

5-2008

## Horse Husbandry in Colonial Virginia: An Analysis of Probate Inventories in Relation to Environmental and Social Changes

Kimberley Peck  
*College of William and Mary*

Follow this and additional works at: <https://scholarworks.wm.edu/honorstheses>



Part of the [Anthropology Commons](#)

---

### Recommended Citation

Peck, Kimberley, "Horse Husbandry in Colonial Virginia: An Analysis of Probate Inventories in Relation to Environmental and Social Changes" (2008). *Undergraduate Honors Theses*. Paper 812.  
<https://scholarworks.wm.edu/honorstheses/812>

This Honors Thesis is brought to you for free and open access by the Theses, Dissertations, & Master Projects at W&M ScholarWorks. It has been accepted for inclusion in Undergraduate Honors Theses by an authorized administrator of W&M ScholarWorks. For more information, please contact [scholarworks@wm.edu](mailto:scholarworks@wm.edu).

**Horse Husbandry in Colonial Virginia:  
An Analysis of Probate Inventories in Relation to Environmental and Social  
Changes**

A thesis submitted in partial fulfillment of the requirement  
for the degree of Bachelors of Arts in Anthropology from  
The College of William and Mary

by

Kimberley Joy Peck

Accepted for \_\_\_\_\_  
(Honors, High Honors, Highest Honors)

\_\_\_\_\_  
Matthew J. Liebmann, Director

\_\_\_\_\_  
Joanne V. Bowen

\_\_\_\_\_  
James P. Whittenburg

\_\_\_\_\_  
Lorena S. Walsh

Williamsburg, VA  
**April 25, 2008**



### ACKNOWLEDGEMENTS

I would like to extend my thanks to Dr. Joanne Bowen of the Colonial Williamsburg Foundation's Zooarchaeology Lab for her guidance, patience, and support throughout the course of this research. I would also like to thank Dr. Matthew Liebmann for his advice in designing the research and directing the writing of this thesis. Special thanks to Dr. Lorena Walsh of the Colonial Williamsburg Foundation for her professional expertise in the economics and history of the colonial period in York County, and to Dr. James P. Whittenburg for lending his support as a member of the examining committee.

TABLE OF CONTENTS

INTRODUCTION .....	5
<b>Theoretical Background</b> .....	6
<i>Animal Behavior</i> .....	7
<i>Landscape and Husbandry</i> .....	7
<i>Social Symbolism</i> .....	9
HISTORICAL BACKGROUND: <i>The Changing Environment of York County, 1640-1777</i> .....	12
METHODOLOGY .....	17
<b>Why York County?</b> .....	17
<b>Previous Research</b> .....	17
<b>Using Probate Inventories</b> .....	18
<i>What is a Probate Inventory?</i> .....	18
<i>Data Management</i> .....	19
<i>Issues Addressed</i> .....	20
BEHAVIORAL BACKGROUND: <i>Horse Behavior and Its Involvement in the Development of a Husbandry System</i> .....	22
DATA ANALYSIS .....	27
<b>Tracking Husbandry Development through York County Probate Records</b> .....	27
<b><i>Environmental Changes</i></b> .....	27
<i>General Ownership: Urban v. Rural</i> .....	27
<i>Management Techniques: Urban v. Rural</i> .....	28
<i>Conveyance: The Development of Roads</i> .....	30
<b><i>Socio-Cultural Changes: Class Indicators</i></b> .....	31
<i>Coaches</i> .....	31
<i>Naming</i> .....	32
<i>Trooping Saddles</i> .....	32
<i>Horse Values</i> .....	33
<b>Horse Husbandry and Social Symbolism in York County</b> .....	36
<i>Riding as Culture</i> .....	36
<i>Horse Racing</i> .....	37
<i>Coaches</i> .....	38
CONCLUSION .....	40
BIBLIOGRAPHY .....	42
FIGURES .....	46

## INTRODUCTION

In the last half century, there has been an increase in the amount of ethnographic, historic, and zooarchaeological research being done that focuses on the relationship between humans and animals as an indicator of major social and environmental changes (Ingold 1980; Clutton-Brock 1994; Anderson 2004). In the case of domesticated animals—especially those used for food—the unique closeness of the two parties creates a situation in which analysis of faunal remains, when compared with documentary sources, allows for the recreation of subsistence systems. This unique perspective can highlight certain social and economic changes related to that system, e.g. the increase of commercial animal production associated with urbanization, or status indicators produced through limited access to certain meats (Walsh et al. 1997; Bowen 1996). But what if the species under investigation is not a food animal, and not present in the archaeological record?

The horse (*Equus caballus*) is one such species: similar in economic and agricultural importance to cattle (*Bos taurus*), but as rare in faunal assemblages as pets such as dogs (*Canis familiaris*) and cats (*Felis domesticus*).<sup>1</sup> As such, little research has been done on the role of the horse in colonial Virginia, in comparison to cattle and swine (*Sus scrofa*). Additionally, much of the literature that has been written is general in nature and makes broad assumptions, though most agree that the horse must have been valued as a source of transportation and entertainment (Anderson 2004, Breen 1977, Isaac 1981, Main 1982).

---

<sup>1</sup> Rodents, dogs, cats, and more rarely, horses, are commonly referred to in archaeological assemblages as “commensals.” Most faunal remains are found in middens as waste products of consumption, intentionally thrown out by humans. Remains of commensals, however, are not associated with human consumption, and are found much more rarely than the species commonly eaten.

In response, this study attempts to fill in the blanks by conducting a detailed analysis of the available data on horses found in primary source documents, in light of the current research on changes in Virginia's environment and economy at the turn of the 18<sup>th</sup> century, to provide a more detailed picture of the presence and use of horses in colonial Virginia. Through this analysis, a possible husbandry system for the horse is revealed, thereby clarifying the species' role in the formation of the landscape of colonial Virginia.

The role of an animal in a husbandry system<sup>2</sup> is formed through two sets of relationships—environmental and social—which interact in a way that influences human exploitation and perceptions of the animal. As such, my analysis will reveal the effects of changes in the environment on subsequent changes in human use of the horse as a beast of burden (through draft and transportation) and entertainment (through pleasure riding, racing and hunting), and any resulting symbolism of the horse as a tool of class differentiation (i.e. coach horses owned solely by the elites, thus becoming a symbol of the elite class).

### **Theoretical Background**

The theoretical approach taken in this study blends animal behavior studies, landscape studies, and husbandry studies in an effort to fully situate the data pulled from primary sources within the temporal and environmental frame of colonial Virginia from 1637 through 1777. In order to recreate a husbandry system for such a specific time and

---

<sup>2</sup> “Animal husbandry” can be most easily defined as the care and management of a population of animals. Whether or not the population under scrutiny is domesticated or not, and what the term domesticated should entail, is a topic of debate among many zoologists and zooarchaeologists. For the purposes of this paper, however, the term “husbandry system” will refer to the care and management of a population of animals, whether tame or feral.

place, it is necessary to understand how a horse would relate to changes in the environment, and how that behavior might influence human interaction with horses.

### *Animal Behavior*

Too often animals are robbed of agency when husbandry systems are discussed. An investigation of a husbandry system must include an analysis of the behavior of the species, in both “natural” and “domestic” settings. Many theorists emphasize that animal behavior is just as important as, and maybe more important than human behavior in relation to domestication (Clutton-Brock 1994, 1999; Budiansky 1999; Flannery 1989). Most certainly, a thorough understanding of the behavior of an animal lends another level of clarity to changes in the husbandry in relation to environmental and economic changes. For example, horses have relatively specialized nutritional needs in comparison to cattle and swine, and as a result their natural range of movement throughout the year would be different in order to incorporate enough forage, water, and shelter (Tyler 1972). As the environment changes with cultivation, urbanization, etc. horses would have to change their range accordingly. The intricacies of horse behavior in the environment of colonial Virginia will be further discussed in the section on *Horse Behavior and Its Involvement in the Development of a Husbandry System*.

### *Landscape and Husbandry*

The triangulation of data used in this research is indicative of an integrative landscape paradigm (Anschuetz et al. 2001) – a methodology that recognizes the importance of the interrelatedness between environments and the animals (including

human animals) living in them in interpreting physical and social changes. The use of an integrative landscape approach allows for the analysis of material culture against a temporal and ecological framework in order to infer rationale for changes in social behavior. For the purposes of this paper, “landscape” does not merely describe the land in an objective sense, but rather is defined as the dynamic relationship between the physical environment and the people and animals living in it. Julian Thomas refers to this concept as “lived landscapes,” which he defines as “relational entities constituted by people in their engagement with the world” (2002: 176).

What makes the use of an integrative landscape approach in this paper different from Thomas or Anschuetz et al. is that animals are given similar agency to humans in affecting their cohabitated landscape, more along the lines of the work of Tim Ingold (1988, 1994). Ingold’s influential text, *Hunters, Pastoralists, and Ranchers: Reindeer Economies and their Transformations* (1980), focused on the symbiotic relationship between the Skolt Lapps and herds of wild, semi-feral, and tame reindeer. Their engagement with each other and the environment was reflected in a series of social and economic changes associated with the transition from hunting to pastoralism, and finally, commercial ranching. The interface of human and animal behavior created a distinct relationship, and any change in the behavior of one party (e.g. migration, population fluctuation, settlement) would influence a subsequent change in the behavior of the other. Ingold’s later writings reinforce this idea of behavioral engagement, emphasizing the importance of considering human, animal, and environmental changes open-mindedly.

Ingold’s observations on the interrelatedness of human/animal behavior in relation to environment can be applied to horse behavior and human management of

horses in colonial Virginia. During the time period under consideration (1637-1777), Virginia colonists practiced a type of husbandry known as “open-woodlands husbandry,” in which animals were given free range to forage for themselves, while crops were enclosed to protect against the ranging livestock. Changes in agricultural practices, and the exponential increase in the amount of cultivated land would definitely have had an effect on the horse population, and the human ability to manage that population. Additionally, the research of Terrell et al. (2003) and Kent Flannery (1989) similarly reference animal behavior and seasonality as ways to interpret human actions and social change. By addressing the intricacies of the behavior of horses and humans, this study can predict how both species would react to and affect its environment.

### *Social Symbolism*

A final aspect of this research deals with possible socio-cultural responses to the horse husbandry system in Virginia. Previous historic research on horse-racing and the Virginia elite gives a tantalizing glimpse of a possible role of the horse as a status symbol (Breen 1977; Isaac 1999). Isaac notes that elite Virginians talked about their horses and admired them in the same way that they would themselves or each other. This anthropomorphism implies an important link between the characteristics valued in horses and those valued in men.

In addition, the increasing gap in wealth and mobility of the upper class compared to all others in Virginia in the 18<sup>th</sup> century (Isaac 1999; Walsh et al. 1997) could be reflected in an increase in carriages, chairs, expensive horses and other items. E. A. Lawrence (1982) conducted significant research in the American West on the status of

horses as a social symbol, noting that the characteristics of the horse as a free, mobile, and formidable creature were transferable to their riders:

It was the [rider's] relationship to the horse that determined many of the traits of the cowboy mystique. These included his contempt for ordinary labor; the possession of confidence, sometimes extending to aggressiveness, which shaped his self-image as a conqueror; and probably also the chivalric code that tends to be characteristic of a mounted people (p. 131).

In regards to horsemanship in colonial Virginia, mastery of the horse in riding it (rather than killing/eating it as with other livestock) could have displayed the “conquest of the wild—the extension of culture into nature,” and the rider’s superiority over those who do not ride (poor yeoman farmers and urban residents) or are not legally allowed to ride (slaves).

In addition to anthropomorphism and mastery, the concept of pedigree and bloodlines in horses is noteworthy. While the first stud book was not established until 1791 (Budiansky 1997; Hall and Clutton-Brock 1989), castration of lesser animals was a well-established practice in England and colonial Virginia by 1700 (Hening 1823). In combination with the passage of laws attempting to limit the ownership of breeding horses to landed individuals, and others allowing the killing of wild or unclaimed horses under 14 hands high (a “hand” being the standard unit of measure for a horse’s height at the “withers” or shoulder), it is possible that an elite breeding system was in operation in Virginia even before the formalization of pedigrees.

In conclusion, this paper will reveal a much more detailed picture of the role of horses in colonial Virginia from 1637-1777 by analyzing hard data in relation to animal behavior, environmental change, and social symbolism. By conducting a thorough analysis of probate inventories, legislative records, and other primary sources in relation to current research on period economic changes and knowledge of animal behavior, I

hope to provide a picture of what the horse husbandry system may have been like. In addition, this work will reaffirm that historical documents are not simply checks on archaeological assemblage data, but can be used as the foundation for new research.

