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presented by Eric Daniel Johnson

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An Archaeology of Settler Capitalism: Industrialization, Indigenous Sovereignty, and Shell Beads between New Jersey and the Plains, 1750–1900 CE

A dissertation presented

by

Eric Daniel Johnson

to

The Department of Anthropology

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

in the subject of Anthropology

Harvard University

Cambridge, Massachusetts

March 2021

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Abstract

Indigenous artisans of Northeast North America have produced shell beads for thousands of years, including wampum, best known for its place in the 17th century fur trade. By the mid-18th century, Euro-American settlers appropriated the production of wampum and other shell beads for export as trade goods at government and private trading posts on colonial borderlands. Bead manufacturers and distributors in northern New Jersey exported shell beads for Native American consumers as far west as the northern and southern Plains. The industry employed workers of many different backgrounds, including women and men of European, African, and possibly Indigenous ancestry. While initially a household-based cottage industry, bead-making in New Jersey went through a process of partial industrialization, culminating in the Campbell Wampum Factory in the latter half of the 19th century. As American imperialism shifted from the Old Northwest to the Plains, new bead styles emerged from the factory's drilling machines and water-powered grinding wheels, including hair pipes, a style iconic of Native Plains identity. This dissertation combines analysis of museum collections with new excavations in Bergen County, New Jersey to examine shell bead industrialization under the framework of settler capitalism.

Euro-Americans have conscripted Indigenous shell beads into projects of settler colonialism since the earliest days of colonial interaction in Northeast North America, both through economic practices—including commodification, resource extraction, monetary circulation, and entrapments of debt—as well as political practices of dispossession, violence,

and erasure. The framework of "settler capitalism" illustrates how notions of private property, propriety, possessive individualism, and racialization were wielded and contested across capitalist relations of production, gender and race, conceptions of home and belonging, industrial technologies, settler statecraft and diplomacy, and Indigenous sovereignty. Theories of "conscripted materiality" and "entanglement" help ground settler capitalism the analysis in material culture. The material and biological characteristics of mollusks, shell, and technologies of beadmaking and beadwork both afforded and constrained different types of political action.

Methodologically, this dissertation examines industrialization of shell bead production diachronically at three sites: Stoltz Farm (1770–1810), the David Campbell House (1812–1844), and the Campbell Wampum Factory (1850–1900). Documentary and oral-historical claims regarding industrialization are evaluated with archaeological data, including relationships between standardization, technology, stylistic change, efficiency, skill, and output. Lived experiences of labor are reconstructed from archaeological, architectural, and landscape data, including negative health impacts for workers. Settler-capitalist subjectivities are reconstructed from semi-fictionalized accounts of the Campbell Factory in the late 19th century, suggesting ways that the ethics and logics of Indigenous elimination and civilizational supremacy were interwoven with those of capitalism. In assessing stylistic change of shell beads, I argue that as mass consumers, diverse Indigenous peoples drove demand and shaped commodity aesthetics, pushing the limits of capital, labor, shells, and machines for their own interests. Simultaneously, Native nations used settler-made beads as political claims to both identity and land. Circulations (or sometimes refusals) of shell beads helped to garner Indigenous solidarity in the face of settler-capitalist encroachments.

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1 INTRODUCTION

I. April 1815. St. Croix, Caribbean.

A sea snail roves the waters off St. Croix. Five pounds of biomineralized calcium carbonate ($CaCo_3$) drag across the ocean floor through a seagrass forest. A queen conch. *Lobatus gigas*[1] (Appeldoorn 1988; Randall 1964). A trail of sand traces her slow scavenge for algae, when suddenly, a human hand grasps the knobs of her shell, sweeps it to the surface, and tosses the conch in a jumble of her kin. This stash of snail is greater than any one human family could eat fresh. The harvester, his own ancestors taken from their homes in the West African slave trade (Dawson 2006, 2019), recently heard word of a vessel from New York. Ship's sails on the horizon signal the conch's potential worth, enough perhaps to supplement the harvester's provisioning garden allocated by the planter who claims ownership over him.

And so, the queen conch's six years of life will end. Her shell, however, begins a transcontinental journey. It is the lifelong product of filtering calcium ions from the water into a durable polymer, now conscripted into motion by a regime of capitalist value. She is swept into a commodity chain like an ocean current. But that is not all. The fruits of her metabolic lifework will become keystones in a long chain of exchanges, appropriations, extractions, and political action. It joins a deep-historical current in North America where shell and its transformations mark the making and breaking of moral obligation.

Unloaded of cargo, the vessel from New York docks at St. Croix's port of Christiansted. The harvested conch shell, now stripped of its molluscan life, joins thousands of others in the belly of the ship. Dutch captains sailing between the Caribbean and coastal Northeast North American had, on occasion, found willing buyers of conch shell since at least 1750 (Peña 2001;

[1] Formerly *Strombus gigas*.

Williams and Flinn 1991), if not a century earlier. This tradition continues into the 19th century. The vessel makes the long journey back to New York, steadied by the homes of thousands of *L. gigas*.

II. May 1815. South St, Lower Manhattan.

If there was ever a place to turn exotic shellfish into coin in antebellum America, the fish markets of Lower Manhattan will certainly do (Mensch and Lopate 2007). As the vessel docks, South Street merchants and dockworkers count, weigh, sort, and price a lively flow of marine life, the ordered chaos of commodification (Tsing 2013). The captain barters with the merchant at a disadvantage, both aware of his imperative to unload the convenient ballast. Barrels of conch make their way to the merchant's warehouse. The shell stands out in this landscape of fish-for-sale. It is not food. It is raw material. More akin to lumber or iron than oyster, the shell awaits further transformation.

The New York merchant sends letters up the Hackensack River into neighboring New Jersey. His connections—the Zabriskies in Paramus, the Demarest Store in Pascack—usually jump at the chance to stock up.

III. July 1815. Pascack Valley, New Jersey.

In a month's time, the conch makes a journey by sloop from the piers of South St. up the Hackensack, then by wagon along the field-lined country roads of Bergen County. The sea snail's home passes other homes, wide timber-framed barns and the red sandstone foundations of Jersey Dutch houses (Bailey 1968; Fabend 1996). Passing through the township of New Barbadoes, the placename is not the only thing familiar to the conch's Dutch-Caribbean homeland. Africans and their descendants—some free, some still enslaved—work the land

(Hodges 2019). Like the diver in St. Croix, they also carve out exchange value between the cracks of human bondage and capitalism.

Pascack Road runs north, set it a valley and a brook by the same name. The barrels of conch pass a mill on the way to James Demarest's Store in what is today Montvale, New Jersey.

IV. September 1815. David Campbell House, Pascack, New Jersey.

David Campbell returns home from the Demarest's store with twenty conch shells in tow. David is a descendant of settlers twice over. He is a third-generation descendant of settlers of New Jersey who in turn were descendants of Scottish settlers of Ulster, Ireland. The last couple years have been good for David and his wife Hannah. He is now a proprietor, complete with a home and a growing family. Three years ago, he married and purchased an acre of land from his father (Durie 1970, 132). Since the British signed the Treaty of Ghent last year, trade has only gotten better, so much so that David now spends just as much of his time cutting shell as he does cutting tombstones for the Dutch Reformed Church down the road. *L. gigas* is fit for this task.

Working in the yard just outside his home, David takes a chisel and a hammer to the conch shell's thick outer lip. Piece by piece, over the course of the next month, twenty shells become ten thousand tiny four-sided rectangular prisms, each roughly a quarter inch in length. He then sits down to a stone grinding wheel, pedaling it into a circular motion with his feet. Setting the prepared pieces of shell into a wooden vice, he presses the vice into the spinning stone. Each angle of the rectilinear prism is ground, forming an octagonal prism-shaped "blank." He coughs and clears the shell dust his throat—particulates of *L. gigas*'s calcium carbonate settling in his lungs—then calls to Hannah when he is finished with the first batch.

Hannah Campbell, between tending to the newborn and the cow, sits down with the pile of blanks, and begins the work of drilling. With the familiar weight of her bow drill in her hand,

she deftly places the drill bit to the blank and presses it against a metal plate hanging from her chest. She sweeps the bow back and forth as the string wraps and tightens around a spool. Bits of shell dust begin to clog the bore hole. She withdraws the drill and drips some water from a nearby redware vessel. Halfway through, Hannah spins the blank around and finishes the hole, now ready for final polishing at the grinding stone. Ten thousand more to go.

Most of *L. gigas*'s former home will lie in the soil of the Campbells' yard for two hundred years, returning to the surface again in 2019. The rest of *L. gigas* has now become hundreds of white beads called "wampum."[2] David's ancestors appropriated the art of wampum making from Indigenous nations of the Northeast, such as the Pequot, Munsee, Shinnecock, and many others (Brooks 2018; Bruchac 2018; McBride 1994; Stone 2006). David's descendants will stop making wampum by the end of the 19th century. Native artisans of the Northeast still do today.[3]

One month later, David treks back to the store with ten thousand finished beads. The Demarest merchant notes in his ledger that the shoes, calico, and newest multicolored slipware plates David bought last month are now paid off, with some credit to spare.

V. May 1816. Rock Island / Fort Armstrong, Illinois

The Sauk leader Ma-ka-tai-me-she-kia-kiak (also known as Black Hawk) navigates up the Mississippi River to Rock Island (Nichols 1992, 1999), a string of purple and white wampum in his ear (Figure 1.1). He knows the island well. It is a short distance from the village of Saukenuk. Black Hawk spent much of his early years on the island gathering strawberries and

[2] The term *wampum* is borrowed from Algonquian *wampumpeag* meaning "white shells"; in this dissertation, the term is used to refer to cylindrical white or purple marine shell beads originally produced and used by Indigenous peoples of Northeast North America (Bruchac 2018:56).
[3] Such as the work of Elizabeth James Perry, a wampum artist and enrolled member of the Wampanoag Tribe of Gay Head-Aquinnah: https://www.elizabethjamesperry.com/wampum-jewelry.php, accessed April 1, 2021.

catching fish in the Mississippi. Now, three years after the death of Tecumseh, American settlers had established a military garrison on Rock Island they call Fort Armstrong. After last year's skirmishes with settlers at the Battle of the Sink Hole, William Clark—of the famous Lewis and Clark expedition, now the Missouri Territorial Governor—sent word for Black Hawk to meet with officials at Fort Armstrong to discuss peace treaties. Many neighboring tribes have already signed, including Fox chiefs last September. Eager to end the violence in the region, Black Hawk and his fellow Sauk leaders have agreed to meet.

The meeting begins poorly. American officials accuse Black Hawk of conspiring against the United States. They were aware of war wampum circulating west from the Indigenous revolutionary outpost at Prophetstown during the War of 1812 (Patrick 2012). Black Hawk sits silently as his fellow chiefs argue with Americans over good intentions and bad faith. Eventually, tensions begin to ease, and a peace pipe with wampum is passed around the council. A tiny piece of *L. gigas*, woven into the pipe, helps to mediate the friction and suspicion on both sides. It had arrived there recently from St. Louis through exchanges with the Chouteau family merchant enterprise.

By the end of the council, Black Hawk signs what he believes is an agreement of peace. In reality, the text of the document stated that his land would be ceded to the United States. It was one of many past and future nonconsensual seizures of Indigenous land in the history of Euro-American settlers on the continent. Black Hawk later reflected on the event in his autobiography (Nichols 1999, 40–41 emphasis in original):

> Here, for the first time, I touched the goose quill to the treaty—not knowing, however, that, by that act, I consented to give away my village. Had that been explained to me, I should have opposed it, and never would have signed their treaty, as my recent conduct will clearly prove.

Figure 1.1: George Catlin, *Múk-a-tah-mish-o-káh-kaik, Black Hawk, Prominent Sac Chief*, 1832, oil on canvas, Smithsonian American Art Museum, 1985.66.2

By the time a fragment of *L. gigas* arrived at Fort Armstrong in the form of a white tubular shell bead called wampum, it had already undergone many transformations. Through these transformations, it entangled with many different social relations—whether enslavement, household craftwork, or international relations. In particular, shell moved through a society of settlers. These settlers' economy, political structure, kinship relations, conceptions of nature, property, and ways of being in the world relied in part on the removal, replacement, and attempted elimination of Indigenous peoples of North America (Coulthard 2014; Estes 2019; Ostler 2019; Ostler and Shoemaker 2019; TallBear 2019; Wolfe 2006). It was also a society governed increasingly by the logic of capital, whose contradictions were resolved primarily through expansion, growth, and further investment and acquisition of land and resources and marketization (Beckert and Rockman 2016; Cronon 1991, 72–116; 2003; Elyachar 2005; Harvey 2006; Johnson 2013; Li 2014; Pezzarossi 2019). In other words, it was a capitalist society seeking an ever-receding horizon of surplus wrested from human and nonhuman wellbeing, often by force. But this shell, despite its entanglements with settler capitalists, also moved through Indigenous society, where it helped to build relations of solidarity in the face of attempts at genocide and removal.

The following dissertation uses archaeological and historical methods to understand shell's transformations and relations in the context of settler colonialism, capitalism, and Indigenous sovereignty. Combining analyses of museum collections with new excavations in Bergen County, New Jersey, I examine the flow of shell beads along different webs of economic exchange and moral obligation. Shell beads have been made, woven, exchanged, and worn by Indigenous nations in North America for thousands of years. By the 17th century, Euro-Americans entangled shell beads into a bundle of economic, political, and often violent practices

of commodity extraction, dispossession, and erasure. The concept of settler capitalism (defined below) helps to illustrate how conceptions of private property, race, and appropriation were wielded and contested at the confluence of capitalist relations of production, industrial technology, settler-state diplomacy, and Indigenous resistance in the 19th century.

My empirical contribution—presenting new archaeological and archival data—focuses on producers of shell beads for export to the fur trade between 1770 and 1900 in northern New Jersey. Most of these producers were descendants of European settlers. Others were African- or possibly Indigenous-descendent beadmakers who worked independently or as waged workers in white-owned workshops. Shell bead manufacturing in New Jersey went through a process of industrialization, culminating in the Campbell Wampum Factory by 1850. As Euro-American exchange networks and settlement extended from the Old Northwest to the Great Plains, new bead styles including hair pipes and moons (see Chapter 3) emerged from the factory's drilling machines and water-powered grinding wheels.

Discussion of race in this dissertation is complicated by the fact that racialization is a contingent and historical phenomenon (Fields and Fields 2012). While I rely on 19th-century white-defined racial categories to make inferences about identity, these do not necessarily reflect authentic categories of self-identification. I use the term "white" and "Euro-American" interchangeably to refer to settlers of European ancestry who likely held the relative social and political-economic advantages of whiteness inscribed into settler institutions in North America. This includes the Campbell Factory owners, who were third and fourth-generation descendants of Ulster-Scot settlers. I use the term "Indigenous" and "Native American" interchangeably to refer to descendants and ancestors of original inhabitants of North America (or peoples also known variously as Native American and American Indian in the United States, or First Nations

and Aboriginals in Canada). The term "Indian" is cited throughout this dissertation as it appears in historical documents with no derogatory intent. The term "Black" is used interchangeably with "African American" and refers to peoples of African descent in North America. It should be noted that distinguishing between Black and Indigenous identities in New Jersey (and the Northeast in general) is sometimes difficult given the limitations of census data, particularly in the highland regions of northern New Jersey and southern New York. Given that "Indian" was not used in censuses before the later 19th century, the term "Mulatto" could refer to individuals with Indigenous or Black/Indigenous mixed-race ancestry. I specify race/ethnicity/ancestry as much as possible below while acknowledging these caveats. Additionally, any suggestion of an individual's ancestry (whether Indigenous or mixed-race) is not necessarily a claim about specific tribal identity or lack thereof, as practices of Indigenous political belonging and kinship are complex and diverse across time and space and often cannot be reduced to metrics of blood quantum in U.S. censuses, particularly before the 20th century (TallBear 2013).

In Chapter 2, I outline recent critiques from Indigenous studies to encourage a framework of "settler capitalism" in historical archaeology. Historical archaeology has long understood itself as a study of post-medieval colonialism and capitalism globally (Hall 2000; Orser 2010; Silliman 2005). However, I suggest that in North America and elsewhere, the field is currently recognizing itself as the study of *settler* colonialism, as outlined by critical Indigenous theory. Chapter 2 describes alignments and tensions between theories of settler colonialism and political economy. Their overlaps—found in the concepts of appropriation, private property, propriety and whiteness, and possessive individualism—combine to inform a theory of settler capitalism. In applying this to recent developments in archaeological theory, I suggest the concept of "conscripted materiality" to argue how the characteristics of shell, mollusk biology, industrial

technology, and other "materialities" facilitate and constrain human political action in unpredictable ways.

Chapter 3 outlines the archaeological dimensions of shell beads. First, I trace the style typologies of shell beads produced in Northeast North America: who made them, what they look like, and how did they change over time? Second, I outline the material characteristics of different types of shell and the biology of mollusk species that were used in the industry. Variation in shell materiality results from the biology and lifeways of the mollusk species that made the shell. These attributes impacted the efforts of those who conscripted shell into human action.

Chapter 4 provides the historical backdrop for this study. It also applies theory from Chapter 2 combining theories of settler colonialism and capitalism. I first outline the 17th century fur trade, tracing the ways that settlers conscripted wampum into merchant capitalism as "money" in North America and the violence that followed in its wake. I then describe the history of wampum production as a settler cottage industry in northern New Jersey up to 1830, including the histories of enslaved Africans and their descendants and the Indigenous Ramapough Lunaape (Lenape) Nation of New Jersey. I also point to the intimacies between American bead-craft and statecraft after the Revolutionary War. Chapter 4 concludes with a description of beadmaking's industrialization in New Jersey with the Campbell Wampum Factory and new merchant and state incursions on the Great Plains.

Chapter 5 provides the background for the archaeological excavations detailed in this study. I describe the provenience, provenance, and historical context of three sites of shell bead production in New Jersey: Stoltz Farm (1770–1810), the David Campbell House (1812–1844), and the Campbell Wampum Factory (1850–1900). Stoltz Farm and the Campbell Factory were

excavated in the early 20th century, but museum collections have never been analyzed with modern quantitative methods. The David Campbell House was discovered and excavated in 2019 and 2020 as part of an archaeological survey of the Pascack Valley that sought to identify and sample from sites of shell bead production in the 19th century.

In Chapter 6, I examine settler capitalism's shell conscripts quantitatively. Building on theory and method from industrial archaeology and the archaeology of craft production, I evaluate oral-historical claims regarding industrialization across variables of standardization, technology, stylistic change, efficiency, skill, and output. Chapter 6 also incorporates data from original ledgers in the region that help document the microeconomy, temporality, and scale of beadmaking in the mid-19th century. For example, ratios of wasters to debitage suggest larger quantities of broken beads at the Campbell Factory than expected, undermining historical narratives of industrial efficiency.

Chapter 7 examines the more qualitative dimensions of settler capitalism. I first evaluate the working conditions and lived experiences of labor using archaeological, architectural, and landscape data between the first and second half of the 19th century. Data, for instance, point to increased risks of silicosis for factory workers due to concentrated calcium carbonate inhalation from intensive bead grinding. I then examine the subjectivity of settler capitalism through two 19th century texts—*The Mint at Pascack* and *The Last Wampum Coinage*. Both semi-fictionalized accounts were published in New York magazines and resulted from first-hand visits to the Campbell Wampum Factory. They help characterize attitudes about industrialization, technology, labor, property, gender, race, and Indigeneity under the ethic of settler capitalism.

In Chapter 8, I conclude with two case studies of shell beads on the frontier. I retell historical events with shell beads in the foreground to show how beads sustained different forms

of solidarity in the fight against settler-capitalist incursions. The pan-Indigenous spiritual uprisings of the Shawnee brothers Tenskwatawa and Tecumseh in the Old Northwest relied on wampum to communicate good faith and marshal allies against the American state in the War of 1812. In the later 19th century, hair pipes were central to resistance movements of the Oceti Sakowin (or the Great Sioux Nation). They adorned delegations to Washington and were worn by woman warriors who fought in the Battle of Greasy Grass (or Little Bighorn).

At the turn of the 20th century, hair pipes remained central to Indigenous modernities. They garnered pan-Indigenous solidarity in reservation life, and they became part of the contradictions and contestations of Native representations in popular culture. Hair pipes continue to outlive the creative destruction of capitalist enterprises. The Campbell Wampum Factory, for instance, was outcompeted by a bigger bead manufacturer in the late 19th century tied to changes in Indigenous demand for bone beads. It shuttered its doors in 1900 and became a ruin, its collapsed roof and water wheel sitting still and silent beside the Pascack Brook. It is in these ruins—and the bits of *L. gigas*'s home left behind—that the following dissertation attempts to understand the logic of settler capitalism. Through this understanding, we might be better positioned to divest from its harmful futures and build another world in its place.

2 SETTLER CAPITALISM AND CONSCRIPTED MATERIALITY

The goal of this dissertation is to understand the place of shell beads in American settler colonialism, capitalism, and Indigenous sovereignty from 1750 to 1900 with a focus on industrialization and American imperialism. To do this, I engage with literature from critical Indigenous studies (CIS) (or critical Indigenous theory), a field that has only recently gained purchase in archaeology. Historical archaeology has long been a study of (and often a critique of) colonialism, capitalism, and modernity, but it is only recently beginning to engage explicitly with the analytic of settler colonialism.

I begin by outlining recent developments in CIS and its potential critiques of historical archaeology. Taking these critiques into the heart of the archaeology of capitalism, I then outline a theory of settler capitalism which uses the concept of appropriation to articulate Marxist theory with CIS. Settler appropriations of nonhumans, labor, land, culture, politics, and the past reveal settler capitalism as both a political-economic project and a subjectivity tied to racialization, gendered notions of propriety, and possessive individualism. Finally, in bridging this theory with studies of material culture, I sketch genealogies of the "object itinerary" approach in archaeology. I point to its merits while suggesting ways it risks downplaying political-economic dependencies and overstating objects' culpability, particularly in genocidal projects of settler colonialism. To shore up these risks, I suggest a theory of "conscripted materiality" to account for how material characteristics make certain types of political action possible yet sometimes difficult and unpredictable as shell and shell beads travel on the many itineraries of value between settler capitalism and Indigenous sovereignty.

2.1 **Critical Indigenous Studies**

Critical Indigenous studies (CIS) has its origins in a long tradition of Native studies (or Indigenous studies). Native studies emerged in the wake of the American Indian Movement in

the 1970s (Cook-Lynn 1997; Deloria 1969). At its heart, the field sought a kind of "intellectual sovereignty" (Warrior 1995) with two explicit goals: to reclaim the means of knowledge production about American Indian, First Nation, Aboriginal, and Indigenous peoples globally, and to build intellectual and political infrastructure for advancing projects of Indigenous sovereignty under occupation by settler states (Moreton-Robinson 2016, 7; Simpson and Smith 2014, 8). This tradition of Native studies has developed in tandem with archaeology with occasional engagements, as in the case of Indigenous archaeology (Atalay 2006, 2012; Bruchac, Hart, and Wobst 2010; Cipolla, Quinn, and Levy 2019; Colwell-Chanthaphonh et al. 2010; McNiven 2016; Watkins 2000). The addition of *Critical* to Indigenous studies, however, is an important shift that archaeology—parallel to the development of Indigenous archaeology—has only recently begun to reckon with.

In the last decade or so, scholars from within Native studies have called for two main revisions. First, Audra Simpson and Andrea Smith (2014) argue the field sometimes confused intellectual sovereignty with isolation. As a result, many Native studies scholars have avoided labelling, framing, and understanding their work as "theory." There are good reasons for this, given deep histories of extraction and appropriation of Indigenous culture and knowledge in the academy. Yet Simpson and Smith's call to "theorize" Native studies claims not to cede territory to other disciplines or seek special recognition from the academy. Rather, by engaging with cross-disciplinary currents of postcolonialism, Marxism, ethnic studies, critical race theory, queer theory, and others, CIS aims to build theoretical coalitions for the broader task of decolonizing academia (Barker 2017, 8–21; Simpson and Smith 2014; TallBear 2016).

A second critique has emerged as work produced by Native authors about Native cultures becomes reinscribed by academia as white-settler institution. Here, Indigenous authors are

"entrapped" by (re)producing ethnographic knowledge about themselves within the borders of anthropological knowledge production (Simpson 2011). As Andrea Smith frames it, "we fall into the Foucauldian trap of thinking our liberation will be effected, not through structural change but through confessing our truths, demonstrating the worth of our cultures, proving to those in power that we are worthy of humanity" (Smith 2014, 211). This academic "politics of recognition" is reminiscent of the way that liberal multiculturalist settler states require Indigenous nations to comport themselves to occupiers' terms of recognition before "granting" scraps of political-economic autonomy from the table of imperial power (Coulthard 2007, 2014).

In response, Indigenous studies scholars have questioned whether the field should take "Native peoples" as its exclusive subject of study. Instead, drawing also from queer theory (Byrd 2011; Rifkin 2011; Smith 2010), what emerges is a mode of *critique*—whether of colonialism, capitalism, whiteness, heteropatriarchy, the liberal-democratic state, or anthropology itself—from the standpoint[4] of Indigenous peoples. In Aileen Moreton-Robinson's (2015, xvii) words, CIS "signals an epistemological shift away from designating Indigenous people as the objects of study to analyzing both the conditions of our existence and the disciplinary knowledges that shape and produce Indigeneity." This reorientation runs parallel with continued commitments to Indigenous sovereignty, along with longstanding debates about what "Indigenous sovereignty" is (or should be) in the first place (Alfred 1999; Bruyneel 2007; Lyons 2010; Turner 2006).

Aspects of this analytical shift are not necessarily new. On the one hand, Native studies has always been a critique of modernity (Deloria 1969). Anthropology too, at least since the 1980s, claims to have turned away from a study of the Other to the construction of Otherness (Ortner 1984; Said 1979; Trouillot 1991); many archaeologists have followed suit, though the

[4] Derived from feminist theory, see also the concept of *orientation* mobilized in queer theory (Rifkin 2017:2–5).

boundary of history and "prehistory" remains troubled, particularly in North America (Cobb 2005; Oland, Hart, and Frink 2012; Schmidt and Mrozowski 2014). Despite this movement in historical archaeology, I argue the specific insights from *critical* Indigenous studies are relatively new to archaeology, namely that of the "settler" in settler colonialism (Veracini 2010; Wolfe 1999, 2006).

2.2 **Archaeologies of Settler Colonialism**

2.2.1 Colonialism or Settler Colonialism?

In a seminal article published in *American Antiquity*, Stephen Silliman (2005) posed a question: culture contact or colonialism? He challenged North American archaeologists' use of the term "contact period," arguing that it "(1) emphasizes short-term encounters over long-term entanglements; (2) downplays the severity of interaction between groups and the radically different levels of political power that structured those relationships; and (3) privileges predefined and almost essentialized cultural traits over creative, creolized, or novel cultural products" (Silliman 2005, 56). The change in terminology from contact to colonialism ushered a welcome sea-change for what is now typically called historical archaeology in North America (Ferris, Harrison, and Wilcox 2014; Lightfoot et al. 2013; Oland, Hart, and Frink 2012). Recent critiques from CIS pose another question for historical archaeology: colonialism or settler colonialism?

Historical archaeology's tension with settler colonialism dates to its origins. Before the 1980s, the subdiscipline's predominantly white, male, and nationalist practitioners tended to focus on the small finds of big men in American history. The field's early moniker as a "handmaiden to history" (Hume 1964) might well be described as a handmaiden to settler colonialism, to the extent that "colonial history" was (and in many cases still is) a veneration of white American progress, civilization, and capitalism. In 1978, J.C. Harrington surveyed

historical archaeology as "an auxiliary science to American history," noting "a great deal of digging has been done in during the last few years at sites associated with the history of white men in North America" (Harrington 1978, 3).

Of course, even in Harrington's lifetime—the era of Jim Crow and WPA archaeology—Black, Indigenous, and other marginalized identities have always constituted the intellectual labor of archaeological theory, typically in unacknowledged ways. Take the case of the 87 African American women who excavated and interpreted Irene Mound in Savannah, Georgia (Battle-Baptiste 2011, 68–69; Claassen 1993) or Seneca archaeologist Bertha ("Bertie") Parker's discoveries at Gypsum Cave, Nevada (Bruchac and Zobel 2018, 84–113). Since the 1980s, the field is no longer such a nationalist project, and in some cases the opposite, in part due to theoretical interventions including Marxism (Leone 1995; Wurst 1999), feminism (Seifert 1991; Wilkie and Hayes 2006), critical race theory (Terrence 2004), Indigenous critiques (Atalay 2006; Watkins 2000), postcolonialism (Liebmann and Rizvi 2008), black feminism (Battle-Baptiste 2011), and queer theory (Voss and Casella 2012). However, the term "settler colonialism" has only recently arrived in the discipline's lexicon. As of 2020, in the journal *Historical Archaeology*, "settler colonialism" only appears in seven articles, five of which are after 2016. A similar count appears in the *International Journal of Historical Archaeology*, where four of seven references to settler colonialism date to 2020. Fewer of these can be said to engage settler colonialism as an analytic (rather than simply a short-hand description of Euro-American settlement).

What is the analytic of settler colonialism? Archaeologists broadly define *colonialism* (sans "settler") as a project of resource extraction, violence and domination, structures of discipline, enslavement, and/or labor exploitation of colonized peoples for the benefit of a

political-economic metropole, typically across lines of difference, whether cultural, linguistic, racial, ethnic, or geographic (Dietler 2010, 15–24; Gosden 2004). *Settler colonialism* is distinguished from colonialism by the simple fact that oftentimes colonizers come to stay (Tuck and Yang 2012, 5) and build durable states, including contemporary settler occupations in the Americas, Australia, New Zealand, Hawai'i and other Pacific Islands, South Africa, Israel, and other contexts where the existence of settlers excludes the existence of Indigenous nations. Put another way, there is arguably no "post-colonial" period of American history (Cook-Lynn 2012), a label sometimes applied to India after the period of British rule, for instance. While the concept was developed through the study of European expansion after ca. 1500 CE, it may be reasonable to apply some insights of settler-colonial theory to the ancient world, as has been done with the concept of colonialism (Dietler 2010). That said, the specific contours of economy, nationalism, and race in the modern world that interface with settler colonial theory should be carefully and contextually examined before extrapolating to the ancient world.

More than a typology or timeline of colonial interaction, settler colonialism is its own theoretical framework (complete with its own journal, *Settler Colonial Studies,* since 2011). Here, one key element that distinguishes settler colonialism from colonialism from a theoretical perspective is the "logic of elimination." Patrick Wolfe, writing from the Australian context, famously posed that settler colonialism is a structure, not an event. The replacement of Indigenous populations, polities, and identities requires a genocidal "logic of elimination" that rationalizes settlers' intergenerational presence (Wolfe 1999, 2006). Space and territory are key, as Eve Tuck and K. Wayne Yang (2012, 5) argue:

> *Settler colonialism* operates through internal/external colonial modes simultaneously because there is no spatial separation between metropole and colony … The horizons of the settler colonial nation-state are total and require a mode of total appropriation of Indigenous life and land, rather than the selective

> expropriation of profit-producing fragments. Settler colonialism is different from other forms of colonialism in that settlers come with the intention of making a new home on the land, a homemaking that insists on settler sovereignty over all things in their new domain.

As new and independent "metropoles" emerge from colonies, the logic of elimination lodges itself into the institutions, political economies, ontologies, and overall lived experience of settler society as it reproduces itself over time. The mere existence (and resistance) of Indigenous nations is a logical contestation of settler-state legitimacy (Moreton-Robinson 2015, xi). Native people(s) are "a reminder of the settler's own precarious claims to land and belonging" (Estes 2019, 248). In this context, the maintenance of settler colonialism requires ongoing ideological, material, and often violent effort on the part of the settler-state apparatus and its cultural and academic institutions, particularly in the realm of settler history. Settler societies internalize narratives of Indigenous elimination, extinction, erasure, terminality, and acculturation, typically through the lens of civilizational and racial hierarchy. The implications for understanding settler society—Harrington's (1978, 3) "history of white men in North America"—are foundational: "Elimination refers to more than the summary liquidation of Indigenous people, though it includes that. In its positive aspect, the logic of elimination marks a return whereby the native repressed continues to structure settler-colonial society. It is both as a complex social formation and as continuity through time that I term settler colonization a structure rather than an event" (Wolfe 2006, 390).

While historical archaeology may have originated as a settler discipline, I do not suggest that all post-1492 archaeology in the Americas inherently falls under the umbrella of settler colonialism. To make it legible is also to consider its inapplicability. For instance, in critiquing the overuse of the term "colonial" in American archaeology, Kurt Jordan and Peregrine Gerard-Little argue that colonial should not apply to contexts where Indigenous nations "lived beyond

the orbit of colonial settlement and control, where they remained predominantly autonomous even as they were entangled in colonial trade networks, exchanges of ideas and technology, and responses to colonial aggressions and diplomacy" (2019, 40). Colonial interactions and their archaeological signatures are diverse across time and space (Acabado 2017; Gosden 2004; Naum and Nordin 2013; Trabert 2017, 2019). While the focus of this dissertation is on United States settler colonialism after 1770, archaeologists should use caution when thinking through the concept and considering the diversity of colonialisms across the Americas, whether Spanish, French, British, Russian, or Portuguese, and their many manifestations in regions as distant as the Pacific Northwest to Argentina and over the course of centuries. For example, while policies of the United States toward Indigenous peoples of California in the mid-19th century are strikingly settler-colonial and capitalist (Madley 2016; Nelson 2019; Sunseri 2017), mission-based Spanish or Russian colonialism emerged there differently, and the extent to which settler-colonial theory applies to these periods might be a robust terrain for debate (Lightfoot and Gonzalez 2018; Panich 2013). The point here is for archaeologists to differentiate, name, and understand settler colonialism and its logics where data is applicable.

Most forms of colonialism involve some form of human movement and settlement, but not all cases of colonial settlement fall under the rubric of settler colonialism outlined above. For example, the presence of seasonal, migratory European fishermen in Newfoundland in the 16th century is one case that might be described both as mercantile capitalism and as "colonial" or "pseudo-colonial" in terms of its aims of resource extraction. However, the project did not result in durable institutions or cultures that relied on the elimination of Indigenous inhabitants until the plantations of the 17th and 18th century (Pope 2006). Many other endeavors, whether early modern mercantilism or the Iraq War in the 21st century, involve state-backed colonial or

imperial dynamics fueled by civilizational supremacy, market incentives, violence, labor exploitation, and resource extraction, but their intent is not to create durable *settler states* that displace and replace preexisting inhabitants.

Viking colonization of the North Atlantic is another revealing case to consider the (in)applicability of settler colonialism (Barrett 2003). The lack of burials at the Viking site of L'Anse aux Meadows in Newfoundland suggests a relatively short occupation (Wallace 2003) and while some have suggested the Norse presence in the maritime Northeast was longer (Ledger, Girdland-Flink, and Forbes 2019), there is not strong evidence to suggest settlement there developed durable institutions that came to embody logics of Indigenous replacement and elimination. The case of Iceland is equally revealing in its ambiguity (Lucas and Parigoris 2013), where Viking colonization of the island *did* result in durable institutions that often take the character of a "settler" society, yet colonization did not involve the replacement of Indigenous inhabitants, and therefore the applicability of settler-colonial theory to Iceland may be ambiguous at best.

I do not suggest historical archaeologists have failed to examine settler colonialism. In many ways, elements of settler-colonial theory are embedded in historical archaeologists' conception of "colonialism," even if the term has not been widely used and even if some of its theoretical claims have not been examined in detail. Of course, the tradition of Indigenous and collaborative archaeology has always been in dialogue with critiques from Native studies (Atalay 2006; Silliman 2009; Watkins 2000), and many of CIS's critiques resonate with this body of work. Additionally, schools within historical archaeology have begun the work of incorporating settler colonialism and critiques from CIS into their work. For this reason, I argue that historical archaeology in the last few years is *beginning to recognize itself as the study of settler*

colonialism, not that it has failed to observe or document settler-colonial dynamics. As such, the discipline has much to gain from engaging with CIS and settler-colonial theory more explicitly.

The use of settler colonialism as an explicit theoretical framework outlined above and below is still relatively rare, particularly as a study of settler society. Those that have been more explicit feature most prominently in California (Lightfoot and Gonzalez 2018; Oland, Hart, and Frink 2012; Panich, DeAntoni, and Schneider 2020; Panich and Schneider 2019; Schneider 2015) as well as authors in the recent edited volume *Indigenous Persistence in the Colonized Americas* (Law Pezzarossi and Sheptak 2019). Emergent themes in this work include the archaeology of survivance (Silliman 2014; Vizenor 2008), Indigenous futurity (Gonzalez, Kretzler, and Edwards 2018; Goodyear-Ka‘ōpua 2017; Mrozowski and Rae Gould 2019; Tuck and Gaztambide-Fernández 2013), refusal of settler epistemologies (Nelson 2019, 2020; Simpson 2014), and studies that foreground histories of Indigenous sovereignty (or the political-economic autonomy of Native nations in colonial contexts) (Jordan 2016; Lightfoot et al. 2013; Montgomery 2019). However, the focus of these recent studies is primarily Indigenous peoples, rather than settler society itself. Laurie Wilkie’s (2019) recent study of Black regulars at Fort Davis, Texas is one exception. She blends Wolfe’s (2006) construction of settler colonialism with theory from African diaspora on Black masculinity, highlighting the ways that the U.S. military, as a settler colonial institution “policed racial boundaries within its ranks and in the communities it served,” relying on complex racial hierarchies between White, Black, Mexican, and Indigenous identities on the frontier (Wilkie 2019, 128).

Following recent engagements with settler colonialism in American history (Dunbar-Ortiz 2014; Ostler 2019; Ostler and Shoemaker 2019), I suggest that the archaeology of settler colonialism has much more to offer. It is a framework for understanding core elements of settler

society, its exclusions, hierarchies, erasures, appropriations, political-economic logics, and its recognition (or unrecognition) of Indigeneity. Below I outline implications for the archaeology of race, gender and sexuality, and nonhuman relations as starting points and intersecting suggestions. Crosscutting these themes, however, is the way that the analytic of settler colonialism also contributes to the archaeology capitalism.

2.2.2 Race

In keeping with CIS's goals of shifting the lens to settler society, the analytic of settler colonialism offers insights on the archaeology of whiteness (Matthews and McGovern 2015, 253–310; Reilly 2016; White 2017b), or more specifically, the process of racialization by which whiteness becomes a historically-contingent and materially-mediated category that sustains inequality (Fields and Fields 2012; Orser 2007). First, whiteness in North America cannot be understood in binary relief against Blackness. It must also be understood alongside Indigeneity. Critical histories of race, capitalism, and settler colonialism foreground the tripartite relation between White exploitation of Black *labor* and expropriation of Indigenous *land* as part of the same liberal democratic project (Ben-zvi 2018; Day 2015; Dunbar-Ortiz 2014, 32–39; Rifkin 2019, 25–29). Both have roots in "Lockean liberal political and economic rights to property" (Lowe 2015, 10–11), but differently so. Iyko Day (2015, 113) elaborates:

> From the beginning, an eliminatory project was driven to reduce Native populations through genocidal wars and later through statistical elimination through blood quantum and assimilationist policies. For slaves, an opposite logic of exclusion was driven to increase, not eliminate, the population of slaves. One logic does not cause the other; rather, they work together to serve a unitary end in increasing white settler property in the form of land and an enslaved labor force. As a result, in the postemancipation, postfrontier era, the racial content of Indigenous peoples is entirely dissolvable and eradicable. Alternatively, the racial content of blackness remains absolute and essential, and maintains an infinite capacity to contaminate.

These different pathways of white political-economic accumulation have shaped the formations of white identity in relation to Blackness and Indigeneity differently.

Archaeological studies of whiteness tend to take each of these in isolation (Matthews and McGovern 2015, 253–310). Alison Bell's (2005) work on white ethnogenesis is worth highlighting as a laudable exception; she examines how the material culture of whiteness and capitalism was set against both African and Native identities in overlapping and different ways in the 17th century Chesapeake. Similarly, I explore the case of Black wampum makers working the Campbell Factory in Chapters 4 and 7 to link the noncoincidental histories of Indigenous land and Black labor to settler colonialism, race, and capitalist appropriation and expropriation.

Second, as whiteness emerged and expanded historically as a racial category in the 19th century (Orser 2007), it helped to maintain itself through a logic of possessiveness (Moreton-Robinson 2015), both in the sense that whiteness is defensive and accumulative of property but also it is written into United States legal systems as property itself (Harris 1992). This rationalizes the exclusions and dispossession of those deemed nonwhite throughout American history. Settler-state legal systems typically recognize Indigeneity through metrics of "blood quantum," where identity can be swiftly "diluted … in service of land alienation and dispossession" (Kauanui 2008, 10). In this context, white-settler appropriations of Indigenous identities, whether in dress or DNA (Reardon and TallBear 2012), do not contaminate white identity. Instead, they legitimize settler occupation, undermine Indigeneity, and facilitate dispossession: "Because international and state recognition of Indigenous rights is predicated on the cultural authenticity of a certain kind of Indigeneity … costumed affiliations undermine the legitimacy of Indigenous claims to sovereignty and self-determination by rendering Indigenous culture and identity obsolete but for the costume" (Barker 2017, 3). Thus, erasure and possession

of Indigeneity go hand in hand. As I explore in Chapter 7, the whiteness of the Campbell Wampum Factory owners and their craft remains unquestioned in 19th century texts, despite their production of exclusively Indigenous products.

2.2.3 Gender and Sexuality

The lens of settler colonialism also presents insights for the archaeology of gender and sexuality. Archaeologists have highlighted the gendered and sexual politics and violence of colonial architecture, material culture, and landscapes (Voss 2008; Voss and Casella 2012), but these studies tend to focus on the effects of colonialism on Native people. What does CIS offer the study of *settler* sexuality in historical archaeology? In other words, how might archaeologies of settler sexuality reveal a "multivalent history of heteronormativity in which alternative configurations of home, family, and political collectivity are represented as endangering the state and in which conjugal domesticity provides the condition of possibility for intelligibility within U.S. institutions" (Rifkin 2011, 6)?

Ingenious critiques show how cultures of compulsory heteropatriarchal monogamy were intimately woven into the settler colonial project—again through Lockean notions of landed property (Arvin, Tuck, and Morrill 2013; Barker 2015; Morgensen 2012; Smith 2011; TallBear 2018). In medieval and early modern Europe, the accumulation of property in land was typically based on direct inheritance through the oldest male, otherwise known as primogeniture (Gilchrist 1999, 112). Monogamous fidelity was crucial to maintaining lineages of capital accumulation. These medieval roots, resting on gendered inequalities, shaped the literal reproduction of North American settler political economy (Federici 2004). Throughout the 19th century, the reproductive home and nuclear family were increasingly experienced as a "cultural fortress" in need of political defense (White 2017a, 136–171). This culminated in the many moral panics led primarily by Protestant women reformers of Victorian America—whether against Native

Americans, Mormons, pornography, masturbation, or alcohol (Beisel 2001; D'Emilio 2012; Gordon 2002). Importantly, heteropatriarchal monogamy was set in contrast to Indigenous formations of sexuality and kinship that have existed across the Americas (Barker 2017; Driskill 2011; Slater and Yarbrough 2011). Euro-American theories of civilizational hierarchy and sovereign recognition were born in anthropological contrast to supposed "pre-modern" constellations of kinship and polity (Morgan [1877] 1985; Simpson 2014, 102–103). Not coincidentally, these theories also influenced early socialist-feminist critiques of property and patriarchy (Engels [1884] 1985; Federici 2004).

In sum, the study of settler sexuality is one that recognizes the theoretical intersection of white property, heteropatriarchal sexual propriety, setter statecraft, and Indigenous dispossession:

> The "doctrine of discovery" along with its putative subsumption of Indigenous peoples as "domestic dependent nations" and processes through which abducted and racially abjected human beings were rendered private property are together historically inseparable from how the white masculinized bourgeois public sphere and feminized private sphere animated the heteropatriarchal household economy as a model for national order in the US context. (Byrd et al. 2018, 4)

In tracing the gendered inequalities of wampum production in Bergen County, I point to differences in the "work" of wampum making for Euro-American and Indigenous women, suggesting how bead-making weaves labor, reproduction, economy, and polity in each case. I also suggest that industrialization of wampum production shifted control to Euro-American men by leveraging technological capital and gendered exclusions of public/private space.

2.2.4 Nonhuman Relations

The struggle for Indigenous sovereignty, in many cases, is simultaneously a battle for alternative ways of being "in relation" with humans and nonhumans (Cronon 1991, 2003; Dove 2006; Estes 2019; Kimmerer 2013; LaDuke 1999; Li 2014; TallBear 2019; Watts 2013; Wilson

and Inkster 2018). The difficulty of approaching this topic begins with the both the baggage of the "ecological Indian" trope (Harkin and Lewis 2007) and the sheer diversity of Indigenous ecological knowledges and relationships to capitalism, not to mention the topic of "Indigenous ontologies" (Cipolla 2019; Fowles 2013; Hunt 2014; Todd 2016). Writing from the position of white-settler ancestry, I do not aim to use archaeology to recover the specific content of Indigenous ontologies. As Native scholars repeatedly note, the knowledges and ethics of human and nonhuman relationality are always grounded in place and territoriality (see Coulthard's (2014, 13) "grounded normativity" or Moreton-Robinson's (2015, 11) "ontological relationship to land"). Instead, I highlight work from CIS that critiques settler relations, while acknowledging these literatures by no means speak beyond authors' own grounded cultures, politics, and "co-constituted" (TallBear 2019, 24) experiences of land, water, and beings in place.

Bracketing debates about Indigenous ontology, CIS literature highlights the harms of capitalist extraction and environmental racism of settler ecological regimes (Hoover et al. 2012; Lappé, Jeffries Hein, and Landecker 2019). These are topics familiar to historical archaeologists, typically from the framework of environmental archaeology, landscape archaeology, and political ecology (Cowie 2011; Lewis 2019; Mrozowski 2006, 2010, 2012; Souza and Costa 2018). Going further, capitalist extraction is predicated on the violent dispossession of Indigenous land and is also an ongoing condition of capitalist accumulation (Pezzarossi 2019). As the 2016 Standing Rock protests against the Dakota Access Pipeline made clear, the long tradition of Indigenous resistance to Euro-American settlement is not just a defense of Native sovereignty and livelihood. In many cases it also seeks to reorient human and nonhuman relations away from profit-seeking extraction. Nick Estes (2019, 21–22) elaborates:

> For the Oceti Sakowin, the affirmation Mni Wiconi, "water is life," relates to Wotakuye, or "being a good relative." Indigenous resistance to the trespass of settlers, pipelines, and dams is part of being a good relative to the water, land, and animals, not to mention the human world. Contrast this with the actions of Energy Transfer Partners (the financial backers of DAPL)—and of capitalism, more broadly, which seeks above all else to extract profits from the land and all forms of life.

Of course, Indigenous peoples' relationship to capitalism is complex and diverse (Cattelino 2008; Dunbar-Ortiz 2016; Roth 2019), and by pointing to specific Indigenous critiques, I do not suggest these are essential or uncontested views. The point remains, however, that archaeologists must reckon with the fact that the material culture of settler colonialism attempts to reorient nonhumans toward capitalist circulations of value *and* requires Indigenous dispossession (Li 2014), often through violent military campaigns. Put another way, capitalism should not be examined as anti-ecological, per se, but rather as ecological regime that restructures preexisting ecologies toward the interests of capital, often with unsustainable and catastrophic results (Moore 2015).

Matthew Johnson surveys new archaeological approaches to the American West (Warner and Purser 2017), noting the influence of ecologically-oriented approaches to the history of American capitalism (Cronon 1991; Worster 1993): "the West is presented as a particular kind of creation of capitalism, a region that produced and produces natural resources to be processed and consumed by the rest of the nation and by the world" (Johnson 2017, 326). But these frameworks often lack attention to the violence and dispossession that necessitated the creation of American capitalism. While violence has been a major theme in archaeology of class conflict (Larkin and McGuire 2009), the field of "conflict archaeology" (Smith and Geier 2019) is typically treated separately from the archaeology of capitalism, particularly in North America. Bucking this trend,

Morrison et al.'s (2019) application of "war capitalism" (Beckert 2014) in northeastern Australia makes clear these entanglements though the lens of settler colonialism.

In sum, the material culture of settler colonialism—homesteads, mining towns, deforestation, canals and railroads, ranching, and intensive monocrop agriculture, hunting, and fishing—must be understood as not just the creation of capitalism but also the violent severing of Indigenous human and nonhuman relations (Goodyear-Kaʻōpua 2017, 188). As Kim TallBear (2019, 24) describes,

> Whether the settler state wants to farm, build a mine or a city, pump oil, or cordon off a national park, the "resources" used to build these nation-states include the lands, waters, and other-than-human beings with whom Indigenous peoples are co-constituted. Indigenous peoples came into being as Peoples in longstanding and intricate relation with these continents and the other life forms here. Many Indigenous people have been eliminated. And for those of us who remain, our intimate relations with these lands and waters continue to be undercut and our memories relentlessly erased when the extractive nation-state continues to be dreamed. The late nineteenth-century assimilative mantra "Kill the Indian, save the man" implies not simply an attack on our cultures but more precisely an attack on the relations both human and other-than-human that make us who we are.

In thinking through the harms of settler production of wampum, this means understanding depletions of mollusk populations, the damages of intensive shell grinding on the bodies of workers, the dispossessions of settler "wampum diplomacy," the military campaigns to suppress rebellions of Tenskwatawa, Ma-ka-tai-me-she-kia-kiak (Black Hawk), Moving Robe Woman and others discussed in Chapter 8, all as part of the same—*noncoincidental*—logic of settler capitalism.

2.3 **An Archaeology of Settler Capitalism: Appropriation as a Keyword**

Of the many critiques published by the latest generation of CIS, there are two fields that most influence my own thinking through the case of wampum factories in New Jersey: 1) those that engage Marxist theory to rethink the history and material culture of North America

(Coulthard 2014; Dunbar-Ortiz 2014; Estes 2019), and 2) those that engage the concept of "property" and possessiveness as characteristic of white settler economy and identity (Byrd et al. 2018; Moreton-Robinson 2015). I argue that the concept of *appropriation* helps connect histories of private property, capitalism, and settler colonialism for a broader theory of *settler capitalism*. Through appropriations of nonhumans, labor, land, culture, politics, or the past, the many entanglements of shell beads itineraries, as detailed in Chapters 4 and 7, are shown to be part of the same logic of settler dispossession, extraction, and accumulation since the earliest encounters of Europeans in North America to the turn of the 20th century. Late 19th century industrialization of shell bead production by white settlers was distinct in its direct appropriations of waged work through technological capital. However, it was by no means novel in terms of its deep-seated framework of individualized liberal personhood, moral obligation, and relationality.

