<td>18.9</td>
<td>48.6</td>
<td>17.6</td>
</tr>
<tr>
<td>Fence</td>
<td>0</td>
<td>43.4</td>
<td>0</td>
<td>32.1</td>
<td>0</td>
<td>24.5</td>
</tr>
<tr>
<td>Gl. Jar</td>
<td>0</td>
<td>4.5</td>
<td>9.1</td>
<td>25</td>
<td><strong>38.6</strong></td>
<td>22.7</td>
</tr>
<tr>
<td>Ob. Dep.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>62.5</td>
<td>0</td>
<td>37.5</td>
</tr>
<tr>
<td>Personal</td>
<td>1.1</td>
<td>15.9</td>
<td>1.1</td>
<td>31.8</td>
<td><strong>36.4</strong></td>
<td>13.6</td>
</tr>
<tr>
<td>Consume</td>
<td>0.8</td>
<td>9.5</td>
<td>3.2</td>
<td>23</td>
<td><strong>46</strong></td>
<td>17.5</td>
</tr>
<tr>
<td>Road</td>
<td>0</td>
<td>62.5</td>
<td>0</td>
<td>25</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>Scatter</td>
<td>0</td>
<td>23.2</td>
<td>0</td>
<td>20.3</td>
<td><strong>37.7</strong></td>
<td>18.8</td>
</tr>
<tr>
<td>Soda</td>
<td>0</td>
<td>9.5</td>
<td>7.1</td>
<td>14.3</td>
<td><strong>69</strong></td>
<td>0</td>
</tr>
<tr>
<td>Tools</td>
<td>0</td>
<td>24.1</td>
<td>12.1</td>
<td>34.5</td>
<td>22.4</td>
<td>6.9</td>
</tr>
<tr>
<td>Unk. Metal</td>
<td>0</td>
<td>28.6</td>
<td>4.8</td>
<td>52.4</td>
<td>11.9</td>
<td>2.4</td>
</tr>
</tbody>
</table>
Table 4. Map legend

<table>
<thead>
<tr>
<th>Icon</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Architecture symbol]</td>
<td>Architectural</td>
</tr>
<tr>
<td>![Automobile symbol]</td>
<td>Automobile</td>
</tr>
<tr>
<td>![Ceramics symbol]</td>
<td>Ceramics</td>
</tr>
<tr>
<td>![Clearing symbol]</td>
<td>Clearing</td>
</tr>
<tr>
<td>![Datum/Well symbol]</td>
<td>Datum/Well</td>
</tr>
<tr>
<td>![Depression symbol]</td>
<td>Depression</td>
</tr>
<tr>
<td>![Drainage ditch symbol]</td>
<td>Drainage ditch</td>
</tr>
<tr>
<td>![Fence post symbol]</td>
<td>Fence post</td>
</tr>
<tr>
<td>![Glass Jars symbol]</td>
<td>Glass Jars</td>
</tr>
<tr>
<td>![Personal Items symbol]</td>
<td>Personal Items</td>
</tr>
<tr>
<td>![Pharmaceutical symbol]</td>
<td>Pharmaceutical</td>
</tr>
<tr>
<td>![Point_ge symbol]</td>
<td>Point_ge</td>
</tr>
<tr>
<td>![Railroad symbol]</td>
<td>Railroad</td>
</tr>
<tr>
<td>![Scatter symbol]</td>
<td>Scatter</td>
</tr>
<tr>
<td>![Soda Bottles symbol]</td>
<td>Soda Bottles</td>
</tr>
<tr>
<td>![Tools symbol]</td>
<td>Tools</td>
</tr>
<tr>
<td>![Unidentified Metal symbol]</td>
<td>Unidentified Metal</td>
</tr>
<tr>
<td>![Roads_CreateRoutes symbol]</td>
<td>Roads_CreateRoutes</td>
</tr>
<tr>
<td>![&lt;all other values&gt; symbol]</td>
<td>&lt;all other values&gt;</td>
</tr>
<tr>
<td>![cline_id symbol]</td>
<td>cline_id</td>
</tr>
<tr>
<td>![light rail symbol]</td>
<td>light rail</td>
</tr>
<tr>
<td>![Railroad symbol]</td>
<td>Railroad</td>
</tr>
<tr>
<td>![Fences symbol]</td>
<td>Fences</td>
</tr>
<tr>
<td>![Roads symbol]</td>
<td>Roads</td>
</tr>
<tr>
<td>![&lt;all other values&gt; symbol]</td>
<td>&lt;all other values&gt;</td>
</tr>
<tr>
<td>![cline_id symbol]</td>
<td>cline_id</td>
</tr>
<tr>
<td>![railroad symbol]</td>
<td>railroad</td>
</tr>
<tr>
<td>![It rail symbol]</td>
<td>It rail</td>
</tr>
<tr>
<td>![Fig. Number symbol]</td>
<td>Fig. Number</td>
</tr>
</tbody>
</table>
Figure 14. Northwest Sector (NW)
Figure 15. Bedframe
Photo by Author