HISTORICAL BACKGROUND: *The Changing Environment of York County, 1640-1777*

The time span covered by this research encompasses many significant transformations in Virginia from initial settlement to the American Revolution, which can be broken down into interrelated economic and ecological changes.

The settling of the Chesapeake region in the early 17<sup>th</sup> century plunged many English colonists and their livestock into a state of living to which they had long been unaccustomed. Coming from a society quickly moving towards the Industrial Revolution, the brackish marshlands, sandy soil, and closely wooded landscape of Virginia seemed wild and foreboding compared to the towns and farmland of rural England. Many men and livestock were unprepared for the difficulties they would face in trying to establish a mercantile colony on the coast, and the ensuing death tolls reflected this lack of preparation.

The Virginia colonists initially established themselves in a cash-crop economy centered on the production of tobacco, coupled with a minimalist subsistence agricultural system and an “open-woodlands” husbandry system for their livestock. This husbandry system—in which yeoman farmers allowed their stock to range in the woods for their own fodder—was ideal for the tobacco-focused colonists because it allowed for the maximum production of edible animal product with the minimum amount of invested labor. This allowed for the colonists to focus their efforts on the intensive cultivation of tobacco, which required a significant amount of manual labor in the form of indentured servants.

Initially this system benefited both colonists and livestock. Many taxpayers used the woods as a way to avoid paying taxes for all of their animals, a problem addressed by the VA statutes in 1646: "...such persons who have concealed the number of their persons tithable, lands, horses, mares, &c. shall for every tithable person, lands, &c. pay double the rate that this present Grand Assembly hath assessed..." (Hening 1823, Vol. I, 329). Livestock, too, grew fat off the advantages of the forest. Cattle and pigs, able to consume a wide variety of grasses, nuts, and other forage, became much larger than their European cousins and proliferated in a way that provided ample meat for the colonists (Bowen and Andrews 2007). Unable to digest vegetable matter as efficiently as cattle, horses subsisted on grasses growing in fallow fields and in the natural woodland clearings. This nutritional drawback was reflected in the fact that the horse population did not gain a foothold until after the mid-century (Bullock 1649, 51), and also in their small stature well into the 1700's (Jones 1724).

The establishment of headrights—"fifty acres of land...allowed for each man, woman, or child, servant or slave, whom the claimant was considered to have imported" (Isaac 1982, 22) – led to rapid expansion and the importation of a large source of manual labor in the form of indentured servants in the 1600's (Bowen and Andrews 2007). Scattered settlements proliferated along waterways, as they were the main means of communication and trade in Virginia well into the 18<sup>th</sup> century. Hogsheads of tobacco, weighing 400 pound or more, were rolled to waiting boats which would transport them to a distributor, "No one in Virginia, commented an early Dutch visitor, lived far from deep water" (Main 1982, 36). During this time period in the colony, horses would have been valued as a means of speedy transportation between the widely dispersed plantations.

Exportation of horses was banned by the House of Burgesses until 1668, possibly in an effort to provide affordable mounts to all colonists and increase communication (Hening 1823; Anderson 2004, 111).

As the 17<sup>th</sup> century drew to a close, the burgeoning human population increasingly moved inwards away from waterways, and keeping the ever-increasing livestock populations under control became difficult. As a result of a depression in tobacco prices in the 1680's and 90's, the colonists began to diversify their agriculture by growing wheat and keeping sheep (Main 1982; Walsh et al. 1995). This subsequently led to a vast increase in the area of land kept under cultivation. To protect their crops from the ranging livestock, laws were passed requiring farmers to build fences around their plots sufficiently high to thwart any leaping cattle, horses, or swine—originally set at 4 ½ feet, but increased to 5 feet in the 18<sup>th</sup> century (Hening 1823; 199, 228, 332). As the horse population ballooned from the increasing availability of forage in fallow fields, the House of Burgesses quickly repealed the ban on exportation of horses within a decade of enacting it, and replaced it with an act prohibiting the importation of horses (Hening 1823; 267, 271). In addition, feral stallions were to be gelded if caught, which could be interpreted as an effort to either control the population, improve the quality of the breed, or both. Nevertheless, the number of horses soon became known throughout the region as a nuisance, and strays and bands of feral horses continuously raided crops and damaged fences. Laws were enacted requiring owners to reimburse farmers whose property had been damaged by roaming horses, but incursions continued and increased as greater numbers of horses were free to break into fenced crops.

Crop damage wasn't the only disadvantage to the "open-woodlands" husbandry system for horses. Unlike cattle and pigs, which could be rounded up and butchered whether they were feral or not, horses lost their usefulness to humans if they were not tame enough to ride. Almost daily contact would have been necessary to maintain the type of relationship between horse and human to facilitate interaction. In addition, a planter would have to have an intimate knowledge of the animal's behavior in order to predict where to find it in any reasonable amount of time.

With the establishment of successful towns beginning in the 1690s, two major developments would significantly affect the husbandry of horses in York County. First, while most people continued to keep at least one horse, not all of the population was able to allow their horses to forage for themselves in the woods. Urbanites began to enclose their horses and would continue to allow them to forage on nearby fields after harvest or provide them with supplemental grain, while some of the wealthier individuals could afford to pay for additional fodder grown on satellite plantations (Walsh et al. 1995, 136). The second major development was the expansion of the road system. While waterways continued to be the main mode of transport for tobacco crops, wheat, wool, and other goods could be transported to market by horse-drawn wagon. In addition, the elites had a new avenue by which to broadcast their status in the form of extravagant "coaches and six," "chariots," riding chairs (also known by the French "chaise"), and other wheeled means of transportation.

The complex changes in environment in the Virginia colony in the 17<sup>th</sup> and 18<sup>th</sup> centuries certainly had a significant impact on the development of horse husbandry in the

region. This assertion is reinforced by the data provided in the York County probate records.

## METHODOLOGY

### **Why York County?**

York County was chosen for this study because of the wealth of research already conducted on the economy, foodways,<sup>3</sup> and environment of the region, and the abundance of well-kept, detailed probate inventories available for study. Consequently, the research conducted in this study can be situated within a well-established timeline of economic and environmental changes. In addition, York County is an ideal locale in the Virginia colony for study because it includes two major areas that became urban centers (Williamsburg and Yorktown), and thus allows for the comparison of urban and rural life.

### **Previous Research**

This research began as an investigation of the horse husbandry system in the 17<sup>th</sup> and 18<sup>th</sup> century Chesapeake for a foodways class taught through the Anthropology Department. As a non-food animal, physical evidence of the horse in Virginia archaeological sites is almost completely absent in the form of faunal remains, and histories written about the agriculture in the area focus almost completely on subsistence species cattle and swine. Faced with sparse evidence provided by historical texts, I turned to primary sources in the form of diary entries, the Virginia Gazette, and acts of the Virginia legislature found in the databases at the Colonial Williamsburg Foundation's zooarchaeology lab. The legislative records, Virginia Gazette announcements and diary entries, while they may be criticized as having bias toward the wealthy in the context of other subjects, were fairly well balanced in relation to horses and attitudes toward horses.

---

<sup>3</sup> "Foodways" is a general term used for the study of provisioning communities through human/animal interactions. It usually extends to cover all activities that go into provisioning, including: hunting/procurement, preparation, consumption, and disposal.

Legislative acts, while they would not necessarily have affected all Virginia colonists equally, still give a general account of significant changes in population control, economy, and general attitudes toward horses. Gazette announcements (with the exception of race announcements) may have been placed by people from a range of economic classes if reward values are used as an indicator; and diary entries regarding horses are usually from travelers attempting to give a general report of status of the colony.

While initial examination of these sources indicated a compelling link between horse husbandry and the ecological and economic changes in Virginia at the turn of the 18<sup>th</sup> century, the data were too few and far between to provide a detailed picture of any kind of husbandry system. As a result, I opted to conduct an analysis of probate inventories in an effort to find much more abundant, detailed, quantifiable information on horses, and material culture associated with horses, in relation to the human population of York County.

### **Using Probate Inventories**

#### *What is a Probate Inventory?*

A probate inventory is a record taken at or soon after the time of death of an individual that lists personal property and its value. The values of items were generally appraised by a group of men considered by the probate court to be knowledgeable of the goods under consideration. For example, a group of farmers would usually be appointed to appraise the property of another farmer, while the property of a gentleman would generally be appraised by a group of gentlemen. Probate inventory lists of livestock

owned at the time of the owner's death provided information on the number of herds owned by any individual, their size, and age and sex composition (Walsh et al. 1995, 303).

For this research, York County probate inventories from 1637 through 1777 were meticulously scrutinized, and all horses, horse tack and related hardware present were recorded along with the individual's name, the value of the estate, and the year of record. This data, divided into multiple categories, were then plotted chronologically and by wealth category to reveal certain relationships and changes which indicate a distinct and dynamic husbandry system.

#### *Data Management*

The wealth categories used in this study are the same as those used by Lois Green Carr and Lorena S. Walsh (1994). The categories are based on the estate value listed in the probate records, and are broken down as such: "0-49 £" represents the poorest class which seldom owned slaves; "50-94 £" and "95-225 £" represents a broad middling group who usually owned land and increasingly owned slaves in the 18<sup>th</sup> century, many being officeholders; "226-490 £" represents the upper middling to rich, who almost always owned land and slaves, and held high county or provincial offices; lastly, "491+ £" represents the wealthiest 5-10% of decedents. For the sake of simplicity, pounds have been deflated to 1700-1709 prices and have been converted from pounds, shillings, pence to a decimal pound value. For example: 1£ 15s is converted to 1.75£ (there being 20 shillings to a pound).

The category breakdown for years is roughly based on the work conducted by Lorena S. Walsh, Ann Smart Martin, and Joanne Bowen (1995). The 40-year increments used in that study are further broken down into 20-year increments in this research for the sake of clarifying changes over time; however, the basis of the “Provisioning” research provided an agro-economic timeline against which I could compare my data.

In total there were 1,082 probate records for York County between 1637 and 1777 consulted for this study, 750 of which contained horses and horse-related items, and 332 of which did not contain horses or horse-related items.

### *Issues Addressed*

When analyzing probate inventories, two main issues come to the fore: economic and ethnic bias and skewed records caused by the end of the individual’s life cycle. To address the issue of bias toward wealthy (and Caucasian) individuals, inventories were divided by estate value and urban/rural locations were taken into account. When all the data were considered, inventory numbers seemed to closely represent population levels in urban and rural areas over time (Figure 1), and all five wealth categories seemed to be adequately represented (Figure 2).

The second issue related to the use of probate inventories is that data can be skewed by the record’s creation at the end of an individual’s life cycle. Fortunately, unlike New England probate records, those in York County were not used for tax purposes. Gloria Main also used probate records, and she comments that, “The records of [probate courts] are legal documents assembled and preserved for the purpose of ensuring an orderly transfer of property between donor and recipient, and between debtor

and creditor” (1982, 282). As such, these records avoid the possibility of skewed inventories caused by last-minute sales or gifts, and are actually quite accurate records of real inventory.

In addition, a comparison of “Collapsed Life Cycles” for all the inventories used shows a fairly unbiased representation of individuals at various stages of life (Figure 3): single, married with children under 18, and married with children over 18. The majority of decedents were generally married with children under 18, with a slightly smaller percentage of decedents being married with children over 18. The smallest portion of decedents were single, which may indicate those who died young with little property.

Through addressing the issues present in using historic documents, I hope to make my data comparable to that taken from an archaeological assemblage. By confronting variables directly and accounting for possible discrepancies, this data should be similar in consistency to that taken from any site report that has to deal with preservation variability, commensals, and the multiple other difficulties associated with faunal remains. As such, data pulled from these documents can be analyzed as my “material culture” in order to track changes in the human use of horses in colonial Virginia, and this paper will demonstrate how primary source documents can be used as the principal evidence for an historic ecology.

BEHAVIORAL BACKGROUND: *Horse Behavior and Its Involvement in the Development of a Husbandry System*

Not all livestock are the same, and horses are a perfect example of the vast amount of differences possible between them. Unlike cattle or swine (the two most abundant livestock species in Virginia before 1700), horses as a species have certain characteristics that prohibited or limited the benefit of various husbandry methods in the Chesapeake. Amongst these are the degrees of human contact needed to maintain usefulness, eyesight and head sensitivities that decrease the desirability of a forest habitat and prohibit ear cropping, and limitations on the range of plant material able to be digested efficiently. These characteristics had a considerable effect on the interaction of humans and horses in the Virginia colony. In addition, natural horse behavior in relation to “home range” and habitual daily movement patterns influenced the need for enclosure, or lack thereof.

