DELAWARE ARCHAEOLOGY
AND THE REVOLUTIONARY EIGHTEENTH CENTURY

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ABSTRACT

Many theorists see the eighteenth century as a time of profound change in European America. This paper tests some of these theories with data from 21 eighteenth-century archaeological sites in Delaware that have been extensively excavated. The sites date to all parts of the 1680-1830 period, and their occupants span the social range from poor tenants to well-to-do planters. Eighteen of the excavations were sponsored by the Delaware Department of Transportation, and the techniques employed in the excavation and analysis of these sites were quite similar. Comparing the house remains, farm layouts, ceramics, glass, tablewares, clothing-related artifacts, and faunal remains from these sites reveals a complex pattern of developments. Certain parts of the material culture of rural Delaware did experience profound and relatively rapid change, especially ceramics and tablewares. However, other aspects of life, including housing and meat consumption, changed very little, if at all. The archaeological record does not support the view that the eighteenth-century saw changes in outlook and thinking that influenced every part of American life.

THE AGENDA

To many historians, the modern world began in the eighteenth century. It was the century of revolutions: the American Revolution, the French Revolution, the industrial revolution, the scientific revolution, the Enlightenment, the demographic transition, the explosion of world trade, the rise of Western Europe to world domination. Within the domain of daily life and material culture, on which archaeologists usually focus, we have seen discussion of the Consumer Revolution (Carson 1994), the Creamware Revolution (Martin 1994), the rise of the Georgian Mindset (Deetz 1977), and a great increase in "personal discipline" (Shackel 1993). If we extend the century's

boundary's a few years in each direction, as historians always do when they discuss these things, we can see in the period from 1680 to 1830 a long list of changes in how people lived. The introduction of the tea ceremony brought caffeinated drink and refined manners into the homes of many ordinary people. The fork, the individual place setting, and the dining room table and chairs led to great changes in how people ate. Creamware dishes, made in British factories and brought to North America by the hundreds of thousands in the 1770s, were just one in the series of new, mass-produced consumer goods that may have changed our relationship to material things. The spread of clocks and watches changed how people viewed time and work. People abandoned their old houses with one or two multi-purpose rooms and began to build homes with separate bedrooms, kitchens, dining rooms, and other specialized spaces. They also segmented the space on their farms, turning their front yards into decorative receiving areas and moving the work to the back. Urbanization and industrialization brought many people off the farm altogether and into tenements, factories and offices where time and space were even more rigidly segmented. Because of these changes, the argument goes, the people of 1830 had undergone a mental shift and were no longer medieval, but modern.

This article tests these theories of revolutionary change in the eighteenth century using the archaeological data from Delaware. The twenty-one sites under discussion represent the period from 1680 to 1830. They provide particularly rich information on housing and farm layouts, and they also produced extensive collections of artifacts and faunal remains. Analysis of this material suggests that social change in the eighteenth century was more gradual than is sometimes claimed, not radically different from the rates of change experienced in previous centuries.

THEORIES OF REVOLUTION

The Consumer Revolution

The question of how and when western society came to be made up of consumers, defined by what they buy, is old and much debated. (See the discussion in Shammas 1989.) Most important for our purposes is the large body of recent scholarship, summarized by Carson (1994) and Martin (1996), that points to the eighteenth century as the key period for development of modern consumer culture. According to this view, it was in the years between 1650 and 1800 that household objects first became a key component of the average person's social status and self-definition. In traditional European society, these scholars argue, status was largely determined by a family's wealth in land and livestock, the value of which their neighbors all knew. By 1800, status was generally judged by a new definition of proper behavior that rested largely on a person's skill in using certain household objects. The tea ceremony and a new way of dining, around oval tables with forks and matching sets of dishes, are the best examples of this new relationship between status and household objects. Martin (1996:77) cites several examples of people who were considered uncouth because they didn't know how to drink tea or use a fork, and concludes, "Society was no longer merely divided into the haves and the have-nots, but, increasingly, the knows and the know-nots." The great importance attached to rather simple things like forks led to the culture of mass consumerism we live with today and sparked a demand for mass-produced goods that helped ignite the industrial revolution. A great rise in advertising and other marketing techniques helped fuel the consumption boom, along the way bringing us new forms of literature like the newspaper and the fashion magazine (McKendrick 1982). This "consumer revolution" spread Georgian canons of order and beauty to ordinary people, and their local artistic and craft traditions were swamped by a tide of classically inspired, mass-produced, cleverly advertised, and internationally recognized fashion.

The Georgian Mindset and Personal Discipline

The "Consumer Revolution" is only one way historians have imagined the allegedly

transforming changes of the eighteenth century. Another conception emphasizes the development, in Europe, of new intellectual and social norms; in Britain and America these ideas are usually referred to as "Georgian," following the influential writings of James Deetz (1977). To Deetz, the introduction of the "Georgian mindset" was nothing less than the end of the medieval, communal appproach to life and the beginning or our modern, individualistic society. Georgian ideas emphasized order, cleanliness, privacy, and the separation of public and private spheres. Private life became more important, interaction with the neighbors less so. The term is adopted from an architectural style, and changes in housing were an important part of this development. In traditional European houses, even those of kings, sleeping, eating, and entertaining had been conducted in the same spaces. Under the influence of the new norms, the better-off white people of America remade their houses and farms to provide a more orderly and private existence. They began constructing separate bedrooms, dining rooms, and parlors. Privies, unknown in rural contexts from the seventeenth century, were dug, and small sheds were built over them to allow privacy. While the interiors of houses were changing to provide greater privacy, the exteriors were reshaped to provide a proper presentation of the owner's wealth and status. The Georgian facade, with its perfect balance and grand scale, was an almost philosophical statement of the order of the universe and the owner's role as an upholder of that order.

Deetz's work has been extended by a group of scholars associated with Annapolis, Maryland. Mark Leone (1988) emphasizes the asociation of Georgian culture with capitalism and the political dominance of the capitalist class. Paul Shackel (1993; Shackel and Little 1994) sees the changes in eighteenth-century personal habits as symptoms of a broad shift in western society toward a more disciplined way of life. The material corollaries of this new discipline include dishes and tea sets, which represent a more meticulous way of eating; clocks, which impose tight control on the use of time; scientific instruments, which represent the imposition of law on nature; formal gardens and grid street plans, which bring rigid order to the landscape; and toothbrushes and chamber pots, which represent the imposition of discipline on the body. Paul Shackel explicitly relates his ideas to Michel Foucault's work on prisons, which, according to Foucault, represent an attempt to impose a discipline favorable to the upper class on the criminal elements and the poor (Foucault 1978). We are thus led to imagine that the 1650 to 1800 period saw a great change in the western world, from

a rather lax medieval society in which work was task-oriented, table manners atrocious, towns random in form, and criminals out of control, to a tightly disciplined modern society governed by the police, the clock, the surveyor's sextant, and the etiquette book. This "Georgian Revolution" rests essentially on the same data as the "consumer revolution," viewed through different ideological filters. It is interesting to note that while Carson and Shackel both believe that the cultures of the rich and poor grew closer together in the eighteenth century, Carson sees this as evidence that the poor were striving to imitate the rich as best they could, while Shackel believes that the rich were forcing the poor to behave in ways useful to their betters.

Evaluating Claims of Revolutionary Change

Substantial claims are made for the importance of social change in the 1680 to 1830 period. On the one hand, these changes reflect a major shift in the way people conceived of their society, related to their neighbors, learned how to do their work, even thought about their bodily functions; on the other hand, these changes caused yet further developments, including the American Revolution (Breen 1988) and the industrial revolution. The claims, if correct, therefore seem to justify the notion of a social revolution in the eighteenth century. However, it is equally possible to see the rise of consumerism and personal discipline as parts of much broader social changes that took centuries to develop.

It is first of all important to distinguish the inevitable consequences of frontier settlement from changes representing a broader social transformation. Accounts of early American history are full of pioneers who lived in shacks, wigwams, or even in hollowed-out tree stumps when they first settled their land. Later on, they replaced these unusual lodgings with more substantial houses. We should not assume from these accounts that the settlers ever found hollow trees to be acceptable, normal dwellings, or that the houses they built later represent a change in their idea of what a house should be. Of course, the rigors of frontier life and their consequences are important historical themes, and their impact on American culture should not be discounted, but simply comparing the house built by an early settler with the one his grandson built 50 years later can be deceptive. The initial settlement and subsequent "civilizing" of many parts of America was going on at the same

time as the alleged eighteenth-century transformation of British and Anglo-American society, and it is vitally important to keep these developments separate in our minds.

A broader critique of these theories emphasizes their dependence on a certain model of historical change. The theorists under discussion all seem to take a "revolutionary" view of human history, that is, they seem to believe that the past can be divided into eras of very slow change separated by brief revolutionary periods when change was very rapid or profound. It is also possible, however, to see historical change as more or less constant, and to think that both stable eras and revolutions are mostly in the eye of the beholder. A revolutionary model of the medieval/modern transition seems to assume that a wealthy, educated burger of 15th-century London had more in common with a 9th-century Saxon peasant than with an educated Londoner of the late 18th century. In this view, the 9th-century peasant and the 15th-century townsman shared a "medieval" outlook, while the late 18th-century Londoner shares a "modern" outlook with us. It is by no means obvious that this is so. A random assortment of important changes that took place during the "stable" millenium before 1700 could include the rise of the national kingdoms that were the forerunners of our modern nation states, the major religious upheaval of the sixteenth century, and, very important for our purposes, major changes in housing that began in the fourteenth century with the introduction of the chimney and the development of the hall-parlor house (Machin 1977).

