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African American Culinary History and the Genesis of American Cuisine: Foodways and Slavery at Montpelier

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ABSTRACT

American Southern foodways emerged in large part within the kitchens of slave plantations, where enslaved Black cooks incorporated African, Native American, and European practices and foods to create distinctly American food traditions. We use animal remains excavated from James Madison's Montpelier to illuminate early American cuisines in the Virginia piedmont. Black foodways at Montpelier were not monolithic. Pork and beef were the dominant meats consumed by all enslaved community members, and all communities supplemented their rations with their own subsistence pursuits to some extent. However, differential access to time, technology, and contact with white enslavers led to disparate circumstances for enslaved communities in terms of their relative reliance on rationed meats versus wild game, particularly fish.

KEYWORDS

Slavery; foodways; cuisine; zooarchaeology; Montpelier; Virginia; plantations; US Southeast

> In the icehouses, we had mutton, beef, chickens, turkeys, ducks, shoats and most everything you can think of.
>
> – Ailsey Payne, cook enslaved at Montpelier (Unknown 1902)

The genesis of American Southern cuisines is found within the kitchens of slave plantations, where enslaved Black cooks brought African, Native American, and European food traditions together to create a diversity of uniquely American cuisines. Enslaved cooks combined African and European culinary traditions with knowledge and techniques acquired through early encounters with Native communities to create novel American recipes and dishes using locally available ingredients. The cuisines that emerged from the hands and labor of enslaved cooks anchor American culinary traditions, although "ownership" of these traditions has been historically contested and racialized (Deetz 2017; Tang 2014; Twitty 2017).

Black chefs, culinary historians, and journalists including Jessica Harris (1999, 2011), Edna Lewis (2006), Helen Mendes (1971), Frederick Douglass Opie (2008), Toni Tipton-Martin (2014, 2015), Michael Twitty (2017), and Psyche Williams-Forson (2006, 2014) place foodways and food histories firmly within discussions of race, class, gender, and

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power in twenty-first-century America. These scholars situate their own ancestral culinary journeys within this body of research, tracing the origins of Southern foods in Africa, North America, and Europe, and exploring the modern legacies of enslavement and the role of gender and empowerment in contemporary cuisine practices. Centered in this narrative are the kitchens and hearths of enslaved cooks, mostly women, who bore creativity out of oppression.

This collective body of work is remarkable in its meticulous restoration of Black culinary histories, made even more so by the scarcity of documentary evidence related to the culinary lives of enslaved communities. Enslaved people were denied the opportunity to learn to read and write by law, although many learned on their own or were taught illegally. Literate white enslavers rarely documented the lives of those they enslaved. As a result, the lives and labors of Black cooks were erased along the steps and breezeways that separated the kitchens from the dining rooms of white enslavers. The credit for dishes served at the homes of white elites often went not to the skilled enslaved cooks, usually Black women, but to the white men or (less frequently) the white women who enslaved them (Deetz 2017; Tipton-Martin 2014, 2015). Not surprisingly, twentieth-century cookbooks on Southern cooking are predominantly authored not by the descendants of enslaved cooks, but by the descendants of their enslavers. Gender is pivotal to this erasure. The few enslaved cooks known by name are often men (most notably, James Hemings, enslaved by Thomas Jefferson), even though Black women's hands more often worked over hearths and stoves.

Despite this erasure, several Black cooks published manuals and cookbooks as early as the 1820s (Tipton-Martin 2015). One of the largest collections of Black-authored cookbooks, now numbering close to 500 volumes, is housed at the University of Alabama Libraries' (2021) David Walker Lupton African American cookbook collection. In *The Jemima Code* (2015), Toni Tipton-Martin presents over 150 of these culinary works. Although preceded by hospitality manuals containing recipes written by Black men (Campbell 1973; Roberts 1827), Malinda Russell is widely credited as having published the earliest known Black-authored cookbook, in 1866 (Russell and Longone 2007). To date, however, only four Black-authored cookbooks are known from the nineteenth century. This dearth of written documentation from the nineteenth century lends much greater importance to other lines of evidence. Archaeological evidence of food refuse, including the remains of animals, can illuminate the role of enslaved cooks in the genesis of American foodways.

Here, we use animal remains excavated from James Madison's Montpelier, the plantation owned by the fourth president of the United States, to illuminate early American cuisines in the Virginia piedmont. We are motivated by two overarching goals. First, we seek to understand and communicate the diversity of food experiences within enslaved communities. Foodways were not monolithic. Regional variation in cuisine practices is apparent across the "South" and, even within the oppressive structures of slave plantations, enslaved people practiced considerable agency in food choices and preparations. We intentionally pluralize "cuisines" and "foodways" to acknowledge both regional variation in cuisine practices, and the diversity of food practices within slave plantations, from the kitchens that fed white enslavers to the cooking hearths of enslaved households.

Second, we wish to produce scholarship that is useful to non-archaeological food scholars who study the history of Black foodways in the context of American cuisines, as well as the descendent communities, especially Black women, who continue to carry on and reinvent African American culinary traditions (LaRoche and Blakey 1997). This goal is not without its challenges. First and foremost, none of the authors trace our own culinary histories to enslavement, nor are any of us trained as cooks. Second, archaeologists, particularly those of us who study foodways, have long struggled with the problem of moving from broken dishes, bones, and seeds to recipes, meals, and flavors. This is particularly the case for zooarchaeology, the study of animal remains from archaeological sites. A pig innominate (hip bone) with cut marks and burned edges can tell us that a young pig was roasted, but it cannot tell us where or for how long it was cooked, with what vegetables it was served, how it was seasoned, who ate it with whom, or what meaning that food held for those who raised, prepared, and consumed it. We also note that while animal remains are durable and abundant cuisine artifacts, meat is only one aspect of foodways, and is nearly always the minor contributor to human diet compared to plants. Nevertheless, zooarchaeological evidence provides a robust and direct window into the foodways of the past.

Plantation foodways and archaeology

Foodways, a term coined by folklorist James Anderson (1971), refers not just to the acquisition and consumption of foods, but to all aspects of how food is prepared, cooked, served, eaten, and conceptualized by members of a society. The study of foodways addresses not just the concrete aspects of subsistence strategies, but also the social meanings that foods hold in human lives. Archaeologists use the material remains of the past to understand how all aspects of human existence, such as social identities, socioeconomic status, and resource availability, impacted human foodways in the past.

The genesis of southern American foodways lies within the kitchens and around the hearths of slave plantations. Enslaved cooks, first African and then African American, brought African culinary traditions to the Americas. Enslaved cooks from Africa were already familiar with some ingredients they encountered in the South. Iberian colonialists and enslavers imported manioc (also known as cassava or yuca), sweet potatoes, and maize from the Americas to Africa during the early colonial period, adding to a menu of diverse foods imported from the Arabic world and Indonesia (Opie 2008, 4). The earliest Africans enslaved in North America also encountered indigenous, local foods that could substitute for African ingredients, and learned Native cooking techniques from Native American cooks. To these techniques and ingredients, enslaved cooks added European ingredients and methods, influenced by the English and French cuisines favored by white enslavers and English and other indentured servants. At the hands of enslaved Black cooks, a suite of uniquely American cuisines emerged out of the food traditions of three continents (Harris 1999, 2011; Mendes 1971; Opie 2008; Tipton-Martin 2014, 2015; Twitty 2017).

The best archaeological evidence for past foodways lies in the remains of plants and animals left behind in middens and hearths. Archaeobotanical remains are equally important to the understanding of cuisine practices and can reveal flavors via the

recovery of spices and seasonings, but are analyzed separately from animal remains. Animal remains, including bones, teeth, and shell, can tell us which species were consumed and in what proportions. We can also use zooarchaeological remains to explore the extent to which enslaved households exercised agency and relied on their own subsistence pursuits to supplement the rations supplied by white enslavers. Animal remains can also reveal the portions of carcasses or, less frequently, the cuts of meat consumed by members of enslaved communities. We can also use animal remains to tell us whether community members killed very young (and therefore tastier), or older, tougher animals. It is perhaps most difficult to assess the extent to which enslaved cooks were able to implement foodways that were in keeping with their own cultural preferences. Plantation foodways cannot fully represent the cultural values of Black communities in the absence of full control over their ingredients. Yet, we can assume that enslaved cooks strived to provide their families and communities with meals that were nutritious, safe, and flavorful, no matter the quality of the ingredients that were available to them. Members of enslaved communities exercised as much control over their foodways as was possible within the oppressive and exploitative systems of slavery.

Plantation zooarchaeology

In this study, we demonstrate the diversity of foodways within the enslaved community of Montpelier. However, a large body of research at plantation sites throughout the greater South points to some broad-brush commonalities. Pork and beef were the primary staple meats in the foodways of both enslaved people and their enslavers (Atkins 1993; Barber 1976; Bowen 1993; Bowen, Brown, and Andrews 1998; Breitburg 1976; Brown 2000; Crader 1984, 1990; Fradkin 1980; McKee 1987; Miller 1979; Tuma 1998), although the proportions vary considerably from site to site, and there are some notable exceptions to this pattern (Schweitzer 2014).

Enslavers designed rations to provide basic nutritional adequacy at a minimum cost. Rations focused on providing adequate bulk nutrients like proteins and carbohydrates, rather than providing the optimal proportions of vitamins and minerals necessary for good health. Rations were often tied to the ages, genders, and occupations of enslaved household members (McKee 1999, 226; Singleton 1992). Corn and pork dominated slave rations on North American plantations (Chambers 2005; McKee 1999, 221–222). These provisions included lower-quality cuts of meat than were consumed by white enslavers. At Thomas Jefferson's Monticello, remains from a slave dwelling (the Store House) and a dry well that was filled with refuse from the Jefferson family table contained distinct patterns of meat consumption (Crader 1984, 1990). While both communities consumed a great deal of pork, the enslaved household consumed lower-quality cuts of meat than were served in the mansion's dining room. Monticello also provides evidence of differential access *within* the enslaved community. Somewhat higher quality meats were recovered from Building "o," a slave dwelling on Mulberry Row, hinting at differential access to quality foods among enslaved households. Salted herring and other fish were also common in slave rations prior to the nineteenth century (Chambers 2005, 166–167).

Enslaved communities supplemented their rations with their own subsistence pursuits, exercising agency within an oppressive system (Crader 1990; Fradkin 1980;

Franklin 2020; Harris 2011; Heath 1999; Heath and Bennett 2000; Opie 2008). Enslaved households maintained gardens, hunted and gathered wild foods, and those with marketable skills could earn income with which they could purchase their own ingredients. At George Washington's Mount Vernon plantation, wild game remains, particularly fish, were quite common in the assemblage from the cellar of the "House for Families" (Bowen 1993). The high proportion of fish remains reflects the locally-caught herring used as rations for the enslaved residents of the House for Families. The community members who lived in the House for Families further supplemented their rations with wild game meat from deer, fowl, small mammals, and turtles.