Figure 16. Site Datum/Water well
Photo by Author
Figure 17. Northeast Sector (NE)
Figure 18. Teapot or soup tureen  
Photo by Author

Figure 19. Violet glass vase or bowl  
Photo by Author
Figure 20. Forks and pocket watch case
Photo by Author

Figure 21. Makeup compact
Photo by Author
Figure 22. Feminine buttons
Photo by Author

Figure 23. Electric doorbell
Photo by Author
Figure 24. Glass electric wire insulator
Photo by Author

Figure 25. Possible generator remains
Photo by Author
Figure 26. Area “A” (NE) Inset
Figure 27. Decorative glass vase or pedestal bowl
Photo by Author

Figure 28. Fancy sugar bowl or cup
Photo by Author
Figure 29. Bottle glass dump
Photo by Author
Figure 30. Central West Sector (CW)
Figure 31. Timber saw
Photo by Author

Figure 32. Metal basin
Photo by Author
Figure 33. Metal Bucket
Photo by Author

Figure 34. Oil Barrel
Photo by Author
Figure 35. Central East Sector (CE)
Figure 36. “Coleman”-style stove
Photo by Author

Figure 37. “Coleman”-style stove burners
Photo by Author
Figure 38. Decorative glass vase or pedestal bowl
Photo by Author

Figure 39. Clock gear
Photo by Author
Figure 40. Scalloped plate rim sherd
Photo by Author

Figure 41. Maker's mark plate sherd (center)
Photo by Author
Figure 42. Tin plate
Photo by Author

Figure 43. Tobacco tin lid
Photo by Author
Figure 44. Round Shovel
Photo by Author

Figure 45. Gear chain
Photo by Author
Figure 46. Automobile remains
Photo by Author

Figure 47. Auto door handle detail
Photo by Author
Figure 48. Shoe heel and watch lens
Photo by Author
Figure 49. Southwest Sector (SW)
Figure 50. Intact Coke bottle
Photo by Author

Figure 51. Intact vinegar cruet
Photo by Author
Figure 52. Area "B" (SW) Inset
Figure 53. Possible beer or liquor bottle
Photo by Author

Figure 54. Possible beer or liquor bottle
Photo by Author
Figure 55. Salt shaker lid
Photo by Author

Figure 56. Harmonica reed
Photo by Author
Figure 57. Cosmetic jewelry bead and utility button
Photo by Author

Figure 58. Pine tree grown through abandoned Model T
Photo by Author
Figure 59. Standing seam metal roof
Photo by Author

Figure 60. Stove part
Photo by Author
Figure 61. Ceramic jug top
Photo by Author

Figure 62. Possible beer or liquor bottle
Photo by Author
Figure 63. Southeast Sector (SE)
Figure 64. Stove door “Banner…”
Photo by Author

Figure 65. Stove burner cover
Photo by Author
Figure 66. Possible vehicle or wagon hitch
Photo by Author

Figure 67. McCormick three-sided poison bottle
Photo by Author
Figure 68. Clock part
Photo by Author

Figure 69. Possible perfume bottle
Photo by Author
Figure 70. McCormick spice bottle
Photo by Author