The concept of property is well-worn territory in anthropology (Busse and Strang 2011; Hann 1998; Hann 2005; Herskovits 1940, 271–354; Hirsch 2010; Hunt and Gilman 1998; Morgan [1877] 1985) and archaeology (Earle 2000). Writing in a handbook of comparative law, Bertram Turner (2017, 26) defines property from an anthropological perspective as "the many ways in which rights and obligations, privileges and restrictions govern the dealings of humans with regard to resources and objects of value." Turner's audience of legal scholars matters here. Anthropologists have been careful to distinguish this more generalizable definition of property (comprising a complex spectrum of ownership and rights) from the notion of individual *private* property which constitutes the core of European Enlightenment notions of personhood, rights, and foundations of political economy and law. In working with the concept of property here, I do not seek to redefine anthropological and archaeological uses of the term. Rather, I follow scholars that treat liberal conceptions of private property—in all its complexity, flexibility, and

contradictions (Hirsch 2010)—as rationalizations for Euro-American settler-colonial and capitalist exploitation globally (Brown 2014; Coulthard 2014; Cronon 2003; Horne 2018; Kauanui 2008; Li 2014; Moreton-Robinson 2015; Sartori 2014; Simpson 2014, 100–101).

2.3.1 On Capitalism, Race, and Difference

In some ways, the concept of settler capitalism can be seen as an extension of Cedric Robinson's (2000) concept of "racial capitalism" to the history and theory of settler colonialism (Day 2016; Fong 2019; Lowe 2015). Racial capitalism has emerged to help explain histories of race and enslavement as intertwined with histories of capitalism from the perspective of Black Marxism. For some scholars, this means reapproaching or adjusting Marxist theory to address the complex intersection of race and class that has structured contemporary inequality. Lisa Lowe (2015), for instance, argues that Marx's conception of "abstract labor" should be altered to account the ways that capitalism relies not on "abstract" labor but the production of specific qualitative racial or gendered difference and then exploits and reifies these differences in the labor market and fields of political action.

Others, however, have critiqued the use of racial capitalism as unnecessarily diverging from Marxist analysis, critiques that might also apply to settler capitalism. If much scholarship on both race and capitalism takes for granted the fact that histories of racialization and capitalism are deeply interwoven (Beckert and Rockman 2016; Fanon 1968; Fields and Fields 2012; Johnson 2001, 2013; Wolf 1982), why call something "racial capitalism" when the history of race always been interwoven with inequalities of capitalism? Ralph and Singhal, for instance, argue that racial capitalism by Robinson's (2000) formation undertheorizes both "race" and "capitalism" in ways that treat African American enslavement as an "abject status" particular to capitalism "without historical explanation or institutional analysis" (Ralph and Singhal 2019, 854–855). Meanwhile, Iyko Day (2016) counters Lowe (2015), arguing that the "differentiating

effects" of capitalism are accounted for in Marxist theory. After all, Marx is careful to distinguish abstract labor from concrete labor: "Concrete labor represents the racial, gendered, and qualitatively distinct form of *actual* labor that is rendered abstract as a value expression" (Day 2016, 8–9). It is clear from these debates that whether one uses the term "racial" or "settler" to describe capitalism, it should be clarified what—if any—theoretical revisions are embedded in the term. In short, why use "settler capitalism" to refer to something that has always been capitalism?

Taking critiques of racial capitalism seriously, my use of the term "settler capitalism" is shorthand for the mutual entanglement and co-constitution of settler colonialism and capitalism, particularly as both rely on logics of private property, appropriation, and capital accumulation. Put another way, settler-capitalist societies are those where the logic of elimination meets the logic of capital. As described below, it expands on strict Marxist theory in ways that are already well outlined by Indigenous critiques (Brown 2014; Coulthard 2014, 12–15). These clarifications and shifts in emphasis also relate to Marx's core concepts of "appropriation" and "expropriation" applied to land, labor, culture, politics, and the past.

2.3.2 Appropriation/Expropriation: Practicing Private Property

Appropriation is used throughout literatures of political economy, Indigenous studies, and the anthropology of art and cultural production. In each of these, it often functions similarly to "theft," but not so strictly. The basic dictionary definition of appropriation is "to make one's own." Here we might point to the famous maxim "property is theft!" coined by the French anarchist Pierre-Joseph Proudhon in 1840. Yet Marx later critiqued Proudhon, suggesting that "theft," "as a forcible violation of property presupposes the existence of property" (Marx 1865). The lesson here is that private property itself is a static concept, a condition rather than a process. We might instead consider how private property is constituted through practice, both in the

making of it (through privatization or enclosure) and maintenance of it (through ideology or physical force) (Earle 1997).

In casual contemporary use, "appropriation" typically has a different valence than "theft." It suggests a kind of theft that is deemed "appropriate" through social, legal, or moral obfuscations or rationalizations in the context of asymmetric power relations. If the act of making or taking private property is an act of exclusion from others (human or nonhuman), appropriation is always also its opposite: expropriation. Or as Jodi Byrd and colleagues note (2018, 4), making property is an "expectation … predicated on abstraction, consumption, and disposal of other people and places." I consider both appropriation and expropriation here in Marxist theory and CIS. They often imply each other, particularly in the context of Indigenous dispossession.

The appropriations outlined below—of nonhumans, labor, land, culture, politics, the past—are in effect the "practice" of making private property at the heart of the settler capitalist project. However, before continuing, I should note that for all the totalizing rhetoric applied to capitalism and settler colonialism, these projects are never fully realized (see also Gibson-Graham 2006). Nicolas Brown calls attention to this as "accumulation by (failed) dispossession," "whereby violence has not ended, yet invasion has not succeeded" (Brown 2014, 6–7). Or as Audra Simpson notes, "The condition of Indigeneity in North America is to have survived this acquisitive and genocidal process and thus to have called up the failure of the project itself" (Simpson 2011, 205). Here, concepts of resistance, persistence, survivance, refusal, (re)appropriation, or the simple presence of Indigenous individuals and nations disturb settler ontologies of private property toward broader anti-colonial and anti-capitalist goals of reclamation and decolonization.

2.3.2.1 Nonhumans

Marx uses the terms appropriation and expropriation principally in three contexts. Appropriation of nature, surplus value, and land. First, humans appropriate "Nature" as part of Marx's Enlightenment conception of the labor (Ingold 1986), or the "metabolic interaction between man and nature" (Marx [1867] 1990, 290). The notion of "Nature" here deserves clarification, particularly in the context of posthumanist and Indigenous critiques of nature/culture binaries embedded in enlightenment thinking (Haraway 2016; Kimmerer 2013; Moore 2015; Tsing 2015). In Coulthard's (2014, 13–14) reading of Marx, "*land is not exploitable, people are*"; instead, Coulthard calls for "developing a more ecologically attentive critique of colonial-capitalist accumulation, especially if this engagement takes its cues from the grounded normativity of Indigenous modalities of place-based resistance and criticism." That said, Marx's use of the term appropriation at times suggests a moral relationship to nature, as the same term is also used to describe an essential exploitative relation of capital to labor. Nonetheless, the larger point here is that while Marx emphasized the proletariat as a revolutionary class, Indigenous critics argue that we must also consider the complex web of nonhumans—whether land, water, shell, or mollusk—as subjects of both oppression and liberation.

The 19th century wampum industry's conception of shell was that of commoditized raw material, not the metabolic lifework of another being on which the livelihood of industrialists was dependent. The water of the Pascack Brook was similarly utilized for its flow of hydraulic power, the stones for their durable surface for grinding. These and other ontologies of settler-capitalist "production" are explored in Chapter 7.

2.3.2.2 Labor

Second, appropriation appears at a crucial moment of *Capital Vol. 1* to describe the production of absolute surplus value by capitalist proprietors: “The prolongation of the working day beyond the point at which the worker would have produced an exact equivalent for the value of his labour-power, and the appropriation of that surplus labor by capital—this is the process which constitutes the production of absolute surplus-value” (Marx [1867] 1990, 645). Later, Marx refers to this as a “law of capitalist appropriation” in which the original theft of surplus value and accumulation of capital is made invisible by the laws of exchange and property rights. At which point, “social wealth becomes to an ever increasing degree the property of those who are in a position to appropriate continually and ever afresh the unpaid labour of others” (Marx [1867] 1990, 733).

The deepening of surplus-value extraction from workers in the wampum industry occurred with the introduction of new forms of technological capital in New Jersey. As explored in Chapters 6 and 7, the factory used drilling machines and water-powered grinding wheels which could produce a greater diversity of bead styles and higher rates of production than independent households. It is at this time that wages for “grinding” enter the documentary record.

2.3.2.3 Land

Finally, Marx uses appropriation’s dialectic opposite—expropriation—to describe his nascent conception of “primitive accumulation.” In this “pre-history of capital” in England, peasants “became sellers of themselves only after they had been robbed of all their own means of production, and of all the guarantees of existence afforded by the old feudal arrangements. And the history of this, their expropriation, is written in the annals of mankind in letters of blood and fire” (Marx [1867] 1990, 875). Marx also gestures to the global reach of primitive

accumulation's expropriative practices: "The expropriation of the agricultural producer, of the peasant, from the soil, is the basis of the whole process. The history of this expropriation, in different countries, assumes different aspects, and runs through its various phases in different orders of succession, and at different periods" (Marx [1867] 1990, 876). But as others have noted (Glassman 2006; Harvey 2003, 2005; Johnson and Bolender 2019; Pezzarossi 2019), this "primitive" accumulation is not a prehistory of capital, but an ongoing condition as capital continually reaches the limits of economic growth and productivity (Harvey 1999). Thus, the framework of settler capitalism foregrounds the violence of dispossession.

One important modification here is the way that Marxist anthropologists have treated "peasants" as potential revolutionary subjects (Chayanov 1966; Mayer 2002; Mintz 1974; Netting 1993; Taussig 1977; Wolf 1966, 1973). Peasant households or smallholders, whether in Latin America or the Soviet Union, are typically defined in contrast to feudal serfs or tenants; they own their own land and work it for subsistence or limited export and often cooperate to develop communal access to specific resources (or commons). To the extent they can maintain intergenerationally stable subsistence agriculture, peasants have at times been understood as both a frontier of dispossession and as a revolutionary class by their capacity to opt out of capitalist relations. Peasants were also the revolutionary subject identified by Thomas Jefferson as the "yeoman farmer," or the land-holding citizen of a utopian democratic (specifically Anglo Saxon) state (Saler 2014, 32–40). From an Indigenous perspective, Jeffersonian yeoman farmers in North America—as a land-hungry citizenry escaping feudal and later capitalist enclosures and inequalities in Europe—were often the front lines of extreme violence and dispossession against Native people (Dunbar-Ortiz 2014, 2016). This intersection of Marxism and critical Indigenous studies is further vexed by the history of American socialism in the early 20th century, which was

birthed by 19th-century agrarian populist movements (McMath 1993). These movements often left the morality of Indigenous genocide unaddressed at best and at worst encouraged. Thus, Marxist engagements with the category of "peasants" should be approached with both caution and skepticism, to the extent that concepts of the household, homesteads, and yeoman democratic citizenship rely of logics of private property and Indigenous replacement, particularly in North America.

Even more so than the peasantry, Marxist analysis takes the proletariat as a revolutionary class, or those who have been dispossessed of their means of subsistence and have no other option but to sell their labor power to owners of capital in exchange for a wage. Yet in contrast to medieval and early modern England, labor in North America was primarily taken on by a combination of enslaved and later free Africans, waged proletarian settlers from Europe, as well as Chinese and other Asian immigrants on the West Coast. Enslavement and proletarianization of Indigenous populations did occur, but this was not necessarily the primary objective of capitalism's relationship to Indigenous peoples. As Coulthard (2014, 13) argues,

> the history and experience of *dispossession*, not proletarianization, has been the dominant background structure shaping the character of the historical relationship between Indigenous peoples and the Canadian state … the theory and practice of Indigenous anticolonialism, including Indigenous anticapitalism, is best understood as a struggle primarily inspired by and oriented around *the question of land*—a struggle not only *for* land in the material sense, but also deeply *informed* by what the land *as a system of reciprocal relations and obligations* can teach us about living our lives in relation to one another and the natural world in nondominating and nonexploitative terms—and less around our emergent status as 'rightless proletarians'

Indigenous anticapitalism cannot be understood in classic Marxist frameworks of proletarian revolution but rather as grounded struggles over land, water, and other nonhuman relations that co-constitute Indigenous sovereignty.

In keeping with this, the story of Euro-American wampum production cannot be divorced from the story of Euro-American dispossession of land. As outlined in Chapter 4, before European colonialization, Bergen County had been the home of Munsee-speaking Lenape peoples, some of whom remained in the region after waves of violence and political dispossession, today known as the Ramapough Lunaape (Lenape) Nation. The existence of settler sites of wampum proprietors was predicated on the removal of these peoples. Going further, Jersey-made beads and their itineraries west of New Jersey are deeply implicated in the politics of land: both settler appropriation of land and Indigenous resistance, as discussed in Chapter 8.

2.3.2.4 Culture

Beyond Marxist uses of the term, "appropriation" is also applied in the anthropology of art, cultural production, and archaeological ethics (Berson 2010; Schneider 2003; Young and Brunk 2009; Ziff and Rao 1997). Here—typically specified as *cultural appropriation*—the term applies to the "making one's own" of art, iconography, intellectual property, archaeological objects and human remains, genetic material, and other concrete or abstract entities where "members of one culture are taking something that originates in another cultural context" (Young and Brunk 2009, 3). In the context of settler colonialism, these appropriations cause harm as they undermine of identity and sovereignty of Indigenous peoples but also in the exclusive profiteering from circulations of value that commodified cultural products achieve through protections of private property law. Of course, the problems of defining "culture" here are real. But perhaps more importantly, the definitional ambiguity of "culture" itself is often the factor that facilitates appropriation, similar to the way that Marx outlines how the obfuscations of capitalist appropriation of waged work are disguised through concrete abstractions.

George Nicholas and Alison Wylie (2009, 23–24) outline a typology of the motivations of appropriation, between 1) emotional/sentimental/aesthetic interest, 2) historical/cultural identity, 3) religious/spiritual connections, 4) commercial interests, 5) political/territorial interest, and 6) scientific and academic interest. The movement through these various motivations also links the concept to the many proliferations of white settler power in society. In short, the concept of cultural appropriation helps link political-economic theory—particularly Lockean notions of private property and Marxist analysis—to the cultural and identity-based expressions of settler power and ideologies of replacement and disposability of Indigenous identities.

Euro-American wampum-makers successfully appropriated craft knowledge and bead styles from Indigenous beadmakers of the Northeast by 1750, outlined in Chapter 4. Going further, the competitive logics of cultural appropriation and property law can be observed at the Campbell Wampum Factory in the 19th century. The factory owners adopted a kind of paranoia about their technological capital: their "invention" of a "wampum drilling machine." Twentieth-century oral histories emphasize the need for secrecy to prevent the unpatented technology from being appropriated by competitors. In doing so, they tacitly admit the ever-present risk of intellectual property theft that they themselves originally perpetrated against Indigenous craftworkers for their own gain.

2.3.2.5 Politics

Drawing from Fanon (2008), Glen Coulthard argues (2014, 40) that settler-colonial engagements with Indigenous sovereignty—fueled by a capitalist imperative for land, labor, or other resources—ultimately result in a "strategic 'domestication' of the terms of recognition." This paradigm of "political domestication" refers to the history of setter states' shift from treating Indigenous nations as independent nations to treating them as "domestic dependent nations" (Bruyneel 2007; Schulte-Tenckhoff 1998). In the United States, the legal status of tribes

was codified by Chief Justice John Marshall in the Supreme Court case of Cherokee Nation vs. Georgia (1831). Settlers have long engaged in political relationships through treaties and agreements with Indigenous nations, often in ways that intimately accommodate Indigenous practices of political negotiation (Newman 2012; Richter 2001; White 2011). Settler's use of "wampum diplomacy" is one notable example of this (Peña 2006). However, much like "the cunning" of neoliberal multiculturalist discourse of "recognition" (Povinelli 2002), colonizers often undermine sovereignty by performing but also distorting Native practices of political mediation, as I outline in Chapter 4. I view this as appropriation (or misappropriation) of Indigenous political practices of mediation for the purposes of dispossession.

2.3.2.6 The Past

Archaeology itself has been theorized as appropriation (Nicholas and Wylie 2009). The objects, landscapes, human remains, and "ancient" DNA of archaeological data constitute the past. The ownership of this material (or immaterial) is a claim of ownership over the past (Fitz Gibbon 2005; Meskell et al. 2014). Settler archaeologists and institutions have long held a possessive grasp on the material record of both Indigenous and settler pasts as a continued rationale for settler colonialism (Schneider and Hayes 2020; Trigger 1984). For example, between 1790 and 1840, setter interest in earthen mound sites across North America shifted from pseudo-*ethnographic* Indigenous use of earthen structures toward *archaeological* inquiry: "this epistemic shift in research methodologies for the early field of archaeology emerged at a time when there was enormous political pressure to open Indian land for Anglo-American settlement" (Timmerman 2020, 79). Today, settlers' possession of the past is also reflected in many museums' continued reluctance to repatriate Native ancestors. In the three decades since the Native American Graves and Repatriation Act (NAGPRA) passed in the United States Congress in 1990, as of September 30, 2019, 113,442 Native American human remains still reside in

settler institutions under the category of "not culturally affiliated" or "pending" in the regulatory process.[5]

Indigenous or collaborative archaeology has been one avenue of decolonizing or at least relinquishing possession of the Indigenous past and divesting from settler colonial futures (Atalay 2006). More subtlety, when archaeological evidence is viewed as the primary method of recovering "lost" Indigenous histories, Tsim Schneider and Katherine Haeyes (2020, 128) argue that archaeologists implicitly conduct "'epistemicide,' in which *only* the tools, taxonomies, methods, and theories of Western science are held to have truth value, while all other ways of knowing are labeled as epiphenomenal at best … an additional core tenant of a decolonized archaeology is thus to decenter archaeology itself." In many ways, the current dissertation—as an act of knowledge production by someone with white-settler ancestry backed by credentializations of settler institutions—does not escape the complications of appropriating the past critiqued by Indigenous archaeologists. It is an honest attempt to face and document the complexity of historical injustices related to settler capitalism, and it relies on many elements of scientific archaeological epistemology to do so. In particular, the question of possession of museum collections from white-owned wampum factories remains ambiguous, particularly as classic archaeological categories of "Native" or "European" do not easily map onto the sites of settler-made wampum production. These realities were made clear through my consultations with representatives of the Ramapough Lunaape (Lenape) Nation detailed in Chapter 5. Through this dialogue, I have attempted to emphasize Munsee Lenape and Ramapough history in this work while highlighting the harms of industrialization and appropriation in the study of Euro-American shell bead production.

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[5] https://public.tableau.com/profile/melanie.obrien#!/vizhome/NAGPRA-Totals/1_Reported, accessed September 2, 2020.

2.3.3 Propriety, Whiteness, and Possessive Individualism

Settler appropriations and expropriations are not simply economic logics of dispossession. As rationales for continued occupation, they also constitute settler identity, senses of belonging, morality, kinship, and community. As outlined above, the concept of private property sits at the core of settler appropriations and serves as a framework of rights and obligation, but property is also bound to settler subjectivity, whiteness, personhood, and notions of virtue. In other words, appropriation/expropriation is a "double movement of making one's own and making one proper to or properly to oneself. It is a supposition of civilization and civility" (Byrd et al. 2018, 3).

Building from Byrd (2011; 2018) and Moreton-Robinson (2015), I refer to the "positive aspect" (Wolfe 2006) of settler capitalist subjectivity as "propriety." Cultures of propriety help to link the political-economic and legal framework of private property to settler identity through the ideology of possessive individualism (Althusser 1971; Macpherson 1962). As a core concept in critical theory, possessive individualism emerges from liberal enlightenment thinking as a conception of self-determined freedom; freedom from dependence on the will of others except through contractual consent; a lack of obligation to society or community; and a society existing of market relations. In other words, it envisions a society of individual proprietors: "The core of Locke's individualism is the assertion that every man is naturally the sole proprietor of his own person and capacities—the absolute proprietor in the sense that he owes nothing to society for them—and especially the absolute proprietor of his own capacity to labour" (Macpherson 1962, 231).

Possessive individualism has long been a staple of critical theory in Marxist historical archaeology (Leone 2005; Matthews 2010), yet the *possessiveness* of this individualism has

recently been highlighted in critical race theory, whiteness studies, and critical Indigenous studies. For Moreton-Robinson, white possession also has a futurity in the form of investment:

> Although the concept of 'property' commonly refers to things owned by persons, or the rights of persons with respect to a thing, it is more than a relationship to the tangible and embraces metaphysical rights such as reputation … As a form of property, patriarchal whiteness is a valuable possession warranting protection. Patriarchal whiteness invests in property rights and is possessive and protective about asset accumulation and ownership. Here I use the term 'possessive' to mean having an excessive desire to own, control, and dominate, and I use the term 'invest' to denote the effort spent toward a given end. (2015, 67)

Many dimensions of white subjectivity can be tied to settler capitalist propriety, including cultures of homesteading (Edwards, Friefeld, and Wingo 2017), American dreaming (TallBear 2019), industrious time-thrift (Thompson 1967), protestant prudence and capital investment (Deloria 1969, 9–10; Weber [1905] 1958), childrearing (and removal) (Rollo 2018), heteropatriarchy (Federici 2004; Morgensen 2012; TallBear 2018), and sexual violence (Smith 2005). In Chapter 7, I explore settler capitalist propriety through 19th century texts that describe the Campbell Wampum Factory, including semi-fictionalized interviews with factory owners.

2.4 **Vagaries of Value: Itineraries, Materiality, and Entanglement**

As described above, settler capitalism is a complex force that operates across multiple material and ideological fields. The problem remains, however, how to examine this archaeologically. Anthropological theories of value, object itinerary, and materiality help ground theories of settler capitalism in the transformations and movements of material culture. I propose that colonizers enact settler capitalism in part through the production, circulation, accumulation, and appropriation of shell beads in North America from the earliest encounters to the 20th century. Simultaneously, shell beads constitute the materiality of Indigenous sovereignty. In acknowledging that beads are not merely instruments in human hands, I use the term

"conscripts" to characterize their affordances and constraints in competing futures of settler capitalism and Indigenous sovereignty.

2.4.1 Political Economy, Object Biography, and Adornment

The anthropology of commodities and theories of personal adornment illuminate how objects are made and pass through different regimes of value and identity formation. At times, these fields have spoken past more Marxist-informed approaches to political economy, particularly around the neoliberal turn in the academy in the late 20th century. Recent reinvigorations in the archaeology of capitalism, materiality, and Indigenous sovereignty demonstrate the potential of understanding "adornment objects" and "political economy" under the same roof.

Twentieth-century anthropologists of political economy examined "non-Western" entanglements of consumption and production (Roseberry 1988; Wolf 1982), drawing from but also critiquing World-Systems Theory (Wallerstein 1974). For this generation, the history of commodification was examined as a negotiated set of local articulations in dialectical relation to Euro-American metropoles (Taussig 1977). Sidney Mintz (1985), for example, showed how Europe's new proletarian "taste" for sugar was born out of evolving class signifiers, violent transformations in Caribbean plantation slavery, and the biological and chemical stimulant effects of sugar. Around the same time, Appadurai (1986) and Kopytoff's (1986) "biographical" approach to commodities—as well as movements toward agency, embodiment, and performance (Butler 1999; Giddens 1979; Ortner 1984)—foregrounded the *context* of objects as the site of cultural or social historical change (see Bauer and Agbe-Davies 2010, 38–39 for archaeological engagements). Commodities do not necessarily carry the capitalist hegemony of their creators as they travel, or as Nicholas Thomas put it, "objects are not what they were made to be but what they have become" (1991, 4). The term "regime of value" (Appadurai 1986) emerged to

characterize the contingencies and diversity of exchanges and uses of commodities around the globe. The argument of the biographical approach is that things are never essentially "commodities" (Marx [1867] 1990) or "gifts" (Mauss [1925] 2011). Rather, they are made (or unmade) as such through practice as they pass through different regimes of value along their biographical life histories (Agbe-Davies and Bauer 2010; Flad and Hruby 2007, 8–9; Gosden and Marshall 1999; Joy 2009). The biographical approach was part of a larger a post-structuralist chain reaction in the anthropology of consumption (Miller 1995, 2012), which in turn influenced much of 21st century historical archaeology of consumption.

Inspired by revisions in the anthropology of consumption and postcolonial and Indigenous critiques (Bhabha 1985; Deloria 1969; Spivak 1998), historical archaeology reveals diverse engagements with global commodities—from appropriation to mimicry, ambivalence to iconoclasm (Cipolla 2015; Liebmann 2015; Mullins 2011; Pezzarossi 2014; Silliman and Witt 2010; Voss 2015). Working against acculturation narratives, recent approaches show how "foreign objects" empower "colonized" consumers (Cipolla 2017). When it comes to theories of adornment objects specifically, these approaches might see the "consumption" of Jersey-made shell beads in the Midwest and Plains as constituting dynamics of the American frontier (Turner [1893] 1986) by also constituting the "frontier of the social self" (Turner [1980] 2012, 486). Put simply, beads can materialize status, gender, age, tribe, sexuality, race, or ethnicity at multiple and intersecting scales of social identification (Bourdieu 1986; Douglas and Isherwood [1979] 1996; Wobst 1977). Going further, beads may emerge as "valuable" by marking capacities for action (Munn 1986, 111–118) through visibility or invisibility, storage or adornment (Graeber 1996) in meaningful histories and practices of taste (Stahl 2002). Beads may also play a role in individual acts of resistance (Loren 2013). That said, to equate shell beads in North America

with “objects of adornment” downplays their active role in political and legal claims and dispossessions (Bruchac 2018).

2.4.2 Itineraries and Materiality: Beads as Conscripts

As outlined by Alexander Bauer (2019), archaeologists have recently redubbed the “object biography” approach as “object itinerary.” This change acknowledges recent debates about materiality in archaeology. The use of the term “materiality” has at present proliferated to the point of being a synonym for “material culture,” signaling its heated intersection with contemporary theoretical debates (see Harris and Cipolla 2017), including the overlapping influences of the “material turn” (DeMarrais, Gosden, and Renfrew 2004; Knappett 2005; Olsen 2010; Olsen and Witmore 2015), ontology (Alberti 2016; Cipolla 2019), and new materialisms (Harris 2017; Witmore 2014).

Debates across and within these fields typically hinge on one’s definition of “agency” and one’s commitment to flattening the Euro-American Enlightenment ontology of humans-as-subjects and things-as-objects. Rosemary Joyce and Susan Gillespie (2015) brought these insights to the “object biography” approach, arguing to replace “biography” with “itinerary” to better capture the non-human and non-linear trajectory of things in motion. Objects do not have linear “lives” in the same sense as humans. Thus, the metaphor of production (birth), use (life), and deposition (death) limits how we think about things. Despite these important theoretical critiques, the methodology of object itinerary is similar to object biography: Archaeological interpretation results from following things and contextualizing their “gatherings” or “assemblages” (Latour 2005). I draw from these approaches in applying the concept of itineraries of shell beads and settler capitalism with two caveats.

First, as Douglas Bolender and I (2018) have argued previously, the open-endedness of object itineraries and assemblages continues to minimize the “darker side” of political-economic

dependencies and entanglements (Hodder 2012, 103–105). This might be particularly true in the context of adornment objects. Of course, "object biography" and "political economy" have never been mutually exclusive frameworks (Bloch and Parry 1989; Heath 2017; Tsing 2013; Wurst 1999). However, as Hansen notes (2004, 386), the anthropology of adornment commodities tends to downplay forces of production in the analysis of dress because of the field's theoretical emphasis on performance and identity. Archaeologists are right to consider the empowering dynamics of self-fashioning identity, yet we must also remember that these empowering dynamics are not always without drawbacks, particularly when it comes to the violence of political-economic dependencies and inequalities.

Second, archaeological applications of materiality that elevate the agency of things risk downplaying the political agency and culpability of human actors (Bauer 2019, 341). In taking seriously the place of beads in oftentimes violent appropriations of imperialism, one could frame humans as "assembling" shell beads into the materiality of settler capitalism or Indigenous sovereignty (Jervis 2018; Smith 2015) or an "entrainment," which recognizes "the structuring effects of human intention, but [does] not reduce action to intention" (Bauer and Kosiba 2016). I prefer the more simplified term "conscripts" when thinking about shell beads and settler colonialism to account for the agency and culpability of humans in political-economic projects and the affordances and constraints of things in motion.

In casual use, a "conscript" refers to "a person enlisted compulsorily," typically in the military. Applied to things, conscription accounts for the fact that while humans use things, they do not always do so with consent. A conscript may be willing or unwilling, patriotic or unpatriotic, but it is difficult to know without asking. At the same time, conscripts are not completely under human will and control. Pushed to their breaking point, they may defect, drag

their feet, require attention or repair. Without overcomplicating a definition of agency, *conscripted materiality* refers to the material characteristics (Jones 2004) that make certain types of political action possible (affordances) yet sometimes difficult and unpredictable (constraints).

The dialectic of affordances and constraints of shell parallels a development in object itinerary approaches to focus on relations and interconnectedness rather than the thing itself. Interconnectivity between humans and things can be seen in a more neutral way as "networks" or "assemblages" (Latour 2005). Others, under the umbrella of entanglement theory, emphasize the way humans become "caught" in webs of interdependence (Bauer 2019, 341–342). For example, Ian Hodder explores two meanings of "dependence" (Bolender and Johnson 2018; Hodder 2012, 2014). *Dependences* are a positive relation between humans, between things, or between humans and things that allow humans and nonhumans to live and thrive in the world. Humans rely on each other and on the material world to exist. *Dependencies* on the other hand, derived from World-Systems Theory, are more limiting of human action. Dependencies account for asymmetries and uncertainties, and crucially, the inability to exit an entanglement without consequences:

> Dependence and dependency create a dialectical struggle within entanglement. On the one hand, humans depend on or rely on things to achieve goals (dependence). … On the other hand, dependency and codependency occur when humans and things cannot manage without each other and, in this dependency on each other, they constrain and limit what each can do … These two components of dependence and dependency, positive and negative, produce and constrain human action and lead humans into entanglements from which it becomes difficult to become detached. Things appear as hydra-like, requiring Herculean skill to stop them multiplying and entrapping, and yet the entrapment is enticing and productive. (Hodder 2014, 20)

Hodder's focus here is on human-nonhuman relations in deep time to explain certain societies' tendency to increase in scale and archaeological complexity despite heightening inequality. Yet

we may also consider the applicability of this to global capitalism, and the way in which commodities and labor markets create dependence and dependencies which are difficult to escape without consequence. In short, as summarized in Chapter 9, shell and shell beads afforded and constrained human political action which interwove with the dependences and dependencies of modernity, both for beadmakers in New Jersey and Indigenous consumers on the frontier.

For shell beads made from biomineralized homes of various mollusk species, the materialities conscripted by settlers and Indigenous people(s) is typically studied in the framework of "style" and "typology" in archaeology (Hegmon 1992; Van Oyen 2015). This includes beads' "morphological" qualities, such as length, width, weight, breakability, color, or luminescence. Applying methods in the archaeology of production (Arnold and Munns 1994; Costin 1991; Costin and Hagstrum 1995; Hirshman, Lovis, and Pollard 2010; Hruby and Flad 2007; Peña 2001; Roux 2003) is thus an avenue for reconstructing the materialities of shell beads that afforded and constrained settler colonialism, capitalist industrialization, and Indigenous sovereignty.

For example, ratios of wasters and debitage in archaeological data from shell bead production sites in New Jersey help characterize bead breakage rates of different drilling technologies, demonstrating the capacities and limits of shell as a conscript to capitalist industrialization. On the Great Plains, hair-pipe breastplate typologies shift from shell to bone in the later 19th century, suggesting that Indigenous nations saw the lighter, less breakable material as a more fitting conscript for the projects of sovereignty and military resistance to U.S. imperialism. These and many other examples of conscripted materiality flow through the remainder of this dissertation. But before examining the archaeological and historical data, we must examine the materiality of shell bead conscripts in detail by outlining the typologies,

material attributes, and biology of mollusk species, shell, and bead styles produced in the Northeast.

3 BEAD TYPOLOGIES, SHELL MATERIALITY, AND MOLLUSK BIOLOGY

Euro-American settlers of New Jersey were not the first to make shell beads. In fact, the modification of shell for personal adornment has been treated a proxy for the emergence of symbolic behavior in the genus *Homo* (Bouzouggar et al. 2007; Wei et al. 2016). Where data exists on shell bead production debris, archaeologists make inferences about social life, including inequalities of production (Allen, Holdaway, and Fullagar 1997; Arnold 1993; Arnold and Munns 1994; Nigra and Arnold 2013), apprenticeship and learning (Arnold 2012), exchange systems (Masucci 1995; Pearson 2017; Pearson and Cook 2012), colonialism (Webster and King 2019), and gender, status, or cultural identity as tied to adornment (Connaway 2018; Panich 2014).

Archaeologists construct shell bead typologies—changes in morphology of bead styles over time and space—as a crucial first step to interpreting artifact change (Groza et al. 2011; Milliken and Schwitalla 2012; Szabó et al. 2014). Meanwhile, shell's materiality—explored here as "material characteristics," chemical and mineral composition, formation processes, durability, color—structures the production of beads (Francis 1989; Wilmsen 2015). Understanding each of these variables also requires a deep knowledge of the biology of the creatures who biomineralize the shell eventually used as "raw material." Here, the political-economic (and moral) entanglements with different species of mollusk are also viewed as structuring the industrialization of wampum production.

Much has been written on wampum's uses, exchange systems, and symbolic qualities (Bruchac 2018; Ceci 1982; Creese 2016; Hamell 1992, 1996; McBride 1994). However, less work has been done to quantify wampum types and associate these with sites of production. This chapter attempts to both summarize preexisting work on archaeological typologies and contribute to these metrics with new data from sites in northern New Jersey. This description of

bead types clarifies archaeological terminology but also provides a wide-angle lens, a material scaffold for historical context provided in Chapter 4. The second half of this chapter summarizes the biology of mollusk species analyzed in this dissertation: their ranges, behaviors, and their processes of biomineralization that structure shell morphology and materiality. As argued in Chapter 2, humans' conscription of shell beads is afforded and constrained as much by shell materiality and mollusk biology as they are by intention.

Typologizing Indigenous shell beads, like all acts of classification, emerges from the subjectivity of the author and has political consequences. For example, settler states have used the quantitative, qualitative, and temporal characteristics of what anthropologists have called "traditional," "classic," or "true" wampum to delegitimize Native claims to both objects and land (Bruchac 2018; Cattelino 2018, 293–294; Fenton 1971). In outlining typologies here, it should be stressed that despite settler-capitalist appropriation of beadmaking, 1) Indigenous peoples have never ceased making shell beads (Bruchac 2016, 3), and 2) the fact that beads were manufactured by non-Native producers in no way invalidates the political, sacred, or legal dimensions of Indigenous beadworking, adornment, and use of beads across North America, past or present. With this in mind, Table 3.1 outlines and builds from previous work while acknowledging and welcoming unresolved debates and their political implications.

The term "wampum" (uncapitalized) is used in this dissertation to refer to cylindrical white or purple marine shell beads originally made by Indigenous nations of the Northeast for thousands of years up until the present. Capitalized terms—such as Wampum, Late Wampum or Campbell Wampum—refer to specific archaeological types of wampum that vary by morphology, the identity of producers and manufacturers, and/or time period manufactured. When citing primary sources, it should be noted that Euro-American settlers sometimes used the

term wampum generically to refer to any type of bead (of shell or glass) that were exchanged with Native nations across the continent.

TABLE 3.1: Shell beads produced in Northeast North America, 1600 to 1900 CE					
Style	**Material**	**Known Primary Producers**	**Production Dates**	**Primary Consumption Region**	**Sources**
Early Wampum	Whelk, Quahog	Coastal Algonquian / Long Island Sound	1550–1620 (CE)	Northeast (Coastal and Great Lakes)	(Ceci 1989, 1990)
Wampum	Whelk, Quahog	Costal Algonquian / Long Island Sound	1600–1720	Northeast (Coastal and Great Lakes)	(Wilcox 1976; Ceci 1989; Solecki 1993; Becker 2012; Bruchac 2018)
Standardized Marine Shell (SMS)	Whelk, Quahog, Conch, other marine shell	Unknown	1620–1780	Northeast (Coastal and Great Lakes)	(Esarey 2013)
Late Wampum	Whelk, Quahog, Conch	Dutch New York / Northern New Jersey	1720–1800	Northeast (Great Lakes and Lower Midwest)	(Ceci 1989; Peña 2001, 2003; Keagle 2013)
Campbell Wampum	Quahog, Conch, Whelk (?)	Campbell Factory	1800(?)–1900	Northeast (Great Lakes and Lower Midwest), Plains,	(Orchard 1929; Williams and Flinn 1991; Keagle 2013)
Hair Pipe	Conch	Campbell Factory	1800(?)–1900	Plains, Midwest	(Ewers 1957)
Moon	Conch	Campbell Factory	1850–1900	Plains, Midwest	(Ewers 1957)
Mother of Pearl	Abalone	Campbell Factory	1850–1900		

3.1 **Shell Beads Produced in the Northeast**

3.1.1 17th Century: Wampum and Standardized Marine Shell

Previous research on shell bead production in Northeast North America has focused primarily on the 17th century. Despite this, current archaeological understanding of wampum typologies is notably fragmented and unsystematic. In brief, the 17th century saw the florescence of *wampum*, a type of "small polished, tubular shell bead, either white or black, drilled along the longitudinal axis" (Wilcox 1976, 10). The term *wampum* is borrowed from Algonquian *wampumpeag* meaning "white shells." Wampum was originally produced by Indigenous peoples living in southern and coastal New England, particularly in the Long Island Sound (Solecki

1993). These included the Pequots, Narragansets, Wampanoags, as well as the many nations of what is today Long Island including the Canarsie, Rockaway, Secatoag, Seatauket, Patchoag, Corchaug, Shinnecock, Manhasset, and Montauk. Wampum is produced in two colors. In the 17th century, white beads were primarily made from whelk (*Busycotypus canaliculatus* or *Busycon carica*) and dark purple beads—often called "black"—were made exclusively from quahog (*Mercenaria mercenaria*) (Beauchamp 1901, 59–62; Becker 1980; Bruchac 2016, 2018; Ceci 1989; Orchard 1929, 61–74; Wilcox 1976).

The Indigenous communities of the Northeast in the 17th century—both Algonquian and Iroquoian-speaking—existed amidst a Late Woodland landscape of mixed agricultural subsistence regimes and spatially separate but distinct clusters of permanent or seasonal settlements, likely representing political and cultural distinctions (Bragdon 1996; Engelbrecht 2003). The earliest case of shell beads that might be called "wampum" in western New York date to the Late Archaic and are made from the columella of exotic marine shell, suggesting hunter-gatherer mobility and/or direct or down-the-line trade, perhaps evidencing political and social exchanges with coastal communities (Ceci 1989). This tradition continues through the Woodland period (until 1500 CE). In general, shell beads were part and parcel of the Hopewell and Mississippian interaction spheres which relied on both north/south and east/west exchange routes across Eastern North America (Claassen 2019; Connaway 2018; Pearson 2017).

Based on preliminary assessment of shell beads from western New York, Lynn Ceci (1989) distinguished between Proto-Wampum (500 BCE–1550 CE), Early Wampum (1550–1600 CE), Classic Wampum (1600–1720) and Late Wampum (1700–1780). Early Wampum is slightly earlier, larger, and more varied than classic Wampum. Post-contact types are distinguished from precolonial Proto-Wampum by their straighter and smaller bores resulting

from the introduction of metal drills by Europeans to Indigenous communities in southern New England. [6] Early assessments are still relied on today with very little new data or transparency of old data (Beauchamp 1901; Orchard 1929). Keeping in mind that Ceci's (1989) typologies are preliminary, and more robust statistical analyses of styles or types have yet to be undertaken, best morphological estimates for Classic Wampum are 5.5 mm in length, 4 mm diameter, and 1 mm bore hole diameter (Ceci 1989, 63).

At the Late Woodland site of Alhart in western New York, Ceci identifies what she describes as Proto-Wampum, given the way it statistically conforms to cases of classic Wampum from the 17th century yet its stone-drilled biconical bore whole is significantly larger (Ceci 1989, 68). Thus, wampum—and its many Indigenous political, cultural, and economic uses and meanings—existed before European contact. For the Haudenosaunee, pre-colonial shell bead distributions may relate to autonomous political developments which were taking place before European arrival on the continent. Archaeologists have identified "satellite" sites mirroring principal towns in Haudenosaunee territory, both nearby and also more distant in the 17th and 18th century; Kurt Jordan (2013) argues these should be considered "colonies" that involved complex intercultural political processes of incorporation and colonization which took place both before and outside of European colonialism. Whether one refers to tubular marine-shell beads as "proto-wampum" or simply wampum, shell beads and their many meanings played a role in precolonial Indigenous politics (Hamell 1992, 1996).

While shell beads existed before European contact, they appear in significantly greater numbers by the early 17th century. Wampum was instrumental in Dutch, English, and French colonial exchanges with Great Lakes nations, most notably the Haudenosaunee. At various times

[6] Marge Bruchac's (2016) ongoing research has called this into question, suggesting difficulty distinguishing between 16th and 17th century wampum based on bore shape alone.

it took on a standardized monetary value for Europeans (Becker 1980; Ceci 1982, 1990). Indigenous uses and meanings of wampum for both Northeast and Great Lakes nations were and continue to be diverse and complex. Thus, wampum cannot be reduced to its use as "money." It is perhaps best known for being incorporated into belts and presented as gifts at important events or as declarations of peace (Beauchamp 1901; Becker 2008; Bradley 2011; Bruchac 2018; Ceci 1982; Foster 1995; Graeber 1996, 117–149; Hamell 1992, 1996; Otto 2010). The historical and theoretical understandings of wampum as adornment, a political technology, and/or money are discussed in greater detail in Chapter 4.

Parallel to wampum in the 17th century, Esarey's (2013) dissertation identifies an elusive northeastern tradition he classifies as Standardized Marine Shell (SMS). SMS styles include effigy and geometric shapes, gorgets, runtees, and other styles with a broad distribution pattern. The majority of SMS cases are concentrated in Haudenosaunee territory, though examples can be found across the Native Northeast, including New Jersey, where finished SMS objects are found in Munsee Lenape contexts between 1640 and 1700 (Esarey 2013, 105). One common style is a long, straight, tubular bead made from conch shell (*Lobatus gigas*) that may be an antecedent to the hair-pipe bead (Esarey 2013, 126, 141; Kraft 1986, 204–205). While no SMS production sites have been identified as yet, and SMS styles draw heavily from northeastern Indigenous symbolism, Esarey suggests that the SMS phenomenon was related to Dutch activity in the fur trade. While not excluding the role of Native producers, Esarey relies primarily on archaeological assessments of "European production mentalities," namely "centralized" production, metal drills, raw conch material shipped from the Dutch Caribbean, and "market strategies" that were responsive to Indigenous preference across the Northeast (Esarey 2013, 8). Regardless of the degree of European involvement in SMS, there is no reason to exclude

Indigenous participation in production (Rodríguez-Alegría 2008), whether as independent, coerced, or collaborative engagements with Dutch producers or traders and enslaved Africans in the colonial period.

3.1.2 18th Century Euro-American Production: Late Wampum

Euro-Americans began making wampum by the mid-18th century. How exactly this appropriation occurred is unclear, but the city of Albany (originally Fort Orange), an early crucible of Dutch fur trading activity, probably played an important role. Wampum manufacture at Albany is documented as early as 1744 (Williams and Flinn 1991) and backed by archaeological evidence (Peña 1990, 2001, 2003) (see Chapter 4). Production debris analyzed at the Albany Almshouse falls well within the Late Wampum classification by Ceci (1989). In addition to whelk, white wampum at Albany was also produced from conch shell (*Lobatus gigus*) (Peña 1990). Peña reports finished beads at the Albany Almshouse as .55 cm in length (SD = .17) and .37 cm (SD = .09) in diameter on average, aligning with Ceci's assessments of Classic Wampum (Ceci 1989, 63).

Wampum production in New Jersey probably began around the same time. As detailed in Chapters 4 and 5, by 1770, many rural occupants of Bergen County were also small-scale wampum producers, including the Stoltz, Campbell, and Zabriskie families. At this time raw shell material was gathered by local distributors and sold to families in the surrounding area, grinding wheels were powered by foot, and beads were drilled by hand with a bow drill. Data from the Stoltz Farm site analyzed in Chapter 6 can also be classified as Late Wampum by Ceci's (1989) typology. The differences between Late Wampum and Classic Wampum are subtle. It may be difficult to distinguish between the two categories morphologically. Instead, the term used here suggests the time period, the presence of conch shell, and the presumed Euro-American identity of producers or organizers of production. Data from Native-produced

wampum in the later 18th or 19th century is lacking, despite the continued practice of wampum production into the 20th century to today in the Northeast.*19th Century: Campbell Wampum, Hair Pipes, and Moons*

The 19th century saw both an industrialization of production and a diversification of bead styles produced. Despite this diversity, 19th century sources often use the word "wampum" as a generic term to describe all types of shell beads traded with Native Americans. The Campbell Wampum Factory emerged out of the "proto-industrial" world of Jersey Dutch production, achieving a near monopoly over the industry, particularly after the Civil War. Archaeologically, wampum produced at the Campbell site is characteristically longer and larger than that found in earlier time periods (Bruchac 2016; Orchard 1929, 68). Given this, and the absence of data from other 19th century sites, this type is defined here as "Campbell Wampum." Orchard (1929, 68) classifies Campbell Wampum as 1/2–7/8 inches in length (1.27–2.22 cm), or 1/4 inch (.64 cm) longer than Classic or Late Wampum (Figure 3.1).

Other bead styles produced at the factory include hair pipes, moons, and mother-of-pearl pendants. This corresponds roughly with the advent of fur trade companies such as John Jacob Astor's American Fur Company, which introduced the trade bead to new western territories and to new Indigenous consumers (Ewers 1957; Keagle 2013; Williams and Flinn 1991). By the 19th century, the Campbell Factory was producing new styles. These included the tubular lozenge-shaped "hair pipe" and pendants/gorgets called "moons," both made from conch shell. After about 1900, hair pipes were made primarily from bone. These styles became iconic of Native Plains identity. Abalone (*Haliotis*), best known for its production and use in Native California (Field 2008), was also worked at the Campbell Factory to create mother-of-pearl pendants which the Campbells also called "silvers" (Chesebro 1872, 301).

Figure 3.1: Shell bead styles produced in New Jersey. (A) Late Wampum, Purple (Stoltz Farm, Paterson Museum, 73:2:1) (B) Campbell Wampum, Purple (Campbell Factory, PMAE, 24–9-10/94311) (C) Hair Pipes (Campbell Factory, PMAE, 24–9-10/94303) (D) Moon, undrilled (Campbell Factory, NJSM, AE3259.311) (E) Mother of Pearl pendant, broken (Campbell Factory, Bergen County Historical Society, Hackensack, NJ).

3.2 **Mollusk Biology and Shell Materiality**

The shells used to create wampum, hair pipes, moons, and mother-of-pearl pendants were formed by different marine species of shell-bearing mollusks. Quahogs, along with oysters, mussels, and scallops, are bivalves. Their shells house vital soft tissue and consist of two halves (or valves) connected by a hinge (Figure 3.2) (Rice 1992, 1–2). Whelk, conch, and abalone shells are formed by gastropods (or sea snails).

Nearly all molluscan shells are primarily made of calcium carbonate ($CaCo_3$), the same basic material as chalk or lime. Specifically, molluscan shells are 95% aragonite, a crystalline form of $CaCO_3$ suspended in a matrix of organic molecules (Marin and Luquet 2004, 472; Rice 1992, 2). Shells are formed in a complex process of biomineralization orchestrated by the mantle of the mollusk and regulated by hormones (Addadi et al. 2006; Marin and Luquet 2004). Calcification occurs incrementally in layers. Calcium ions collected from the environment are filtered to the epithelium and then secreted to the extrapallial space in a matrix of proteins and other calcifying agents: “The matrix interacts with the mineral ions. Together, they self-assemble in a precise manner to generate crystallites, which exhibit well-defined morphologies” (Marin and Luquet 2004, 475). At a microscale, qualities of different mollusk species’ extrapallial space structure variation of shell morphology and materiality. For example, in larval stages of shell production, the epithelial cells in gastropods forms a circular opening, while in bivalves it forms a groove (Marin and Luquet 2004, 472).