The organization of enslaved laborers at plantations also structured access to wild game. In "task-oriented" labor systems, slaves were given individual tasks to perform, allowing "free" time once those assigned tasks were completed. In "gang-style" labor systems, enslaved people were forced to work set hours (usually sunrise to sunset), allowing little to no time for individual subsistence pursuits. In a review of archaeological evidence from plantation sites along the southern Atlantic coast, Reitz, Gibbs, and Rathbun (1985) found that task-oriented work systems allowed slaves more time to pursue their own subsistence activities, reflected in higher numbers of wild game species, than was possible for the enslaved people who labored under the gang system. Reitz and colleagues also found that enslavers and their free overseers often consumed more wild foods than did those they enslaved. These patterns are not consistent everywhere, however. At coastal sugar plantations, which operated using gang-style labor, enslaved people often supplied a large portion of the protein via maritime resources (Wallman 2017, 2018).

The body of research to date highlights both the commonalities and the diversity of foodways at slave plantations across the American South. What is less clear is how foodways varied *within* enslaved Black communities at plantations. Skilled and specialized workers more often labored under task-oriented systems that may have allowed them more free time for their own subsistence pursuits. Enslaved field hands were often expected to work all day in agricultural fields in a gang-based work regime and likely had the least control over their foodways. It is reasonable to expect that they were more dependent upon rations than others. However, access to agricultural fields and more natural spaces during their labors may have permitted more opportunistic hunting of small game. Those enslaved in domestic contexts, who worked in closest quarters to their enslavers, likely had the greatest access to the foods consumed by their white enslavers, but the expectation that they were always at the beck and call of their enslavers likely left little time for extramural subsistence pursuits. Occasionally, enslaved men accompanied enslavers on hunting forays, as occurred at Montpelier; they may have received a portion of the game meat that resulted from this activity.

Recent archaeological investigations at James Madison's Montpelier explored archaeological assemblages associated with the members of three distinct slave communities who likely worked under very different systems of labor organization, including field, skilled, and domestic workers. This research at Montpelier provides an opportunity to explore the diversity of African American foodways on plantations as structured by labor organization, time, and access.

Documentary evidence of slavery and foodways at Montpelier

Montpelier was the lifelong home of President James Madison, Jr., the fourth president of the United States, and "Father of the Constitution." He was also a slave owner, enslaving over 100 men, women, and children at his plantation at any given time. Madison spoke of the evils of slavery (Ketcham 2009, 38–47), yet enshrined the practice of slavery in the U.S. Constitution in no less than five separate provisions, all without ever mentioning the word. He never freed any of the people he enslaved (Ketcham 2009, 46–47).

Montpelier is located approximately 90 miles south of Washington, DC, just outside of Orange, Virginia. Over 300 women, men, and children were enslaved by the Madison family at Montpelier throughout its history. Some were likely descended from the small group of enslaved Africans brought in 1723 by Madison's grandfather, Ambrose, to clear land that was taken from the Monacan and Mannahoac people (Montpelier Foundation 2017, 13). Ambrose Madison oversaw the construction of the first Madison home on the land, called Mt. Pleasant. The future president was born in 1751 and inherited the plantation from his father, James Madison, Sr., in 1801. When James Madison, Jr. died in 1836, leaving behind significant debts, his bills came due on the lives of the 110 people enslaved at Montpelier. His widow, Dolley, and her son John Payne Todd sold many people away, scattering families and communities across the South (Ketcham 2009, 178).

Reconstructing the emergence of American food traditions in the kitchens and outbuildings of slave plantations is hampered in part by a dearth of written documentation by and about enslaved cooks and cookery. Documentary evidence is unfortunately even scarcer at Montpelier because most of the personal papers of James Madison, Jr. were destroyed following his death (Ketcham 2009, 178). With this destruction went not just a trove of the words written by the fourth president, but presumably a wealth of information regarding the dozens of children, women, and men he enslaved.

Only a few names of enslaved cooks are known from remaining documents. Ailsey Payne served as a cook for the Madison family for thirty years, including during the 1824 visit of the Marquis de Lafayette (Unknown 1902). She was born around 1806 and died in the 1890s. A portion of an interview with Payne was published several years after her death. Two other women, Catherine Taylor and Ellen Stewart White, cooked for Dolley Madison after she relocated to Washington, DC in 1844 (Montpelier Foundation 2017). A cookbook published in 1904 contains two recipes attributed to enslaved cooks at Montpelier, including a chicken recipe by Ellen White – no doubt the same Ellen as above. Both Ellen and her mother, Sukey, were enslaved at Montpelier.

> How to Serve Chicken. Wash your chicken, dry with a nice clean cloth, put it in a tray of salt and water to cover ten minutes, dry it and salt and pepper and flour it well, throw it in a pan of hot lard, hot enough to make it a golden brown, when done lay it on a piece of very clean paper to absorb the grease. Throw off the top grease, put a handful of flour, stir to a brown, add to it a pint of stock, stir and strain, then put your chicken in and let it simmer slowly until the chicken gets soft; make a nice pot of mush, let it get cold, cut it and fry and serve with the chicken. Fry Jerusalem artichokes and let them simmer with the fricassee; this is also delicious.
>
> – Ellen White, Mrs. Madison's Cook. (Eustis and Herndon 2014 [1903])

The same cookbook contains a bouillon recipe referred to as "Bouillon a la James Madison," but the enslaved cook who created it is nameless – a prime example of the erasure and co-option of Black women's labor and knowledge referenced above.

> Bouillon a la James Madison. Two gallons of water, throw in every bone you have (ham bones are excellent), with three good sized carrots, three onions, celery, a can of tomatoes. Salt and pepper pod to taste. Simmer, closely covered, all day and all night. The next morning strain into a large bowl. If in a hurry set bowl in cold water, otherwise put in cellar or on ice. Remove the grease very carefully. Cut up fine, size of dice, three pounds of rump of beef, take two eggs and break them over the cut meat, yolk and white. Stir freely. Add celery, salt and pepper, pour the bouillon on it, settle it on the fire, stir until the froth rises. Skim off very carefully, strain off through a nice clean cloth or flannel. Set aside for use. When ready to serve, warm the quantity desired, throw in small pieces of celery, cover closely, throw a bunch of chervil and a glass of good sherry in the soup according to taste.
>
> – Cook, born in James Madison's family. (Eustis and Herndon 2014 [1903])

We also know the name of Winnie Stewart, who was enslaved at Montpelier and prepared food for John Payne Todd. Payne Todd wrote, "I rose & breakfasted on Cabbage fried, Coffee without sugar [having] none, & tea cornbread & butter & likewise part of a herring belonging to some unknown furnished by Winney" (Montpelier Foundation 2017, 50).

Very little is known of the type and quality of foods provided to the enslaved community by the Madisons as part of their rations. In a letter to his overseers in 1790, Madison wrote that rations for enslaved people included milk, cornmeal, and pork (Madison 1790; Montpelier Foundation 2017). Beer and whiskey were apparently also provided as part of rations for enslaved workers during harvest (Ketcham 2009, 22). During the Madisons' retirement period, a visitor observed that enslaved individuals "are scattered in little settlements over the farm and reside in distinct families and comfortable dwellings. Each family raise their own pigs and poultry, eat meat twice a day, and have meal, vegetables, milk and fruit without restriction" (Madisonian 1839; see Montpelier Foundation 2017).

It is clear that at least some enslaved families maintained their own gardens and small livestock, although it is unlikely that all enslaved people were afforded this privilege. Those who could, used personal gardens and small livestock to earn income. Writing about Sawney, an elderly man enslaved at Montpelier for his entire life, who labored in close quarters with the Madisons, Mary Cutts observed, "[h]e had his house and ground, where he raised his favorite vegetables, cabbages and sweet potatoes, as well as chickens and eggs, to be sold to 'Miss Dolley'" (Montpelier Foundation 2017, 41; see Cutts 1849–1856). Husbandry by enslaved households was also not limited to small livestock. In 1851, Winnie Stewart wrote to her husband Mathew "[w]e have two fine calves about three weeks old" (Montpelier Foundation 2017, 49). Winnie and Mathew, a courier who traveled frequently, were initially enslaved by the Madisons and then inherited by John Payne Todd sometime after 1844.

Archaeology at Montpelier

Excavations at Montpelier have been ongoing since the 1990s. The early years of archaeological investigations focused primarily on the first Madison home (Mt. Pleasant), and

the grounds surrounding the existing mansion. Zooarchaeological analyses from two contexts associated with the Madison household at Montpelier were recently published (Pavão-Zuckerman, Anderson, and Reeves 2018). The Northwest Yard assemblage, named for its location in relationship to the mansion, was deposited between 1797 and 1808, prior to Madison's presidential service. The Dining Room Midden (referred to as "Dolley's Midden" in previous publications) is a large midden located west and a little north of the mansion, just outside the formal grounds. Ceramic evidence indicates that the midden was deposited during the post-presidency period (1818–1836) and likely represents refuse from the kitchen and dining room of Dolley and James' wing of the mansion. Zooarchaeological research indicates that the Madisons consumed high quality cuts and frequently consumed animals before they reached their full body size, in keeping with elite consumption practices (Pavão-Zuckerman, Anderson, and Reeves 2018). The two midden assemblages also suggest a standardization of diet over time, likely due to increased visitation at the plantation following Madison's term as president. The Madisons apparently streamlined the plantation foodways in order to serve their many guests more efficiently. Interpreting these contexts is complex because although the animal remains reflect the diet of white enslavers, they are a tangible product of the labor, knowledge, and practices of enslaved cooks and laborers.

The last decade of excavations at Montpelier has focused primarily on the enslaved domestic spaces found across the plantation landscape, and primarily dating to the time after Madison's presidency, from 1818 to 1836. Documentary and archaeological evidence indicates that the enslaved community was divided into three primary living areas (Figure 1): the South Yard; the Stable Quarters ("Granny Milly's Cabin"); and the Field Quarter Complex (Reeves 2015). All three areas were excavated by the Montpelier Foundation's Archaeology Division, providing an exceptional opportunity to explore the diversity of African American foodways at the plantation. The physical location of these groups likely reflects at least to some extent the labor roles of enslaved people at Montpelier. For example, we expect that those who labored in the house with the Madison family were more likely to live in the nearby South Yard community, while those who labored in the agricultural fields were more likely to be housed in the Field Quarters Complex. However, we should also expect that there was movement between these living communities, especially through marriage. The enslaved community at Montpelier was relatively stable over a century, with multiple generations likely descended from the first enslaved laborers brought to Mount Pleasant.