Figure 71. Unidentified bottle
Photo by Author
Figure 72. Ketchup bottle
Photo by Author

Figure 73. Sauce bottle
Photo by Author
Figure 74. Cast iron stove legs
Photo by Author

Figure 75. Panama Mobile buttons
Photo by Author
Figure 76. Suspender buckle and button
Photo by Author

Figure 77. Shoe/boot heels
Photos by Author
Figure 78. Fence post with barbed with hardware
Photo by Author
Figure 79. Glass water bottle
Photo by Author

Figure 80. Ceramic doll's ear?
Photo by Author
Figure 81. Likely spatial organization of Nalaka
Figure 82. Gillette razor head
Photo by Author

Figure 83. Embossed decorative metal
Photo by Author
<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th>Township or other division of county</th>
<th>Name of incorporated place</th>
<th>Name of institution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of birth</th>
<th>Name</th>
<th>Sex</th>
<th>Race</th>
<th>Color</th>
<th>Age</th>
<th>Occupation</th>
<th>Relationship to head</th>
<th>Other names</th>
<th>State</th>
<th>Other States</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>A. M.</td>
<td>M</td>
<td></td>
<td></td>
<td>40</td>
<td>Tailor</td>
<td>Head</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAME</td>
<td>RACE</td>
<td>SEX</td>
<td>AGE</td>
<td>OCCUPATION</td>
<td>PLACE OF BIRTH</td>
<td>RELATION TO HEAD</td>
<td>SCHEDULED</td>
<td>NOTES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>------</td>
<td>-----</td>
<td>-----</td>
<td>------------</td>
<td>----------------</td>
<td>-----------------</td>
<td>-----------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td>[Redacted]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: The table continues with similar structure.*
APPENDIX B: RAW DATA RECORDING SHEET
<table>
<thead>
<tr>
<th>Date</th>
<th>Transect #</th>
<th>GPS Flag #</th>
<th>GPS Point #</th>
<th>Photo #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES

Austin, Robert J.

Bannister, Linda and James E. Hurd, Jr.

Barnes, Jodi A. (editor)

Barnes, John Arundel

Blakey, Michael L.

Blocker, Jack S., David M. Fahey, and Ian R. Tyrrell

Brown, Jr., Canter
2001 *In the Midst of All that Makes Life Worth Living: Polk County, Florida to 1940*. Sentry Press, Tallahassee.
Carr, Madeline Hirsiger  
2002 *Denying hegemony: the function and place of Florida’s jook joints during the twentieth century’s first fifty years*. Ph.D. dissertation, Department of History, Florida State University, Tallahassee.

Consolidated-Tomoka Land Company  

Daniel, Pete  

Davis, Siobhan  

Debnam, Kristopher Ian  

Ferguson, Leland G.  

Florida Department of State  

Florida History  
Florida State Department of Agriculture

Gardner, Andrew
Bentley, Herbert DG Maschner, and Christopher Chippindale, pp. 95-108.
Altamira Press, Lanham.

Gitlin, Martin
2009 The Ku Klux Klan: A Guide to an American Subculture. ABC-CLIO, LLC,
Santa Barbara.

Harrington, Spencer P.M.
1993 Bones and Bureaucrats: New York’s Great Cemetery Imbroglio. Archaeology
16(2):28-38.

Hurston, Zora Neale

Hurston, Zora Neale

Jamieson, Ross W.

Janus Research/Piper Archaeology

Kennedy, Stetson
Kennedy, Stetson

Lange, Dorothea

LaRoche, Cheryl J. and Michael L. Blakey

Leone, Mark P., and Gladys-Marie Fry

Leone, Mark P., Cheryl Janifer LaRoche, and Jennifer J. Babiarz

McGehee, Tom

Miller, Vivien M. L.

Outland III, Robert B.
Palmer, David T.

Patterson, Tiffany Ruby

Polk County Property Appraiser

Singleton, Theresa A.

Society for Historical Archaeology

State Archives of Florida

Stetson University Archives

Travis, Merle
U.S. Census Bureau

University of South Florida

Wolcott, Marion Post