As an animal used for riding and drawing (also known as “draught,” “draft,” or “pulling”), horses need much more human contact to remain useful than cattle, swine, or other food animals. Because of this, planters in the colonial Chesapeake would have had to make an effort to initiate contact with their horses almost on a daily basis. As Hugh Jones reported in 1724, “[The Virginia planters] are such lovers of riding, that almost every ordinary person keeps a horse; and I have known some spend the morning in ranging several miles in the woods to find and catch their horses only to ride two or three miles to church, to the court-house, or to a horse-race...”

As many yeoman farmers and planters in the early to mid-1600’s acquired initial and additional horses through the natural proliferation of feral or their own stock, it was necessary to establish first contact with an animal when it was young (Anderson 2004,

128). The period within the first week after birth is the optimal point to establish a human presence with a foal, and since typically horses maintain their natural oestrus and foaling cycles in domestication (Hafez et al. 1969), planters could predict a “foaling season” every spring. A yearly excursion into the woods to find and mark new foals could be a social event, especially in the case of a youth’s first mount.

Both major uses of the horse—riding and drawing—required substantial amounts of time and effort to achieve. For riding in general, humans had to engage the horse in significant amounts of training (referred to as “breaking”) to get it used to wearing tack and bearing the weight of a human. Training a horse to pull a wagon or cart (and later coaches) had its own separate difficulties. To begin, a cart horse must be trained to overcome its prey-animal fear of being followed. In addition, all horses have a natural aversion to having objects in the blind spot in their vision, which is directly behind them (many people who have had experience with horses know that it is always advisable to avoid walking behind a horse for fear of being kicked). Some horse tack used for pulling carts were equipped with “blinkers,”<sup>4</sup> which prevented the horse from balking at people or objects in or alongside the cart, while coach horses would usually be selected or trained out of their fear (Hafez et al. 1969). All of these training processes contributed greatly to the price of an animal, with “broken” horses significantly more expensive than feral horses and other livestock, cart horses sometimes acquiring an additional value, and coach horses almost always occupying the highest rung on the cost ladder.

With such high value and desirability, planters made varied efforts to ensure recognition of ownership of their horses and attempted different ways to prevent straying.

---

<sup>4</sup> Also known as “blindings,” blinkers are small, circular patch-like attachments to the bridle of a horse, situated beside the eye in order to limit a horse’s peripheral vision.

While cattle and swine were often marked with ear cropping of various styles (e.g. a cut in the left ear, the tip cropped off one ear, etc.), horses are poor candidates for earmarks due to a natural sensitivity to handling around the head (Anderson 2004, 280). Therefore, the most common method for marking horses was to use a branding iron, which may add additional value to an animal or decrease value due to a blemishing of the coat.

To prevent straying and crop-raiding, two types of hardware were sometimes used on especially “unruly” horses: horse-locks or hobbles, and yokes. Horse-locks can be found in multiple probate records around the turn of the century, and often consisted of “...a piece of wood...fastened between the fore and hind legs of the horse which prevented the animal from galloping or leaping” (Percy 1979, 11). Similar in effect to horse-locks were hobbles, which could be simply fashioned from a rope by tying one end around the horse’s neck and attaching the other end to one of the rear fetlocks (ankles). Another item primarily used to prevent crop-raiding was a type of modified yoke, which “had a hook on the bottom which would catch on the fence rails should a horse attempt to [leap] the fence” (*Ibid.*).

Contributing to the relative expense of horses in relation to other livestock is their limited diet. Without the four-chambered stomach of cattle and sheep, nor the omnivorous tendencies of swine, horses found relatively little nutrition in the forests of the Chesapeake. In addition, the same vision limitations that complicate training a horse to pull a cart can make closely-wooded environments difficult for horses. Horses evolved as plains animals, and as such are physically adapted to open spaces and grasses. While fallow pasture was initially abundant in the Virginia colony, over-grazing and expansion of the number of cultivated acres increasingly limited the ability of horses to acquire

adequate nutrition from this resource as well (Bowen and Andrews 2007). As a result, general lack of nutrition led to a decrease in the size of horses to pony-sized by today's standard – averaging under 14 hands high (about 4 inches to a hand) by the 1700's.

Another consequence of feed limitations was the type of work a horse was able to do. Anderson notes that, "A working horse needs a daily ration of 20 pounds or so of fodder, and since horses digest hay less efficiently than cattle, they require oats or other supplemental grain," (Anderson 2004, 113-114). Because of this, using horses as draft animals was traditionally considered a sign of wealth, contributing to their image as a high-status animal.

Two characteristics of horse behavior that would have benefitted Virginia colonists the most was their consistent home range patterns and their "habitual quality of movement" (Tyler 1972). Multiple contemporary studies of feral horse populations (i.e. populations in the British Isles, Assateague Island in Maryland, and the western United States) have shown that groups maintain the same seasonal territories and movement patterns based on food, water, and shelter (Keiper 1985; Tyler 1972). The home-range usually includes at least one water source, a large grazing area or multiple smaller ones, and a source of shelter from insects and the elements. Throughout periods of grazing in the morning and afternoon, individual members of the band tend to wander, pairing-off or remaining alone to feed, but during the heat of the day and during other periods of rest they tend to congregate at a common place. In cases where enough nutritionally adequate browse was available along with water and shelter in a small area, the range of a band of horses could be relatively small and controlled. In Tyler's study of the New Forest ponies in Britain, the home-range of horse bands was determined more by the amount

and nutritional value of food and availability of water and shelter in an area rather than purely by the quantity of horses in the group (Tyler 1972). In addition, Tyler noted what she called the predictable “habitual quality of movement”—“Many groups followed a very constant pattern of diurnal movement and could be found at the same part of their home range at the same time each day for several days, weeks, or months” (*Ibid.*).

Virginia planters would have certainly noted this consistent behavior and used it to their advantage in locating their horses in the Virginia wilderness.

Clearly, the distinct needs and behavior of horses would have played a vital role in their relationship with humans. When considered in the context of the changing agricultural environment and economy of the Virginia colony, a husbandry system can be much more clearly inferred.

## DATA ANALYSIS

### **Tracking Husbandry Development through York County Probate Records**

The York County probate records, as described in the introduction and methodology, provided a wealth of information regarding the distribution (both temporal and wealth-based) of horses, horse tack, and various other related hardware. Through analysis of this information against the backdrop of species behavior and environmental understanding many different discoveries were made about environmental effects and social trends, some confirming past assumptions (i.e. the general reliance of Virginians on horses for transportation) while others brought new information to light (i.e. husbandry techniques associated with enclosure and supplemental feed).

#### ***Environmental Changes***

##### *General Ownership: Urban v. Rural*

To begin, it is useful to get a basic idea about what percent of the population owned horses. Main compares the horse to the modern equivalent of a Model T or a Volkswagen Beetle – cheap and reliable – however horses required much more upkeep “even if they matched the ten years’ reliable service of a good [Chesapeake] pony.” (Main 1982, 45). Accordingly, even though “most” people owned horses, there were a significant number who did not, depending on their circumstances. Figure 4 compares the number of horse-owning vs. non-horse-owning decedents in rural York County based on estate value (“rural,” in this case, being defined as living in Charles Parish, Bruton Parish, York Parish, or Hampton Parish). When compared to Figure 5, it becomes clear that owning a horse was fairly necessary in a rural environment where transportation between scattered towns, courthouses, etc. was vital. In the rural graph (Figure 4), horse-

owning decedents are fairly evenly distributed between the wealth categories with the majority of non-owners concentrated in the poorest inventories. In contrast, in the urban graph (Figure 5 – “urban” being defined as living in Williamsburg or Yorktown) there is a much higher percentage of non-owners in each wealth category, and the number of horse-owners increases with wealth.

When considering horse ownership over time, environmental factors and urbanization are quite visible in the data. Charting the number of horse-owning and non-horse-owning decedents in rural York County over time, Figure 6 shows the well-known increase in human and horse population up to 1700. In addition, it reasserts the required nature of horses in the rural community, as horse owners outnumber non-owners in every time span. On the other hand, Figure 7 displays the lack of “urban” inventories before 1701, which is consistent with the settlement pattern until then. Furthermore, Figure 7 clarifies that horses were not a necessity in the larger towns, since it consistently shows a division of half-and-half between horse-owning and non-horse-owning decedents.

#### *Management Techniques: Urban v. Rural*

The probate records also provide much finer-tuned indications of changes in the environment, as well as an increase in the worth of horses. Figure 8 is a chart of the presence of various methods for marking ownership and controlling horse movement from 1640-1777. As described in the section on horse behavior, brands were the common method for marking animal ownership, but could decrease aesthetic appeal by marring the coat and scarring the skin. Horse-locks were a method for limiting the movement of unruly horses, and especially an attempt at keeping them out of crops. Fodder is the other item charted on this graph, and is charted by “instance” rather than

actual quantity (thus, a record of “1,000 pounds of fodder” would be counted as 1 instance for consistency). All three items are compared between rural and urban inventories, painting a picture of a significant change in husbandry between 1701 and 1740.

### Branding and Horse Locks

Use of branding is only present in rural inventories, and ceases between 1721 and 1740. This indicates a unique need for branding horses in rural communities due to the “open-woodlands” system of husbandry, and implies urban communities did not give their horses as much free reign. Additionally, the use of horse locks stops in rural communities between 1701 and 1720, with only a single instance afterward, suggesting a possible desire to avoid harm to horses through use of the hobble. The few instances of horse locks in urban inventories in 1721-1740 could be due to initial difficulties preventing horses from jumping fences used to enclose them.

The decrease in branding and horse locks in rural inventories, and the absence of branding and minimal amount of horse locks in urban inventories points to two possible changes in husbandry: enclosure and an increase in positive attitudes toward horses’ worth. Though some laws were passed as early as 1671 concerning enclosing horses during the growing season (Hening 1823, Vol. II, II, 279), it is common understanding that consistent enclosure or penning of livestock did not become common until the mid-to-late 1700’s (Walsh et al. 1995). This graph indicates that shift may have occurred sometime between 1721 and 1740.

### Fodder

In regards to positive attitudes toward horses and increased worth, a decrease in branding and the use of potentially harmful restraints denotes a desire in planters to preserve the health and well-being of their horses. Going hand in hand with this attitude is the increase in the use of fodder. The supplemental feed is not only an indication of enclosure, but also of a desire to improve the diet of the scrawny Virginia horses and thus improve the breed. Hugh Jones writes in his “Present State of Virginia” in 1724, that Indian corn is the best fodder for livestock and clover, oats and sanfoin have begun to be grown for grazing (p. 40-41). The rapid increase in instances of fodder in rural inventories confirms this onset of fodder growth between 1721 and 1740. The large rural numbers in comparison to the small urban numbers can be explained by the fact that urban purchasers would most likely use fodder soon after acquiring it; therefore it wouldn’t often appear in probate inventories.

As seen in Figure 9, fodder was not necessarily a commodity of the wealthy. The small number of urban inventories containing fodder is spread fairly evenly throughout the wealth categories, with only the poorest individuals going without.

### *Conveyance: The Development of Roads*

Further environmental changes are visible in the changes in popularity of various tack and hardware associated with horses, most notably saddles, women’s saddles (sidesaddles), carts, and coaches. Figures 10 and 11 track these changes over time for rural and urban inventories.

The turn of the century saw the major improvement of roads and the expansion of settlements away from waterways. Before then, it was thought that horse-drawn carts

were in little use because of the poor quality of roads and the primary use of boats for transporting tobacco (Main 1982); however, Figure 10 shows carts in use well before 1700, and in just a little under half of all the rural inventories. By 1701, carts are well-established in both rural and urban communities. It is possible that roads were better maintained in York County earlier than previously assumed.

### ***Socio-Cultural Changes: Class Indicators***

#### *Coaches*

In addition to the establishment of roads, Figures 10 and 11 show certain trends in fashionable equine conveyance dealing with women's saddles and coaches (including chairs, "chariots," and other fashionable wheeled horse-drawn vehicles). Women's saddles were the traveling method of choice for women in rural communities, as indicated by Figure 10. Women often rode horses in Virginia, as David Percy notes – "Women matched men in both their riding skills and riding habits" (1979, p. 2). However, an interesting contrast is that coaches are much more popular in urban communities than women's saddles, and even surpass saddles in the time period between 1761 and 1777. This is most likely due to the influence of the *haute-couture* of the elite, and the desire for others to emulate them, as Figure 12 strikingly displays the elite monopoly over coaches.

### *Naming*

An interesting phenomenon linked with wealth that was pulled from the probate inventories is the tendency of naming horses. Virginia Anderson, in *Creatures of Empire: How Domestic Animals Transformed Early America*, states that:

Horses and dairy cattle, touched and spoken to every day, were often given names that signaled familiarity and even affection. Farmers used these names to *address* their livestock and not just to identify them...meant to sound distinct so each animal would know when it was being commanded to do something...No one in England or the colonies bothered to name pigs, goats, or sheep, mainly because they were considered lesser creatures and their contact with owners was more intermittent (p. 91).