One can easily make eighteenth-century changes in consumption and house building seem important by isolating them from other changes in the society, but put back into context they can be seen as part of very long-term developments. Carson says almost nothing about the Renaissance, which seems a striking omission in a work about the transformation of early modern Europe. If, as Carson maintains, the visible marks of status ceased to be lands and jewels and came to be a refined way of behaving, the classical education emphasized by humanist intellectuals is surely one of the most important parts of that new code (Bush 1939; Elias 1978). New standards of taste, which led to the redesign of houses and furniture, were also inspired by Renaissance classicism, and grid street plans were copied from Roman models. Leone and Shackel do deal with the Renaissance as a concept, but they simply equate eighteenth-century Britain with Renaissance Italy, lumping together two very different societies at quite different stages of economic and social evolution. (The English Renaissance, to most historians, was the Elizabethan period: Rowse 1972.) The introduction of the

Renaissance to the discussion again takes us back to the fourteenth century, greatly stretching the time frame of these "revolutionary" changes.

Social discipline has long been one of the major themes of Renaissance historians. The Protestant Reformation has often been seen as a quest for a disciplined church, especially as practiced by John Calvin, John Knox, and their Puritan followers (McNeill 1967; Schilling 1981; Strauss 1978). The modern army, with its uniforms, matched weaponry, system of rank, and regular drill, was an invention of this period, developed by men who wanted to recreate an ancient Roman or Spartan standard of military discipline (Oestreich 1982). The stoics, the ancient philosophers who emphasized personal discipline over all else, were widely read and quoted in this period (Allen 1957). Modern athletics, which can be seen as another way of disciplining the body, also developed greatly toward the end of the eighteenth century, often under the influence of classical models. These issues take us from Martin Luther's Ninety-five Theses (1519) to the renewal of the Olympics (1896), again greatly stretching the time frame of the revolution.

Leone wants to place the origin of "Capitalism" in the 1650 to 1800 period, at least in the English-speaking world, but many medieval historians believe this development took place much earlier, in the 1200s or even the 1100s (Lopez 1971; Little 1978). The merchant de la Pole family became Dukes of Suffolk in the 1300s, signaling the rise of the merchant class to political power in England and the increasing fusion of the wealthy merchants with the aristocracy. Joan Thirsk (1978) has admirably documented the great enthusiasm for entrepreneurial activity that overtook Elizabethan England, producing schemes for everything from woad growing to the settlement of Virginia. The early seventeenth century saw the establishments of the first stock markets, and of great joint-stock companies like the East India Company. However we define capitalism, it was clearly present in both England and Holland by 1680, before the allegedly "revolutionary" period began.

Carson also asserts that the "consumer revolution" led to a great rise in demand for consumer goods and therefore caused the industrial revolution, but this equation suffers from a mismatch between the commodities important to the two developments. The objects Carson emphasizes are houses, furniture, dishes, and cutlery. Although the form of houses and furniture certainly changed in the 1680 to 1830 period, the way they were made, by hand labor with simple tools, did not. The

manufacture of ceramic dishes and cutlery was transformed by factory techniques, but these items represent such small segments of the eighteenth-century economy that it is hard to see how they could have had a revolutionary economic impact. The key industries of the eighteenth century were cloth manufacture and iron and steel production (Landes 1998; Mathias 1988). Carson's model actually asserts that cloth and clothing became less important status markers at this time, and we know that iron and steel production was more closely related to military needs than to consumer demand. Carson's evidence that ordinary people became more interested in the acquisition of consumer goods like those of the rich comes from sermons and other moralizing tracts complaining about the "uppity" behavior of the poor, who didn't know their place as they used to. Since examples of such moralizing could be produced in large numbers for every period of European history, these texts are actually evidence only of their authors' traditional moral bent and tell us nothing at all about eighteenth-century behavior (Harte 1976; Jardine 1996; Owst 1961). Complaints about rampant, inapprorpriate consumption were particularly widespread in Elizabethan England (Thirsk 1978). Again, it seems more appropriate to see both changes in consumption and the new style of manufacturing as deriving from intellectual changes begun in the Renaissance.

Nor is it clear that, as Carson asserts, consumer goods did not play a great part in defining social groups before 1650. Medieval people did not use forks or teacups, but they were very conscious of how people used other possessions. Knowing how to ride a horse, for example, was a key element of aristocratic behavior. (It remained so in eighteenth-century America.) And if one objects to the use of the horse as an example, on the grounds that it is not a manufactured good, what about a sword? Every medieval gentleman (outside the church) had to own a sword, and his status was judged in part by the style with which he used it. There is certainly a difference between knowing how to ride a horse or use a sword and knowing how to make tea elegantly, but the difference does not lie in the importance of properly using manufactured goods, which is essential in both systems. As for refined manners, Europeans had believed from at least the time of the Iliad and the earliest Irish sagas that an aristocrat could be recognized by his behavior no matter how far from home he went, even by people who had no idea of the amount of land he owned. The "courtly love" of the twelfth and thirteenth centuries has frequently been seen as a code of behavior that separated the aristocracy from everyone else, since only the aristocrats had the time to learn the

complex rules of courtly romance (Elias 1978). Richard Bushman (1992) has emphasized the conservative side of what he calls the "refinement of America," that is, the way the new culture of gentility preserved ancient aristocratic norms in a changing economic and political situation.

Questions have also been raised about the degree of change that actually took place in the eighteenth century, and many scholars see strong expressions of traditional attitudes well into the nineteenth century. Traditional rural patterns of neighborhood sharing, as expressed in communal activities such as barn raisings and quilting bees, interest-free loans between neighbors, and simple barter exchanges like meat clubs, remained common in the nineteenth century, suggesting that market attitudes and the desire to acquire consumer goods remained second to neighborliness for many people (Henretta 1978; Martin 1984). Amy Friedlander (1991) has argued that in early nineteenth-century New Jersey most farmers continued to use their wealth in a way Carson calls traditional, preferring investment in bigger barns and more livestock over the purchase of consumer goods. Some architectural historians (Chappell 1994; Larkin 1988) believe that there was no great change in American housing until after 1800, and traditional building forms remained common in some parts of North American into this century (Glassie 1968; Noble 1984). Studies of bones from archaeological sites suggest that traditional dietary patterns remained entrenched in rural areas in the nineteenth century (Bedell et al. 1994). The recognition that many traditional lifeways endured into the nineteenth century, and that many of the undoubted developments of the eighteenth century were rooted in the Renaissance and the Reformation, turns the "consumer revolution" into a 500-year-long event, and suggests that the important changes in the ways eighteenth-century people ate and drank were part of a very slow process, not signs of a sudden social transformation.

THE SITES

To test these theories requires a body of archaeological data that allows us to view social and technological change across the 1680 to 1830 period. One such body of data is provided by a large group of archaeological sites has been excavated in Delaware over the past 20 years. This paper considers evidence from 21 Delaware sites (Figure 1; Table 1). The excavation of 18 of these sites was funded by the Delaware Department of Transportation, and the work was primarily done by two

consultants: the University of Delaware Center for Archaeological Research (ten sites) and Louis Berger & Associates (five sites). There were many similarities to the approaches taken on all the DelDOT sites, making this data particularly useful for comparative analysis. The sites date primarily to the period after 1740, and only two sites, the Richard Whitehart and John Powell Plantations, produced significant artifact deposits dating to before that year. Most of the sites were farms (13 sites) or rural dwellings (seven sites); there was only one urban site, deposits associated with the parsonage of Old Swedes Church in Wilmington. Some additional urban perspective can be gained by using sites in Philadelphia, with which Delaware had close economic and social ties. The occupants of the sites spanned the socioeconomic spectrum from poor tenants to wealthy landowners. Slaves lived at least three sites. One site, Bloomsbury, was occupied for a time by Native Americans, and the Augustine Creek North Site may have been occupied in the 1790 to 1810 period by free blacks. Otherwise, so far as we know, the occupants of these sites were of European descent. The primary data that will be considered here consists of house foundations, farm plans, animal bones, ceramics, and miscellaneous small artifacts such as forks and buttons.

HOUSING

"Georgian" entered the historical discourse as an architectural style, and changes in housing remain central to the notion of a "Georgian Mindset." The archaeological evidence from Delaware, however, does not give any support to the notion that eighteenth-century people were experiencing major changes in their outlook. Those who have argued for major changes in the eighteenth century have worked mainly from standing buildings, but there are good reasons for believing that standing houses are not a representative sample of the housing stock of the eighteenth and early nineteenth centuries (Carson et al. 1981; Chappell 1994). Therefore, any conclusions about changes in mentality based on the evidence standing structures are liable to be strongly biased, and we must turn to archaeology for a more balanced picture.

To date, the most salient archaeological finding about eighteenth-century Delaware houses has been their great variability (Table 2). The dozen or so eighteenth-century houses that have been excavated in the state are all remarkably different from one other. No two are alike. Substantial

stone foundations, measuring at least 500 square feet, have been uncovered at four sites, the Charles Robinson Plantation, the William Hawthorne Site, the McKean/Cochran Farm, and the Charles Allen Site. The occupants of these sites were all quite prominent people. Charles Robinson was a well-to-do farmer who styled himself "yeoman," and the later house at the McKean/Cochran Farm was for a time the residence of Letitia McKean, a niece of the governor of Pennsylvania. Tax records show that the occupants of the William Hawthorne Site were in the wealthiest 5 percent of the population. However, none of these houses had a symmetrical, Georgian plan, with matching end chimneys, such as one would expect at a stylish residence of the period. So far as could be told from the archaeology, all of them seemed to have traditional, hall-parlor plans.

Smaller houses with cellars were found at three other sites. The house at the Augustine Creek South Site also had a full basement, and it probably had brick foundations, although the bricks had almost all been removed. This house was probably built in the 1720s, and it measured 16 by 25 feet. The first house at the McKean/Cochran Farm, built around 1750, had stone foundations and measured 15 by 18 feet, while that at the H. Grant Tenancy Site, built around 1800, included a stone-lined cellar hole measuring 16 by 15.5 feet.

The other Delaware houses were much less substantial than these seven. Construction techniques included post-in-the-ground or earthfast construction at the Richard Whitehart, Thompson's Loss and Gain, Benjamin Wynn, and Whitten Road Sites, and ground-layed sills at the John Powell and Thomas Dawson Sites. On several other sites, evidence for the main house was actually meager and the construction technique must be inferred. Only hints of foundations were found at the William Strickland Site, even though by the time of his death in 1760 Strickland was in the top 10 percent of his community by wealth. No foundations of any kind were found at the Bloomsbury Site, and there was no trace of the later structures that must have stood at the Whitten Road Site. Flimsy foundations destined to last no more than a couple of decades were clearly very common in this period. Window glass has been found on all of the excavated eighteenth-century sites, indicating that by 1750 almost every house in Delaware had at least one window.

