Kulikoff Versus Buttenhoff-Lee [sic]: An Evaluation of African-American Populations in the Chesapeake 1740-1800

Beresford R. Callum

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KULIKOFF VERSUS BUTTENHOFF-LEE

An Evaluation of African-American Populations in

The Chesapeake 1740 - 1800

A Thesis

Presented to

The Faculty of the Department of Anthropology

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

By

Beresford R. Callum

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APPROVAL SHEET

This thesis is submitted in partial fulfillment of

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Approved by the Committee, April 2004

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Owing to the organic nature of academics, it is difficult to state the number of individuals that have contributed to this thesis. Among the most memorable are those individuals who have contributed significantly to the shaping of my thought processes over the past three years. Hence, I would like to express my gratitude to the faculty members of the College of William and Mary’s Department of Anthropology. Special appreciation is extended to Professors Norman Barker and Marley Brown III for without their assistance, understanding, and accommodation I could not have survived these years. I am especially grateful to Laurel Hayward [my wife], Dr. Edward Harris [visiting lecturer] and Dr. Joanne Bowen of the Colonial Williamsburg Foundation’s Department of Archaeological Research all three of whom gave me the confidence to see this study through to its completion.
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ABSTRACT

With Allan Kulikoff's "The Origin of Afro-American Society in the Tidewater Maryland and Virginia, 1700 to 1790" [1978] and Tobacco and Slaves [1986] it has become the popular conception among social historians that the majority of the Chesapeake's black population were native born and had lives "similar to those of their white masters". Hence, in addition to opportunities for social mobility, autonomy, leisure, and balanced adult sex ratios, enabled most men and women to marry and establish stable family life."

The only 'out-spoken' opposition, Jean Butenhoff-Lee, submits that Kulikoff has falsified history; the aforementioned conception of black life now dominating discussion of slavery in the eighteenth-century Chesapeake is based upon unproven fact. Could there be more than a few grains of truth to her appraisal?
KULIKOFF VERSUS BUTTENHOFF-LEE
INTRODUCTION

Over the past 35 years there has been much debate and controversy among social historians relating to how readily slaves in British colonies accepted the ways of their European masters. "Some scholars hold that the preponderance of whites in the population were so large, and the repressive power so great, that slaves in the Chesapeake colonies were forced accept Anglo-American beliefs, values, and skills. Other writers [Mullin (1972), Gutman (1976), Kulikoff (1977)] maintain that slave migrants and their descendants created their own indigenous social institutions within the framework of white rule" [Kulikoff 1978: 226].

Of the many descriptive position papers on the subject, very few have generated the attention received by Allan Kulikoff’s hypothesis in The Origin of Afro-American Society in the Tidewater Maryland and Virginia, 1700 to 1790 [1978] and Tobacco and Slaves [1986] in which he describes how the process evolved. Not since William Styron’s, The Confessions of Nat Turner [1967] has literary discourse related to historical records aroused such emotion in the academic community. Not convincingly demonstrating the natural growth in the African-American population however, Kulikoff left room for a number of questions: when population growth began, how did it occur? Was the growth on small and middling plantations the same as large populations? So legitimate were the queries of colleagues, I felt compelled to further
investigate the topic. To date, opposition to Kulikoff’s paper has not been as direct as those who attacked the Styron book. Hence, those who have aligned with the opposing school of thought without putting their views to paper have largely managed to keep their anonymity.

*The Origin of Afro-American Society in the Tidewater Maryland and Virginia, 1700 to 1790* [1978] and Chapters 8 and 9 of *Tobacco and Slaves* [1986] have two primary objectives: to describe the demographic composition [ethnicity, sex ratios, and density of the Chesapeake’s black population] and to use information about slave reaction to their conditions, slave beliefs, and behavior gleaned from occasional descriptions in planters’ letters, plantation records, local court order books, and newspapers to suggest plausible connections between demographic structure and slave society.

Kulikoff’s methodology proved disastrous. There were a number of weaknesses to the paper and subsequently Chapters 8 and 9 of his book. This was far too wide of a topic to be covered within the requirements of a publishable journal article or chapter of a book. In an effort to be concise and explicit, he had indirectly asked his readers to accept too much at his word. The wrong database was also chosen to illustrate demographic changes in the Chesapeake’s black population. While data related to the post 1700 Atlantic slave trade such as ship records of slaves who entered the colonies and records of African slave purchases by local planters are excellent for illustrating decreases in the number of individuals being imported, they do very little to show the contemporary slave demographic structure throughout the Chesapeake region; hence, his results were inconclusive. The term *theory* implies tried and tested, consistently true
when applied to a given situation. Having given a general overview of his hypothesis, rather than pulling examples haphazardly from varying plantations throughout the region, Kulikoff should have concentrated his efforts on one or two sets of family papers, thus illustrating how his theory played out on a single estate level. While records may not have been enough to reinforce all his ideas, they would have been less vague, ultimately raising less questions.

I find it disturbing that Kulikoff took such an isolationist view explaining the enigmas relating to African and African-American lifespace in the mid-eighteenth to nineteenth centuries. In writing his papers, Kulikoff underplays or fails to mention contributors such as changes in plantation economy and the growth of metropolises, giving readers the impression that these wonderful changes in the welfare of Afro-Americans occurred in an isolated chamber of population growth and were slightly aided by communication and religious movements.

Supporting the view that “slave migrants and their descendants created their own indigenous social institutions within the framework of white rule” [Mullin (1972), Gutman (1976), Kulikoff (1977, 1978 and 1986)] the objective of this thesis is threefold. First, I will review the main arguments of the Kulikoff theory and that of his only outspoken opponent to date - Jean Buttenhoff-Lee.¹ Secondly, with the linchpin of both Buttenhoff-Lee and Kulikoff’s theories being demographic change, I shall select a random sample of probate inventories to more comprehensively detail the shifts in slave ethnic and demographic composition throughout the Chesapeake between 1730

¹ Unlike The Confessions of Nat Turner [1967] which was pounced upon by both classroom dialogue and black intellectuals in William Styron’s Nat Turner: Ten Black Writers Respond [Clarke 1987], I found only one paper which directly confronted the Kulikoff theory - Jean Buttenhoff Lee’s. The Problem of Slave Community in the Eighteenth Century Chesapeake, William and Mary Quarterly, Series 3, #43 (3), pp. 333 - 361 1986.
1800. My final objective is one of confirmation. Having established regional slave population means, I will compare and contrast these results at specific estate and regional levels, describing the characteristics (social hierarchies, birth rates, and life expectancies) of the eighteenth century slave population at a macro and micro level.

DATA AND METHODOLOGY

A confluence of the work and approaches of Rutman and Rutman’s (A Place in Time Explicatus [1986] and A Place in Time: Middlesex County, Virginia 1650 – 1750 [1984]) and Walsh and Menard’s (The Demography of Somerset County, Maryland: A Progress Report [1981]), it is the aim of this study to comprehensively analyze the growth of the Chesapeake’s African-American population (1730 – 1810). My methodology shall be somewhat similar to strategic modeling used by forensic scientists. In this case, however, rather than applying tested theories to zoological or botanical evidence, I shall substitute the various categories of chattel from probates. Hence, descriptors used in evaluating slaves will be used to formulate statistical means and modal prices. Having used the principles of demographic statistics to analyze each assemblage, I will collate conclusions using commonalities (sex and adult versus child ratios) as a basis for forming relationships. This amalgam of newly formed data sets will allow for more meaningful regional and estate specific evaluations.

In conducting this survey, I shall employ three sets of data; probate inventories and other data sensitive to establishing modal fluctuations (appreciation and depreciation) in slave values from the Jerdone family papers; a random sample of 60
probate inventories from a cross-section of Chesapeake Counties between Maryland [Prince Georges, Anne Arundel, and Charles City] and Virginia [Fairfax, Norfolk, Westmoreland, Stafford, Richmond, Prince William, Fredericksburg City, James City, Louisa, and King George]; and the records of Phillip Ludwell III’s estate 1767 – 1773.

The Jerdones were not only wealthy merchants-planters, they had an infamous reputation for keeping detailed and accurate records. Also included in the family’s papers was what the family labeled as the ‘Slave Age Book’. The age book essentially was a record of all children born to Jerdone slaves between 1760 and 1840. The scales made from the Jerdone records will be used to analyze the 60 probates from across Chesapeake (Maryland and Virginia). Having created a regional or a macro description of the essential characteristics of the Chesapeake’s slave population (growth patterns, sex distributions, and fertility potentials), I hope to verify my results by comparing and contrasting with my data set three.

Data set three, the records of Phillip Ludwell III’s estate, have a number of characteristics that make it uniquely qualified as guinea pig for the Kulikoff and Butenhoff-Lee theories. For example, instead of having only one-third of their total acreage in their resident county, the Ludwells had 87%. Location and strategic placing of plantations were also critical. While other large plantations lacked adequate road systems, Green Spring and Rich Neck plantations were located within two miles of the colonial capitals of Jamestown and Williamsburg respectively. These towns were situated fairly close to each other and had very good communication links. Rich Neck plantation ran with a large percentage of the roads connecting the towns. Hence, these quarters were within a two-hour ride of each other. There is a third factor that has
worked out to the historian's advantage. Although Phillip III died in 1767, his estate was not divided among heirs until 1771, and even then, the transition was not smooth. The barrage of correspondence between the eventual inheritors [William Lee and John Paradise], William Lee's brothers, the Ludwell estate executors, and the estate manager gives invaluable information with regard to the estate's setting.
CHAPTER I

REVIEW OF LITERATURE


Between 1650 and 1690, blacks constituted only a small percentage of the Chesapeake population — only 3 percent in 1650 and 15 percent in 1690. Most slaves lived on small plantations and were predominately immigrants from the West Indies. Most planters were men of moderate means and could afford only a few slaves. This was a period of rapid assimilation as blacks and whites worked together in the fields and learned to imitate the norms of white society. The growth in the number of blacks however triggered white repression, and a series of stringent racial laws were passed in Virginia between 1667 and 1686 [Kulikoff 1978: 228 - 236; 1986:317 – 340].
The period between 1690 and 1740 was an era of heavy slave imports from Africa, where roughly 43,000 blacks entered Virginia. The proportion of African slaves rose from approximately 73% [1710 – 1718] to 93% [1727 – 1740]. The sex and age composition of cargoes suggests Africans had a difficult time establishing “regular” family life. Tidewater plantations were small, only 25% of slaves resided on units of more than 20 individuals. On quarters of ten or fewer, female slave spouses and completed families were uncommon, and the slaves who lived in outbuildings did not control enough spaces to run their own lives apart from their masters [Kulikoff 1978: 228 - 236; 1986:317 – 340].

The final period, on which this thesis concentrates, from 1740 to 1790, was characterized by a decline and cessation of slave imports, and increases of plantation sizes and the proportion of blacks in the Chesapeake population. Division relating to linguistics and ethnic and religious practices among slaves also disappeared, consequently allowing native blacks to form settled communities.

Cautioning that his conclusions are partially based upon untraceable assumptions, Kulikoff hypothesizes that skewed sex ratios, the presence of Africans from varying ethnic groups and small plantations that characterized the seventeenth and first quarter of the eighteenth centuries ended in the 1730s. These conditions, he submits, impeded the development of a distinct Afro-American culture as the experiences of the Chesapeake and Africans were different. The lives of slaves born or who had been living in the Chesapeake for a long time and had been assimilated into a white-dominated society were constantly disrupted by the periodic arrival of new Africans coming from varying ethnic groups, who worshiped an array of deities, and spoke multiple dialects.
Beginning roughly around 1740, and continuing until circa 1790, important demographic changes made it conducive for more settled social conditions and greater cultural homogeneity among the Chesapeake's slaves. The Afro-American population began to grow by natural increase from 100,000 in 1740 to approximately 300,000 in 1780, as the importation of slaves from Africa declined. As a result, the proportion of children increased and the ratio of men to women improved [i.e. normal demographic characteristics were reached, changing the slave population from largely immigrant to native born].