Figure 13 shows that while naming horses was more common as wealth increased, it was more common in general in rural inventories and only significantly common in the wealthiest urban category (the top 5-10% of decedents). This indicates two possible situations: rural inventories had more named horses because horses in general tended to be used more in rural communities, thus creating a closer relationship; in urban inventories, however, only the wealthiest had the leisure to use their animals for anything other than work, thus names were given to pets, race horses, and animals of high value.

### *Trooping Saddles*

An interesting piece of equipment that also served to promote a certain image was the “trooping saddle.” As early as 1686 in the Virginia House of Burgesses, “An act for the better supply of the country with armes and ammunition” required that: “... every trooper of the respective counties of this country, shall furnish and supply himself with a good able horse, saddle, and all arms and (c) furniture, fitt and compleat for a trooper...” (Hening 1823, Vol. 3). By 1723, the requirement of “saddle, and all arms and (c) furniture,” was redefined as, “a good saddle, with breast-plate, crupper, and curb bridle,

holsters, and a case of pistols, cutting sword, or cutlace, and double cartouch box, and six charges of powder” (Hening 1823, Vol. 4).

Figures 14 and 15 display the distribution of trooping saddles by estate value and time, comparing urban and rural inventories. Interestingly, the majority of trooping saddles are to be found in rural inventories, and wealth doesn’t seem to exclude anyone from being a “trooper.”<sup>5</sup> However, there is a concentration of trooping saddles and horse arms, in the 226-490£ category—the upper middling to rich almost always owning land, slaves, and holding high county level or provincial offices. Rhys Isaac emphasizes that the muster of militia was an occasion for the upper-classes to re-establish their influence over others in the community (p. 104-110), and these decked-out horsemen would most certainly put on a good show. In addition, Figure 15 shows the greatest surge in ownership between 1701 and 1740. While the upswing in trooping saddles and horse arms can be linked with hostilities against the French, it is certain that the image of a well-appointed trooper was yet another way for the colonial planter to acquire status.

### *Horse Values*

#### By Estate Value

The final pair of graphs address the actual monetary value of the horses themselves. The value of horses in comparison to estate value is not surprising: as seen in Figure 16, the average cost of a horse (of any sex) tends to increase with estate value, and horses are generally more expensive in urban communities. The fairly large

---

<sup>5</sup> While “trooping saddles” in the probate records could be noticeably more expensive than other types of saddles, it is logical to assume that this additional expense could be due to the additional number of items associated with the trooping saddle. Therefore, while a trooping saddle alone wouldn’t be that much more expensive than a normal saddle, a trooping saddle with horse arms and other accoutrements could be.

difference between the average value of a horse for the urban elites versus the rural elites is most likely linked to the increased popularity of coaches (and thus coach horses) in urban communities versus rural communities.

Very few horses in the probate inventories were designated as “saddle,” “coach,” or “cart/draft.” However, in the few cases when they were, price differences tended to follow the increasing values discussed in the section on horse behavior. That is, saddle horses and cart horses “sometimes acquiring additional value, and coach horses almost always occupying the highest rung on the cost ladder.”

### Over Time

Figure 17 charts the change in values of different sexes of horses over the years between 1640 and 1777. In this chart, “mare and colt” is a separate category due to the tendency of probate inventory recorders to list them together, and the separate category of “colt” covers all young horses designated in the inventories as “colt,” “foal,” “filly,” or “yearling.”

This graph is an excellent representation of the drastic fluctuation in horse values caused by initial rarity, subsequent population explosion, and late attempt to import thoroughbreds and improve the breed in the late 18<sup>th</sup> century. In the early decades of settlement, horses were fairly rare and thus expensive. The population explosion after the 1660’s drastically decreased the value of animals, as they were readily available and even a nuisance throughout the colony. For the majority of the 1700’s, the cost of a horse was generally low due to their ready availability and malnutrition-induced small size. However, in the mid-to-late 1700’s, there was a significant change in the average value of

horses due to the previously-discussed introduction of fodder-feeding, and a new passion among the elites. In *History of Agriculture of the Southern States to 1860*, Lewis Cecil

Gray notes that:

As the older Southern colonies developed, an interest grew in horse racing and carriage riding and there was more effort to improve horses for speed, hardihood, strength, gait, and grace. Importation of the progenitors of the modern thoroughbred began about 1737-1740. Pedigrees were recorded and the care taken of horses was in severe contrast to the attention devoted to other classes of stock. (1941, 202)

While the first stud-book for horses wasn't found until 1791 in England (Hall and Clutton-Brock 1989), Virginia elites had already begun racing their horses, breeding their successful stallions and mares, and importing stock from England where the racing tradition was already well-established (Culver 1922). In fact, the most expensive horse by far in the probate inventories – “Partner, a famous stoned horse” – at 66.4£ belonged to Armistead Lightfoot in 1772, along with a large number of racing saddles, books about horse care and history, and various other furniture, clothes and accessories. According to Francis Culver (1922), race records indicate that Partner was raced in 1768 by his then-owner Littleberry Hardyman, and was one of Virginia's major race-winners (p. 126-127). Armistead Lightfoot is also listed in the book as a racehorse owner, but is not the owner of Partner at that time (*Ibid.*). One can only assume that Lightfoot must have acquired Partner from Hardyman at quite a price.

### **Horse Husbandry and Social Symbolism in York County**

Not surprisingly, much of the social symbolism associated with horse husbandry in York County between 1640 and 1777 was highly influenced by class divisions and the fashions of the elite. From the cavalier tradition, to coaches, to racing, the elites used horses to set themselves apart from the rest of society.

#### *Riding as Culture*

From the very beginning, horses filled a very important role in providing fast and easy transport for even the poorest planter. Gloria Main points out that, “In function they not only served as the principal mode of transportation for planters and their wives, but were prized for the freedom and independence they permitted” (1982, 66). The very first use of the horse to separate classes of humans was in the banning of slaves from riding (Walsh et al. 1995, 89). This intentionally created a limitation on the mobility of slaves by denying them access to equine transportation. However, it could also have created an association between not travelling on horseback and the lowest classes of society, inspiring poorer planters to acquire a horse even if they did not have much use for it.

Colonists also attempted to limit Native American access to horses, as the “settlers used the animals for military purposes, and did not want to see Indians doing the same” (Anderson 2004, 201). Although Native Americans did manage to acquire and ride horses, they also killed and ate horses in the early decades of the Virginia colony, a practice that was taboo in English society and considered repugnant by the settlers (*Ibid.* 239). It is possible that the Native American’s consumption of horse meat combined

with the illegality of their horsemanship further reinforced the line between non-horse-riding “savagery” and the necessity of horsemanship to all “civilized” peoples.

### *Horse Racing*

By the late 17<sup>th</sup> century, horse racing had become popular among yeoman farmers and planters alike, and were held informally on back-country roads. Often, these races covered about a quarter-mile, and horses that ran the race successfully became known as “quarter horses” (Percy 1979). Soon, planters began associating themselves with their horses, which they would identify with the same genealogical terminology (i.e. fathers, mothers, aunts, uncles, cousins) as they would themselves (Isaac 1982). Isaac comments that, ““The role of the steed as an adjunct to virile self-presentation is revealed in the endless conversations the gentry had about their horses, in which they expressed the closest identification with the animals” (99). This anthropomorphism and transference of characteristics can be seen in other horse cultures, and is noted by Elizabeth A. Lawrence in her studies on rodeos and cowboys. Lawrence emphasizes that a mounted cowboy considered his horse his partner in his livelihood and “the essential element by which penetration into the wilderness and...settlement were made possible” (131). Man and animal together assumed a new role as master of the land, and unhorsing a cowboy was the equivalent to unmanning him. This closeness and transferred nobility is the basis for the increased status of horses in comparison to other livestock.

After 1700, the economic foundation provided by the increasing amount of slave labor allowed the elites to focus on establishing a more “genuine landed aristocracy” (Breen 1977, 242; Isaac 1982, 39). The “transplanting of English social mores” (Breen

1977, 242) included the adoption of the “sport of kings,” as horse racing was known in England. Although the elites had been asserting their dominance over the sport since the 1600’s – “In the 17<sup>th</sup> century, a tailor was fined in Virginia for engaging his horse in a match, because it was unlawful for ‘a laborer to make a race, being a sport only for gentlemen’” (Culver 1922, 33) – it was not officially the hobby of the Virginia gentry until the mid-1700’s when they began importing English stock to improve their own.

The extravagance of the racing culture of the gentry is what sets it apart from the simple back-country races of the average Virginian (for they were most certainly still going on). As racing mania spread throughout the upper class, wagers became more excessive: “...sometimes ‘4 hogsheads of tobacco to one’...more than the whole cash crop a poor family could expect to earn in a year [1754]” (Isaac 1982, 100). Competitive gambling and dangerously high stakes became a characteristic of elite culture, and could be seen in both horse-racing and cock-fighting throughout the colony (Breen 1977; Isaac 1982). Like the British aristocracy, Virginia gentlemen spared no expense when it came to their race horses, and some even had their successful horses painted in portrait (Fithian 1774, 94), and the pedigrees they established with their “racing bloodlines” were strikingly similar to the intertwined families of their own.

### *Coaches*

In addition to racing, the Virginia aristocracy set themselves apart through their everyday travel. Extravagant coaches and carriages, sometimes called “chariots” in the inventories, proliferated in the mid- and late-1700’s. In comparison to saddles (which averaged in price from less than 5 shillings to around 3 £) and carts (averaging in price

from 2 £ to 5 £), coaches could be over ten times as expensive as a saddle and six times as expensive as a horse cart (averaging about 35 £). In contrast, “riding chairs,” tended to be more simple two-wheeled conveyances averaging around 7 £. Nevertheless, as seen in the figures 18 and 26, almost all the coaches/chairs/chaises/chariots in the inventories researched were owned by the top 5-10% of the wealth categories. Some inventories with carriages had no saddles at all, meaning that the individual travelled exclusively by carriage.

The main social symbolism behind horse husbandry in York County was intimately tied to the ever-increasing gap between the wealthy and the middling classes. While the elites participated in the same equine activities as others, their horses were more expensive and “blooded,” their conveyances more extravagant, and their racing wagers prohibitively high. By creating an exclusive, elite equine culture, the Virginia gentry symbolically reinforced the real economic and social difference between themselves and the middling classes.

## CONCLUSION

The horse husbandry system in York County, Virginia, from 1640 to 1777 was simultaneously influenced by a rapidly changing environment, specific species needs and behavior, and human economic and social behavior. The relationship between these three factors is visible in the York County probate records, leaving a kind of “material culture” on paper that displayed the distribution of animals, material goods, and wealth over time and by class. By evaluating the presence of specific items like horse-locks, fodder, branded horses, and various means of equine transportation (coaches, etc.) in relation to current research on the economy and environment of York County for the same time period, it becomes clear that the changing environment at the turn of the century due to increased cultivation and urbanization influenced the techniques humans used to manage horse populations. In addition, through the general increase in horse-drawn conveyances, we can see that horses were vital for personal and commercial transportation. Through analysis of coach distribution, named horses, trooping saddles, and high value animals by wealth category, the status of the horse as a tool of class differentiation is also reinforced.

York County was chosen for its convenient abundance of probate records and the amount of previous research done on environmental and economic changes in the area. However, the general patterns of agro-economic shift and urbanization are indicative of similar trends throughout the Virginia colony and Maryland, as both areas had similar ecologies as part of the Chesapeake region. As such, conclusions about changes in York County can be tentatively extrapolated to the similar situations in other parts of the colony. Thus the husbandry system for colonial Virginia emerges, in which horses were

not only a vital and valuable means of transportation, but a symbol of the increasing social stratification of the colonists.

The development of a husbandry system is a dynamic process comprised of multiple influences. As Anschuetz states, “Processes of behavioral change across space and over time necessarily result in an ever-changing landscape...thus landscape is a cultural process” (2001, 161). Similarly, husbandry systems are ever-changing: they shift as animal behavior reacts to changing environments, and as human behavior attempts to manage changes in animal behavior. The husbandry system in York County shifted from an open-woodlands system, to a system centered on managing horses in a much more deliberate way in order to control their breeding and movement. In the same way, a horse husbandry system in the Northeast or the Southwest would shift in reaction to changes in the environment and human/animal behavior of that region, even if the resulting husbandry systems looked completely different.

This research contributes a new and detailed understanding of horse husbandry in colonial Virginia, emphasizing the animal’s importance as an essential means of personal and commercial transportation, and as a symbolic reinforcement of social stratification. On a broader scale, this study adds a new evaluation of husbandry systems as dynamic processes simultaneously influenced by environment, animal behavior, and human manipulation. Finally, the use of probate inventories as hard data in comparison with other primary sources demonstrates that a husbandry system can be recreated in the absence of archaeological data, as long as there are an adequate number of records to show change over time and between wealth categories.