The South Yard Complex

The South Yard Complex was home primarily to the domestic enslaved laborers and was comprised of three living quarters, two smokehouses, and an eighteenth-century kitchen. The South Yard inhabitants lived and worked in close proximity to the Madison family. Because the dwellings were situated within the Madison's formal grounds, the three living quarters were well-constructed using refined materials such as window glass, milled timbers, and masonry elements. All were built above ground – the northeastern dwelling on a brick foundation, the southeastern on a stone foundation, and the southwestern on a brick pier foundation. All six structures of the South Yard, including the kitchen and smokehouses, were built with wooden floors and whitewashed wood

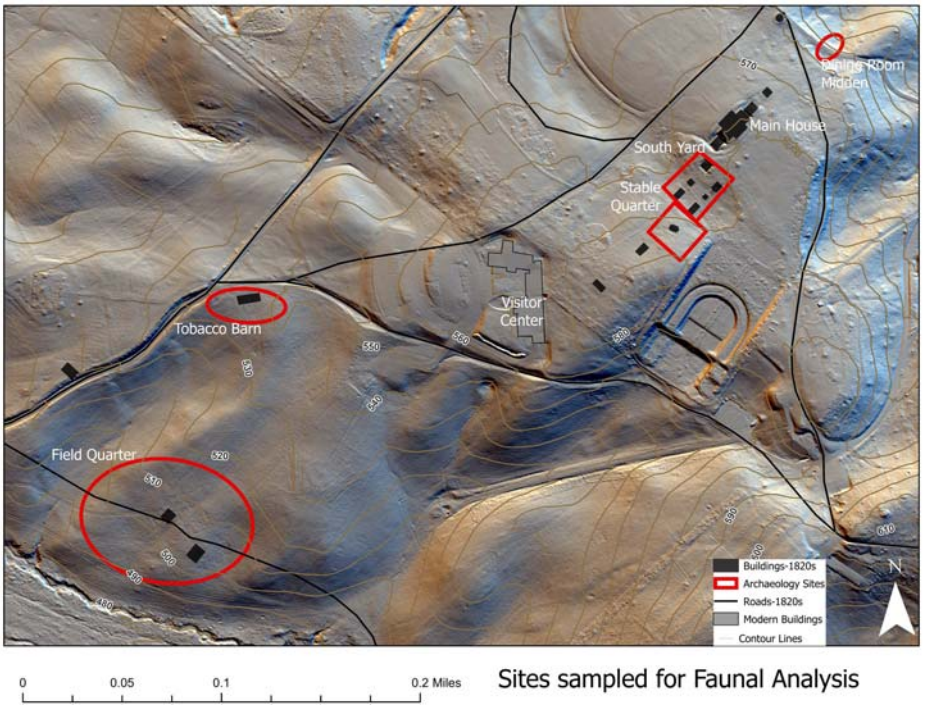

Figure 1. Map of Montpelier property with location of enslaved communities discussed in text. Image by Matthew Reeves.

siding. This is in contrast to other slave dwellings elsewhere on the property that were constructed directly on the ground with swept clay floors and clay-daubed log walls.

The dwelling excavated in the southeastern region of the South Yard contained a very large chimney and hearth in comparison to neighboring buildings. This evidence, paired with the greater numbers of cooking vessels found close by, suggests that enslaved individuals who lived in this dwelling cooked food for the larger South Yard community (Montpelier Foundation 2017, 100).

The Stable Quarters Complex

The Stable Quarters Complex consists of a stable and at least one slave quarter. The presence of the stable, and the Stable Quarter Complex's proximity to the terraced garden (located to the east) provides circumstantial evidence that the cabin was occupied by skilled laborers who worked in the garden or stable and played more specialized roles within the plantation community. The location of the Stable Quarter, however, closely aligns with the location of "Granny Milly's cabin," a building described in documents as having been occupied by an elderly enslaved woman known as Granny Milly. General Lafayette visited Granny Milly at Montpelier in 1825. At the time, she was 104 and lived with her daughter and granddaughter. Mary Cutts, Dolley Madison's niece, observed that the three women "were all at rest retired from their labors" (Cutts 1849–1856). Cutts also noted that "Madison's [many] relatives, who would save part

of their luxurious breakfasts take, themselves to those good old people and return with the gift of a potato or fresh egg," suggesting that the women were afforded higher status within the plantation community. Although historical accounts of Granny Milly by white observers paint far too rosy a picture of the life of an elderly woman who spent over a century in bondage, they do suggest that Granny Milly exercised considerable agency in negotiating a position of relative power for herself, her daughter, and her granddaughter. Lafayette was one of many Madison guests and family members who paid their respects to Granny Milly, often bringing gifts of food. This cabin, located to the north of the formal grounds, was constructed quite differently from the quarters built in view of the mansion. Built of logs with evidence for a log chimney, this structure typified the architecture of much of the housing of enslaved communities in Virginia.

The Field Quarter Complex

The Field Quarter Complex, located west of the main plantation complex, is referred to in documents as the Home Farm Quarter. This complex of buildings includes an overseer's house, blacksmith shop, various barns (including a tobacco barn), work sheds, and several slave quarters. The Home Farm's three dwellings for enslaved workers were identified archaeologically by the presence of sub-floor pits, and associated clay borrow pits. These three dwellings, referred to as the Field Quarters, likely housed enslaved field workers and perhaps workers associated with the blacksmithing enterprise that was relocated to the Home Farm after 1810. Archaeological excavations in what had been a tobacco barn, located on the other side of a large field from the Field Quarters, revealed a central hearth used for cooking, as well as a borrow pit filled with domestic trash. These features suggest that the barn was used temporarily as winter housing for enslaved field laborers (Trickett 2010). The enslaved laborers housed in the Tobacco Barn likely occupied a position of lower status within the enslaved community. Because the Tobacco Barn was not a permanent dwelling, we consider the assemblage separately from the more permanent Field Quarter dwellings.

Zooarchaeological methods

The zooarchaeological assemblages discussed here were excavated by the Montpelier's Archaeology Division from 2010 to 2017, using a combination of one-quarter-inch mesh dry-sieving and 0.25 mm water screening (Brock 2016). Students at the University of Arizona and the University of Maryland completed these analyses under the direction and supervision of co-author Barnet Pavão-Zuckerman. The Stable Quarter assemblage was identified by Marybeth Harte (2012), Chance Copperstone (2014), and Nicole Mathwich using the zooarchaeological comparative collections housed in the Arizona State Museum (University of Arizona). Copperstone also studied materials from the Tobacco Barn, Field Quarters, and South Yard. Additional materials from the South Yard assemblage, including a large bone concentration recovered from household middens extending between two smokehouses, were analysed by Scott Oliver (2017) at the University of Maryland's Zooarchaeology Laboratory. Materials from the South Yard analysed by Copperstone and Oliver are combined for presentation below.

All faunal remains were identified to taxa of origin and anatomical position using standard zooarchaeological methods (Reitz and Wing 2008). Unknown mammal specimens are sorted into body-size categories: small (rodent to rabbit-sized), medium (dogs to sheep), and large (cattle to horse). Several other primary data classes are also recorded, including element, element portion, and symmetry (left versus right). All specimens are weighed to provide additional information about the relative abundance of the taxa identified.

The tables below use several common zooarchaeological indices. The number of identified specimens (NISP) is heavily influenced by fragmentation and body size. The minimum number of individuals (MNI) is the minimum number necessary to account for a given assemblage of bone fragments. Estimation of MNI is based on the identification of paired elements (lefts and rights), and observations for age at death. Biomass, a derivation of bone weight based on the principle of allometry, is employed as a *proxy* for meat weight (Reitz and Cordier 1983; Reitz et al. 1987). The minimum number of elements (MNE) and its derivation, MAU (Minimum Animal Unit), are used here to facilitate observation of carcass apportioning. MNEs were estimated for axial elements and the articular ends and shafts of appendicular elements using visual observations, age at death, and diagnostic features. MAU is calculated by dividing MNE by the number of times that element appears in a complete skeleton, allowing for comparison between taxa with different numbers of skeletal elements (Binford and Bertram 1977; Lyman 1994).

We use the Shannon-Weaver Index to estimate taxonomic diversity, on a scale of one to five (Pielou 1966; Shannon and Weaver 1949). Equitability values indicate whether species are equally or unequally abundant in an assemblage (Pielou 1966; Sheldon 1969). Low equitability values (on a scale of zero to one) generally indicate that one species is more abundant than others.

Some animals recovered in archaeological sites were likely not consumed by people. Humans cohabitate, willingly or not, with many species of animals that are not routinely eaten. These non-food animals are often referred to as "commensal" animals – indicating their common association with humans without having played a role at the dinner table. In the accompanying tables, commensal taxa are identified by an asterisk.

In the figures, species are summarized into faunal categories based on taxonomic Class and domestication status. Commensal taxa are listed in the species list but are excluded in the summary graphs and diversity calculations. To make comparisons of MNI and biomass estimates possible, the summary tables include biomass estimates only for those taxa for which MNI is estimated.

The presence or absence of skeletal elements in archaeological assemblages can shed light on butchering practices and carcass apportioning. Artiodactyl remains (cattle, swine, caprine, and deer) from Montpelier are summarized by body portion. Head elements include crania, antlers, and teeth. Forequarter elements include scapula, humerus, radius, and ulna. Forefoot includes carpals and metacarpals, while Hindfoot includes tarsals and metatarsals. The Hindquarter category includes innominates, sacrum, femora, and tibiae. The Foot category includes metapodials, podials, sesamoids, and phalanges that could otherwise not be assigned to the front or back leg. Food utility indices (FUI) were derived for pig remains to further elucidate any patterns in the

representation of higher or lower quality carcass portions (Binford 1978, 72–78; Metcalfe and Jones 1988). Food utility indices assign numerical scores to carcass portions based on the amount of usable tissue (meat, marrow, and bone grease) and are presented graphically to facilitate comparison between assemblages.

Age at death for artiodactyls was estimated based on observations of tooth eruption and epiphyseal fusion (Gilbert 1973; Purdue 1983; Schmid 1972; Severinghaus 1949; Silver 1969). Unfused elements in the early-fusing category are interpreted as evidence for juveniles; unfused elements in the middle-fusing and late-fusing categories are usually interpreted as evidence for subadults, and fused specimens in the late-fusing group provide evidence for adults. Fused specimens in the early- and middle-fusing groups are indeterminate as to age.

Modifications can indicate butchering methods as well as site formation processes. Burning occurs when specimens are exposed to fire. Cuts are visible as small incisions across the bone surface and are usually made by knives during flesh removal. Hack marks often occur during primary dismemberment and butchery prior to cooking, especially when heavy tools such as axes and cleavers are used. Carnivore gnawing, most often by dogs, leaves behind tell-tale pits, and drag marks on the surface of the bone that are often clustered near the articular ends of long bones (Kent 1981). Rodent gnawing is visible in patches of parallel grooves distributed across the bone surface. Gnawing by carnivores and rodents can remove or rearrange an unknown quantity of bone from archaeological assemblages.