Secondly, there was an emergence of large plantations. As the number of large plantations increased, so did the mean number of slaves or slave population density - perhaps 44% of blacks resided on large quarters; 26% lived on middling plantations; and an estimated 25% [mainly women and children] lived on small plantations. Ultimately, these factors led to widened opportunities for those within bondage: such as social mobility, greater autonomy, and increased opportunity for leisure. On large plantations, slave dwellings [quarters] resembled small villages surrounded by domestic activity. These little communities organized around families were usually located at some distance from the master's house, their occupants being able to spend hours of their lives free of direct white supervision [Kulikoff 1986: 399 – 345].

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2 Chesapeake as used in this paper covers an area extending from “just north of the Patuxent River in Anne Arundel and Prince Georges counties, Maryland to just south of the James River” See Buttenhoff-Lee [1986: 335-336].


4 'Normal' as used in this context should be interpreted as the household or general plantation community containing individuals from both sexes represented in an wide array of age groups i.e. 0 - 7 years, 8 - 15 years, 16 - 33 years, 34 - 40 years and over 40 years.

5 Large quarters are those housing more than twenty slaves – see Tobacco and Slaves 1986: 341.
By the 1780s, Kulikoff estimates that approximately 50 – 75 % of slaves living in the Chesapeake enjoyed some sort of social life not controlled by their masters. Whites had built numerous roads and paths to connect their farms and villages. Slaves used these byways to create cross-plantation networks and a rudimentary society. Hence, these communication links facilitated slaves socialization - traveling from one plantation to the other, visiting friends and relatives.6

For the vast majority, just a growing, sexually balanced, native-born population living within close proximity increased their opportunities for social contact. Intimate personal relationships enabled most men and women to marry and establish stable family life."7 By the 1770s, the majority of Afro-Americans lived in families and had households “similar to those of their white masters” [i.e. two-parent or extended households having grandparents and even great-grandparents].

Despite agreeing with the conclusions of Menard regarding conditions prior to the 1730s, Jean Butenhoff-Lee in essence submits that Kulikoff has falsified history, that his aforementioned conception of black life now dominating discussion of slavery in the eighteenth-century Chesapeake is yet to be proven. The scholars disagree not only on the time line which balance ratios emerged but also suggests the exact opposite regarding eighteenth century slaves life, that is, that African-American society was characterized by dehumanizing conditions of social isolation, instability, and chaos. She does not deny

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that slaves sought to create communal life, but states that this was difficult and their efforts often unsuccessful.

Surveying federal census records, probates, and tax inventories of five counties located on the Lower Western Shore of Maryland ca. 1790 [Anne Arundel, Calvert, Charles, Prince Georges and St. Mary’s], Lee offered quantifiable and narrative sources to juxtapose Kulikoff’s conclusions. Her primary supporting arguments include: In the five counties surveyed, large plantations housing considerably more than 20 slaves were exceptional and were not representative of the colonial masses; of 4,187 slave owning families only 450 [10.7%], or roughly one in ten in the three of the four counties where such data was extant, owned 20 or more slaves. Prince George was the exception where 16% of plantations could be considered large [Lee 1986: 340]. Her argument is indirectly supported by the work of Tate [1965] in James City County, Virginia, where even as late as the 1780s, very few farmers owned more than nine slaves which in most cases was comprised predominantly of men as they were considered to be more hard working and cost efficient. Analysis of the census for 1782 indicates that even though 88% of the 155 households in and around Williamsburg owned slaves, almost 80% of these owned less than six slaves and only 1.5% owned over 20.9

Addressing the subjects of stable family lives and extended kin networks, Lee states that it is assumed that men and women living in close proximity were spouses, that the conception of a child denoted a marital relationship, and that children living without

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8 See also Jackson Turner Main’s, “The Distribution of Property in Post Revolutionary Virginia”, Mississippi Valley Historical Review, XLI [1954], 249 – 250.

9 See The Negro in Eighteenth Century Williamsburg Colonial Williamsburg Foundation, Williamsburg Virginia (Thad W. Tate 1965: 50 - 51).
adults were siblings. Adult sex ratios were far from being balanced. According to the provincial census of 1755, the county’s slave population had reached 4,709 [36% of Maryland’s population]. There was a slave adult: child ratio of 93: 100 and a woman: female child ratio of 79:100. Though impressive, these figures are deceptive as the adult male: female ratio was 127: 100. Therefore, despite the fact that mid-eighteenth century records intimate a native-born slave population growing by natural increase, demographic factors and the continued heavy importation of Africans inhibited males finding wives [Lee 1986: 342].

Procreation however does not signify marriage or an enduring family relationship. Also, the lives of slaves were subject to disruption – assignment to outlying quarters, hiring out, sale, or dispersal through gift or bequest. Hence, blacks who lived near each other were not necessarily related.\footnote{See Lee, Social Order of a Revolutionary People, [1984: 291 – 292, 333 – 334] sited in Lee 1986: 337.} Slave marriage and birth registers for this period are virtually non-existent and wills and inventories only rarely reveal kinship ties among offspring of human chattel, and where they do exist, usually only to the mother and her youngest child. I found the Jerdone slave age book typical of this latter statement. Between 1760 and 1825, there are entries for approximately 205 children born to 64 women. While there was a description describing where these women were quartered and what eventually happened to their children, there was no mention of their probable fathers.

There are also questions regarding the ability of slaves to interact across plantation boundaries. Road networks, high black population densities, and the practice of selling or otherwise disposing of slaves within neighborhoods obviously increased
opportunities for contact. How often contacts were actually is debatable. Very little is known about how slaves were dispersed geographically, the extent of road and path networks across the Chesapeake, or how easily slaves could travel from one plantation to another.

Lee reinforced her position by reminding her reader about some of the deficiencies in the historic database as it relates to slaves and in the American historiographical tradition. Slaves in fact lived in obscurity. This obstructs the historian’s efforts to reconstruct their lives. Scholars have not made full use of the sources available to them, information on the number of Africans carried to the Chesapeake is complete, data on slaves and slave dispersal is fragmentary, the rate at which Africans reproduced - when natural increase began, and when a largely native born black population emerged in the Chesapeake is yet to be determined with any precision.

Lee concludes that Kulikoff’s leading interpretation leaves many questions to be answered with greater specificity. While one would expect growing population densities to have positive repercussions, such as enhancing the abilities of blacks to interact, find spouses, raise families, and create a culture, increased density has not been adequately proven.
CHAPTER II

SLAVE DEMOGRAPHIC PROFILE 1740 – 1810

CHESAPEAKE PLANTATION SOCIETY IN CONTEXT

Using the three most valuable forms of property [land, slaves, and cattle] in the 1780s as a scale, the structure of eighteenth century Virginian society can be described as a concaved-sided pyramid having a pinpoint-like apex and a disproportionably wide base. This pyramid would be broken into the three basic classes; upper, middle, and lower. The upper class individuals and families owning over 9,000 acres of land [large plantations] were wealthiest in Virginia society and were barely over a hundred in number [= 0.013 %] of the colony's total population. These individuals cumulatively owned 6% of the land [= 1,500,000 acres] and 6.5% of slaves [16,500]. The middle class [owning the middling plantations], were at a distant second. They consisted of about 2,000 people who collectively owned 8% of the colony's land [roughly 2,000,000 acres] and 15.75% of the total number of slaves [roughly 40,000]. Forming the base of the pyramid, owning 86% of the colony’s land and 77.25 % of the total number of slaves, were those individuals owning less than a thousand acres of land.

Land was by far the commodity in which a planter invested most of his money. Hence, each farmer on average owned approximately 9,000 acres. A third of this land
was in his county of residence, while the remaining two-thirds would be scattered throughout numerous other counties in various proportions. Lands outside the planter's county of residence were kept in varying stages of development, depending upon the owner's motive for having them [i.e. agriculture or speculation].

The second most important status symbol and means of appraising an individual was his number of slaves. During this period, each large planter owned an average of 160 slaves, middling individuals owned between 20 – 100 slaves, and those that formed the base of the pyramid, less than 20 slaves. As with his land, the largest single concentration of slaves [50%] would be distributed throughout various quarters on tracts in his county of residence. The other 50% of a planter's slaves were distributed in concentrations on his out-of-resident county properties.¹

CALCULATING INDIVIDUAL SLAVE VALUES

A particularly important and informative element of probate inventories relative to the study of the African-American experience is their listing as chattel or property. Throughout the seventeenth and eighteenth centuries, there were never concrete rules dictating the format to which appraisers would adhere. In most cases, as observed by scholars who have pioneered the field [Walsh and Menard (1974) and Rutman and Rutman (1984)], descriptions of slaves compiled from inventories and other documents related to probates [conveyances, mortgages, and trial records] is scant. The fullest descriptions include three discrete bits of information: an age, a value, and a descriptive

¹ A third means in appraising an individual's value was livestock I have omitted. In eighteenth century society cattle and horses were not only used for transportation and mechanical motive reasons, they also assumed the role of status indicators. Livestock however have little relevance to this thesis.
word or phrase [i.e. child, boy, girl, man, woman, old man, or old woman]. For the most part, however, descriptors contained only one or some combination of two of these pieces rather than three. How fully one can use these descriptions largely depends upon how much of what is missing can be estimated [Rutman and Rutman 1984: 172–173].

There was a general set of postulates that went along with slave valuations. The value of a slave was directly related to potential labor [productivity], sex, and age. The laboring potential of females was considered less than that of males [i.e. males consistently carried a higher price than females]. Even at birth and as infants, boys were worth twice the value of girls. The potential economic value of male children did not substantially raise the market value of a woman and her offspring. Boys and girls might mature into useful adults, but this was uncertain. Hence, slave children were valued in terms of immediate economic returns [Patterson 1967: 124–220]. Children’s prices rose gradually until ages 11–13 at which point they spiraled [especially those of females]. Prices remained high for both sexes until roughly age 30–32, before beginning to fall. At age 45 and older, females and males were worth the same as children. Using the nomenclature of mathematics, if one should plot a graph of slave chronological age versus appraised values, the result would be somewhat like a standard deviation curved graph. Those having the highest value would be individuals considered to be full hands approximately between the ages of 16 and 35 years [see Table 1 and Figure A].

Represented on the extremes of this graph and having the lowest values, would be children and old and infirm adults.

---

2 The curve depicting male and female value by age for the seventeenth and eighteenth centuries are near duplicates of nineteenth century curves based upon much fuller and more precise data [Rutman and Rutman 1984: 175].
TABLE 1.
Table showing Male and Female Values between Birth and Age 45 in the Chesapeake ca. 1760 - 1790

<table>
<thead>
<tr>
<th>Chrono. Age</th>
<th>0-1</th>
<th>3</th>
<th>5</th>
<th>7</th>
<th>9</th>
<th>11</th>
<th>13</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Value</td>
<td>$100</td>
<td>120</td>
<td>150</td>
<td>300</td>
<td>225</td>
<td>410</td>
<td>450</td>
<td>500</td>
</tr>
<tr>
<td>Female Value</td>
<td>$ 50</td>
<td>50</td>
<td>120</td>
<td>250</td>
<td>260</td>
<td>350</td>
<td>500</td>
<td>575</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chrono. Age</th>
<th>17</th>
<th>19</th>
<th>21</th>
<th>23</th>
<th>25</th>
<th>27</th>
<th>29</th>
<th>31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Value</td>
<td>$700</td>
<td>650</td>
<td>800</td>
<td>850</td>
<td>800</td>
<td>800</td>
<td>750</td>
<td>725</td>
</tr>
<tr>
<td>Female Value</td>
<td>$600</td>
<td>550</td>
<td>600</td>
<td>600</td>
<td>475</td>
<td>450</td>
<td>450</td>
<td>450</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chrono. Age</th>
<th>33</th>
<th>35</th>
<th>37</th>
<th>39</th>
<th>41</th>
<th>43</th>
<th>45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Value</td>
<td>$600</td>
<td>520</td>
<td>500</td>
<td>250</td>
<td>50</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Female Value</td>
<td>$400</td>
<td>200</td>
<td>250</td>
<td>200</td>
<td>50</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>
FIGURE A

Graph showing mean appraised slave values between birth and 41 years ca. 1800
There were exceptions to this rule. If a slave had a trade or was semi-skilled, this would influence the value considerably - a trade slave was valuable regardless of age.³ A typical example of how having a trade influenced values can be seen in Francis Jerdone’s 1840 probate inventory where the average value of a young healthy male between the ages of 14 - 30 was between 650 and 800 dollars, while the going price of a 45 year old was 50 dollars. However, two slaves, Peter [35] and Jim [46], both carpenters, were valued at 1,300 and 800 dollars respectively. Another exception, as previously implied, would be if a female were pregnant, in which case the value would increase marginally by the value of a newborn child. In the case of the Jerdone holdings, a newborn was worth between fifty and one hundred dollars [Callum 1998; Jerdone family slave age book: see also Table I and Figure A].