The picture of ordinary housing in Delaware provided by archaeology is unequivocally traditional. Most people, even most people in the richest tenth of the society, lived in one- or two-room houses that lacked any of the refinements cited by Deetz and Carson as indicating an

architectural and social transformation. On this point the archaeology can be supplemented by the study of Orphans' Court documents (Bushman 1992; Herman 1987). These records provide detailed descriptions of hundreds of Delaware farms, mostly dating to the period after 1770. The records clearly show that in the 1770 to 1830 period most houses were fairly small wooden constructions, and many were in bad condition (Tables 3 and 4). In the realm of housing, the people of Delaware had experienced no revolution.

FARM LAYOUTS

There was a Georgian tradition in landscape design as well as in architecture, and some examples of this style can still be seen at Monticello, Mount Vernon, the William Paca house in Annapolis, and other Georgian showplaces (Kelso and Most 1990). The importance of imposing order on the landscape to some people in the eighteenth century is well illustrated by an essay written in 1786 by Benjamin Rush, a Philadelphia intellectual. Rush divided the farmers of the Delaware Valley into three "species" (Herman 1994). At the bottom of this hierarchy Rush placed the rough frontiersman, his rude cabin and half-cleared fields symbolizing his lawless, ignorant nature. At the top was the model farmer, a civilized man whose belief in education, law, and religion was reflected in his straight fences, completely cleared fields, large barn, and embrace of new agricultural technology. In between was the norm, a sort of middling civilized state. This ethic equated progress with ordering the landscape, and implied a strong equation between that order and the creation of wealth. Texts like Rush's essay seem to support the notion of a "Georgian mindset" connecting an ordered landscape to capitalism and political reform, but they do not tell us whether anyone actually lived in the way he described. The Delaware site sample actually provides no evidence that ordinary Delaware farmers paid any attention to Rush's edicts before 1830.

To date, the farm plans that have been uncovered in Delaware seem mostly random. Good examples are provided by the John Powell, William Strickland, and Charles Robinson Plantations; enough evidence of outbuildings and fences was found at these three sites to give us some idea of what the farms looked like when they were occupied. Six structures were identified at the John Powell Site (Figure 2), arranged in a rough arc. The only fences were three small pieces,

unconnected at both ends and not defining anything in particular. The William Strickland Site was similar (Figure 3), a cluster of buildings not aligned with each other and not arranged in any particular way. At the Charles Robinson Plantation, the outbuildings and wells were all on the same side of the house, so they may have been behind it, but they did not align with the house or define any kind of courtyard. Not a single example of a formal plan has been identified in the Delaware site sample. At most of these sites it is difficult even to identify a front yard, since all available spaces seem to have been treated as work areas. No matter how a visitor approached the Mahoe/Wallace farm, he or she would have had to pass shallow pits full of animal bones and other domestic trash (Figure 4). The distribution of artifacts in the plowzones from these sites suggest that a good deal of trash on these sites was trampled into the earth of the yard where it fell, in the front yard as well as the back.

Today, the space around most farm houses in Delaware is organized according to a pattern that we could plausibly call Georgian. The space is usually divided into an ornamental front yard, facing the nearest road, and a working back yard where all the outbuildings are clustered. This pattern is old enough to be spoken of as "traditional" (Heite 1983), but the archaeological evidence shows that it was not the norm in the eighteenth century. The arrangement of space we see on farms today is a more recent development, probably of the Victorian period (Bushman 1992; Garrison 1991; Larkin 1994).

FAUNAL REMAINS

Faunal analysis has been a regular part of historical archaeology in Delaware, and a substantial amount of data is now available (Table 5). The acidic soil of Delaware is harsh on bone, so the collections from most of these sites were actually rather limited and in poor condition. Of the ten sites on Table 5, only three really had the kind of large, well-preserved collections faunal analysts prefer to deal with: William Strickland, Thomas Dawson, and McKean/Cochran. The other collections are too small and poorly preserved to sustain a high level of analysis. In addition, the analysts who have studied the Delaware materials have use widely varying techniques and presented their results in quite different ways. Some analysts simply give the number of pieces of bone found,

a number called the Total Number of Fragments, or TNF. A problem with TNF values is that the same amount of bone broken into smaller pieces would provide a higher count. Many analysts therefore prefer to determine the smallest number of bones (skeletal elements) that could have produced the recovered bone fragments. Most of the analysis done on Delaware historic sites has been performed by the laboratory at UDCAR or by Marie-Lorraine Pipes, who has analyzed the collections from sites excavated by Louis Berger & Associates. Pipes and the UDCAR lab employ slightly different techniques for calculating the number of bones, a value UDCAR calls NISP (number of identifiable specimens) and Pipes MNU (minimum number of units). The main difference is that Pipes groups more elements together, especially from skulls and jaws, making her counts slightly lower.

With these caveats made, Table 5 does still show a common pattern to the ten sites. Cattle and pigs provide the bulk of the meat in every case. Sheep (or possibly goat) bones were found on every site and were common on most of them. Horse bones, in many cases butchered, were found on all the sites, indicating that horse meat was commonly eaten. The eating of horse seems to have declined over time, since the highest count was at John Powell (1691-1735) and the sites from after 1760, except for Benjamin Wynn (1765-1820), all produced low counts. Chicken bones were identified on all of the sites where the bird bones were analyzed in detail, and turkey and goose were also common. Overall, domestic animals provided the great majority of the meat eaten. Dog and cat bones were common, but showed no evidence of butchering, so these animals were probably not eaten. On the other hand, the bones turned up in the same trash pits as the kitchen scraps, so people did not treat the corpses of their pets with much sentimentality.

The wild meat came from a wide variety of mostly small animals. Squirrel, rabbit, and raccoon were the most common wild mammals. The only sites to yield many deer bones were the John Powell and William Strickland plantations, which are two of the earliest in the sample. At the John Powell Plantation, occupied between 1691 and 1735, the 205 deer bones came from at least three different adults, making up a substantial percentage of the total meat on the site. The bones from the William Strickland Plantation included a deer skull that had been mounted as a trophy. Otherwise, small animals predominated. Turtle bones were found on all sites, including a large variety of species. The most common fish were catfish, perch, and shad, all of which can be taken

with a hook and line in many Delaware streams. The wild food came mostly from animals that men and boys could catch in their spare time, without any kind of elaborate gear. Hunting and fishing seem to have been common pastimes rather than economically central activities. The one common wild food that may have been collected by professionals was shellfish. Oyster and clam shells were found at all of the sites, including those, such as Thomas Dawson and the Augustine Creek sites, that were miles away from any oystering grounds. These collections span the period from 1680 to 1830, but the only changes over time are the rapid decline in deer and a slow rise in muskrat, which first becomes common in the collections from the Darrach Store (1805-1840) and the later features at the McKean/Cochran Farm (1790-1830).

In terms of the way the bones were butchered and prepared, there was no evidence of any change. Carcasses were hacked with axes and cut with knives, following the traditional European pattern. None of the sites produced bones that had been sawn into small portions like steaks and chops, the new pattern that began to appear in the nineteenth century. Bones representing both high- and low-value meat cuts were found in all the substantial collections, without any clear class differences such as those that have been identified at some urban and plantation sites. In terms of the meat they ate, the people of rural Delaware seem to have been entirely traditional.

ARTIFACTS AND CONSUMER CULTURE

Dining and Taking Tea

The sites under consideration have all yielded impressive collections of ceramics, as well as glass table wares, utensils, and other equipment for cooking and eating. These artifacts do show significant changes in the domestic habits of ordinary people, but they also suggest that these changes were limited and do not necessarily imply a rejection of traditional dietary or social patterns.

Ceramics were the most common artifacts on all of these sites. Minimum vessel analysis has been performed on most of the material, and the frequency of ware types by vessel for these sites is shown on Table 6. The ceramic collections from the rural sites are very similar in many respects. Table 6 shows that coarse earthenwares are the most common vessels on all the rural eighteenth-

century sites except Thomas Dawson; when we recall that refined vessels are easier to identify and therefore over-represented, the preponderance of coarsewares is even greater. On urban and tavern sites, refined wares are a larger part of the assemblage, which one would expect, since many of the coarseware forms were used in dairying and other farm work. Toward the end of the eighteenth century, and especially early in the nineteenth, the percentage of refined vessels climbs. This change is caused primarily by an increase in the number of refined vessels, especially creamware and pearlware plates, bowls and teawares, not a decrease in the importance of coarsewares. In the Delaware Valley, coarse earthenwares remained important well into the nineteenth century.

Table 7 compares the vessel forms identified at our group of Delaware Valley Sites. Although different ceramic analysts use different terms for vessels and classify them in somewhat different ways, there seems to have been enough similarity in the approaches taken with these sites to make a comparison useful, at least at a basic level. One important observation that springs out from the data is the rapid spread of teawares. Neither of the two early eighteenth-century sites yielded any identifiable teawares, but they were found on all of the sites dating to after 1740. Teaware vessels were quite common on the William Strickland, Augustine Creek South, and Thomas Dawson Sites, all middle- to upper-middle-class farms occupied around mid-century. At the Augustine Creek North Site, probably the residence of poor tenants, no teawares were found in a cellar deposit dating to before 1770, but sherds of teacups and a teapot were found in plowzone deposits that date to the 1790 to 1810 period. By this evidence, teawares first appeared in the homes of ordinary Delaware Farmers some time between 1730 and 1750, and by the end of the century tea was being drunk even in the dwellings of poor tenants. Wherever they appear, teawares are the finest vessels in the collection. Most of the porcelain from these sites was tea-related, as was a majority of the scratch blue decorated stoneware and the early pearlware. The ordinary farmers who lived at Augustine Creek South had a set of scratch blue cups and saucers. Thomas Dawson owned two truly exceptional teaware vessels, a Burslem white salt-glazed stoneware teapot and a red stoneware teapot or creamer made by the Elers brothers and decorated with die-cut figures (Figure 5).