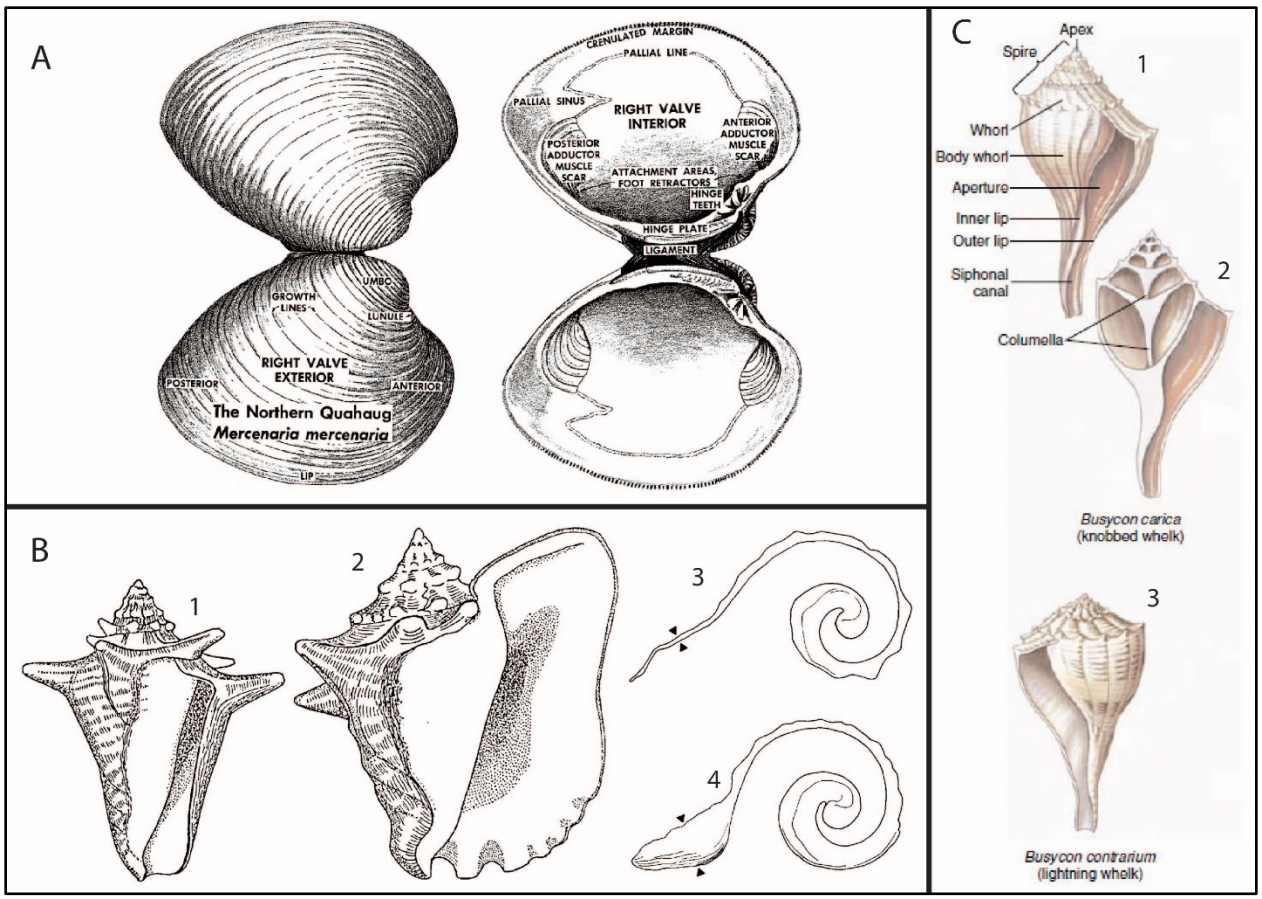

Figure 3.2: Mollusk shell anatomy. (A) Quahog, *Mercenaria mercenaria*: Public Health Service, Bureau of Disease Prevention and Environmental Control, Northeast Shellfish Sanitation Research Center, Narragansett, R.I. 02882. (B) Queen conch, *Lobatus gigas*, from the Caribbean. (B.1) An immature juvenile without a flared lip; (B.2) a mature adult. (Berg & Olsen 1989:422). Cross-section of shell of adult *Lobatus gigas*. Arrows represent position where lip thickness is measured. (B.3) Recently matured adult, lip thickness = 5 mm. (B.4) old adult, lip thickness = 27 mm. (Appeldoorn 1988:364) (C) Whelk, *Busycon*. C.1 and C.2, *Busycon carica*, a dextral, or right-handed, shell. A dextral shell has the aperture on the right side when the shell is held with the apex up and the aperture facing the observer. C.3. *contrarium*, a sinistral, or left-handed, shell. biocyclopedia.com/index/general_zoology/classes_of_molluscs.php. Anatomical terms listed for whelk (whorl, body whorl, lip, spire, etc.) are translatable to conch shell.

At a broader scale, the evolutionary trajectory of various molluscan species—their ways of protecting themselves from predators and reproducing in specific environments—also structure the unique material qualities of shell that make it a useful raw material for beads. The wide variety of molluscan shell (color, luminescence, iridescence, hardness, etc.) is determined by the microstructure of aragonite and protein amalgamate as it mineralizes (Osuna-Mascaró et al. 2014). In the words of material scientists,

> Seashells, made up of calcium carbonate and organic polymer, simultaneously produce high mechanical strength and toughness. The hard calcium carbonate

> phase gives the shell stiffness and strength, and the protein layer between these mineral sheets provides compliance and also energy-dissipating mechanisms, making it harder to fracture. (Gu, Takaffoli, and Buehler 2017, 1)

To put things in perspective for archaeologists, the nacre (or interior iridescent surface) of abalone has a fracture toughness about 3000 times greater than that of highly refined ceramic, despite its high ratio of mineral-to-organic content, and this is in large part due to its platelet-like microstructure (Jackson, Vincent, and Turner 1988, 416; Menig et al. 2001). Conch shells, meanwhile, are an order of magnitude tougher than abalone nacre (Gu, Takaffoli, and Buehler 2017).

3.2.1 Quahog: Mercenaria mercenaria

Mercenaria mercenaria is a species of marine mollusk that today ranges from New Brunswick to Florida. Its common name varies depending on the region. The term "quahog" is generally used in New England and the Canadian Maritimes, while "clam" or "hard-shell clam" is more common elsewhere. A related southern species *Mercenaria campechiensis* ranges primarily on both coasts of Florida, but northern quahogs are distinguished from this southern variety by their purple nacre and typically smooth exterior (Dillon and Manzi 1989). This dissertation uses the term "quahog" to refer exclusively to *M. mercenaria*.

As filter feeders, most bivalves consume particulate food suspended in water using gills (Rice 1992, 7–8). They bury themselves just below the surface in sandy or muddy sediments, particularly in "broad, mostly level bottoms of estuaries, bays, and sounds, where salinities exceed 15% and a few oceanic areas fairly close to shore" (MacKenzie et al. 2002, 2). Quahogs' spawning period is stimulated by water temperature, generally in the late spring and early summer. Spawning periods are longer and growth rates are faster in warmer regions (MacKenzie et al. 2002, 3).

Shell growth in quahogs is temperature dependent (Rice 1992, 11), among other environmental factors. Fluctuations between seasons leave growth rings along the ventral shell margin. These growth rings allow archaeologists estimate age-at-death or season of harvest for shells found in middens around the world. The lifespan of *M. mercenaria* can range up to 40 years. However, this is often cut short by consumption regimes of human harvesters and other predators. In the later 1800s, for instance, the new dish called "littlenecks" (popular at clambakes in Eastern North America) emerged from quahog harvesting between the ages of two and three years old (MacKenzie et al. 2002, 3, 31). The thick purple lip of shells ideal for wampum production, however, does not develop until later in the organism's life-course. Intensification of harvesting younger clams thus had detrimental impacts on the wampum industry over time.

3.2.2 Whelk: Busycon carica and Busycotypus canaliculatus

In eastern North America, the common name "whelk" refers to different species of a large edible sea snail (marine gastropod mollusks) from the genus *Busycon* and *Busycotypus*. Whelks are carnivorous scavengers of the sea floor. White wampum has been made from two closely-related species, *Busycon carica*, or the "knobbed whelk," and *Busycotypus canaliculatus* (formerly *Busycon canaliculatum*), or the "channeled whelk." Both species range from Cape Cod, Massachusetts to Cape Canaveral, Florida (Edwards and Harasewych 1988; Fisher and Rudders 2017). Channeled whelk tend to be smaller and have thinner shells than knobbed whelk (Edwards and Harasewych 1988).

Shells from whelk are formed differently than bivalve mollusks, and this difference structures how humans have used the shell to make beads. Gastropod shells are asymmetrical, spiraling outwards from the aperture or outer lip. Most, including whelk, are dextrally-coiled (or "right handed"). In contrast to quahog or conch, the walls of whelk's whorls are generally too

thin for bead manufacture. White wampum was instead made from whelk's columella, or the interior pillar that runs the length of the shell from its apex (Figure 3.2).

3.2.3 Conch: Lobatus gigas

"Conch" or "queen conch" in the wampum industry refers to *Lobatus gigas* (formerly *Strombus gigas*). Conch is a marine gastropod mollusk, but unlike whelk, *L. gigas* is an herbivore. It scavenges the sea floor for plant material and algae. Its natural range is from the Caribbean Sea to the coast of Brazil. It is a notably heavy, thick, and large shell, ranging from 140 to 260 mm (up to 7 lb.), with as many as 11 whorls and wide flaring lip (Randall 1964). While they are found in a range of habitats, they favor seagrass near coral reefs.

L. gigas is prey to many, including other gastropods, crustaceans, and fish, but only a few, such as the loggerhead turtle, can pierce its shell (Randall 1964, 289). Needing to withstand sharp-toothed predators, conch shell is one of the toughest naturally-produced biomaterials. The microstructure of its shell is divided into three layers of calcium carbonate aragonite structured at right angles (Osuna-Mascaró et al. 2014). This crisscrossing lamellar architecture "compartmentalizes crack propagation, leading to high toughness" (Gu, Takaffoli, and Buehler 2017, 1). Conch's toughness did not go unnoticed by Euro-American wampum producers in the Northeast. By this route, particularly through Dutch connections, conch shell became commonplace in Euro-American wampum production at Albany and in Bergen County, New Jersey (Peña 1990, 2001; Williams and Flinn 1991).

With these bead typologies, shell materialities, and mollusk biology in mind, Chapter 4 recounts the historical background of shell beads and settler colonialism in North America from the earliest encounters to the end of the 19th century. The beads, mollusks, and shell that moved between Indigenous and settler worlds went through key transformations that both constrained and facilitated political action in North America.

4 SHELL BEADS AND AMERICAN SETTLER COLONIALISM

Beads are a common accomplice to Euro-American colonialism. Between 1400 and 1900, wherever settlers, traders, slavers, or bureaucrats traveled, archaeologists often find beads in their wake. On the coasts of Africa, the Indian Ocean, or the Americas, many Europeans saw these ornamental objects as opening up exchange, often presaging more overt forms of colonial domination. In other words, beads are a common element in a material entanglement of colonial interaction. Other constituents include guns, metal tools, textiles, or other "European" sundries and foodstuffs, not to mention the animal worlds of horses, sheep, and pigs, or the disease-carrying microbiomes of viral or parasitic colonizers. But beads are a unique type of colonial artifact. As objects of adornment, they afford embodied practices of social identification, affiliation, and political mediation (Blair 2016; Loren 2013; Ogundiran 2002; Panich 2014; Pietak 1998; Webster and King 2019). As relatively standardized, highly portable objects, they occasionally serve as concrete representations of a universal exchange value (or money-objects) to varying degrees over time, space, and culture (Gamble 2020; Graeber 1996; Heath 2016; Maurer 2006; Patterson 2014; Shell 2013). Going beyond their use as adornment or money-objects, this dissertation examines beads' relationship to dispossession and violence, industrialization, and settler-colonial statecraft, writ large.

This chapter provides a historical backdrop to the data presented in Chapters 6 and 7 while also arguing three interrelated points. First, I argue that shell beads were intrinsic to North American colonialism from the earliest encounters to the 20th century, particularly in the transition from "colonial" or "middle-ground" periods to the establishment of durable settler-colonial institutions and industrial modernity. As such, archaeologists and historians should distinguish Indigenous uses of shell beads from ways that beads serve settler interests. The focus here is on the latter. Second, I argue that appropriation best captures the Euro-American handling

of shell beads. This occurred at four interlocking scales: land (dispossession), politics (wampum diplomacy), production (cultural appropriation of crafting techniques and bead styles), and labor (capitalist industrialization and radicalization). These various appropriations helped entwine the interests of capitalist enterprise and settler states, a project that continues today. Finally, settler conscriptions and appropriations of shell beads were met with Indigenous responses and resistance. Building from critiques outlined in Chapter 2, I suggest that themes of rejection and refusal were effective countertactics alongside the use of (settler-capitalist produced) shell beads as the materiality of resistance. These points are carried more fully into Chapter 8 through case studies of shell beads in the Old Northwest and the Northern Plains.

I present these arguments through a kind of archaeological history, a narrative grounded in materiality. I follow beads on their many non-linear paths, using shell-centered vignettes to anchor broader themes. By following multiple species of mollusk and shell-bead typologies discussed in Chapter 3 from their procurement, modification, distribution, and use, this helps undercut the spatial boundaries of "East" and West" often reified in the historiography of American history and historical archaeology (Daniels and Kennedy 2002; Fullagar and McDonnell 2018; Richter 2001; Warner and Purser 2017). The sections that follow are organized by period rather than geography, moving back and forth through blocks of time rather than treating histories of "production" and "consumption" as separate spheres.

This chapter provides a mercantilist prelude (section 4.1) followed by the "proto-industrial" world straddling the American Revolution and Indigenous dispossession east of the Missouri (1750–1830) (section 4.2). I then summarize industrialization in New Jersey as Northern and Southern Plains nations bore the brunt of post-Jacksonian violence (1830–1900) (section 4.3). The histories of certain actors are introduced here that will be discussed in greater

detail later chapters, including the major Euro-American wampum producers, the Ramapough Lunaape (Lenape) Nation, the Black wampum makers of Bergen County, and various fur traders, merchants, and government officials who presented wampum belts and exchanged shell beads across the central portions of North America.

Due to the constraints of space, certain parts of this story are inevitably deemphasized. While acknowledging the role of Spanish and French Empires in North America, I have chosen to focus here on Indigenous responses to British and American imperialism in the Midwest and on the Plains. My intent is to show the deepening ties between American industry, trade, and settler-state violence as the 19th century wore on. The narrative below also spends less time with the Dutch and the Haudenosaunee, despite their critical ties to wampum. This is in part because Haudenosaunee wampum politics have been tackled elsewhere (Bruchac 2018; Ceci 1982; Foster 1995; Hamell 1992; Simpson 2014), while less attention has been paid to the role of shell beads in the Central Midwest and the Plains (Keagle 2013).

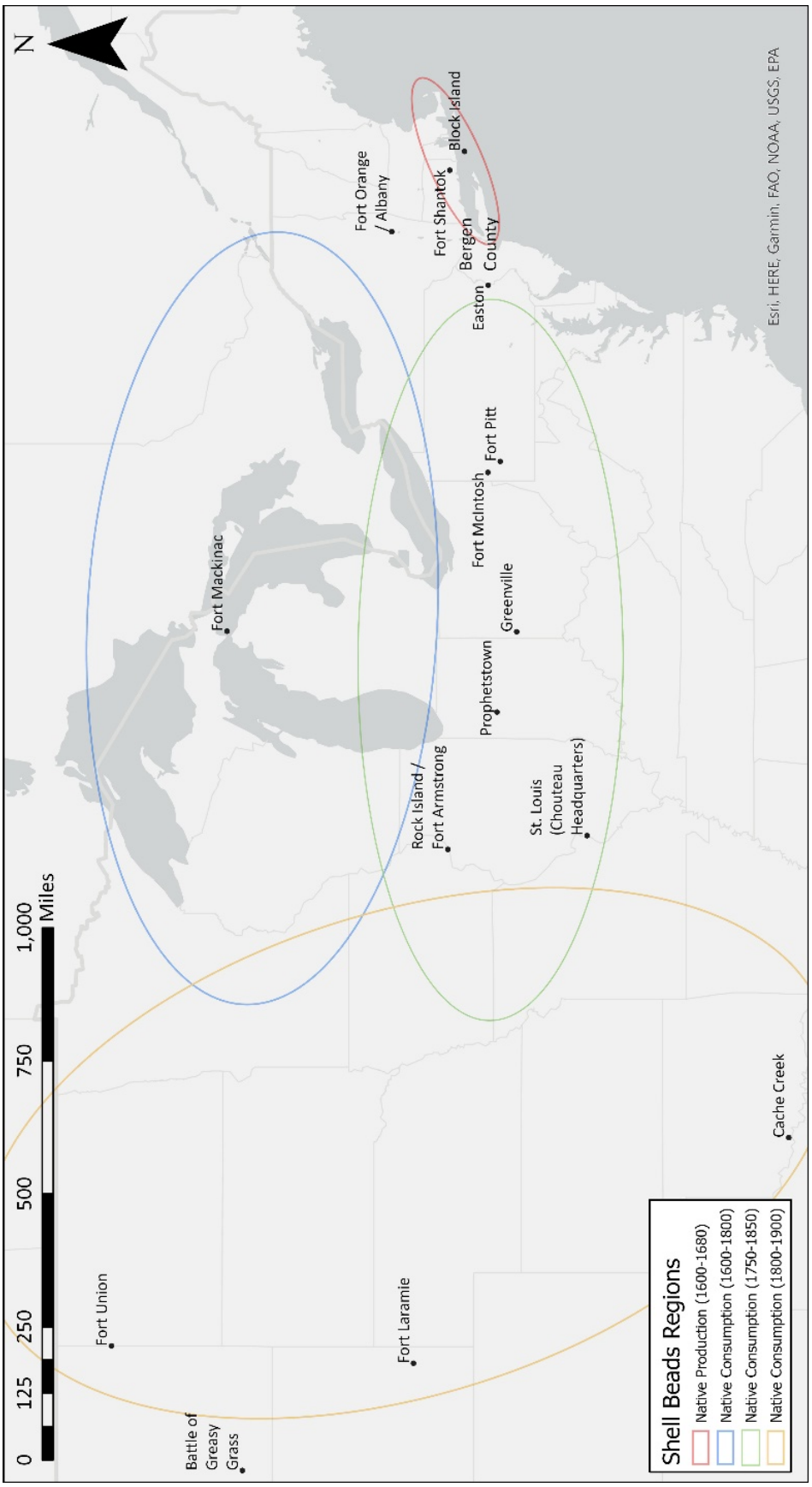

Figure 4.1: Sites mentioned and regions of Indigenous shell bead production and consumption 1600–1900 CE. (Map by Eric Johnson)

4.1 Prelude (to 1750): Money, Shell Beads, and the North American Origins of Settler-Capitalism

> *I am going to tell you about money … about the mint at Pascack … do not imagine that there was a continuous row of* stately *buildings in which the coining was going on night and day; that complicated machinery was set up in them, such as you may find in that great institution in Philadelphia, where you may see specimens of all the coins used as circulating medium among the civilized nations. The mills were as poor, the machinery as crude, as the folk for whom they were worked.*
> —1872, "The Mint at Pascack." Caroline Chesebro, *Our Young Folks. An Illustrated Magazine for Boys and Girls.* pp. 298–299.

When Caroline Chesebro wrote a first-hand account of the Campbell Wampum Factory in 1872, she believed she bore witness to a "mint" for "Indian money." She was not alone. Along with other commentators in the late 19th and 20th century, Chesebro followed a long tradition of Euro-American misunderstanding of wampum as a "primitive currency" (Beauchamp 1901; Dalton 1965; Ingersoll 1883; Philhower 1928). In this account of the development of monetary economies, certain objects come to represent a more universal standard of value, which are viewed as a step toward greater efficiency of exchange relative to barter (Simmel [1907] 1990). Money thus served as a marker of civilization. This framework persisted through the mid-twentieth century as economic anthropologists and archaeologists went about documenting the development and diversity of money-objects around the world, be they coins, shell beads, or iron bars (Bohannan 1959; Dalton 1965; Gamble 2020; Haselgrove and Krmnicek 2013; Maurer 2006). Chapter 7 deals with the anthropological and settler conceptions of "monetary modernity" in greater detail. For now, it is enough to say that the status of wampum as "money" for Indigenous peoples of the Northeast is a complicated claim at best and harmfully reductive at worst.

Wampum may never have been "Indian money" in the way that Caroline Chesebro described it, but it was certainly a primitive currency *for Europeans* (Ceci 1980; Shell 2013). Of course, the question "for whom was wampum money" is deeply political and has been used to exclude and Native people from modernity and dispossess on civilizational grounds (Cattelino 2018, 291–295). By pointing to Europeans' monetary use of shell beads, I do not suggest that Indigenous peoples did not understand logics of currency or use wampum's exchange-value strategically. Nor should Indigenous wampum ontologies be excluded from American monetary history. Rather, wampum's sacred, social, and political uses, its symbolic dimensions, its relationship to "value" in society, and its entanglements with the fur trade make for an incredibly complex object that cannot be reduced to an instrument for efficient exchange.

Instead of viewing money as an endogenous invention to reduce market friction, I consider it here as one element of a settler capitalist entanglement. This also means thinking about the darker side of monetary exchange. We might instead ask how humans grapple with the morality of expanding spheres of commensurability and representations of capitalist wealth and exploitation, as have many anthropologists since the 1960s (Bohannan 1959; Elyachar 2005; Graeber 1996; Guyer 1995; Keane 2001; Parry and Bloch 1989; Taussig 1977). As David Graeber argues, talk about money—which often presumes equal, consensual exchange relations—can easily mask certain hierarchies and violence embedded in social relations (Graeber 2011; Parry and Bloch 1989). With this in mind, what is erased by the mythology that Manhattan was "purchased" from Native nations with a handful of beads (Francis 1986)?

In particular, I follow historical archaeologist Katheryn Sampeck's understanding of cacao in Spanish colonial Guatemala, who views the intensification and extensification of cacao "commodity money" as "one of the most intimate and sweeping forms of violence" tied to war,

debt and credit, forced nucleation, and a system of coerced labor (Sampeck 2019). Similar arguments might be said of shell bead money in colonial California (Patterson 2014), even if others suggest that the Chumash developed elements of shell bead "money" before the establishment of the Spanish Mission economy (Gamble 2020). Cowrie shells (*Monetaria moneta* and *Monetaria annulus*) are another case where shell's portability, standardized morphology, and global itinerary merged with merchant-capitalist conceptions of money, from the Indian Ocean to Virginia (Heath 2016, 2017), but cowrie's meanings and uses, like wampum, cannot be reduced to European conceptions of universal equivalence and commensurability (Ogundiran 2002, 2014).

Following Indigenous revisions to American history (Cook-Lynn 2012; Dunbar-Ortiz 2014; Estes 2019; Miller and Riding In 2011), a brief outline of wampum's 17th-century history and archaeology reveals how the later American industrial and political landscape was shaped by early encounters, both in terms of trade (and finance) and the long shadows of extraction and violence against Indigenous nations. Here, I also distinguish wampum's role in settler colonialism from its place in Indigenous ontologies as a sacred and political object.

There is little consensus on the origins of wampum, except that its use as a medium of exchange arrived with the earliest settlers (Ceci 1982; Graeber 2001, 117–149; Hamell 1992, 1996), perhaps as rapidly as between 1590 and 1604 (Becker 2008, 5). As described in Chapter 3, shell beads had been made, used, and circulated in the Northeast for millennia, but the purple-or-white archaeologists sometimes call "traditional wampum" emerged with a kind of "triangle trade" in the Northeast from the late-16th to the early-18th centuries (Ceci 1980, 1990; Herman 1956). Here, coastal Algonquian-speaking nations of Southern New England manufactured wampum while European merchants traded it with inland Haudenosaunee nations (Lipman 2015,

197–202). The term "triangle trade," however, may be a misnomer, especially after the 1630s. While wampum was commonly exchanged with Algonquian producers for European-made goods, it was also extracted through tribute, fines, and ransoms in the context of colonial domination.

For Indigenous people, wampum's uses were and are diverse across nations and complex within specific communities (Becker 2008; Bruchac 2018; Ceci 1982; Creese 2016; Hamell 1996; Snyder 1999). Broadly, for both coastal Algonquian and inland Haudenosaunee communities of the Northeast, beads were often woven into belts or bracelets or incorporated into other objects such as pipes. These could serve as gifts at key ceremonies in individual and household lifecycles (marriages, births, deaths) or social payments (Bragdon 2009, 104–105; Graeber 2001, 117–149; Lipman 2015, 106). They were also used in acts of peacemaking and treaty-negotiating between Native nations or with Europeans (Bruchac 2018; Foster 1995).

For the Haudenosaunee, wampum belts might be thought of as part of a broader "visual code" across different media and between pre-colonial and present-day communities (Kelsey 2014, xii-xiii). Indigenous scholars and anthropologists have reconstructed the mnemonic devices and "semiotic content" of white-and-purple patterned belts and their political uses (Beauchamp 1901; Bohaker, Corbiere, and Phillips 2015; Hamell 1992; Hewitt 1910; Hill 2001), but wampum should not be reduced to a semiotic instrument in human hands (Foster 1995). Pushing back against functionalist frameworks, Abenaki wampum scholar Margaret Bruchac goes further:

> From an Indigenous ontological perspective, wampum belts embody the literal weaving together of thoughts from living human beings and materials from living marine, floral, and faunal beings … wampum belts, masks, and similar sacred and ritual objects are seen by Indigenous claimants to be "ancestors," "relatives," "informants," and otherwise living persons who, even if they are "sleeping" in the

> collections, are capable of being awakened in the presence of the appropriate thoughts, words, and relations. (Bruchac 2018, 69)

Building on discussions of materiality in Chapters 2 and 3, Bruchac's understanding of wampum's lively and moral entanglements is important to keep in mind when it comes to the politics, production, and (mis)appropriation of shell beads later in the 19th century.

For Europeans, the fur trade stabilized wampum's exchange-value in the 17th century relative to other commodities (Ceci 1980; Middleton 2001). Given a chronic shortage of metal coinage, colonists were using wampum as currency by the 1630s. The English and Dutch standardized a "fathom" of wampum as a six-foot length of beads. Between 1637 and 1673, colonial governments recognized wampum as legal currency, and settlers continued to use the bead as small change or even as wages in local exchanges into the 18th century (Ceci 1980, 845).

From the beginning of wampum's life as European money, Indigenous producers derived a certain kind of power through production. A map prepared by the Dutch merchant Adriaen Block in 1614 notes the key Indigenous nations that would become major suppliers of wampum, as well as those up the Hudson that would trade for fur.[7] Described by William Wood in 1634 as "Mint-masters" (Wood 1634, 61), nations including the Narragansett, Pequot, Wampanoag, and others competed for and wielded control over the political-economic landscape of New Netherland and New England (Bragdon 1996, 97–98; Brooks 2008, 54–64; Lipman 2015, 111; Salisbury 1982, 147–152). By 1656, one Dutch merchant noted that "many thousand strings are exchanged every year for peltries near the sea shores where the wampum is only made, and where peltries are brought for sale" (van der Donck 1841, 206). The 17th century also saw the first example of European attempts to make and sell wampum directly. Dutch colonists

[7] "The figurative map of Adriaen Block". *The New York Public Library Digital Collections*. 1614. http://digitalcollections.nypl.org/items/510d47d9–7bf7-a3d9-e040-e00a18064a99, accessed April 19, 2021.

attempted to manufacture wampum as early as 1640 in both New Netherland and Holland, but Natie communities rejected these at the time as imperfect imitations (Kraft 1986, 203; Nelson 1894, 36). While this rejection was recorded as an objection to the commodity's quality, we might also speculate whether the ontology of producers was one aspect of Dutch-made wampum's "quality."

Nevertheless, the power derived from control over the means of wampum production could only last if Europeans withheld from seizing it through regimes of violence and terror. As Lynn Ceci notes, Indigenous producers "could control the amount in circulation, hence its rate of exchange. It was in [1636] that the English initiated a series of devastating attacks on the powerful Pequots of southern New England" (Ceci 1980, 844–845). Where the trade bead had once been a source of empowerment, violence and dispossession transformed exchange relations into extractive exploitation. English officials imposed taxes, tributes, fines, and legal fees on Pequots to be paid in wampum (Brooks 2018, 61; Lipman 2015, 140–141). Not coincidentally, Massachusetts was the first colony to legalize slavery in 1641 in the aftermath of the Pequot War (Newell 2015). English colonists enslaved thousands of Indigenous people in New England, outnumbering enslaved Africans for a period. Postbellum commodification of Indigenous persons was fueled in part by fiscal crises and the drive to control production, distribution, and accumulations of shell beads.

Archaeological evidence for 17th-century Indigenous wampum production is scarcer than one might expect from historical accounts. Lynn Ceci (1989) and Ralph Solecki (1993) have attempted the broadest syntheses of archaeological data (see also Stone 2006). Relative to other case studies of shell bead production around the globe (Arnold 2012; Arnold and Munns 1994; Masucci 1995; Nigra and Arnold 2013; Pearson 2017; Pearson and Cook 2012) few

archaeologists have actually analyzed 17th century wampum production debris. Those who have (Becker 2002; Burggraf 1938; McBride 1994, 2006; Orchard 1929; Wilcox 1976), approach the subject from a broadly qualitative lens rather than the quantitative methods performed in Chapter 6. [8]

Most archaeological examples of Indigenous wampum production come from Native Fort sites of the Long Island Sound, along the southern coast of Connecticut, Rhode Island, and Long Island (Figure 4.1). These include the Forts of Massapeag (Burggraf 1938), Corchaug (Solecki 1950), Shantok (Williams 1972), Ninigret (Taylor 2006), and Island (McBride 2006; Reiser 2006). The term "Fort" deserves some discussion here. First, as an occupation site, most are marked by palisaded wall. While defensive features are present in other precolonial Woodland contexts, they are uncommon in southern New England before the advent of settler colonialism. Second, while most Native Fort sites show clear "defensive" advantages, some, such as Fort Massapeag, might be better described as trading posts rather than sites of refuge. Third, it is safe to say this site type is marked by wampum manufacture, but the evidence varies from site to site. Native Forts that yield no evidence of wampum, such as Fort Mystic and Fort Hill (McBride 1990), are also located on hills and far from waterways where Solecki (1993) argues bead production would have taken place. These sites, just as 18th and 19th-century wampum production sites, must be understood in the context of colonial interaction. Even when production was undertaken by Indigenous hands, wampum may have been made in order to pay for the return of captive children or an offering in an attempt at peace after a massacre (Lipman 2015, 107, 141; Newell 2015, 25).

[8] Peña's (1990) work is an exception here, though her dataset is of 18th century Dutch production rather than 17th century Indigenous production.

While European-Indigenous relations in the Northeast were made asymmetrical very early on from imported epidemics, it is not until the so-called "wampum wars" of the late 17th century that the region saw the establishment of settler-colonial institutions birthed from conscious attempts at genocidal elimination (Ostler 2019, 17–23). Even after dramatic declines in northeastern Indigenous populations of the 17th century, wampum remained an important commodity into the 18th century, both as a political tool and as a trade good. Unfortunately, little is known about wampum production between 1700 and 1750. At Fort Shantok, one of the powerful 17th century Native Fort sites of southern New England (Stone 2006), wampum manufacture declines sharply after 1680 (Solecki 1993, 73). By 1750, Dutch producers out of Albany (Fort Orange) had appropriated the craft (Peña 2001). Of course, northeastern Indigenous nations persisted, even after genocidal violence of the Pequot and King Philip's Wars (Calloway 1997; Den Ouden 2005; Mandell 2010; Strong 2001, 2011), and the importance, use, and meanings of wampum continued through the 19th and 20th century (Becker 2002). Despite English exploitation of Native labor to produce the bead after the 1630s, the craft continues to be central to many Algonquian nations' identity today.

Europeans' use of wampum as currency declined by the early 18th century, but its association as "shell money" or "Indian money" extends deep into the American public consciousness. Returning to Caroline Chesebro's reference to the Campbell Wampum Factory, if wampum was never a currency for Indigenous peoples, why did she insist she bore witness to a "mint"? Of course, this may simply be another misreading of Indigenous practices which reveals more about settlers' own economic anxieties of Reconstruction and Gilded Age America. As a "colonial currency," wampum serves as a touchstone in the origin myth of American capitalism and as an anchor in narratives of Euro-American civilizational supremacy (Shell 2013). The

understanding of the Campbell factory as a "mint" is thus an erasure of the ever-present power and violence behind "monetary exchange" between supposed equals, as in the case of the mythic "purchase" of Manhattan with twenty-four dollars' worth of beads and sundries (Francis 1986). From the perspective of settler capitalism, discourse about wampum as "Indian money" helps to erase the settler economy's deep entanglement with colonial dispossession. As shown above, wherever Europeans tapped into wampum's production and circulation, violence often followed closely in their wake. As time wore on, these early mercantile forms of shell bead conscription transformed in the 18th and 19th century along with changes in the landscape of production, the fur trade, and American imperialism.

4.2 **Wampum-craft and Settler Statecraft (1750–1830)**

> *We present you with this Belt of Wampum, by which we open the path between us, once more, and wash away the Blood that has been Spilt on it, we Bury the scattered Bones of our Deceased Relations, and Dispel the Black Clouds, and wipe the tears from your Eyes, we remove all sorrow from your hearts, that joy and the Bright Sun of friendship may shine on you with greater Lustre than ever.*
> —1778, American officials at The Treaty of Fort Pitt (Bushnell 1916, 170–171), quoted in Prucha (1994, 31).

> *You have been particular in describing to us the claim and title of each particular tribe … The detail of these claims and title may appear to be of consequence among yourselves. But to us & to the business of the Council Fire to which we have called you they have no relation;* because *we claim the country by conquest; and are to give not to receive. It is of this that it behooves you to have a clear and distinct comprehension.*
> —1785, American officials at the Treaty of Fort McIntosh. "Memorandum of the Proceedings at Treaty of Fort McIntosh," Timothy Pickering Papers, quoted in Prucha (1994, 49).

In September of 1778, a fourth in a series of councils was held in Pittsburgh between Delaware leaders and commissioners of Virginia and Pennsylvania. From the perspective of Indigenous nations living in eastern North America who had traded, fought, and intermarried

with Europeans for more than a century, the Revolutionary War probably appeared more like a civil war than liberation from a colonial oppressor (Calloway 2003, 367–376). Many Native nations had attempted neutrality, but in 1778, preparations were underway for an American attack on Detroit, and the river valleys of the Old Northwest remained sovereign Indigenous territory. At the Treaty of Fort Pitt, Delaware leader White Eyes accepted a belt of wampum, along with promises of alliance. American officials even offered Delawares statehood with representation in Congress (Weslager 1972, 305). Though this never came to pass, the agreement did permit American troops passage through Delaware territory. Months later, White Eyes was murdered by an American militia, pushing the Delawares to an uneasy alliance with the British.

Extreme violence ensued. American troops destroyed the Delaware capital of Coshocton in 1780. Two years later, a settler militia under the command of David Williamson, "embarked on a search-and-destroy mission against hostile Delawares. Upon failing to find any such Indians, Williamson instead turned against the Christian and friendly Delawares at the Moravian mission at Gnadenhütten in Eastern Ohio (Grenier 2005, 161). Ninety-six Delawares were executed under the pretense of having given refuge to enemy combatants.

In the aftermath of the Revolution, a broken alliance became a justification for dispossession. In 1785, Delwares, Wyandots, Shawnees and others gathered at Fort McIntosh to convene with American commissioners. As the quotes above demonstrate, in contrast to Fort Pitt, the Treaty of Fort McIntosh was "more like a dictated peace than the result of negotiations between two sovereign powers" (Prucha 1994, 52). Commissioners "allotted" land, forbidding Delaware settlement in the eastern half of what is today the state of Ohio.

Treaty making (and breaking) was common in North America before the late 18th century, but the contrast between Fort Pitt and Fort McIntosh treaties points to a uniquely

American trend. Early United States treaty tactics kicked off a long history of Indigenous land seizure (Nugent 2008; Ostler 2019; Prucha 1984, 1994). Dispossession was underwritten by democracy, in this case, by a land hungry, violent, and participatory settler-militia citizenry (Dunbar-Ortiz 2014, 78–94). The imperial violence of early "Indian affairs" nested itself in the deep history of the United States military (Grenier 2005).

As Glen Coulthard argues (2014, 40), settler-colonial engagements with Indigenous sovereignty—fueled by a capitalist imperative for land, labor, or other resources—often result in a "strategic 'domestication' of the terms of recognition." Colonizers undermine sovereignty by performing but also distorting Native practices of political mediation. Susan Brophy makes a similar argument in the context of the 18th century British fur trade, arguing that the subtle distinctions between Indigenous gift-giving and mercantile credit/debit systems allowed for a "domestication" of "customary reciprocity" resulting in dispossession through the creation of debt relations (Brophy 2018, 9). Here again, shell beads lie at the intersection of finance, trade, diplomacy, and dispossession.

Wampum belts gifted by Euro-Americans at treaty councils were material mediators, components of a "political machine" (Smith 2015), that sought to "open" sovereign Native worlds to white settlement. Treaties such as Fort Pitt can be seen as documentary technologies, backed by cycles of violence, that attempt to reorient relations to land, ultimately toward alienability and commodification (Ben-zvi 2018; Cronon 2003; Li 2014). Archaeology adds another layer to this argument. I contend that settlers' manufacture and gifting of wampum, while often interpreted as good-faith accommodations to Indigenous customs, can also be read as appropriation in two ways: 1) appropriation of the materiality of sovereign recognition; and 2) appropriation of Native technologies and knowledges of craft production. The following section

illustrates that American industry and imperialism were twin servants of settler colonialism and capitalism through the vehicle of making, trading, and parleying with shell beads.

4.2.1 Appropriating (and Refusing) Wampum's Politics of Recognition

The eventual broken promises of Fort Pitt were nothing new to Indigenous leaders by the time the United States was born (Dunbar-Ortiz 2014, 56–78). Previous intergovernmental negotiations often required large quantities of wampum, such as the infamous Walking Purchase of 1737 (Grumet 2009, 245–250; Newman 2012, 133–183) and the 1764 Treaty of Fort Niagara. Many of these involved carefully negotiated, tenuous, and multi-staged protocols (Foster 1995; Newman 2012; Richter 2001, 135–138; White 2011).

In northern New Jersey, the eventual heartland of Euro-American wampum production, diplomatic negotiations with American officials held consequences for ancestors of the modern-day Ramapough Lunaape (Lenape) Nation. Currently residing in the Ramapo Mountains extending between northern New Jersey and southern New York, the Ramapough are "descended from Munsee-speaking Indians who retreated into the mountains. They were joined by other Indian peoples as well as various settlers who intermarried with them" (Lenik 2011, 1). Archaeological work demonstrates the continued presence of Indigenous people and place in the Ramapo Mountains since the Archaic period (Lenik 2016). After 1667, refugees from the wampum-related violence of southern New England took refuge in the upper Passaic River valley, where documents refer to them as Pompton or Waping Indians (Becker 1993; Grumet 1989, 2009).

Amidst British victories in the French and Indian War, more than a week of negotiations took place in Easton, Pennsylvania between British officials and thirteen Native nations (Grumet 2009, 262–272). The goal of this 1758 Treaty of Easton was to establish peace in the Ohio,

Pennsylvania, and New Jersey region. Superintendent of Indian affairs Sir William Johnson was instrumental in ordering the manufacture of wampum and presenting dozens of strings and belts to attendees over weeks of negotiations. Leveraging the perceived dominance of Haudenosaunee allies in the region, Johnson agreed to grant a hard border between sovereign Indigenous territory west of the Allegheny Mountains and European settlement to the east.[9] However, as part of this agreement, all the land of northern New Jersey was transferred to the English in exchange for one thousand "Spanish dollars."[10] While many displaced Pomptons moved west, some likely remained in the highlands of north Jersey and southern New York, joining the Ramapough Nation and surviving for centuries under a settler-colonial regime (Lenik 2011, 6–11). Here, wampum facilitated the dispossession of Ramapough land. As shown below, it was likely produced by settlers in the same region.

This is not to say that Indigenous negotiators did not see through performative appropriations of wampum. Settler-driven wampum politics could be refused. Building from Fanon (2008), Glen Coulthard (2007, 2014) argues that the political regime of "recognition" between North American settler states and Indigenous nations, while aiming to redress histories of oppression, in fact recapitulates colonial hierarchies. Rejecting settler-defined terms of recognition is an act of "turning away" from settler colonialism and a step toward self-determination. Audra Simpson adds the dimension of history in *Mohawk Interruptus*: "Contorting oneself in a fundamental space of misrecognition is … about historical formation.

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[9] The British government could not do much to stem the tide of settler-squatters west Allegheny Mountains. This led to the famous Pontiac's rebellion and the "Proclamation of 1763" to attempt to keep the agreements of the Easton Treaty (White 2011:269–314). This is also the territory known as the "Old Northwest" later seized by Americans at Treaty of Fort McIntosh.

[10] The Minutes of a treaty held at Easton, in Pennsylvania, in October, 1758. By the lieutenant governor of Pennsylvania, and the governor of New-Jersey; with the chief sachems and warriors of the Mohawks, Oneydos, Onondagas, Cayugas, Senecas, Tuscaroras, Tuteloes, Nanticokes and Conoys, Chugnuts, Delawares, Unamies, Mohickons, Minisinks, and Wapings. Woodbridge, NJ, 1758. *Eighteenth Century Collections Online.* Detroit, MI: Gale Group, 2003.

And by refusing to agree to these terms and to be eliminated Mohawks are asserting *actual* histories and thus legislating interpretive possibilities in contestation—interpretations of treaty, possibilities of movement, electoral practices" (Simpson 2014, 22). In New Jersey, the Ramapough Nation's refusal to be erased after the Treaty of Easton interrupts settler histories and contemporary politics. These rejections and refusals can also be seen in the 18th century.

Following a long record of Native outrage, resentment, and resistance at treaty councils (Newman 2012; Prucha 1994), wampum refusals are found in the settler-documented treaty negotiations discussed above. For instance, in 1762, Teedyuscung, chief of the Delaware Lenape met with Sir William Johnson to work through tensions arising from the Walking Purchase of 1737 and the 1758 Treaty of Easton. Johnson initiated negotiations with wampum. However, much to the surprise and confusion of British officials, Teedyuscung insisted on his own clerk and paper due to the misunderstandings of previous wampum diplomacy (Newman 2012, 170–171).

Delaware Chief John Killbuck, meanwhile, in dealing with Americans at Fort Pitt, also recognized the misappropriation and deception behind the use of settler-made wampum. American commissioners had presumed that Delawares would contribute military aid against the British in addition to "open passage," but Killbuck saw the agreement differently. In 1779, he led a delegation to meet with George Washington to redress diplomatic breakdowns. Here, Killbuck had "thrown aside the use of wampum."[11] As in the case of Teedyuscung, Delawares' strategic refusal of wampum meant opting for written documents in order to avoid "blunders by Americans who did not know how to use wampum belts, calumets, and war axes" (White 2011, 383).

[11] *Collections of the State Historical Society of Wisconsin.* Madison, WI: "George Morgan to George Washington," May 9, 1779, 23:313. Quoted in White (2011:383).

Written words, in these cases, did little to stem the tide of settler colonialism, yet they were an attempt to avoid the plausible deniability behind "miscommunications" in the wampum-belt medium. In addition to refusal, settler-made beads could also constitute the materiality of Indigenous counter tactics and self-fashioning, as I show in Chapter 8. But as the fledgling United States entered the 19th century, the asymmetry of treaty-making grew. Attempts at "diplomacy" became thinly veiled threats of violence grounded in ideologies of Manifest Destiny, Christianization, removal, erasure, and extinction.

Attempts to work through or refuse wampum's "domesticated" politics of recognition must be understood in relation to modes and means of producing the bead. "Production" and "use" are of course two locations in a bead's itinerary (Bauer 2019; Joyce and Gillespie 2015), as discussed in Chapter 2, but their historical relationships matter. In fact, separating "production" from "use" can downplay historical relationships between production and consumption. It can also facilitate appropriation through the vagaries of time, space, and practices of decontextualization and recontextualization (Kopytoff 1986; Tsing 2013). The trust begged for by Americans' so-called accommodation to Indigenous customs of diplomacy fall flat against settlers' appropriation of the industry from Indigenous peoples of coastal New England.

4.2.2 Crafting Wampum in The New Republic

> *A severe and proud dame she was, bestowing every day in dressing herself neat as much time as any of the gentry of the land: powdering her hair, and painting her face, going with necklaces, with jewels in her ears, and bracelets upon her hands. When she had dressed herself, her work was to make girdles of wampum and beads.* —1676, Account of Mary White Rowlandson describing Weetamoo, a Wampanoag saunkskwa (Salisbury 1997, 96–97; cited in Brooks 2018, 264).

When it comes to labor, the "work" of crafting wampum must be contextualized by broader social relations of production, gender, and ontologies of adornment across settler and

Indigenous worlds. For English Puritans in the 17th century, appropriate forms of dress moved one closer to God; wampum signaled a threat to the soul and health of the wearer, in part through its association with Indigeneity (Loren 2013). When it comes to production, Abenaki historian Lisa Brooks unpacks the dissonance between English and Indigenous notions of "women's work" in the personal account of Mary Rowlandson. Rowlandson was an English captive in Nipmuc Country in 1676 who "lived and served" with Weetamoo, a Wampanoag saunkskwa (or female chief). Rowlandson minimized Weetamoo's status by citing her labor as a wampum producer. Brooks elaborates:

> To further diminish Weetamoo's authority, Rowlandson portrayed the crafting of wampum belts as "work," suggesting that she was more like a servant than a leader. In truth, given the ceremonial role of wampum in alliance building, this "work" signaled the highest status in Algonquian society. In this context of war, in which the survival of thousands depended on the alliances among multiple nations, the making of wampum belts was of utmost importance, "work" involving great deliberation, skill, and knowledge of community histories and relationships. Weetamoo was entwining the bonds between nations, weaving a multifaceted tapestry of northeastern political networks. Yet Rowlandson downplayed wampum's significance, portraying the belts Weetamoo wore as an accessory she adorned to enhance her beauty, rather than symbols of leadership. (Brooks 2018, 264)

In other words, wampum production and adornment was a highly valued political and sacred act, performed by powerful and respected women. This stands in contrast to the Euro-American "minters" who produced Late Wampum in the 18th and 19th century. As shown below, whether instituted as a mode of "poor relief," associated with Irish runaways, women, or African-descendent producers, wampum labor became embedded in increasingly capitalist relations of production and devalued along lines of gender and race. This social devaluation—culminating in the waged work in the Campbell Factory—was arguably made possible by the severing of wampum production from it sacred, moral, and political dimensions. The political

misappropriations of wampum in the Old Northwest outlined above flowed from the appropriation and alienation of wampum production from moral obligations and entanglements with Indigenous communities of the Northeast.

This section presents evidence for settler-produced wampum after the 17th century. I introduce the main producers, distributors, and key sites between 1750 and 1830, eventually centering on Bergen County, New Jersey. Primary documentary evidence is presented here in detail, later to be complicated by suggestions of who has been left out of the story. While the previous section outlined appropriations of *land* and wampum *politics* in the 18th century, this section begins the theme of appropriating knowledge of *craft production* from Indigenous producers.

It is difficult to know for certain who produced the wampum and who assembled the belts gifted at various treaty councils of the 18th century. That said, the meticulous work of Lorraine Williams and Karen Flinn (1991) and Elizabeth Peña (1990, 2001, 2003) tracing the history and archaeology of the 18th century wampum trade offers clues. By this time, wampum production was a known craft industry in the colonies. Sir William Johnson, British commissioner at the Treaty of Easton discussed above, frequently ordered wampum beads from Euro-American merchants in Albany, New York, and Philadelphia between 1750 and 1780 as he dealt with the Haudenosaunee. After procuring the beads, he then commissioned Mahican women to weave belts for the purposes of diplomacy (Williams and Flinn 1991, 26). It is certainly possible that Euro-American merchants ordered wampum from Indigenous producers. However, it appears that by 1750 the industry had been largely taken over by settlers.[12] In other words, the wampum

[12] This is not to say that Pequots, Wampanoags or other 17th century suppliers had disappeared from the landscape of New England, or that they had ceased producing wampum (Brooks 2008; Calloway 1997; Den Ouden 2005). Evidence of Euro-American procurement from Indigenous nations fades from the record after 1700 (Williams and Flinn 1991:31), though this may be due to a lack of scholarly attention.

that William Johnson presented at the Treaty of Easton which ceded land from ancestors of the Ramapough Nation to the English may have been produced by Euro-Americans living in the very same region.

Evidence of settler-produced wampum is well documented, both historically and archaeologically. In a visit to Albany in 1744, Maryland physician Dr. Alexander Hamilton described "manufactorys for wampum":

> [Wampum] is of two sorts—the black, which is the most valuable, and the white wampum. The first kind is a bead made out of the bluish black part of a clam shell. It is valued at 6 shillings York money per 100 beads. The white is made of a conch shell from the W. Indies and is not so valuable. (Bridenbaugh 1948, 73)

Other visitors to Albany back up Hamilton's account. Cape May resident Jacob Spicer, a successful merchant who visited Albany, noted that "[wampum] was in great demand equal if not Superiour [sic] to Silver in Value & there were 60 or 70 Wampum Shops in Albany" in the 1750s (Stevens 1941, 113). An account by Peter Kalm in 1749 mentions that "Many people at Albany make wampum for the Indians, which is their ornament and money, by grinding and finishing certain kinds of shells and mussels. This is of considerable profit to the inhabitants" (Benson 1966, 343).

Archaeological evidence from Albany confirms historical accounts of Dutch wampum production by 1750. There are at least nine sites documented in the downtown Albany area with evidence of 18th century Late Wampum production (Lesniak 2003, 133). Most notably these include the KeyCorp site (Peña 1990, 2001) and two nearby 18th-century blockhouses (Peña 2003, 125–126). The KeyCorp site was the location of an Almshouse which treated wampum production as a mode of "poor relief" through the Dutch Reformed Church (Peña 1990, 2001). It yielded over 2,000 fragments of worked clam and conch shell and roughly 200 beads "in production" associated with 18th century artifacts and tools including drills, whetstones, and

awls. Here, conch shell was shipped from the Dutch Caribbean. Based on oral historical accounts from Westervelt (1924, 16), some have asserted the heavy shell served as ballast (MacKenzie et al. 2002, 22; Philhower 1928, 316; Wilcox 1976, 10–11). Whether or not they functioned as ballast, conch shells certainly held value upon arrival in New York as raw material for beadmaking, a tradition that continued in northern New Jersey until the late 19th century.

Mid-eighteenth century evidence points to areas of Euro-American wampum manufacture outside of Albany as well. In Lancaster County, Pennsylvania, rewards for runaways were posted in the *Pennsylvania Gazette* for two Irish servants listed as "wampum makers" in 1750 [13] and similarly for a wampum maker named Jacob Bennet in Cape May County on the southern coast of New Jersey in 1755. [14] Jacob Spicer's visit to Albany apparently stimulated wampum production on the southern coast of New Jersey (Stevens 1941, 166). Producers would have found raw shell material in ready supply along the Atlantic Coast, though it is unclear exactly how the technical knowledge of wampum manufacture spread. As at Albany, archaeology buttresses the historical record at Cape May. Alanson Skinner, an archaeologist working in the early 20th century, noted shell heaps outside of the Cape May Court House:

> … there are three or four shell heaps which local authorities think represent seats of the wampum industry. There is some reason for this belief, as the shells are broken into small angular fragments like those found in the shell heaps of Long Island, New York, that are known to be made up of wampum refuse. (Skinner and Schrabisch 1913, 53)

These features were never fully investigated, though shell artifacts at the Cape May Historical Society suggest they were sites of Euro-American wampum manufacture (Williams and Flinn 1991, 33).

[13] *Pennsylvania Gazette*, June 21, 1750.
[14] *Pennsylvania Gazette*, January 21, 1755.

Northern New Jersey also features in early accounts of Euro-American wampum production. Histories of the Reformed Dutch Church of Bergen report wampum used in collections throughout the 1700s:

> At that early day, an Indian money made of conch shells was used. These were beads of two kinds—black and white; the former worth twice as much as the latter … These small pieces of wampum, as it was called, were owned by the Deacons, and sold out at the given value—the head of each family purchasing them. They were distributed to the members of the family, and in church each deposited his piece of this money in the collection bag. … The venerable usage continued until about half a century ago. (Taylor 1857, 114–115)

It is unclear where Bergen Church collection-plate wampum came from, but evidence suggests local production. In traveling from Philadelphia to New York in 1760, the Reverend Andrew Burnaby had "an opportunity of seeing the method of making wampum" in Staten Island (Burnaby 1904, 110–111). Burnaby did not mention the identity the producers, but given the population of Staten Island at the time, his lack of specificity suggests they may have been Euro-American.