**FORMATTING THE DATA, ANALYSIS, AND RESULTS**

This following discussion of slave population growth patterns was written based upon the analysis and evaluation of 60 probate records randomly selected from the repositories of 12 Chesapeake counties distributed between Maryland [Prince Georges, Anne Arundel, and Charles City] and Virginia [Fairfax, Norfolk, Westmoreland, Stafford, Richmond, Prince William, Fredericksburg City, James City, Louisa, and King

³ For the purposes of this study the definition of a trade slave is an African-American who worked with his hands and had a specialized skill which set him apart from the average field laborer. It should also be noted that in this study the term is used interchangeably with craftsman, artisan, and tradesperson. Phillip S. Foner, Labor and the American Revolution (Westport, Connecticut: Greenwood Press, 1976) p. 4, Ian B. Quimby "Introduction: Some Observations on the Craftsmen in Early America", (N.Y. W. & W. Norton, 1984), p. 5; Thomas J. Schereth, "Artisans and Craftsmen: A Historic Perspective", in Craftsmen of Early America, ed. I. B. Quimby 1984:37.
George] [for a frequency distribution of this probate sample based upon the number of slaves owned see Table 2].

TABLE 2.

Table showing distribution of probates based upon the number of slaves owned.

<table>
<thead>
<tr>
<th># Slaves</th>
<th>0 - 5</th>
<th>6 - 10</th>
<th>11 - 20</th>
<th>21 - 26</th>
<th>27 - 60</th>
<th>61 - 100</th>
<th>&gt; 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>9</td>
<td>5</td>
<td>18</td>
<td>6</td>
<td>17</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>(%)</td>
<td>15</td>
<td>8.3</td>
<td>30</td>
<td>10</td>
<td>28.3</td>
<td>3.3</td>
<td>5</td>
</tr>
</tbody>
</table>

Based upon the descriptors used by appraisers to describe the slaves owned by the deceased, these probates were divided into three assemblages.

Assemblage 1 comprised those probates having no slaves listed, or if they had slaves, they were represented by names only. Having no corresponding appraised value or indication of chronological age, these documents would contribute very little to a study revolving around age and sex distribution patterns. These probates were discarded.

Assemblage 2 consisted of probates that comprised two usable descriptors [i.e. slave names were accompanied by either an appraised value, a chronological age, or information from which maturity could be gleaned – child, old, girl, boy, woman, man, old woman, or old man]. Those slaves, whose names were preceded or followed by word descriptions only, were collated into one of four groups directly related to potential productivity; approximately 15 – 35 years [adult male or adult female], between 7 - 15 years [young female or male], over 35 years [old man or old woman] and those less than
7 years old [male or female child]. Those slaves in assemblage 2 whose names were accompanied only by an appraised value, their maturity was estimated [i.e. an approximate age determined using the standard deviation curved graph created from the Jerdone family papers [see Table 3]].

Assemblage 3 probates were the most accurate and reliable as the name of each slave was not only accompanied by his exact age, but also an appraised value. It is important to note that while the difference between assemblage 2 and assemblage 3 slave owners manifested itself on paper or in the records in the form of detail and specificity in their probate descriptions, the real difference between the members of these categories was more than likely socio-economic standing. The estates represented by assemblage 3 probates had a considerably higher mean pound sterling or dollar value – they were the estates of large tobacco planters owning over 20 slaves [Table 4]. The less detailed probates of assemblage 2 represented properties of small and middling planters [those owning less than 20 slaves]. This is also consistent with what social historians know about the nature of records with which they work “We are more likely to know more about the property of men of higher social and economic standing than men in lower positions” [Rutman and Rutman 1984: 25 - 59].

The data from these two groups of documents were analyzed independently and were totaled and collated into groups based upon sex and age. The results from each analysis was then used as a scale to measure the accuracy and reliability of the assumptions made by Kulikoff and Buttenhoff-Lee regarding the composition and growth of the Chesapeake’s eighteenth century African / Afro-American populations. Overall, a
total of 1,227 cases—slaves of at least an estimated age for the most part [89%] in the
eighteenth century were evaluated.

TABLE 3.
Breakdown of African-American population (1742 – 1805) based upon
Category 2 probate results

<table>
<thead>
<tr>
<th>Year</th>
<th>Adult Male</th>
<th>Adult Female</th>
<th>Male &lt;15yrs</th>
<th>Female &lt;15yrs</th>
<th>Acc. Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ca. 1742</td>
<td>16</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>37</td>
</tr>
<tr>
<td>[%]</td>
<td>43.2</td>
<td>16.2</td>
<td>21.6</td>
<td>18.9</td>
<td></td>
</tr>
<tr>
<td>1750 - 55</td>
<td>48</td>
<td>41</td>
<td>12</td>
<td>19</td>
<td>120</td>
</tr>
<tr>
<td>[%]</td>
<td>40</td>
<td>34</td>
<td>10</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>1761 - 63</td>
<td>42</td>
<td>32</td>
<td>9</td>
<td>8</td>
<td>91</td>
</tr>
<tr>
<td>[%]</td>
<td>46.</td>
<td>35</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1779</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>[%]</td>
<td>22.7</td>
<td>36.3</td>
<td>27.2</td>
<td>13.6</td>
<td></td>
</tr>
<tr>
<td>1784 - 86</td>
<td>26</td>
<td>36</td>
<td>3</td>
<td>3</td>
<td>68</td>
</tr>
<tr>
<td>[%]</td>
<td>38.2</td>
<td>52.9</td>
<td>4.4</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>Ca. 1795</td>
<td>21</td>
<td>20</td>
<td>INA</td>
<td>INA</td>
<td>67</td>
</tr>
<tr>
<td>[%]</td>
<td>31.3</td>
<td>29.8</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Ca. 1805</td>
<td>9</td>
<td>5</td>
<td>INA</td>
<td>INA</td>
<td>25</td>
</tr>
<tr>
<td>[%]</td>
<td>36</td>
<td>20</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 4.
Breakdown of African-American population (1770s – 1805) based upon
Category 3 probate results

<table>
<thead>
<tr>
<th>AGE</th>
<th>&lt;1</th>
<th>1 - 5</th>
<th>6 - 10</th>
<th>11 - 15</th>
<th>16 - 35</th>
<th>&gt;36</th>
<th>Acc. Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1775 - 76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>13</td>
<td>8</td>
<td>11</td>
<td>21</td>
<td>17</td>
<td>74</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>15</td>
<td>10</td>
<td>12</td>
<td>22</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td>[%]</td>
<td>5</td>
<td>18.7</td>
<td>11.9</td>
<td>15</td>
<td>28.7</td>
<td>19</td>
<td>149</td>
</tr>
<tr>
<td>1785 - 88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>17</td>
<td>5</td>
<td>31</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>3</td>
<td>9</td>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td>[%]</td>
<td>1.6</td>
<td>16</td>
<td>20.9</td>
<td>7.2</td>
<td>41.9</td>
<td>12.9</td>
<td>62</td>
</tr>
<tr>
<td>1791 - 99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>18</td>
<td>20</td>
<td>17</td>
<td>40</td>
<td>21</td>
<td>124</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>23</td>
<td>20</td>
<td>14</td>
<td>40</td>
<td>26</td>
<td>129</td>
</tr>
<tr>
<td>[%]</td>
<td>5.5</td>
<td>16.2</td>
<td>15.8</td>
<td>12.2</td>
<td>31.6</td>
<td>18.5</td>
<td>253</td>
</tr>
<tr>
<td>Ca. 1805</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-</td>
<td>9</td>
<td>3</td>
<td>7</td>
<td>14</td>
<td>7</td>
<td>40</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td>15</td>
<td>7</td>
<td>43</td>
</tr>
<tr>
<td>[%]</td>
<td>4.8</td>
<td>15.6</td>
<td>15.6</td>
<td>12</td>
<td>34.9</td>
<td>16.2</td>
<td>83</td>
</tr>
</tbody>
</table>
Though this method only enables researchers to approximate the percentage of full hands, and the less productive young and old and probable male versus female ratios in general terms, it is useful for applying to probates such as those of assemblage 2. After analyzing probates in their clusters [1740s, 1750 – 1755, 1761 – 1763, 1779, 1784 – 1786, and 1805] a general distribution was established for African and Afro-Americans owned by small and middling property owners [See Table 3].

As shown in table 2, the plantation labor force of the 1740s was dominated by men. Women and children accounted for less than 40% of the total population. Sometime between the early 1740s and 1755, there was a gradual evening out. At 34% and 40% respectively, the ratio of women to men had improved significantly and was roughly balanced. With the exception of the mid 1780s [when women outnumbered men by 5 to 4 (20%)] and 1805 [when the female ratio surged] from 1755 onward the male to female ratios were essentially equal.

Though covering less chronological time than those of assemblage 2 [i.e. only 1775 – 1776, 1785 – 1788, 1791 – 1799 and 1800 – 1808], assemblage 3 probates showed only minor fluctuations of between 2 – 5% between male and female over a 30 year period. Assemblage 3 probates not only confirmed assemblage 2’s findings, but enhanced them by giving a more exacting chronological profile of the Chesapeake slave population. Instead of having four groups [men, women, boys, and girls], having absolute age enables the representative sample to be broken into ten groups – five for each sex [compare Tables 3 and 4].

Some phenomena were immediately apparent in the data. Most pronounced was the erratic growth pattern of that section of the slave population under 15 years of small
and middling plantations and what seemed to be a direct relationship between longevity and occupation. Comparing the results from table 3 [assemblage 2] with those of table 4 [assemblage 3], the percentage of children owned by small and middling property owners grew steadily from approximately 25% [1740s] to 41% in the 1770s, at which time it then decreased rapidly to less than 10% in the early 1800s. The figures for larger estates show the converse. On large plantations, the number and proportions of children increase slightly, moving from 40% to 50% for the same period [see also Table 5, and Figure B].

In terms of longevity, a slave was viewed as “old” in his mid-thirties. Of the 1,227 cases viewed, only 5% of individuals were in the over 35 years old category. For field hands these were predominantly women but comprised both sexes for skilled and domestic hands. Hence, having a mean age of 45 years, it was evident that women, domestics, and skilled hands had a higher life expectancy than those individuals designated to the field. Examination of assemblage 3 probates showed 24 of 35 individuals in the over 35 years old category were either domestics or field hands - the product of their ages was 1,081, resulting in a mean age of 45.02 years.

FERTILITY AND ETHNICITY

Fertility or natality is the measurement of the number of live births in a population. In the case of this particular study, it refers to the ability of Chesapeake’s Africans and Afro-Americans to reproduce and grow by natural means during the mid-eighteenth and early nineteenth centuries [Rutman and Rutman 1984: 61]. Having described the growth pattern and basic chronological distribution of my target population,
I can now attempt to determine their fertility and the probable rate at which the ethnicity of slaves changed from predominantly African to Afro-American. Fertility as outlined in Rutman and Rutman [1984] varies with cultural and natural factors. The fertile years of an African woman who had a rigid work routine was between 15 and 35 years and were biologically limited in number. Fertility is also dependent upon access of females to males or the converse, which is more applicable to the 1740 slaves situation - the access of males to females. In populations where the females are limited, the number of potential births will obviously be lower than one in which there is a high concentration.