Teacups and pearlware plates indicate change in habits, but the survival of other vessel forms shows that those changes were only partial. Redware dishes and pans and especially porringers

show that some traditional dining habits persisted. Dishes and pans were used for many different purposes, but one of their main uses was in the preparation and serving of porridges, puddings, and other mushy, grain-based foods. These foods were major parts of traditional northern European peasant cooking, and the numbers of pans and dishes found on the archaeological sites suggest that they remained so in the Delaware Valley. Porringers, which are essentially small bowls with handles, are also part of this tradition (Janowitz and Affleck 1998). The handle provides a secure hold on the vessel and implies that the vessel is held in the hand while eating or while feeding another; in recent times porringers have been particularly connected with feeding children. Porringers are best adapted for liquid or mushy foods eaten with spoons, and many archaeologically recovered porringers have heavy stirring and/or scoop marks.

The number of porringers in use in Delaware seems to have declined after 1760, but they remained fairly common in the early 1800s. Porringers hark back to the earlier tradition of food consumption, in which people did not always sit at table together. The ceramics found on Delaware sites in the later eighteenth and early nineteenth century exhibit a mixture of old and new traditions. On the one hand, these households were keeping to traditional foodways, but on the other hand, they were adopting new, genteel ways of presenting food. Plates and teacups indicate the acceptance of new. Their reluctance to abandon all of their old eating habits is symbolized by their heavily used porringers. It is uncertain how people mixed the two styles, but perhaps they sat at table for one major meal a day—probably dinner, at midday— and ate their breakfasts and suppers more casually, as many people do today. The porringers are an important clue to how the adoption of modern dining took place: Like most important social changes, it was slow and partial; it did not completely change the ways of the people who experienced it (Sahlins 1981).

Glass minimum vessel lists have been generated for several Delaware sites. The practice has not been quite as common as calculating MNVs for ceramics, but we still have a substantial group of lists (Table 8). The lists are mostly rather short, with many fewer vessels than the ceramic vessel lists from the same sites. A comparison with the early nineteenth century deposits from the privies at 7th and Arch Streets in Philadelphia shows how relatively sparse these collections are. Little analysis has been performed on these lists, but even a quick glance reveals some interesting results. Drinking glasses were identified on all the sites except Benjamin Wynn, and that site yielded two

"unidentified tablewares" that were probably glasses of some kind (Figure 6). Since drinking glasses are not common in probate inventories, their discovery on so many archaeological sites is an important discovery, both about eighteenth-century culture and the limits of probate inventories as sources (Bedell et al. 1999). The number of vessels found on the Delaware sites shows a steady increase, indicating increasing wealth and sophistication

Overall, the artifacts indicate that fashionable dining and the taking of tea were widespread in Delaware by 1750, and could be found even among poor tenants by 1800. Ceramics provide the best archaeological evidence of the change, but supporting evidence is provided by other artifact types, and by written documents. Forks have been found on most of the sites beginning with the John Powell Site (1691-1735), so they seem to have been common by 1730. Knives with rounded ends, intended to be used with forks, were found at the William Strickland, Augustine Creek South, Thomas Dawson, Charles Robinson, and McKean/Cochran Farm sites. Table glass became more common. Probate inventories show us that ownership of tables and chairs was also spreading; in a sample of 200 New Castle County inventories, the ownership of tables among estates with a value of less than £50 increased from 25 percent in 1730-1749 to 91 percent in the 1790s (Bedell et al. 1998b:70).

Buttons, Buckles, and Fashion

Clothing was a much larger part of the eighteenth-century economy than ceramics or cutlery, and its study ought to provide useful information on consumer behavior. Clothing-related artifacts do show that some Delaware farmers took up stylish dressing. Fancy shoe buckles have been found at many sites, including impressive collections from the William Strickland, Thomas Dawson, Augustine Creek South, and Charles Robinson Sites (Figure 7). These elaborately-molded buckles, which sometimes cost more than the shoes, were regularly condemned as frivolous expenditures by eighteenth-century moralists, but the Stricklands, Dawsons, and their neighbors apparently ignored these teachings (Scharfenberger 1998). Buckles of these types were not found on the earlier Richard Whitehart and John Powell Sites. Decorative buttons and cuff links were another fashion accessory widely attested in the Delaware archaeological record. A particularly impressive collection was

recovered at the Thomas Dawson Site (Figure 8). Again, these items become much more common after 1740 (Table 9). Of course, stylish dressing was not invention of the eighteenth century, but the Delaware site sample suggests that over the 1700 to 1750 period it may have become more widespread among ordinary farmers.

CONCLUSION

The argument for sweeping change in eighteenth-century society can be summarized as follows: During the 1680 to 1830 period, changes took place in many areas of life. These areas included housing, the layout of farms, the disposal of trash, the style of dining, and the importance of fashion. While individually these changes might not be of great importance, taken together they constitute a revolutionary change in human behavior. Furthermore, this behavioral revolution was the expression of significant mental changes. People changed their houses, farms, meals, and personal hygiene because their thinking had changed.

The data from the Delaware sites suggest a note of caution about sweeping cultural change in the 1680 to 1830 period. Some aspects of the society did change rapidly. The tea ceremony was adopted very widely, even by quite poor people. Forks and place settings became commonplace. Stylish dressing seems to have spread widely. However, other aspects of society did not change significantly. Housing and farm layouts remained traditional, and the new Georgian patterns were not widely adopted. Meat consumption remained traditional, and the evidence of porringers and pans suggests that the eating of traditional porridges and bread puddings remained important. We know, from later nineteenth-century data, that those aspects of life did change for many ordinary people after 1830 (Bushman 1992; Larkin 1988). However, the long time gap between the adoption of forks and tea drinking by ordinary Delawareans (before 1750) and their construction of new-style houses and farms (after 1830) calls into question the view that these developments were part of a single mental shift. It seems more sensible to view these changes as parts of the long-term evolution of western culture, a development that included important changes both before 1680 and after 1830. "Revolutionary" is perhaps not the best way to characterize such slow and gradual developments, however profound they may have been.

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TABLES

Table 1. Excavated Historic Sites in Delaware, 1680-1830

Site Name	Dates	Property type	Occupied by	Reference
Richard Whitehart	1681-1701	farm	owner	Grettler et al. 1995
John Powell	1691-1735	farm	owner & tenant	Grettler et al. 1995
William Strickland	1726-1762	farm	owner	Catts et al. 1995
Augustine Creek S.	1726-1760	farm & workshop	owner	Bedell et al. 1998b
Thompson's Loss & Gain	1720-1780	dwelling	tenant	Guerrant 1988
Thomas Dawson	1740-1780	farm	owner & tenant	Bedell et al. 1999
Loockerman's Range	1740-1765	dwelling	tenant	Grettler et al. 1991 (Ph. II)
Ogletown Tavern	1740-1820	crossroads tavern	tenant	Coleman et al. 1990
Augustine Creek North	1750-1810	dwelling	tenant	Bedell et al. 1998b
McKean/Cochran I	1750-1790	farm	tenant	Bedell et al. 1998a
William Hawthorn	1750-1961	farm	owner	Coleman et al. 1984
Whitten Road	1750-1830	farm	tenant	Shaffer et al. 1988
Old Swede's Parsonage	1757-1768	town parsonage	parson	LeeDecker et al. 1990
Bloomsbury	1761-1814	farm	tenant	Heite and Blume 1998
Charles Robinson	1762-1781	farm	owner	Thomas et al. 1994
Benjamin Wynn	1765-1822	farm & workshop	tenant	Grettler et al. 1996
Darrach Store	1775-1860	store, dwelling	tenant	De Cunzo et al. 1992
Marsh Grass	1780-1820	farm	tenant	Thomas 1983
McKean/Cochran II	1790-1830	farm	owner	Bedell et al. 1998a
Charles Allen	1790-1830	dwelling	tenant (?)	Basilik et al. 1988
Thomas Williams	1792-1920	dwelling	tenant	Catts and Custer 1990
H. Grant Tenancy	1800-1870	dwelling	tenant	Taylor et al. 1987

Table 2. House Remains at Rural Sites in Delaware, 1680-1830

Site	Occupation Dates	House Dimensions*	Description of Remains
Richard Whitehart	1681-1701	15x30	Post pattern and hearth
John Powell	1690-1730	15x30?	Log sills in shallow cellar, 10x11, plus shallow pits and
Augustine Creek South	1724-1760	16x25	Full basement with traces of brick foundations
William Strickland	1726-1762	24x17	Partial post pattern with large root cellar
Thompson's Loss and Gain	1720-1780	18x24	Post pattern with central and corner hearths
Thomas Dawson	1740-1760	12x14?	Wooden sills in deep basement, 11.8x13.6
Loockerman's Range	1740-1765	?	Hearth and small root cellar
Ogletown Tavern	1740-1820	18x15	Cellar with partial stone foundations; 10x7 addition
Whitten Road	1750-1800	24x16	8x16 post pattern with possible 16x16 addition, based on pits
McKean/Cochran I	1750-1790	15x18	Stone foundations in full basement, probable stone interior chimney
William Hawthorn	1750-1816	21x29	Stone foundations of two-story log house
Charles Robinson	1762-1781	23x26.5	Stone foundations in full basement
Benjamin Wynn	1765-1820	24x30?	Partial post pattern with 10x10 cellar and wooden chimney
Bloomsbury	1761-1814	15x20?	Blue beads that may have marked dwelling corners
Marsh Grass	1780-1820	?	Partial post pattern, root cellar, and hearth
McKean/Cochran II	1790-1830	18x28	Stone foundations in full basement; one interior stone chimney
Thomas Williams	1792-1840	?	Two root cellars and one large post
H. Grant Tenancy	1800-1870	15.5x16	Stone foundations in full basement; addition 15.5x6
Charles Allen	1790-1830	21.5x25.5	Stone foundations, end chimney, 10x14-foot addition