BIBLIOGRAPHY

- Anderson, Virginia DeJohn  
 2004 *Creatures of Empire: How Domestic Animals Transformed Early America*. Oxford University Press, New York, New York.
- Anschuetz, Kurt F. et al.  
 2001 An Archaeology of Landscapes: Perspectives and Directions. *Journal of Archaeological Research*, Vol. 9, No. 2, pp. 157-211.
- Barclay, Harold  
 1980 *The Role of the Horse in Man's Culture*. Robert Hale Limited.
- Beverley, Robert  
 1705 *The History and Present State of Virginia*. Ed. Louis B. Wright. University of North Carolina Press, Chapel Hill, 1947.
- Bowen, Joanne  
 1990 A Study of Seasonality and Subsistence: Eighteenth Century Suffield, Connecticut. Unpublished Ph.D. dissertation, Department of Anthropology, Brown University, Providence.  
 1996 Foodways in the 18<sup>th</sup>-Century Chesapeake. In *The Archaeology of 18<sup>th</sup> Century Virginia*. Edited by Theodore Reinhart. Special Publ. 35, Archaeological Society of Virginia.
- Bowen, Joanne and Susan Trevarthen Andrews  
 2007 Domesticating the Native Landscape: The Early Years at Jamestown. Paper presented to the Society for Historical Archaeology. Williamsburg, Virginia.
- Breen, T. H.  
 1977 Horses and Gentlemen: The Cultural Significance of Gambling among the Gentry of Virginia. *The William and Mary Quarterly*, 3rd Ser., Vol. 34, No. 2. (Apr., 1977), pp. 239-257.
- Budiansky, Stephen.  
 1999 *The Covenant of the Wild: Why Animals Chose Domestication*. Yale ed. Yale University Press, New Haven, CT.
- Bullock, William  
 1649 Virginia Impartially Examined, and left to publick view, to be considered by all Judicious and honest men." London: John Hammond, 1649. Facsimile edition printed by University Microfilms International, Ann Arbor, Michigan, 1978.

Carr, Lois Green and Lorena S. Walsh

- 1994 *Changing Lifestyles and Consumer Behavior in the Colonial Chesapeake. In Of Consuming Interests: The Style of Life in the Eighteenth Century.* Edited by Cary Carson, Ronald Hoffman, and Peter J. Albert, pp. 59-166. University Press of Virginia, Charlottesville.

Clutton-Brock, Juliet

- 1994 *The Unnatural World: Behavioural Aspects of Humans and Animals in the Process of Domestication. In Animals and Human Society: Changing Perspectives,* edited by Aubrey Manning and James Serpell, pp. 23-35. Routledge, London.

Culver, Francis Barnum

- 1922 *Blooded Horses of Colonial Days: Classic Horse Matches in America Before the Revolution.* Published by the Author, Baltimore, Maryland.

Fithian, Philip V.

- 1774 *Journal and Letters of Philip Vickers Fithian 1773-1774: A Plantation Tutor of the Old Dominion.* Williamsburg, Virginia: Colonial Williamsburg, Inc., 1965.

Flannery, Kent

- 1989 *The Flocks of the Wamani: A Study of Llama Herders on the Punas of Ayacucho, Peru.* Emerald Group Publishing Ltd.

Gray, Lewis C.

- 1941 *History of Agriculture in the Southern United States to 1860.* Peter Smith, New York, NY.

Hafez, E. S. E. et al.

- 1969 *The Behaviour of Horses. In The Behaviour of Domestic Animals,* edited by E. S. E. Hafez. Baliere, Tindall and Cassell, London, England.

Hall, S. J. G. and Clutton Brock, J.

- 1989 *Two Hundred Years of British Farm Livestock.* British Museum (Natural History), London.

Hening, William W. ed.

- 1823 *The Statutes at Large; Being a Collection of All the Laws of Virginia, from the First Session of the Legislature, in the Year 1619.* New York: R. & W. & G. Bartow, 1823. Facsimile reprint published for the Jamestown Foundation of the Commonwealth of Virginia. The University Press of Virginia, Charlottesville, 1969.

Ingold, Tim

- 1980 *Hunters, Pastoralists, and Ranchers: Reindeer Economies and Their Transformations*. Cambridge University Press.
- 1994 From Trust to Domination: An Alternative History of Human-Animal Relations. In *Animals and Human Society: Changing Perspectives*, edited by Aubrey Manning and James Serpell, pp. 1-22. Routledge, London.

Ingold, Tim, ed.

- 1988 *What is an Animal*. Unwin Hyman Ltd., London.

Isaac, Rhys

- 1981 *The Transformation of Virginia: 1740-1790*. The University of North Carolina Press, Chapel Hill.

Jones, Hugh

- 1724 The Present State of Virginia Giving a particular and short Account of the Indian, English, and Negro Inhabitants of that Colony. Showing their Religion, Manners, Government, Trade, and Way of Living, &c. with a Description of the Country. London: J. Clarke, 1724. Published as The Present State of Virginia. Edited by Richard L. Morton. University of North Carolina Press, Chapel Hill, 1956.

Keiper, Ronald R.

- 1985 *The Assateague Ponies*. Cornell Maritime Press, Inc.

Lawrence, Elizabeth A.

- 1984 *Rodeo: An Anthropologist Looks at the Wild and the Tame*. University of Chicago Press, Chicago.

Main, Gloria L.

- 1982 *Tobacco Colony: Life in Early Maryland, 1650-1720*. Princeton University Press, Princeton, N.J.

Mereness, Newton D. ed.

- 1916 Travel Diary of Bishop and Mrs. Reichel and their Company from Lititz to Salem in the Wachau (Wachovia) from May 22, to June 15, 1780. *Travels in the American Colonies*. The Macmillan Company, New York.

Peck, Kimberley J.

- 2005 "The Husbandry of Horses in the Chesapeake: A Historic and Economic Approach." Research paper for Foodways and the Archaeological Record. Spring, 2006. The College of William of Mary, Williamsburg, VA. Author's private collection.

Percy, David O.

1979 *Of Fast Horses, Black Cattle, Woods Hogs, and Rat-Tailed Sheep: Animal Husbandry Along the Colonial Potomac*. The National Colonial Farm, Research Report No. 4.

Terrell, J. E. et al.

2003 Domesticated Landscapes: The Subsistence Ecology of Plant and Animal Domestication. *Journal of Archaeological Method and Theory*, Vol. 10, No. 4, pp. 323-368.

Thomas, Julian

2002 Archaeologies of Place and Landscape. In *Archaeological Theory Today*, edited by Ian Hodder, pp. 165-186. Reprint. Polity Press, Cambridge.

Tyler, Stephanie J.

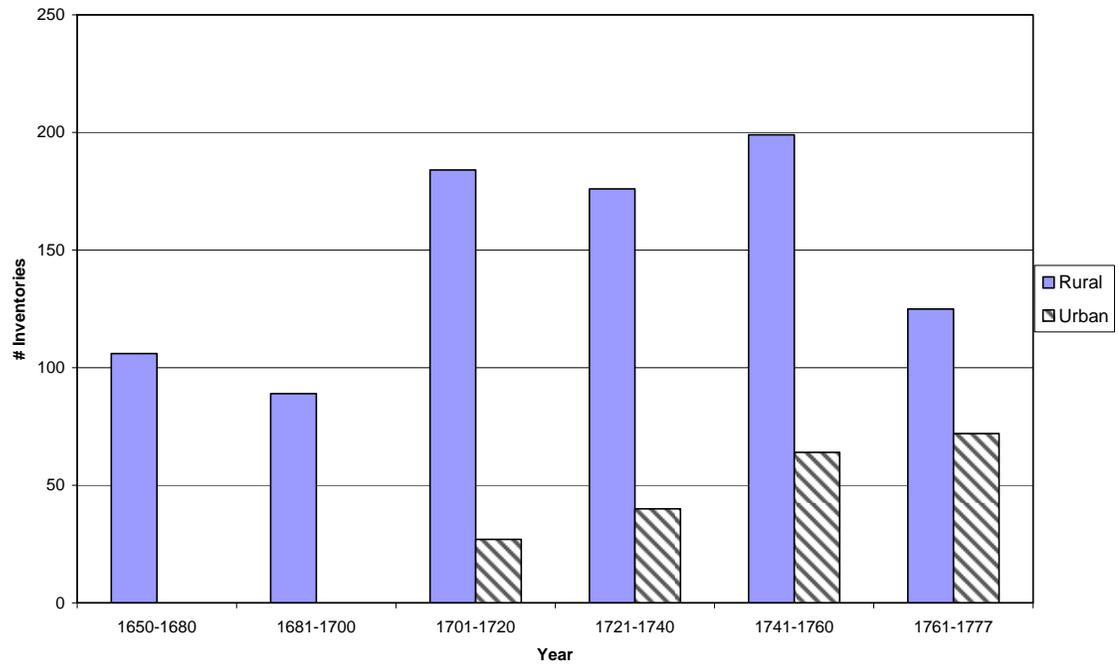
1972 The Behaviour and Social Organization of the New Forest Ponies. In *Animal Behaviour Monographs 5*: pp. 87-196.

Walsh, Lorena S., Ann Smart Martin, and Joanne Bowen

1995 Provisioning Early American Towns. The Chesapeake: A Multidisciplinary Case Study. The Colonial Williamsburg Foundation