Nineteenth-century historian Gabriel Furman noted that eastern Long Island, a known heartland of 17th century Indigenous production, was a place of wampum manufacture in 1845 and probably earlier:

> … the best Wampum, formed of the heart of the shell of the common hard clam, is at this day manufactured on Long Island; to be sent to the Indians in the Western States and Territories … In the summer of 1831, several bushels of Wampum were brought from Babylon on this Island; and the person who had them, stated that he had procured them for an Indian trader, and that he was in the habit of supplying those traders with this Wampum. (Furman 1845, 63–64)

It is unclear exactly who produced this 19th-century Long Island wampum. "Indian trader" likely denotes a Euro-American fur trade merchant rather than an Indigenous person, though this is difficult to determine with certainty. Similar to Burnaby's account, the fact that Furman does not

specify the producer's identity suggests settler production. That said, it is certainly possible that Indigenous communities living on Long Island were continuing the industry from within settler society (Strong 2001, 2011).

4.2.2.1 Bergen County Wampum: The Stoltz and Campbell Workshops

The region eventually known as Bergen County has been occupied by the descendants and ancestors of Munsee-speaking Lenape nations for at least millennia (Kraft 1986, 2001; Lenik 2016). While Munsee Lenape were not necessarily known for wampum production in the 17th century, they used wampum and other marine shell objects including runtees and effigies as well as glass beads of the fur trade (Esarey 2013; Kraft 1986, 202–207; 2001, 382–387; Pietak 1998). They likely produced wampum in some capacity, even if the available evidence is scant. The early New Jersey historian William Nelson (1894, 102–103) suggested that the "Hackensack Indians" who lived along the Hackensack River in Bergen County "probably manufactured wampum," noting too that "the Hackensacks taught the first settlers many things." Additionally, the 1680 journal of Jasper Danckaerts (1913, 172–180) reports that a Native guide named Hans was also a wampum producer. Though Hans' specific tribal identity is left unmentioned, he was living in Munsee-Lenape territory at the time and guided Danckaerts up the Passaic River, an area not far from the eventual location of Stoltz Farm.

Northern New Jersey's 17th and 18th century history is a complex and shifting set of property claims between Native inhabitants, settlers, and emergent colonial institutions of proprietors and governors (Lurie 2012). While many of the region's earliest settlers were Dutch, after English conquest of New Netherland in 1664, New Jersey's European population was notably diverse in terms of religion, ethnicity, and political-economic pursuits. East Jersey, including what became Bergen County, was claimed by Scottish proprietors in 1682 (Durie 1970). Despite the region's demographic diversity, northeastern New Jersey's culturally Dutch

population remained prominent, in part through the institution of the Dutch Reformed Church, giving the region a mixed "Jersey Dutch" identity by the early 19th century (Fabend 1996). As described in detail below, many Dutch and English settlers of northeastern New Jersey brought enslaved Africans and their descendants to work the land which became a breadbasket of New York City, explaining in part the placename of "New Barbadoes" in Bergen County (Hodges 2019).

As detailed in Chapter 5, letters between producers, distributors, and fur traders in Bergen County reveal important actors in the wampum trade in the hinterlands of New York City. Shipments of shell were sent from local merchant families, such as the Zabriskies, to beadmakers, such as Johannes Stoltz. Johannes Stoltz (variously Stols/Stults/Shults) lived in the "Ramapo Tract" region of northern New Jersey (Wardell 2012, 7). The Ramapo Tract was a large swath of land owned by the Board of Proprietors of East New Jersey which they leased to tenants beginning in 1742. The archaeologist Carl Schondorf excavated a wampum production site in 1916 in the area, and oral histories tie Schondorf's excavations to the Stoltz family (see Chapter 5). It is worth noting that the location of this site is not far from Wykoff, New Jersey. The William Bond map of the Ramapo Tract from 1710 depicts two "longhouses," or bark-covered wigwams, in what eventually became known as Wykoff. These longhouses likely refer to important ancestral Ramapough sites (Lenik 2011, 11), suggesting possible Indigenous connections to later Euro-American wampum production sites.

Local Jersey merchant middlemen then acquired finished beads from household producers and sold them in bulk to fur trade companies. One letter, for instance, describes the shipment of nearly 100,000 wampum beads from Paramus to "Jacob Astor's" in New York City (Williams and Flinn 1991, 40).

The Campbell Wampum Factory, famous for mass production after 1850, may have had its origins in Bergen County in the 18th century. William Campbell (b. 1718, d. 1793) was the first Campbell to settle in the area. William moved from Ulster, Ireland. He became a tavern keeper at Old Bridge (presently New Milford, New Jersey). As an "Ulster-Scot," William was descended from Scottish settlers of Northern Ireland.

As detailed in Chapter 5, oral histories suggest William Campbell had a hand in wampum production, but this fact is difficult to verify.[15] William's son John (Johannes) Campbell (b. 1747, d. 1826) might have produced wampum (Norton 1888; Smith 1885). Later sources often cite 1775 as the beginning of the business (Morse 2006, 5), but this date is largely conjectural. An interview with a Campbell descendant describes connections with John Jacob Astor "before the last war with England," presumably, the War of 1812 (Norton 1888, 593). Later authors echo this claim (Westervelt 1924; Williams and Flinn 1991), suggesting Astor himself had visited a local store in Park Ridge—the Ackerson Trading Post—in the later 18th century. While unsubstantiated, this is not an unreasonable claim. An early biographer notes that in the 1780s, Astor "was spending much more of his time 'on the road' seeking out furs in country hamlets and Indian villages," in the hinterlands of New York City following routes that included northern New Jersey (Porter [1931] 2014, 28).

John Campbell moved to Pascack (presently Park Ridge, New Jersey) by the early 19th century. John's sons Abraham (b. 1782, d. 1846) and David (b. 1785, d. 1856) are the first generation with direct evidence of Campbell wampum production. In 1812, the family

[15] Chesebro's (1872:302) interview with one the Campbell "brothers" (left unnamed, but presumably John A. (b. 1808, d. 1889), James A. (b. 1810, d. 1887), David A. (b. 1812, d. 1893), or Abraham Jr. (b. 1815, d. 1899)) notes "his father and grandfather, and great-grandfather rising before him." A similar comment is made in Smith (1885:3), suggesting "four generations." Norton's (1888:591–2) fifth-generation informant, meanwhile, suggests "three or four generations" but also describes the origins of the industry soon after "the old gentlemen settled here."

supposedly rented out a mill at Pascack for wampum manufacture (Williams and Flinn 1991, 46). In this same year, David Campbell (b. 1785, d. 1856) built a house in the Pascack Valley (see Chapter 5). Archaeological excavations in the summer of 2019 revealed evidence of wampum manufacture at this location, despite not being mentioned in oral histories. Abraham Campbell's four sons (John A., James A. David A. and Abraham Jr.) became the famous "Campbell Brothers" who industrialized the trade in the mid-19th century.

By 1846, Bergen County wampum production was enough of a cottage industry to be noted in John Barber and Henry Howe's *Historical Collections of the State of New Jersey.* Barber and Howe recorded industries, geography, and general infrastructure of various townships in New Jersey. Franklin Township at the time comprised the historical towns of Paramus, Hohokus, New Prospect, and Hopper's. Andrew C. Zabriskie lived in Paramus while the Stoltz Farm site is located in the area north of Paterson called Hopper's, corroborating the evidence from letters presented above. Here, Barber and Howe (1846, 72) note that "*Wampum*, or Indian money, is to the present day made in this county, and sold to the Indian traders of the far west. It has been manufactured, by the females in this region, from very early times for the Indians."

As the above evidence demonstrates, Euro-American wampum production was a minor but important specialty industry in the hinterlands of New York City between 1750 and 1830. Against the backdrop of 17th-century violence against Algonquian wampum producers in coastal New England and dispossessions of Munsee Lenape peoples of Northern New Jersey, I argue that the term *appropriation* best captures the florescence of 18th century settler-made wampum. Wampum made by the Pequots, for instance, not only provided valuable European goods to Indigenous people, but Europeans' dependence on the bead for their own fur trade exchanges

granted the nation an avenue of self-determination amidst encroaching dispossession (Ceci 1980, 1990). Details about the transfer of craft knowledge to settler producers remains unknown. However, white "adoption" of the industry might be seen as a tactic of dispossession as much as it was an opportunistic response to imbalances in "supply and demand" after the Pequot Wars.

The story of Dinah's "petit larceny" below guides us through the theme of appropriating *labor* in the wampum industry. Here, race and gender are key variables in understanding the transition from "proto-industrial" to "industrial" production. As hinted by Barber and Howe (1846, 72), the Euro-American men named in documents above in fact stood amidst a vast network of women and peoples of African or Indigenous ancestry who also participated in the craft.

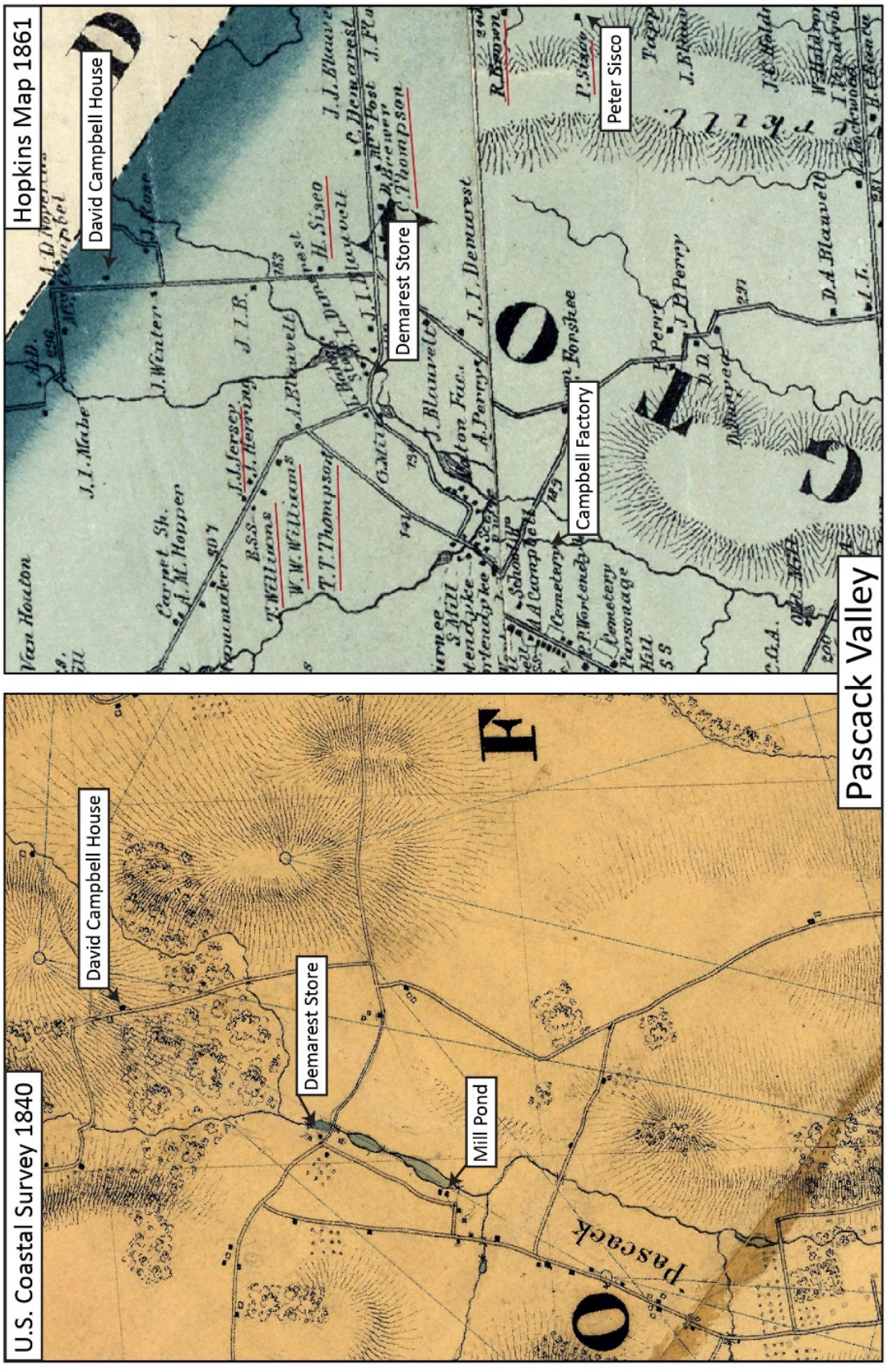

Figure 4.2: Pascack Valley in the 19th century. 1840 U.S. Coastal Survey (Dickens 1840) and Hopkins Map of Bergen County (1861). Surnames underlined in red are those typically categorized as "Black" or "Mulatto" in the 1850 and 1860 U.S. Censuses. (Map by Eric Johnson)

4.2.3 Relations of Wampum Production in an Age of "Gradual Abolition"

Dear Sir,

I have purchased a lot of about 2000 Conk Shells which I can sell you very cheap. They came in a trancent [sic] *vessel some days ago from St. Croix and as the Captain could find no customer for them and he was obliged to get them out of his vessel as she had to go on to the docks, he sold them to me at a sacrifice and I will sell them to you much cheaper than any you have bought this season.*

The Capt says they are fresh from the Sea that he bought them of the divers (as they came in from catching them) out of their boats, they are the handsomest lot I ever see all large and free from worms, perfectly sound …

Very Respy,
S. Goodwin
—Letter from S. Goodwin (New York) to James A. Campbell (Pascack Valley). May 31, 1848. Howard Durie Collection, Pascack Historical Society Archives.

In the 19th century, the Campbell Factory manufactured hair pipes, moons, and wampum from the biomineralized homes of *Lobatus gigas*, or queen conch. In purchasing conch shell off ships in New York, the Campbells were continuing a tradition that was at least a hundred years old. Dutch producers had used conch as early as 1744, revealing deep ties to the Dutch Caribbean. Conch was most likely harvested by Afro-Caribbean divers, who were known for their mastery of diving since the earliest days of the West African slave trade (Dawson 2006, 2019). Conch harvesting could have been either a task of enslavement or an avenue of supplementary income. As illustrated by the enslavement of Indigenous peoples of New England in the aftermath of 17th century wampum wars (Newell 2015; see also Reséndez 2016), the history of American capitalism and colonialism is as much about commodified persons as it is about commodified objects. Histories of Black and Indigenous labor also face erasure in settler-driven historical narratives, as in the case of the Campbell Wampum Factory.

On July 12, 1760 in the township of New Barbadoes in Bergen County, a "negro slave" named Dinah was indicted for "petit larceny."[16] She supposedly stole from the house of Peter Zabriskie: "three strings of Wampum" valued at 10 pence. Today and in the past, enslaved peoples and their descendants have faced the full force of the Euro-American criminal punishment systems. They, as well as women and Indigenous laborers, also face erasure from historical narratives. In the sections that follow, I argue that appropriating the craft of wampum from Native people also entailed appropriating the labor of women and African-descendant (and possibly Indigenous-descendent) workers in New Jersey.

The secondary literature on wampum production in New Jersey makes no note of any Black, Indigenous, or mixed-ancestry lives and labor involved in the industry after 1750 (Westervelt 1924; Williams and Flinn 1991). Euro-American women are acknowledged, sometimes as the primary producers, at least in their own homes before 1850 (Barber and Howe 1846, 72). Yet the fact of Dinah's petit larceny is a subtle cue to read against the hegemonic grain of the archive. Dinah may have recognized wampum's exchange value in the region, or may have stolen wampum for its use as ornamentation. To speculate further, she may have even produced it. The seizure of slave owners' property, in some cases as an attempt to accumulate enough wealth to buy freedom for oneself or relatives, embodies one of the many contradictions of propertied personhood (Johnson 2001). When put in the broader context of the early American economy, slavery, race, and gender in New Jersey, we find the industrialization of wampum production is—not coincidentally—tied to the region's Dutch colonial history and its unique relationship to "slavery," "freedom," and the spectrum of oppression between these categories for Black New Jerseyans (Gigantino 2015; Hartog 2018; Hodges 2019).

[16] *Supreme Court Collection*, New Jersey State Archives, Trenton, NJ. Case #21066.

The history of slavery in New Jersey is often overlooked, slipping between historiographic cracks of "North" and "South." The state lacked the vast plantation landscapes of the South, yet as other Northern states abolished slavery, enslaved labor remained crucial to the largely rural, agricultural Jersey Dutch breadbasket outside New York City. As white New Englanders developed a "free state ideology" to paper over a history of slavery (Delle 2019), New Jersey was the last Northern state to abolish slavery through the Act of Gradual Abolition in 1804. So-called abolition was indeed gradual. Records of slaves in New Jersey persist until the Civil War. The act dictated that children born to enslaved mothers after 1804 were not freed until their early twenties (age 25 for men, 21 for women), incentivizing owners to retain enslaved women as long as possible for their reproductive and children's labor (Gigantino 2015, 95–115). This created a new category of enslavement, which James Gigantino calls *slaves for a term*:

> These children … were bought, sold, whipped, worked, and separated from their families just like slaves before them. Contemporary New Jersey sources remarked that these children were thought of and treated like slaves, though with the understanding that they would leave that status in the future. The presence of slaves for a term extended bondage in a different form to generations that came of age in the 1820s and 1830s so that in 1830 almost a quarter of the state's black population remained bound laborers. (Gigantino 2015, 7)

Conditions of enslavement were perpetuated politically by many of the same class and race as the actors involved in the wampum trade in northeastern New Jersey discussed above. Thus, one cannot understand wampum's true organization of production, its relationships between labor, capital, and industrial transformation, without also understanding the central place of slavery and "gradual abolition" in northern New Jersey's economy.

The name of the township "New Barbados," the township of Dinah's indictment, is not coincidental. In the colonial period, New Jersey was geographically divided between East Jersey and West Jersey, reflecting economic, cultural, and political differences. West Jersey was more

akin to neighboring Pennsylvania than coastal New York. Settled by Quakers, West Jersey eventually became the vanguard of the abolitionist movement after the Revolution. Political power in East Jersey was held by planters and slave owners.

In the late 17th century, Dutch planters in Barbados were outcompeted in the sugar boom, leading Dutch "Barbadians" to take their chances in New Jersey. English policies of land granting incentivized this migration and bound the fates of land and labor appropriation in service of settler-colonial economy. Settlers were granted 150 acres per male slave or indentured servant and 75 per female (Hodges 1999, 44). As a result, "[Dutch Barbadians] and their slaves came in droves to both East Jersey and New York so that by 1700 Barbadian immigrants owned the largest concentrations of slaves" (Gigantino 2015, 13). Thus, agricultural production in East Jersey townships like New Barbados was directly informed by Caribbean-style plantation slavery. James Delle notes that "on the eve of the Revolution, 12 percent of the colonial population of New Jersey was enslaved. In many of the rural communities of Northern New Jersey, enslaved laborers outnumbered landless white laborers" (Delle 2019, 44). Ties to Caribbean slavery were also ties to raw material for bead manufacture. The harvested homes of *Lobatus gigas* arrived on from the Caribbean, perhaps even on the same ships as people enslaved by Dutch-Barbadian settlers of East Jersey.

While there is no direct evidence to suggest enslaved labor was used for wampum production, the circumstantial evidence is strong. Given the large enslaved population of Bergen County at the time, it seems likely that Black labor was conscripted into the production of wampum. We may never know for certain who labored to make the 100,000 wampum beads mentioned by Andrew C. Zabriskie's letter in 1803 from Paramus, New Jersey (Williams and Flinn 1991, 40), but we do know the Zabriskie family owned a small number of slaves (Lutkins

2002). It may not be a coincidence that the property of Andrew C. Zabriskie, known as Dunkerhook, was later to become a community of free African American tenants (Bogert 1961; Johnson and Matthews 2020, 2021; Lutkins 2002). Dunkerhook was not the only location tying people of color to wampum in the 19th century. As discussed below, the "Black wampum makers" of the Pascack Valley in the mid-19th century may have been born as enslaved persons. As in many other cases of abolition in the Northeast, transitions to freedom were often transitions to racialized wage labor under the same trade learned in the context of enslavement.

4.3 **Industrializing the Materiality of Indigenous Resistance (1830–1900)**

4.3.1 Bartering with Baskets and Wampum: Black and Indigenous Livelihoods in Transition to Industry

> *The manufacture of [wampum] is a specialty with the Campbell family, and Pascack is the only place in the United States where it is produced. As much the process is kept secret we cannot, of course, describe it, but so far as we were permitted to see, the raw material consists of large conch shells a very small portion of each of which is available for the purpose. With a sharp hammer the edge of the shell is broken off in strips; these strips are then passed over four grindstones by as many negroes and become perfectly round and smooth. Then by a peculiar process a hole is drilled through the centre, the pieces are cut into short lengths strung into bundles, bleached and sent to market.*
> —"A Day at Pascack and Park Ridge", *Bergen County Democrat* (Hackensack, New Jersey). June 16, 1871. Ridgewood Library Archives, Ridgewood, New Jersey.

> *From five to ten strings are a day's work for a female. They are sold to the country merchants for twelve and a half cents a string, always command cash, and constitute the support of many poor and worthy families.*
> —1846, Barber and Howe, *Historical Collections of the State of New Jersey*, p. 73

We do not know the names of the four "negroes" working the grindstones at the Campbell Wampum Factory described in 1871 by a reporter in the *Bergen County Democrat*. Nor do we know for certain whether the term "negro" here refers to people of African descent, Indigenous descent, or both. In the mountainous regions of northern New Jersey, white-defined

racial categorizations are difficult to trust. Who are the "poor and worthy families" for whom wampum "always command[ed] cash" (Barber and Howe 1846, 73)?

Another newspaper article from 1906 notes that the Campbell Factory "employed the so-called 'Jackson whites,' a peculiar people, who say they have Indian blood in their veins."[17] The term "Jackson white" in this context is a racial slur wielded both by academics (Cohen 1972; Collins 1972) and the broader public to deny the Indigeneity and sovereignty of the Ramapough Lunaape (Lenape) Nation.[18] Nonetheless, when re-reading the archive with this in mind, these sources suggest that Ramapough *and/or* Black labor went into the production of wampum. Black and Indigenous lives and labor, while distinct identities, were also deeply entwined in many regions of the Northeast (Matthews 2019; Matthews and McGovern 2015). Keeping in mind the caveat that "black," "negro," or "mulatto" in primary documents may refer to either African-descendant, Indigenous, or mixed-race ancestry and that contemporary racial categories do not necessarily map easily onto 19th century practices of racialization or self-identification (Fields and Fields 2012), the following section outlines changing relations of labor, capital, race, and gender through the 19th century.

Bergen County wampum production joined a hybrid agricultural and craft-industrial economy of colonial New Jersey. Various manufactories—including ironworks, lumber mills, and grist mills—had arisen amid the hinterlands of New York City (Lurie 2012; Wacker 1975, 54–56). The region saw the country's first planned industrial city of Paterson initiated by Alexander Hamilton as well as the burgeoning urban crafting economy of Newark (Harris 1988; Hirsch 1978; Tuttle 2009). Antebellum "industrialization" in North Jersey was not as large-scale

[17] "Despoil Old Wampum Mill", *The Plainfield Courier-News*, August 23, 1906.
[18] While histories of Black and Indigenous communities are often (sometimes contentiously) linked (Katz 1997; Miller 2005), especially in the Northeast (Matthews and McGovern 2015), the citation of mixed-race ancestry is a common settler-colonial tactic for undermining Indigenous sovereignty and land rights.

or monopolized as famous textile mills found in Lowell, Massachusetts. In Newark, for example, artisans and journeymen retained a hold on the urban crafting economy, where individual workshops typically employed less than eight people (Hodges 2012, 102–109; Tuttle 2009). Industrialization did, however, involve increasing divisions of labor where specific tasks were sourced to semi-skilled workers along with changes in industrial technologies (Prude 1996). At times, wage workers were brought into specific workshops. In other instances, tasks were outsourced into the home. Industrialization also included racial exclusions (Hodges 1998, 28–58), with limited or hazardous opportunities for African American or Indigenous residents.

Wampum production was originally organized as a kind of "putting-out" cottage industry, similar to other rural industries in the Northeast and Europe at the time (Blewett 1987; Dublin 1991). In these industries, capital (owned or rented) remained distributed in the home and labor was largely performed by women (Goody 1982; Schneider 1989). Beads at this time were drilled by hand with a bow drill, grinding wheels were powered by foot, and raw shell material was gathered by local distributors and sold to families in the surrounding area.

Two sets of ledgers currently housed at the Pascack Historical Society Archives in Park Ridge, New Jersey, help capture the organization of production in greater detail. The first, dating continuously from 1843 to 1849, is from the store of James Demarest, a merchant in the Pascack Valley (Figure 4.3). The second set of ledgers are those of James Campbell (b. 1810, d. 1887), the main owner/operator of the Factory. James Campbell was also a blacksmith; most of the ledger pages document transactions, supplies, and other financial notes, dating sporadically from 1819 through 1850. Both sets of ledgers contain references to shells, wampum, and the names of laborers tied to the wampum trade.

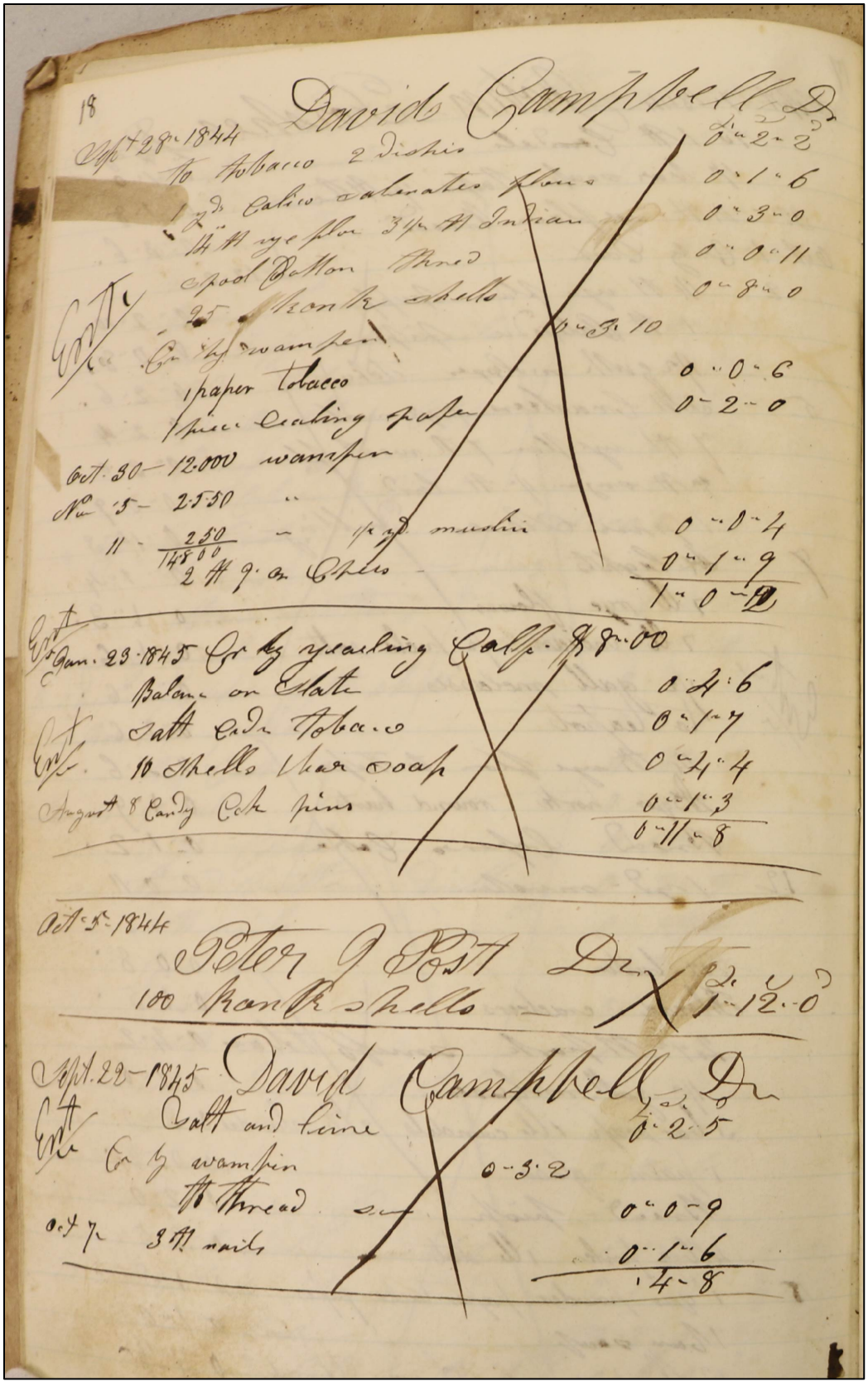

Figure 4.3 James Demarest Store Ledgers, Book G, pg 18, Pascack Historical Society, Park Ridge, New Jersey.

Between the credit and debit lines of the Demarest store ledgers, certain commodities are commonly used as barter. While credit is usually listed in "cash," wampum occurs with some frequency. For example, on September 28th 1844, David Campbell purchased 25 "konk" shells for 8 s., among other items (Table 1). That day, he paid for 3 s. worth of these goods with wampum. Over the next few months, he returned to the store to sell a total of 14,800 wampum (presumably a count of the individual numbers of beads) accruing a credit balance of 8 £ by January 23rd the next year.

David Campbell	**Credit**	**Amount**[19]	**Debit**	**Amount**
Sept 28, 1844			Tobacco, 2 dishes	0–2-2
			1 yd calico	0–1-6
			Spool cotton thread	0–0-11
			25 konk shells	0–8-0
	by wampen [sic]	0–3-10		
Oct 30	12,000 wampen			
Nov 5	2,550 "			
Nov 11	250 "			
Jan 23, 1845	Cr. by yearling [calf]	8–0-0		
			Balance on slate	0–4-6
			Salt cedar tobacco	0–1-7
			10 Shells, bar soap	0–4-4
Peter Sisco				
Dec 1, 1845			Powder for shot	0–2-2
			Conk Shells, Calico	0–7-2
			1 pair shoes	0–8-0
Dec 12	by wampin [sic] & Cash	0–18–0		
			Shot	0–0-8
				0–18–0

Table: James Demarest Ledgers. "David Campbell," G (p. 18). "Peter Sisco," H (76). Pascack Historical Society Archives, Park Ridge, New Jersey.

[19] Using the logic explicitly outlined in the first pages of the ledgers, amounts are organized into three columns as "pounds" - "shillings"- "pence."

A survey of the names in this ledger, combined with racial data from the census and other documents, illustrate that a significant number of people of color lived in the northern Pascack Valley (today the boroughs of Upper Saddle River, Montvale, Park Ridge, and River Vale that border southern New York). These names include Caesar Thomson, Tom Thompson, and Peter Sisco (Figure 4.2). These names are all identifiable as property owners on the 1861 Hopkins map of Bergen County living within a mile and a half of the Demarest Store.[20] On December 1, 1845, Peter Sisco bought "Conk Shells," Calico, gun powder, and a pair of shoes. He returned twelve days later to settle his debts "by wampin [sic] & Cash" (Table 1). The 1850 United States Census lists a Peter and Jane Sisco as a Black household in Washington Township (at the time encompassing Pascack Valley).[21] It lists Peter's profession as "wampum maker."

Given the Pascack Valley's proximity to Ramapough communities at the time, some of the residents listed as "Black" in the census may have had Indigenous ancestry or had social or kinship ties to the Ramapough. Other objects exchanged in the Demarest store attest to these possible Indigenous connections. According to the Demarest Ledgers, in January 1844 "Thomas C. Thomson" sold four dozen "baskets" for a month's worth of goods. On February 19, he sold 1,350 wampum beads. There are three individuals in the 1850 census for Washington Township that this "Thomas Thomson" could refer to under various spellings. Two are listed as "Mulatto" and one is listed as "Black."[22] While baskets were a common trade item at the time, archaeologist Edward Lenik demonstrates that basketry was a particularly important craft for the

---

[20] Griffith Morgan Hopkins, Jr. *Map of the Counties of Bergen and Passaic, New Jersey: From Actual Surveys*. Philadelphia, PA. G. H. Corey, 1861.

[21] United States Census, 1850, *FamilySearch* (https://familysearch.org/ark:/61903/3:1:S3HT-625W-DSD?cc=1401638&wc=95RH-16X%3A1031315601%2C1031412901%2C1031392601). New Jersey, Bergen County, Washington Township, image 14. (Washington, D.C.: National Archives and Records Administration)

[22] United States Census, 1850, *FamilySearch* (https://familysearch.org/ark:/61903/3:1:S3HT-625W-DSD?cc=1401638&wc=95RH-16X%3A1031315601%2C1031412901%2C1031392601). New Jersey, Bergen County, Washington Township, images 1–48. (Washington, D.C.: National Archives and Records Administration)

Ramapough Nation. Retracing anthropologist Frank G. Speck's footsteps in the Ramapo Mountains at the turn of the 20th century, Lenik argues that "several splint baskets and eel traps … were purchased from individuals named 'Mann and an old man showing strongly Indian features named John Sisco'" (Lenik 2011, 160).[23] Ramapough baskets are an important traditional craft, but their strategic production, marketing, and sale to Euro-Americans such as Frank Speck (or perhaps James Demarest) would have been an important source of income in the context of a settler state (Rubertone 2017).

In-home wampum-making was performed across racial and gendered lines. Many of the Campbells' Euro-American neighbors in the Pascack Valley are listed as purchasing shells and selling finished beads. Oral histories recall that the Campbells would host clam bakes when shipments of quahog came in: "The neighbors were invited to come to the free picnic under the trees, and were given all the clams that they wanted to eat, on condition that they open the shells carefully so as not to break the purple 'hearts.'" (Storms 1939, 13). Ethnologist Erminnie Smith (1885, 4) interviewed a resident of the Pascack Valley, noting "that he had often paid out thousands of dollars per week, buying the beads of the white country-people, who manufactured them in their several homes." Women, too, are often mentioned. The "expert" Jane Ann Bell of New Milford, for instance, worked for the Campbells for nearly a decade around 1850 "in her home" (Westervelt 1924, 15), as supported by her name in the Campbell ledgers. Smith (1885, 4) also reported the role of "country-women" in drilling beads. These gendered patterns seem to shift with the advent of the factory, as in other cases of industrialization. By the time Frank M.

[23] "Summary Under the Criteria and Evidence for Proposed Finding, Ramapough Mountain Indians, Inc." in *Proposed Finding Against Federal Acknowledgement of the Ramapough Mountain* Indians. Bureau of Indian Affairs, Department of the Interior, Washington, D.C., 1993.

Gregory sketched an illustration of the interior of the Campbell Factory in 1886, the individuals standing over the grinding wheels are all represented as men (Figure 4.5, see Chapter 7).

Mid-century changes likely also affected people of color making wampum in the Pascack Valley. In the Demarest ledgers, those identified as "black" or "mulatto" in the census make up the majority of individuals bartering with wampum and baskets (as opposed to cash purchases). For Peter Sisco, the trade had provided enough of a livelihood to be identified as a "wampum maker" in the census (as opposed to "laborer" or "farmer"). However, by 1850, the Campbell ledgers begin to document *wages* for specific tasks of beadmaking labor. On June 30, 1849, James Campbell paid James Williams $2.00 "for grinding pipes" (presumably "hair pipes").[24] While there are no James Williams listed in the 1850 U.S. census for Washington Township in Bergen County, New Jersey, there are three households (10 individuals in total) with the surname "Williams." All of these individuals are listed as either "Mulatto" or "Black."[25]

The labor for grinding in this case was notably tied to hair pipes, not wampum. These new products were exchanged with new consumers on the Plains. As a different style and morphology of bead, hair pipes also entailed a new assemblage of technologies, skills, use of space, and shell bead materiality. I argue below that this emergence and intensification of hair-pipe production was also a transformation of relations of production, from a "putting-out" system to a "factory-based" one. Where once Peter Sisco could buy conch shells at the Demarest store and make as many beads as he needed to pay for goods in his own home, the second half of the 19th century saw more individuals such as James Williams who were paid a wage for working inside of the Campbells' factory to perform a single stage of hair-pipe production such as

[24] James Campbell Ledgers, #5215, Pascack Historical Society, Park Ridge, NJ.
[25] United States Census, 1850, *FamilySearch* (https://familysearch.org/ark:/61903/3:1:S3HT-625W-DSD?cc=1401638&wc=95RH-16X%3A1031315601%2C1031412901%2C1031392601). New Jersey, Bergen County, Washington Township, image 36. (Washington, D.C.: National Archives and Records Administration)

grinding. In other words, industrialization of beadmaking guaranteed the Campbells a greater share of appropriated surplus value from workers of color by having direct control over wages for grinding instead of bartering over finished products.

4.3.2 The Campbell Factory and Mechanical (Shell Bead) Reproduction

> *One of the brothers, they tell us, invented the machine by which that drill is made in one third of the time, and with infinitely less anxiety than the old people felt when they did the work with the bow drill … "We have found out, gentlemen, that time is money."*
> —1872, "The Mint at Pascack." Caroline Chesebro, *Our Young Folks. An Illustrated Magazine for Boys and Girls.* pg. 302.

> *Through Industry We Flourish*
> —Borough of Park Ridge Crest, Incorporated 1894.

Twentieth-century accounts of the Campbell Factory often follow a narrative of technological and industrial progress, one which celebrates technology without critically assessing its impact on social relations or economic inequality (Pfaffenberger 1992). In the Pascack Valley, the wampum drilling machine has been championed as a revolution in wampum-making, and 20th century sources credit the Campbells as the "inventors" of bead styles such as hair pipes and moons (Philhower 1928; Storms 1939; Westervelt 1924). Part of the reason for this is because earliest histories of the Campbells Factory relied more on interviews with factory owners than primary documents or archaeological data. The ideologies of early authors also influenced their narratives. Local historians John C. Storms (1939) and Frances Westervelt (1924) drew primarily from oral histories or "local tradition." They were also instrumental in founding the Pascack Historical Society. The memorialization of the Campbell Factory, spurred by excavations of the site in 1924, enshrined it in the local (industrial) history of Park Ridge at a time of demographic change. The region's economy experienced a shift from rural-agriculture

and small-scale industry to a suburban landscape occupied by New York City commuters in the early 20th century.

In re-examining these places of production and rereading of the archive above, I have written against the grain of 20th century narratives in order to put Black and Indigenous histories back into the story, both as producers of appropriated shell-bead surplus value and as those who experienced dispossession via settler colonialism. In Chapter 8, I move to the Plains to present evidence of how Indigenous "mass consumption" of wampum, hair pipes, and moons was itself a (re)appropriation of the products of capitalism for the materiality of resistance. These beads adorned Indigenous counterinsurgents who confronted settler colonialism. In doing so, they also bent the machines in Park Ridge to the will of sovereign Native nations. Before delving into this, however, it is worth spending time with the industrial narratives to sketch what exactly "industrialization" entailed in the Pascack Valley.

As time went on, the Campbells intensified their output of shell beads. By the early 19th century, John W. and his son Abraham J. Campbell lived in Pascack. Oral histories credit Abraham with renting an old woolen mill to house the operation of wampum production, perhaps around 1812 (Westervelt 1924, 10). This was probably the mill tied to the Ackerson Trading Post at Mill Pond in Park Ridge with possible direct ties to John Jacob Astor (Johnson 2020; Williams and Flinn 1991, 29) (Figure 4.2). As part of the Pascack Valley Archaeological Survey (see Chapter 5), I surveyed the site of this mill in Park Ridge in 2019. Archaeology at Mill Pond was heavily disturbed from later industrial activity and landscaping, but it did yield one piece of conch shell from a disturbed deposit, perhaps buttressing oral histories of beadmaking at the site (Johnson 2020). The renting of the woolen mill was likely an early experiment in using waterpower to run grindstones for polishing beads. Previously, grinding wheels were powered by

foot. Abraham and his wife Margaret Demarest had four sons between 1808 and 1815 who each had a hand in wampum manufacture, eventually becoming known as the "Campbell Brothers" referred to in interviews (Chesebro 1872; Norton 1888; Smith 1885) and on the Walker Atlas of 1876.

Sometime before 1850, James (b. 1810, d. 1887) and David (b. 1812, d. 1893) Campbell are credited with inventing a "wampum drilling machine" (Westervelt 1924, 21) (Figure 4.4). Storms (1939, 28–30), asserts that two machines were built and housed in different locations, based in part on accounts from two daughters of John Campbell. Both Storms and Westervelt claim that the Campbells took great care to keep the drilling machine secret. This attitude is echoed in Norton's (1888, 648) exchange with Robert Campbell:

> "There's some secrets about it," said the old man, with a touch of professional pride, "that have never gone out of the Campbell family; and none of 'em could ever make 'hair-pipe' equal to our'n."
> "Then the secret is about boring the hole, is it?"
> "Young man, don't you go too fast! I didn't say a word about boring holes, did I?"
> "Oh, no! You needn't be alarmed; I don't want to go into the business."

The Campbell descendants frame their secrecy about the drilling machine in terms of competitors from the outside. As discussed in Chapter 7, as a form of capital, the guarding of knowledge about the drilling machine kept others in the Pascack Valley from manufacturing hair pipes in the precise way that was requested of Indigenous consumers on the Plains.

Figure 4.4: Original Wampum Drilling Machine used in Campbell Wampum Factory. Housed at the Pascack Historical Society, Park Ridge, New Jersey. (Photo by Eric Johnson)

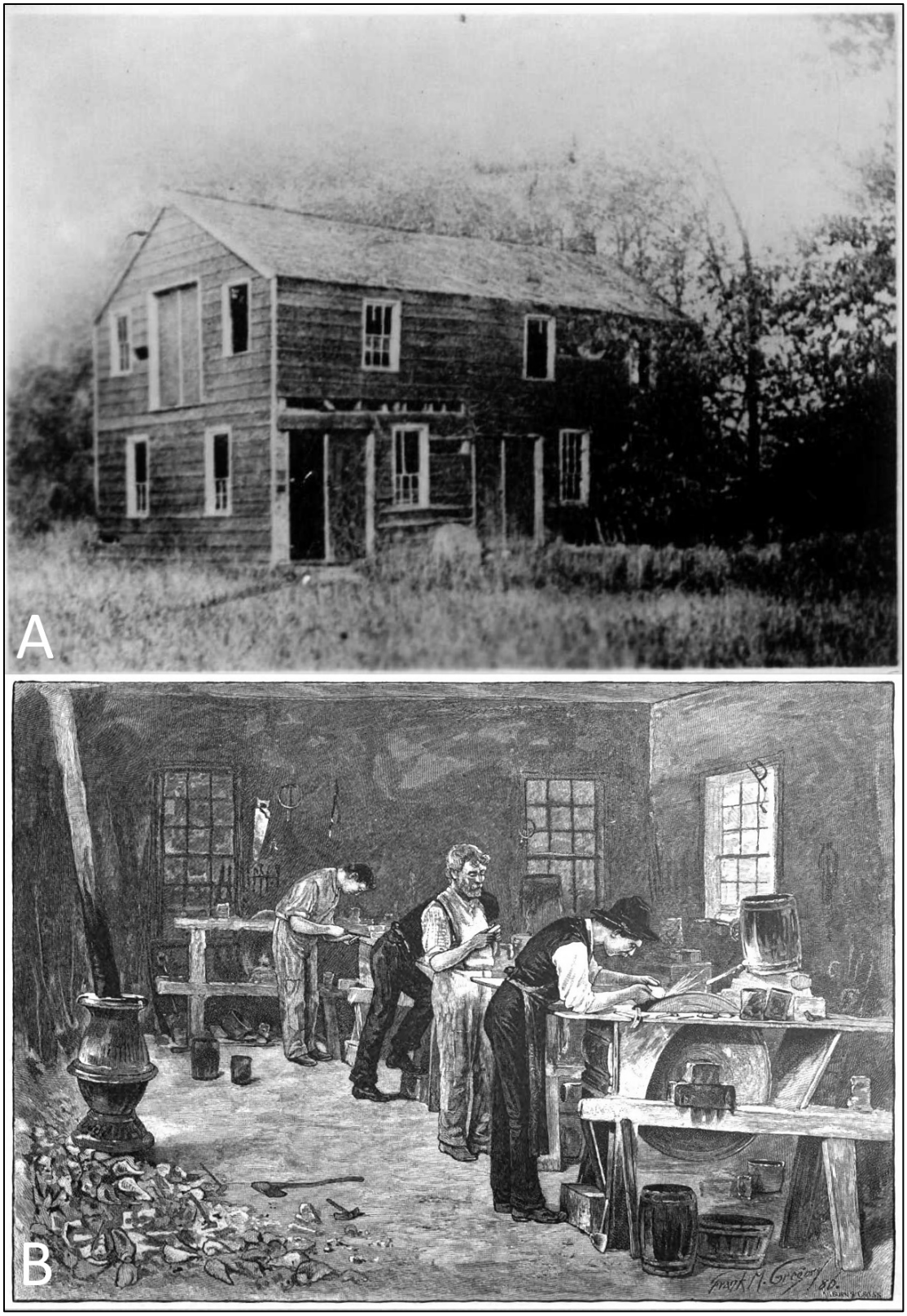

Figure 4.5: (A) Photo of Campbell Factory ca. 1900 (Storms 1939:22). (B) "Wampum-Making in New Jersey." Illustration of the Campbell Factory interior by Frank Gregory in 1886 published in *The American Magazine* (Norton 1888:591).

The operation of the machine is detailed by Storms (1939) and is confirmed by observations of the machine itself, one of which is currently housed at the Pascack Historical Society:

> The machine was made entirely by the members of the firm, from such articles as were to be found on their farms. A crude frame of wood supported a rack from which depended six wooden fingers about a foot long. Each one bore against ordinary thread spools that carried drills.
>
> Opposite each drill was a small metal trough in which a Wampum Pipe was laid and fastened. When the drills were brought into contact with the exact center of the end of the Pipes, a lever lowered both Pipes and drills into a metal tank filled with water. Then a young son of one of the firm turned a crank on which by means of an eccentric on an axle near the floor, and operated by a leather belt, moved the rack up and down. Thus an alternating motion was imparted to the drills. The water kept the Pipes cool so the friction did not heat and burst them, and it constantly washed the particles of shell out of the bored holes.
>
> When drilled half their length the Pipes were taken out, reversed and drilled from the other end.
>
> A small grindstone attached to the framework was used to sharpen the drills which were held in a candle flame until cherry red, then tempered by plunging them into melted sheep's tallow. (Storms 1939, 28–30)

Sources depict the invention of the drilling machine as a breakthrough in minimizing the risk of drilling beads and increasing output. As Barber and Howe (1846, 73) noted of hand drilling, the "operation of boring is the most difficult of all, the peculiar motion of the drill rendering it hard for the breast; yet it is performed with a rapidity and grace interesting to witness." Chesebro's (1872, 302) source, as quoted above, explains that the drilling machine tripled the speed of drilling while alleviating the "anxiety" of drilling with a bow drill. Storms (1939, 27) asserts the machine was able to drill four hundred beads per day "with an almost total elimination of waste." Williams and Flinn (1991, 52) attribute Storms' quantification to oral tradition, but this number is not backed by any other sources. Robert Campbell noted that during the best years of the

business (1835–1850), the factory produced a million "black beads" per year (Norton 1888, 593), but it is unclear whether this number can be attributed in part to the drilling machine. Some of these claims are tested with archaeological data in Chapter 6.

Mid-nineteenth century developments in transportation technology changed the way raw material was brought to Bergen County. Previously, shells were transported by boat. Smith's (1885, 3–4) account states that when John Campbell lived at Teaneck, he "used to go in a boat to Rockaway [Long Island, New York], and return with his boat loaded with clams." Similarly, Norton's (1888, 593) interviewee notes "We used to have sloops loads of clams brought from Rockaway to Teaneck and Snedden's Landing." After the opening of the Piermont Branch of Northern Railroad in 1858, shells were transported by freight to Nanuet, New York and then by wagon to Park Ridge, New Jersey (Storms 1939, 14; Westervelt 1924, 16).

By 1860, the Campbells decided to build a designated structure along the Pascack Brook on the property of Abraham Campbell (Figure 4.5). Before this point production probably took place in the Campbells' homes or workshops. Robert Campbell dated the mill's construction to 1860 (Norton 1888, 593), though Storms (1939, 21) asserts 1869. The mill structure is marked on the Walker Atlas of 1876 as "Wampum Mill, Campbell Bros," and it does not appear on the Dickens 1840 map. This is also the site visited by Chesebro (1872), Smith (1885), and Norton (1888), thus tying their "ethnographic" descriptions to the archaeological datasets analyzed here. The artist Frank M. Gregory also produced illustrations of the interior and exterior of the mill, which evoke the architecture evidenced by later photographs of the site around 1900.

Inside the factory, Norton (1888, 591) describes "a row of grindstones, a lathe and sundry tools lying about, with bits of shell, circular, oblong and nondescript, in admired confusion." Chesebro's winter visit to the factory provides further detail:

> The little red frame building stands, as you perceive, on the borders of a creek; shadowed beautifully it must be in the summer-time by those overarching trees. We pass by heaps of conch-shells as we approach; their beautiful red lips are visible through the light veil of snow thrown over them … The works! They are before us, four grindstones ranged in a row, a rude table connected with each, the stones moved by water-power; the broad black strap beyond there is the 'connecting link' which keeps all in motion. (Chesebro 1872, 299–300)

Inferences regarding working conditions can also be drawn from Chesebro's account. She mentions her interviewee's eyebrows were "well powdered with white dust" (Chesebro 1872, 300). This evokes the effect of shell particulates released into the air from grinding and drilling. Frances Westervelt elaborates:

> The interior of the workshop resembled a lime kin. The floors were hidden from sight by great heaps of shells, and the rude benches and tools were covered entirely with white flying dust, as the shells were being ground and drilled, and suggested the application of innumerable coats of whitewash, which, in fact, it really was. (Westervelt 1924, 11)

In Chapter 6, I quantify the negative health effects of this white dust: the volume of calcium carbonate particulates inhaled by, for example, James Williams while "grinding pipes" in the enclosed space of the Campbell Factory for a wage of $2.00.[26]

Aspects of the Campbells' business began to decline in the later 19th century due to decreased access to raw material and changes in the bead-making industry. As Robert Campbell lamented,

> Why, you see, the Indians have a fancy for the beads that are partly black, and the correct color can only be found in the j'ints of old clam-shells. Now, there ain't no special call for old clams in the market. Everybody wants the youngest clams they can get, and they are all called 'little necks,' no matter how big they be. Anyhow, we can't get enough old clam-shells now to pay for the working. They've all died out, and the young-uns ain't allowed to grow up. (Norton 1888, 594–595)

[26] James Campbell Ledgers, #5215, Pascack Historical Society, Park Ridge, NJ.