**Dimensions in feet. For sources see Table 1.*

Table 3. Material of Houses in Orphans' Court Proceedings, 1770 to 1830

	St. Georges	Appoquinimink	Duck Creek	Total
log	33	25	55	113
frame	35	15	16	66
wood	3	21	3	27
brick	16	12	30	58
brick and frame	.	1	.	1
stone and wood	.	.	1	1
unknown	20	5	6	31
total	107	79	111	297

Source: Center for Historic Architecture and Design, University of Delaware

Table 4. Condition of Houses in Orphans' Court Proceedings, 1770 to 1830

	St. Georges	Appoquinimink	Duck Creek	Total
bad or sorry	37	41	16	94
middling or tolerable	34	13	23	70
good	7	15	8	30
not specified	29	10	64	103
total	107	79	111	297

Source: Center for Historic Architecture and Design, University of Delaware

Table 5. Faunal Remains from Delaware Farm and Rural Dwelling Sites, 1730-1830

Analyst	UDCAR					Marie-Lorraine Pipes					E. Otter
Method	NISP	NISP	NISP	NISP	TNF	MNU	MNU	MNU	MNU	MNU	TNF
Site	Richard Whitehart	John Powell	Wm. Strickland	Darrach Store	Benj. Wynn	Aug. Crk. S	Thomas Dawson	McKean/ Cochran I	Aug. Crk. N.	McKean/ Cochran II	Blooms-bury
Mammal											
Cattle	66	470	987	81	156	178	296	133	39	208	46
Pig	6	700	1,139	74	120	143	426	135	42	452	166
Sheep/Goat	.	106	249	12	26	43	60	86	23	95	9
Horse	.	241	95	4	99	8	10	9	1	9	3
Dog	3	191	75	1	23	1	3	4	.	5	.
Cat	.		3	3		2	1	6	1	27	
Deer	12	205	99				3	1		1	1
Rabbit	16	3	3	1		1	20	12	2	29	3
Raccoon	.	34	2	.	2		2	3		2	
Squirrel	.	.	21	1		4	37	1		19	.
Opossum	3	3	3	2	.	.	5	4		5	.
Muskrat	.	.	2	39					.	43	7
Woodchuck	.	.	3	.						2	
Rat	.	.	3	28	.		1	16	.	96	.
Mink	.			.	.				.	2	
Rodent	2			.	.			18		24	5
Small	.		76			18	46	21	5	77	
Medium	129	.	4,672		.	.	48	53		128	1
Large	.	.	530	.		72	32	10	25	21	561
Subtotal	*237*	*1953*	*7,962*	*246*	*426*	*470*	*989*	*512*	*138*	*1,246*	*802*
Bird											
Chicken	.	.	8	.	.	18	51	64	5	129	2
Turkey	.	.	3	.	.	1	.	3	.	8	.
Goose	.	.	10	11	.	.	2	17	2	50	.
Duck	.	.	.	.	.	.	5	5		22	1
Pigeon	.	.	.	.	.	1	1	15	1	19	
Blue Jay	.	.	.	.	.	.	.			8	.
Woodpecker	.	.	.	.						2	
Medium	.	.		.	.	.		.	.		14
Unidentified	10	61	.	69	17	29	43	35	7	120	1
Subtotal	*10*	*61*	*21*	*80*	*17*	*49*	*102*	*139*	*15*	*358*	*18*
Fish											
Catfish		5	61	2		7	4	17		69	1
Perch	.	1	14	1	.		11				25
Gar		.	.			.	.	.	.		2

Analyst	UDCAR					Marie-Lorraine Pipes					E. Otter
Method	NISP	NISP	NISP	NISP	TNF	MNU	MNU	MNU	MNU	MNU	TNF
Site	Richard Whitehart	John Powell	Wm. Strickland	Darrach Store	Benj. Wynn	Aug. Crk. S	Thomas Dawson	McKean/ Cochran I	Aug. Crk. N.	McKean/ Cochran II	Blooms-bury
Shad	.	.	.	.	.	44		9		53	
Striped Bass	.	.	.	.	.	5	1			15	.
Drum	.	.	.	.	.	.	271	.		1	
Cod	.	.	.	.	.	.	.	1			
Unidentified	4	14	95	2	1	619	194	238	65	129	3,666
Subtotal	*4*	*20*	*170*	*5*	*1*	*675*	*481*	*265*	*65*	*267*	*3,694*
Reptile											
Snapping Turtle	.	5	.		228		2	1		12	2
Box Turtle		7	42	.						6	43
Terrapin	.	81	2								
Diamondback T.	.		38								1
Blanding's T.	.	.	.	.				1	1	4	
Musk Turtle	.		.	.							1
Wood Turtle	.	.	.	.			1				
Pond Slider	.		.		.					2	
Soft-Shell T.	.	.	.	.	.	.	.	.	.	1	
Unid. Turtle	44	212	33	9	.	3	11	6	.	10	27
Subtotal	*44*	*305*	*115*	*9*	*228*	*3*	*14*	*8*	*1*	*35*	*74*
Amphibian											
Unid. Frog	.	.	18	.		1	1			.	1
Subtotal	.	.	*18*	.	.	*1*	*1*		.	.	*1*
Bone											
Unidentified	6	4,816	.	381	317	1	.	1		2	117
TOTAL	389	7,155	8,286	721	989	1199	1,587	925	219	1,910	4,706

Table 6. Ceramic Vessels from Delaware Valley Sites, by Ware Type

Site	Date	Type	Coarse Earthenwares	Coarse Stonewares	Refined Wares	Porcelain	Total Number Of Vessels
Richard Whitehart	1681-1701	Farm	88.0	.	12.0	.	25
John Powell	1690-1735	Farm	72.5	.	27.5		51
Wm. Strickland	1726-1764	Farm	65.5	4.4	25.8	4.4	229
Augustine Creek S.	1724-1760	Farm	54.4	1.2	43.0	1.0	309
Thomas Dawson	1740-1780	Farm	46.8	0.8	52.7	4.7	405
Augustine Creek N.	1750-1770	Tenant Farm	68.0	2.0	30.0	.	50
Old Swedes	1757-1768	Town Parsonage	51.2		38.4	10.5	86
McKean/Cochran I	1750-1790	Tenant Farm	52.5	.	37.0	10.5	200
Charles Robinson	1760-1782	Farm	57.2	2.1	35.8	4.9	528
Ogletown Tavern	1740-1820	Crossroads Tavern	38.7	.	61.3	4.5	375
New Market St.[1]	1765-1775	Urban Privy	26.8	0.7	54.9	17.6	403
Benjamin Wynn	1765-1822	Tenant Farm	45.4	0.5	53.7	0.5	218
Whitten Road	1760-1830	Tenant Farm	61.5	1.6	33.3	3.6	384
Darrach Store	1775-1860	Tenant House	58.6	1.6	35.9	4.0	251
McKean/Cochran II	1790-1830	Farm	30.8	1.2	51.8	16.2	517
Thos. Williams I	1792-1840	Tenant Farm	23.5	.	67.8	8.7	174
Charles Allen I	1790-1830	Dwelling	25.3	2.4	61.8	11.2	249
7th & Arch Streets[2]	1800-1820	Urban Households	23.7	1.1	64.5	10.7	262

Sources in Table 1 except: [1]Cosans 1981; [2]Dent et al. 1997

Table 7. Ceramic Vessels from Selected Delaware Valley Sites

		Richard Whitehart	John Powell	Wm. Strickland	Aug. Crk S.	Thomas Dawson	Aug. Crk N.	McKean/ Cochran 1	Old Swedes
Tea	Cup	.	.	19	30	34	2	13	11
	Saucer	.	.	10	37	24	1	19	6
	Teapot	.	.	3	8	9	1	1	4
	Misc.	.	.	1	5	5	.	.	.
Table	Plate	.	7	26	6	3	1	2	17
	Bowl	1	.	24	18	19	1	12	8
	Porringer	.	1	4	18	9	1	10	1
	Pitcher	1	1	.	.	.	.	.	1
	Platter	.	.	3	.	.	.	2	.
	Misc.	.	.	.	4	8	.	8	.
Non-Tea	Mug	2	15	.	30	14	8	7	.
Drinking	Cup	1	5	10	3	.	.	.	.
	Mug/jug	.	.	41	.	3	.	16	.
	Punch bowl	.	.	.	1	.	.	.	.
Storage	Jar	2	8	4	20	9	1	10	.
	Pot	2	.	13	.	.	.	.	.
Food	Milk pan	7	7	23	20	17	1	15	11
Prep-	Pipkin	.	.	.	1	.	.	1	1
aration	Colander	.	.	.	.	.	.	1	.
Multi-	Dish	.	.	8	21	11	4	10	15
Function	Pan	2	1	.	23	9	1	14	2
	Jug	3	4	.	4	6	1	5	.
	Bottle	.	1	.	.	.	.	.	.
	Large bowl	.	3	15	.	2	.	2	3
Sanitary	Chamber pot	.	.	9	3	2	.	3	6
	Ointment pot	1	1	4	.	.	1	1	.
	Drug jar	.	.	1	.	.	.	.	.
Other	Toy	.	.	1	.	.	.	.	.
Unid.	Hollow	2	.	20	52	223	.	50	31
	Flat	.	.	.	.	.	.	.	4
	Unid.	.	.	.	.	.	.	.	19
Total		25	54	237	309	405	24	202	140

Table7, Continued. Ceramic Vessels from Selected Delaware Valley Sites (continued)