The quantitative indices employed here all have inherent biases that are well known to zooarchaeologists (Grayson 1984; Lyman 2008). To compensate for these limitations, we use multiple indices in concert and, whenever appropriate, present data as percentages to facilitate comparison between assemblages of varying sizes.

Zooarchaeological evidence

The zooarchaeological assemblages excavated from Montpelier are fragmentary but otherwise well-preserved, with little evidence of substantial post-mortem modification by chemical or biological agents. Evidence for rodent and carnivore gnawing is rare in the assemblages, suggesting that animal remains were buried relatively quickly after deposition. The recovery of numerous fish, rodent, and bird remains also speaks to good preservation and recovery. However, as with any zooarchaeological assemblage, taphonomic factors seen and unseen are responsible for removing, relocating, or altering unknown quantities of bone.

The zooarchaeological assemblages discussed here vary greatly in sample size, which can affect our ability to directly compare assemblages, but the summary tables below present the data in percentages to facilitate comparison. The largest assemblage of faunal remains (by NISP) was recovered from the Field Quarter portion of the field complex (NISP = 30,438). The Tobacco Barn assemblage, which was also part of the field complex, was much smaller (NISP = 4,978), likely because the barn was used only temporarily as quarters for enslaved field workers. The Stable Quarter, which likely housed Granny Milly's family, or possibly other skilled workers, is the second largest (NISP = 26,781). The smallest assemblage is the South Yard (NISP = 4,555).

The South Yard

The South Yard assemblage encompasses faunal remains deposited during the "retirement years" (1818 to 1836) following James Jr. and Dolley's return to Montpelier after his service as president. The artifacts associated with the South Yard were in an area approximately 100 yards from the southern wing of the Montpelier mansion. Over 30,000 zooarchaeological specimens were recovered from the South Yard, 4,555 of which were identified for this project. Future work will focus on the analysis of the remaining South Yard assemblages. Of the sample studied to date, 3,484 specimens were identified to taxonomic Class or below (Table 1). The South Yard remains were densely concentrated in three main areas: south of the Western Smokehouse; in the yard between the two structures; and in the northeast corner of the Eastern Smokehouse. The South Yard assemblage is not as large as the other assemblages but is moderately diverse (Table 2). Domestic species dominate the assemblage, comprising nearly 70% of the total MNI (Figure 2) and 99% of the total biomass of the assemblage. Swine are the most numerous domesticated animal present, with cattle, sheep/goat, and chicken found in fewer numbers. Wild species include duck, squirrel, mink, and white-tailed deer. Horse remains are uncommon and are assigned to the commensal category (along with an isolated human tooth) and these remains are excluded from the summary figures.

Pig representation is primarily from the foot and head, representing lower utility portions (Figure 3). This is partially due to an overrepresentation of teeth, as tooth enamel is more durable than bone. Approximately one third of the entire South Yard assemblage exhibits burning, comparable to domestic trash deposits recovered from the Field Quarter discussed below. Butchering marks are infrequent, and insufficient for detailed interpretations of the preparation of meat cuts. Age related information is limited in the South Yard due to a high degree of fragmentation (Table 3), but two unfused late-fusing swine specimens were identified, indicating the presence of animals younger than 36–42 months. While these could have been from fully mature individuals, the presence of an unfused proximal second phalanx and two deciduous teeth indicate the presence of younger animals.

The Stable Quarters

The Stable Quarter, home to enslaved skilled laborers at Montpelier, is the second largest zooarchaeological assemblage discussed here (Copperstone 2014). Although domesticated mammals dominate the assemblage in terms of biomass, the MNI values for wild game, particularly wild mammals and fish, are very high, contributing to the highest total MNI of all assemblages presented here (Table 1). Nearly two-thirds of the total MNI of the Stable Quarters assemblage is comprised of wild game (Figure 4), and this assemblage is the most diverse assemblage discussed here (Table 2). A variety of wild game are present in the Stable Quarters, from fishes including catfish, minnows, suckers, and sunfish, to turtles, game birds including duck and turkey, and small wild mammals including opossum, rabbit, woodchuck, squirrel, and raccoon. Herrings are included in the "fishes" category, and are technically wild game, but were likely preserved (salted), and provided to the enslaved people at Montpelier as part of their

Table 1. Montpelier, South Yard and Stable Quarter: Zooarchaeological Species List.

	South Yard				Stable Quarter			
Taxa	NISP	MNI	Wt. (g)	Biom. (kg)	NISP	MNI	Wt. (g)	Biom. (kg)
Invertebrate shell Shell					61		4	na
Crassotrea virginica Eastern Oyster	190	2	239.80		17	1	14.2	0.002
Osteichthyes Indeterminate bony fish	2	1	0.00	0.000	1747		10.75	0.202
Clupeidae Herring, shads and sardines					407	6	6.6	0.136
Ictaluridae North American Catfishes					6	1	0.6	0.020
Cyprinidae Carps and Minnows					1	1	0.1	0.005
Catostomidae Suckers					3	1	0.5	0.017
Centrarchidae Sunfishes					6	1	0.9	0.027
Anura* Frogs and toads					1	1	0.01	na
Reptilia Reptiles					8		0.4	0.005
Testudines Turtles					28		3.68	0.051
Chelydra sp. Snapping turtles					21	2	5.6	0.079
Pseudemys concinna River cooter					4	1	2.03	0.028
Terrapene carolina Box turtle					3	1	3.7	0.052
Colubridae Colubrid snakes					2	1	0.1	0.001
Aves Indeterminate bird	12		1.77	0.034	169		3.4	0.062
Aves Small Bird	3			0.000	17		2.1	0.040
Aves Medium Bird	5		1.00	0.022	31		6.96	0.119
Aves Large Bird	1		0.70	0.016	12		5.4	0.095
Anas sp. Marsh duck	3	1	1.06	0.022	2	1	1.66	0.032
Galliformes Fowl-like birds					3		0.68	0.014
Gallus gallus Domestic chicken	9	1	3.66	0.066	28	4	26.02	0.396
Meleagris gallopavo Turkey					5	1	6.21	0.108
Columbiformes Pigeons and Doves					5		0.52	0.011
Zenaida macroura Mourning Dove					1	1	0.17	0.004
Corvidae Ravens, Crows, Magpies and Jays					1	1	0.39	0.009
Mammalia Indeterminate mammal	1602		1334.50	17.092	2991		587.99	8.174
Mammalia Small mammal	16		3.80	0.087	86		19.85	0.387
Mammalia Small or medium mammal	36			0.000	21		20.14	31.558

(*Continued*)

Table 1. Continued.

	South Yard				Stable Quarter			
Taxa	NISP	MNI	Wt. (g)	Biom. (kg)	NISP	MNI	Wt. (g)	Biom. (kg)
Mammalia Medium mammal	883		713.40	9.728	4764		2637.67	8.017
Mammalia Medium/Large mammal	303		378.10	5.494	828		575.4	8.017
Mammalia Large mammal					177		988.42	13.046
Mammalia (ungulate) Body size unknown	90			0.000	4		2.44	0.059
Mammalia (ungulate) Small ungulate	24			0.000	45		91.39	1.530
Mammalia (ungulate) Large ungulate					6		24.57	0.469
Didelphis virginiana Opossum					1	1	0.9	0.024
Leporidae Hares and Rabbits					1		0.2	0.006
Caprinae Sheep/goat	44	4	228.28	3.488	305	4	944.9	12.527
*Equus caballus** Horse	3	1	104.48	1.726	11	1	139.27	2.236
*Homo sapiens** Human	1	1	1.85	0.046				
Vertebrata Indeterminate vertebrate	878		23.00		13,217		771.58	
Class Mammalia/Class Bird Mammal or bird					324		219.76	
Total	4555	32	5487.83	69.653	26,781	54	10,839.92	134.417

*Commensal taxa.

Table 2. Montpelier: Diversity and Equitability Indices (excluding commensals).

	Stable quarter	South yard	Tobacco barn	Field quarter	Dolley midden
MNI	48	29	18	26	33
# of Taxa	26	11	12	11	10
Diversity (MNI)	2.95	2	2.32	2.09	1.58
Equitability (MNI)	0.91	0.83	0.9	0.87	0.69

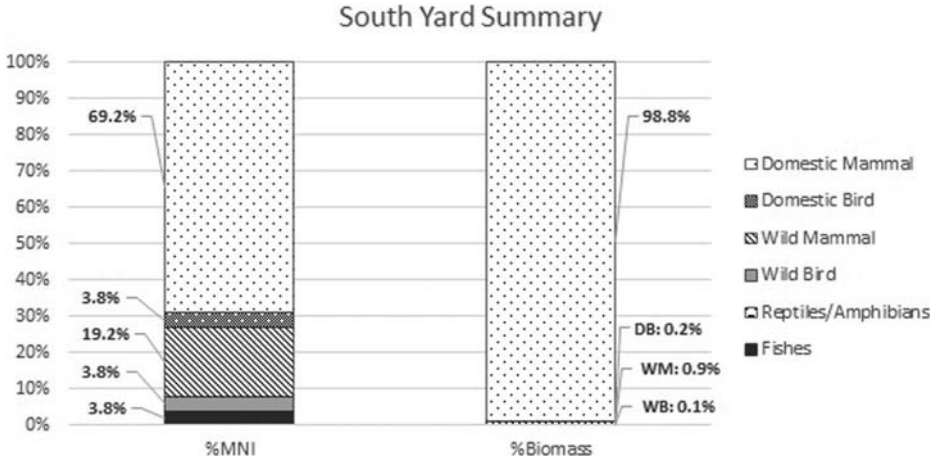

Figure 2. Proportional representation of species categories excluding commensal taxa by MNI and Biomass, South Yard.

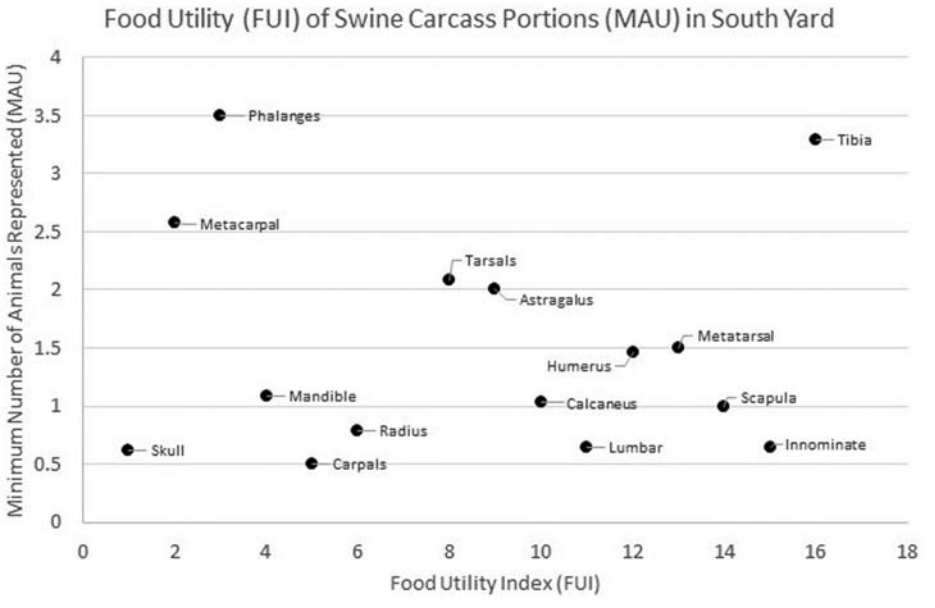

Figure 3. Food utility and minimum number of swine individuals represented by skeletal elements in the South Yard assemblage.