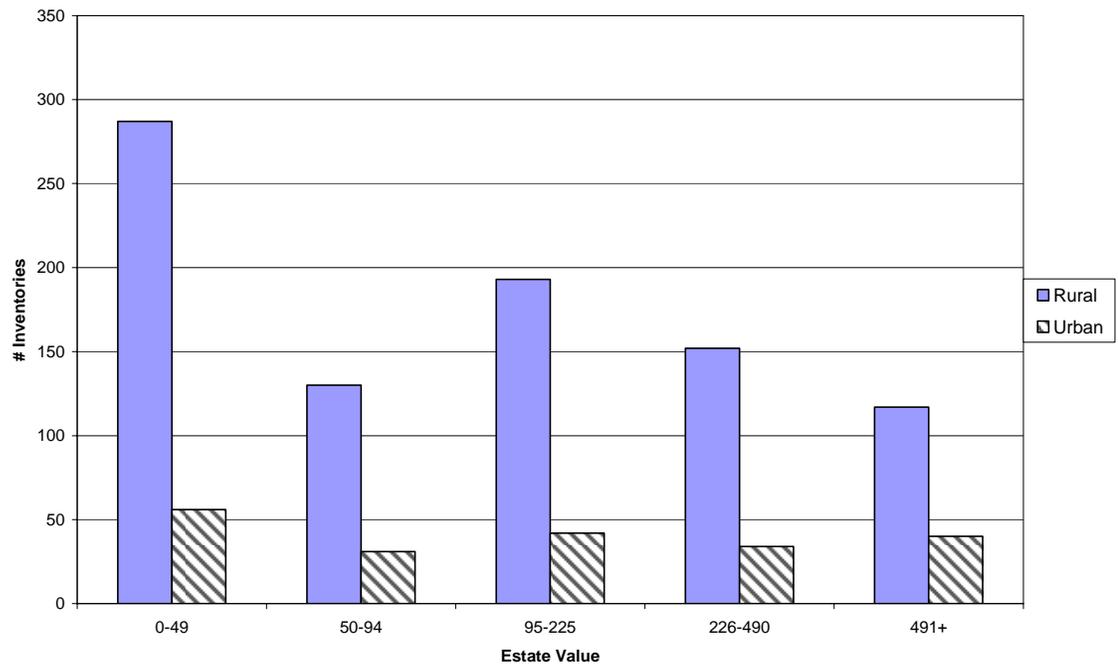
FIGURES

**Total Number of Inventories by Year - Urban v. Rural**



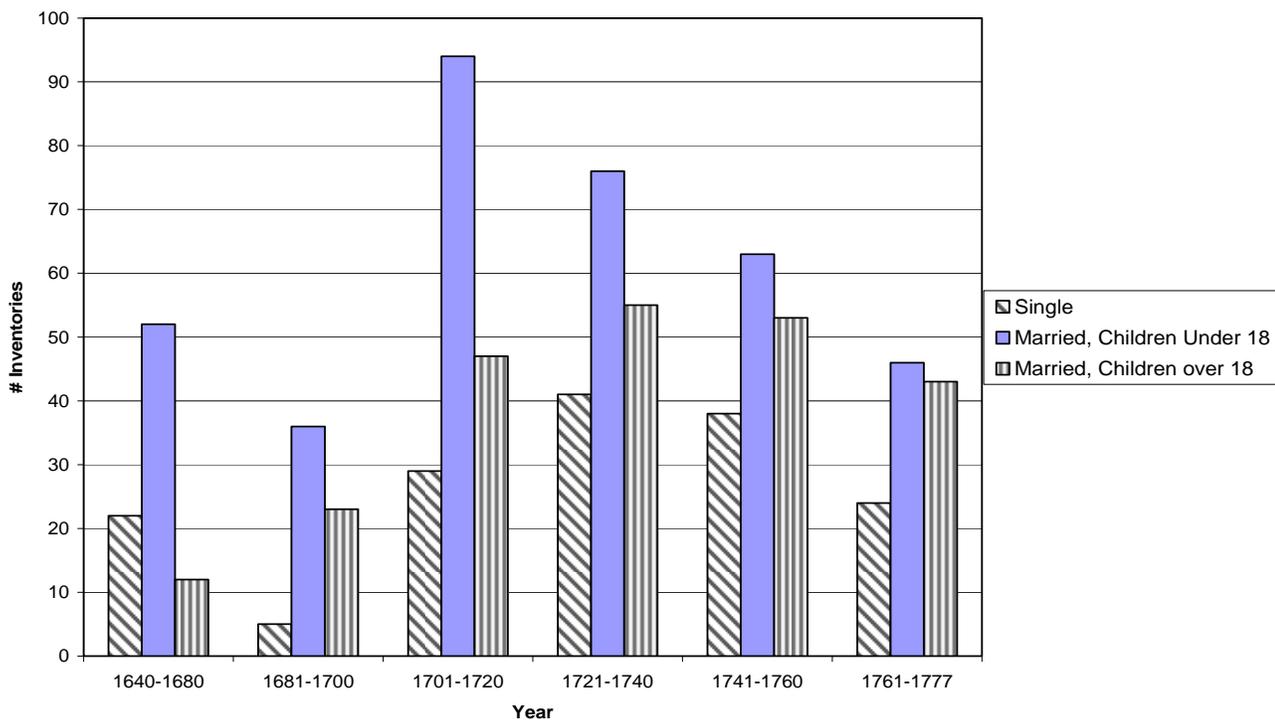
**Figure 1**

**Total Number of Inventories by Estate Value - Urban v. Rural**



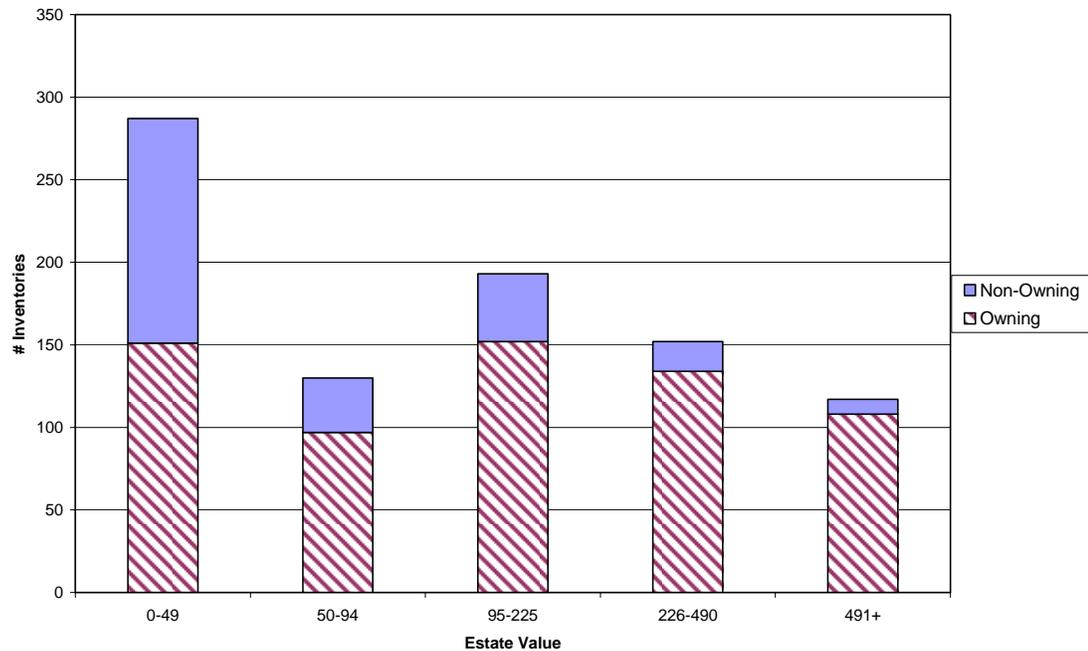
**Figure 2**

**Collapsed Life Cycles by Year**



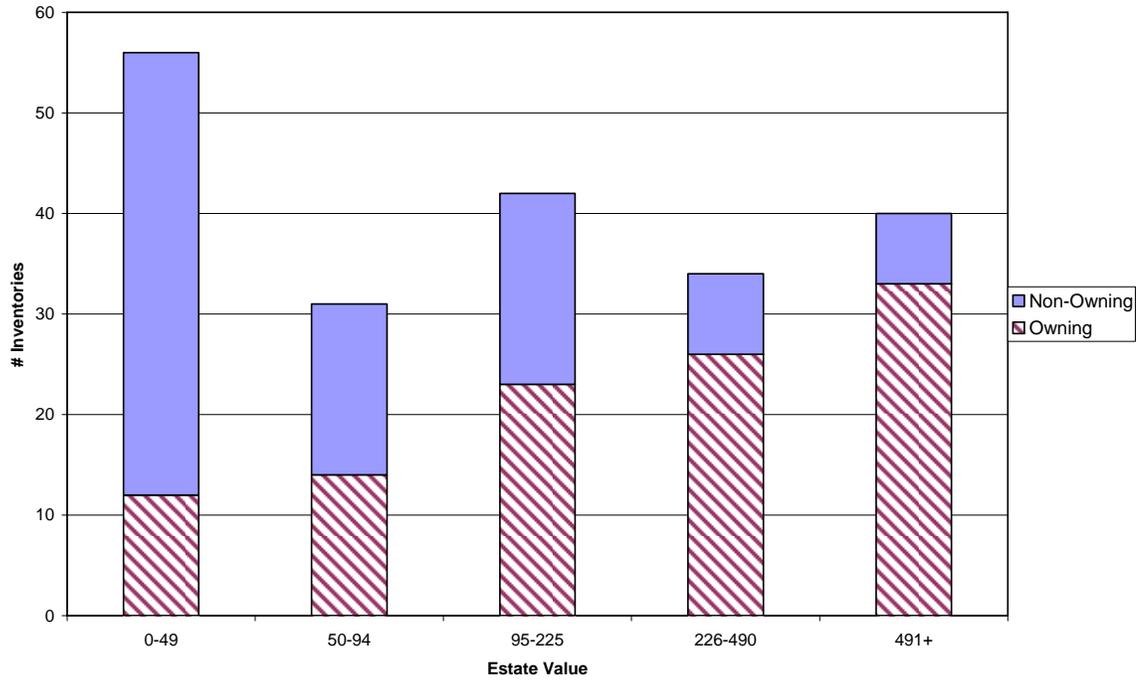
**Figure 3**

**Horse Ownership in Inventories by Estate Value - Rural**



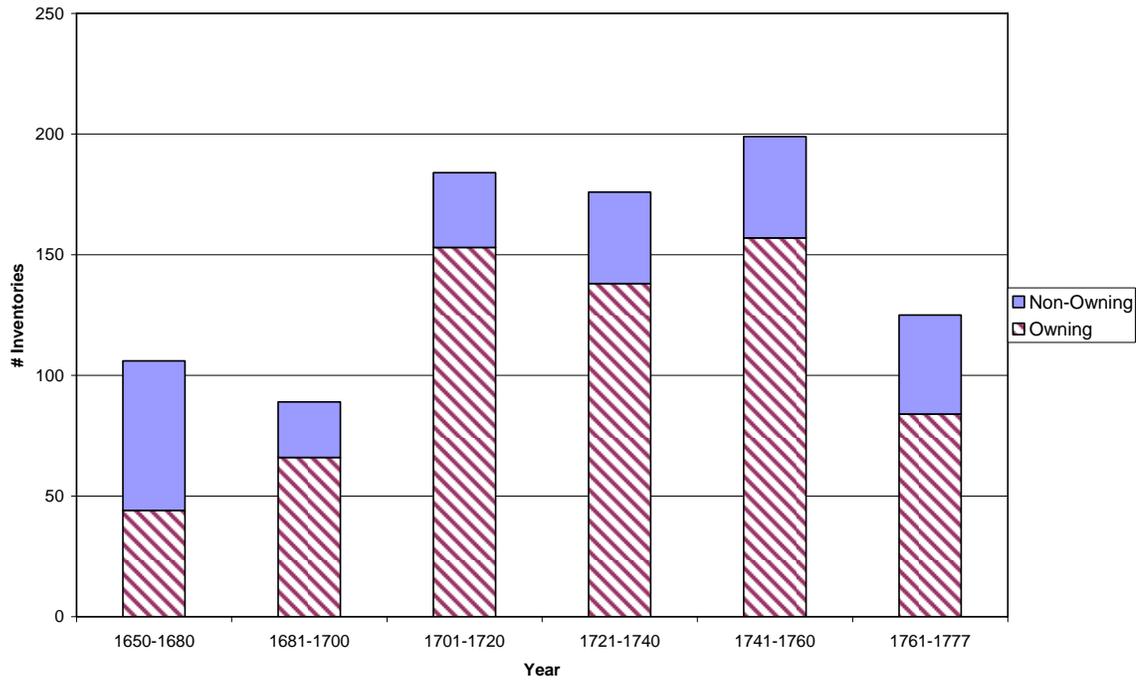
**Figure 4**

**Horse Ownership in Inventories by Estate Value - Urban**



**Figure 5**

**Horse Ownership