		Ogletown Tavern	Benj. Wynn	Whitten Road	Charles Robinson	McKean/ Cochran II	Charles Allen I	Darrach Store	7th & Arch St.
Tea	Cup	30	32	37	58	64	26	23	32
	Saucer	11	32	12	52	71	8	5	39
	Teapot	2	9	5	46	15	5	2	8
	Creamer	.	.	.	.	.	.	1	.
	Misc.	.	.	.	.	10	.	8	1
	Cup/sm.	5	.	18	.	.	.	.	.
Table	Plate	59	26	21	36	89	52	33	46
	Dish	14	.	1	.	1	.	.	5
	Bowl	32	25	23	27	54	27	19	19
	Porringer	1	3	.	.	5	.	.	3
	Pitcher	5	1	.	6	4	12	1	6
	Platter	4	3	.	4	.	.	.	1
	Misc.	.	2	2	1	7	.	2	5
Non-Tea	Mug	46	6	5	8	18	3	4	11
Drinking	Cup	39	.	10	.	.	.	.	.
	Punch bowl	3	1	.	.	.	.	.	.
Storage	Jar	1	11	32	34	15	.	1	4
	Pot	10	.	1	.	.	1	14	.
Food	Milk pan	7	6	1	5	30	16	2	1
Prepar-	Colander	.	.	.	.	1	.	.	.
ation	Cooking pot	6	.	.	.	.	.	2	.
Multi-	Dish	8	27	73	91	14	.	18	8
Function	Pan	4	17	.	90	21	.	12	9
	Jug	5	6	.	9	7	3	4	4
	Bottle	2	.	.	1	.	3	.	.
	Large bowl	20	13	13	54	1	4	22	4
Sanitary	Chamber pot	12	1	9	6	2	6	2	14
	Ointment pot	1	.	.	.	.	1	.	.
	Basin	.	.	.	.	.	.	.	3
Activities	Toy	.	.	.	.	2	.	.	10
	Flower pot	.	.	.	.	.	.	.	4
Unid.	Hollow	22	8	47	.	.	.	22	.
	Flat	23	.	6	.	.	.	.	.
	Unid.	3	.	68	.	.	79	54	10
Total		375	229	384	528	431	249	251	252

Table 8. Glass Vessels from Selected Delaware Valley Sites, 1680-1830

Vessel Type	Richard Whitehart	John Powell	Wm. Strickland	Aug. Creek S.	McKean/ Cochran I	Whitten Road	Old Swedes	Benj. Wynn	McKean/ Cochran II	7th & Arch
Drinking Glass										
Tumbler	.	.	1	2	7	.	6	.	4	45
Stemmed	.	6	3	3	3	2	1	.	3	12
Bottle										
Wine	5	4	20	12	7	16	13	9	14	14
Square Case	.	1	.	2	.	5	.	1	1	.
Flask	1	1	.	.	.	.	.	.	.	.
Pharmaceutical	.	.	5	.	.	2	2	.	.	1
Vial	.	.		3	7	.	.	.	11	15
Conical Ink	.	1	.	.	.	.	.	.	.	.
Snuff	.	1	.	.	.	.	.	.	1	.
Other Mold-Blown	.	1	1	.	.	.	.	8	.	.
Unid. Bottle	.	.	3	6	3	.	3	.	9	17
Other										
Candlestick	.	.	1	.	.	.	.	.	.	.
Lamp Chimney	.	.	.	.	.	.	.	2	.	1
Unid. Tableware	.	.	.	.	2	.	5	2	5	1
Unidentified	.		2	.	.	1	1	.	4	6
Total	6	15	35	28	29	26	31	23	52	113

Sources in Table 1 except: [1]Dent et al. 1997.

Table 9. Clothing-Related and Kitchen Artifacts from Delaware Sites

	R. Whitehart, 1680-1700	John Powell, 1691-1735	Aug. Crk S., 1724-1760	Wm. Strickland, 1726-1762	T. Dawson, 1740-1760
Clothing					
Gilt Buttons	.	.	5	.	9
Brass Buttons	.	2	3	6	20
Pewter Buttons	.	.	4	3	4
Tombac Buttons	.	.	.	.	2
Bone Button	.	.	.	.	1
Copper Buttons	6	4	3	5	.
Button Inlays	.	3	2	.	5
Metal Cuff Links	.	.	4	.	2
Inlaid Cuff Links	.	.	2	2	2
Misc. Fasteners	.	.	2	.	3
Shoe Buckle	.	2	8	15	18
Other Buckles	1	.	6	6	3
Kitchen					
Knives	.	2	2	8	17
Fork	.	1	1	4	2
Spoons	.	.	.	3	3
Utensil Handle	.	1	1	6	6
Metal cookware	3	.	5	20	16