Traditional purple Campbell wampum beads were made from mature, larger quahog shells. By the 1880s, however, American consumption of quahogs both intensified and shifted to littlenecks, leaving fewer clams to mature enough for "traditional wampum" production (MacKenzie et al. 2002, 24). Despite this, the Campbells continued to produce other styles of bead out of conch shell well into the late 19th century.

Westervelt (1924, 24) suggested the end of the Campbell Factory occurred with the death of Abraham Campbell in 1899 (see also Storms 1939, 34). That said, production had certainly declined by the 1880s. Robert Campbell attributed his family business's decline in part to skewed and racist beliefs about Indigenous consumers: "The Indians is getting scarce, and what's left of 'em is getting sort of civilized with missionaries and whiskey and the like, and their taste for really good wampum isn't what it was" (Norton 1888, 595). Similarly, Westervelt (1924, 24) and Storms (1939, 34) attribute declines in the wampum trade to the Indian Wars and the formation of reservations. While Indigenous populations were declining in large part due to the United States' policies of colonial violence, the hair-pipe bead produced by the Campbells had not gone out of fashion or circulation with Indigenous Plains consumers in the period after 1880. Uses and styles of hair-pipe bead adornment flourished as the 19th century ended, a process that continues to the present.

The Campbells' decline in production may instead be attributed to a rival producer. Plains anthropologist John C. Ewers' demonstrates that bone beads begin to replace shell by the 1880s (1957, 64–71). A company headed by S.A. Frost of New York City had contracted with Armour & Co.'s Livestock Bureau in Chicago to supply raw material for the manufacture of hair pipes out of cattle metacarpals or lower leg bones: "It must have been the pressure of

competition with this cheaper, stronger bone hair pipe that caused the New Jersey shell hair-pipe makes to discontinue operations" (Ewers 1957, 63–64).

4.3.3 Merchant Mediations on Western Borderlands

> *Woe to the trader who should attempt to deceive an Indian by passing off a clay pipe on him for this!" he answers. "The red men are very particular about the hair pipe wampum," he continues. "It must be drilled with exactness, and polished smoothly as possible, or the white man will have the worst of it.*
> —1872, "The Mint at Pascack." Caroline Chesebro, *Our Young Folks. An Illustrated Magazine for Boys and Girls.* pg. 301.

> *The Hair Pipes in spite of the assurances of the makers and sellers are but little better this year than last years were. They appear very well drilled at both ends, but the holes don't meet in the middle. Be a little more particular in receiving them, and you will be able to detect the cheat.*
> —Sept 9, 1835, St. Louis, "Order from Pratte, Chouteau & Co. to Ramsey Crooks," *Calendar of the American Fur Company's Papers in Two Volumes*, American Fur Company Papers, 1831–1840. Pp. 994.

Despite the industrial narratives surrounding the Campbell Factory, their "success" was entirely dependent on Indigenous nations continuing to value the styles of shell beads they produced. As records from the American Fur Company make clear, fur trade merchants mediated Indigenous preferences, and these preferences were often quite specific. In Chapters 7 and 8, I read Indigenous "particularity" as a kind of agency extending between social and material assemblages *eastward* from the Plains to New Jersey. The "itineraries" of shell beads look more like complex causal chains in the context of their (re)production between *Lobatus gigas*, drilling machines, flows of water in the Pascack Brook, bureaucrats, laborers, traders, and Indigenous delegates and counterinsurgents. For now, a brief summary of Post-Jacksonian settler colonialism helps frame the detailed discussion in later chapters.

New Jersey producers were selling products to both government-run enterprises and the private fur-trading companies (Ewers 1957). The United States government saw the supply of

trade goods as key to establishing "friendly" relationships with Native tribes at "factories" (trading posts) across the West (Keagle 2013, 225; Peake 1954). Superintendent of Indian Trade John Mason in 1808 was keen to "encourage the manufacturers of our own country" in the production of trade goods, including gunpowder, tobacco, tools, textiles, and wampum; he wrote to Henry Southard, Congressman from New Jersey, to contact Adam Boyd in Hackensack who "furnished the greater part of the wampum used in the Indian trade" at the time (Peake 1954, 64–65), tying early government-run trade to Bergen County wampum producers.

Private fur trade companies, in contrast, were more concerned with profit. John Jacob Astor established the American Fur Company in 1808, eventually amassing one of the largest fortunes of early America by mastering distributional networks of commodities (Haeger 1991; Madsen 2001; Wishart 1979). The famous Chouteau merchant-family enterprise who ran operations out of St. Louis (Hyde 2011) called on the Campbells with requests for specific quantities, lengths, colors, and styles throughout the 19th century (Williams and Flinn 1991, 40–43).

Campbell products were exchanged along with other goods—including horses, guns, axes, bridles, textiles, tobacco, and foodstuffs—in an extensive trading sphere involving Spanish, British, and American merchants and empires in the 18th and 19th centuries (Brown, Eccles, and Heldman 1994; Greene and Plane 2010; West 1998). Native nations often wielded great control over flows of goods, revealing the American West as an ever-changing matrix of political and economic dependencies between tribes and with colonists (Brooks 2002; Hämäläinen 1998, 2008; Spielmann 1991; White 1978, 1983). Northern and Southern Plains tribes exchanged bison hides for hair pipes and moons at trading posts as distant as Fort Union in North Dakota and Cache Creek in southern Oklahoma. As the Campbell Factory industrialized, settlers committed

violence and dispossession at genocidal scales (Blackhawk 2006), including treaty violations (Nugent 2008; Prucha 1984, 1994), Indian Wars punctuated by the Civil War (Utley and Washburn 2002; Yenne 2006), forced removals (Haveman 2018; La Vere 2000), and the creation of reservations (Hall 2015; Trennert 1975). Chapter 8 illustrates the place of shell beads in these practices and their contestation in greater detail.

With great variety over time and between tribes, Campbell beads adorned delegates to Washington, combined with efficacious ceremonial objects such as pipes, featured in ritual dance performances, or constituted gifts between tribes or with American diplomats (Ewers 1957; Karklins 1992; Keagle 2013). According historic portraiture and photographic evidence analyzed by Ewers (1957, 58), the "hair-pipe breastplate" style spread from the Comanche to the Northern Plains by 1860. This suggests an association with status-making as leaders took advantage of diplomacy, violence, and economic dependencies to tap into American markets and stave off dispossession (Hämäläinen 2008). Contemporary breastplates' association with "warriors of the Plains" supports this notion (Carocci 2012; Ellis 2003), but hair-pipe beads cannot be reduced to this meaning, as they were worn by both women and men of different tribes, on many different occasions, and in a variety of styles throughout the 19th century.

Archaeological evidence (DeVore 1992; Lees 1992; Newcomb 1955; Stirling 1924; Walsh 1997; Wedel 1936), fur trade records (Ewers 1957), and visual depictions by Euro-American and Indigenous artists (Berlo 1996; Dippie 1990; Hassrick 1977; Kahn 2003; McLaughlin 2013) from the 19th century suggest three different phases of hair-pipe personal adornment between Northern and Southern Plains nations, each marked by the addition of a new stylistic grammar: I) 1800–1830, ear ornamentation; II) 1830–1860; hair ornamentation, necklaces and chokers; III) 1860–1900, breastplates. Where this preliminary data can be tied to

specific groups, it shows a majority of Indigenous Plains tribes and nations began using hair pipes or moons at some point in the 19th century.[27] Shell beads adorned delegations (Fleming 2003), featured in Native visual narratives (Berlo 1996), and gathered with sacred objects and dances (Berlo 2000; Carocci 2012; Zedeño 2008). These practices stood in contrast to federal assimilationist policies (Gram 2016; Surface-Evans 2016), anthropologists (Biolsi and Zimmerman 1997; Deloria 1969), and settler capitalism (Cronon 1991; Limerick 1987; White 2012) that collectively sought to dominate Indigeneity—enclosing it as a racial category and setting the terms of its recognition, authenticity, and political legitimacy (Coulthard 2014; Simpson 2014). Chapter 8 examines the evolving use (or in some cases rejection) of hair pipes in greater detail through the case of the Oceti Sakowin in the later 19th century.

Settler-colonial conscription of shell beads transformed after its moneyed origins in the 17th century. Where beads had been used for Euro-American "domesticated" wampum diplomacy of the Old Northwest in the 18th century, hair pipes and moons were either gifted by government officials or exchanged at trading posts. Through appropriations of land, politics, production, and labor, shell beads continued to serve the twin interests of American industry and imperialism. However, as with Haudenosaunee wampum belts, hair pipes and moons also constituted Indigenous self-fashioning, resurgence, and resistance to settler states, capitalist extraction, and land seizure. With this in mind, Chapters 5 through 7 turn back to New Jersey to discuss the archaeological sites in this study. The methods I outline help recover 1) the unwritten effects of industrialization, and 2) the ways that Indigenous political action structured archaeological typologies and waste from bead-making in Bergen County.

[27] A preliminary list includes Plains Apache, Arikara, Assiniboine, Blackfoot (Kainai, Piegan, and Siksika), Cheyenne (Suhtai), Choctaw, Muscogee Creek, Ho-Chunk (Winnebago), Iowa, Lenape, Sioux (Dakota, Lakota, and Nakota), Kaw, Kiowa, Mandan, Menominee, Missouria, Miami, Plains Ojibwe, Omaha, Osage, Otoe, Pawnee, Peoria, Sac and Fox, Shawnee, and Wichita.

5 STOLTZ FARM, THE DAVID CAMPBELL HOUSE, AND THE CAMPBELL FACTORY

Data for evaluating industrialization of shell bead production comes from three sites: Stoltz Farm (1770–1810), the David Campbell House (1810–1850), and the Campbell Factory (1850–1900). Each represents a different phase of shell bead production in northern New Jersey. Stoltz Farm is a smaller-scale, household-based production site, while many elements of the Campbell Factory can be classified as industrial. These two sites were excavated in the early 20th century, and data was gathered from orphaned museum collections along with archival research on provenience and provenance in 2018. In 2019 and 2020, the Pascack Valley Archaeological Survey (PVS), funded by grants from the National Science Foundation and Wenner-Gren Foundation for Anthropological Research, identified remains of a wampum workshop at the David Campbell House. Dating to a transitional period and occupied by the uncle of the four "Brothers" who eventually owned the Campbell Factory, this site offers a key window into the early stages of industrialization. Unlike Stoltz Farm and the Campbell Factory—where contextual data is lacking and only site-level conclusions can be made—the David Campbell House was excavated systematically and thus also provides greater spatial and chronological control. It also includes other artifact types that provide contextual data at the household scale.

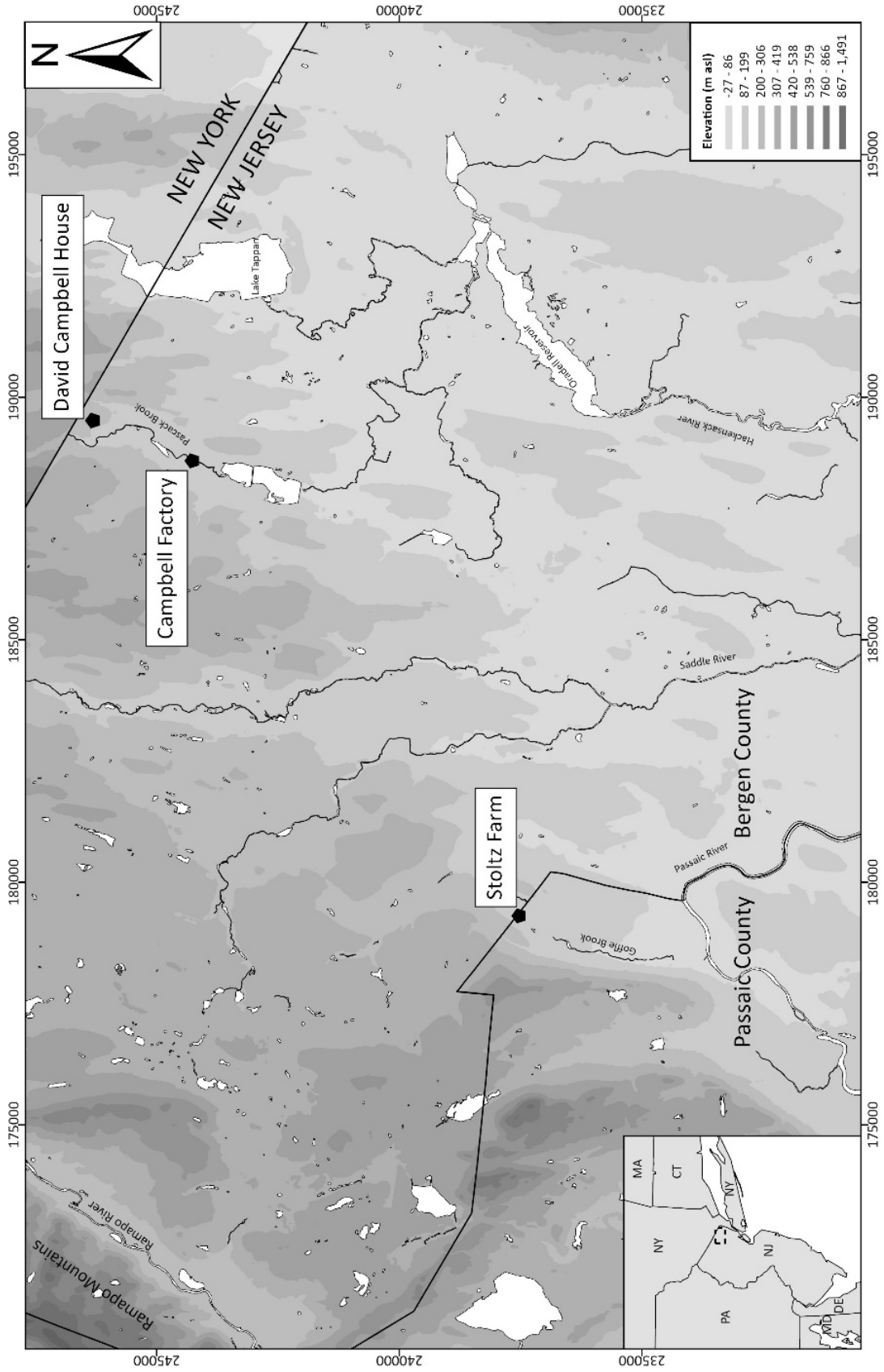

Figure 5.1: Bergen County shell bead production sites (1770–1900). (Map by Eric Johnson)

Stoltz Farm is located at the border between Bergen and Passaic County (Figure 5.1). The David Campbell House and the Campbell Factory are both located in the Pascack Valley in Bergen County, New Jersey. The Pascack Valley includes the area on either side of the Pascack Brook running south from the New York state line to Washington Township. Situated in the Piedmont Province geological formation, the southern portions of Pascack Valley are a relatively fertile rolling plain (Bedrock Geological Map of New Jersey 2014). Pascack is one of a series of lower-lying valleys (including Hackensack, Saddle River, Ramapo) that run north-south through the region bounded by the highlands of the Palisades abutting the Hudson River and the Ramapo Mountains in the northwest of the state. Pascack's northern portions, including the modern boroughs of Montvale and Park Ridge, are hilly, particularly as the state line stretches northwest toward the Highland Province of the Ramapo Mountains.

Today, the region is densely populated, retaining a suburban character with pockets of urban and commercial development. The many small, subdivided private properties throughout the region makes systematic archaeological survey difficult. PVS relied on archival research and public outreach to guide a targeted survey of modern properties in locations with the greatest likelihood of shell bead production debris. A detailed account of PVS results, including sites investigated but which did not yield shell bead production debris, can be found in reports from fieldwork (Johnson 2020; Johnson and Matthews 2020, 2021).

5.1 **Stoltz Farm (1770–1810)**

The site of Stoltz Farm[28] is located in present day Hawthorne, New Jersey (Figure 5.2) on the border between Bergen and Passaic counties. It was excavated by Carl F. Schondorf in 1916. Documents referring to the site suggest a period of household-based shell bead production

[28] "Stoltz Farm" is variously referred to as the "North Paterson Wampum Mill" or "Hawthorne Wampum Factory" in accession documents.

dating to at least 1768 to as late as 1830. Artifacts from the site, primarily shell production debris (n = 8,825), are housed at the Paterson Museum in Paterson, New Jersey. Stoltz Farm typifies the type of "cottage industry" or "proto-industrial" production that took place throughout Bergen County in the 18th and 19th centuries (Barber and Howe 1846, 72). Styles produced include Late Wampum, similar to that made at the Albany Almshouse in the 18th century (Peña 2001).

5.1.1 Historical Background

Very little can be known for certain about Stoltz Farm from the documentary record. The name "Stoltz" (spelled variously Stols/Stults/Shults) derives originally from the letter described by Schondorf as a shipment of wampum clam shells from C. Ackerson to Johannes Stoltz in 1768. Schondorf's account of the letter is repeated verbatim by both Haggerty (1980) and Beck (1964), though it is unclear whether either of them had access to the original copy. When noting the date of the letter, Schondorf's manuscript admits "I believe 1768".[29] If the date of this document and the account of John Hopper are accurate, this dates Stoltz Farm wampum production anywhere from at least 1768 to as late as 1830, when the property transferred to Jacob Hopper. Schondorf's ledger suggests the site dates as early as 1720, but this uncited claim is not supported by any primary documents (Lenik 1982).

The existence of a Johannes Stoltz living at the site is corroborated by property records. In the early 18th century, Stoltz Farm stood on the southern edge of the Ramapo Tract, a large swath of land owned by the Board of Proprietors of East New Jersey. Beginning in 1742, the Proprietors began leasing portions of the tract, including to "Johanes Shults" and "Johanes Shults Jr." in 1756.[30]

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[29] Schondorf, Carl F., Ledger II, Paterson Museum, 75.

[30] *The Minutes of the Board of Proprietors of the Eastern Division of New Jersey from 1745 to 1764* (Perth Amboy, N.J. 1960), 306. See also Wardell, Patricia. "Stols, Stults." In *Early Bergen County Families.* Genealogical Society of Bergen County, N.J., 2012, 7, accessed August 6, 2018, https://www.njgsbc.org/indexes/bergen-county-families/

A second letter to the Stoltz family surfaced in the 1980s (Lenik 1982) and again in 2013.[31] The letter, dating to 1803, is from Andrew C. Zabriskie of Paramus, New Jersey to Peter Stoltz of Lydecker's Mills (presently Midland Park area).[32] Similar to the letter described by Schondorf, it also describes a shipment of shells for wampum production: "I send you the 17 shells, 12 of the 17 you may send Anderson the wampom [sic] for as they are come from him." A deed dating to 1804 places a "Peter Stolz" (b. 1775), possibly the son of Jacob Stolts (d. 1842) in the area at that time.[33]

A third letter, also dating to 1803, from Christian A. Zabriskie to Andrew Zabriskie describes the logistics of transporting nearly 100,000 wampum beads (Williams and Flinn 1991, 40).

> I sent word by Thos R. Hicks for you to be at my home with your wampum either last night or this morning early so that you could get in New York before 12 o'clock today. Not hearing form you either last night or this morning, I took again the trouble to send Samuel B. requesting he go on immediately direct to N.Y. with your wampum as mine are sent last night to Mr. Vreland's. You must get mine there are bring them with yours to Jacob Astor's … I have down to Mr. Vreland in N. York 57,750 white 39,700 black add yours to this and keep in account.[34]

Together, these letters link the Stoltz family producers to Zabriskie merchants and on to fur trade distributors such as John Jacob Astor's American Fur Company.

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[31]Auctioned by Swann Auction Galleries as part of the collection of James Ransom, accessed August 6, 2018, https://www.invaluable.co.uk/auction-lot/american-indians.-zabriskie-andrew-c.-letter-c-EDDA7FCFFE#. Ransom was a former president of the Bergen County Historical Society, and his research on wampum is detailed in Beck (1964).

[32] Lenik transcribes this letter as "Sparkers Mills" (1982:7), but this may be a mistaken transcription. The area was known as Lydecker's Mills in 1803, according to Bergen County deeds R:153 and R:157. Wardell, Patricia. *Bergen County Deeds (Book R)*. USGenWeb Project, 1998, accessed 6 August, 2018, http://files.usgwarchives.net/nj/bergen/land/deed-r.txt

[33] Wardell, Patricia. "Stols, Stults." In *Early Bergen County Families.* Genealogical Society of Bergen County, N.J., 2012, 7, accessed August 6, 2018, https://www.njgsbc.org/indexes/bergen-county-families/

[34] November 3rd, 1803. Christian A. Zabriskie to Andrew Zabriskie, Paramus. *Records of the Bergen County Historical Society*, River Edge, NJ. (cited in Williams and Flinn 1991, 40).

While Andrew Zabriskie's letter may or may not relate precisely to the Stoltz Farm site excavated by Schondorf, it does show that the Stoltz family continued producing wampum into the 19th century. It also shows that they relied on distributors such as Andrew for their raw material. As the letter describes, the Zabriskies of Paramus were supplying producers with shell in exchange for finished beads. This aligns with later oral histories (Smith 1885; Westervelt 1924) that attest to a kind of domestic "putting-out" system outlined in Chapter 4.

The Stoltz farm assemblage can also be brought to life by Barber and Howe's (1846, 72–73) account of Franklin Township wampum manufacture. At that time, Franklin Township included Paramus (the home of Andrew and Christian Zabriskie) as well as "Hopper's" (Midland Park area, the location of Stoltz Farm). In this account, wampum making was performed primarily by women in their own homes and required simple tools and skilled labor: "From five to ten strings are a day's work for a female. They are sold to the country merchants for twelve and a half cents a string, always command cash, and constitute the support of many poor and worthy families" (Barber and Howe 1846, 72). While the Stoltz family no longer lived off Goffle Road at the time of this account, archaeological evidence confirms that the Stoltz Farm assemblage corresponds well with the mode of production described by Barber and Howe.

5.1.2 Site Discovery and Excavation

According to notes left by Carl Schondorf, the discovery of the Stoltz Farm site in 1916 was triggered by coincidence. Around 1900, the collector Alfred Ronck purchased an antique dresser at an auction in Suffern, New York. Inside was a letter dating to 1768, addressed to Johannes Stolts from C. Ackerson. Schondorf's transcription of the letter notes a shipment of wampum clam shells (Beck 1964, 238; Haggerty 1980, 12). Being a local historian, Ronck searched for the Stoltz family with little success. In 1915, however, he and Schondorf interviewed John Hopper, then 93 years old, who had grown up at a farm his father purchased

from the Stoltz family around 1830. Hopper remembered "his father ploughing along a stone wall and after a rain shower he went out and picked up thirty-five wampum beads". [35]

In September of 1916, Hopper led Schondorf and Ronck to the site where he recalled a "cabin." There they found the remains of "a log floor" as well as a "shell heap," strongly suggesting this was the location of the Stoltz's wampum production referenced in the 1768 letter. The following excerpt from Schondorf's ledger is the only known documentation or description of excavation methods and site structure:

> The next day I commenced an excavation and worked on this site for about two months carefully excavating and sieving all the soil. Over a wagon load of clam shells came out and between 5 and 6,000 beads … I dug in an area of about twenty-five feet in diameter and about two feet deep the whole aspect of the place appears to be a shell heap as if it had been a log floor to the hut and the sweeping may have been forced through the crevices of the logs. [36]

It is clear that Carl Schondorf was skilled in discovering archaeological sites, as his many excavations in Bergen County attest. However, as was common for the time, he lacked formal training and did not excavate stratigraphically, nor did he record contextual information for the objects he recovered.

Analysis of the assemblage confirms that Schondorf likely sieved excavation soil, but this was most likely done as a practical method for finding small beads and shell fragments, rather than as an attempt to collect all associated artifacts from the site.

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[35] Schondorf, Carl F., Ledger II, Paterson Museum, 77.
[36] Schondorf, Carl F., Ledger II, Paterson Museum, 81.

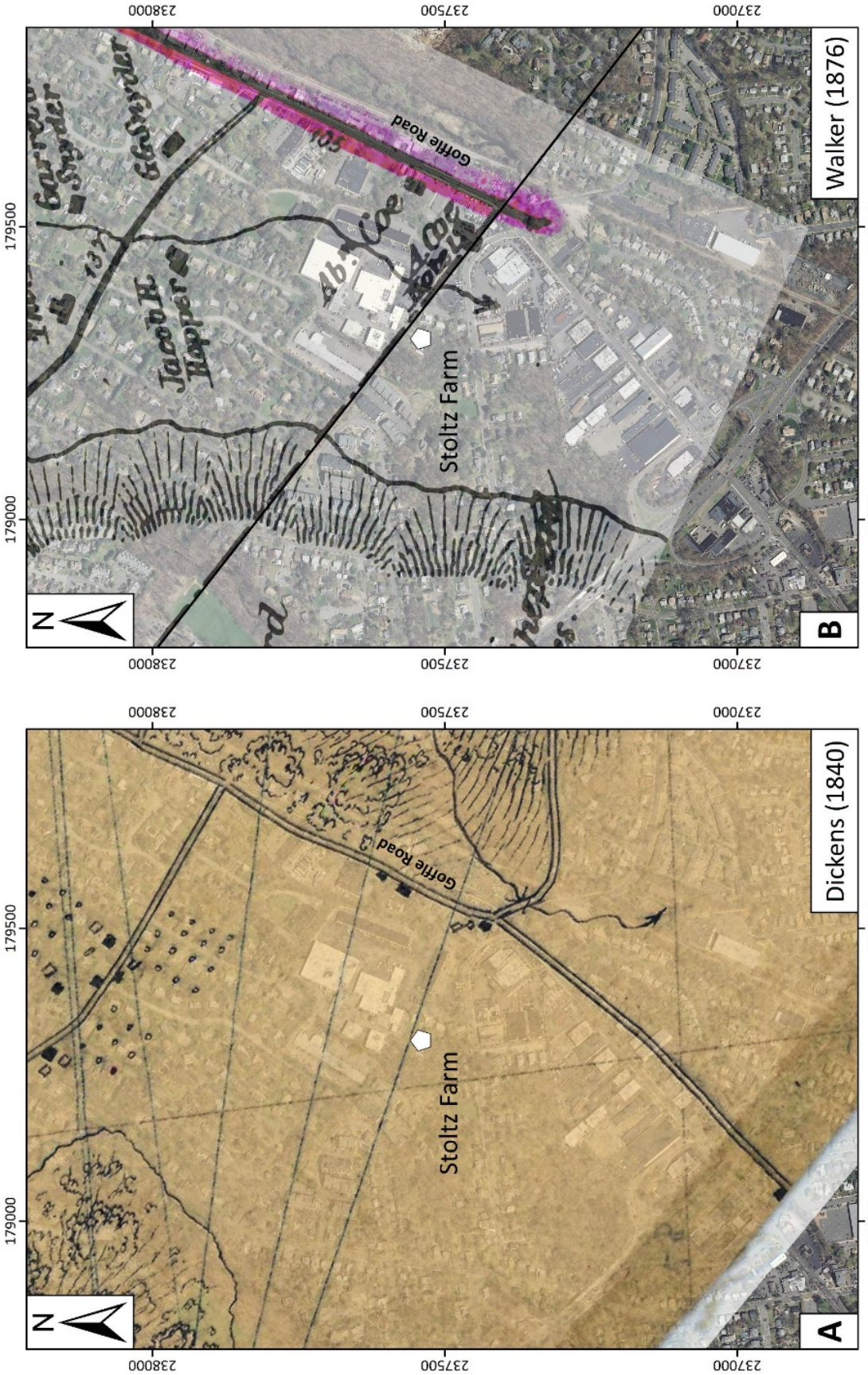

Figure 5.2: Historic map overlays of Stoltz Farm. (A) Stoltz Farm location under 1840 U.S. Coastal Survey Map (Dickens 1840) (B) Stoltz Farm location under Walker (1876).

5.1.3 Provenience and Provenance

Soon after the excavation, Schondorf donated 700 of apparently thousands of objects to Alfred Ronck of the Bergen County Historical Society. These are currently unaccounted for. The rest were donated to the Paterson Library and were later accessioned to the Paterson Museum. The shell debris assemblage labeled "Carl Schondorf Collection" at the Paterson Museum does not precisely match Schondorf's description of "over a wagon load of clam shells" along with 5,000 to 6,000 "beads." It does number nearly 9,000 objects in total, primarily of quahog and whelk shell debitage, and was labeled on August 27, 1969 as "Made by Stoltz" in North Paterson, part of the "Carl Schondorf Collection."

The location of the site is specified in accession documents: "This wampum factory is on the estate of Peter Meyers, on Goffle Ridge Hawthorne North Paterson an 8 acre farm. The wampum site on this farm lies about 50 feet this side of Passaic and Bergen County lines and about 300 yards West of Goffle road on Elevated ground".[37] This places the site in the borough of Hawthorne, New Jersey, just south of the Garden State Farms industrial complex (Lenik 1982, 8). The 1876 Walker Atlas of Bergen County identifies the property of Jacob Hopper (d. 1879), the father of John Hopper, in the vicinity described by Schondorf (Figure 5.2). One structure (or possibly two adjacent) is depicted here, abutting present-day Ravine Avenue, about quarter of a mile southwest from the location described by Schondorf. This is corroborated by a map from 1840 depicting the property south of Godwinsville (presently Midland Park area, north of Hawthorne) (Figure 5.2). No maps from the Stoltz occupation of the property have been found that depict structure described by Schondorf.

[37] Schondorf, Carl F., Ledger II, Paterson Museum, 73.

In the years leading up to 1982, local archaeologist Edward J. Lenik led a team of volunteers to attempt to locate Schondorf's excavation site. While this effort was unsuccessful, surface collections yielded "16 fragments of cut and worked clam shells" near "a stone wall which runs east-west for about 200 feet along the north end of the site" (Lenik 1982, 8). This matches the description of the wall encountered by John Hopper as a child. Twenty-first century development by Lafayette Hills Townhome Association makes any current preservation of the site unlikely.

5.2 **David Campbell House (1810–1850)**

The David Campbell House was discovered in the Summer of 2019 as part of the Pascack Valley Archaeological Survey (PVS) led by the author (Johnson 2020). PVS sought to identify and survey sites of shell bead production in the region. Consultation for archaeological testing took place with took place with property owners, the Park Ridge Borough administrators, as well as the State Historic Preservation Office. In May of 2019, I was contacted by Chief Vincent Mann of the Turtle Clan of the Ramapough Lenape Nation and Judith Sullivan of the Ramapough Conservancy to discuss the project's aims, methods, and research questions. The results of this dialogue were threefold. First, research goals of the project expanded significantly to address Munsee Lenape and Ramapough history, as reflected in Chapter 4. Second, Chief Mann hosted a ceremony and blessing in Park Ridge as part of the survey. Park Ridge Mayor Keith Misciagna, borough administrators, Park Ridge residents, and archaeologists working on the project were in attendance. Finally, we established a consultation plan, including protocols for future work, data sharing, and access to all written work from the project for comment before publication.

The David Campbell House is located in present-day Montvale, New Jersey, the northern portion of the Pascack Valley, just 300 meters south of the border with Pearl River, New York.

Like the Stoltz Farm site, the David Campbell House represents a "household" or "cottage" production site. However, it was occupied by the uncle of the Campbell Factory owners, and the *terminus ante quem* of wampum production deposits predate the construction of the Campbell Factory after 1850. As such, it provides a crucial window into the early phases of industrialization (or "proto-industry") by a producer with familial ties to the eventual factory.

5.2.1 Historical Background

According to local Bergen County historian Howard Durie, the core of the house currently standing at 23 Magnolia Avenue in Montvale, New Jersey was constructed soon after 1812 by David Campbell (Durie 1970, 132). David Campbell was born June 11, 1785 to John (b. 1747, d. 1826) and Tietje Campbell and baptized at the Schraalenburgh Church in Bergen County, New Jersey.[38] He and Hannah Blauvelt married in 1812, at which point deed records suggest the house at 23 Magnolia was carved out from his father's land (Durie 1970, 132). David Campbell is listed in U.S. census records of 1820 as a householder in Harrington Township (then comprising the Pascack Valley), and in 1830 his household is listed as a "5 free white persons."[39]

David Campbell sold his property at 23 Magnolia in 1844 for $800 to Johnathan Rose (Durie 1970, 132) and moved into a nearby location to the west. Johnathan Rose had purchased John Campbell's (David's father) surrounding land in 1826 and lived in John's former residence on Kinderkamack Road at this time. It is unclear who, if anyone, lived in the David Campbell House between 1844 and 1884. The house may have been rented or left unoccupied. As described below, archaeological data supports the notion that the site was unoccupied between

[38] Records of the Dutch Reformed Church at Schraalenburgh. Holland Society of New York; New York, NY; *Schraalenburgh I, Book 73*.
[39] United States Census, 1830; *Harrington, Bergen, New Jersey*; Series: M19; Roll: 79; Page: 32; Family History Library Film: 0337932.

1850–1880. After Johnathan Rose's death in 1880, the property eventually passed to his only child Sarah Van Blarcom, who died four years later. Sarah's will passed the house to her granddaughter, the widow Henrietta Hulyer (Durie 1970, 132) (Table 5.1).

This timeline of occupation at the David Campbell House site (1812–1844) coincides conveniently to the period before the Campbell Factory was built. As described in Chapter 4, ledgers from the nearby Demarest merchant store note David Campbell purchasing "konk" shells and selling "wampum" in 1844.[40] Archaeological deposits at the site confirm he was a wampum producer at this time. David's brother Abraham Campbell (b. 1782 d. 1846) was father to four sons (John, James, David and Abraham) who eventually became the main operators of the Campbell Factory. As such, wampum production at the David Campbell House should be thought of as part of an earlier generation preceeding the famous Factory.

While there is no evidence enslaved or free people of color lived in the David Campbell household, he did live in an area of the Pascack Valley where names of Thompson, Sisco, Perry, Williams, and Brown are listed in the region as householders in on the Hopkins map of 1861 (Figure 4.2). These are surnames that are listed as "Black" or "Mulatto" in the U.S. 1850 census, suggesting African and/or Indigenous (possibly Ramapough) ancestry. As demonstrated in Chapter 4, these individuals were also tied into the wampum industry as primary producers or waged laborers under other households, as might have been the case at the David Campbell wampum workshop.

Additionally, the women and children in David Campbell's household likely also participated in the labor of making beads. In 1830, this would have involved two boys under the

[40] James Demarest Ledgers. "David Campbell," G (p. 18). "Peter Sisco," H (76). Pascack Historical Society Archives, Park Ridge, NJ.

age of 19, one girl aged 10–14, and David's wife Hannah. Therefore, when discussing "wampum manufacture at the David Campbell House," this is not to suggest that the deposits are exclusively the result of David Campbell's labor.

TABLE 5.1: David Campbell House Property History			
Date	**Owner**	**Occupant**	**Notes**
Pre-1696	Hackensack / Tappan Tribe	Hackensack / Tappan Tribe	"Granted" to speculators Honan and Hawdon through Kakiat Patent (Durie 1970, 2).
1696	John McEvers		
1751	William Bayard		
1780/84	Commissioners of Forfeited Estates		Confiscated by State of New Jersey after Bayard sided with British in Revolutionary War (Durie 1970, 66).
1789	Jonathan Ford Morris		
1796	John Campbell		
1812	**David J. Campbell**	**David J. Campbell**	**David Campbell House at 23 Magnolia Ave built.**
1844	Johnathan Rose	NA	No record of occupation.
1880	Sarah Rose	NA	No record of occupation.
1884	Henrietta Huyler	Henrietta Huyler	

Figure 5.3: David Campbell House Phase 1 and 2 survey. (Map by Eric Johnson)

5.2.2 Site Discovery and Phase 1 Survey

In July of 2019, PVS contacted the current property owners of 23 Magnolia Ave and communicated the site's historical significance. The owners then noted the presence of shell in garden areas of the property. With permission from property owners, surface survey of the property revealed scatters of shell pieces, both conch (*Lobatus gigas*) and quahog (*Mercenaria mercenaria*), some of which were obviously worked. Surface scatters were concentrated in garden areas where topsoil had been disturbed. Excavations took place over two seasons, between August 3 and 22, 2019 and follow-up excavations between September 14 and 18, 2020

After consultation with property owners and Chief Vincent Mann of the Turtle Clan of the Ramapough Lunaape Nation, PVS conducted Phase 1 investigations took place to address three questions:

1) What is the spatial extent of shell at the site?
2) Can shell be characterized as "production debris" rather than "consumption"?
3) Are concentrations sufficiently dense and intact to merit further investigation?

Thirty shovel test pits were excavated along an arbitrary grid following a flagstone wall running roughly north / south along the property (Figure 5.3). Some locations of test pits were adjusted off-grid by up to 1 meter according to property owners' preferences for minimal disturbance to ornamental spaces.

Results of the Phase 1 survey determined:

1) Discrete boundaries of an area of worked shell where higher concentrations of shell diminish toward the edges of the property in all directions (Figure 5.4).
2) Shell was clearly production related, primarily consisting of debitage and blanks from *Lobatus gigas* (conch) and *Mercenaria mercenaria* (quahog) shell. Preservation of shell objects from the site range from *fair* (powdery surfaces, flaking) to *good* (slightly powdery, stable wet and dry) (Storch 1987).
3) Areas of greatest concentration also yielded clear horizons of early- and mid-19th century artifacts with minimal material dating to the late 19th and 20th century.

Figure 5.4: David Campbell House Artifact distributions based on Phase 1 survey. (Map by Eric Johnson)

5.2.3 Phase 2 Excavations

Phase 2 excavations were conducted in four locations (Figure 5.4, EUs 1–5), near STPs with the densest concentration of shell production debris by either weight and count (Figure 5.3). EU4 was expanded from EU2 into a 1x2 (hereafter EU2/4). These locations were chosen in order collect a sufficient sample of production debris to address three questions:

1) Is there significant variation in the type of production debris in different locations of the site (for example, do different distributions of shell weight vs. count represent different activity areas for different stages of production)?
2) Are there changes in production debris over time across the site?
3) How does production debris differ from previously excavated historic shell bead production sites in the region?

Answers to these questions along with detailed artifact analysis are presented in Chapter 6. The remainder of this section provides an overview of Phase 2 results and a detailed description of excavation units. In general, excavations were successful in sampling large quantities of shell bead production debris (n=2,264) that date to the David Campbell period of occupation at the site (1812–1844).

Excavations were conducted stratigraphically; context changes followed noticeable changes in soil color, composition, and/or inclusions. One exception was made to this strategy: the greatest densities of shell in EUs 1–4 was collected from a relatively undifferentiated B Horizon (~40 cm thick) which was split arbitrarily into two ~20 cm contexts, despite no obvious change in soil color, composition, or inclusions. This was done to sample for potential diachronic change in production over time.

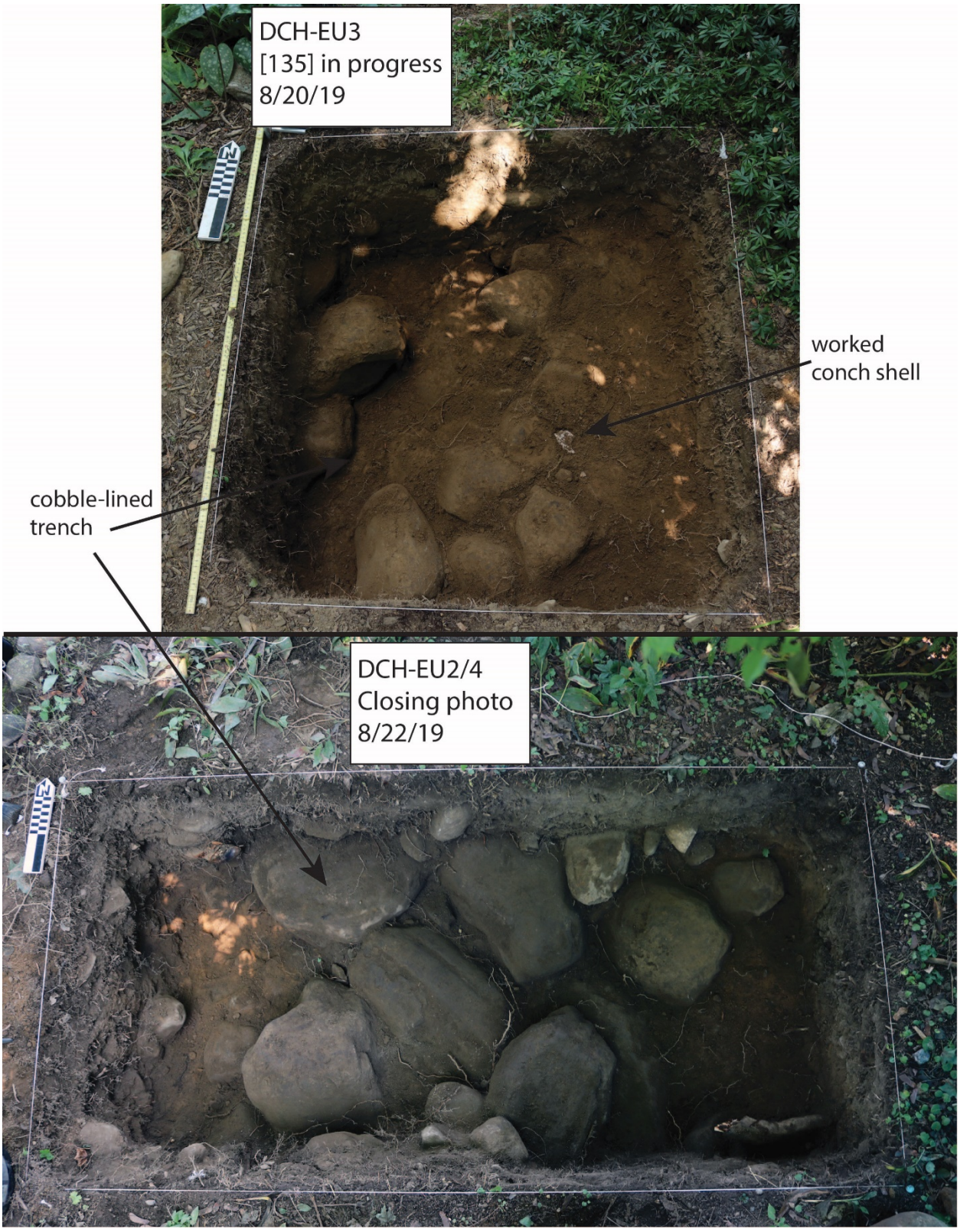

Figure 5.5: EU 2/4 and 3. Photos of cobble-lined trench. (Photos by Eric Johnson)

EUs 2/4 and 3 identified a possible trench feature lined with large cobbles (Figure 5.5), roughly parallel to a modern flagstone wall. This feature is currently interpreted as stone-lined drainage ditch. Large cobbles in the base of this feature are not evocative of architectural foundations, and the feature runs downslope across the property. Densest concentrations of shell were recovered in layers above the trench feature, though ceramics and shell were also recovered at the base of the feature fill as well. This suggests shell bead production took place after the feature was constructed.

The relatively linear north/south distribution of shell across the site and the difference in distribution by weight vs. count seen in Figure 5.4 may be explained by the presence of this stone-lined drainage feature. Smaller shell pieces may have been carried by water action from the core of the shell deposition space located near STP [113] and EU5.

Minimum number of vessels (MNV) and mean ceramic dates (MCD) were calculated for each context at the David Campbell House, including STPs and unit layers (Table 5.2). MNV counts were calculated quantitatively (Voss and Allen 2010), a method that disregards body sherds and may underrepresent handcrafted and undecorated vessels. Individual vessels were determined based on unique ware types and decorations. Each datable ware type / decoration was given a manufacturing date range and a mean date (Miller et al. 2000).[41] MCDs were calculated by context, EU, and the site as a whole. In each case, MCDs were calculated by averaging mean dates of unique vessels. These dates were weighted by MNV counts. The wide manufacturing range of redware has the potential to skew MCDs, depending on the date of the context. Thus, an alternative MCD excluding redware was also calculated for each context.

41 Manufacturing date ranges (and generic types excluded from MCD calculations) were drawn primarily from the Digital Archaeological Archive of Comparative Slavery (DAACS), accessed January 15, 2020.

TABLE 5.2: DCH CERAMICS SUMMARY

Unit	CXT	Count	MNV	MCD w/ redware	MCD w/o redware
Phase 1	STPs	222			
EU1	122	8	3	1837	1856
EU1	123	14	3	1838	1856
EU1	124	1	1	1800	
EU1	**EU1**	**23**	**5**	**1845**	**1856**
EU2	125	11	2	1800	
EU2	126	206	13	1814	1818
EU2	127	86	7	1814	1819
EU2	128	4	1	1813	1813
EU2	129	1	1	1800	
EU3	130	0	0		
EU2	**EU2**	**308**	**15**	**1812**	**1815**
EU3	131	2	1	1800	
EU3	132	118	9	1815	1819
EU3	133	33	5	1805	1809
EU3	134	23	5	1813	1817
EU3	135	6	4	1798	1797
EU3	**EU3**	**182**	**12**	**1814**	**1817**
EU4	136	0	0		
EU4	137	4	1	1800	
EU4	138	0	0		
EU4	139	147	11	1822	1829
EU4	140	68	7	1813	1818
EU4	141	2	2	1801	1803
EU4	142	2	2	1801	1803
EU4	**EU4**	**223**	**13**	**1820**	**1824**
EU5	152	24	6	1822	1831
EU5	153	354	13	1808	1809
EU5	154	162	8	1817	1822
EU5	155	54	4	1803	1801
EU5	156	0			
EU5	158	10	2	1805	1810
EU5	**EU5**	**604**	**16**	**1815**	**1818**
Site Total		**1,384**	**38**	**1823**	**1825**

5.2.3.1 EU 1

EU1 can be broadly characterized as a low-density household occupation layer containing 20th century material mixed with 19th century ceramics and worked conch shell. Worked shell was recovered in much lower densities than other units on the site (*Lobatus gigas* MNI=1, n=12), suggesting a diminishing "edge" of depositional space of shell bead production debris. Artifacts are concentrated in upper layers [122 & 123] which also comprise the upper portion of a B Horizon (Figure 5.6). The unit is located near a modern standing shed area, and it yielded artifacts associated with this structure in the later 20th century, including shingles, bottle caps, and plastics. The unit's mean ceramic date (excluding redware) is 1856, representing roughly equal proportions of pearlware, whiteware, and ironstone vessels (Table 5.2, see Chapter 7). There does not appear to be an obvious temporal break between [122] and [123]. This date is at least three decades later than other unit MCDs, suggesting the EU1 is unique at the site in its representation of the later 19th and 20th century (Table 5.2).

5.2.3.2 EU 2 / 4

Adjacent units EU2 and EU4 yielded undisturbed concentrations of worked shell throughout a B Horizon ([126/139] & [127/140]) along with artifacts exclusive to the early/mid-19th century (Figure 5.6), referred to here as a "wampum workshop" layer. Excavators split this layer arbitrarily in half around 20 cm below the surface to investigate potential diachronic changes in production debris. Below the wampum workshop layer is a trench feature cut into a sterile sandy C Horizon [130/142] and containing large cobbles. The trench fill [129/141] yielded small quantities of in-situ worked shell and ceramics near the base of the cobbles. Combined with the fact this feature was capped by the higher-density wampum workshop layer, this suggests the trench was dug before the majority of beadmaking that took place at the site. A

similar feature was excavated in EU3, suggesting the trench may run north/south along the site, parallel to the standing stone wall (Figure 5.5).

Redware-excluded MCDs for EU2 (1815) and EU4 (1824) are concentrated to the first quarter of the 19th century and do not change significantly with changing depths of layers (Table 5.2), suggesting the excavated contexts date exclusively to the known Campbell occupation of the site (1812–1844). The latest datable sherds in the entirety of EU2/4 include three sherds of yellow ware and three sherds of Rockingham. Both units yielded a series of factory-made slipwares shell-edge pearlware rim fragments dating to the early 19th century coincident with high densities of worked shell discussed in Chapter 7. Later 19th and 20th century artifacts are not represented in either of these units, supporting the claim that wampum workshop layers went undisturbed in later centuries.

5.2.3.3 EU 3

EU3 resembles EU2/4 in having a similar "wampum workshop" layer of worked shell in a relatively undifferentiated B Horizon. Quantities of shell are less dense than those of EU2/4, suggesting (along with STP data) that the unit is located further from the "core" activity area of bead production at the site. This layer was split into two contexts, [132] and [133], to track potential changes in production debris over time (Figure 5.6). A trench feature [134] is cut into a sandier C horizon [135] with a drop off in artifact counts before sterile subsoil [136]. The diagonal cut in the north profile is due south of a similar feature found in EU2/4, [129/141] 10 meters north, suggesting a trench feature ran north/south on the property, roughly parallel with modern standing rock wall.

Ceramics resemble those of EU2/4, with an MCD of 1817 for the entire unit. Each context MCD fits comfortably in the first quarter of the 19th century, suggesting primary

deposition from Campbell phase of occupation (1812–1844) and little disturbance from later periods.

5.2.3.4 EU 5

EU5 was excavated in September 2020 to sample from densest location of shell bead production debris by weight at the site. The unit yielded a shell layer in the upper portions of the B Horizon akin to EU2/4 and EU3 (Figure 5.7). Shell and other diagnostic artifacts from the first half of the 19th century decline as contexts approach the C Horizon [156]. Unlike EU2/4 and EU3, excavators split the B Horizon into three contexts after encountering an increase in cobbles around 20 cm below the surface [154]. The surface of the unit is sloped from the NE to the SW corner (Figure). The sterile C Horizon, however, is relatively level if not slopping upward toward the SW corner. This stratigraphy is suggestive of mounding from worked shell and other household deposition in the 19th century (Figure 5.7).