in Inventories by Year - Rural**



**Figure 6**

Horse Ownership in Inventories by Year - Urban

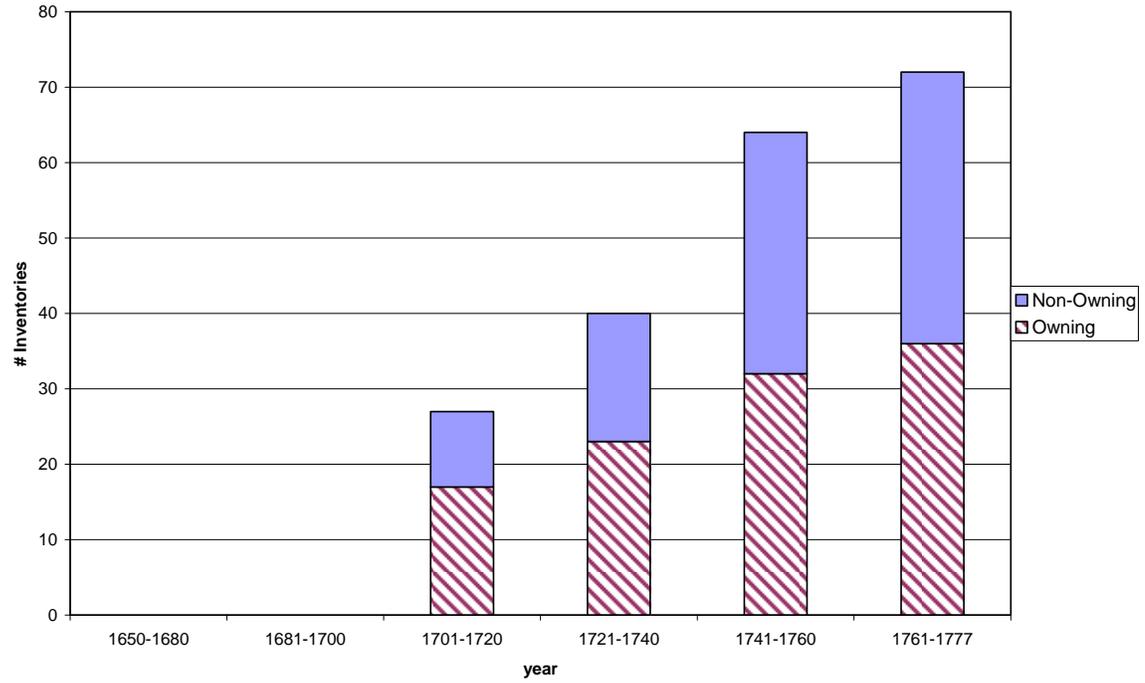


Figure 7

Ownership and Enclosure Indicators by Year - Urban v. Rural

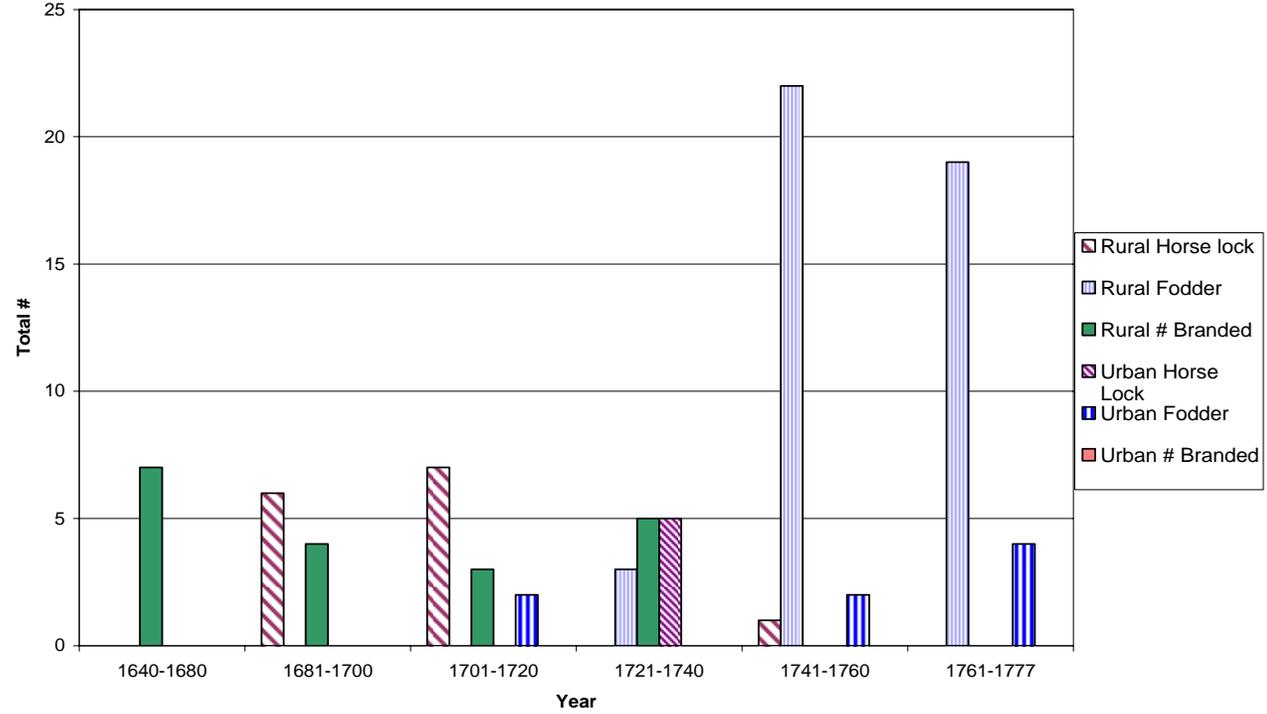


Figure 8

Fodder by Estate Value - Urban v. Rural

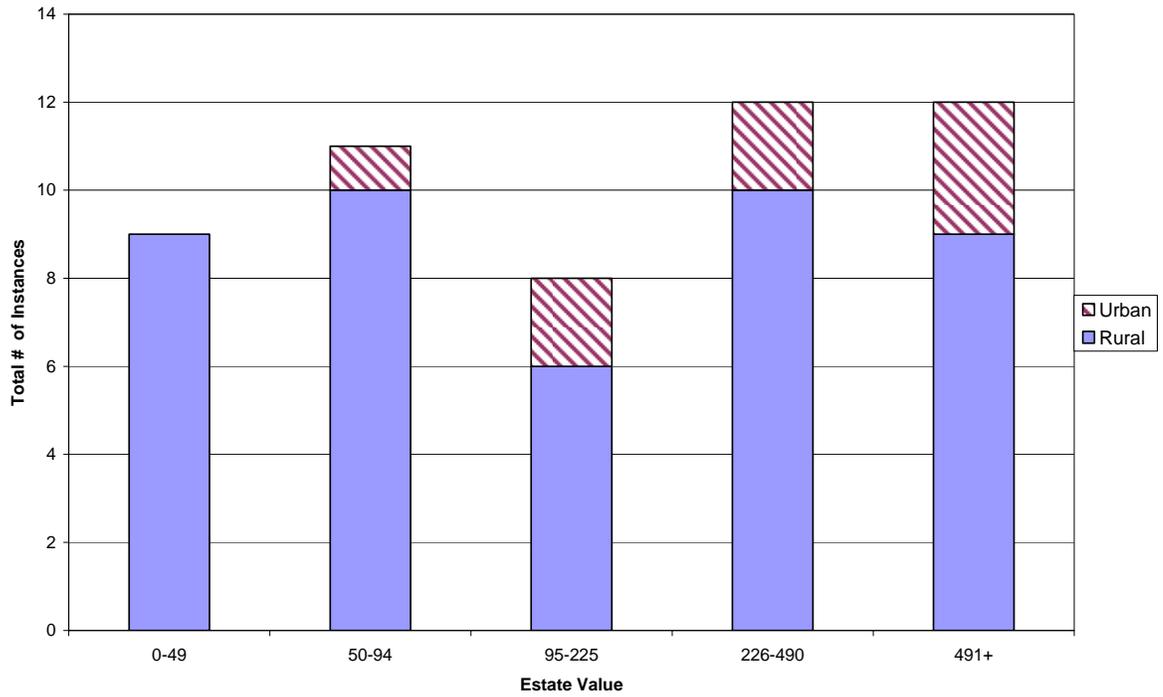


Figure 9

Travel Comparison by Year - Rural

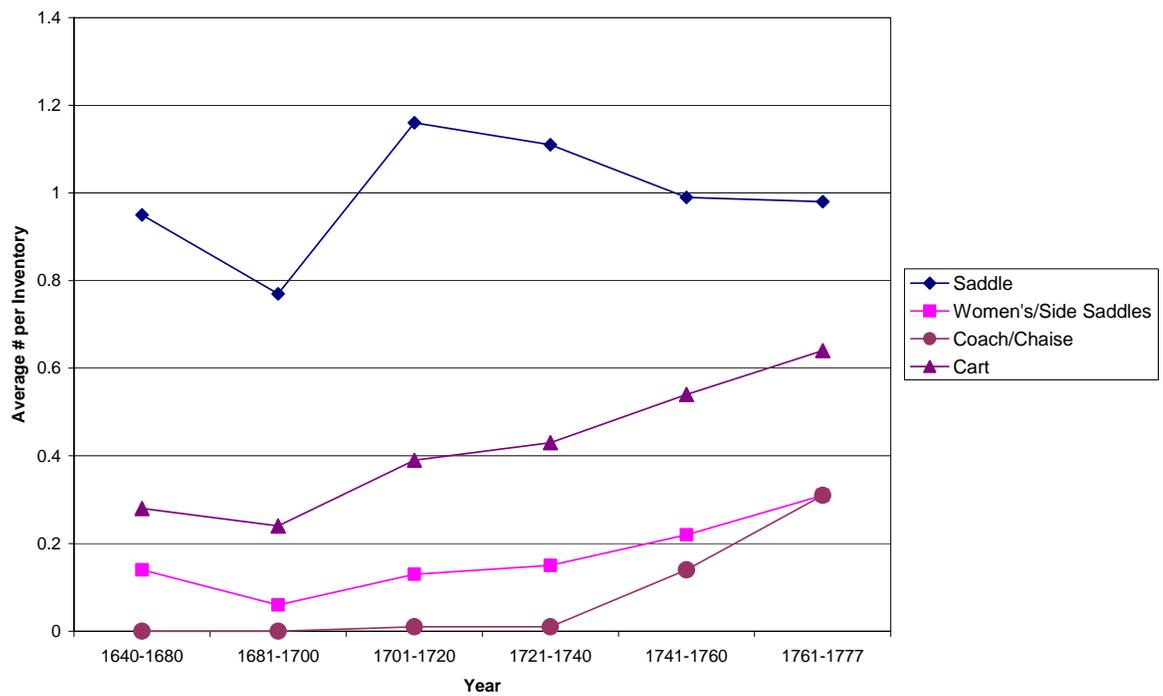


Figure 10

Travel Comparison by Year - Urban

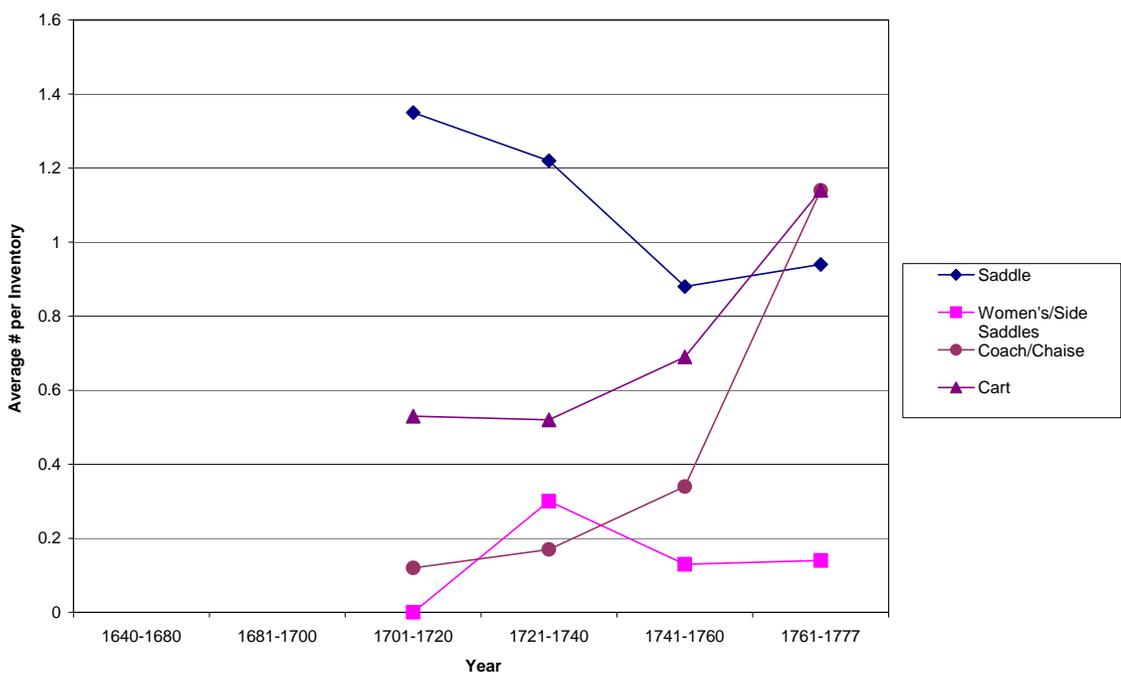


Figure 11

Coach/Chaise Ownership by Estate Value