LIST OF FIGURES

1. Map of Site Locations

2. Plan of the John Powell Site, ca. 1691-1735

3. Plan of the William Strickland Site, ca. 1726-1760

4. Artist's Reconstruction of the Augustine Creek South Site, ca. 1750

5. Sherd from an Elers Brothers Creamer found at the Thomas Dawson Site, ca. 1740-1755

6. Stemmed Glasses from the McKean/Cochran Farm Site, ca. 1750-1790

7. Buckles from the Augustine Creek South Site, ca. 1724-1760

8. Cufflinks from the Thomas Dawson Site, ca. 1740-1755

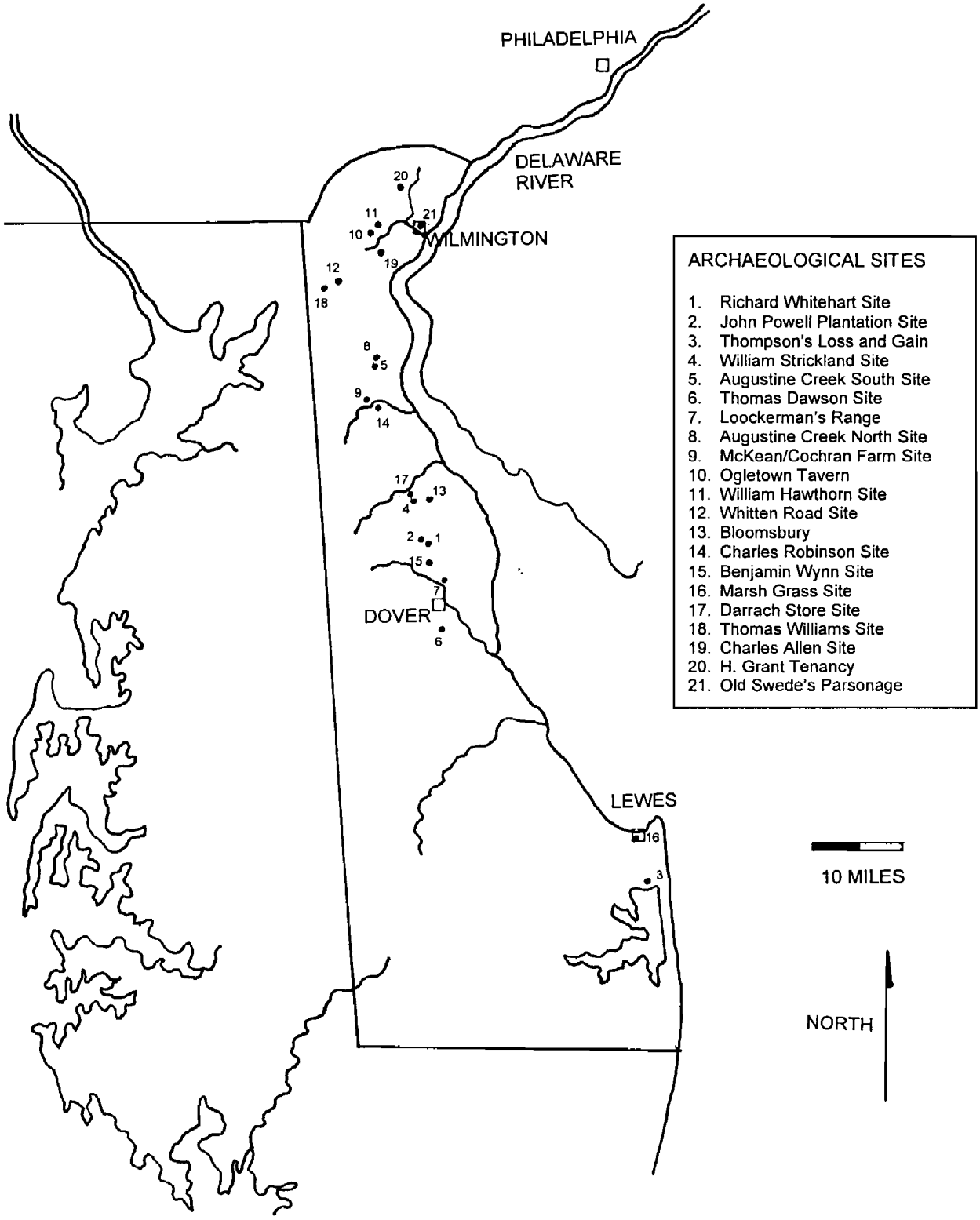

Figure 1. Locations of Archaeological Sites Discussed in the Text

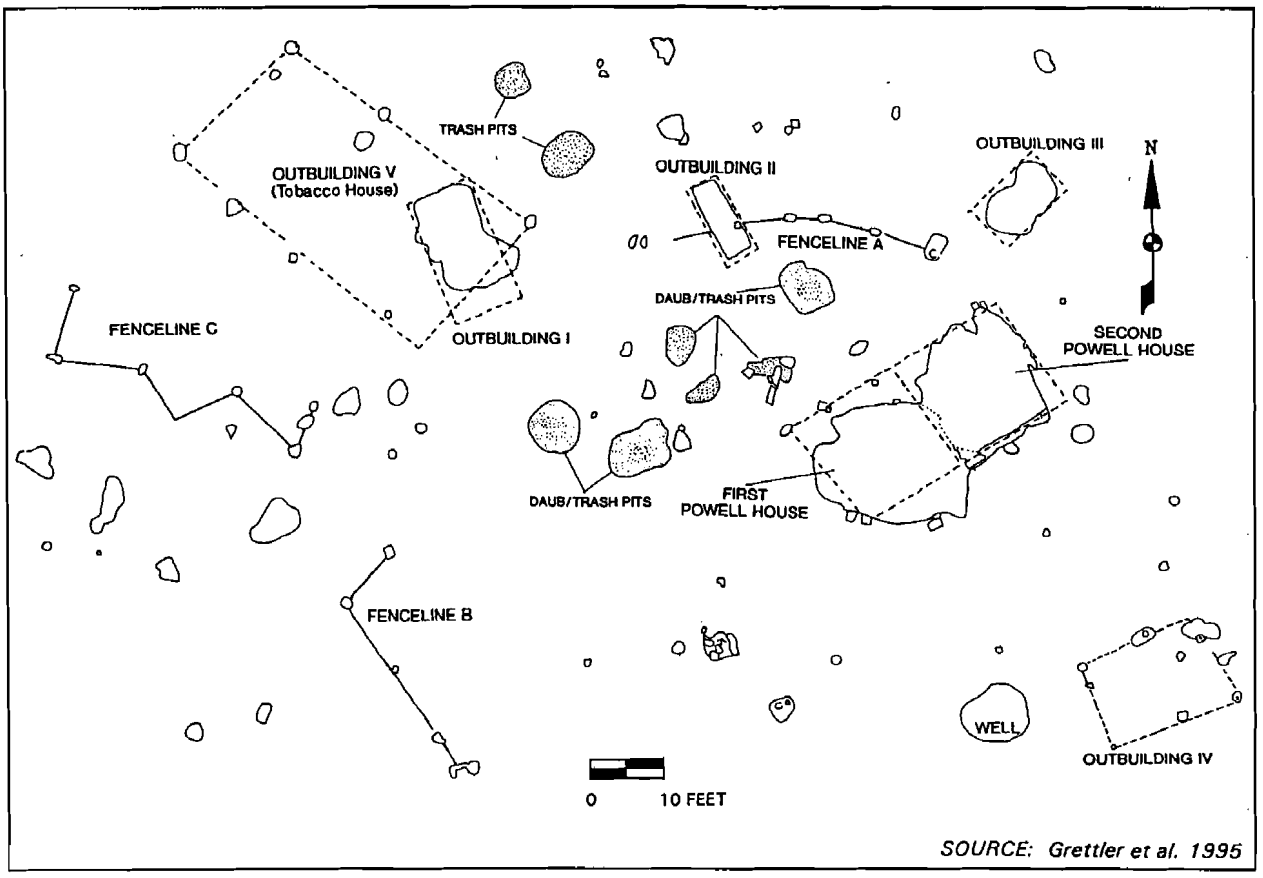

Figure 2. Plan of the John Powell Site, ca. 1691-1735

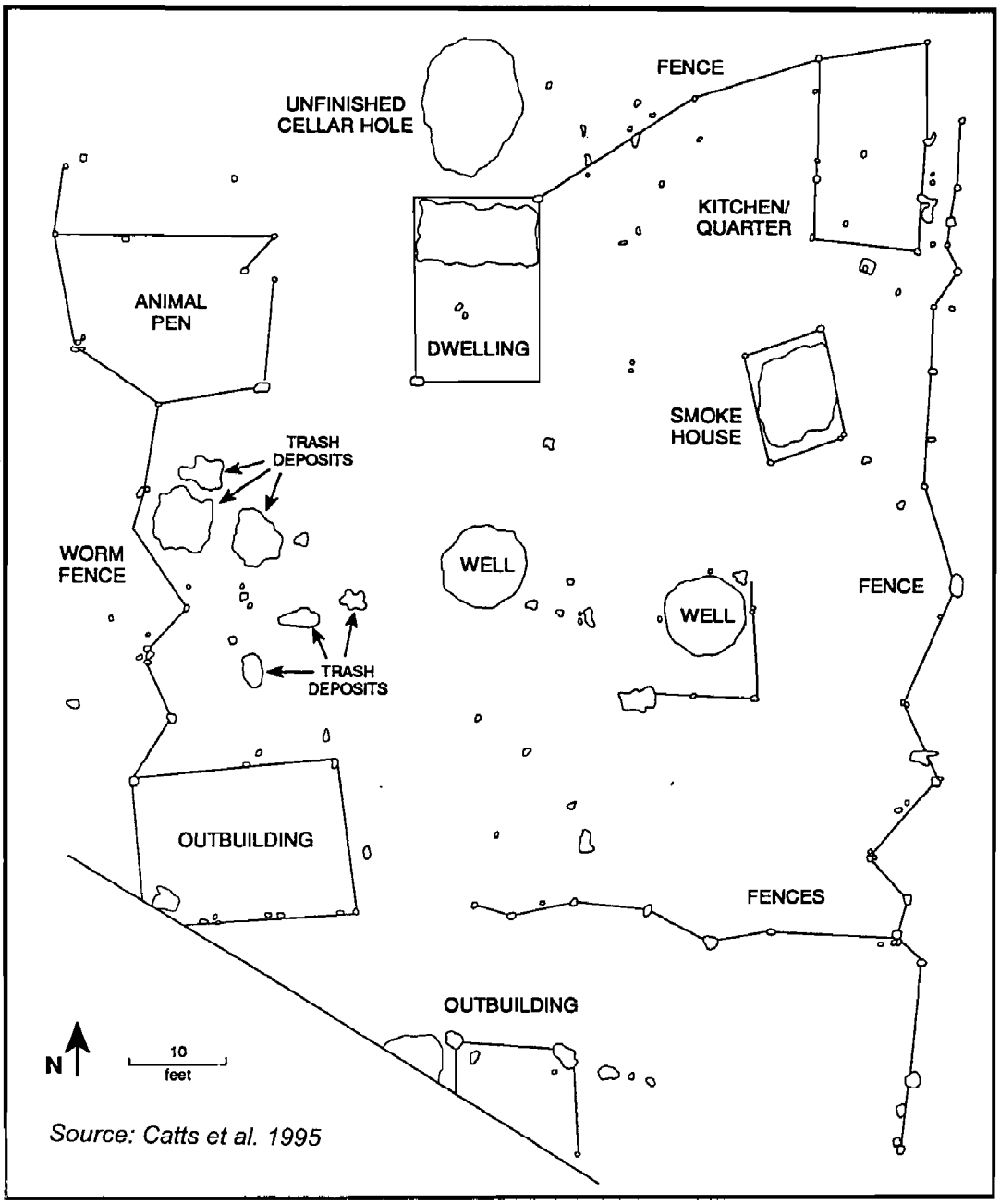

Figure 3. Plan of the William Strickland Site, ca. 1726-1760

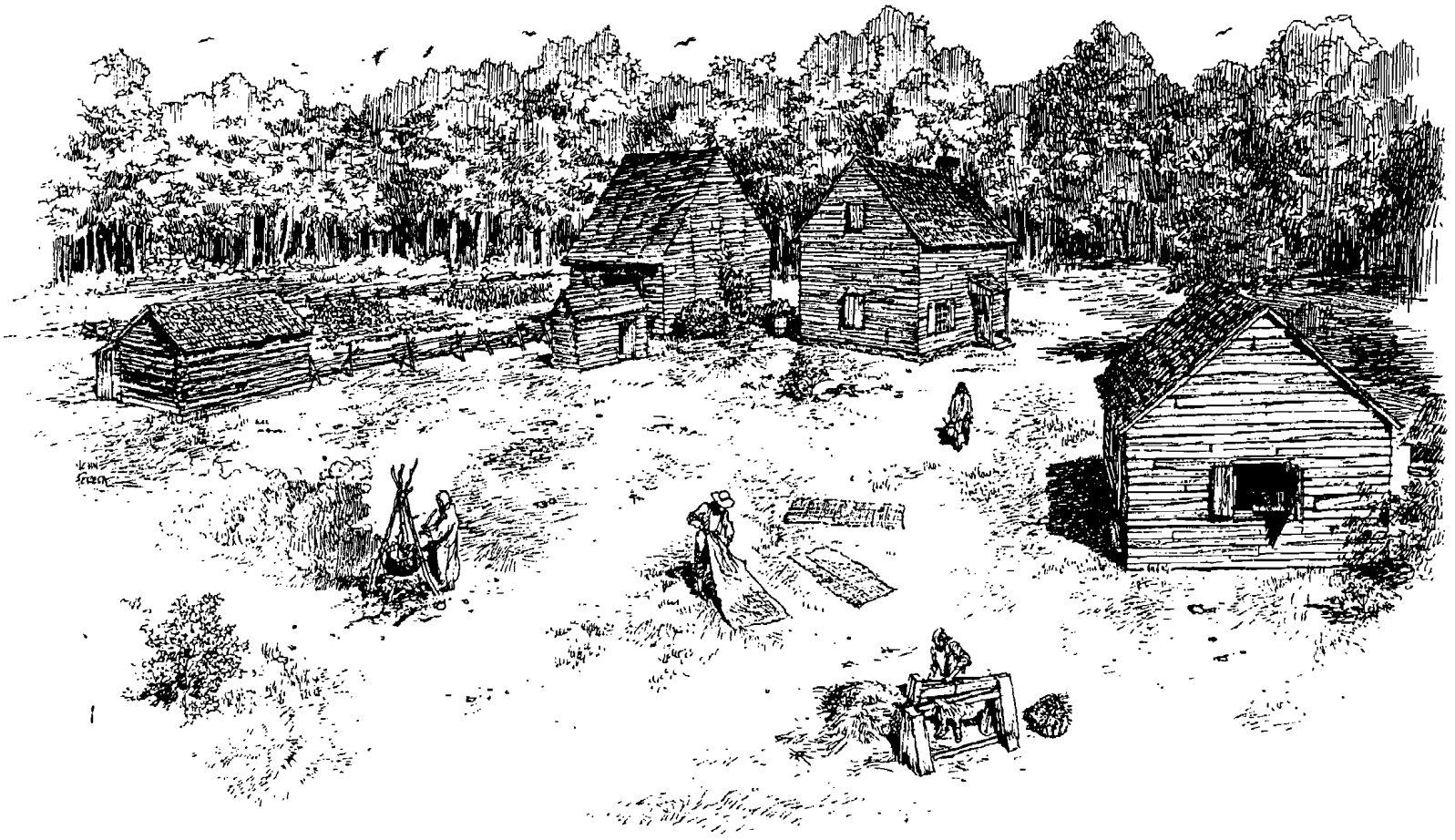

Figure 4. Artist's Reconstruction of the Augustine Creek South Site, ca. 1750

Figure 5. Sherd from an Elers Brothers Creamer found at the Thomas Dawson Site, ca. 1740-1755