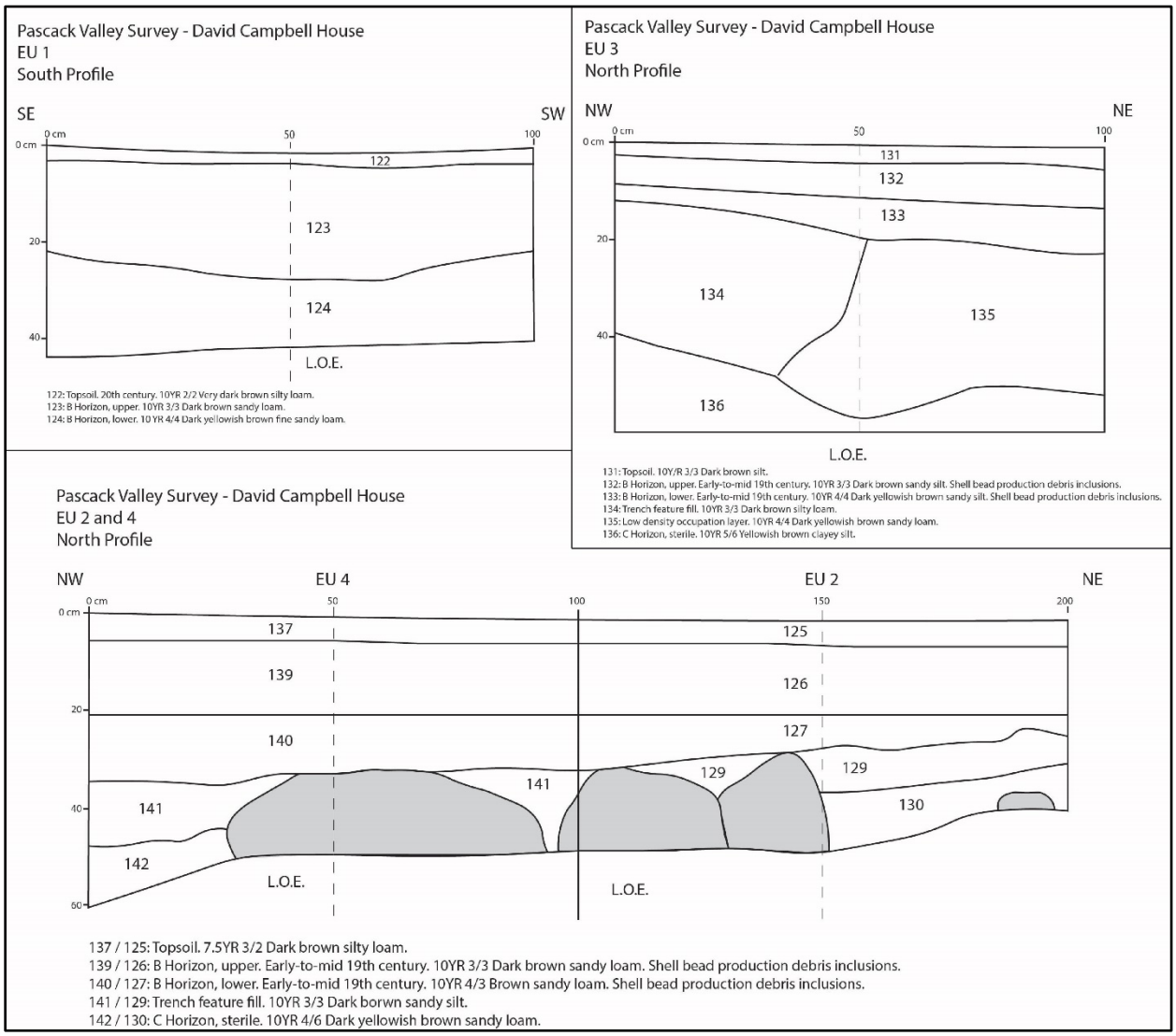

Figure 5.6: EU 1, 2/4, and 3 profile drawings. (Image by Eric Johnson)

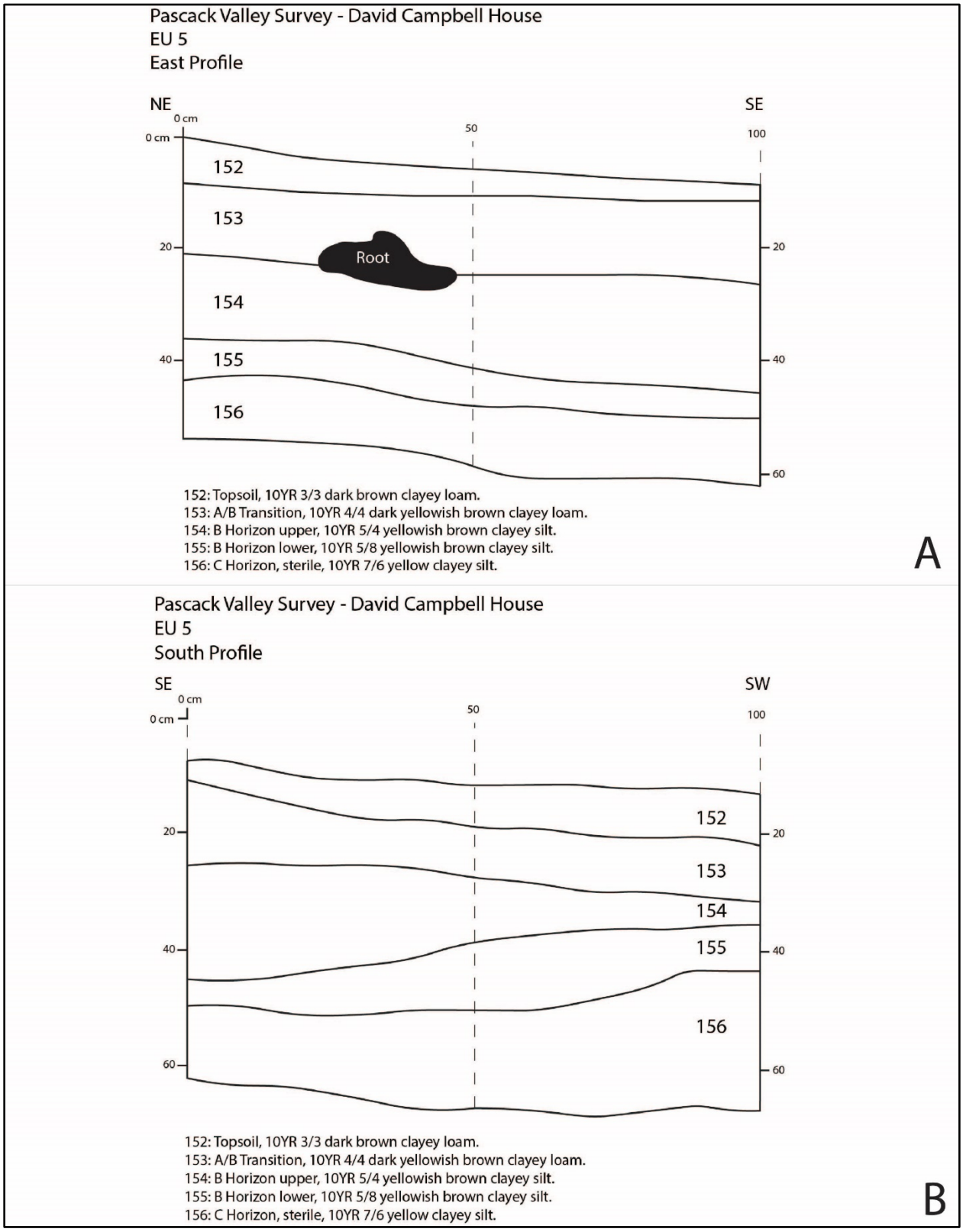

Figure 5.7: EU 5 profile drawings. (Image by Eric Johnson)

5.3 **Campbell Wampum Factory (1850–1900)**

5.3.1 Historical Background

Unlike Stoltz Farm and the David Campbell House, much has been written about the Campbell Wampum Factory. The site's historiography can be divided into three phases. As the Campbells continued to make shell beads until about 1900, various authors visited the Factory while it was in operation. This included Erminnie A. Smith (1885) of the Smithsonian's Bureau of American Ethnology, as well as New York-based magazine writers Caroline Chesebro (1872) of *Our Young Folks* and Charles Norton (1888) of *The American Magazine.*[42] All the available evidence suggests each of these were independent accounts comprising interviews, descriptions, and in Smith's case, collection of objects currently housed at the Smithsonian's Natural History Museum (NMNH, n=95).[43]

In the mid-20th century, the work of local historians Frances Westervelt (1924), Charles Philhower (1928), and John C. Storms (1939) enshrined the site as a touchstone of Bergen County history. Meanwhile, William C. Orchard's (1929) *Beads and Beadwork of the American Indians* included a detailed section on Campbell Wampum based on the work of Westervelt (Orchard 1929, 68–74). Beads and tools were donated to the Smithsonian museum by Bergen County residents primarily through Westervelt, and Orchard's photos reveal some degree of experimental demonstration of bead manufacture. Westervelt and Storms' accounts are based in part on interviews with decedents of the Campbells who recalled the process of making wampum as well as basic appraisal of artifacts from the site. That said, it is difficult to determine the veracity of these accounts. For instance, while Storms' limited print publication *The Story of Wampum* lacks citations, he was a former neighbor of the last two generations of Campbells

[42] Norton's (1888) article was reprinted in *Arthur's Home Magazine* in August of 1893.
[43] Accession number 017928, NMNH Anthropology Department, Smithsonian Institution.

(Ewers 1957, 45). These mid-century histories should be approached with a degree of skepticism. In many cases information here can only be attributed to local tradition. Here, I rely on 19th century direct accounts as much as possible and use multiple lines of evidence, casting doubt and highlighting discrepancies where necessary.

References to the Campbell Factory in later literature (Becker 1980; Bradley 2011; Hanson 1985; MacKenzie, et al. 2002; Morse 2006) draw primarily from the work of Westervelt (1924) and Storms (1939) while contributing much-needed context, including histories of colonialism, the fur trade, and Indigenous uses of shell beads in contexts of consumption. Of note here are John C. Ewers' (1957) and Jordan Keagle's (2013) work on Midwestern and Plains nations' use of Campbell beads, as well as Lorraine William and Karen Flinn's (1991) publication produced as part of an exhibit on trade wampum at the New Jersey State Museum. Despite the quantity and quality of these more recent publications, there have been no systematic analyses of material from the site as a unified whole using modern scientific methodologies for studying shell bead production in archaeology (Arnold 2012; Peña 1990).

As described in Chapter 4, William Campbell (b. 1718, d. 1793) was the first of the Campbell lineage to settle in Bergen County. Oral histories suggest him as the first Campbell wampum-maker, but evidence for this is circumstantial. William was an Ulster-Scot tavern keeper at Old Bridge (presently New Milford, New Jersey). Although later sources cite 1775 as the origins of Campbell wampum craft production (Morse 2006, 5), connections with John Jacob Astor around the turn of the 19th century are the most likely origin involving William's son John W. Campbell (b. 1747, d. 1826) who can be tied to the origins of Campbell wampum (Norton 1888; Smith 1885).

TABLE 5.3: CAMPBELL WAMPUM FACTORY TIMELINE

1735	William Campbell (b. 1718, d. 1793) settles in Schraalenburgh, Bergen County, New Jersey from Ulster, Northern Ireland (Westervelt 1924:9).
before 1775	John W. Campbell (b. 1747, d. 1826) moves to Pascack (Park Ridge, New Jersey) (Westervelt 1924, 9).
~1812	Abraham Campbell (b. 1782, d. 1847) rents Pascack mill for wampum manufacture (Williams and Flinn 1991, 46).
before 1850	James A. (b. 1810, d. 1887) and David A. Campbell (b. 1812, d. 1893) invent drilling machine (Westervelt 1924, 21).
1858	Piermont Branch of Northern Railroad opens – shells no longer transported by sloop but by freight to Nanuet, New York and then by wagon to Park Ridge New Jersey (Storms 1939, 14; Westervelt 1924, 16).
~1860	Construction of Campbell Factory mill along Pascack Brook (Norton 1888:593). Storms (1939, 21) dates the mill construction to 1869.
1872	Caroline Chesebro (1872) of *Our Young Folks* authors firsthand account of site.
1885	Erminnie Smith (1885) of the Smithsonian's Bureau of Ethnology authors firsthand account of site.
1886	Frank M. Gregory sketches illustrations of Campbell Factory, later appearing in Norton (1888). Likely the year that Charles Norton (1888) of *The American Magazine* visited the site as well.
1899	Abraham Campbell Jr. (b. 1815) dies, Campbell Factory closes (Westervelt 1924, 24).
1924	Carl F. Schondorf excavates Campbell Factory mill.

The Campbell family business corresponds well with Barber and Howe's (1846) account of wampum production in Franklin Township. While the Campbells did not live in Franklin Township, they operated similarly to the Zabriskies, as both procurers and distributors of raw material (Williams and Flinn 1991, 46–47). Westervelt, drawing on interviews with Campbell descendants, also describes the trip the made by rowboat from New Milford on the Hackensack out from Newark Bay to Rockaway; the "black hearts" of the quahog shell or in some cases blanks of wampum beads were sold to "farmers' wives and daughters for miles around" (Westervelt 1924, 14–15).

The Campbells' neighbors exchanged finished beads with local merchants. After which point the Campbells would purchase the product from the merchants. As one descendent recalls, "I went on many trips with my father when a boy … one place being at Schraalenburgh to a general store kept by a man named Conklin. My father would often pay him in cash as high as $500 for the wampum taken in trade … it shows somewhat of the industry that was carried on in the homes" (Westervelt 1924, 15). Smith's (1885, 4) informant also noted "that he had often paid out thousands of dollars per week, buying the beads of the white country-people, who manufactured them in their several homes."

At the time that the Campbells employed their neighbors for the labor of drilling, all accounts note the "bow drill" (or "arm drill" (Smith 1885, 4)) was the primary tool for drilling the beads (Barber and Howe 1846, 72–73; Chesebro 1872, 302). It is difficult to say when this tool came into use, though Norton's informant attributes it to his great-grandfather who "was a bit of a blacksmith and he made his own tools" (Norton 1888, 593). Sources also specify grindstones, most likely powered by foot at this time (Smith 1885, 302; Westervelt 1924, 10). Artifacts analyzed here from the Campbell Factory were excavated by Carl F. Schondorf in 1924 and are from the "wampum mill" constructed by the Campbell family along the Pascack Brook in present-day Park Ridge, New Jersey (Figure 5.1 and 5.8). The structure dates to after 1850 at the earliest, but more likely after 1860. It was in use until about 1900.

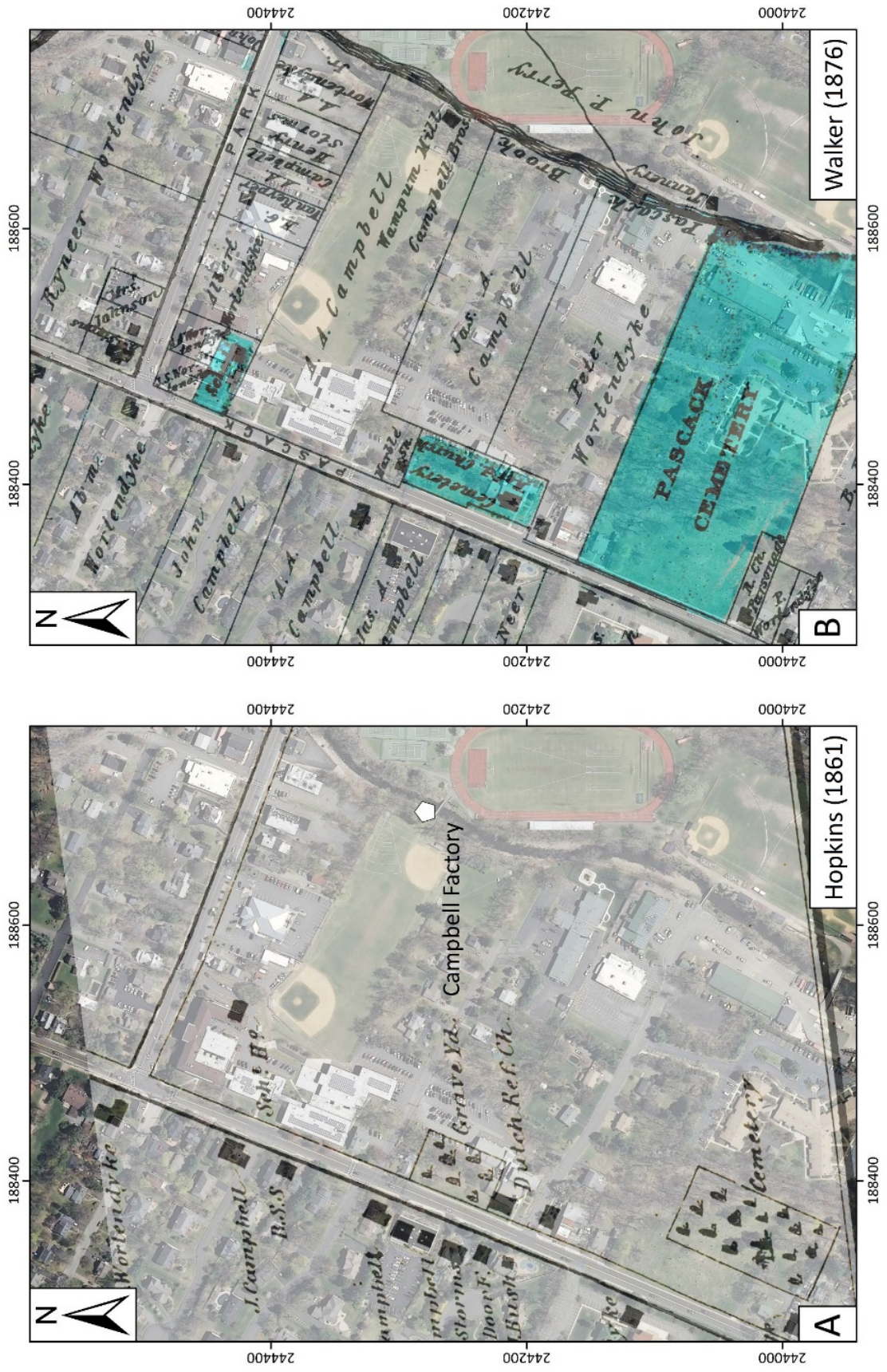

Figure 5.8: The Campbell Wampum Factory location in Park Ridge, New Jersey. (A) Hopkins Map of Bergen County (1861). (B) Walker Atlas of Bergen County (1876). (Map by Eric Johnson)

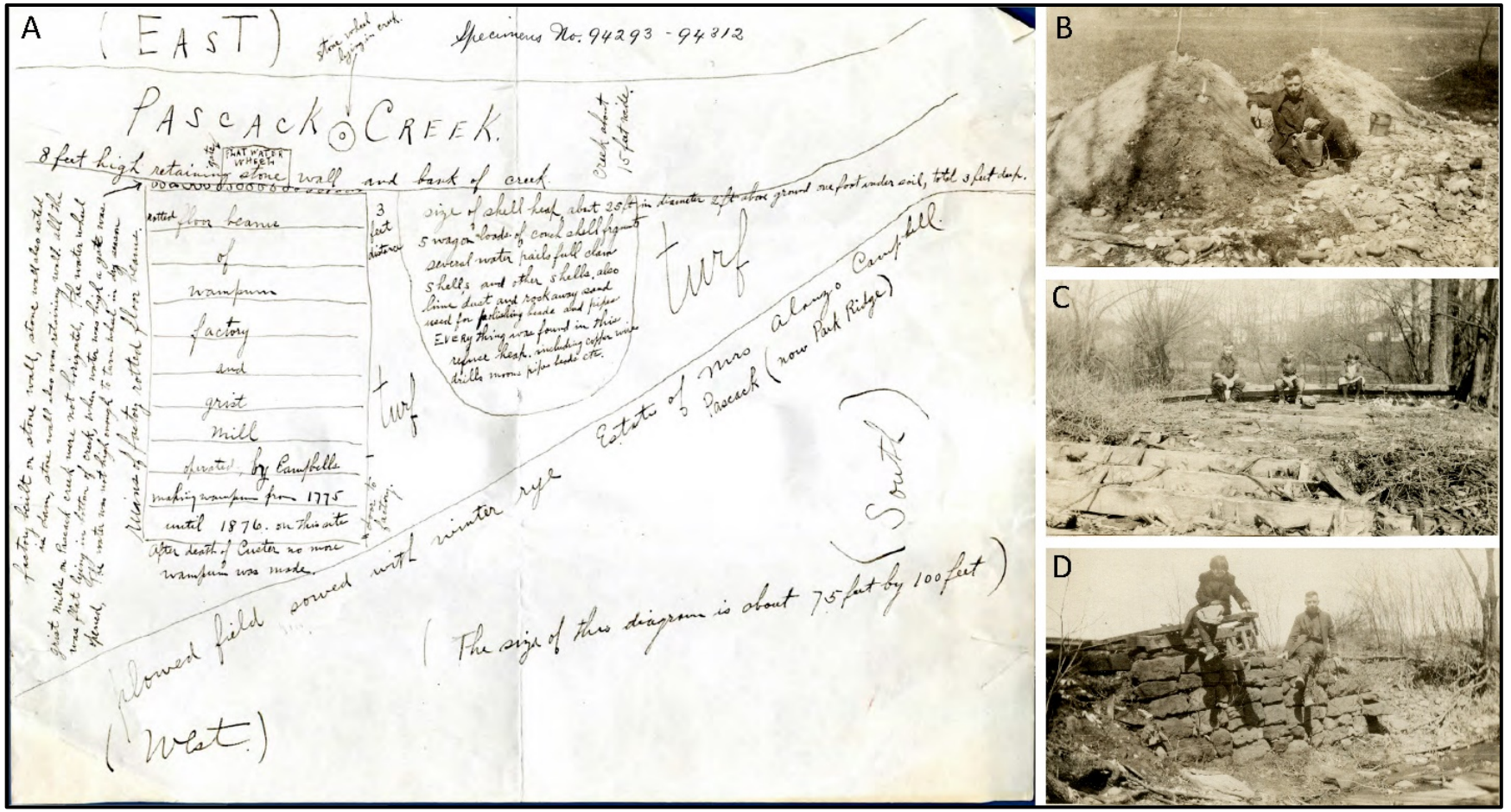

Figure 5.9: (A) Carl Schondorf's sketch map of the Campbell Factory excavation, 1924 (Accession file 24–9, Peabody Museum of Archaeology & Ethnology, Harvard University). (B) Photos of Carl F. Schondorf at Campbell Factory excavation, 1924, shell midden (PMAE, 2004.29.1145). (C) Photo of Campbell Factory floorboards, 1924 (PMAE 2004.29.1147) (D) Photo of retaining wall along Pascack Brook, 1924 (PMAE, 2004.29.1146).

5.3.2 Site Discovery and Excavation

Sometime in 1924, Carl Schondorf spent between three and six weeks excavating the Campbell Wampum Factory along the Pascack Brook in Park Ridge, New Jersey. Nearly a decade before, Schondorf had excavated the Stoltz Farm wampum site, and it appears he was tipped off to the Campbell Factory by a local school principal.[44] The research of Frances A. Westervelt, curator of the Bergen County Historical Society at the time, may have also played a role, as she had compiled information on the site beginning in 1916 (Westervelt 1924), not coincidentally, the same year of Schondorf's Stoltz Farm excavation.

In letters to Peabody Museum Director Charles Clark Willoughby, Schondorf provided a detailed account of the site structure and excavation, including a map drawn from memory as well as a series of photos of the excavation (Figure 5.9).[45] As with the Stoltz Farm excavation, Schondorf did not excavate stratigraphically or record context for objects. In contrast to the Stoltz Farm excavation, there is no record of Schondorf sieving excavation soil. As he noted,

> The shell heap that I excavated was about 20 feet in diameter and 2 to 3 feet deep. The fragments of shell were all conch with the exception of several water pails full of fragments of clam shell, and the pearly shell with perhaps a dozen fragments of half oyster shell. I doubt that anything was made from the oyster shell. I have systematically and thoroughly excavated the entire site …[46]

Schondorf later elaborated in response to Willoughby's query about the stone wall seen in the photograph:

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[44] *Paterson Morning Call*, "Carl F. Schondorf Unearths Famous Old Wampum Factory," May 7, 1924.

[45] Information here comes primarily from letters between Carl F. Schondorf and C.C. Willoughby, director of the Peabody Museum of Archaeology and Ethnology (PMAE) in 1924 (Peabody Archives UAV677.46 Box F 1924 JAN - JUNE M-Z), as well as the accession file for the Campbell Wampum Factory (Accession file 24–9, Peabody Museum of Archaeology & Ethnology, Harvard University). Transcriptions by author. UAV677.46, Office of the Director letters (copies from the Harvard University Archives), Peabody Museum of Archaeology & Ethnology, Harvard University.

[46] Carl F. Schondorf to C.C. Willoughby, June 9, 1924, UAV677.46 Box F 1924 JAN - JUNE M-Z, Office of the Director letters (copies from the Harvard University Archives), Peabody Museum of Archaeology & Ethnology, Harvard University.

> To my mind the stone wall was built as a retaining wall, also the foundation of the building on the very edge of the creek as the bank of the creek is about 8 feet high it also served as a dam in a way as when the water was high in the spring of the year, a gate was opened which I am told was what caused the turbine wheel to rotate. The water wheel was not upright or horizontal. The wheel perhaps six or eight feet in diameter lied [sic] flat under water.
>
> The center of the discharge wheel is made of stone and is now lying in the creek, about 3 feet in diameter and 8 inches thick … The stone wall is washed by the waters of the creek when high. The Eastern wall of the factory building was built on top of the stone wall as the picture shows. The building caved in twenty years ago [1904] and the rotted floor beams is all that is left. I have carefully examined and dug in around these floor beams but nothing was found, but I did find a few perfect beads digging against the stone wall inside the building part. I figure a work bench stood there and they were lost falling through the crack in the floor, as no fragments of shell are found under the floor, or around stone wall.

Portions of the caption for Schondorf's map provide further details:

> Size of shell heap about 25 ft in diameter 2 ft above ground one foot under soil, total 3 feet deep. 5 wagon loads of conch shell fragments several water pails full clam shells, and other shells, also lime dust and rockaway sand used for polishing beads and pipes everything was found in this refuse heap, including copper wire drills moons pipes beads etc. [47]

These descriptions, including the wooden floorboards, retaining wall, and shell mound, are corroborated by photographs taken of the excavation (Figure 5.9).

5.3.3 Provenience and Provenance

The Campbell family may have been making shell beads since the later 18th century, but the artifacts recovered by Schondorf in 1924 date to sometime between 1860 and 1900. The excavated structure was built in 1860 (Norton 1888, 593; Williams and Flinn 1991, 46), as confirmed by historical maps. The structure does not appear on the Dickens 1840 map of

[47] Carl F. Schondorf to C.C. Willoughby, June 14, 1924, UAV677.46 Box F 1924 JAN - JUNE M-Z, Office of the Director letters (copies from the Harvard University Archives), Peabody Museum of Archaeology & Ethnology, Harvard University.

Pascack, while it is marked on the Walker Atlas of 1876 as "Wampum Mill Campbell Bros." on A.A. Campbell's property along Pascack Brook (Figure 5.8). Historic photos from the early 20th century show the structure in a state of dilapidation (Figure 4.5). Thus, the excavation is likely located on the current property of Park Ridge High School. Given the changes in the Pascack Brook observed on historic maps, much of the site has likely eroded away. What remains is at high risk of destruction, as heavy rainfall from tropical storms or hurricanes have precipitated erosion along the brook in recent years.

As the Paterson Morning Call reported it,

> [Schondorf] gathered principally from the pile of conch shell chips beside the mill site, into which defective and rejected wampum was also thrown, some 5,000 specimens more or less imperfect which he regarded of sufficient historical interest and value to find a place for in the museum collection of the Paterson public library.[48]

No Campbell Factory artifacts are currently accounted for at the Paterson Museum (the eventual repository for Paterson Library's collections).[49] Instead, around 2,000 Campbell Factory objects are today found in various museums across the eastern United States. In June of 1924, Schondorf sold a portion of the Campbell Factory assemblage to the Peabody Museum of Archaeology and Ethnography (n=894). That same month, the New York State Museum also records a purchase of Campbell Factory material from Schondorf (n=648). The New Jersey State Museum houses objects attributed to the Campbell Factory (n=402), though detailed accession information is lacking.[50]

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[48] *Paterson Morning Call*, "Carl F. Schondorf Unearths Famous Old Wampum Factory," May 7, 1924.

[49] Schondorf admits elsewhere that "A part of this collection I shall deposit it in the Public Library Paterson." Carl F. Schondorf to C.C. Willoughby, May 30, 1924, UAV677.46 Box F 1924 JAN - JUNE M-Z, Office of the Director letters (copies from the Harvard University Archives), Peabody Museum of Archaeology & Ethnology, Harvard University.

[50] Schondorf's 1949 obituary notes that he was a member of the Archaeological Society in Trenton and that objects were donated after his death. If they were not accessioned before his death, they may have been a part of a posthumous donation. *Paterson Morning Call*, "Carl Schondorf, Archaeologist, Dies At 59," Nov. 30, 1949.

Chapter 6 and 7 now turn to the analysis and results of archaeological data. Chapter 6 performs quantitative analyses of shell bead production debris from these three sites in order to evaluate the effects of industrialization. The complexities of provenience and provenance outlined above are important to keep in mind in this analysis, especially when deriving interpretations from museum collections that have limited contextual information. Chapter 7 then examines settler capitalism's qualitative dimensions, including the lived experiences of labor and the subjectivizes of proprietors in New Jersey and urban literary commentators who visited the site from New York City.

6 EVALUATING INDUSTRIALIZATION

There are many ways that archaeological methods can shed light on shell beads, settler colonialism, the American fur trade, and Indigenous identities and politics. For example, the study of adornment objects and portraiture data suggests distributions of bead styles, adornment styles, and emergent Indigenous identities across the continent (Ewers 1957; Karklins 1992; Keagle 2013). Excavations of trading posts uncover contexts where Jersey-made beads were exchanged, revealing the quantities and diversity of goods that flowed through settler-built environments on colonial borderlands (Barbour 2001; Brown, Eccles, and Heldman 1994; DeVore 1992; Hunt 1994; Nassaney 2015; Ross 2000). Decolonizing approaches to wampum belts and beads, meanwhile, illuminate Indigenous ontologies woven into beaded objects as well as the dynamics of colonial dispossession and Native reclamation between past, present, and future (Bruchac 2016, 2018).

The present study focuses on contexts of bead production between 1770 and 1900 to better understand how the making of wampum in North America became entwined with dynamics of industrial capitalism. Archaeology provides an independent line of evidence for recovering dynamics of settler capitalism with data from excavations. The methods applied here are inspired by those from subfields of both industrial archaeology and the archaeology of craft production in non-capitalist (or "prehistoric") contexts. However, although archaeological data can be an independent line of evidence from documentary sources, it does not mean it is objective. Before discussing data and results, the theory behind these methods deserves discussion. "Technology" and "production" have never been uncontroversial or apolitical concepts.

6.1 Theory and Method in the Archaeology of Industrialization and Craft Production

On the surface, the archaeology of craft production and industrial archaeology have separate historiographies and work with radically different time periods, material cultures, and social contexts. Their differences, however, might be more superficial than they seem at first glance. Both fields have subscribed to civilizational narratives that draw from theories of production and technological change where the introduction of new forms of capital has a transformative impact on society, for good or ill. In one wing of both fields lurks the fetishization of technological capital, depending on one's commitment to certain economic, evolutionary, or technocratic political theory. On the other wing lurks a flattened critique of technology itself as a source of social inequality or environmental degradation, a modernist recasting of the fall of man. Both narratives result from a lack of attention to the social context of technological change.

In the mid-20th century, the archaeology of craft production drew from processual archaeology to break up the concept of "production" into a set of quantitative variables. These variables could them be tracked for their explanatory influence on society in comparative context. By the end of the 20th century, "society" had been a shifting target under different theoretical black boxes of varying specificity, including civilization, culture, social complexity, political economy, or the ancient state. In each case, however, the basic narrative was familiar. The archaeology of production had identified standardization (Costin and Hagstrum 1995), specialization (Clark and Parry 1990; Costin 1991), intensity and scale (Roux 2003), elite control (Arnold and Munns 1994; Brandon 1996), and commoditization (Rothman 2000) as ratcheting forces on society.

The production of shell beads for personal adornment are implicated in this narrative, typically as an example of craft specialization (Allen, Holdaway, and Fullagar 1997; Arnold 1993, 2012; Arnold and Munns 1994; Bar-Yosef Mayer 1997; Burley and Freeland 2019;

Masucci 1995; Nigra and Arnold 2013; Pearson and Cook 2012). Sometimes beads are treated explicitly as prestige goods or status symbols (Prentice 1987; Trubitt 2003) or in rarer instances as "money" (Gamble 2020). Most notably, Jeanne Arnold (1993) developed methods for measuring standardization, specialization, and organization of production of shell beads to argue that changes in production played a key role in the emergence of new kinds of social inequality in Southern California. These approaches embraced elements of sociocultural-evolutionary archaeology (D'Altroy and Earle 1985; Johnson and Earle 2000) that borrowed explanatory variables from substantivist economic anthropology and political economy for theories of state formation (Chayanov 1966; Polanyi, Arensberg, and Pearson 1957; Sahlins 1963, 1972).

The turn of the 21st century saw greater theoretical diversification in the archaeology of craft production (Hruby and Flad 2007). Approaches that warned against econometric reductionism in the study of technology had long existed (Gell 1992; Lechtman 1977, 1993; Lemonnier 1986), but their purchase grew after the rise of post-processual archaeology. Despite the greater diversity of contemporary approaches to craft production, basic methods for assessing production variables remain intact today, including quantitative assessments of standardization, specialization, intensity and scale, centralization, and other variables.

Meanwhile, the field of industrial archaeology emerged in the UK and North America as a relatively marginal subdiscipline. It was born in the crucible of a post-war preservationist ethos: "Following World War II with the loss of empire … many in Britain sought to celebrate the nation's leading role in the industrial revolution by investigating and, in selective cases, preserving the physical remains of Britain's early industry and transportation systems. In the best British tradition, industrial archaeology sprang from groups of amateurs interested in specific local industries" (Kemp 1996a, 2–3). Initially more aligned with the history of technology than

with anthropology, industrial archaeology examined 19th and 20th century capitalist infrastructure, engineering, and technologies from the perspective of its material remains (Gordon and Malone 1994; Kemp 1996b; Palmer and Neaverson 1998). Many methods were imported from directly from mainstream archaeology, including typology, archaeometry, contextual interpretation, ecological methods, photogrammetry, and remote sensing.

Just as industrial archaeology came of age in the academy, the history of technology had become increasingly critical and interdisciplinary. Some industrial archaeologists followed suit. Robert Gordon, a founding figure in North American academic industrial archaeology, recognized the ideological shadows cast over the historical record of industrialization. He saw archaeology as an antidote to documentary bias and treated technological discourse (or "mechanical ideals") separate from "mechanical reality." In this framework, documents expressed "ideals" while material remains evidenced "reality." In one study, Gordon compared discourse on interchangeability—the desire for interchangeable parts between standardized products—to metrics of increasing standardization in 19th-century small arms production in New England; instead of a smooth transition to deskilled labor described by early champions of technology, he found that the importance of skilled artisans was in fact crucial to the realization of interchangeable and standardized gun components (Gordon 1988).

By the 1990s, industrial archaeology was critiqued from within and without alongside the emergence of historical archaeology. Critics argued that industrial archaeology tended to leave capitalism, power, and identity unacknowledged (Mrozowski 2006), risking fetishiziation of technological progress (Pfaffenberger 1992). At the same time that historical archaeologies of consumption and identity flourished at the turn of the 21st century (see Chapter 2), the archaeology of industrialization became more "social" by adopting a landscape approach

(Lefebvre 1991; Smith 2003), moving beyond machines and technologies to the study of the "lived experience" of factory floors, mines, and company towns (Casella 2005; Cowie 2011) as well as working class resistance to capital (Larkin and McGuire 2009; McGuire 1992). I draw from this approach in Chapter 7, shedding light on the lived experience of labor through gendered, classed, and racial identities (Delle, Mrozowski, and Paynter 2000). For example, the shift from proto-industrial to industrial production (Goody 1982) must also be understood in terms of power, gender, and changing Victorian ideologies related to women's work (Blewett 1987; Schneider 1989) and racial capitalism (Douyard 2014; Voss 2018).

However, in the shift to industrial landscapes and consumer identities, analysis of production itself in historical archaeology has become relatively marginal. Application of archaeological methods to gristmill technologies, hydraulic engineering logic of canal construction, or gage typologies are more likely to be found in technical reports and preservationist documents than core texts in academic historical archaeology. Otherwise, these subjects are picked up critically in histories of science and technology.

The study of 19th century wampum factories is an opportunity to rejoin critical histories of technology with methods developed in the archaeology of craft production, specifically those that can be directly imported from analysis of shell bead production (Arnold 1993; Arnold and Munns 1994). Returning to Gordon's analysis of interchangeability of 19th century gun components, his study measured decreasing "average deviations" in tumblers for gun locks between 1800 and 1880, citing the classic *Lithic Use-Wear Analysis* (Hayden 1979) for inspiration (Gordon 1988, 748). A similar move is proposed here in the study of the Campbells' wampum drilling machine.

I draw from studies that acknowledge the social dimensions of technology and labor management in archaeological (Lemonnier 1986), anthropological (Gell 1992; Martin 1998; Schiffer 2001), and historical (Hounshell 1984) perspective. Ideals about waste, efficiency, and technological change are critically examined in Chapter 7 as culturally situated, white-settler discourse of the 19th century United States rather than concepts for a unified theory of production and society across human history. In other words, I apply methods from "prehistoric" approaches to production here not for the theoretical project of cross-cultural sociocultural evolution but to examine historically specific dynamics of industrial capitalism and settler colonialism.

6.2 **Data Summary**

As outlined in Chapter 5, Stoltz Farm (1770–1830) and the Campbell Factory (1850–1900) were both excavated in the early 20th century. They date to two different time periods and exemplify different types of production governed by different technologies, raw materials, organization of production, and scale. While contextual information is lacking from Stoltz Farm, it is best categorized as a pre-industrial, specialized wampum workshop. No domestic artifacts are included in museum collections from the site, suggesting it may have been set apart from the household space itself, though this cannot be said with certainty. The David Campbell House, excavated in 2019 and 2020 as part of the Pascack Valley Archaeological Survey, is an intermediary site both because of its date (1812–1844) and due to its direct kinship ties to the eventual Campbell Factory. Based on worked shell's proximity to historic architecture and the presence of domestic artifacts at the site, it is best categorized as a household-based, pre-industrial shell bead workshop. Museum collections from the Campbell Factory include both archaeological objects and those that were collected ethnographically from the Pascack Valley in the late-19th and early-20th century. As an independent structure set apart from residential space, it is best categorized as a specialized industrial shell bead workshop, including water-powered

grinding wheels and hand-cranked drilling machines. The site abbreviations SF (Stoltz Farm), DCH (David Campbell House), and CF (Campbell Factory) are used as shorthand below. Common names of mollusk shell are used to refer to *Mercenaria mercenaria* (quahog), *Lobatus gigas* (conch), *Busycotypus canaliculatus* or *Busycon carica* (whelk), and *Haliotis* (abalone) (see Chapter 3 for more detailed descriptions of mollusk shell taxa).

6.2.1 Data classification

The following is an analysis of shell bead production debris from three sites collated into a single database. The term "production debris" here refers to all worked shell objects found in production contexts, whether debitage, blanks, finished or unfinished products. Following previous shell bead production debris analyses in North America (Arnold and Munns 1994; Peña 1990), all objects were given a class (or type of production debris), style and color (inferred from finished products), stage of production (inferred from historical documents and artifact analysis), and taxa. The following variables were then measured where present: weight, length, maximum and minimum thickness, bore diameter, and presence or absence of attributes along sequences of production. All objects were analyzed in this way, apart from SF debris classed as debitage (n=8,614). All SF debitage was weighed, but due to time constraints and the size of the category, one third of SF debitage was randomly sampled for lengths, widths, and thicknesses (n=2,921).

Classes of objects include debitage (discarded pieces of worked shell formed from reduction techniques), wasters (objects broken or otherwise "failed" at a stage of production), in-production (beads that show no evidence of major imperfections at a certain stage of production), blanks (unbroken but undrilled beads, a sub-class of in-production), or finished beads (objects matching beads found in consumption contexts). Each of these suggests different modes of deposition, either as routine production debris or unintended loss. Wasters, for instance, are assumed to be discarded as a "mistake" along a certain stage of production, while debitage is

assumed to represent routine reduction waste. Finished or in-production objects are assumed to be unintentionally deposited, or in some cases failing to meet standards of desirable finished products.

Styles include Late Wampum (white or purple), Campbell Wampum (white or purple), hair pipes, moons, and mother of pearl (Figure 3.1). *Sides* were determined by the number of distinguishable flat, lengthwise faces resulting from lateral grinding or trimming; resulting shapes include rectangular or octagonal prisms. Objects broken lengthwise were marked *split*. *Cuts* are defined as the number of faces resulting from vertical clipping or grinding in preparation for drilling. Degrees of *grinding* were inferred from the smoothness or polished quality of objects between, for instance, an octagonal prism and a cylinder shape. The attribute "grinding" does not intend to connote a specific method of creating a smooth bead surface. While some accounts describe the use of grinding wheels, for instance, others mention polishing with sand. For hair pipes and wampum, "partial grinding" was determined by visual inspection depending on whether sides were partially smoothed, while "fully ground" denotes final polishing.

Stages of production were reconstructed based on the degree of corroboration between historical accounts (Barber and Howe 1846, 72–73; Orchard 1929, 67–74), previous studies (Peña 1990, 2001), and inference from the presence or absence of the above attributes recorded on different classes of artifacts (a method also known as *chaîne opératoire* or operational sequence analysis). The basic stages of all shell beads were divided into I) cutting from the shell, II) reduction to a prism (typically rectangular or octagonal prism), III) drilling, IV) and final polishing (Table, see Chapter 3).

Determining classes and stages of production is subjective, inferred by the author from textual sources that describe the production sequence as well as inference from finished products. For wampum debris, distinguishing between Stage I and II debitage was not always possible. Distinguishing between debitage and wasters at Stage I was also difficult. In cases of uncertainty, objects were conservatively classed as Stage I debitage with the assumption that the majority of debitage was created from initial stages of shell reduction.

Figure 6.2: Examples of worked shell from David Campbell House. (A) Conch, Stage I debitage from EU4 [139]. (B) Quahog shell, Stage I debitage from EU4 [139]. (C) Left: conch stage II, in production; blank. Right: conch stage III, in production from EU2 [127]; drilled white wampum bead, possible waster.

Figure 6.1: Examples of worked quahog from Stoltz Farm. Paterson Museum, Paterson, New Jersey. Photos by Eric Johnson. (A) Top row: mix of Stage I and II in production and debitage. Bottom row: mix of Stage II and III in production, debitage, and wasters. (B) Split stage III waster drilled from both ends.

Figure 6.3: Examples of worked conch shell from Campbell Factory assemblage. (A) PMAE 94298. Conch shell "cores," including spire and moon shape cut out from inner whorl. (B) PMAE 94309. Moon in production, Stage I; cut from shell, no evidence of grinding on back and edge. (C) PMAE 94299. Mix of Hair Pipe in production and debitage, Stage I; cut from shell, no evidence of grinding. (D) PMAE 94301. Hair Pipe wasters, Stage II.A-C; 4–8 sides, broken, no evidence of polishing. (E) PMAE 94303. Hair Pipe wasters, Stage III; preliminary grinding, broken in drilling stage. (D) PMAE 94302. Hair Pipes in production, Stage II.D; blanks, initial grinding, no drilling.

Objects classed as Stage II wampum debitage were those too thin to be "in production" but were within a centimeter of length and width to suggest reduction at Stage II rather than Stage I (Figures 6.1–3). Stage III wampum objects were those that showed evidence of drilling but lacked a final polished exterior. Stage IV wampum objects were those that were fully drilled but only partially smoothed.

Hair pipe stage/class categorization was similar to wampum. Subtle sub-stages were observed on hair pipes, including objects that had four sides (II.A), those that had five to seven sides (Stage II.B), those that had eight or more sides (II.C), and those that had been partially smoothed before any drilling took place (Stage II.D).

For moons, evidence of grinding was observed on the convex side of the object ("ground back," Stage II) as well as the outer rim ("ground edge," Stage III). Very little information is available on the production of mother-of-pearl pendants, also known as "silvers" (n=67). Stages were inferred, though sample sizes are too low to suggest with confidence.

I modified Storch's (1987) four-tiered shell preservation ranking for the purposes of analyzing worked shell from all three sites. Preservation of assemblages was ranked as:

(1) *Excellent*: not powdery, stable wet and dry, worked attributes (edges, sides, cuts, angles, or drill marks) are easily distinguishable.

(2) *Good*: exterior surfaces slightly powdery, stable wet and dry, most worked attributes are distinguishable, subtle attributes are difficult to distinguish.

(3) *Fair*: exterior surfaces are powdery, striations are obliterated on surface, flakes or crumbles to the touch, worked attributes are difficult to distinguish.

(4) *Poor*: flaking, crumbling, soft, unstable wet or dry, worked attributes are not distinguishable.

Most shell at SF was assessed as *excellent* with a minority of pieces—primarily debitage—verging on *good*. All material from the CF was ranked as *excellent*. Morphological elements of worked shell were readily identifiable at both these sites. At DCH, most shell was ranked as

good with a minority ranked as *fair*. Morphological elements such as sides, cuts, and drill marks were sometimes difficult to observe on DCH material. Degree of grinding (inferred from smoothed exterior of objects from SF and CF) was not possible to determine at the DCH. As such, later stages of production may be underrepresented in the data due to loss from shell degradation.

6.2.2 Data summary

In total, 14,134 shell objects were analyzed from the three sites, comprising just over 40 kilograms of material. Unmodified whole shells (n=18) were not included in final analyses, leaving 14,116 objects or 35.16 kg of worked shell debris. 487 objects from CF were strung; lengths and thicknesses of individual strung objects were collected, but weights were not collected individually. As a result, strung objects are excluded from analyses based on individual weights. The dataset was also filtered by collection type (ethnographic vs. archaeological) depending on the analysis. 362 objects from CF were collected ethnographically (see Chapter 5), some of which were also strung. Ethnographic objects disproportionately feature later stages of production and finished products, providing important information on style statistics (weights, lengths, thicknesses, drill diameters of different styles). Ethnographic objects were excluded from analyses that characterize ratios of production debris deposited in situ at each site (archaeological dataset: n=13,267, 31.41 kg). Unless otherwise noted, strung and ethnographic objects were excluded from summaries below.

6.2.2.1 Taxa / Raw Material

Table 6.1 outlines weights and counts of different shell taxa observed at each site for all production debris. SF is comprised entirely of quahog debris. By count, DCH yielded 11.5% quahog and 88.5% conch. Conch is the largest category of shell taxa by weight CF (87.4%)

followed by quahog (4.0%) with small percentages of whelk (2.9%), abalone (3.0%) and indeterminate taxa (2.6%). Most indeterminate taxa were those that were too difficult to distinguish between whelk and conch.

By count, SF comprises 66% of the total analyzed material. By weight, however, it makes up only 9.6%. This may be explained by the fact SF soil was sieved while there is no record of sieving at CF (see Chapter 5). Discrepancies between weight and count are also consistent with the fact that conch was used at DCH and CF but not at SF. Both explanations are supported by the data. Average weights of production debris are higher at CF, regardless of taxa, and average weights of conch are higher than quahog, regardless of the site (Table 6.1). Additionally, differing production techniques or styles may have yielded different sizes of worked shell.

TABLE 6.1: SHELL BEAD PRODUCTION DEBRIS BY TAXA

SITE	Count		Weight (g)		Average (g)
Campbell Factory*	**2182**		**16074.13**		**7.37**
Haliotis (Abalone)	19	0.9%	279.22	1.7%	14.70
Busycon (Whelk)	65	3.0%	618.04	3.8%	9.51
Lobatus gigas (Conch)	1950	89.4%	14250.32	88.7%	7.32
Mercenaria mercenaria (Quahog)	89	4.1%	468.55	2.9%	5.26
Unknown	59	2.7%	458.00	2.8%	7.76
David Campbell House	**2262**		**12445.38**		**5.51**
Lobatus gigas (Conch)	2003	88.5%	11996.43	96.4%	6.00
Mercenaria mercenaria (Quahog)	259	11.5%	448.95	3.6%	1.73
Stoltz Farm	**8823**		**2892.12**		**.33**
Mercenaria mercenaria (Quahog)	8823	100%	2892.12	100%	.33
TOTAL	**13629**		**35140.45**		**2.58**

*Excluding strung objects and ethnographic objects

6.2.2.2 Styles

Styles observed at the three sites include Late Wampum and Campbell Wampum (in either purple or white colors), hair pipes, moons, and mother-of-pearl pendants (see Chapter 3). Purple wampum types are made exclusively form quahog, while white wampum types are made

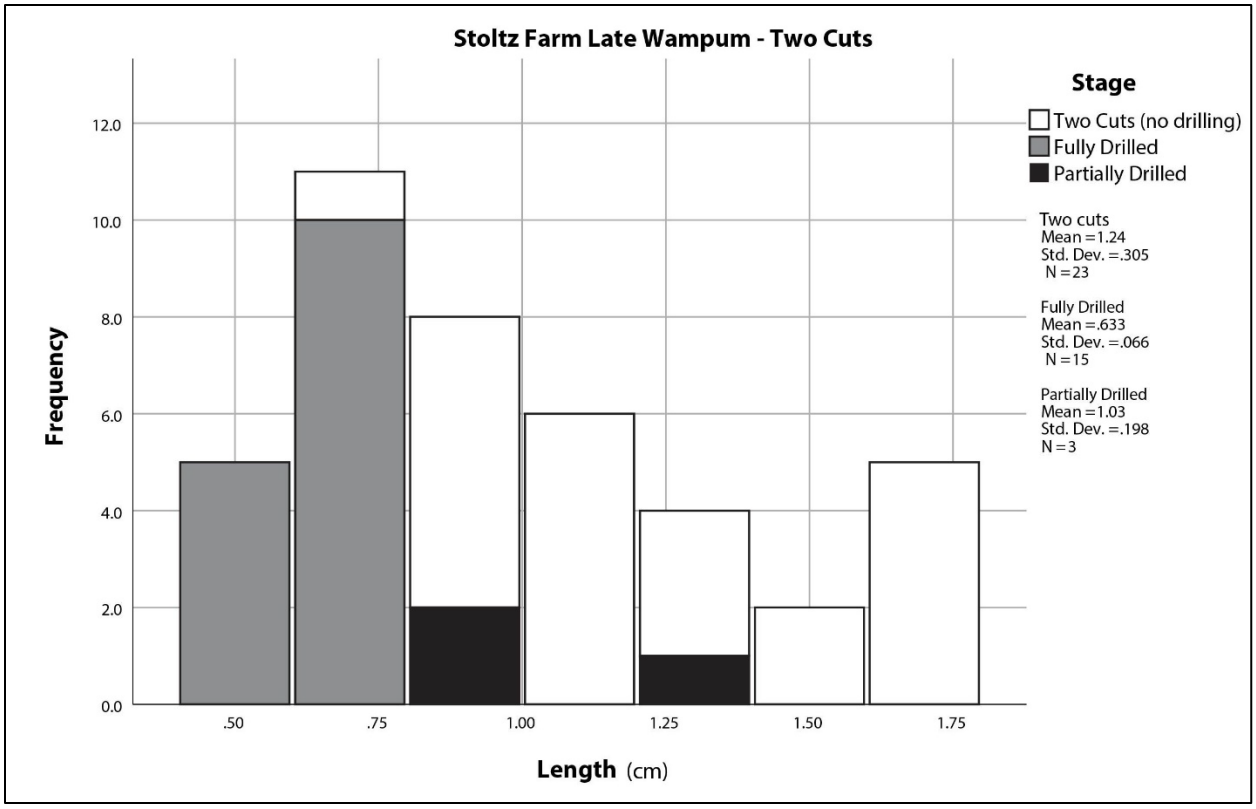

Figure 6.4: Stacked histogram of Late Wampum lengths with two cuts at Stoltz Farm.

from conch, whelk, and the whiter portions of quahog shell (as observed at SF). Hair pipes and moons are made exclusively from conch, and mother-of-pearl pendants are made exclusively from abalone. These styles were inferred by comparing taxa and morphological attributes of worked shell to finished objects found in contexts of consumption.