Using the same method employed by demographers [i.e. taking the total number of females of child bearing years and expressing this as a percentage of the total population], the mean fertility potential was calculated for each assemblage over the decades for which they covered [assemblage 2 – 1740s through to 1800s and assemblage 3 – 1760 through to 1800s]. As can be seen from figure C and Table 6, with the exception of the 1800s, the fertility potential of slave populations living on small and middling homesteads was considerably higher than that of large estates.

One possible explanation is that throughout the latter half of the eighteenth century, the percentage of women on these small and middling farms was higher than the percentage of women on large plantations. For a visual picture of the pattern differences on small and middling farms versus those populations living on large estates, i.e. each group's fertility potential expressed as a percentage and the percentage of children under 15 years over a 40 year period [1760s to early 1800s] compare and contrast Table 5 and Figure C with Figure D and Table 6. A number of important conclusions were drawn from the resulting loci.
First, although the fertility potential for slave populations living on small and middling estates had been high after 1750, there were only three periods when its slave population showed a positive growth [1745 – 50, 1770 –1775 and from 1790 onward]. Of special interest is the period 1775 through 1785. During this period, the fertility potential of the population in question was at its highest level for the entire eighteenth century. The number of individuals under 15 years however were not reflective of a boost in fertility potential. Between1775 – 1785, the number of children under 15 years plummeted to an unimaginable 8.8%.

The first possible answer to these anomalies was stated a few paragraphs before i.e. 1) the fact that their fertility potential was high between1750 - 1785 but natural growth was negative percentages and 2) more importantly why between 1775 and 1785 when their growth potential was highest the number of individuals under 15 years was lowest. The plummeting of the number of children in the small and middling estate population leads one to think there was a disruption of some kind – migration, death by war, or other means. Migration should be ruled out in this case, as children would not migrate without movement by adults, which would in turn drastically change the reproductive potential of the population. There was a war, the American Revolution, but again, children were not isolated and killed. Death of women through war however is negated, as this would again lower the fertility potential of the population. The women being alive keeping the fertility potential high leads to one other possible explanation selective death via sickness and disease.

Throughout the 1720s – 30s and 1805 – 1810, a series of Yellow Fever epidemics struck the Chesapeake’s African and Afro-American population. One outbreak in 1721
was particularly hard on children. Another, extending from 1726 through 1728, left children alone while striking down adults.

TABLE 5

Table showing percentage of children in slave populations [Large Plantations versus Small and Middling Homesteads]

<table>
<thead>
<tr>
<th>Decade</th>
<th>1740s</th>
<th>1750s</th>
<th>1760s</th>
<th>1770s</th>
<th>1780s</th>
<th>1790s</th>
<th>Ca. 1810</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Homesteads</td>
<td>25</td>
<td>26</td>
<td>28</td>
<td>47</td>
<td>9.5</td>
<td>40</td>
<td>44</td>
</tr>
<tr>
<td>Plantations</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>42</td>
<td>53</td>
<td>50</td>
<td>48</td>
</tr>
</tbody>
</table>

FIGURE B

Graph showing percentage of children in slave populations [Large Plantations versus Small and Middling Homesteads]
TABLE 6.

Table showing the fertility potential of small and middling farms versus large plantations
1740 – ca.1810

<table>
<thead>
<tr>
<th></th>
<th>1740s</th>
<th>1750s</th>
<th>1760s</th>
<th>1770s</th>
<th>1780s</th>
<th>1790s</th>
<th>Ca.1810</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farms</td>
<td>15.7</td>
<td>34.4</td>
<td>35.1</td>
<td>42.1</td>
<td>59.9</td>
<td>29.8</td>
<td>20</td>
</tr>
<tr>
<td>Plantations</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>14.75</td>
<td>16.98</td>
<td>15.68</td>
<td>17.85</td>
</tr>
</tbody>
</table>

FIGURE C.

Graph showing the fertility potential of small and middling farms versus large plantations
1740 – ca.1810
There was also an epidemic in 1737 that hit all age groups but was significantly hard on adolescents [Rutman and Rutman 1984: 183]. While the epidemics prior to 1750 took heavy tolls on select groups of the population, that of the nineteenth century killed indiscriminately. Could the anomalies in slave population growth on small and middling plantations 1775 – 1785 be a result of sickness and disease?

The listing in the Jerdone family slave age book has been invaluable in solving this problem. The book gives a basic listing of all the children born to slave women owned by the Jerdones between 1760 – 1840. The format of this age book is like any other birth register, with entries indicating the name of child, the name of the child’s mother, and a date of birth [day, month, and year]. What makes the Jerdone book exceptional is that it lists the eventual fate of the child [death, year of death, to which of their slave quarters it was eventually sent, or on a few rare occasions, to whom it was sold].

Having tabulated and graphed the entries, I found that one of every two children [51%] born during the period in question died in infancy. For all other periods where entries are reliable [i.e. 1786 – 1800, 1801 - 1815 and 1816 – 1830] infant mortality was 8.6%, 2% and 8% respectively [see figure D].

The high incidence of infant deaths between 1771 – 1785 documented in the Jerdone’s record book correlating with a rapid drop in the under 15 year old population on small and middling estates strongly suggests there was another regional epidemic of some kind immediately following the American Revolution. Whatever this epidemic,

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4 Infant mortality was calculated by dividing the number of death by births. Hence 33 of 65 infants born between 1771 – 1785 died, similar 10 of 86 infants between 1786 – 1800, 1 of 49 infants between 1801 – 1815 and 2 of 24 infants 1816 – 1831. The Slave age book after 1820 becomes less thorough, there were 28 records without slave names or month of births 80% of these record occurred after 1820.
FIGURE E

Graph showing births and deaths recorded in the Jerdone Family Slave Age Book 1771 – 1810.
coupled with a skewed labor force (one composed of mainly women), it could have been
enough to set back the natural population growth on small and middling estates for two
decades while large estates were affected only negligibly.

The Jerdone record book also assisted in establishing a second probable cause for
small and middling estates having a low or negative growth rate. The data suggests a
possible correlation between seasonality [the work routine of slaves] and fertility or more
specifically, successful fertilization.

The Chesapeake farmer's calendar and routine was largely predetermined by the
periodic, labor-intensive requirements of tobacco. Using intensive work or break periods
as a guide, the tobacco year could be broken into three phases: Phase I [early or mid-
December and extended to mid or the end of January] consisted of the clearing and
burning of foliage from new or previously cultivated lands. Following this slash and
burn phase, special seedbeds were made for sowing seeds. Though spring and its rains
would not come until March or April, during the month of February, farmers still began
the hoeing of cleared lands into hills for tobacco seedlings to be transplanted (Carman

Phase II was the longest, lasting for five months. Throughout April, the hilling
operations were completed. Beginning with the first spring rains, transplanting
commenced until mid- late May. Over the next eight to ten weeks, plants were topped,
pruned, garbendized, wormed, and hoed profusely reinforcing plant bases and clearing
weeds from hills. In August, when the leaves were ripe, tobacco plants were cut and sent
to tobacco houses to be cured until they were ready for packing and export (Carman
Phase III essentially consisted of bonding tobacco leaves together into small bundles called "hands" and the prizing of these bundles into hogsheads ready for sale and export. This was done sometime between late fall (October) to early winter (November) Carman 1939: 157 - 178, Middleton 1953: 93 - 105, Rutman and Rutman 1984: 37 - 51).

The demanding and restricting nature of tobacco is probably best described in *A Place in Time: Middlesex County Virginia 1650 - 1750.*

... If the seedbed was not prepared and planted on time, or his hills were not ready to receive the seedlings at the moment when the weather demanded, or topping, hoeing, suckering, worming, and cutting were not done in proper season, or the curing was to quickly and carelessly accomplished, a good part of the crop, perhaps all of it would be ruined. ... Any other crop that the Chesapeake farmer might contemplate -- oats, wheat, or barley -- would have to have a crop cycle at those times when tobacco did not. Otherwise its adoption would be at the expense of tobacco, the farmers cash.

(Rutman and Rutman 1984:43).

Only corn and livestock [pigs and cattle] were conducive or compatible to the rigid routine requirements of tobacco. Pigs and cattle required minimum attention. The former were reared in pens and needed only a few hands for feeding in the mornings and evenings. The latter could be driven to the outskirts of the plantation and left to graze freely. Corn, like tobacco, was planted in hills made with a hoe. It was planted in the spring and harvested in the fall rather than competing with tobacco.
The Jerdone records list the reproductive history of its fertile female population [i.e. 64 women and their 204 children]. Using the number of births given by each female, the assemblage could be divided into three categories 1) Found in the early to mid-sections of the slave age book ca. 1750 – 1780, those mothers who had given birth to less
than three children. There were 39 women in this group and they were directly responsible for 25% of births. 2) Found in the mid to latter sections of the slave age book ca. 1780 – 1820, those mothers who had given birth to between eight and eleven children. There were eight women in this category who gave birth to 38% of the children. 3) Also found in the mid to latter sections of the slave age book group three – women who had given birth to between three and seven children, comprised 17 women and 39% of children born to the estate.

Though inconclusive, this data implicates female slaves owned by the Jerdones in the mid-eighteenth century were less prolific than those of the late eighteenth and early nineteenth centuries. There is not yet reliable proof of this as disappearance in the age book is not necessarily an indication they ceased to have children. The Jerdones regularly traded slaves. Hence, they could have been sold. Another factor to be taken into consideration is age. A large percentage of the Jerdone early slaves were Africans who possibly had already been mothers prior to them coming to the Chesapeake.

Testing for seasonality, the months when these children were born were collated for over 70 years. As can be seen from Table 7 and Figure F, there were very few fluctuations except for two months - December [11 births] and January [0 births]. This translates to less than two children being born in December per decade and never in January. The true significance of this result is revealed the data is shuffled nine months in reverse to reflect the time of conception [see Table 8 and Figure G]. A December or January birth, now becomes a March or April conception.
Table 7.
Table showing distribution of birth throughout the months of the year as entered in the Jerdone slave age book

<table>
<thead>
<tr>
<th>MONTH</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>TOTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Births</td>
<td>19</td>
<td>22</td>
<td>21</td>
<td>19</td>
<td>26</td>
<td>19</td>
<td>24</td>
<td>16</td>
<td>12</td>
<td>19</td>
<td>11</td>
<td>11</td>
<td>204</td>
</tr>
<tr>
<td>[%]</td>
<td>0</td>
<td>9.5</td>
<td>11</td>
<td>10.5</td>
<td>9.5</td>
<td>13</td>
<td>9.5</td>
<td>12</td>
<td>8</td>
<td>6</td>
<td>9.5</td>
<td>5.5</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 8.
Table showing figures shuffled to reflect month of conception.

<table>
<thead>
<tr>
<th>MONTH</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Births</td>
<td>12</td>
<td>19</td>
<td>11</td>
<td>0</td>
<td>19</td>
<td>22</td>
<td>21</td>
<td>19</td>
<td>26</td>
<td>19</td>
<td>24</td>
<td>16</td>
<td>204</td>
</tr>
<tr>
<td>[%]</td>
<td>6</td>
<td>9.5</td>
<td>5.5</td>
<td>0</td>
<td>9.5</td>
<td>11</td>
<td>10.5</td>
<td>9.5</td>
<td>13</td>
<td>9.5</td>
<td>12</td>
<td>8</td>
<td>100</td>
</tr>
</tbody>
</table>
FIGURE F.

Histogram showing distribution of births throughout month of the year

FIGURE G.

Histogram showing probability [as a percentage] successful copulation for the various months throughout the year
To more vividly illustrate the probability of getting pregnant during the months of March and April, one can compare a couple chances of successful fertilization to a player in a crap game. Since April, January, and March were the months in which it seemed most difficult to conceive, they should be assigned or compared to the numbers 1 and 2 or 12 respectively.

The problem of probability is now answered by asking the question: If two dice are tossed, what are the chances of rolling the sum of

A) 1 [representing April], B) 2 or 12 [representing March] and C) 3 [representing January].