Table 3. Montpelier, South Yard: Epiphyseal Fusion (NISP) for Pig (*Sus scrofa*)*

	Unfused	Fused	Partially fused	Total	Fusion Age in Months
Early Fusing:					
Phalanx 1, proximal		3	1	4	24
Phalanx 2, Proximal		1	1	2	12
Middle Fusing:					
Tibia, distal					30
Metapodials, distal		5		5	24–27
Late Fusing:					
Ulna	1			1	36–42
Tibia, proximal	1			1	42
Total	2	9	2	13	

*Fusion data from Reitz and Wing (2008, 72).

rations. Herrings were locally caught at Mount Vernon (Bowen 1993), but Montpelier is far from the fish's natural habitat. These fish were no doubt harvested on the coast, salted, and shipped overland to Montpelier. As in the South Yard, the Stable Quarter swine assemblage is dominated by less meaty head and foot parts (Figure 5). Many fish scales were recovered, indicating that whole fish were processed at the Stable Quarter (Copperstone 2014, 77). Skeletal element recovery patterns for other small game, including turtles and wild mammals, likewise indicate that smaller animals were brought to the Stable Quarter whole and butchered on site, leaving behind elements from the head and across the post-crania. Information regarding age-at-death was not abundant for cattle or caprines (sheep or goats), but it appears that a majority of swine consumed by the household living in the Stable Quarter were subadult at death, indicating that the animals were killed before full maturity (Table 4). While several very young animals were recovered,

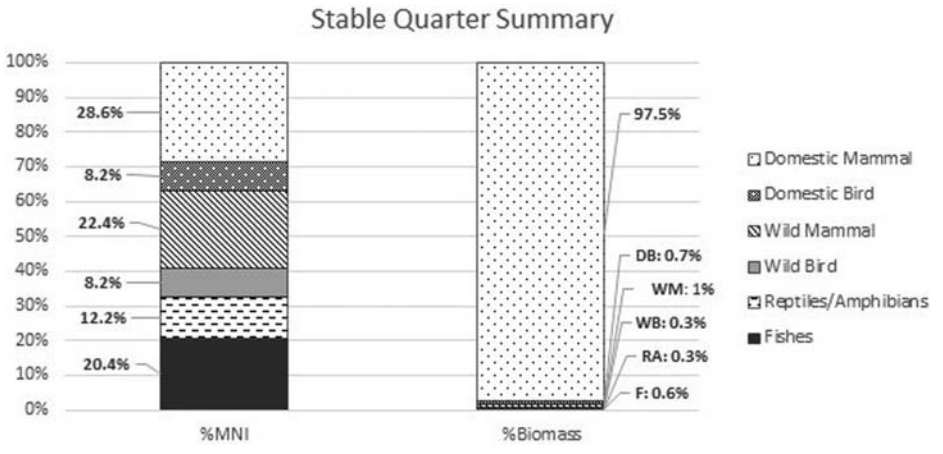

Figure 4. Proportional representation of species categories excluding commensal taxa by MNI and Biomass, Stable Quarter.

very few older adult swine were identified. About one fifth of the Stable Quarter assemblage was burned. Although butchering marks are infrequent throughout the assemblage, one cut mark, on a single horse carpal, is worth noting. Horses are rare in the Montpelier assemblages, and are unlikely to have been consumed. The cut mark is not in a location associated with large muscle attachments that would indicate meat removal, and its intention is unclear.

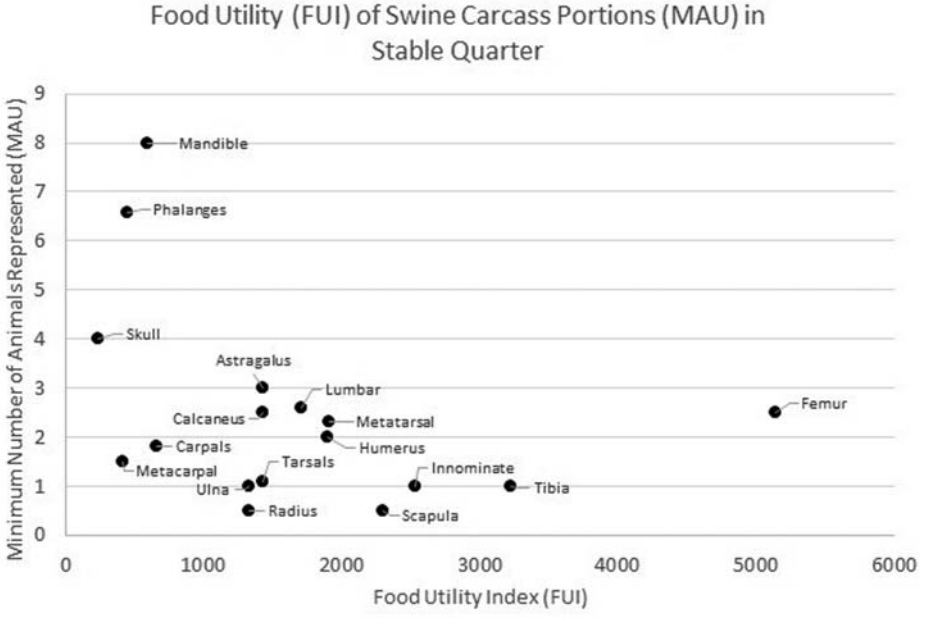

Figure 5. Food utility and minimum number of swine individuals represented by skeletal elements in the Stable Quarter assemblage.

Table 4. Montpelier, Stable Quarter: Epiphyseal Fusion (NISP) for Pig (*Sus scrofa*).

	Unfused	Fused	Total	Fusion Age in Months
Early Fusing:				
Humerus, distal		2	2	12–18
Radius, proximal	1	5	6	12
Metapodials, proximal	5	8	13	Fused before/near birth
1st/2nd phalanx, proximal	20	34	54	12–24
Middle Fusing:				
Tibia, distal	4		4	24
Calcaneus, proximal	3		3	24–30
Metapodials, distal	14	2	16	24–27
Late Fusing:				
Humerus, proximal	4		4	42
Radius, distal	5		5	42
Ulna, proximal	1		1	36–42
Femur, proximal	2		2	42
Tibia, proximal		1	1	42
Total	59	52	111	

The Field Quarters

The Field Quarters, including three dwellings that together with the Tobacco Barn comprise the Field Quarters Complex housing enslaved field workers, is the largest assemblage discussed here, with over 30,000 specimens identified (Table 5). Although the assemblage is dominated by domesticated animals by biomass, approximately one third of the individuals identified are wild game species, including woodchuck, cottontail, jackrabbit, opossum, herring, turtles, and oysters (Figure 6). The Field Quarter assemblage is moderately diverse, and similar to the diversity of the South Yard (Table 2). As in the Stable Quarter, it appears that whole carcasses of fish and small wild game were present, as evidenced by the presence of fish scales and head elements. As noted above, herring were not locally caught. They were likely imported preserved as part of the rations for the enslaved community. Pigs from all age groups are represented, including young animals (Table 6). Cranial elements are well represented in the Field Quarter assemblage, with lower representation of less meaty portions (Figure 7). Approximately one third of the assemblage was burned, and butchering marks are infrequent.

The Tobacco Barn

The Tobacco Barn assemblage was excavated from a former agricultural building used as temporary housing for enslaved field workers. The barn was part of the field complex but is presented separately from the Field Quarters because it was used only temporarily as quarters for enslaved field workers. The assemblage is small, with just under 5,000 specimens, the majority of which were not identifiable to Class or below (Table 5). As in the other assemblages, a majority of the total biomass was contributed by domesticated animals, but wild animals contribute roughly half of the total MNI of the assemblage (Figure 8). The Tobacco Barn assemblage is moderately diverse, but not as diverse as the Stable Quarter assemblage. Wild game include imported oysters and herring, turtles, hares and rabbits, squirrels, woodchuck, skunk, and raccoon. Skeletal element portion recoveries are hampered by the small sample size, but as in other

Table 5. Montpelier, Field Quarter and Tobacco Barn: Zooarchaeological Species List.

	Field Quarter				Tobacco Barn			
Taxa	NISP	MNI	Wt. (g)	Biom. (kg)	NISP	MNI	Wt. (g)	Biom. (kg)
Invertebrate shell Shell	46		15.40	na	12		1.30	na
Helicidae* Land snails	4		1.08	na				
Crassotrea virginica Eastern Oyster	85	4	381.58	0.054	29	1	17.80	0.003
Osteichthyes Indeterminate bony fish	276		2.42	0.060	5		0.20	0.008
Clupeidae Herring, shads and sardines	55	1	0.86	0.026	2	1	0.00	0.000
Reptilia Reptiles	3		0.30	0.004				0.000
Testudines Turtles	12	1	9.61	0.136	1		1.10	0.015
Chelydra sp. Snapping turtles				0.000	4	1	1.30	0.018
Colubridae Colubrid snakes				0.000	3	1	0.30	0.004
Aves Indeterminate bird	60		0.37	0.008	49		0.30	0.007
Aves Small Bird	3		0.17	0.004				0.000
Aves Medium Bird	33		7.97	0.135	2		0.30	0.007
Gallus gallus Domestic chicken	24	2	10.46	0.173	7	1	8.30	0.140
Mammalia Indeterminate mammal	7897		681.28	9.333	837		139.70	2.242
Mammalia Small mammal	158		16.71	0.332	175		15.80	0.315
Mammalia Small or medium mammal	1		0.34	0.010				
Mammalia Medium mammal	6479		3270.34	38.296	692		544.80	7.632
Mammalia Medium/Large mammal	97		110.20	1.811	75		176.20	2.763
Mammalia Large mammal	67		362.51	5.289	10		66.80	1.154
Mammalia (ungulate) Small ungulate	408		752.03	10.201				
Mammalia (ungulate) Large ungulate	95		990.41	13.069				
Didelphis marsupialis Opossum	3	1	1.50	0.038				
Scalopinae* New World Moles	27		0.67	0.018				
*Scalopus aquaticus** Eastern Mole	1	1	0.29	0.009				
Leporidae Hares and Rabbits	2		1.43	0.036				
Lepus sp. Hares and jackrabbits	3	1	1.30	0.033	1	1	0.10	0.003
Sylvilagus sp. Cottontails	24	2	7.11	0.154	4	1	2.70	0.064
Rodentia* Rodents	48		5.80	0.128	17		1.30	0.033
Muridae (Arvicolinae) * Arvicoline Rodents	3	1	0.07	0.002	3	1	0.40	0.012

(*Continued*)

Table 5. Continued.