The entirety of SF is Late Wampum production debris. Lengths of wampum objects with two cuts from SF (primarily blanks and split wasters) range from .50 to 1.73 cm (n=41, $\bar{x}$=1.00, SD=.372). Their distribution follows a slightly skewed normal curve with an uptick in objects that are nearly twice as long as the average (Figure 6.4). This might suggest a small percentage of Campbell Wampum being produced at SF (which is ¼ inch longer than Late Wampum) or an unknown substyle of intermediary length. However, one split object measuring 1.5 cm long with two drill marks on either side and an indentation in the middle (Figure 6.1.B) suggests its preparation to be cut in half after drilling. Of objects with two cuts from SF, beads that are fully

drilled (n=15) are .63 cm on average (SD=.06). Despite the small sample size, this average is precisely the ¼ inch average reported most recently by Bruchac (2018, 59) for wampum [51] and within a millimeter of average Late Wampum lengths analyzed by Peña (2001, 169). Their normal distribution suggests no clear attempt to produce wampum of varying lengths.

DCH produced very few objects with morphologically diagnostic bead-style attributes. That said, there is no evidence that hair pipes or moons were produced at the site, even though these styles were in circulation at the time. Evidence of purple and white wampum production is inferred based on taxa and production debris morphology. Whether this wampum at DCH is better classified as Late Wampum or Campbell Wampum is difficult to determine. The site produced one fully drilled white wampum object (Figure 6.2.C) measuring .92 cm in length, comfortably within the range of both Late Wampum at SF and finished Campbell Wampum at CF reported here and by Orchard (1929, 68).

Only 5.3% by weight of CF assemblage is comprised of Campbell Wampum debris (n=175, $\bar{x}$ =6.24 g) (Table 6.2). This could be due to the possibility that wampum production with quahog shell generates less material by weight and a higher ratio of smaller-sized debitage. As such, the small percent of wampum debris would be the result of the excavator's lack of sieving at CF. A low percent of wampum debris may also be explained by the decline in access to mature quahogs after 1830 or by the possibility that most Campbell Wampum production took place in other locations.

Mother-of-pearl production debris, represented by abalone, was present at CF but relatively rare (4.5% by weight). The largest two style categories—hair pipes (57.8%) and moons (25.5%)—were made from conch shells. Lengths of Campbell Wampum objects with two cuts

[51] Bruchac does not distinguish between Classic and Late Wampum.

(including ethnographic and strung objects) are normally distributed with an average length of just over 1/2 inch (1.42 cm, n=587, SD = .393) (Figure 6.5), well within the 1/2–7/8 inch range of variation reported by Orchard (1929, 68) for Campbell Wampum. In other words, Campbell Wampum produced at CF is ¼ inch longer than Stoltz Farm Late Wampum.

TABLE 6.2: SHELL BEAD PRODUCTION DEBRIS BY STYLE

	Count		Weight (g)		AVE (g)
Campbell Factory*	**2182**		**16074.13**		**7.37**
Hair-pipe	1796	82.3%	9295.32	57.8%	5.18
Campbell Wampum	175	5.5%	1092.52	5.3%	6.24
Moon	120	5.5%	4102.35	25.5%	34.19
Mother of Pearl	67	3.1%	725.11	4.5%	10.82
Unknown	24	1.1%	858.83	5.3%	35.78
David Campbell House	**2262**		**12445.38**		**5.51**
Unknown**	1993	88.1%	11902.53	95.6%	5.98
Wampum	269	11.9%	542.85	4.4%	2.03
Stoltz Farm	**8823**		**2892.12**		**0.33**
Late Wampum	8823	100%	2892.12	100%	0.33
Total	**13629**		**35140.45**		**2.58**

*Excluding strung objects (n=487) and ethnographic objects (n=362).
**Unknown styles at DCH are most likely white wampum production from conch shell given a lack of evidence for other bead styles at the site.

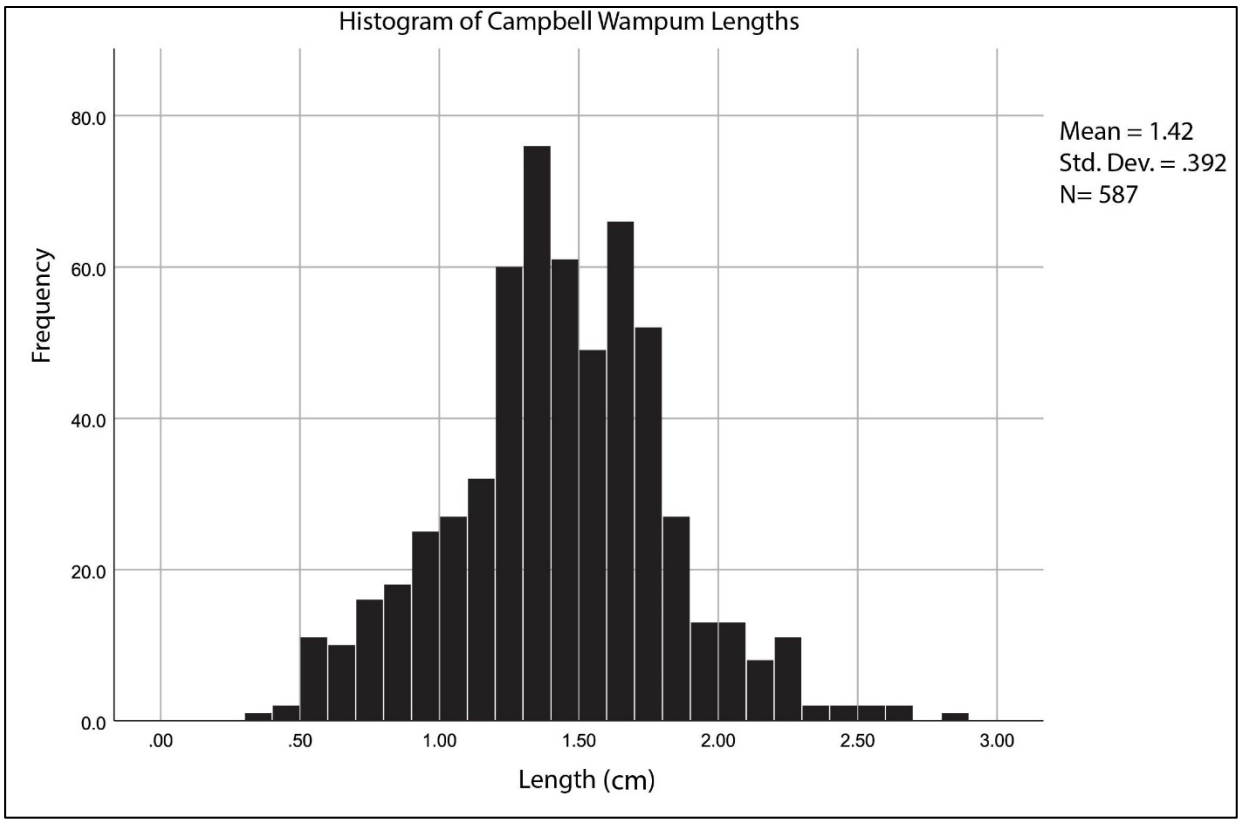

Figure 6.5: Histogram of Campbell Wampum lengths, including ethnographic and archaeological datasets (see Table 6.5).

6.2.2.3 Stage and Class

Table 6.3 presents counts and weights of different stages and classes of wampum production debris (excluding finished objects) from SF, DCH, and CF for comparison. While a large portion of DCH conch shell was originally classed as an "unknown" style, there is no evidence for bead styles other than wampum at the site. Thus, in the presentation of data below it is assumed that the entirety of DCH worked shell is wampum production of either Late or Campbell varieties.

Stage I debitage is the largest stage/class category of material at SF, comprising 84.1% by count (Table 6.3). A similar ratio is found at DCH by count (83.3%); this ratio increases at DCH when accounting for weight (96.5%). Differences between Stage I weight and count percentages at SF and the DCH might be explained by the fact that the majority of DCH is conch shell, while

the entirety of SF wampum was made from quahog. The CF assemblage produced an order of magnitude less wampum debris (n=165) than SF and DCH and therefore any comparisons of wampum production debris should be made with caution. It was also difficult to distinguish white wampum from hair-pipe and moon production at early stages of production, given that different styles could have been produced from a single shell. Despite these caveats, ratios of wampum Stage I, II, and III at CF are similar to SF and DCH.

In summary, ratios of classes and stages of wampum production at the three sites did not differ significantly, particularly by count. Minor differences in weight ratios between SF relative to DCH and CF may be explained by different taxa used to create wampum, as conch shell debitage is heavier on average than quahog in earlier stages of production.

Table 6.4 details hair-pipe and moon production stages and classes at CF. Both styles were made from conch shell. Based on examination of conch cores (Figure 6.3.A) it is likely that both styles were made from the same shell, as moons could be cut from thinner inner whorls while hair pipes appear to have been cut from the thicker outermost whorl of the shell. Given this, the conch-shell Stage I debitage category does not distinguish between bead styles and is doubled in Table 6.4 between hair pipes and moons.

While hair pipes are longer and thicker than wampum and have a slightly different morphology, they are both tubular beads that follow the same basic production logic. As such, comparison between stage/class categories of hair pipes and wampum is illustrative. Comparing wampum and hair-pipe production debris (Table 6.3 vs. 6.4), CF Stage II hair-pipe debris is a much larger percentage by both count at weight relative to wampum Stage II at all sites.

Larger percentages of Stage II hair-pipe debris may be due to the more diagnostic characteristics of Stage II hair-pipe debris relative to wampum Stage II. For example,

distinguishing between Stage I and II at DCH was difficult due to the poorer preservation of shell from the site, perhaps leading to an overrepresentation of Stage I. However, preservation at SF was excellent, and Stage II debris was readily identifiable. Alternatively, higher Stage II hair-pipe percentages could result from the excavator disproportionately sampling later stages of production at CF. However, this possibility might predict similarly skewed ratios of wampum production from CF, which does not appear to be the case (Table 6.3). Instead, these varying ratios may be the result of differing technologies, production sequences, or organization of production used to create different styles of bead at CF. The significance of differing ratios of debitage and wasters from different stages at each site is discussed in greater detail below.

TABLE 6.3: WAMPUM PRDOUCTION DEBRIS BY STAGE AND CLASS*												
	STOLTZ FARM				DAVID CAMPBELL HOUSE				CAMPBELL FACTORY			
	Count		Weight		Count		Weight		Count		Weight	
STAGE I: Cut from shell	**7366**	**83.5%**	**2514.40**	**87.0%**	**1958**	**86.6%**	**12009.71**	**96.5%**	**143**	**86.7%**	**1069.93**	**98.3%**
Debitage / Unknown	7333	83.1%	2433.12	84.1%	1884	83.3%	10767.96	86.5%	79	47.9%	436.27	40.1%
In Production	33	0.4%	81.28	2.8%	74	3.3%	1241.78	10.0%	64	38.8%	633.66	58.2%
STAGE II: Red. to prism	**1155**	**13.0%**	**318.34**	**11.0%**	**299**	**13.2%**	**430.97**	**3.5%**	**17**	**10.3%**	**16.04**	**1.5%**
Debitage	1045	11.8%	237.59	8.2%	196	8.7%	217.04	1.7%	1	0.6%	1.55	0.1%
In Production	110	1.3%	80.75	2.8%	103	4.6%	213.93	1.7%	13	7.9%	12.12	1.1%
Waster									3	1.8%	2.37	0.2%
STAGE III: Drilling	**289**	**3.3%**	**58.40**	**2.0%**	**5**	**0.2%**	**4.67**	**0.04%**	**1**	**0.6%**	**0.49**	**0.05%**
Debitage	236	2.7%	50.35	1.7%								
In Production	3	0.03%	1.11	0.04%	3	0.1%	1.34	0.01%				
Waster	50	0.6%	6.94	0.2%	2	0.1%	3.33	0.03%	1	0.6%	0.49	0.05%
STAGE IV: Final polishing	**13**	**0.2%**	**0.98**	**0.03%**	**0**	**0.0%**	**0.00**	**0.0%**	**4**	**2.4%**	**1.85**	**0.2%**
In Production									3	1.8%	1.55	0.1%
Waster	13	0.2%	0.98	0.03%					1	0.6%	0.3	0.03%
Debitage Subtotal	8614	97.6%	2721.06	94.1%	2080	92.0%	10985	88.3%	80	48.5%	437.82	40.2%
In Production Subtotal	146	1.7%	163.14	5.6%	180	8.0%	1457.05	11.7%	80	48.5%	647.33	59.5%
Waster Subtotal	63	0.7%	7.92	0.3%	2	0.1%	3.33	0.03%	5	3.0%	3.16	0.3%
GRAND TOTAL	**8823**		**2892.12**		**2262**		**12445.38**		**165**		**1088.31**	
*SF is entirely quahog, DCH is conch (88%) and quahog (12%) by count, and CF wampum is quahog (51%), whelk (36%), conch (9%), and indeterminate (5%) by count.												

TABLE 6.4: HAIR PIPE AND MOON PRODUCTION DEBRS BY STAGE AND CLASS AT THE CAMPBELL FACTORY

HAIR PIPES				
	Count		Weight	
Stage I: Cut from shell	**51**	**2.9%**	**1986.45**	**19.7%**
Debitage*	21	1.2%	947.41	9.4%
In Production	30	1.7%	1039.04	10.3%
Stage II: Reduced to prism	**1472**	**82.8%**	**7631.90**	**75.5%**
Debitage	1055	59.3%	5334.39	52.8%
In Production	160	9.0%	983.38	9.7%
Waster	257	14.5%	1314.13	13.0%
Stage III: Drilling	**116**	**6.5%**	**263.02**	**2.6%**
Debitage	14	0.8%	23.60	0.2%
In Production	7	0.4%	17.20	0.2%
Waster	95	5.3%	222.22	2.2%
Stage IV: Final Polishing	**139**	**7.8%**	**226.52**	**2.2%**
Waster	139	7.8%	226.52	2.2%
TOTAL	**1778**		**10107.89**	
MOONS				
	Count		Weight	
Stage I: Cut from shell	**89**	**63.6%**	**4267.58**	**86.0%**
Debitage*	21	15.0%	947.41	19.1%
In Production	42	30.0%	1992.48	40.1%
Waster	26	18.6%	1327.69	26.8%
Stage II: Ground Back	**13**	**9.3%**	**382.23**	**7.7%**
Debitage	1	0.7%	0.55	0.0%
In Production	1	0.7%	33.99	0.7%
Waster	11	7.9%	347.69	7.0%
Stage III: Ground Edge	**35**	**25.0%**	**295.98**	**6.0%**
In Production	7	5.0%	62.47	1.3%
Waster	28	20.0%	233.51	4.7%
Stage IV: Drilling	**3**	**2.1%**	**16.95**	**0.3%**
Waster	3	2.1%	16.95	0.3%
TOTAL	**140**		**4962.74**	

*Totals of Stage I debitage of hair pipes and moons are the same, as both styles are made from the same shell (*Lobatus gigas*).

6.3 **Data Analysis**

The following analyses were conducted to evaluate shell bead industrialization in northern New Jersey. Are there patterns in the size of bore diameters, either between sites/time periods, by size of bead, or by style? Can bead substyles be determined from the data based on lengths? If so, what is the degree of standardization of substyles? Is there a way to quantitatively

assess the rate or scale of bead production at each site? Finally, did the invention of the drilling machine used at the Campbell Factory decrease the risk involved in drilling beads, as suggested by documentary sources?

6.3.1 Bore diameters and drill sizes

Are there patterns in the size of bore diameters, either between sites/time periods, by size of bead, or by style? Based on an independent-samples t-test, CF bore diameters are on average .96 mm larger than SF diameters: $t(685.41) = 29.86$, $p < 001$. This might suggest that the later site used larger drills. However, the pattern is more driven by style of bead than by site or period. Hair-pipe bore diameters are .97 mm wider than wampum, regardless of the site: $t(570.38) = 42.89$, $p < .001$.

Isolating Campbell Wampum (n=575) from SF Late Wampum (n=51), bore diameters from the CF are only .25 mm larger than SF: $t(316.1) = 10.21$; $p < .001$. This difference, while statistically significant, is quite subtle (.02 inches), making it difficult to argue that CF Campbell Wampum drill size or techniques differed significantly than Stoltz Farm.

Regression analysis suggests there are no strong correlations at the Campbell Factory between hair-pipe length and bore diameter ($R^2 = .007$, $p < .001$) or between max thickness and bore diameter ($R^2 = .099$, $p = .003$), suggesting drill size or technique was not altered based on the size (length or thickness) of the bead.

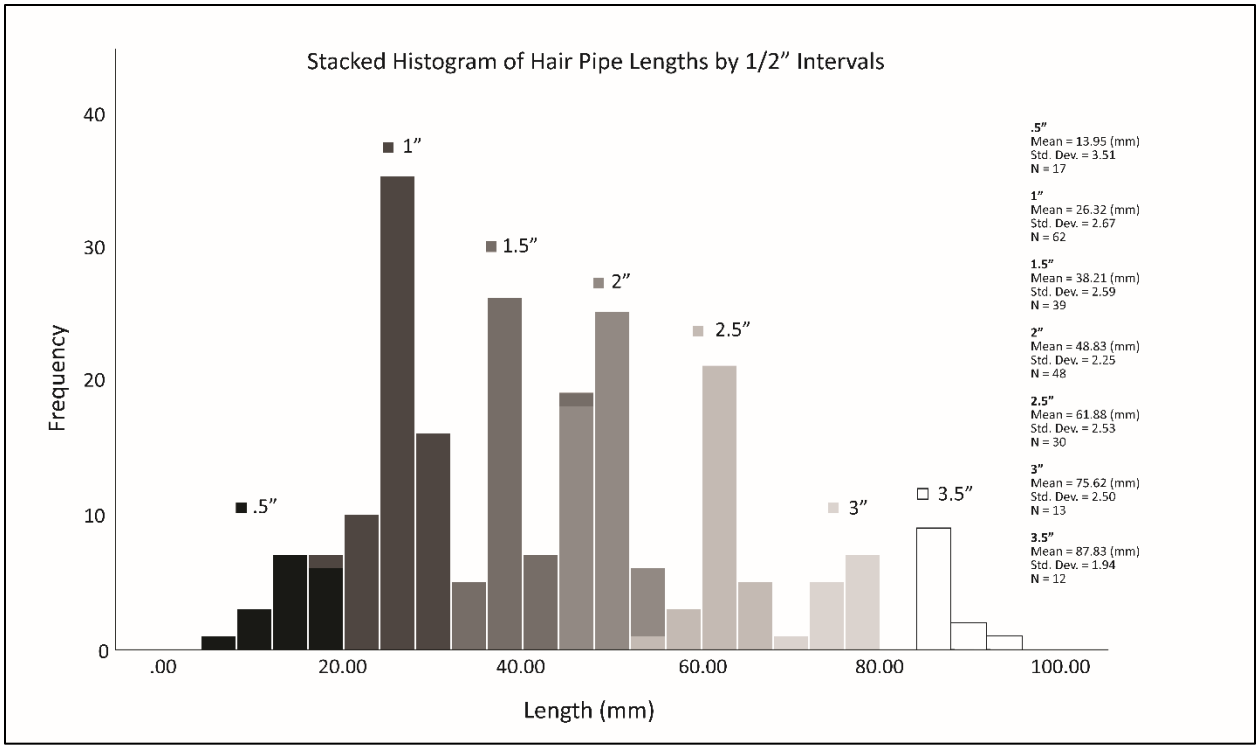

Figure 6.6: Stacked histogram of hair pipe lengths by substyle at the Campbell Factory (see Table 6.5).

6.3.2 Style subtypes and standardization

Standardization in archaeological analysis typically refers to the relative homogeneity of finished products and/or production sequences. From here, making sense of the variable requires a careful contextual approach. Any assessment of standardization must take intended substyles into account. Unlike wampum production at SF and DCH, CF reveals a greater diversity of shell taxa and bead styles, as noted above. Going further, hair pipes and moons at CF were made in a variety of sizes. Documentary records suggest that hair pipes were requested in lengths ranging between 1.5 and 6 inches (Ewers 1957, 45). A histogram of hair-pipe lengths from blanks and objects with two cuts (n=221) reveals a clear "sawtooth" pattern (Figure 6.6), suggesting the CF assemblage contains debris from at least seven lengths of hair pipe.

Coefficients of variation (or CV values) were calculated for lengths of bead styles and substyles. Coefficients of variation are calculated simply by dividing the standard deviation by

the mean to compare relative homogeneity of datasets with differing sizes, means, and standard deviations. Sometimes expressed as a percentage, CV values derived from archaeological contexts are only meaningful in comparative context, as addressed in the discussion section below. Lower CV values represent greater standardization, but there is no universal threshold for a "standardized" vs. "unstandardized" product.

Table 6.5 presents CV values for shell bead style lengths at three sites between 1750 and 1900. DCH is excluded from standardization analysis below because it yielded only one fully drilled object. Data from the Albany Almshouse, a mid-18th century Euro-American wampum production site (see Chapter 4), is derived from Peña (2001, 169). The Albany Almshouse yielded 22 finished beads. The Campbell Factory yielded 10 finished beads from archaeological contexts and 524 beads collected ethnographically in the 19th century. Stoltz Farm yielded no finished beads; lengths for CV values were instead drawn from 15 fully drilled objects with two cuts (primarily split objects in Stage III and IV of production). CV values for hair-pipe lengths were similarly drawn from objects with two cuts including split wasters, blanks, and finished beads. Given this, standardization metrics for Stoltz Farm Late Wampum and Campbell Factory hair pipes may be an underestimation if objects were shortened in final stages of production (though there is no evidence for this practice historically or archaeologically). In some cases, CV values could be an underestimation of standardization; even objects categorized as "finished" due to their morphological attributes may have been deposited at the site because of their deviation from an ideal length.

CV values for hair-pipe data split into ½-inch intervals reveal highly standardized products between 1 and 3.5 inches (Table 6.5). Ethnographically-collected hair pipes from the Campbell Factory (not included in Table 6.5) also reveal ½-inch intervals between 4.0 in. (n=3),

4.5 in. (n=1), 5.0 in. (n=6), and 5.5 in. (n=2). The absence of longer beads in archaeological datasets and the declining representation of longer beads seen in Figure 6.6 may be attributable to the increased breakability of longer beads rather than decreasing quantities of longer styles produced at the site.

Based on data from Peña (2001, 169) and SF, 18th century Late Wampum appears to be more standardized than 19th century Campbell Wampum at CF (Table 6.5). This is somewhat unexpected, given the hypothesis in archaeology that more centralized production results in greater standardization (Costin 1991). That said, ethnoarchaeological studies suggest a relationship between intensity or rate of production and lower standardization of final products, at least in the context of ceramic craft production (Roux 2003). In other words, if all other variables were equal, more intensified, higher outputs at the Campbell Factory may have led to less standardized products. Studies of 19th century industrialization provide little clarification on trends or causes of standardization. Before the advent of Fordist assembly lines in the 20th century, commodities were becoming increasingly specialized and tailored to diversifying tastes; 19th century standardization probably has more to do with standardizing flows of information across society (or systematization) than the pockets of centralized production that emerged across the Northeast at the time (Gordon 1988; Scranton 1997).

Documentary evidence suggests that Campbells maintained a system of outwork for Campbell Wampum even after the Campbell Factory was in operation. In this case, lower standardization of Campbell Wampum collected ethnographically could be explained by the Campbell family functioning as distributors of raw material and purchasers of blanks or nearly-finished products. The factory may have served more as a finishing station or distributional hub for a wider network of semi-specialized Campbell Wampum producers in the surrounding

region. Standardization at the Albany Almshouse and Stoltz Farm, meanwhile, is consistent with production at a single site, and hair-pipe CV values, meanwhile, are comparable to Stoltz Farm and the Albany Almshouse. This suggests a more standardized production regime, perhaps due to a more "in house" organization of production of hair pipes relative to wampum, as suggested by the historical record.

TABLE 6.5: SHELL BEAD LENGTH STANDARDIZATION (1750–1900)

Site	Style	Dataset	Data Type	n	$\bar{x}$ (in)	$\bar{x}$ (cm)	SD	CV
Albany Almshouse* (1750)	Late Wampum	Archaeological	Finished	22	0.218	0.554	0.02	3.0%
Stoltz Farm (1770–1810)	Late Wampum	Archaeological	2 cuts, fully drilled	15	0.248	0.630	0.07	10.5%
Campbell Factory (1850–1900)	Campbell Wampum	Archaeological	Finished	10	0.567	1.44	0.44	30.6%
		Ethnographic	Finished	524	0.556	1.41	0.38	27.1%
	Hair Pipes	Archaeological	2 cuts	221				
	½ (.25-.75")			17	0.55	1.40	0.35	25.2%
	1 (.75–1.25")			62	1.04	2.63	0.27	10.1%
	1 ½ (1.25–1.75")			39	1.50	3.82	0.26	6.8%
	2 (1.75–2.25")			48	1.92	4.88	0.23	4.6%
	2 ½ (2.25–2.75")			30	2.44	6.19	0.25	4.1%
	3 (2.75–3.25")			13	2.98	7.56	0.25	3.3%
	3 ½ (3.25–3.75")			12	3.46	8.78	0.20	2.2%

*Reported in Peña (2001, 169)

6.3.3 Intensity and scale

Is there a way to estimate the output of bead production at different sites? Can the intensity of production be measured with archaeological and documentary datasets? The Campbell Factory owners and later oral histories make claims about output, suggesting for instance that the Campbell brothers could export up to a million "black beads" per year (Norton 1888), or that 400 beads could be drilled per day (Storms 1939).

Ledger data allow a rare glimpse into the Campbell Factory's finances, helping to both substantiate and clarify this claim. Two pages in original ledgers from the Campbell Factory outline one year's worth of sales to fur trade merchants between November 14, 1849 and September 28, 1850. A total of twenty orders of black and white wampum averaging 24,848 beads per order resulted in 496,950 beads sold to merchants "P. Chouteau" and "Grant and Barton" for a year's earnings of $1,132.59 (or roughly $.25 per 100 black wampum beads and $.20 per 100 white wampum beads).[52] It is unclear if these twenty orders were part of continuous production and export throughout the year, or, more likely, periodic batch production based on orders, as observed in fur trade records. If the later, ledger data suggest the Campbells perhaps *could* organize the production of a million beads per year if demand allowed and they worked continuously throughout the year. However, we know this was not typically the case, given the Campbells' other investments in blacksmithing and farming. Additionally, these records describe purple and white wampum, not hair pipes or moons, and much of the work for these nearly 500,000 beads was being outsourced to households in the surrounding region, as the ledgers also demonstrate.

Annual hair-pipe and moon production is more difficult to estimate. The Campbell ledgers document wages for "grinding pipes," but they do not note hair-pipe quantities sold to merchants. Merchant orders from fur trade records, while they do not give a complete annual picture, do offer occasional glimpses into production rates. One rare example provides a timeline of hair-pipe production. On December 31, 1834, Ramsay Crooks ordered 3250 inches of wampum hair pipes from Samuel Campbell in Franklin, New Jersey: "none less than 5 inches and not many of them over 6 inches … You must have them here by … 4 weeks from this

[52] James Campbell Ledgers, #5215, Pascack Historical Society, Park Ridge, New Jersey.

time."[53] The rate of this production can be estimated, though metrics must account for varying lengths of hair pipes. In other words, estimates must be measured in kilograms of finished product to account for varying grams-per-inch of different hair-pipe lengths.

Finished hair pipes ranging from ½ inch to 5 ½ inches in collections from the Campbell Factory (n=44) are on average 2.36 g/inch, though there is a correlation between hair-pipe length and g/inch. One finished 5 ½ inch hair pipe from Campbell Factory ethnographic collections weighs 3.27 g/inch. Using this metric for Ramsay Crooks' order of 3,250 inches in 1834, the Campbell Factory produced 10.62 kg of finished hair pipes in one month, or 590 beads. Making sense of production rates relative to the 14.25 kg of conch shell debris in the archaeological dataset from the Campbell Factory is difficult without estimating the average ratio of debitage to finished products per shell—a difficult task without more detailed documentary or experimental data.

The David Campbell House archival and archaeological record provides a more controlled dataset. Minimum number of individuals (MNI) estimates from the site relative to merchant ledger data allows for an assessment of the amounts of raw material, debitage and waste, and output of beads per shell. Ledger data also provides a sketch of rates of wampum manufacture at the household scale. MNI estimates were calculated for conch shell based on unique attributes including bases and cores of *Lobatus gigas*. Quahog MNI was calculated based on numbers of unique identifiable *Mercenaria mercenaria* umbo.

A minimum of 19 conch and 13 quahog shells are represented by the 2019–2020 excavations. To help to visualize the significance of this quantity in terms of production output and timing, the sample appears to be comparable to one season of bead manufacture after a trip

[53] *Calendar of the American Fur Company's Papers in Two Volumes*, "American Fur Company Papers, 1831–1839" p 994.

to the merchant store to purchase raw material, as documented in original ledgers from the James Demarest store. In a rare entry, ledgers document that on September 28, 1844, David Campbell purchased 25 "konk" shells. He returned to the store on October 30 with 12,000 wampum (375 beads/day); he returned 6 days later with 2,550 beads (425 beads/day) and again on November 11 with 250 beads (50 beads/day) for a total of 14,800 beads over the course of a month and a half.[54] If the household did not outsource labor to other beadmakers, it appears that the David Campbell household (including Hannah and their two children) could produce 400 white wampum beads per day from conch shell, even if they did not do this fulltime throughout the year. Remarkably, local historian John C. Storms mentions this exact rate of production, but attributes it to the "pipe drilling machine" rather than cottage producers: "[the drilling machine] made it possible to drill six Pipes at once, four hundred each day" (Storms 1939, 28).

In order to compare the rate of bead output at the David Campbell House to hair-pipe output at the Campbell Factory, we must account for different lengths and styles produced at each site. Finished Campbell Wampum beads in this dataset (n=109) average .37 g, or .61 g/inch. With this metric, the month batch of 12,000 beads noted in the Demarest Ledgers would amount to 4.44 kg of finished product per month. As noted above, the Campbell Factory could produce up to 10.62 kg/month of hair-pipe product. Thus, combined documentary and archaeological evidence suggests the Campbell Factory could produce up to double the rate of finished product at the David Campbell House by weight.

Returning to the David Campbell House, it is also possible to estimate how much wampum was produced per shell using data from the Demarest ledger. Whether or not the 14,800 beads recorded in the Demarest store ledger came exclusively from 25 conch shells is

[54] James Demarest Ledgers. "David Campbell," G (p. 18), Pascack Historical Society Archives, Park Ridge, New Jersey.

difficult to know for certain, but if so, it would amount to nearly 600 beads per shell made between September 28 and November 11, 1844. Archaeological evidence suggests that this is not an unreasonable quantity of beads per shell. Given an average weight of .37 g/bead, 600 beads would amount to 222 g of product per conch shell. Given that an average conch shell (*Lobatus gigas*) can weigh between 1,300 g and 2,300 g depending on location of harvesting (Delgado, Glazer, and Brown-Peterson 2019), between 10–17% of the whole shell by weight would be converted to final product with this estimate.

6.3.4 Waste and Efficiency

Did the invention of the drilling machine decrease the risk involved in drilling beads? Or put another way, did factory hair-pipe production produce fewer "mistakes" than household wampum production? The David Campbell House produced only two objects classed as drilling wasters, making it difficult to compare to Stoltz Farm and the Campbell Factory. Poorer preservation at the David Campbell House also led to greater ambiguity in distinguishing wasters from debitage at the site. Additionally, sample sizes of Campbell Wampum, moons, and mother-of-pearl beads are too small for this analysis. Setting aside the David Campbell House for a moment, comparisons between Stoltz Farm wampum and Campbell hair pipes can be made.

The relative breakage rate during drilling between sites can be suggested by comparing ratios of wasters to debitage by weight (hereafter W/D ratio). If one assumes that wasters represent mistakes and total debitage is proportional to the total output of the site, differences in ratios between wasters and debitage are extreme and worth noting.

Looking at Stoltz Farm in isolation, 63 wasters were identified (7.92 g) per 8,651 debitage pieces (2,721.35 g). Of these, 49 wasters showed evidence of drilling but no evidence of final polishing (6.69 g); most of these were split, suggesting they were broken while drilling (Table 6.3). This W/D ratio (.25%) appears low but is difficult to interpret in isolation. One

might have expected a higher rate, given that historical sources emphasize the difficulty involved in drilling beads before the invention of the drilling machine.

Campbell Factory hair pipes, meanwhile, yielded 527 identifiable wasters for 1,125 debitage pieces (by count 46.8%; by weight 32.5%) (Table 6.4). Hair pipes appear to have broken at a much higher rate at all stages—particularly in the reduction to a prism stage—probably due to their longer length. Isolating Stage III, the W/D ratio for hair-pipe drilling is 4.13%.

Of course, quahog and conch production may yield different average debitage rates due to differences in shell morphology, styles produced, and the percent of shell that would be converted to finished product if all other variables were equal. Conch shell does appear to produce heavier debitage on average (Table 6.1). That said, the finished products of conch are also larger and heavier than wampum. If we assume that quahog wampum production and conch hair-pipe production utilized comparable percentages of each shell at each site (10–17%), the current data suggests that drilling hair pipes with the Campbells' drilling machine produced sixteen times more split beads than Stoltz Farm wampum production.

These numbers should be approached with caution, particularly given the fact that the Campbell Factory assemblage was not necessarily sieved. However, to make the argument that the drilling machine produced a smaller W/D ratio (as sources such as Storms (1939) might suggest), one would have to presume either 1) quahog production utilizes significantly less of the total shell by weight than conch shell at the Campbell Factory (thereby resulting in higher debitage-to-finished-product weight ratios), 2) that 91,586 g of exclusively Campbell Factory debitage went unexcavated, unaccounted for in collections, or misidentified in this analysis, 3) 112.35 g of exclusively wasters (~800 objects) from Stoltz Farm went unexcavated, unaccounted

for in collections, or misidentified in this analysis, or 4) proportional percentages of each scenario. This is certainly possible, granting the ambiguities of both excavation and provenance. As noted in Chapter 5, Schondorf recorded donating 700 "beads" from the Stoltz Farm site to the Bergen County Historical Society which are currently unaccounted for, and a portion of these could have been drilling wasters. Until further data is collected, however, existing datasets suggest it is unlikely that the drilling machine produced fewer broken hair pipes than the wampum produced at Stoltz Farm, at least by the measure of W/D ratios.

Controlled excavations at the David Campbell House support the suggestion that household-based wampum breakage rates were low relative to factory hair-pipe production. The David Campbell House W/D ratios by count and weight are comparable to Stoltz Farm wampum production (Table 6.3). However, the site yielded only five objects with evidence of drilling, and only two objects that could be classified as wasters from drilling. This presents sample size issues. Excavations might not have collected a representative sample from all stages of production, if most of the drilling at the site took place at a location undetected by the Phase 1 survey on the property. That said, when put into context with documentary data on rates of production and statistics on raw material, the two drilling wasters from the site are not an unreasonable quantity relative to the total amount of shell debris collected from the site.

As noted above, the David Campbell House could produce 400 beads per day, 600 beads per conch shell (.66 shells/day), and could utilize between 10–17% of each shell by weight. These estimates, calculated exclusively from documentary data and average conch shell weights, suggest the 11,996.43 g of conch shell debris recovered archaeologically from the site represents between approximately 1,200 and 2,000 g of finished wampum. Given an average of .37 g per bead, these weights amount to somewhere between 3,250 and 5,400 beads. At 400 beads per day,

this quantity could take between 8 and 14 days of work. Applying similar production rates to MNI estimates from the site, the 19 independent conch shells represented in the sample suggest 12 days of work. In sum, one way of characterizing drilling wasters at the David Campbell House is to argue that less than a handful of beads were broken every one or two weeks at the site.

6.4 **Discussion**

Methods from the archaeology of craft production are fruitfully applied to the analysis of historic shell bead production to evaluate what "industrialization" really meant in 19th century New Jersey. The styles of bead, technologies, and sequences of production inferred from documentary records correspond well with archaeological data. Households at Stoltz Farm and the David Campbell House produced wampum using chisels to reduce a whole shell to a prism, typically four-sided or eight-sided. Both sites likely used bow drills to perforate the blank and foot-powered grinding wheels to polish the bead's exterior. Despite their similarities, the David Campbell House used ratios of raw material more comparable to the Campbell Factory than Stoltz Farm (10:1 conch to quahog).

The Campbell Factory produced wampum, but the Campbell brothers also served as distributors of raw quahog material for their surrounding neighbors into the later 19th century. Specialty products—such as hair pipes, moons, and mother-of-pearls—were centralized to the factory. Hair pipe production used similar technologies and sequences of production to Stoltz Farm and the David Campbell House, with key differences. The thick outer whorls of conch shell were reduced to eight-sided prisms of varying ½ inch lengths up to 6 inches. The edges of these prisms sometimes received partial grinding before drilling. Grinding took place at one of four water-powered grinding wheels on the factory floor and was often performed by waged

laborers, some of whom are labelled “Black” or “Mulatto” in the census or described as “Negro” in contemporary accounts.

Campbell Factory hair pipes were then drilled by the drilling machine which could drill up to six beads at a time and was powered by a hand crank. Bore diameters of hair pipes at the Campbell Factory were a millimeter larger than wampum at either Campbell Factory or Stoltz Farm. While subtle, this difference confirms a potential distinction between drill-bit sizes or drilling techniques for hair pipes relative to wampum.

Campbell descendants claim two “mechanical ideals” about their factory, that it could produce at a higher rate and with less waste. The first of these is supported by archival data. The Campbell Factory could produce up to twice as much hair-pipe product per month by weight relative to wampum production at the David Campbell House. This is not to say that it did so continuously throughout the site’s period of occupation. Sources also note the inconsistency and unpredictability of merchant orders.

Oral histories claim the drilling machine could reduce both the anxiety of skilled bow-drilling and the waste from breakage (Chesebro 1872, 320; Storms 1939, 28). Archaeological evidence suggests that the Campbell Factory did not break fewer beads than households of Stoltz Farm or the David Campbell House. Hair pipe drilling breakage rates could have been up to sixteen times that of Stoltz Farm wampum drilling. Without further data, the ambiguities of provenience and provenance make it difficult to assess with certainty or precision.

Metrics for standardization of shell bead production can be particularly useful for making inferences about organization of production, but the topic first deserves some discussion. Standardization—or relative homogeneity of products and production—is one variable that archaeologists assume increases both in contexts of modern industrialization (Gordon 1988) as

well as premodern craft production (Costin and Hagstrum 1995; Kvamme, Stark, and Longacre 1996; Longacre 1999; Rice 1991; Roux 2003). Standardization might relate to specialization, with the assumption that fewer skilled specialists create more standardized products relative to a wider network of part-time producers. Others point to standardization as a proxy for economies of scale (a higher order of labor organization or centralization) or a widespread adoption of a technology or technique of manufacture (Costin and Hagstrum 1995). Running somewhat counter to these assumptions, Roux (2003) demonstrated that intensity or rate of production can decrease standardization in the context of craft production.

Emic definitions also matter. Cultural conceptions of standardization can create a relative "floor" or "ceiling" for craft producers in different contexts (Roux 2003). For 19th century shell bead production, merchant orders typically request wampum and hair pipes in inches, allowing for a relative comparison between sites under similar cultural rubrics for artifact homogeneity.

For historians of capitalist industrialization in the U.S., the deeper history of standardization is often clouded by its apex: 20th century Fordist assembly-line mass production. Historians have cautioned that upticks in standardization were facilitated by skilled artisans' adoption of gages and increasingly universal metrics of measurement rather than large-scale centralization of factory production (Gordon 1988; Gordon and Malone 1994; Hounshell 1984; Prude 1996; Weil 1998). Along these lines, the Campbell Wampum Factory should not be thought of as a fully mechanized production sequence. The only mechanized elements were that of the water-powered grinding wheels and the drilling machine. While the factory involved *more* centralization and deskilled labor than household production, skilled labor still played an important role, particularly in blank-making and grinding. Workers who were paid a wage for grinding hair pipes in the factory, for instance, would certainly require the skill of passing fragile

shell ornaments over the grinding wheel without breaking them. These are skills that Black, Indigenous, or mixed-race workers in the industry may have gained and honed outside the factory, whether in the context of independent household production, enslavement (for African-descendant workers), or through cultural tradition (for descendants of Munsee- and other Algonquian-speaking Indigenous nations).

Alongside increasing standardization, historians of American industrialization have highlighted the importance of "specialty production" after 1865, when industries such as jewelry, silverware, furniture and other "personal effects" were becoming tailored to an increasing diversity of tastes and were subject to special-order batch production rather than mass production (Scranton 1997). In sum, 19th century "industrialization" is best thought of as a spectrum of increasing divisions of labor and technological change, while the products of industrialization might be described as a diversification of increasingly standardized products. Standardization and style data for shell bead production in New Jersey fit this general characterization quite well.

CV values for lengths of finished or nearly-finished Late Wampum at the Albany Almshouse and Stoltz Farm as well as hair pipes at the Campbell Factory all fall below 10%. Campbell Wampum in these datasets is less standardized (CV=30%), whether collected archaeologically or ethnographically. This could be due to a differences in the rate of wampum production between the 18th and 19th century (Roux 2003), yet this would also predict higher CV values for hair pipes, which is not the case. Instead, higher CV values for Campbell Wampum are more likely related to the fact that *wampum* production continued to be organized as a putting-out industry with more "independent" producers (Arnold and Munns 1994; Brandon 1996) while hair pipes were made exclusively at the factory. With the factory serving as a distributional hub, the finished beads comprising the dataset for Campbell Wampum may have

come from many different households. Data from the Albany Almshouse and Stoltz Farm, meanwhile, are from a single site.

In summary, the Campbell Factory's success (or at least survival) into the later 19th century was tied to the production new styles—hair pipes and moons—at rates of production that did not require distributing capital and skills to the surrounding countryside, as had been the case with cottage wampum production. New forms of technological capital, including the water-powered grinding wheels and the drilling machine, facilitated this new economy of scale. However, it also brought hidden costs. One cost may have been an increase in waste per bead, as suggested by archaeological data. Other costs were both social and bodily. These costs are discussed in the next chapter, which turns from quantitative metrics of production variables to the lived experience of labor and the discourse that shaped the site's historiography and conscripted shell beads into settler-capitalist futures.

7 EXPERIENCING SETTLER CAPITALISM

Methods from the archaeology of production helped evaluate how settlers conscripted shell beads into a local project of capitalist industrialization. Chapter 6 demonstrated the constraints and affordances of different machinery, skills, and mollusk species through metrics of waste, standardization, and output. The current chapter moves from raw materials and technologies of production to examine the more "social" dimensions of setter capitalism in New Jersey. Chapters 4 through 6 outlined how bead production was organized—or the relations of shell bead production between proto-industrial and industrial periods. I now turn to the experience of these different landscapes of production using combined documentary and archaeological evidence. What were the effects of changing relations of production for Pascack Valley residents in terms of race, gender, socioeconomic wellbeing, and bodily health?

The second half of this chapter examines 19th century texts with an ethnographic lens, unpacking settler capitalism as a subjectivity that informed how factory owners and commentators thought about race, gender, industry, and religion. Drawing from theory outlined in Chapter 2, these texts help characterize the "ethic" of settler capitalism as it foregrounds private property, industrial progress, and white supremacy.

7.1 **Lived Experiences of Labor**

Proto-industrial and industrial landscapes of shell bead production in New Jersey were shaped by their relations of production which in turn shaped the experience of labor, the autonomy (and risks) taken on by different actors, and their control over working environments and temporalities of production. Archaeological data from the David Campbell House helps characterize the lived experience of beadmaking for a third-generation white-settler household in the Pascack Valley between 1812 and 1844.

The changing relations of shell bead production into the 19th century affected everyone in the Pascack Valley, though differently so by race and gender. A map from 1861 of the area around David Campbell's house—the northern Pascack Valley—documents a high percentage of individuals with surnames commonly labelled "Black" or "Mulatto" in censuses from the region, including "P. Sisco," the Black wampum maker documented in the 1850 census (Figure 4.2). Some of these same surnames are also documented in the James Demarest Ledgers as purchasing shell and bartering with wampum or baskets (see Chapter 4). Peter Sisco, for instance purchased 7 pounds and 2 shillings worth of conch shells from James Demarest on December 1, 1845, he returned with 18 pounds of "wampin & Cash" on December 12th.[55] In short, David and Hannah Campbell lived amidst a burgeoning community of probably African- and/or Indigenous-descendent residents, some of whom were property owners, and many of whom made their livelihoods from wampum production. African Americans at this time may have begun their lives as enslaved persons, perhaps until their early twenties according to the 1804 Act of Gradual Abolition.

Thus, interpretations from the David Campbell House should not be universalized to other household producers in the region, including those such as Peter Sisco. However, many basic elements of cottage production might have been comparable, at least relative to waged work in the Campbell Factory.

[55] James Demarest Ledgers. "Peter Sisco," H (76). Pascack Valley Historical Society Archive, Park Ridge, NJ.

Figure 7.1: Key sites in the Pascack Valley in the 19th century. (Map by Eric Johnson)

7.1.1 David Campbell House

7.1.1.1 Landscape Setting

As outlined in Chapter 5, the David J. Campbell household lived on a one-acre property that was carved out from his father John W. Campbell's land. He purchased the property in 1812 for $30 and married Hannah Blauvelt that same year. The same deed lists him as a "masoner."[56] David Campbell is listed in U.S. census records of 1820 as a householder in Harrington Township (then comprising the Pascack Valley). There are three David Campbells listed in the 1830 census for Harrington township, with households ranging in size from five to eight. Each of these are listed as entirely white households.[57] The 1840 U.S. census lists two David Campbells in Washington township (Washington was carved out from Harrington in 1840); one with five white residents and one with four.[58] After selling the property in 1844 to Jonathan Rose for $800 and moving to another residence nearby, the 1850 census lists David Campbell as a "farmer" along with his wife Hannah and a 15-year-old daughter named Letty.[59]

The property is located on a rise, near the peak of a hill set back from the lower-lying, flatter floodplain of the Pascack Valley to the southwest between Pascack Road and Kinderkamack Road (Figure 7.1). While arable, the location was not necessarily fertile. The landscape is hilly, and the soils are rocky. This may explain why the northern Pascack Valley was home to many residents of color in the 19th century. Nineteenth-century African American communities arose in other marginal landscapes of Bergen County such as Skunk Hollow in the Palisades (Geismar 1982) and the swampy "island lot" of Dunkerhook in Paramus (Johnson and

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[56] Bergen County Deed Records, H13/662.
[57] United States Census, 1830; *Harrington, Bergen, New Jersey*; Series: *M19*; Roll: *79*; Pages: *32, 43, and 44*; Family History Library Film: *0337932.*
[58] United States Census, 1840; *Washington, Bergen, New Jersey*; Roll: *247*; Pages: *80* and *81*; Family History Library Film: 0016515
[59] United States Census, 1850; *Washington, Bergen, New Jersey*; Roll: *442*, Page: *261a*.

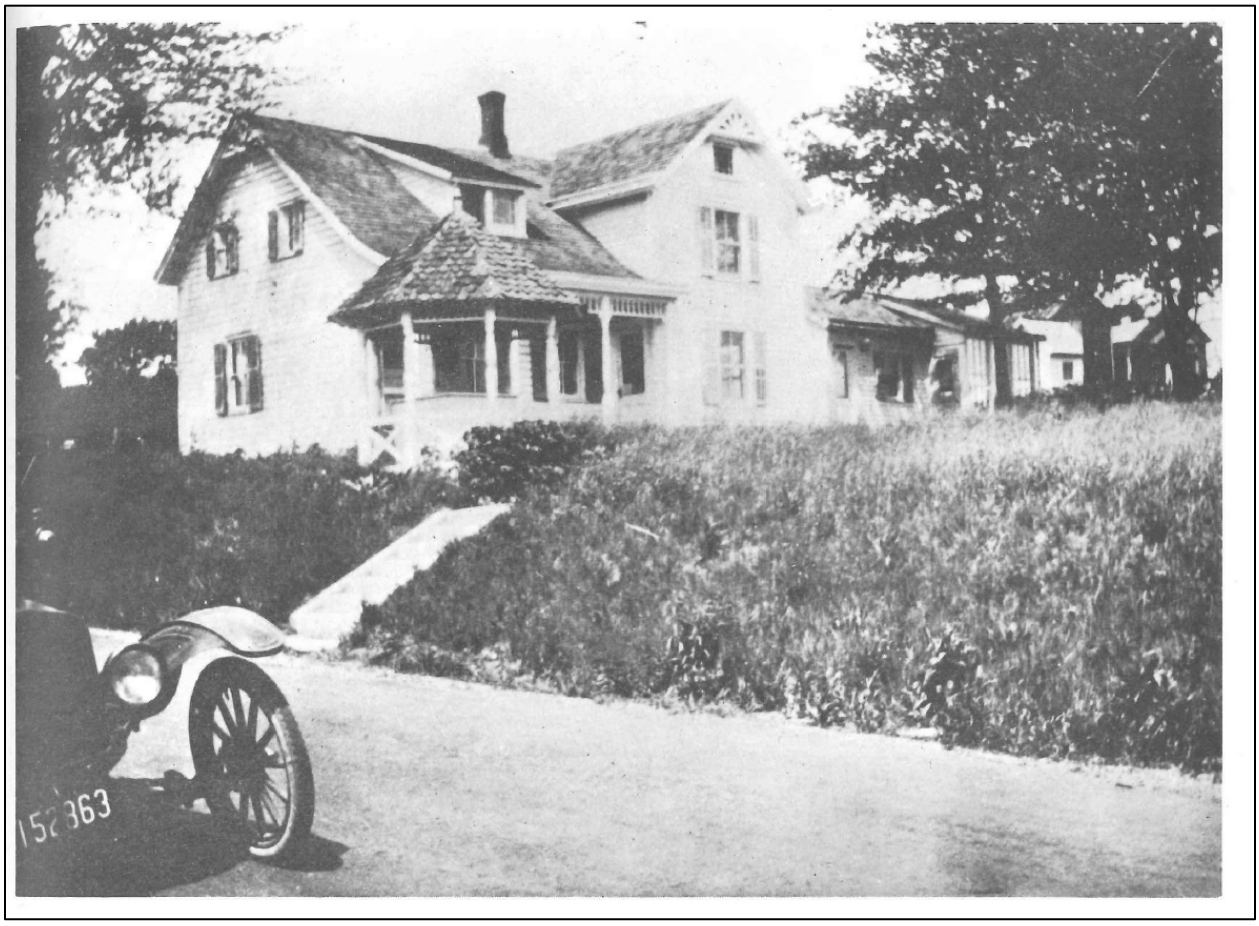


Figure 7.2: Photo of David Campbell House from early 20th century (Durie 1970:132). Photo by Henry Oelkers, date unknown.