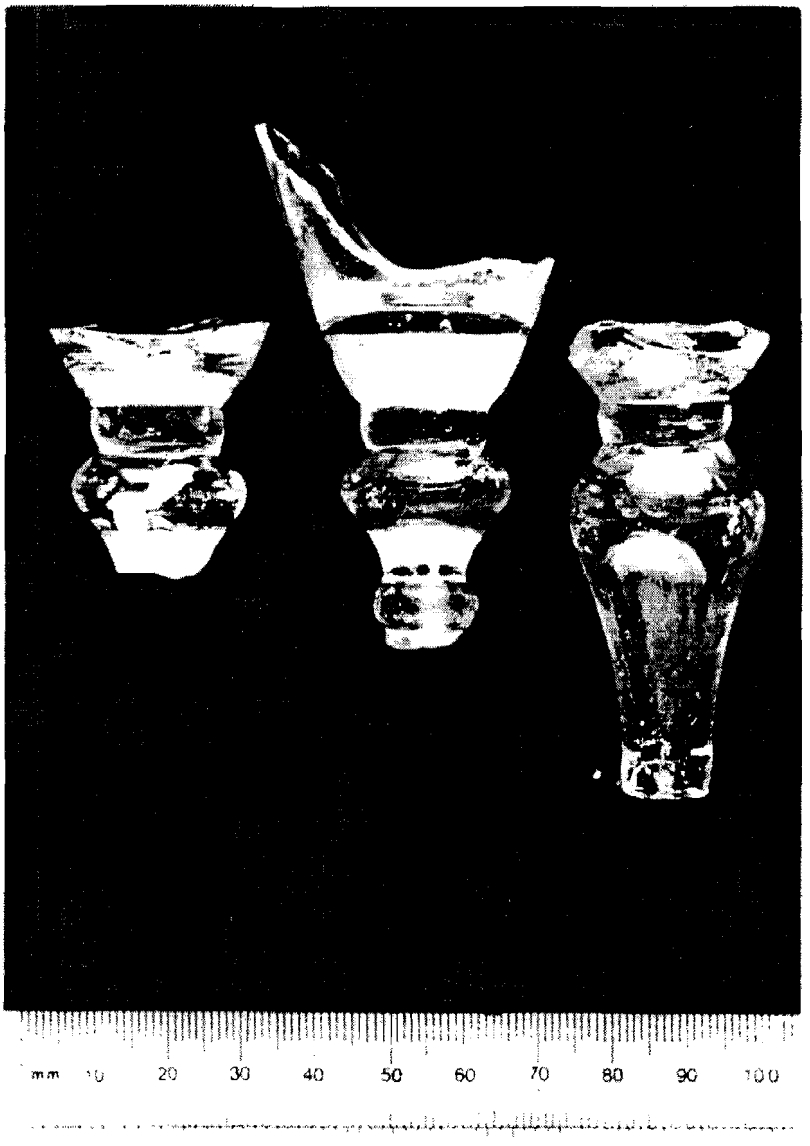

Figure 6. Stemmed Glasses from the McKean/Cochran Farm Site, ca. 1750-1790

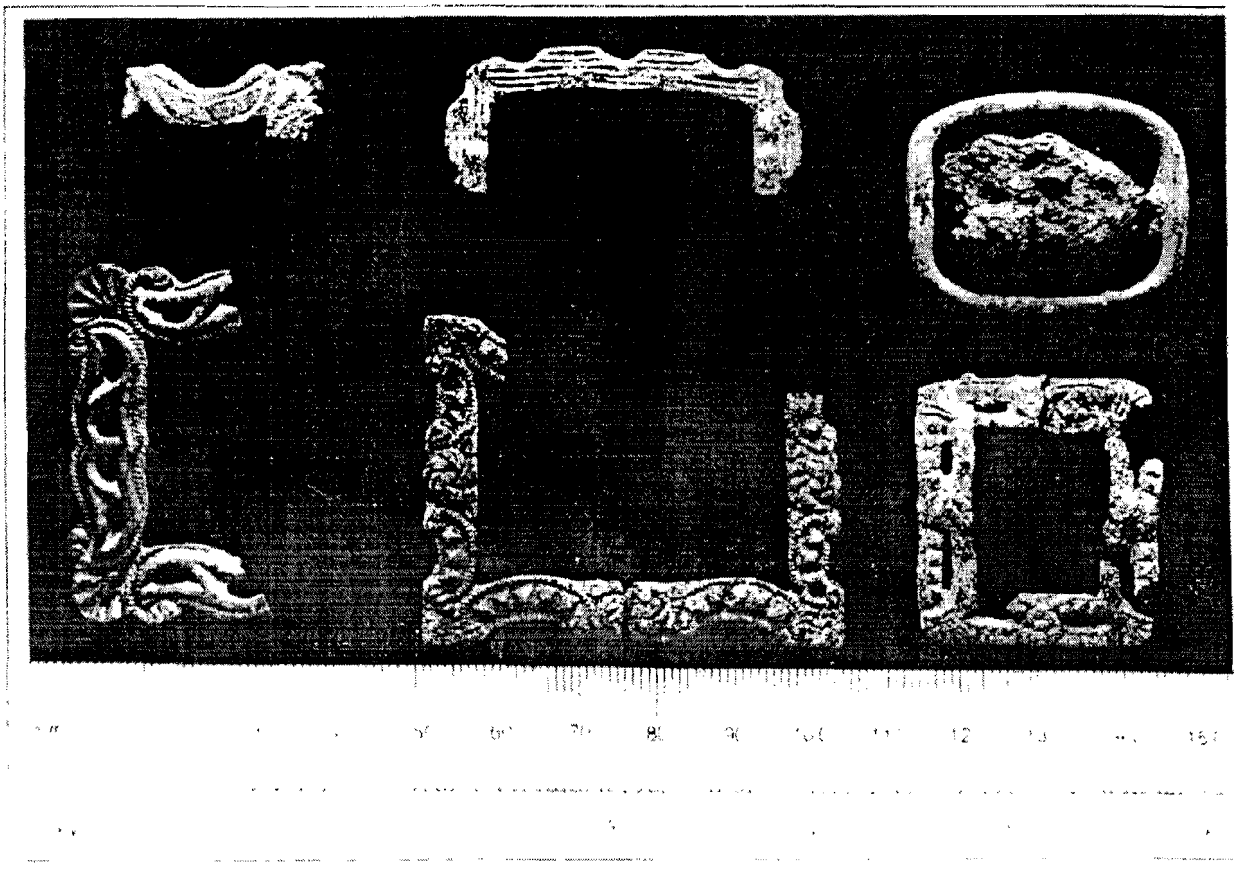

Figure 7. Buckles from the Augustine Creek South Site, ca. 1724-1760

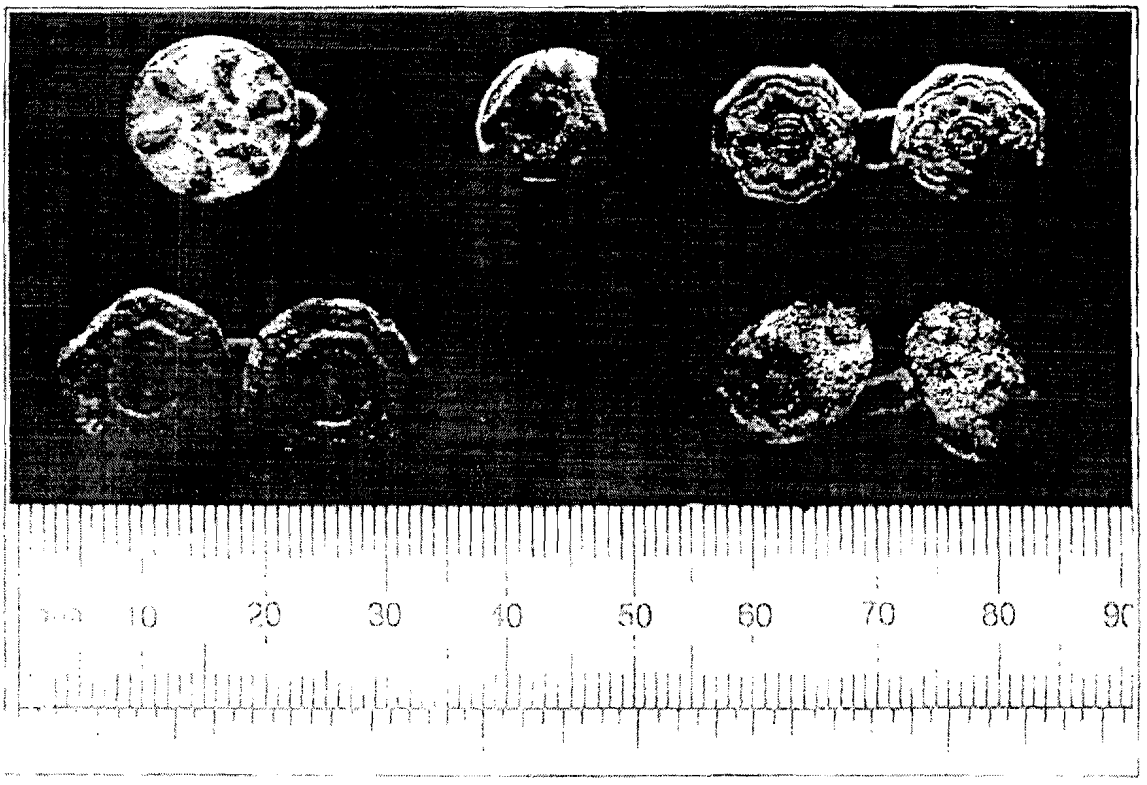

Figure 8. Cufflinks from the Thomas Dawson Site, ca. 1740-1755