Taxa	Field Quarter				Tobacco Barn			
	NISP	MNI	Wt. (g)	Biom. (kg)	NISP	MNI	Wt. (g)	Biom. (kg)
Muridae (Murinae) * Old World Rats and Mice	1	1	0.00	0.000				
Muridae (Sigmodontinae) * New World Rats and Mice	4	1	0.06	0.002				
Peromyscus sp. * White-footed mice	1	1	0.00	0.000	1	1	0.60	0.017
Sciuridae Squirrels	1		0.70	0.019				
Marmota monax Woodchuck	7	1	3.78	0.087	2	1	0.90	0.024
Mephitidae Skunks	1	1	0.00	0.000				
Mephitis mephitis Striped skunk					2	1	1.10	0.029
Procyon lotor Raccoon					1	1	3.10	0.073
*Felis catus** Domestic cat	1	1	0.15	0.005				
Artiodactyla Even-toed ungulate	271		114.43	1.874	2		1.20	0.031
Sus scrofa Domestic pig	868	8	2216.75	26.987	115	4	321.70	4.750
Bos taurus Domestic cattle	185	4	4060.85	46.534	22	3	458.30	6.532
Caprinae Sheep/goat	73	4	443.04	6.336	50	2	289.80	4.324
*Equus caballus** Horse	3	1	523.51	7.363	1	1	4.30	0.098
Vertebrata Indeterminate vertebrate	12,726		363.84		2854		148.70	
Class Mammalia/Class Bird Mammal or bird	382		9.40					
Total	30,438	37	14,368.72	168.566	4,978	22	2,208.40	30.298

*Commensal taxa.

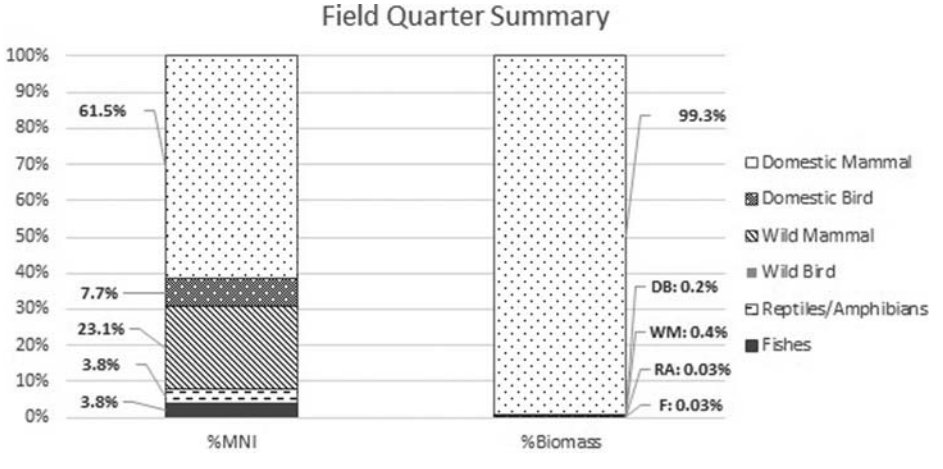

Figure 6. Proportional representation of species categories excluding commensal taxa by MNI and Biomass, Field Quarter.

Table 6. Montpelier, Field Quarter: Epiphyseal Fusion (NISP) for Pig (*Sus scrofa*).

	Unfused	Fused	Total	Fusion Age in Months
Early Fusing:				
Humerus, distal	2	4	6	12–18
Radius, proximal	1	2	3	12
Metapodials, proximal	2	1	3	Fused before/near birth
1st/2nd phalanx, proximal	1	4	5	12–24
Middle Fusing:				
Tibia, distal	2		2	24
Calcaneus, proximal		1	1	24–30
Metapodials, distal	1		1	24–27
Late Fusing:				
Radius, distal	1	3	4	42
Ulna, proximal	3	1	4	36–42
Femur, proximal	2		2	42
Femur, distal		1	1	42
Total	15	17	32	

contexts, it appears that most carcass portions were represented at the Tobacco Barn. The small size of the Tobacco Barn assemblage makes observation of skeletal portion recoveries difficult but, like the other assemblages, the assemblage is dominated by tooth fragments (Figure 9). Likewise, evidence for age at death is scarce in the Tobacco Barn assemblage, limiting our interpretations, but swine from a variety of ages were present in the assemblage (Table 7). As in the other assemblages, burning is the most common modification observed, with only a handful of butchery marks noted. A single horse tarsal with a cut mark was identified but, as in the Stable

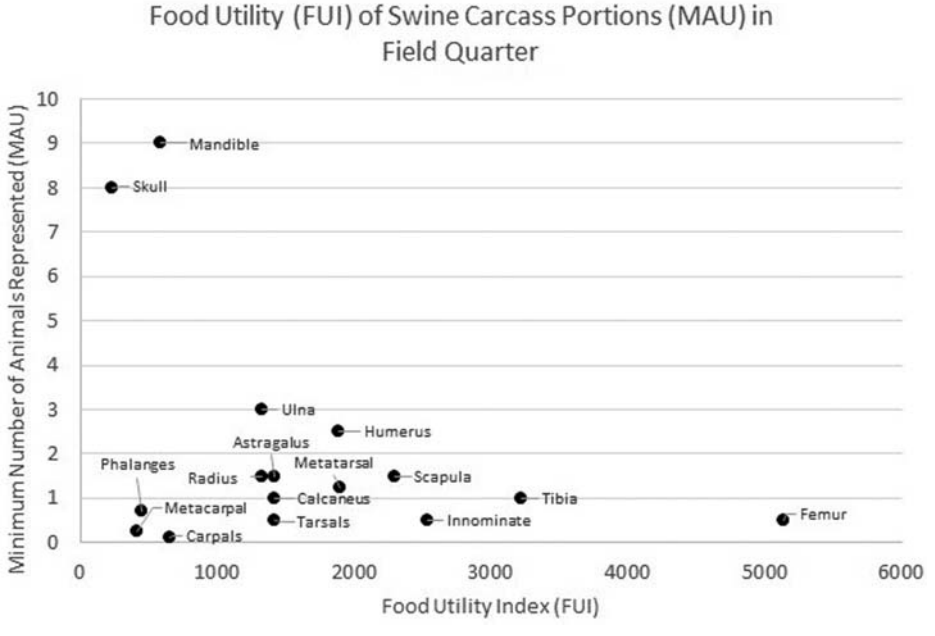

Figure 7. Food utility and minimum number of swine individuals represented by skeletal elements in the Field Quarter assemblage.

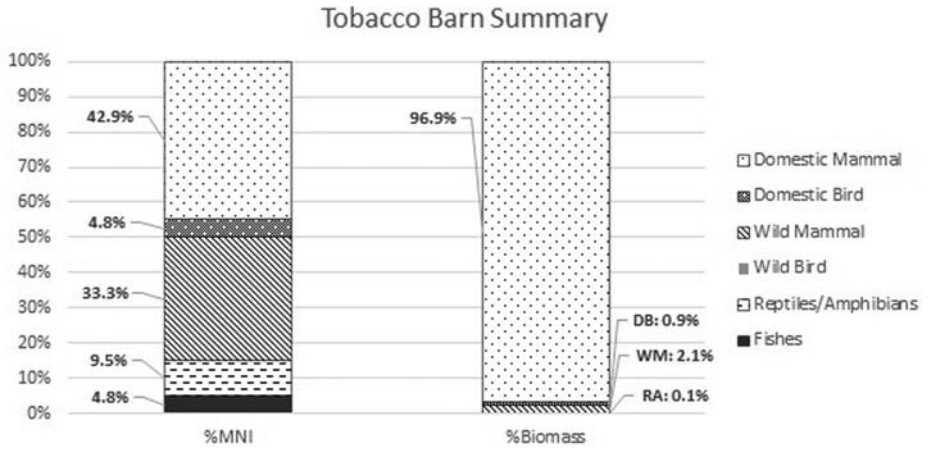

Figure 8. Proportional representation of species categories excluding commensal taxa by MNI and Biomass, Tobacco Barn.

Quarters, the cut mark is not in a location where meat would be removed, and the purpose of the cut mark is not clear.

Foodways within the Montpelier enslaved community

Although differences in sample sizes warrant cautious interpretation, similarities and dissimilarities in the foodways reflected in the zooarchaeological assemblages deposited by

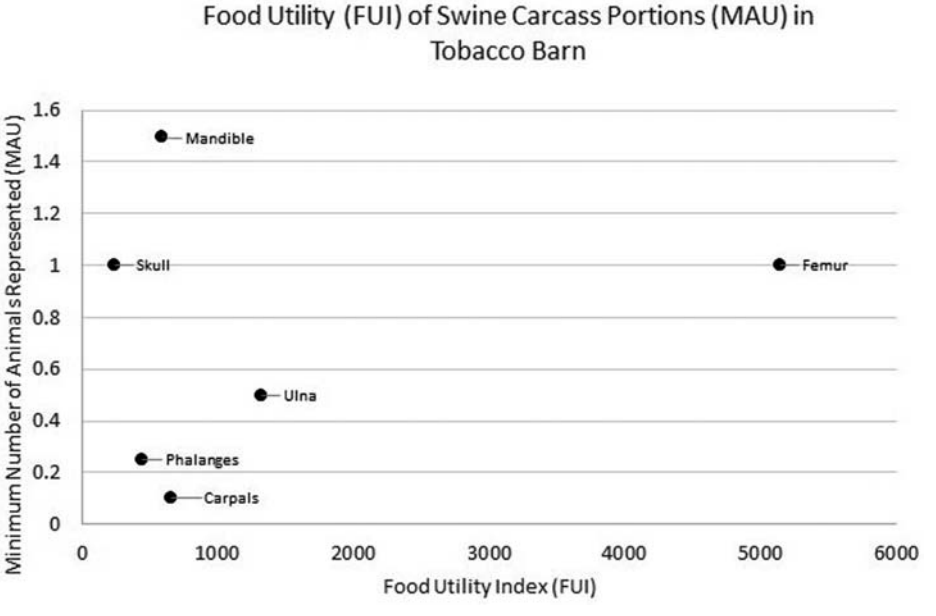

Figure 9. Food utility and minimum number of swine individuals represented by skeletal elements in the Tobacco Barn assemblage.