The probability \( P \) of an event \( E \) is equal to the number of elements \( n(E) \) divided by the number of elements in the sequence \( n(S) \) or \( P(E) = \frac{n(E)}{n(S)} \). Using ordered pairs to represent outcomes of dice there are a total of 36 possibilities [i.e. six possibilities for the first number of the ordered pair and, with each of these, six possibilities for the second number]. Hence \( n(S) = 36 \) [see Earl W. Swokowski 1989: 582 - 587]. For the month of March represented by either the sum of 2 or 12, using two dice \( n(E) = 1 \)

\[
\left\{ (1,1) \right\} \text{ or } \left\{ (6,6) \right\}, \quad n(S) = 36
\]

\[
\therefore \quad P(E) = \frac{n(E)}{n(S)} = \frac{1}{36}
\]

\[
\therefore \quad \text{One chance in 36 chances of conception in March}
\]

\[
\therefore \quad \text{Not being able to throw the sum of one with two dice, chances of conception in April impossible.}
\]

For the month of January represented by the sum of 3, using two dice \( n(E) = 2 \)

\[
\left\{ (1,2) \right\} \text{ and } \left\{ (2,1) \right\}], \quad n(S) = 36
\]
\[ P(E) = \frac{n(E)}{n(S)} = \frac{2}{36} = \frac{1}{18} \]

\[ \therefore \text{One chance in every 18 of conception in January.} \]

Conception during the months of March and January being one chance in 36 chances and one chance in 18 chances respectively, was slightly higher but not as good as other months [i.e. February, May, August and October], which would be comparable to rolling the sums of 8 or 9.

\[ \therefore E = \{(3,6), (4,5), (5,4), (6,3)\} \text{ or } \{(5,3), (6,2), (3,5), (2,6)\} \]

\[ P(E) = \frac{n(E)}{n(S)} = \frac{4}{36} = \frac{1}{9} \]

\[ \therefore \text{One chance in every nine of Conception in February, May, August and October.} \]

For months with higher than 19 conceptions [i.e. June, July, September, and November], chances of conception were significantly more, closer to a player’s chances of throwing the sum of seven [i.e. one chance in every six].

In the context of a slave’s work routine, these results suggest fertility cycles directly related to the Chesapeake planter’s calendar. At the beginning of the year, [January] coinciding with the preparation of seedbeds and nurseries, the fertility of slaves was lowered - one chance in every 18 of conception. Hilling being a considerably more relaxed exercise than plowing old and new fields, during February fertility would improve - one chance in every nine of conception. As Phase II of the tobacco season began [March and April], the combination of preparing land for corn and the further preparing of tobacco lands fertility became so low, that chances for conception were next to impossible. Therefore, no children were born in January and very few in December. With the corn planted and nurseries transplanted, maintenance and harvesting seemed to
have taken less of a physical toll. Fertility resumed what can be considered its normal level [i.e. one chance in every nine of conception] from May throughout November. This cycle would begin again – fertility lowering, in December as slaves slashed and burned preparing old and new fields for nurseries.

The results shown here are for middling and large plantations. Since the duties of slaves on smaller tobacco farms were less specialized, it is conceivable that the fertility rates, fertility cycle, and probabilities from month to month would be different [i.e. lower or higher depending upon the amount of work].

In summary, among the conclusions that can be drawn from this section of the paper are:

1) Addressing the issue of balanced adult sex ratio after 1740, given the results shown here I would have to say balanced is an exaggeration. Chances for establishing family and intimate relationships on large estates were probably better in the 1740s than any time prior, but it would not be until the late eighteenth and early nineteenth century that a true semblance of balanced would be achieved.

Figures J and K illustrate the changes in sex ratios from 1740 - 1810 for small middling, and large estates respectively. First and foremost, these charts describe how changes in population composition occurred. The data indicates true or natural balance on large plantations did not occur until the 1790s. With the percentage of men and women in the workforce being roughly 26% and 23% respectively and the ratio of men to women at almost 1:1, in the 1770s when probates relating to large estates began appearing there seemed to be a semblance of balance. This balance however was short-
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lived and probably not natural as by the late 1770s through to early 1790s the ratio of females would again be skewed [see figure H and Table 9, by 1785 there were 195 men to every 100 women]. A true balance of the Tidewater’s slave population would not occur until the 1790s. Stability in this instance would be permanent leading into the nineteenth century and beyond [see figure H and Table 9]. 108 and 95.4 women to every 100 men for the years 1790 – 1810 respectively. This last statement indirectly supports the view of John Blassingame who indicates that when sex ratio is broken by ages, the number of females per 100 males slaves in the Southern states were 95.1, 98.3, 99.5, 99.9, and 99.3 for 1820, 1830, 1840, 1850, and 1860 respectively, for the over 15 years old group [Blassingame 1972: 78].

The slave population of small and middling estates would not be balanced in the eighteenth century. The work force composition of these small and middling farms was very erratic, undulating from higher percentages of women to higher percentages of men. The most drastic movement in the workforce of these small and middling farms took place between 1765 and roughly 1795, during this 30 year period the ratio of men to women changed from 76 women to every 100 men to 160 and 139 women to every 100 men in 1775 and 1785 respectively, and then briefly 1:1 in 1795. After 1795 the percentage of women compared to men would plummet to numbers closer to those of the 1740s [see figure I and Table 10]. Overall between the 1740s and the early nineteenth century, I would there was only a slight improvement in the balance of women to men. Small estates began the 1740s with the over 15 years age group, only having 38 women.

---

5 See John W. Blassingame’s *The Slave Community* [1972], his data taken from *Eight Census of the United States*, I, 594 – 595; Compendium of the Seventh Census [Washington, 1854], 87, 91.
TABLE 8
Table showing percentage of adult male and females in the small / Middling estate slave population [Data taken from assemblage 2 (table 2)]

<table>
<thead>
<tr>
<th></th>
<th>1740s</th>
<th>1750s</th>
<th>1760s</th>
<th>1770s</th>
<th>1780s</th>
<th>1790s</th>
<th>1805</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>42.3</td>
<td>40</td>
<td>46</td>
<td>22.7</td>
<td>38.2</td>
<td>31.3</td>
<td>36</td>
</tr>
<tr>
<td>Female</td>
<td>16.2</td>
<td>34</td>
<td>35</td>
<td>36.3</td>
<td>52.9</td>
<td>29.8</td>
<td>20</td>
</tr>
</tbody>
</table>

FIGURE H
Graph showing percentage of adult male and females in the small / Middling estate slave population
TABLE 9

Table showing percentage of adult male and females in the large estate slave population
[Data taken from assemblage 2(table 2)]

<table>
<thead>
<tr>
<th></th>
<th>1770s</th>
<th>1780s</th>
<th>1790s</th>
<th>1805</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25.5</td>
<td>37</td>
<td>24</td>
<td>25.3</td>
</tr>
<tr>
<td>Female</td>
<td>22.8</td>
<td>19.3</td>
<td>26</td>
<td>26.5</td>
</tr>
</tbody>
</table>

FIGURE I

Graph showing percentage of adult male and females in the large estate slave population
Graph showing the relation between the number of men on large estate and the number of women on small and middling estates.
2) The fact that small estates never showed positive growth in population until their fertility potential fell to the level of large estates suggests that there were other variables than skewed sex ratios [i.e. a large percentage of older women over 30 years old and possibly an imbedded fertility cycle] acting upon the population. This is yet to be investigated. Also, the fertility potential of small and middling estates in 1740s being the same as those of the 1790 –1810s indicates their labor force changed between 1740 and 1780, from being sexually balanced to predominantly women.

3) From their inception, the fertility potential of large estates was lower than small estates, indicating their adult sex ratios were even and remained fairly constant. As illustrated by the fertility graphs generated from the Jerdone family papers, positive natural growth on large estates occurred with each adult female having approximately three children per decade.

4) By the beginning of the nineteenth century, smaller estates showed identical fertility potential and positive natural growth percentages to large plantations. This indicates that coming to the close of the century the work force of small and middling estates and the households of their slaves began to mirror that of large plantations, adult sex ratios became more than superficially balanced.
Having shown how the demographics of black America changed between 1730 and 1800, and clarified issues relating to ethnicity and fertility, the objective of this section will be to compare and contrast the composition of the Ludwell labor force ca. 1765 – 1772 with what I have established as the regional mean, calculated from probates in Section I. It is also hoped that by including an overview of the plantation’s economy, it will show that while population growth spurred redefining concepts of family and household, social mobility and autonomy were less widespread and not related to demographics.¹

The limitations of this chapter extend beyond the narrow time and space for which adequate data exits. The Ludwell estate 1760 – 1775 was not typical of James City County or the Tidewater for that matter, two of their three plantations were far larger than average. By Jackson T. Main’s list, the inheritors William Lee [7,127 acres] and John Paradise [5,700 acres] were ranked among the top thirty wealthiest individuals in the Tidewater. Prior to his death Phillip III’s combined wealth of over 13,000 acres and 235 slaves was possibly the largest property owned by a single individual in James City

¹ Economy as used here refers to vital inter-crop, intra and inter plantation connections i.e. “that set of institutionalized activities which combine natural resources, human labor, and technology to acquire produce and distribute goods and specialist services in a structured repetitive fashion [Dalton 1969: 97].
County and the colony. In terms of political power, the estate assumed greater importance. Its Ludwells were among the elite 0.05% of the Tidewater’s population.\(^2\) Not many Tidewater planters managed plantations with more than a hundred slaves and quarters housing twenty or more individuals. In fact, based upon the records of the lower Western Shore [Anne Arundel, Charles, Prince Georges and St. Mary counties] between the 1750s and 1790, show that on an average of 450 [approximately 10%] of 4,187 plantations and farmsteads had 20 or more slaves. The 1782 tax record for Charles County revealed that 57% of the plantation had five or fewer taxable slaves and only 5.8% or 45 of approximately 1,000 plantations farms [Lee 1986: 360].

The Ludwells migrated to England in 1761. Cary Wilkinson was the estate’s absentee manager. The probate inventory [1769], and the following letters give a detailed description of the estate’s various activities, and how it was managed.

... It is very proper now and then to change your seeds, but always stick to the best kind, sometimes get some from Edward Diggs near Yorktown, sometimes from the Hon. William Nelson’s estate in Hanover, sometimes from Chippokes which is the same kind with that at Green Spring…. you say the land is too poor to make large crops of tobacco without dung in this case I must think it w(oul)d be... to sow a good deal of wheat which must always sell well and with the straw you might make a good deal of manure. Let no lambs be killed nor any sheep until they have lost there teeth, by which means in a little time I should hope your stock may be so increased as to prepar[e] wool enough with the assistance of flax and cotton to clothe all the people. Which is a point, yet I would have you pay constant attention to let some of the girls and infirm old women be taught to spin flax, and kept constantly at it as flax grows well in every part of Virginia and is much more worth your regard than cotton.

(William Lee May 22, 1771)\(^3\).

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\(^2\) Estimated population of British America specifically the upper South (Maryland and Virginia) to be approximately 750,000 - see McCusker and Menard. The Economy of British America 1607 – 1789 (1986) pp.218.

\(^3\) Lee-Ludwell Papers Mss 1L51f (VHS), section 113, William Lees Letterbook 1768 - 1772, pp. 68-72.
"... this you may try with a field or two, and the land may not be useless, as I am
determined to cultivate silk, I would have you plant seven or eight hundred
mulberry trees as fast as you can in those grounds that are most plagued with
wild onions. You have know on my land and on several places on the James River
a good many white mulberry trees, from these you may propagate what number
you please either by -or-s or grafting as you do apple trees, the proper season for
which you know. The best stock to graft will be black mulberry, but almost any
stock will do.

As so little is made by tobacco you should sew flax and put all the swamp land
into ---- meadow particularly where Powahatan Mill stood which will yield you a
great quantity of fine hay, by which you may increase all your stocks, particularly
sheep so that in two or three years, I shall expect that all the people may be
clothed by linen and woolens made on the estate. ... Remember to keep
apprentices to all the tradesmen you have --- and I could wish to have one
apprentice pull to each of the following trades viz. A millwright, a house joiner
and a brick layer ..."