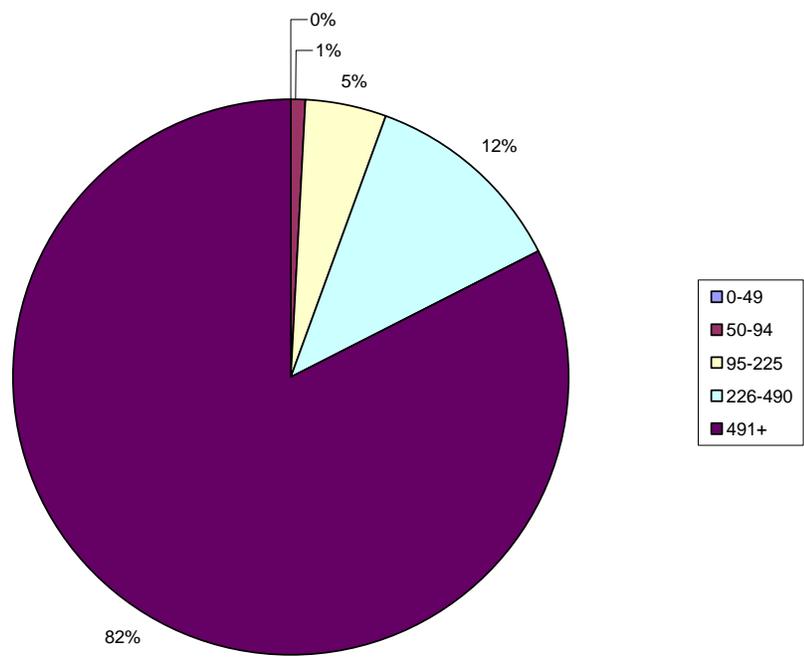
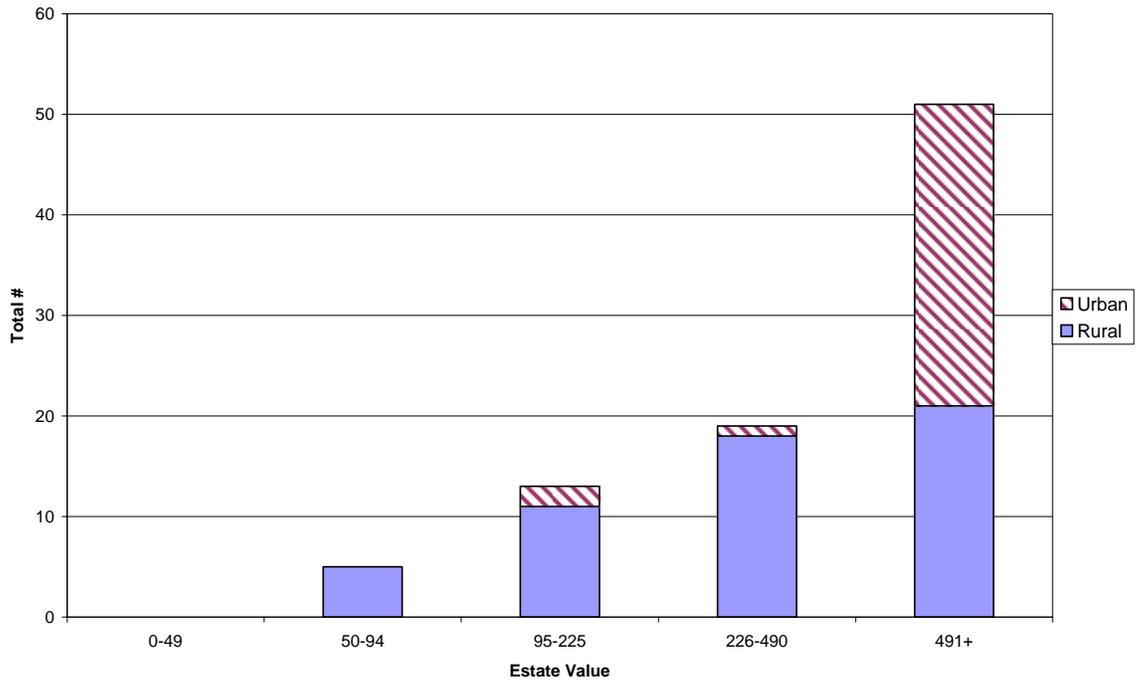


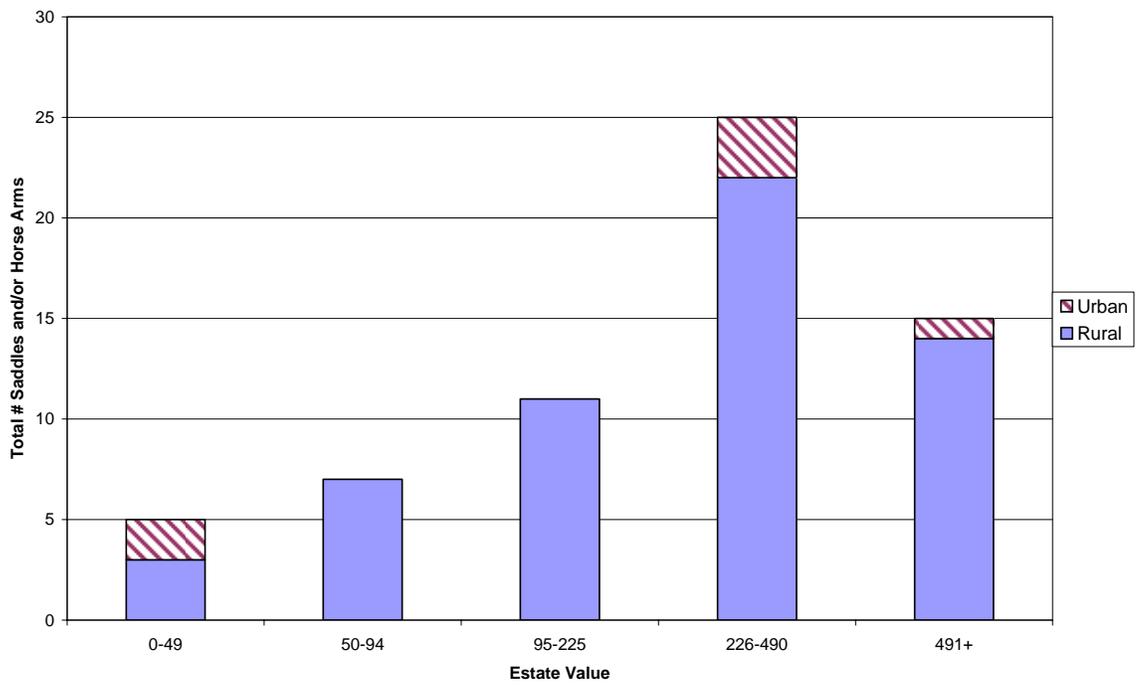
Figure 12

**Named Horses by Estate Value - Urban v. Rural**



**Figure 13**

**Trooping Saddles and Horse Arms by Estate Value - Urban v. Rural**



**Figure 14**

Trooping Saddles and Horse Arms by Year - Urban v. Rural

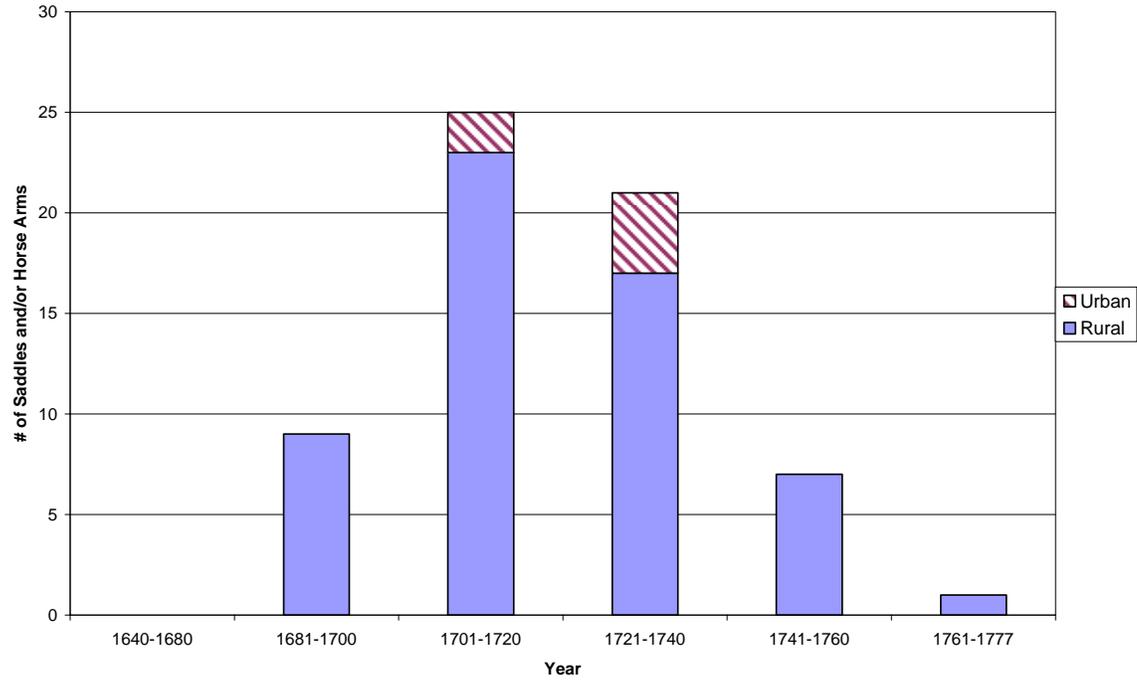


Figure 15

Average Horse Value by Estate Value - Urban v. Rural

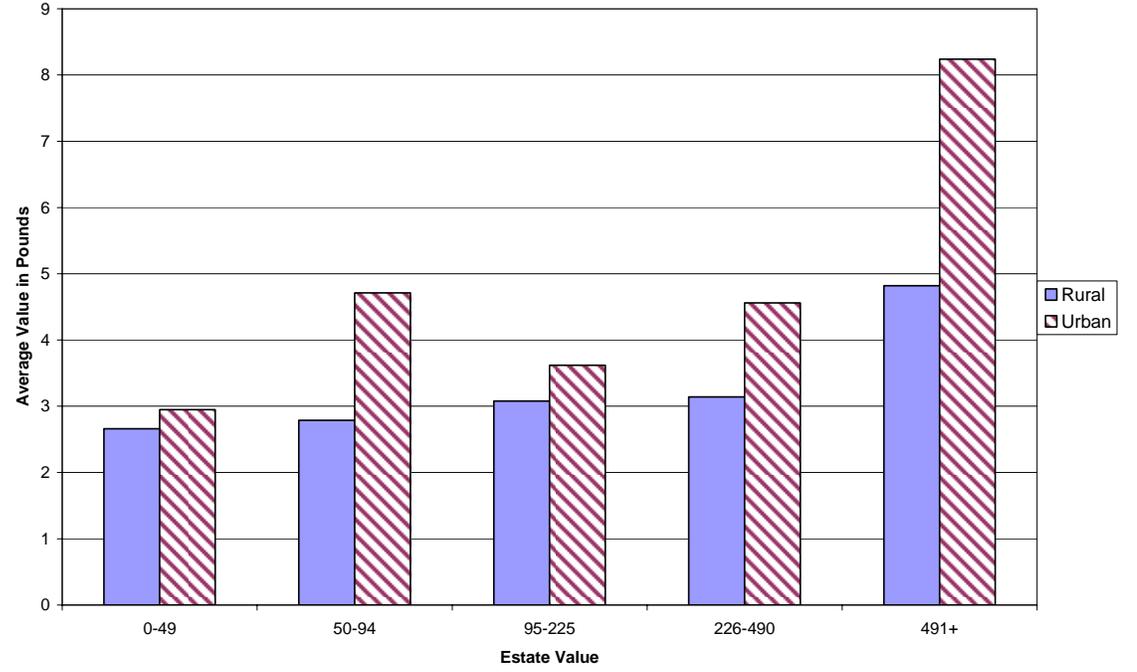


Figure 16

Average Horse Values by Sex over Time

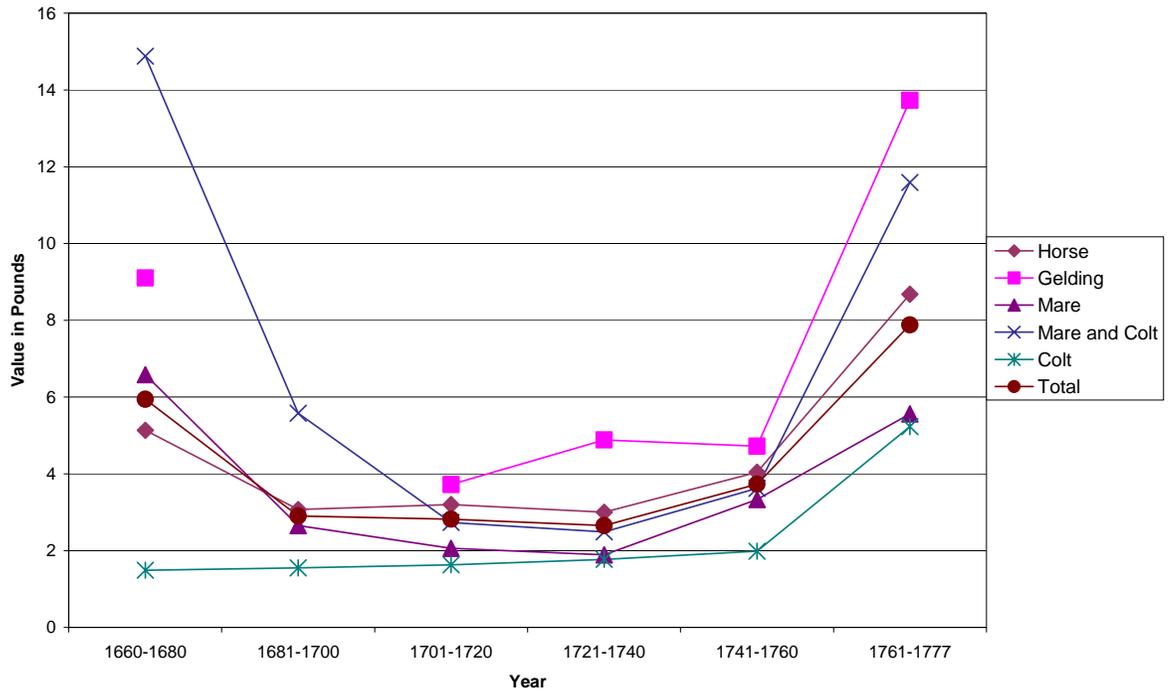


Figure 17