Table 7. Montpelier, Tobacco Barn Quarter: Epiphyseal Fusion (NISP) for Pig (*Sus scrofa*).

	Unfused	Fused	Total	Fusion Age in Months
Early Fusing:				
Metapodials, proximal	1		1	Fused before/near birth
1st/2nd phalanx, proximal		1	1	12–24
Middle Fusing:				
Tibia, distal	1	1	2	24
Total	2	2	4	

the enslaved communities at Montpelier are apparent. These patterns are particularly noticeable when the assemblages associated with the enslaved community at Montpelier are compared to previously published data associated with the Madison enslavers. The Dining Room (Dolley) Midden assemblage is particularly useful for comparison, as the time of deposition of this midden most closely matches the timing of the discarding of the zooarchaeological materials from the enslaved contexts discussed here.

Regardless of context, all animal bone assemblages at Montpelier are similar in the predominance of swine and cattle. Biomass estimates indicate that pork and beef were the mainstay of cuisines at Montpelier, for enslaved and enslaver alike. Although caprine (sheep or goat) and chicken remains are also ubiquitous, smaller livestock are far less abundant across all Montpelier assemblages, indicating that mutton/lamb and chicken were less often served. Chickens, however, were likely more significant than is suggested by the numbers of specimens present. Enslaved people, especially women, often raised chickens to supplement daily rations, and assert autonomy and power within the oppressive system of slavery (Williams-Forson 2006). Chickens had a long history of symbolic and religious importance in West Africa, meanings that no doubt influenced African descendants in the Americas (Opie 2008, 33). Chickens also produce eggs, which were likely equal, if not greater, in importance to domestic economies within enslaved communities. At Montpelier, visitors to Granny Milly often left with "the gift of a potato or fresh egg" (Cutts 1849–1856), and Sawney was known to sell chicken and eggs to the Madison household. The broad-scale pattern of the dominance of pork and beef, supplemented by chicken (and eggs), mutton, and wild game, holds across all Montpelier assemblages. However, a closer reading of the zooarchaeological data illuminates distinctive differences in the relative reliance on wild game species, and the relative quality of meats accessed by the enslaved communities.

Dietary diversity and reliance on wild game

Although all assemblages contain evidence for the contribution of wild game to foodways at Montpelier, estimates of dietary diversity vary between the assemblages (Table 2). The Stable Quarter assemblage is the most diverse assemblage presented here. The South Yard and Field Quarter are closely aligned in terms of both dietary diversity and equitability, with the Tobacco Barn falling in between the South Yard/Field Quarter, and the Stable Quarter. Interestingly, all the assemblages discussed here are more diverse than the previously published Dining Room (Dolley) Midden assemblage that includes refuse from the Madison dining table. Finer-scale patterns are visible in the proportional representation of wild game versus domesticated animals.

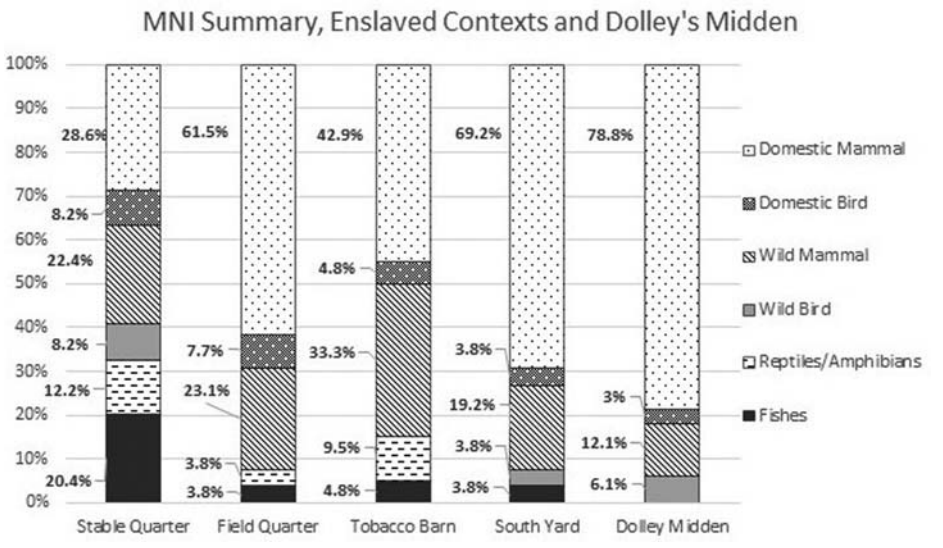

Figure 10. Proportional representation of species categories excluding commensal taxa by MNI for all enslaved contexts at Montpelier and Dolley's Midden. Data from Dolley's Midden from Pavão-Zuckerman, Anderson, and Reeves (2018).

Although domesticated animals contribute the bulk of all assemblages in terms of biomass, the relative proportion of wild versus domestic taxa in terms of the numbers of individuals portrays a slightly different story (Figure 10). Domesticated animals account for more than half of the individuals identified in the South Yard, Tobacco Barn, and Field Quarter assemblages, but contribute only one third of the individuals in the Stable Quarters assemblage.

By MNI, wild game dominate the Stable Quarter assemblages. Fish are particularly common in this area, accounting for nearly 21% of the total MNI. This is nearly twice their representation than in all other assemblages discussed here. Although herring are common in the Tobacco Barn and Field Quarters assemblages, other fish species occur in much lower numbers, deflating the wild game MNI and overall diversity despite the presence of moderate amounts of small wild mammals and turtles. Wild game, including both fish and terrestrial species, are least common in the South Yard assemblage, comprising 30% of the total MNI.

The most common wild taxa identified at Montpelier are oyster, fish, rabbit, and squirrel; these taxa were recovered from all the enslaved contexts discussed here. Oysters were most likely purchased and brought to Montpelier in barrels as part of the rations for the enslaved community. Although oysters are considered a delicacy today, barreled oysters were cheap and plentiful in early America, and were a staple food among poorer communities (Hooker 1981). Fish remains, while found within all three enslaved communities, are most common in the Stable Quarter. Herring is the most common fish identified, found in three of the four contexts associated with the enslaved community. Like oysters, preserved herring were no doubt purchased and given to the enslaved community as part of their rations. Herring were also provided as rations at Mt. Vernon but, unlike at Montpelier, were likely locally caught by enslaved fishermen (Bowen 1993).

The diversity of fish in the Stable Quarters assemblage is particularly notable. Catfish, carp, suckers, and sunfish were recovered from the Stable Quarter assemblage, but in no other samples reported here. These are common freshwater fish in the region, found even in smaller ponds and streams such as were in and around Montpelier. Two ponds are found on the property. One was an ice pond located downslope from the "Temple," a small structure with a circle of columns capped by a domed roof and located near the mansion house. The other was a mill pond located just down the road from the field quarter (see Figure 1). Smaller streams and rivers are located farther afield. Fishing can be either time or technologically intensive, depending on the technique employed. The higher numbers and diversity of fish in the Stable Quarter suggests that the people who lived here had the time and tools needed to exploit these resources. Alternatively, if this cabin was occupied by Granny Milly and her descendants, it is possible that the fish were given to her. As noted above, the documentary record indicates that Madison family members and their visitors often visited Granny Milly in her cabin, bringing gifts of food (Cutts 1849–1856). Although the Field Quarters was near the mill pond, no wild fish were identified. Enslaved field workers likely had little "free" time, or access to the tools, for such extracurricular subsistence pursuits.

Meat quality

Carcass portions from across the bodies of domesticated livestock were found in all the quarters discussed here. Bone fragments from head and foot elements are particularly common, although a majority of the head elements are teeth and tooth fragments. As observed above, these are among the most durable and identifiable elements, so it is likely that they are overrepresented in all archaeological assemblages at Montpelier, highlighting one of the difficulties of extrapolating meat tissue from bone. The presence of lower quality cuts (head and feet) as well as higher quality cuts (legs and body) may indicate that the Madisons provided whole pigs as rations to enslaved households, a pattern seen at Monticello, Rich Neck, and Mount Vernon (Atkins 1994; Bowen 1993, 51; Crader 1990, 59). Some of the higher quality cuts may also have come from the Madison table, perhaps as leftovers or surplus. Higher quality cuts were more frequent in both the Dining Room (Dolley's) Midden and the Northwest Yard, assemblages that in large part represent refuse from the kitchen and dining table of the white enslavers (Figure 11), but even the Madisons consumed all parts of both pig and cattle, a reflection of contemporary dietary trends (Pavão-Zuckerman, Anderson, and Reeves 2018, 391).

Food acquisition strategies

The zooarchaeological data from enslaved contexts at Montpelier indicates that enslaved communities varied in their access to foods and ingredients. This variation is likely due to a combination of factors, including time, physical access, and personal preference. Different avenues of food acquisition were open to members of the enslaved community depending on the structure of their labor, their access to "free" time, their spatial proximity to wild interfaces, and their relationship to white enslavers. McKee (1999, 239) offers a useful graphic depicting the many avenues of food acquisition for enslaved communities (Figure 12). In this complexity, however, we must also not overlook the role of

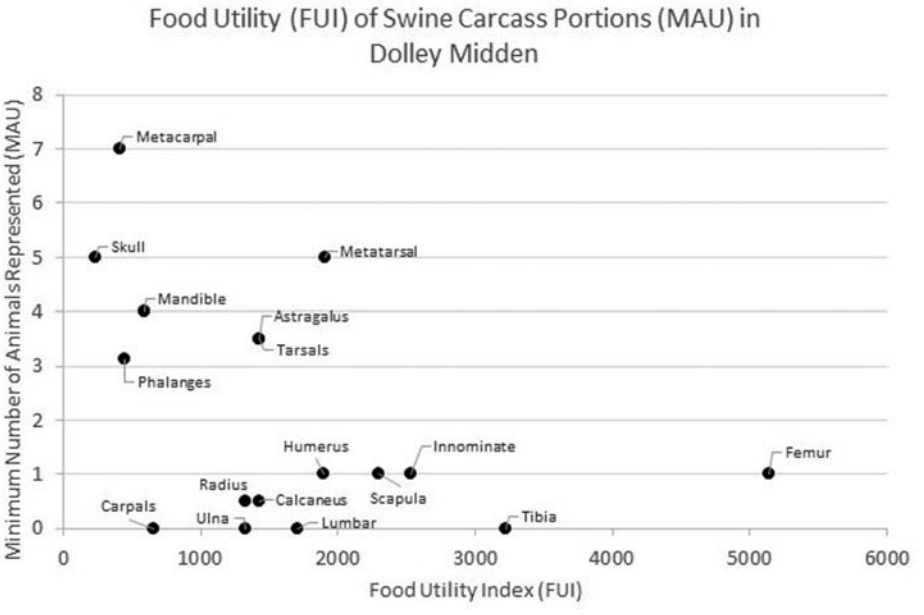

Figure 11. Food utility and minimum number of swine individuals represented by skeletal elements in the Dolley Midden assemblage (modified from Pavão-Zuckerman, Anderson, and Reeves 2018).

personal choice and agency in cuisine practices. Although the oppressive structures of enslavement limited people's abilities to freely choose ingredients and preparations, enslaved cooks, families, and individuals exercised whatever agency and power they could in how they fed themselves and their families.