(William Lee April 22, 1772).

"... Every year at Christmas I w(oul)d have you settle and balance all
accounts, when a list of debts is to be made out; at ye same time take ,
names, ages, sex and separate of all ---- on the several plantations,
also then may be taken a list of all the separate kinds of stock; these
several lists viz: of ye debts, and stock are every year to be sent to
me... your annual accounts are to be made out in the following
manner; the wood and every kind of provision are to be put in
separate accounts unless it is what is sold to the college, which will
always appear in the college accounts, the brandy, the cyder and
profits of the different tradesmen are also to be in separate accounts.
There must be an annual rent roll, acc(oun)t of the different crops on
the several plantations and how they are disposed of, then a cash
account inwhich you should mention for what it is you pay money to
anyone or for what it is that you receive cash f(ro)m any person, as for
instance wether you have received money for corn or wood & ... &
and wether you have paid self for overseers wages or smiths work or
taxes &--."

---

4 Lee-Ludwell Papers Mss1 L51f (Virginia Historical Society), section 113 William Lees Letterbook 1769-
1772, pp. 81-84.

5 Though only cider and brandy are mentioned in Lee’s letter, Green Spring also had a winery
dating back to the late seventeenth century. In his diary Devries recalls being given sack in Venice glass
during one of his six extended stay at Green Springs. Vries, David Pieters de. Voyages From Holland to
America [College of William and Mary Rare Book collection Acc# E162. V98].
In addition to the aforementioned correspondence, examination of the 1769 probate and tax inventory of 1773 indicate that the Ludwell estate was highly specialized. The husbandry activities of Green Spring and Scotland were typical. Breeding was strictly controlled and restricted to these quarters, only after animal [shoats and calves] had completed the lactating phase were they distributed throughout the estate for fattening and rearing. Similarly, Mill quarter, in addition to milling, only grew corn. The Ludwell estate’s status and ideology is further reinforced by the presence of stills, wool processing, and molds for making spoons and candles. For the period that this study spans, only 10% of estates could afford to implement household industries.6

The implications of these arrangements are very clear. Not only was the estate aspiring toward self-sufficiency and diversification, it was highly specialized and tightly controlled.

LABOR FORCE

GENERAL COMPOSITION, SEX RATIOS, AND ETHNICITY

The format used to describe slaves in the Ludwell III probate is fairly comprehensive and self-explanatory [i.e. having names, ages, or some indication of maturity, sex, and their corresponding market value]. The presence of any two of these three variables can be converted or compared to other known records to give the third. In the case of Phillip Ludwell III’s 1769 probate, I compared the prices and accompanying age descriptions with the aforementioned, pricing rules to find numerical age ranges.

Tables 11, 13, and Figure K indicates slave sex, age description [adult or child], their appraised values, and frequency distributions for the Ludwell estate, as expressed in the probate inventory.

It is evident from Table 8 that the modal price for an adult male slave is 60 pounds and that of an adult female, 50 pounds. On a well-managed plantation these figures represent adults at the peak of their productive potential [i.e. between the ages of 14 and 32 years]. Other members of the slave population, whether male or female, who have lower monetary value associated with their names, are either children or adults of lower productive potential. There were, as previously stated, exceptions. In the case of Ludwell’s estate, 14 individuals [eleven men and three women] had comparatively higher values associated with their names. We have no way of determining the ages of these 14 individuals. What we do know is they were either skilled or semi-skilled. Based on the tools listed in the probate inventory at Green Spring and a letter addressed to Richard Henry Lee to his brother William Lee in London, these slaves probably had one or a combination of a variety of skills [carpenters, wheelwrights, gardeners, house servants, shoe makers, midwives, clothe maker [weavers], seamstresses, or masons].

These findings for this study are significant in that they allow for a detailed description of the features relating to the estates labor force [i.e. calculate the average birth rate, plantation household structures, access ethnicity and the labor distribution patterns as established by Wilkinson]. Ultimately, these facts will assist in analyzing how accurately the Ludwell estate reflected the established mean of its contemporary large plantations in category 3 probates Section I.

---

The established mean regional figures calculated from probates contemporary to the period being covered on the Ludwell III estate are those of the mid-1770s. The results in section I indicate an adult to child composition of roughly 45:55%, the adult sex ratio was 111 men to every 100 women and a fertility potential between 14.5 – 17%. Children under six years accounted for roughly 19% [see Table 12].

At this general level, the demographics of Ludwell's slave population fell within the established mean. This was a working plantation however, and the slight differences in distribution reflected this. The differences in distribution are shown in Table 11 and Figure H. There were other divergences, such as the sex ratio of the estate’s adult group. The 50 to 50 ratios on the Ludwell estate was far more advanced compared to the regional mean of 53% male to 47% female, and slaves over 15 years or the heavy working group accounted for just over 54% of the total population instead the mean 40%. Similarly, children under 5 accounted for 10% of the population compared to the regional mean of roughly 19%.

Correspondence between Wilkinson and William Lee during the early 1770s seem to allude to an annual birth rate of approximately 10% of the total number of women present.

"The land must be uncommonly barren indeed, since neither woman or beast of his kind will breed in the usual manner on it, nor does it give to the laborer a common profit for his toil it appears that not above one woman in ten brings child in a year, ---"

[Letter to Wilkinson from Lee April. 22, 1772].

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8 See William Lees letter book 1769 - 1772 (VHS ACC# Mss1 L51f 113).
Table 11
Table showing sex and appraised values of the Ludwell slaves ca. 1769

<table>
<thead>
<tr>
<th>Estimated Values [£]</th>
<th>Men</th>
<th>Women</th>
<th>Boys</th>
<th>Girls</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>6 - 10</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>11 - 15</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>16 - 20</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>9</td>
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<td>21 - 25</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>26 - 30</td>
<td>1</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td>14</td>
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<td>31 - 35</td>
<td></td>
<td>4</td>
<td>1</td>
<td>5</td>
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<tr>
<td>36 - 40</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>41 - 45</td>
<td>11</td>
<td>6</td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>46 - 50</td>
<td>8</td>
<td>23</td>
<td>1</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>51 - 55</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>56 - 60</td>
<td>32</td>
<td>1</td>
<td>2</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>66 - 70</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>71 - 75</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
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<tr>
<td>76 - 80</td>
<td>2</td>
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<tr>
<td>86 - 90</td>
<td>1</td>
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<td>1</td>
<td></td>
</tr>
<tr>
<td>96 - 100</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>73</td>
<td>66</td>
<td>47</td>
<td>37</td>
<td>223</td>
</tr>
</tbody>
</table>

Data generated from 1769 probate of Phillip Ludwell III [VHS ACC# Mss1 L51f]].
Table 12

Table Showing a profile of the Chesapeake’s African / African-American population ca. 1775 – 76 [Taken from Table 4]

<table>
<thead>
<tr>
<th>AGE</th>
<th>&lt;1</th>
<th>1 - 5</th>
<th>6 - 10</th>
<th>11 - 15</th>
<th>16 - 35</th>
<th>&gt;36</th>
<th>Acc. Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>4</td>
<td>13</td>
<td>8</td>
<td>11</td>
<td>21</td>
<td>17</td>
<td>74</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>15</td>
<td>10</td>
<td>12</td>
<td>22</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td>[%]</td>
<td>5</td>
<td>18.7</td>
<td>11.9</td>
<td>15</td>
<td>28.7</td>
<td>19</td>
<td>149</td>
</tr>
</tbody>
</table>

Table 13,

Table showing the Ludwell slave population ca. 1769 [distribution and frequency of ages]

<table>
<thead>
<tr>
<th>Age</th>
<th>0 - 5</th>
<th>6 -10</th>
<th>11 - 15</th>
<th>16 - 33</th>
<th>34 - 40</th>
<th>Over 40</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>23</td>
<td>41</td>
<td>37</td>
<td>88</td>
<td>19</td>
<td>14</td>
<td>222</td>
</tr>
<tr>
<td>Perc. [%]</td>
<td>10.3</td>
<td>18.46</td>
<td>16.66</td>
<td>39.6</td>
<td>8.5</td>
<td>6.3</td>
<td></td>
</tr>
</tbody>
</table>
Figure K.

Histogram showing age distribution and their frequency of the Ludwell slave population ca. 1769.
FIGURE L.
showing the composition of the Ludwell slave labor force compared to the regional [Tidewater] mean. Data taken from assemblage 3 and Ludwell probate

TABLE 14.
showing the composition of the Ludwell slave labor force compared to the regional [Tidewater] mean. Data taken from assemblage 3 and Ludwell probate

<table>
<thead>
<tr>
<th>Age Range</th>
<th>0–5 Yrs</th>
<th>6–10 Yrs</th>
<th>11-15 Yrs</th>
<th>16–35 Yrs</th>
<th>&gt;35 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estab. Mean</td>
<td>23.7</td>
<td>11.9</td>
<td>15</td>
<td>28.7</td>
<td>19</td>
</tr>
<tr>
<td>Ludwell’s</td>
<td>10.3</td>
<td>18.4</td>
<td>16.6</td>
<td>39.6</td>
<td>14.8</td>
</tr>
</tbody>
</table>
From the table showing age distribution above and Phillip Lee's statement, I have calculated the annual birth rate as a percentage of the total population, using all the female groups of child bearing age 16 - 35 year olds [42 individuals], 50% of the combined 11 - 15 and 37 -40 year olds [11 individuals], there are an approximate number of child bearing females to be 53 individuals. Ten percent of these 53 individuals giving birth are roughly 5 children yearly or 2.1 percent of the total slave population.

One gets the impression from this letter abstract that the birth rate of Ludwell's holdings were below average. This depends largely on what was being used as a scale. Under normal or ideal conditions, a rate of 2.5% would have been very low. With 64 females of reproductive age, the estate had an annual fertility potential of between 20 – 25%. If, on the other hand, one were comparing these figures to those of neighboring plantations, this 2.1% increase in population size is not only consistent with that of contemporary plantations such as Francis Jerdone, Sr's. but actually consistent with regional figures. The natural increase of slaves in the Chesapeake for the period [between 1730 – 1770] was approximately 2.5% annually [Kulikoff 1977: 394].

The following statement by Thomas Cables, a merchant on Virginia's Eastern Shore, indicates the general composition [age ranges] of a slaver, taking slaves to Virginia during the 1725 period.

"If I could choose a cargo of Negroes say 200, I would have 100 men, 60 women, 30 boys and 10 girls 10 – 14 years"

[Sited by Kulikoff 1977: 398].

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9 The annual fertility potential was calculated using the same method employed by demographers i.e. taking the total number of females of child-bearing age and expressing this as a percentage of the total population (see Craton and Malvin 1970:152).
Changing the figures that Thomas Cable sites into percentages, it becomes 50% men, 30% women, 15% boys and 5% girls. It can be seen from Figure H, that as a composite, the largest number of individuals 65.4% were within the age of peak production potential. There were 142 slaves between the 11 - 40 year old range, 63 individuals between birth and 10 years old [28.7%], and 5.9% over 40 years [13 individuals]. Not including the 0 – 9 age group. What these figures come out to in terms of age and sex is 41% men, 38% women, 14% boys and 6.5% girls.

Low birth rates [between 2.5% - 4%], the marked absence of individuals in the 0 - 7 and over 40 age range housed on individual quarters, the character of the Ludwell labor force not being dissimilar to that of other plantations - Francis Jerdone, Sr. in 1770 had approximately 54% of its population probably originating in Africa,¹⁰ and their closeness to the slaver composition figures sited by the merchant Thomas Cable, are four indicators that a large percentage of the Ludwell slaves were either one or a combination of two factors: African or African-American, the second generation of West Indian immigrants recently brought to replace older laborers, or slaves not newly bought but yet to be acclimatized to the Chesapeake's temperate environment.¹¹

Information relating to slave life expectancy was also extrapolated from the 1769 probate and 1773 tax inventory combined. The calculated mean ages of the Ludwell

¹⁰ Areas of the West Indies having relatively more mature African-American population such as metropolitan Jamaica had 54% (9,147) of 17,798 slaves being born in Africa (Simmonds 1987: 32; Slave Registration Records, Kingston 1800).

slave population male and female combined were 20.73 and 28.6 years, for 1769 and 1773 respectively. Unlike in 1769, the 1773 inventory showed several individuals in the over 40 year old range. This increased mean is a good indication that coming into the third quarter of the eighteenth century there was an increase in a slave's life expectancy.