Residents of the South Yard were likely the most reliant on plantation-provided foods, with little consumption of wild game. The meats reflected in the South Yard bone assemblage could have been acquired either through rations, or through labor in the kitchens and dining rooms of enslavers. Enslaved domestic workers had much greater access to the foods served in white dining rooms than did other community members at Montpelier, either as leftovers, surplus, or as skimmed ingredients. No doubt the recipes and cuisine practices within the South Yard dwellings also diverged from that of their neighbors. The enslaved cooks who prepared foods for white enslavers and lived in the South Yard community were trained in European techniques, particularly English and French cookery. It is very likely that these techniques were incorporated into cuisine practices within the slave dwellings of the South Yard.

The domestic workers of the South Yard labored in and around the mansion, far from the wild interfaces of the plantation landscape where game were encountered. The South Yard community was no doubt also temporally shut out from game acquisition. Domestic labor stretched into the pre-dawn and post-dusk hours. Less down time meant less time to hunt or trap to supplement plantation rations. It is also possible that the lower frequency of wild game reflects choices driven by personal preferences and taste on the part of the South Yard community members. If they had access to higher quality meats via their closer association with the mansion, perhaps wild game meat

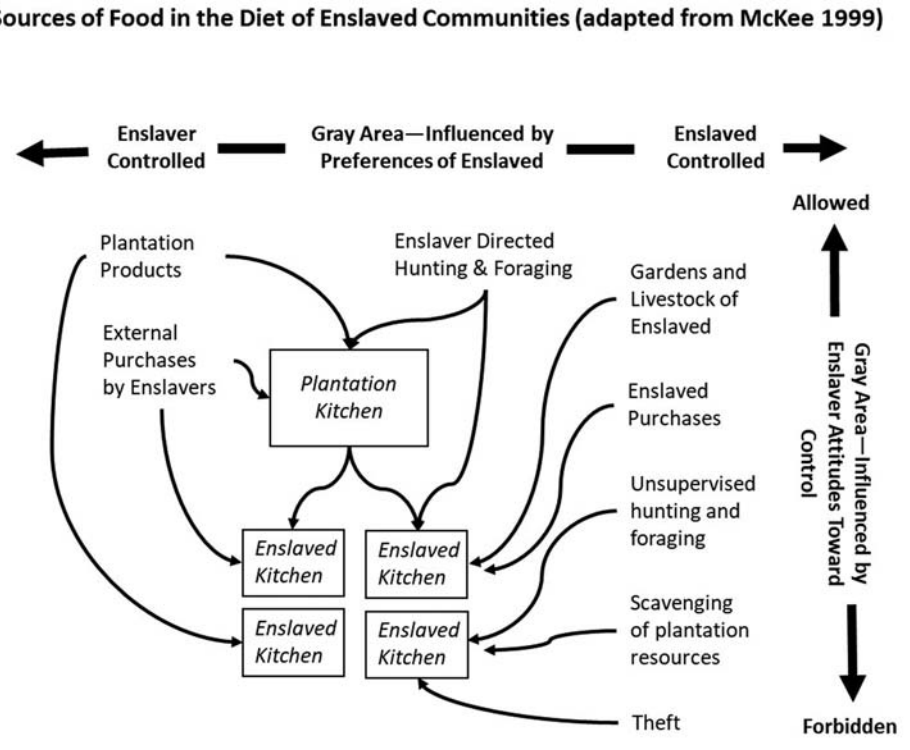

Figure 12. Sources of food in the diet of enslaved communities (adapted from McKee 1999)

was less appealing. Certainly, that choice was made by the white enslavers, whose diets were nearly exclusively focused on pork and beef to the near-exclusion of wild game (Pavão-Zuckerman, Anderson, and Reeves 2018). Although the South Yard community members lived under the restraints of racialized enslavement, they likely exercised the power of choice whenever and however they were able.

Despite the low frequency of wild game, the presence of deer remains in the South Yard is notable and warrants further discussion. Deer bone is rare at Montpelier – only a handful of specimens have been recovered and, to date, only from the South Yard and from the turn of the nineteenth century context associated with Montpelier mansion (Pavão-Zuckerman, Anderson, and Reeves 2018). Venison could have been acquired through local hunting, or through purchase or contract. Did members of the domestic enslaved community have access to firearms for the hunting of larger game? It appears so, as firearm components were excavated from within the South Yard assemblages, as well as in the Stable Quarters. These firearms may have been owned by members of the South Yard and Stable Quarter communities and used for their own hunting activities, or they may have used them when accompanying white enslavers on hunting trips.[1] This is consistent with practices at other plantations – enslaved laborers who were close to (and trusted by) white slave owners were allowed access to firearms (Crader 1990; Heath 1999). This allowance was no doubt only afforded to those who worked near the enslavers, and those who were believed to be a low risk for armed resistance to plantation oppression.

The enslaved household members who lived in the Stable Quarters may have been most able to supplement their diet with their own subsistence pursuits, as wild game, especially fish, are most common here. The Stable Quarter is not located particularly close to the wild interfaces at the plantation margins. However, individuals who lived there may have had more control over their work schedule, allowing for extracurricular subsistence pursuits including fishing, trapping, and hunting, when tasks were completed. They may also have possessed skills that gave them more freedom to move about the larger landscape. Skilled workers were occasionally "loaned" out to nearby plantations for skilled projects. Travel between plantations may have provided atypical access to wild landscapes. Some enslaved specialists were allowed to earn cash through their trades and could have spent those funds on their own subsistence needs, including small stock, spices, seeds, and hunting technologies. This greater freedom of movement may indicate a higher level of trust between enslaved and enslaver, as does the presence of artifacts related to firearms from the Stable Quarters. Differential treatment, access, and trust is often used as a means of social control within oppressive and exploitative systems.

The Stable Quarter was likely occupied either by skilled laborers who worked in the stable or garden, given the proximity to those work areas, or Granny Milly and her descendants, as is suggested by historical documents. If the cabin was indeed occupied by Granny Milly, the diversity of foods may have been given to her and her family by the Madison family and visitors. This was not uncommon, as noted above. But it is clear from historical documents that Granny Milly engaged in her own economic pursuits, returning visitor's gifts with produce and eggs. Her elevated status within the plantation community may have meant that she was better able to pursue food resources across the Montpelier landscape. Likewise, a skilled laborer whose work was task-oriented would have had more time for subsistence pursuits, and perhaps greater access to wild places within the broader plantation landscape.

Wild game are also somewhat common in the Field Quarters and Tobacco Barn communities, but the types of taxa recovered are different from those recovered in the Stable Quarters. Fish other than herring were rare, and herring were no doubt preserved and provided as rations. Field workers were afforded little time or tools for fishing, despite their proximity to the nearest water source. Field workers were able to supplement rations with wild meats, but these were likely collected opportunistically, perhaps using traps or slingshots, during their labor in the plantation's fields. The species of animals identified in the Field Quarters and Tobacco Barn quarters are primarily crop-raiders that would have been attracted to agricultural fields, including opossum, rabbit, woodchuck, squirrel, and raccoon. All these animals could have been captured without the use of firearms. While more time and technology-intensive subsistence pursuits may have been out of reach, enslaved field workers were able to use their access to the wild interface to capture game opportunistically to break up the monotony of plantation rations.

Conclusions

It is clear from the above discussion that foodways at plantations were diverse, not monolithic. All three enslaved communities, all located within a quarter mile of each other, share similarities, including a heavy reliance on pork and beef – rations that were a

product of their own labor. Likewise, the presence of wild game in all assemblages show that all enslaved communities supplemented their rations to some extent with their own subsistence pursuits. The subtle differences within these broad patterns, however, reveal differences in access to time, resources, and technology, as well as interactions with white enslavers, that influenced the foods that were consumed within the enslaved communities at Montpelier. Among these variables, time seems to be the strongest determinant to whether enslaved households could access wild game.

Residents of the South Yard included enslaved domestic workers who interacted in close quarters and daily with the white members of the Madison family. These families had limited access to spaces in which they would encounter wild game and, because they were at the beck and call of the white plantation owners, had very little time for personal pursuits. The presence of deer, however, suggests that trusted domesticated enslaved people may have occasionally accompanied Madison on hunting excursions, as is known to have happened elsewhere.

The residents of the Stable Quarters, either skilled laborers, or Granny Milly and her descendants, likely interacted with residents of the main house more often than those assigned to the fields, but less than enslaved domestics. The high frequency and high diversity of wild game remains suggests that those who lived in the Stable Quarter had the most flexibility in the timing of their labor to pursue independent subsistence pursuits, such as fishing. Alternatively, they may have had the most access to diverse resources because of their unique position within the plantation social structure.

Agricultural workers who resided in the Field Quarters and in the temporary housing provided by the Tobacco Barn, lived and labored on the periphery of the plantation and likely had very little interaction with the Madisons. Although enslaved people forced to work in the agricultural fields had very little "free" time, the wooded areas surrounding the field quarters put them adjacent to the wild-domestic interface. Enslaved farm workers likely captured game opportunistically as they labored, using slingshots and other easily portable weapons to take down crop-usurpers.

The diversity of foodways seen at Montpelier is similar to that observed at Monticello (Crader 1984, 1990), and Mount Vernon (Bowen 1993). Differences in access to food resources are visible at both Montpelier and Monticello, with some members of the enslaved community having greater access to higher-quality domestic meats than others, and with some communities utilizing more rationed fish and more wild game. A few commonalities are also apparent across all plantations. Pork was the dominant meat, supplemented by meats from other domesticated animals and wild resources. Herring remains are common at all three plantations, although it is likely that at Montpelier and Monticello herring was imported and arrived preserved (salted) in barrels as part of the rations for the enslaved community, while at Mount Vernon, enslaved laborers caught herring locally (Bowen 1993; Chambers 2005, 166–167).

Zooarchaeology is only a piece of the whole when it comes to understanding the diets of enslaved communities, and the authors of this work are archaeologists, not cooks, and none of us, as far as we know, trace our ancestry to anyone who was enslaved in the Americas. It is beyond our scholarly abilities to move from bones to recipes to cultural memories and meanings. But we hope that this contribution will aid the work of culinary historians, scholars of Black history, and the descendant communities as they further the work of illuminating African American history as American history.

Note

1. A button depicting a hunting scene was recovered from the South Yard. The object can be viewed online at https://flic.kr/p/nKS2Et.

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