While an explanation for this longevity may not be immediately evident from the information yielded by the records, one of the possible contributors may have been seasoning. Just like the seventeenth century European pioneers, the Africans on the Ludwell plantations by the third quarter of the eighteenth century had adapted to the existing climatic and physical selection pressures of agrarian Virginia. Europeans in Virginia underwent a similar experience. Men born in the Chesapeake in the seventeenth century lived an average of seven to nine years longer than their immigrant counterparts and their forefathers. Once immigrants survived their seasoning period however, most of this difference disappeared.12

GROUP AND FAMILY LIFE 1760 - 1772

For an overview and accurate measure of family and household changes, it will be necessary to observe the estate's group distribution over an extended period [ca. 1760 through ca. 1770]. As can be seen from the probate, Cary Wilkinson distributed slaves

12 The higher the 1800 fertility ratio, the later the mean year of county formation: counties with ratios under 140 children to every 100 women, formed on an average, in 1649; ratios 140-150, counties formed in 1672; ratios 150-170, counties formed in 1726; ratios 170-180, counties formed in 1751; ratios over 180, counties formed in 1765 (Kulikoff (1986:59).
throughout the estate’s nine quarters in various concentrations [see Table 16]. The sizes of plantation households given are not as important as the age and sex distributions of these small mixed households.

Using the over 35 year old group as represented in the 1769 probate to reconstruct the composition of the estate’s labor force in approximately 1760, I found there was a distinct sense of balance. Typical examples are at Green Spring, where not including skilled individuals, there were 20 adult males and 20 adult females. Except for one of these individuals, all were within the age range 16 - 40. At Hot Water, there were eight women and eight men, six of each sex were between the ages 16 - 32, and at New Quarters, there were ten women and seven men, five of each sex were between the ages 16 - 32, one of each sex were between 33 - 40, and the rest were over 40. This suggests a strong emphasis at this time on natural increase of the plantation labor force.

I am convinced slaves were strategically paired [i.e. deliberately moved throughout quarters to facilitate the establishment of family units]. Hence, new slaves were always placed in a manner where balance and sex ratios were maintained. Similarly, if there were mature brothers or sisters they would probably be transferred to quarters where members of the opposite sex would not related.

From my argument on balanced sex ratios, it can be assumed that initially [ca. 1760], only a few of the household members were related. By 1769 however, as a result of Cary Wilkinson’s strategic pairing, children born to slaves began facilitating changes

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13 235 slaves distributed as follows; Hot Water 13%, Scotland 9%, Mill Quarters 3%, Clovertone 8%, Pinewood Meadows 9%, Archers Hope 4%, New Quarters 10%, Rich Neck 9%, and Green Spring 32%.

14 No records exist for 1760 but some semblance of organization can be gleaned from the over 35 year group, whom were perfectly organized to have a ratio of one female to every male [1: 1].
in household definition. There seemed to be the beginnings of what can be considered “stable” or “normal” family life. Normal family not necessarily meaning that both parents were present in the household, but that there were individuals present representing all five age groups: children of both sexes within the age ranges of 0 – 6 years and 7 – 15 years, males and females between 16 and 33 years, males and females between 34 and 40 years, and men and women over forty years. Thus on the Ludwell-Lee plantation and its supporting quarters, all the children had access to regular supervision and guidance from older role models.

Using the slaves quartered at Rich Neck as an example, the children below 15 years [Isham, Nero, Peg, Nanny, and Fanny] were exposed to a wide and diverse range of cultural phenomena. There were Africans [possibly Shocker, Peter, Hester, and one of the Toms], who assumed the role of surrogate grandparents facilitated the transfer of African religious and cultural practices. Children would also quickly adapt to existing conditions of slavery, benefiting from their parents or surrogate parents [possibly Judith, Jenny, Mary, Dinah, Guster, Henry, and Jemmy] largely first generation African-Americans born in bondage, who had a relatively good command of the English language and the American way of life.
Table 15.

Table showing the distribution of slaves [sex and relative ages] throughout the Ludwell estate’s nine quarters as organized by Cary Wilkinson ca. 1769.

<table>
<thead>
<tr>
<th>Tract</th>
<th>Sex</th>
<th>0-7</th>
<th>8 - 15</th>
<th>16 - 32</th>
<th>33 - 40</th>
<th>Over 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Quarter</td>
<td>M</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Hot Water</td>
<td>M</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Scotland</td>
<td>M</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td></td>
<td></td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Cloverton</td>
<td>M</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Pine Meads.</td>
<td>M</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Mill Quarter</td>
<td>M</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rich Neck</td>
<td>M</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>-</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Archers Hope</td>
<td>M</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Green Spring</td>
<td>M</td>
<td>4</td>
<td>8</td>
<td>18</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>2</td>
<td>7</td>
<td>10</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>
AUTONOMY

In 1769 Phillip III had 235 slaves living on the estate’s nine quarters located throughout James City County. These quarters, depending upon distance from the masters principal place of abode [in this case Green Spring], would be exposed to varying degrees of supervision, with Green Spring being the nucleus of the Ludwell’s estate lead to its quarters, being under direct supervision. Another factor which probably contributed to these quarters being constantly supervised, was the nature of day-to-day chores conducted [i.e. skilled and semi-skilled individuals] which probably experienced a more autocratic form of supervision. Though they were subjected to a more authoritative style, the slaves residing at Green Spring quarter were not at a total disadvantage. Due to the wide range of industrial activities and multi-crop agricultural, the slaves were more likely to gain experiences and skills that would keep that in high demand, thus indirectly raising their status. Also there were almost 60 adult slaves [with a male to female ratio of roughly 1:1] living at these quarters. Large numbers and a balanced ratio setting heightened an individual’s chances of establishing social and intimate relationships.

The management style on many satellites was directly opposite to that of quarter attached to the master’s principal place of abode. Hence, instead of autocratic, it was laissez-faire. The members of these quarters appeared to be living not unlike poor whites, or more appropriately, tenant farm sharers. Independence and autonomy was contingent upon quarter members working in unison as part of a team, each individual being disciplined, adhering to a designated routine which was some facet of their principal objective: the cultivation of tobacco along with wheat, corn, or barley and the
raising of livestock [pigs, cattle and sheep]. The overseers or foremen on the Ludwell
satellites - Rich Neck, Archer’s Hope, and New Quarters, were probably slaves
themselves as on Jacko and Debb's quarters of the James Bray II estate ca. 1725, [Kelso
1984: 21 - 212; McCartney 1999: 114]. Unlike Green Springs’ quarters opportunities for
advancement and socialization would have been minimal because of restricted numbers
and monotonous nature of the tobacco routine.

Slaves residing at Cloverton, Pinnewood Meadows, Hot Water, and Scotland
quarters adjoining and within a one mile radius of Green Spring, would have experienced
a management style somewhere on the continuum between the autocratic style, of Green
Spring and the *laissez-faire* style of the quarters on the Rich Neck plantation.

As previously stated, slaves housed on satellites further from the main plantation
were allowed a considerably large degree of autonomy. Among the ways Kulikoff
suggests this time was used to travel to other quarters - fathers to visit their wives and
children, others to pass the night, drinking, talking, and smoking. On occasional
Sundays, they held celebrations where they played music and danced.

While these suggested activities probably hold true for the Ludwell quarters,
documentary and archaeological evidence is strongest for leisure time being used for
fishing, trapping, hunting, and religious gatherings.15 A letter written by William Lee
(April, 1772), states "... they become more crazy with their new light and New Jerusalem

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15 Around the time of the Revolutionary war, two free black preachers; Gowen Pamphlet and
Moses, held meetings in the vicinity of the Ludwell estate's Mill pond (Lake Matoaka)(Morgan 1984:34 -
... *stealing increases..." alluding to sporadic attitude changes in his slaves when coerced by 'preachers' (evangelists) from the north.¹⁶

**TRADES AND STATUS**

Falling prey to the lure of the large profits to be made from planting tobacco, many tradesmen upon arriving in the colony abandoned their trades. Hence, the early attempts to create a white artisan class were unsuccessful.¹⁷ Gradually, planters began relying on the skills of their Negro slaves.

Opportunities for social mobility such as moving from field hand to house servant or tradesman were extremely difficult; hence, members of the estate's maintenance or trades category could be considered the *crème de la crème*. These trade areas of carpentry, shoe making, and gardening were amply stocked with tools and equipment, and not only fostered to the Ludwell estate needs, but to the surrounding plantations as tradesmen who were hired out and commissioned to perform jobs for the College of William and Mary and members of the greater Williamsburg community.

Just using workload as a scale, it is safe to assume that a slave was privileged doing any job other than that of a field hand. The only other category open to slaves was the trades, however, while all trades persons could be said to work in privileged

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¹⁶ There are those historians and researchers who seem to think that 'crazy' is used in reference to slaves method of worship (i.e. combination of African tradition with christianity producing a worship service that included hand-clapping, rhythmic body movements, speaking in tongues, and belief in the presence of the holy spirit) (McCartney 1999: 124).

¹⁷ In 1618 the English Council of the Virginia Company of London instructed Governor Yeardley to bestow four acres of land and a house on "any artisan or tradesman who shall be more desirous of following his particular art or trade, than to be employed in husbandry or any other rural business." *Negroe in Virginia* 51.
positions, not all trades facilitated a rise in a slave's status. There were three categories of trades that probably determined one's status; those that modified a slave's value significantly such as carpentry, wheelwright, and blacksmithing. Secondly, those that modified an individual's value moderately [shoemaker, ditcher, sawyers, sewers, spinners, and weavers]. And finally, those trades that had no effect upon an individual’s value [gardener, toolman, housemaid, and dairymaid].

This statement is substantiated by the relatively large differences in appraised values of individuals who occupied these positions. Using the 1773 Green Spring tithes appraisal as a guide, it can be deduced that carpenter slaves, such as Billey and Matt [aged at 52 and 47 respectively], and wheelwrights such as Will and Scipio, were worth almost twice that of their peers and a normal field slave roughly aged between 16 - 33, and at his peak of production. Conversely, slaves occupying positions such as gardener and tool manager were appraised as having values that conformed to those achieved by correlating the sex and age of normal hands. Hence, the price of individuals such as gardener Sam and toolman Jimmy, aged 37 and 57 respectively, was consistent with that of a field slave of comparable age.

The 1773 Green Spring tax inventory lists the Lee - Ludwell estate as having 24 slaves; 15 men and nine women, as being skilled or semi-skilled. Added together these groups give a mean age just over 43 years [34 years for men and 52-53 years for women]. This is significant when viewed at an estate level. Previously in 1767, 11 artisans catered to over 14,000 acres. In 1772, William Lee had 24 skilled personnel (Lee-Ludwell Papers Mss 11 51f 414: 153). The importance of this to the Ludwell estate is that twice the
skilled personnel catering to institutional chores, enabling the estate's fostering to the demands of the community.

Table 16.
List of the Ludwell estate’s trade [skilled] slaves and their respective ages ca. 1769 and 1775

<table>
<thead>
<tr>
<th>NAMES</th>
<th>TRADE</th>
<th>~AGE</th>
<th>AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1769</td>
<td>1775</td>
<td></td>
</tr>
<tr>
<td>Billey</td>
<td>Carpenter</td>
<td>46</td>
<td>52</td>
</tr>
<tr>
<td>Matt</td>
<td></td>
<td>41</td>
<td>47</td>
</tr>
<tr>
<td>Jack</td>
<td></td>
<td>21</td>
<td>27</td>
</tr>
<tr>
<td>Mercury</td>
<td></td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>Scipio</td>
<td>Wheelwright</td>
<td>33</td>
<td>39</td>
</tr>
<tr>
<td>Paul</td>
<td></td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Will</td>
<td></td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Winny</td>
<td>Weavers,</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Spinners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mary</td>
<td>&amp;</td>
<td>34</td>
<td>40</td>
</tr>
<tr>
<td>Nanny</td>
<td>Sewers</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Guy</td>
<td>Holster</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Jacob</td>
<td>Sawyer</td>
<td>21</td>
<td>27</td>
</tr>
<tr>
<td>Jemmy</td>
<td>Toolman</td>
<td>51</td>
<td>57</td>
</tr>
<tr>
<td>Sam</td>
<td>Gardener</td>
<td>31</td>
<td>37</td>
</tr>
<tr>
<td>NAMES</td>
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<td>Daphney</td>
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One may ask under what circumstances would influence such a significant increase in personnel, or conversely create such a demand for artisans? As it got closer to 1776, plantation owners, suffering from a diminished line of credit and heavily indebted to merchants, contrary to what they would have done in previous years, rather than buy new ones, would probably begin or increase the practice of refurbishing and mending farm tools and equipment. Another point for consideration is even if planters did have access to a healthy credit line, the fact that the season of highest breakage was crop time (i.e. between January and June), put them at a serious disadvantage. New tools could not be ordered and delivered in time to facilitate land preparation, planting and maintenance before the end of the growing season. Having said this, it is fair to assume that unless a
planter were wealthy and had an ample supply of tool that could be substituted for the defective ones, he would need the services of a metalworker. The average planter probably did not possess the necessary equipment or slaves with such expertise. Larger plantations that did, during crop time, had mending to do for themselves. This would restrict the amount of business plantations with a small number of tradesmen could do with other planters. For example, examination of an Edward Ambler estate account book revealed that in 1776, his metalworker (either it be a wheelwright or a blacksmith) conducted business amounting to just under seventy-three pounds with what seems to be owners of surrounding plantations. Compared to the yearly yield and price of tobacco, this may not seem like much; however, the fact that 85% (sixty-one pounds) of this income was made during the plantation chief crop season makes it important. For each month between January and June, Ambler’s blacksmith/wheelwright received an average of 32 clients, each spending between five and ten shillings per visit. Unless the Ambler estate had white indentured servants as artisans - not mentioned in the probates, he only had roughly three skilled slaves working in this capacity.

By 1773 Green Spring Estate housed four carpenters and three wheelwrights. Hence, it would have been in a position to compete more aggressively in fostering to the needs of the immediate farming community. There is already evidence of the estate doing substantial business with not only the College of William and Mary, but also members of the community. In a letter to one of Phillip III's executors, William Lee states that, "he would appreciate if the arrears of 17 pounds, 20 pounds, 41 pounds and 71 pounds be collected from John Holt, Mr. Hubbard, Colonel Henry Lee and Richard
Maintaining the estate's physical facilities and fostering to the needs of the community were possibly not the only reasons for increasing the number of carpenters of the Ludwell estate. Another probable contributor may have been William Lee's chosen career. Entering into the eighteenth century, it became increasingly popular for small and middling farmers to sell their product to an agent or factor, of a British merchant. In an effort to advance financially, William Lee, along with two other individuals (Stephen Sayre and Dennis DeBerdt, Jr.), entered into a business partnership with Denny DeBerdt, tobacco merchant and colonial agent for Massachusetts in 1769. Acting upon the fact that Virginia's tobacco farmers had to do business with merchants, Lee convinced family and friends that it would be more prudent to conduct business with his company Denny's DeBerdt whom they knew than other London merchants who were strangers. Tobacco bought had to be packed in hogsheads, which were made by carpenters and coopers.

Though done throughout the colonial period by white carpenters in an effort to accommodate planters, plantation cooperage was hardly a professional endeavor. The statistics of Norfolk illustrates how trades were distributed around a thriving metropolis and the Chesapeake in general. Between 1765 and 1780, the town boasted some 850 tradesmen. However, only a mere 6% were engaged in food and tobacco related trades. In the majority of cases, hogsheads were manufactured skilled slaves of larger plantations.

The average cost of a hogshead was approximately three shillings and two pennies (£-71/2d for nails and 2 shillings + 6d for wood and labor). As tobacco exports of the Chesapeake increased, so did the market for well-made hogsheads. By the 1770s, when tobacco exports reached just under 100,000 hogsheads annually, the value of cooperage in Virginia and Maryland was roughly £12,500 (pounds) sterling a year (Middleton 1953:101-107). By increasing their number of woodworkers, Green Spring was in the position not only to maintain its plantation infrastructure, but also offer professional coopering services to the members of James City County, Surry County, and Isle of Wight county community simultaneously while ensuring fast efficient support services for William Lee’s personal business.

Though the above arguments only account for the increased number in metalworkers and carpenters, it should be understood that many of these trades complimented each other. Other important individuals were the slave sawyer, shoemakers vital to the plantation economy for the production of raw materials such as timber and leather, also for the construction of boats, wagons, harnesses and other essential equipment.
A high priority of this thesis was to dissect the theories of Allan Kulikoff’s and Jean Butenhoff-Lee regarding the eighteenth century demographics of Tidewater African-Americans. Offering quantifiable proof and defining terms and phases, questions I hoped to answer in this thesis were: Exactly how balanced were adult sex ratios? Could the Chesapeake’s eighteenth century slave labor force reproduce itself and were they predominantly African-American? And lastly, how would one describe the family structure of African-Americans during the revolutionary era?

While Kulikoff’s views are plausible, I thought his methodology poor. It was not convincingly demonstrated that adult slave sex ratios were balanced or that there was an increase in fertility. Based upon the results of this study, I am of the opinion that Kulikoff’s description of eighteenth century African-American society is faulty. The limiting factors possibly being in the use of the term balanced, his interpretation of family, and his isolationist approach to autonomy and social advancement. In actuality, slave society the decade prior to the American Revolution when described should sound similar to a chapter from Charles Dickens' *A Tale of Two Cities*, a small percentage of fortunate slaves owned by probated individuals, lived in conditions as described by Kilikoff. The majority of slaves owned by small and lower middle-income farmers were less fortunate and lived in conditions as described by Jean Butenhoff-Lee.
In James City County for instance, small and middle-income planters who owned between 1 and 9 slaves accounted for almost 86% of slave owning households. Where larger planters such as Phillip Ludwell III could afford to have specialized hands and division of labor [artisans, households, and field laborers], the unfortunate small planters had to settle for general workers who could carry out multiple duties. Having an average of 6 slaves, slave children would be a luxury to the small farmer.

What can be concluded from these calculations are: 1) between 1740 and 1810 the labor force of small and middling estates behaved erratically shifting from predominantly men to dominantly women then returned to its 1740 proportions of dominantly men. In this process opportunities for social intercourse only marginally improved. 2) There seemed to be increased longevity, the mean age of slaves shifted from 20.72 years to 28 years, and there was a shift in the household composition.

When the circumstances described above is applied to the general population, once again we are faced with social conditions duplicating the late seventeenth and early eighteenth centuries, with a skewed labor force - largely males or female predominantly between the ages of 16 - 33 years. By the demographic figures indicated by tithables in James City counties 1775 tax appraisals, 86% of farmsteads had populations similar to that of the early eighteenth century, a culture still distinctively African. As the percentage of Africans born in America [African-Americans] in the overall population increased, less slaves were able to identify with these rituals; hence, slave society gradually goes through a metamorphosis. Ultimately a distinct 'African-American society' would not emerge until the number of slaves born in Africa was significantly lowered sometime after the 1810.
Rather than describing the Chesapeake's slave population as having a balanced adult sex ratio, it would be more appropriate to state that by the mid-eighteenth century they had reached healthy proportions. In this case healthy constitutes variables such the populations fertility potential – which was between 18 – 59% depending upon the decade, an increase in the number of children – indicating that African-Americans had began to reproduce themselves, and for adults an increased opportunity for social intercourse.

Though fertility of the Ludwell slaves and that of African-Americans in the Chesapeake Tidewater in general would increase to between 2.5% - 4% by the American Revolution, they were low compared to that of their whites contemporaries and definitely low to what African-American fertility rates would be in the second quarter of the nineteenth century. A 4% birth rate indicates only 72 children were born per hundred females throughout the mid-eighteenth century. Marital fertility for white females throughout the counties of Virginia for the same period [1740 – 1780] was between the ratios of 140 - 180 children for every 100 women depending upon the mean year of the counties formation.\(^1\) By the first quarter of the nineteenth century, the fertility rate of African-Americans would increase drastically to 875 children per hundred females.\(^2\)

Finally, one may ask how has this thesis added to the academic community and what new important fact has been unearthed.

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\(^{2}\) Nineteenth century fertility rates calculated using the Jerdone Family Registration Book 1780 – 1840 (see Beresford Callum. Slave Propagation in Nineteenth Century Virginia, 1998).
In giving a more detailed description of demographic changes of the Chesapeake's African-American labor force [ca. 1740 – 1810], it has become evident that probate and tax inventories are far more sensitive to the shifts in population than historians give them credit. Typical of such sensitivity are the discrepancies between fertility potential and actual population counts of small and middling plantations in the mid 1770s – 1785. Initially, calculations seemed erroneous but were later confirmed by the suggesting of an epidemic in the Jerdone family slave age book.

A second and possibly more significant contribution is the identification of an area where the contributions of African-American women can be isolated. In tracing the evolution of adult sex ratios on small and middling farms it was discovered that between 1760 and 1790, women dominated their labor force. Any study of small and middling estates within these two decades would indirectly be concentrating on the contributions of black females to pre and post revolutionary agrarian society. I would not be surprised if an intensive search and analysis of County probates relating to small and middling farms for this period (1750 – 1790) turned up showing female performing in roles traditionally thought to be exclusively masculine [i.e. overseers, trades persons, and drivers]. Hence, contrary to recent antebellum feminist scholarship (Amy Young (2003) and Hautaniemi and Rotman (2003)) whose focus has been women sharing a masculine landscape, these result point to a feminine landscape in which men had to negotiate an existence.³

A third contribution is the redefinition of the term "household", from a group of individuals living together in the same dwelling area, sharing similar experiences, but

³ See Amy Young, “Gender and Landscape: A View from the Plantation Slave Community” (Pp. 104 – 134) and Susan Hautaniemi and Deborah Rotman, “To the Hogs or the House? Municipal Water and Gender Relations at the Moors Site in Deerfield, Massachusetts” (Pp. 135 – 159) in Rotman and Savulis, Shared Spaces and Divided places (Knoxville 2003).
having very little kinship ties to having strong kinship ties by the late eighteenth century is pivotal in defining family life. For almost a half-century, social historians, who have conducted research throughout the Caribbean, have criticized anthropologists saying that the Euro-centric or classical concept of “family” and “household” may be adequate for Euro-America but is highly confusing when applied to other societies [i.e. Jamaica, Trinidad, British Guiana, Haiti, Brazil, the Southern United States, and the Caribbean coast of Central America]. I think this argument has been validated by the findings of this thesis. The redefined household environment described in this thesis to very similar to the descriptions of households and family structures described by other social historians [Frazier [1939], Simey [1946], Murdock [1949], Smith [1956, 1957], Clarke [1957], Goody [1958], and Solien[1960]] for the nineteenth through twentieth centuries. This indicates that regardless of the family values that Europeans tried to transfer to Africans, what evolved was something totally different to which the terms “nuclear” and “extended” do not apply.

Lastly, in addressing the aforementioned debate, while Kulikoff must be commended for his contributions in opening African-American population related discourse I must agree with Butenhoff-Lee’s conclusions i.e. that Kulikoff’s conception of black life now dominating discussion of slavery in the eighteenth-century Chesapeake is erroneous and yet to be proven. The result of this study not only suggest that his time line for the emergence of balance ratios incorrect but also the exact opposite regarding eighteenth century slaves life (i.e. African-American society was characterized by dehumanizing conditions of social isolation, instability, and chaos).
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