Matthews 2020). This situation was similar for the Indigenous Ramapough Lunaape Nation living in the nearby Ramapo Mountains (Lenik 2016).

The distribution of artifacts at the David Campbell House generally suggests the area south of the house was kept clear, possibly for agriculture. The stone-lined ditch discovered in EU 2/4 runs parallel to this space along a rise in the property (Figure 5.4–5), suggesting the stones themselves may be fieldstones. Despite the creation of this agricultural space, the one-acre property probably did not produce much surplus for the market. The household instead probably had multiple avenues of supplementary income, including wampum production.

Local historian Howard Durie describes the architecture of the David Campbell House based on a map (now lost) and a photo from the early 20th century (Figure 7.2): “A map made in

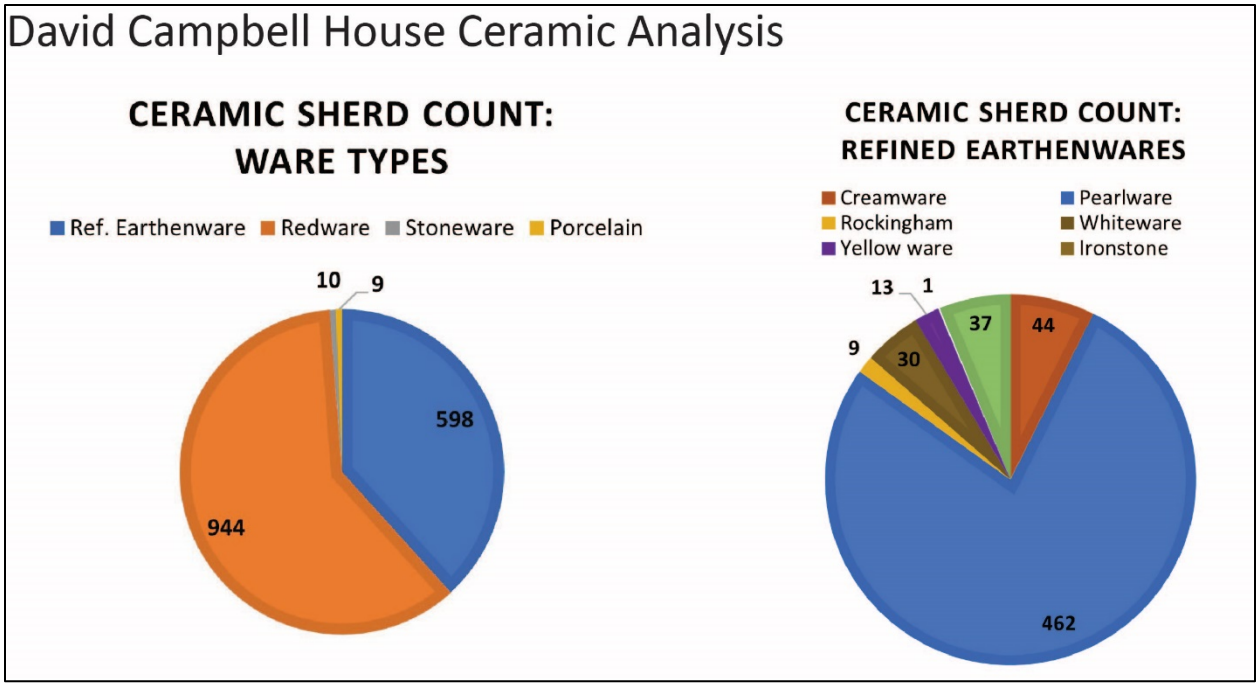
1829 showing the division of the John W. Campbell farm, has a sketch of the house, as small, story and a half, with fireplace on the west end. At a later date it was enlarged by an addition to the east, when the dormer and porch were added. The well house is also a later decoration" (Durie 1970, 132). This western original core of the David Campbell House still stands today, though other alterations have been made to the property. Despite David's status a mason, there is no evidence of the Jersey-Dutch red sandstone foundations that found at historic houses elsewhere in the region (Bailey 1968). Archaeological excavations yielded only four pieces of red sandstone, a building material that is ubiquitous at other sites in the region, further confirming it was not a primary building material at the David Campbell House. This may have been a cultural choice, given David Campbell's Ulster-Scot heritage. That said, the modest size of the house suggests this may have more to do with socioeconomic factors.

Figure 7.3: Examples of David Campbell House artifact assemblage.

7.1.1.2 Household Artifact Analysis

Distributions of different artifact types at the site help illuminate potential uses of space. A total of 5,042 artifacts weighing 15.32 kg were recovered from 30 STPs and 5 1x1 excavation units at the site. The largest material categories include worked shell (n=2,264, 10,704.39 g), ceramics (n=1,562, 1,693.33 g), and glass (n=487, 663.40 g). Other notable 19th century artifacts include three pipe stems and two pieces of gunflint. The distribution of typical domestic artifacts—including ceramics and glass (Figure 7.3)—is spatially correlated with worked shell at the site. This suggests either 1) household debris was discarded on top of a primary outdoor production space, or more likely 2) household occupation debris and shell bead production debris should both be considered "household" deposition. Excavation units did not yield evidence of intensive use of space, such as features, irregular stratigraphy, compaction, or other industrial or craft-related artifacts. Instead, contexts more likely were formed from routine sweeping or cleaning of both the household and bead production areas, perhaps inside or closer to the house itself.

The study of households in historical archaeology illuminates dynamics of gender, space, and production, even if these topics are complex and often difficult to interpret (Wilkie and Hayes 2006). Some archaeologists have used the quantitatively-derived concept of "activity areas" to suggest different gendered associations of different types of work at a site (Gibb and King 1991). More recently, Deborah Rotman argues that gendered associations drawn from documentary sources should be considered middle-class Victorian "ideals" whose lived reality is far more complex in practice (Rotman 2019). Working on gender in the European Neolithic, Robb and Harris (2018) propose a "contextual gender" approach to this problem. In short,



instead of identifying activity areas and asking "which gender," archaeologists might instead first ask "to what extent was this activity gendered in a binary way?"

In the case of household wampum production, sources emphasize Euro-American women as primary producers (Barber and Howe 1846; Westervelt 1924). Given this, it is not surprising to see an overlap in domestic refuse and shell bead production debris at the site, particularly if Hannah Campbell and her daughter took a major role in beadmaking. Utilitarian vessels, including redwares and coarse earthenwares, may have played a role in bead production at the site, whether for holding or storing blanks or water for clearing the bore holes. However, areas of beadmaking also yielded refined earthenwares, tablewares, and glassware vessels that were likely not associated with production.

I do not suggest that beadmaking was exclusively "women's work." Instead, data suggest

Figure 7.4: David Campbell House ceramic analysis.

that beadmaking and domestic life at the site are not spatially segregated in ways that we can observe archaeologically, probably in part because women took active roles in the work and/or

deposition of refuse. In contrast, the site yielded one large piece of flat cut stone at the southern portion of the site, suggestive of David Campbell's masonry work. There is not sufficient evidence to suggest that stonecutting took place near the house, perhaps because the masonry gendered differently than wampum production at the site.

There are conflicting lines of evidence in appraising the David Campbell household's socioeconomic status. The house itself described by Durie (1970, 132) is relatively modest. Excavations also yielded very little bone (n=41, 101.57 g). Assuming food waste was deposited in the same location as other domestic debris such as ceramics and glass, the household does not appear to have consumed very much meat. The family may have relied more on clam meat, given that quahog could be both consumed and then used as raw material for beadmaking.

Ceramic evidence, on the other hand, suggests a more middling household. Excavations yielded a total of 38 unique vessels (see Table 7.1). Of 1,562 ceramic sherds recovered from the site, 60% are redware, and 38% are refined earthenwares. Stoneware (n=5) and porcelain (n=9) are comparatively scarce (Figure 7.4). Of 597 refined earthenware sherds, 71% were identified as pearlware, followed by 10% creamware, with small counts of whiteware (n=14), yellow ware (n=13), and Rockingham (n=8). One ironstone sherd was recovered from the topsoil of EU1, postdating the David Campbell period of occupation. Pearlwares comprised a variety of identifiable decoration types, including transfer-print (n=51), factory-made slip decorated (n=21), and shell-edge (n=17). Given the known historical occupation of the site by the Campbell family from 1812 to 1844, this assemblage suggests that the Campbells, while far from elite, were relatively well-off and were keeping up with new ceramic styles of the time (Table 7.1). While David Campbell likely had multiple revenue streams, including masonry and

farming, ledger data suggest that a good portion of the family's income came from intermittent but intensive periods of beadmaking.

TABLE 7.1: DAVID CAMPBELL HOUSE MINIMUM NUMBER OF VESSELS

CXT	Ware Type	Start Date	End Date	Mean Date	Portion	Print/Paint Decoration	Style Decoration	Design Description
100.1	Yellow ware	1830	1940	1885	rim			
101	Redware	1600	2000	1800	rim		incised	Brown
102	Redware	1600	2000	1800	body			Black-glazed
104	Pearlware	1775	1830	1802.5	rim		incised	Green incising
104	Indeterminate earthenware	NA	NA		body			Green
110	Rockingham	1830	1900	1865	body			Brown exterior, yellow interior
113	Pearlware, hand-painted polychrome	1795	1830	1812.5	body	Underglaze painted		Green/red-stem floral
121	Rockingham	1830	1900	1865	body			Yellow exterior, brown interior
122	Ironstone	1840	2000	1920	body			
123	Whiteware	1820	2000	1910	body			
126	Pearlware factory-made slipware (dipt ware)	1790	1830	1810	rim	Banded		Brown
126	Manganese mottled	1680	1780	1730	body			Giraffe pattern
126	Pearlware	1795	1830	1813	rim		Shell-edge	Dark Blue
126	Pearlware	1795	1830	1813	rim	Transfer printed		Blue
126	Indeterminate earthenware	NA	NA		body			Mottled extiror, black interior
126	Indeterminate-factory-made	NA	NA		body	Banded		Green/brown
126	American Buff	1750	1920	1835	body			Albany Slip. Yellow interior, Black exterior
126	Rockingham	1830	1900	1865	body			Yellow interior, Brown exterior
126	Manganese mottled	1680	1780	1730	body			
126	Redware	1600	2000	1800	body	slip decorated, brushed, etc		White/yellow
127	Pearlware	1795	1830	1813	rim	Transfer printed		Blue
127	Pearlware factory-made slipware (dipt ware)	1790	1830	1810	body	Marbled ware (or granite inlay)		Light blue
132	Pearlware	1795	1815	1805	body	Underglaze painted		Green/brown-stem floral
132	Pearlware factory-made slipware (dipt ware)	1795	1830	1813	body	Banded		Orange
132	Creamware factory-made slipware (dipt ware)	1785	1820	1803	body	Banded		Brown-orange
132	Buff-bodied American Stoneware	1750	1920	1835	body	Salt-glazed		Brown
134	Pearlware	1775	1830	1803	rim		Shell-edge	Dark Blue
139	Pearlware factory-made slipware (dipt ware)	1790	1830	1810	body	Banded		Yellow
139	Pearlware, hand-painted polychrome	1795	1830	1812.5	body	Underglaze painted		Brown/orange
139	Indeterminate earthenware	NA	NA		body	Transfer printed		Brown
139	Pearlware	1815	1830	1823	body	Underglaze painted		cobalt blue floral with large brush strokes
139	Porcelain	NA	NA		body			
140	Pearlware factory-made slipware (dipt ware)	1790	1830	1810	body	Banded		Black
140	Pearlware factory-made slipware (dipt ware)	1790	1830	1810	rim	Banded		Orange-Brown
140	Rockingham	1830	1900	1865	base			Brown exterior, cream interior
153	Pearlware	1660	1860	1760	body		Molded	Floral Molding
153	Pearlware factory-made slipware (dipt ware)	1790	1830	1810	body	Marbled ware (or granite inlay)	Banded	Cat's eye. brown and gray
153	Pearlware	1820	2000	1910	body	Transfer printed		Black

7.1.2 Campbell Factory

7.1.2.1 Landscape Setting

The Campbell Factory was erected on the property of Abraham Campbell (David J. Campbell's brother), just southwest of the hamlet of Pascack, also known as Park Ridge. Historic maps from 1861 and 1875 show the cluster of buildings, shops, train station, and a church comprising the landscape surrounding the Factory (Figures 5.8 and 7.1). The factory structure was built at the edge of the field, set a good distance from the Campbell brothers' (David J. Campbell's nephews) houses that lined Pascack Road. The spatial separation between the domestic spaces and the factory marks a change from the spatial organization of production relative to the David Campbell House.

The Factory was built along the Pascack Brook to harness hydraulic power for grinding wheels. It was only one of many manufactories or mills along the brook in the 19th century, including a bobbin factory to the north and a basket factory to the south. One visitor to Pascack noted, "It would seem that in [Pascack] every farmer must have his own private mill, for the waters of this pretty stream are hereabout vexed by many dams" (Norton 1888, 589). The flow of water was a keystone in these early industries, but it was a power that any one mill owner did not have full control over (Edgeworth 2011). As one commentator noted of the bobbin factory upstream, "Owing to the prolonged drought there has been some fear of a failure of the water-power, but the company are so well pleased with their location and the advantages of transportation it affords, that they would substitute steam power for water if the latter should fail."[60] At the Campbell Factory, the waterwheel that powered the grinding stones was limited

[60] "A Day at Pascack and Park Ridge," Bergen County Democrat, 6/16/1871. On Microfilm at the Ridgewood Library, Ridgewood, NJ.

by seasonal environmental factors. According to the excavator Carl Schondorf: "when water was high a gate was opened. The water was not high enough to turn wheel in dry season."[61]

An article published in *The Bergen County Democrat* in 1871 narrates "A Day at Pascack and Park Ridge" after the establishment of the Hackensack and New York Railroad in 1856. The text describes piecemeal urbanization and industrialization of Park Ridge and hints at suburbanization generated by the new railroad stop:

> At no point on the road is the effect of the opening of the Hackensack Extension more marked than at the Park Ridge depot. The old depot has been removed and is being converted into a freight house; a new passenger depot, one of the finest on the road, is to be immediately constructed. The new hotel in course of erection by Daniel W. Demarest is rapidly progressing. A little west of the depot is a very handsome building occupied by A.D. Brower as a store …

The article goes on to narrate the approach to the Campbell Factory from the train station:

> Leaving the depot at Park Ridge, and descending a hill to the westward, we come to a clear bright stream, known as Pascack brook which ought to be the home of innumerable trout. Standing on a rustic bridge under shady trees, one would never dream that a curious history was hidden at his left hand and a stirring enterprise was busily at work on his right. Close by, nestling among the trees is a modest frame building in which for generations has been carried on the manufacture of the wampum which is held so sacred by the aboriginal tribe.

Another first-hand account describes a wintertime approach to the Factory from the opposite direction, up Pascack Road from the south (Chesebro 1872, 299):

> Ten miles through the cold sea-fog, along a road to whose windings there seems to be no end, and we are at Pascack. It is a mere hamlet, you perceive. Yonder great stone church, with its square, squat, wooden tower, flanked by a graveyard which is crowded with memorial stones, can be none other than a Dutch Reformed Church, for we have been riding all the way between the thatched barns, stone walls, well-poles, and stone houses of the substantial old Dutch farmers. Around the church and the blacksmith's shop is a collection of houses, some of them a

[61] Peabody Museum of Archaeology & Ethnology, Harvard University (PMAE) Archives UAV677.46 Box F 1924 JAN - JUNE M-Z. Accession file 24–9, PMAE. UAV677.46, Office of the Director letters (copies from the Harvard University Archives), PMAE, Harvard University. Transcriptions by author.

> hundred years old, and built of stone, of course, for of that material, farmers say, there is no dearth in Rockland County.
>
> Turning down a lane which leads us past the graveyard, we approach the mint, or the mill.
>
> The little red frame building stands, as you perceive, on the borders of a creek; shadowed beautifully it must be in summer-time by those overarching trees. We pass by heaps of conch-shells as we approach; their beautiful red lips are visible through the light veil of snow thrown over them,

These accounts make clear that the Campbell Factory was a notable feature of Park Ridge. It was a curiosity, perhaps, but it also sat comfortably in the wider settler landscape of passing farmsteads, Dutch Reformed churches, merchant stores, and train depots. From these accounts, the Campbell Factory emerges as a small, rural manufactory set in a small town at a time of economic and demographic transformation. Like many other towns in northeastern New Jersey, the rural agricultural landscape populated primarily by Jersey Dutch and African-descendent residents was changing into a suburban one populated by wealthier New York City commuters. As part of this transformation, smaller-scale industries such as the bobbin factory and the Campbell Factory soaked up pools of formerly agricultural labor as larger farming properties became subdivided for a real estate boom.

After noting the Park Ridge post office was "fitted up in city style," *The Bergen County Democrat* continues:

> Lots at Park Ridge are meeting with a rapid sale and quite a number of new houses are contracted for and will be built during the summer and fall. The enterprising founders of Park Ridge, wiser in their generation than the children of Hackensack, are making arrangements to erect a large summer boarding house, with spacious grounds and shady groves, to attract families from the city during the summer.

Thus, the Campbell Wampum Factory, like many other small-scale manufactories of the region, stood somewhere between industrial modernity and an agrarian past. Commentators who visited

the factory were part of a Victorian urban elite eager to experience this countryside, first as tourist consumers of rural life, and eventually as residents.

7.1.2.2 Factory Floor

In Chapter 6, I described the intensity of production at the Campbell Factory, noting the Campbell's claim to "a million beads per year" may have been possible, but the reality was closer to half this quantity depending on demand. Still, this output was greater than the David Campbell House, and this would have been reflected in the experience of working on the factory floor. As Chesebro (1872, 299–300) narrates:

> … let us hurry into the mill. The warmth inside strikes you pleasantly, and we have a civil welcome from the three white faces, and the one black one, turned towards us … when you go into a workshop where all things are in keeping with the work that is done there, don't go arrayed in a splendor which will annoy a kindly workman when he sees you covered with dust, and daubed with lime and water. The man by the window who is standing by a grindstone in motion as we enter, with what looks like a clay-pipe handle in his hand, comes toward us … The works! they are before us, four grindstones ranged in a row, a rude table connected with each, the stones moved by water-power; the broad black strap beyond there is the "connecting link" which keeps all in motion.

Another first-hand account describes the interior of the factory while not in use: "Through the dusty windows I could make out a row of grindstones, a lathe and sundry tools lying about, with bits of shell, circular, oblong and nondescript, in admired confusion" (Norton 1888, 590).

These accounts correspond well with an artistic rendering of the interior of the factory by Frank Gregory in 1886 as well as photos of the factory exterior taken around 1900 after the factory was abandoned (Figure 4.5). According to a map drawn from memory by Carl Schondorf, the structure was about 25 ft by 35 ft in size (Figure 5.9). The two-story structure was set into the brook along an 8-foot-high stone retaining wall where the waterwheel stood.

One account notes a factory worker's eyebrows being "well powered with white dust" (Chesebro 1872, 300). Schondorf also noted "lime dust" in the excavation. This dust is most likely the calcium carbonate particulates released into the air when grinding shell. Shell particulates can be estimated using artifact data from the factory.

For hair pipes at the Campbell Factory, the degree of grinding between Stage II (initial grinding) and Stage IV (final grinding) is observable. Based on an independent-samples t-test, max thicknesses of fully ground beads with two cuts are on average 1.09 mm thinner than partially ground beads with two cuts: $t(76.20) = 7.370$, $p < .001$. This can be put in volumetric terms based on an idealized cylindrical shape and using the average hair-pipe length.[62] At minimum, approximately 2.4 milliliters (or 6.51 g) of calcium carbonate particulates would be released into the air per bead, or roughly a half a teaspoon. Oral histories suggest 400 beads could be made per day in the factory (Storms 1939, 28). Taking the approximate size of first floor of the small factory into account (350 m^3), and assuming 100 beads per grinding stone per day, this amounts to roughly 1,859 mg/m^3 of shell dust released into the factory workspace per grinding stone. Modern OSHA limits for airborne exposure to calcium carbonate are 15 mg/m^3 over an 8-hour work shift (CDC 2019).

In sum, when all four grinding stones were in operation (7,436 mg/m^3 per day) and assuming the workers did not use protective face coverings, the Campbell Factory would be at minimum 500 times over the modern standard for workplace safety, putting workers—including workers of color such as James Williams—at significant risk of silicosis. Silicosis is a chronic lung disease common in other industries such as mining and construction that develops when

[62] $V(\text{loss}) = \pi(\text{average stage IV radius})^2\,(\text{average length}) - \pi(\text{average stage VI radius})^2\,(\text{average length})$. Note, hair pipes are not cylinder shaped but are tapered at the ends. Thus, final volumetric estimates here are minimums. The "average" bead length here is drawn from unbroken beads found in the production debris assemblage from the site. The actual average length is quite longer (Ewers 1957).

silica particles embed themselves into pathways in the lungs reserved for oxygen and carbon dioxide. Stated bluntly, silicosis often "leads to an inescapable death that is preceded by disability and terrible suffering from an increasing inability to breathe" (Rosental 2017, 1). For 19th century observers, the most common symptoms of low-grade silicosis would have resembled consumption—coughing, shortness of breath, fever, fatigue, and in extreme cases heart disease and respiratory insufficiency. Symptoms can appear ten to thirty years after a decade of long-term exposure to low concentrations of silica dust, though accelerated cases can develop within five to ten years after first exposure to higher concentrations.

Of course, knowledge about the negative impacts of calcium carbonate inhalation was not necessarily known at the time, and smaller scale, dispersed, or outdoor wampum production was not free from these risks. Nevertheless, it was one unintended consequence of centralized, intensive production. In the 19th century, silicosis touched a generation of otherwise young and healthy workers, leading to its eventual diagnosis, labor organizing and political action, and workplace safety changes in the 20th century (Baldasseroni and Carnevale 2017). The Campbell family's concentrated capital had unintended but inevitable health effects for workers in the factory in ways that smaller scale, dispersed, or outdoor wampum production probably mitigated.

7.2 **Settler-Capitalist Subjectivity**

So far, I have used 19th century texts primarily as a source for empirical claims about the wampum industry and surrounding landscape. In the tradition of Gordon (1988), I have used documentary evidence as a backdrop of "mechanical ideals" to interrogate with archaeological data. However, critical Indigenous theory makes clear that settler colonialism is not a simply a set of historical facts, sequence of events, or neutral economic calculations. The appropriation of knowledge and (attempted) elimination of Indigenous peoples that made the Campbell Wampum Factory possible in turn structured settler culture, institutions, and subjectivities. The following

discussion first contextualizes 19th century sources and authors. Drawing from theory in Chapter 2, I then describe what they reveal about settler subjectivity and materiality across five themes: 1) monetary modernity, 2) replacement, race, and ancestry, 3) reproduction, gender, and sexuality, 4) temporalities of technology and labor, and 5) terminal narratives and Indigenous interruptions.

My use of the term "subjectivity" here is intentionally open-ended.[63] Simply put, subjectivity is constituted through histories of practice, relationships, institutions, and media. It shapes and is shaped by our experience of space and time, which are in turn shaped by representations and material realities of our built environment (Lefebvre 1991). Other concepts might also be applicable here, including ontology (ways of being in the world), epistemology (ways of knowing), ethics (the way things ought to be), or ideology (rationalizations or disguises of inequality and hierarchy). Subjectivity crosscuts of all these different dimensions of human experience. The following section uses 19th century literature about the Campbell Factory to illuminate the intimacies between *settler* subjectivity, as outlined by recent Indigenous critiques (Byrd 2011; Moreton-Robinson 2015), and *capitalist* subjectivity, in the long tradition of political-economic approaches to cultural analysis (Federici 2004; Foucault 1977; Harvey 1990; Lefebvre 1991; Polanyi 1957; Thompson 1967; Weber [1905] 1958; Williams 1958).

Two independent, semi-fictional accounts of the Campbell Factory were published in New York-based magazines in the 19th century (Chesebro 1872; Norton 1888). They both narrate a visit to the factory and include interviews with Campbell descendants. Many details in each can be corroborated with other independent sources (Smith 1885; Storms 1939; Westervelt 1924), suggesting they each represent actual first-hand visits to the site, even if the details are

[63] One could easily use the term "culture," or perhaps *habitus* (Bourdieu 1977), though I do not invoke specific tenets of practice theory.

embellished with literary flourishes. It is these fictive flourishes, however, that speak to the subjectivity of their authors. At times, the authors' voice and opinions are quite explicit, even when quoting Campbell informants. Elsewhere, the Campbells' voices are quite clear, sometimes contradicting or surprising the authors. In the end, it is difficult to parse the editorial choices of the authors and informants, similar to the way that ethnography inherently blurs the relationship between subject and object, observer and observed.

These texts did not exist in an ideological vacuum. Nineteenth-century print and magazine culture in New York was a key site for shaping gendered, classed, and racial subjectivities in Postbellum United States (Moruzi 2012). They were also shaped by corporate interests. It is at this time that magazines began to take on advertising revenues as a primary income stream. The fiction these magazines published was shaped by new advertising business models. A nascent "consumer culture" emerged, particularly along lines of gender (Blaszczyk 2000; Garvey 1996). Living out Victorian sensibilities communicated through fiction often required a particular consumer behavior, a kind of antecedent to modern product placement.

The first text analyzed below, *The Mint at Pascack* (Chesebro 1872), was published in *Our Young Folks* (1865–1873), a monthly children's magazine which featured the likes of Harriet Beecher Stowe and Henry Wadsworth Longfellow. Caroline Chesebro (b .1825 d. 1873), "one of the most unappreciated women writers of the nineteenth century," was a well-established author at the time living in New York City (Ljungquist 1999, 76). Having grown up in New England, she writes with the typical tone of Victorian morality, often with strong religious themes. Critiqued at the time for an overly "masculine style," Chesebro's novels tend to depict strong heroines, "righteous, long-suffering, and compassionate martyrs who preserve to virtuously remedy the ills of their worlds—caused chiefly by merciless, rigid men" (Ljungquist

1999, 77). *The Mint at Pascack* is written in the second-person perspective. The gender of the protagonist and reader ("you") is left unspecified, though the text is clearly authored for young women. It is one of Chesebro's occasional forays into the genre of children's—particularly girl's—literature. As others argue (Moruzi 2012; Zur 2017, 21), the modernist genre of children's literature is one that can be read with anxieties of reproductive futures near to the surface. Chesebro's other collections of children's stories are notable for young women finding "inner peace through a greater understanding of God and a commitment to doing His will" (Ljungquist 1999, 79), revealing a relationship in her work between religious piety, propriety, and the reproduction of appropriate settler subjects.

The second text, *The Last Wampum Coinage*, was written by Charles Ledyard Norton (b. 1837, d. 1909), published first in *The American Magazine* in 1888 and then republished in *Arthur's Home Magazine* in 1893. Charles Norton began his adult life at Yale Scientific School but was interrupted by the start of the Civil War, during which he became Colonel of the 78th division of U.S. Colored Troops. After the War, he became a journalist and author in New York City, most known for his military-themed novels for boys (Solomon 1960, 63). Like the *Mint at Pascack*, *The Last Wampum Coinage* depicts a visit to the Campbell Factory and a long conversation with a "Robert Campbell," who claims to be one of "five brothers" who ran the firm (Norton 1888, 593).[64]

Both authors write from the vantage point of urban elites, though from different gendered standpoints. Their commentary in many ways reflects their own position more than the factory owners, though the Campbells' voices are at times quite clear. Here, I read both these accounts alongside critiques from Indigenous studies, with a focus on themes of historicity and futurity

[64] This is either a mistake or an intentionally fictional alteration, as all other sources mention four Campbell brothers, not five.

(Estes 2019; Goodyear-Kaʻōpua 2017; Tuck and Gaztambide-Fernández 2013), temporality (Rifkin 2017), and political economy (Cattelino 2018; Coulthard 2014; Moreton-Robinson 2015). I ask what futures these fictions forecast and foreclose while using archaeological and archival evidence to point out contradictions of settler capitalist subjectivity along the way. Given settler states' ongoing occupation of Indigenous land, the themes that emerge are not unique to the 19th century. Interpreting these texts is not simply an exercise in critical reading. It is a crucial step toward re-interpreting the Campbell Factory in a way that divests from settler-capitalist futures.

7.2.1 Monetary Modernity

The titles of both *The Mint at Pascack* and *The Last Wampum Coinage*, in referring to the Campbell Factory as a "mint," already establish a strategic inclusion and exclusion of Native people from settler society and future. Money—who has it, who understandings its logic, and who does not—has long been a condition under which settlers recognize economic modernity (Cattelino 2018). Writing in the *American Naturalist*, Ernest Ingersoll vocalized this view of wampum at the same time the Campbell Factory was in operation:

> The use of a circulating medium to facilitate commerce by simplifying the awkward devices of barter, is supposed to indicate a considerable advance towards civilization in the people employing it. On this score the North American Indians ought to stand high in the list of barbarians, since they possessed an aboriginal money of recognized value, although it had not sanction other than common custom. This money was made from sea-shells, and was known by various names, of which one has survived popularly—*wampum*—to designate all varieties of sell beads and money (Ingersoll 1883, 33).

Here, Ingersoll lauds Indigenous peoples for developing a medium of circulation, yet their currency has not reached the heights of state-backed coinage. Building from Chapter 4, settlers' claims about wampum as "primitive money" are best interpreted as reflection of their own

monetary development, rather than a universal account of "civilization" globally. Reconstruction and Gilded Age America was awash in monetary anxieties after the government's issuing of "greenbacks" to fund the Civil War. In many ways, Ingersoll's concern about the origins of money reflects an anxiety of his own society rather than the Haudenosaunee, Pequot, or Shinnecock. While populist movements pushed for greenbacks as a mechanism for redistribution, bourgeois politicians' insistence on the gold standard reveals their anxiety about where the real "value" of their wealth came from (Ritter 1997). Paper money had exposed money's true chimeric and socially-constructed quality at a time of Gilded Age unrest and inequality (White 2017a).

Framed in this way, the visit to *The Mint at Pascack* is at once a lesson in monetary theory, racial hierarchy, and the worthiness of industrial time and technological invention all at once:

> I am going to tell you about money … about the mint at Pascack … do not imagine that there was a continuous row of stately buildings in which the coining was going on night and day; that complicated machinery was set up in them, such as you may find in that great institution in Philadelphia, where you may see specimens of all the coins used as circulating medium among the civilized nations. The mills were as poor, the machinery as crude, as the folk for whom they were worked. (Chesebro 1872, 298–302)

In Chesebro's civilizational musings, Native nations are not the sovereign producers of their own primitive coin. Instead, the white men who manufacture "Indian money" "have done honest work, and have been well paid for it" (Chesebro 1872, 302), in part because they understand the true value of "time, money, [and] human hands" (1872, 299). To understand wampum as "primitive currency" on the one hand grants Native people a capacity for monetary exchange. *Shell* money, however, and its "crude machinery" is not *yet* modern. In other words, monetary

modernity is "a singular temporal formation that itself marks the sole possibility for moving toward the future" (Rifkin 2017, 15).

Elsewhere, Chesebro's informant explains, "We have found out, gentleman, that time is money" (1872, 302). This maxim was first coined by Benjamin Franklin, eventually becoming a touchstone of Weber's famous *Protestant Ethic and the Spirit of Capitalism* ([1905] 1958). Reading Franklin's treatise on money as an "ethos," Weber sought to understand the religious dimensions of how "this philosophy of avarice appears to be the ideal of the honest man of recognized credit, and above all the idea of a duty of the individual toward the increase of his capital, which is assumed as an end in itself" (Weber [1905] 1958, 51). Thus, ideal settler subjects understand the true value of money, both as a precondition of settler civilization and an adoption of an ethic of self-interest framed as a moral virtue.

7.2.2 Replacement, Race, and Ancestry

Settler-capitalist future is an ever-receding horizon of white investment and speculation in people, things, and land (Beckert and Rockman 2016; Cronon 1991) predicated on the violence of dispossession, forced removals, and replacement of Indigenous peoples (Coulthard 2014, 7–15; Dunbar-Ortiz 2014). This future is enabled by an imagined past, one where ancestry—its depth, purity, or in some cases Indigeneity—rationalizes the occupation of stolen land as white property (Harris 1992; Moreton-Robinson 2015; Reardon and TallBear 2012).

The Mint at Pascack makes frequent mentions of the Campbell family ancestry. In fact, their Scottish heritage is phenotypically legible to Chesebro before even learning the family's name: "He makes me think of Hugh Miller[65] as I look at his noble face, and meet the glance of his intelligent eyes as they look at me from under the shaggy brows" (Chesebro 1872, 300). The

[65] A famous 19th century Scottish geologist.

family business is deeply rooted in place, and "blood" is the source of intergenerational continuity, accumulation of capital, and diligence: "there's Scotch blood in their veins; it has glued them together, and made them stick to that business" (1872, 302). *The Last Wampum Coinage* is also quick to establish the deep ancestry of its informants (Norton 1888, 592):

> "How did this thing begin?" …
> "Well, that must have been pretty soon after the country was settled, I expect. My grandparents and great-grandparents all worked at at [sic.]. It must be three or four generations since we, Campbells, have been making wampum right here on Pascack."
> "Campbells." I interposed. "That's not a Dutch name."
> "Well, I guess not," somewhat indignantly. "We're Scotch, or rather we were till we turned Americans."

Nowhere does Chesebro acknowledge that Indigenous people(s) ever made wampum. Instead, wampum manufacture is rendered a white ancestral craft through citations of settler lineage: "The old man who exhibits to us this old-time way of work evidently sees his father and grandfather and great-grandfather rising before him. … What a steady hand he shows as he drills the shell … after the manner of his ancestors" (Chesebro 1872, 302). Elsewhere she marvels at "a family occupying the same ground, and doing the same work, one generation after another … in the very field occupied by their forefathers" (1872, 302). However, wampum-craft as a white man's industry is complicated by the text itself; as the reader enters the factory, "we have a civil welcome from the three white faces, and the one black one, turned toward us" (1872, 299). As argued in Chapter 4, this worker may have been James Williams, the bead grinder noted in the Campbell ledgers whose surname is labelled either "Black" or "Mulatto" in the U.S. censuses.

In sum, *The Mint at Pascack* legitimates its white-settler past, present, and future through three historical erasures of appropriation along racial lines. First, the profits and power behind wampum manufacture was appropriated from northeastern Indigenous nations after the violence

of the 17th century wampum wars (Brooks 2018; Lipman 2015). Second, the "continuity" of the Campbell family lineage in Pascack was predicated on the appropriation of land from Munsee-speaking Lenape peoples of Northern New Jersey (Grumet 2009), ancestors of the Ramapough Nation who today face the legacy of settler capitalism's environmental racism (Meltzer et al. 2020). Finally, 19th century wampum production rested on the often unacknowledged appropriation people of color's labor, as both primary producers and waged workers in the Campbell Factory.

7.2.3 Reproducing Settler Subjects: Gender and Sexuality

The emergence of the Campbell Factory moved wampum production further outside the home and further into the domain of Euro-American men. In other settings, such as the New England textile industry, women were explicitly brought into factory spaces as a form of cheap labor (Mrozowski 2006), but this does not appear to be the case in the wampum industry. Written for an audience of young women, *The Mint at Pascack* captures the affective experience of entering the gendered space of the factory. Chesebro offers occasional moral instructions for her audience of young urban women, particularly related to dress. Upon entering the Campbell Factory, the narrator notes,

> I see that you are looking around you with a little dismay. I can only improve the moment by saying, that the next time when you visit a place where men work in shirt-sleeves with leathern aprons and overalls, it would be wise not to go in your best. If you are going to walk on Broadway, wear, of course, a silk dress with a trail a yard in length, or, if you ride on the Avenue or in the Park, by no means protect yourself from cold as absurdly as the driver does; but when you go into a workshop where all things are in keeping with the work that is done there, don't go arrayed in a splendor which will annoy a kindly workman when he sees you covered with dust, and daubed with lime and water.

Chesebro's attention to appropriate dress is an attempt to negotiate the tensions of class, gender, and space for her reader. "Dismay" and self-consciousness upon entering the workshop reveals a

dissonance between the "best" dress of feminine urban elite and the masculine industrial space of the roughhewn rural factory.

The masculine dimensions of the factory are hinted elsewhere, as the narrator inquires (Chesebro 1872, 300),

> "Do you import, yourselves?" and I think it a foolish question, these men in this mill importers! To my surprise he answers, "Yes," and then how the walls of the little shop expand! The place puts on new dignity, or rather, we see it in a new light. These men of the mint, in their woollen shirts, and leathern aprons, and coarse overalls, are importers for the nations of red-men.

By associating these "men of the mint" and their rough-hewn clothing to global commodity flows, *The Mint at Pascack* reinforces the factory as a masculine industrial space of extra-domestic affairs and international importance. The spatial experience of the factory "expands" in turn.

Chesebro also makes subtle references to sexuality and dress. As discussed in Chapter 2, settler sexuality is one that positions the heteropatriarchal monogamy of a yeoman family as the foundational reproductive building block of the Jeffersonian state. Here, the problem of landed aristocratic European inequalities caused by private property and medieval primogeniture (inheritance by the first male) is solved by an endless western expanse of real estate made cheap by the disposability of Indigenous inhabitants. This rationale informed Frederick Jackson Turner's famous "frontier thesis" to explain American exceptionalism (Cronon 1987; Turner [1893] 1986). The land in question, of course, could only be accessed through violent dispossession of Indigenous peoples or their assimilation into settled agrarian gender relations demanded by the settler state (Saler 2014, 211–248; TallBear 2018). Fidelity, monogamy, and sexual propriety were key to intergenerational whiteness and capital accumulation. Diverse and alternative kinship, sexuality, and gender relations practiced by Indigenous peoples were as

much a threat to the settler state and political economy as they were disturbing to settler ontology and ethics.

The Mint at Pascack makes references to Indigenous consumers of Campbell products, including Native women. In a complex concluding passage, Chesebro (1872, 303) admires the Campbell family:

> With that brain-power which any one can see these men have without stint, they might have gone into the great city not thirty miles away, and, working there as industriously as they have wrought beside the running brook, they might now be living the excited lives lived by other fortune-hunters. Their wives and daughters might have decorated themselves as bravely with the gauds of civilized society as the Indian squaws and beaux decorate themselves with moon wampum, hair-pipe wampum, haliotis, red airs, and silvers; but they have chosen a good part which shall not be taken from them.

Here, Chesebro holds up the humble women of the Campbell family in contrast to both "civilized" society of urban elite and Native women. In both cases, she articulates the ethic of Protestantism (Weber [1905] 1958) by critiquing the frivolity of spending on conspicuous consumption—in the vein of Thorstein Veblen ([1899] 1973)—instead of reinvestment as capital. This is in keeping with Chesebro's other writings, where "women's uncomplaining self-sacrifices and unadorned goodness lead eventually to just rewards" (Ljungquist 1999, 77). Objects of adornment—whether the luxuries of cosmopolitanism or the baubles of the fur trade—are a symbol of potential impropriety and imprudence. In this case, the beaded bodies of Native women are a cautionary tale, a vehicle to critique Chesebro's own peers as threat to traditional values that are embodied by the Campbells. Crucially, it is the Campbell women's moral propriety expressed through dress that will prevent future appropriations of their "good part": their proprietorship as both a professional calling, rural lifestyle, and fixed propertied geography. This is set in contrast to Indigenous women, whether the original Munsee-Lenape

inhabitants of New Jersey or Plains consumers of Campbell products, whose choice to adorn themselves with "gauds" such as wampum or hair pipes justifies the taking of their land, bodies, and lives.

7.2.4 Temporalities of Technology and Labor

In the 18th and 19th century, wampum production merged more formally with capitalist temporality and relations of production. New technologies emerged with the Campbell Factory, through which *The Mint at Pascack* and *The Last Wampum Coinage* forecast a faster, deskilled, and more efficient shell-bead economy of scale. Capitalist technologies and relations of production have long been shown to shape senses of time, historicity, and futurity that forward the interests of capital accumulation (Harvey 1990; Ingold 1995; Thompson 1967; Weber [1905] 1958). E.P. Thompson (1967) famously traced the material histories of timekeeping and modes of discipline—including Puritanism—that fostered a new ethic of "industrial work-discipline" in early modern England. Since Thompson, the anthropology of temporality has identified the many embodied and technological disciplines imposed by the commodification of time under capitalism (Munn 1992, 110–111), as well as the unpredictable heterogeneity of modern timescapes, both within and against capitalist temporality (Bear 2016).

As an ethic (Bear 2016, 494; Weber [1905]1958), settler-capitalist temporality valorizes private property (Moreton-Robinson 2015), industriousness (Fong 2019), and monetary time-thrift (Thompson 1967) as a means to capital accumulation while holding Indigenous people outside of these civilizational virtues. At the same time, narratives of technological progress and invention (Pfaffenberger 1992) tend to fetishize technological capital—whether pipelines (Proulx and Crane 2020) or wampum drilling machines—as an apologia for any negative impacts of capital accumulation on the health and relations of humans and nonhumans in their wake.

Norton's informant describes the original appropriation of wampum production from Native beadmakers in terms of both capitalist and civilizational competition (1888, 593):

> "You see," he continued, "the Indians had all the time they wanted and no tools to speak of, and they would grind away for a month on a little piece of shell, and finally turn out a good bit of work; but it was a slow way to coin money, though the money was good enough when it was coined; so great-grandfather he went to work and found he could beat native methods away out of sight.

Here, temporality and technology intertwine with racecraft (Fields and Fields 2012). Slowness and technological simplicity are tied to Indigeneity, while the industriousness and ingenuity of Campbell ancestors leads to capitalist success over Native competitors. Reading between the lines, outcompeting Native methods of production also suggests putting Native people themselves "out of sight." In this reading, capitalist competition is as much a genocidal project as it is an economic one, a sentiment gets to the core ethic of settler capitalism.

The Mint at Pascack notes that the "proudest feature of this establishment" (Chesebro 1872, 302) is the famous wampum drilling machine. Chesebro contrasts the machine with the "old-time way of work" of bow drilling. With the bow drill, if a worker "is not careful he will lose all his labor, for to crack the pipe in the process is of course to make it unfit for use" (Chesebro 1872, 302). The drilling machine, on the other hand, could drill beads "in one third of the time, and with infinitely less anxiety than the old people felt when they did the work with the bow drill" (Chesebro 1872, 302). As noted in Chapter 4, a later source claims the machine could eliminate almost all waste in the industry (Storms 1939). These passages depict skilled craft production as both anxiety-inducing and wasteful, problems that technology can effectively solve. As outlined in Chapter 6, the drilling machine probably solved some of the difficulties of cottage production, though it is not clear the machine was less wasteful, at least in terms of breakage rates.

Regardless, the social and economic benefits of this technology were not well distributed throughout the region. The drilling machine afforded the Campbells a local monopoly in the beadmaking industry: "the old gentleman fairly cornered the wampum market for a while." (Norton 1888, 593). Norton's informant was probably correct in his claim that none of his competitors "could ever make 'hair-pipe' equal to our'n." Even at the David Campbell House—the Campbell brothers' uncle—there is no evidence of hair-pipe production. Chesebro, too, describes a decline in the regional cottage industry, suggesting that in the past, "you would have found money-making establishments resembling [the Campbell Factory]; and not one of them is now in operation except this one at Pascack" (1872, 298). The emergence of the factory and their drilling machine technology led to fewer economic opportunities for the Campbells' neighbors, both white and people of color.

The affective cost of the Campbells' monopoly appears to be a kind of paranoia about keeping the drilling machine locked away from potential competitors. Oral histories note that the unpatented machine was kept "under lock and key … the fear of its being copied was the reason for the great care and secrecy" (Westervelt 1924, 22–23). The Campbells refused the curiosity of the *Bergen County Democrat* in 1871: "As much as the process is kept secret we cannot, of course, describe it." An exchange in *The Last Wampum Coinage* backs this up (Norton 1888, 594):

> " … There's some secrets about it," said the old man, with a touch of professional pride, "that have never gone out of the Campbell family … "
> "Then the secret is about boring the hole is it?"
> "Young man, don't you go too fast! I didn't say a word about boring holes, did I?"
> "Oh, no! You needn't be alarmed; I don't want to go into the business."

The Campbells bristle at the possibility of intellectual property theft, a common means of capitalist accumulation in the late 19th century. Gilded Age "inventors" were successful as much

through machinations of patent law and legal litigation as they were through technical genius or creativity (Usselman 1992). As Richard White characterizes it, "the old system of tinkering and what amounted to a kind of nineteenth-century open-source innovation was giving way to a system where some successful inventors secured molopoly rights over what were often common ideas" (2017a, 508). By one interpretation of the Campbells' paranoia, it is as if the original sin of Indigenous appropriation haunts their industry. They appear to be aware that their fragile monopoly depends on defending technology from further appropriation by capitalist competitors.

7.2.5 Terminal Narratives and Indigenous Interruptions

The Mint at Pascack suggests that Indigenous temporalities of consumption interrupt factory production. Chesebro (1872, 300) asks,

> "Do you work here all the year round? …
> "Not generally in summer, but sometimes. That depends on orders … The traders! It is they who want the wampum then, and who order it, as a nurse orders things for the baby she is taking care of!" The man laughs; he thinks it is a baby rather hard to manage whom the government has undertaken to look after through its agents.

The frustration in the tone of Chesebro's informants suggests the ways that Indigenous demand for a specific materiality of bead and unpredictable temporality interrupt a smooth transition to industrial production, pushing the limits of capital and labor, of shells and machines, and bending them to their will.

At times, the Campbells appear to have a begrudging respect for the demands of their consumer base. As Norton notes, "The Indians won't have any pink on the hair-pipe, though they want it on the moons—more the better" (1888, 594). As for imitations of Campbell products (Norton 1888, 595),

> "The Indians wouldn't look at them twice, and the fellow was glad to get away with his scalp on his head; for after he had tried it on two or three different tribes, word was passed round that he was a bad white man, and he had to get back to the settlements in a hurry."

The perceived violence of the Campbells' consumer base and their ability to hold traders accountable for product quality further reinforces Indigenous agency on the factory floor. Of course, the "agency" of consumers of capitalist products is a very specific and limited type of agency (Wurst and McGuire 1999), and it is one that often serves the interests of capital, even as it bends it to consumer will. Either way, these passages make clear that any claim of Campbells as "inventors" of bead styles misunderstands the presence of Indigenous demand on the factory floor, at least mediated by fur trade merchants and settler subjectivities.

Both texts depict the industry, its molluscan raw material, and its Indigenous consumers as a single terminal narrative. For Norton especially, writing fifteen years after Chesebro, this story takes on elegiac tones: "A million of beads and nine hundred set of moons! Them was times when the Indian trade amounted to something" (Norton 1888, 593). Consciously or not, *The Last Wampum Coinage* nods to *The Last of the Mohicans*, itself a popular literary source of widespread settler belief in the inevitability of Indigenous elimination. Sources attribute the decline of the industry to the increasing "scarcity" of their consumers—terminal narratives of Native assimilation and elimination—while failing to see the closing of the many workshops and eventually the factory as typical future of capitalist competition and monopolization.

First, Norton's informant assigns blame to the overconsumption of clams on the East Coast (Norton 1888, 594–595):

> " … the little-neck business has spoiled that branch of the trade … the correct color can only be found in the j'ints of *old* clam-shells. Now, there ain't no special call for old clams in the market. Everybody wants the youngest clams they can get, and they are called 'little necks,' no matter how big they be … They've all died out, and the young-uns ain't allowed to grow up."

Later, he intones about his consumer base (Norton 1888, 595):

> "I reckon we are seeing about the last of it," said the "firm," as he locked the shop and put the key in his pocket … "The Indians is getting scarce, and what's left of

> 'em is getting sort of civilized with missionaries and whiskey and the like, and their taste for really good wampum isn't what it was.

Here, the Campbells acknowledge the central contradiction of their enterprise which is also the source of the text's tragic tone: The Campbells' invested capital in a consumer base projected to disappear, either literally or culturally, as their "taste" in wampum depends on their Indigeneity.

And yet, despite the Campbells' anxiety about the elimination of their consumer base, hair pipes and wampum continued to flourish across North America from the early 20th century to today. The most direct cause of the Campbell Factory's closure is not a disappearing consumer base but—ironically and predictably—a capitalist competitor. A larger company contracted with the Chicago stockyards to produce hair pipes out of bone which became hugely popular with Native nations across the Great Plains in the later 19th century (Ewers 1957). Thus, while Native nations survived the project of settler capitalism, the Campbell Factory did not. Its own "terminal narrative" was a predictable future of capitalist competition and monopolization, not the elimination of their consumers.

Indigenous nations maintained their futures through making, weaving, and wearing of shell beads, even those bead that were conscripted by settler capitalism. As Chapter 8 narrates, they were woven into wampum-belt land claims (Bruchac 2018). They adorned delegations to Washington (Fleming 2003). They were gifted between communities to marshal resistance to U.S. imperialism (Keagle 2013). While I have thus far described Native people as "consumers" of Campbell products, their futures were made from Campbell products not exclusively through modern "consumption" but through other acts of making, such as beads' transformation through weaving, beadwork, and adorning. Abenaki historian Lisa Brooks describes the "work" of wampum craft for chiefly Wampanoag women in the 17th century as "entwining the bonds between nations, weaving a multifaceted tapestry of northeastern political networks" (2018,

264). This sovereign beaded tapestry continues today. The Campbell Factory's future, however, was as fragile as their limits to capital accumulation and as tenuous as their grasp on a local temporary monopoly.

8 SHELL BEADS AND INDIGENOUS SOLIDARITY

Drawing from theories of performance and adornment, 19th century visual representations of Indigenous adornment attest to the ways that Jersey-made beads signaled multiple scales of affiliation and difference across race, gender, nation, age, status, sexuality, and other social variables (Ewers 1957; Karklins 1992; Keagle 2013). With these accumulated individual choices came the collective effort of self-fashioning Indigeneity, of cultural survival, reinvention, and flourishing in the face of settlers' attempts to eliminate and assimilate. Yet shell beads were much more than this. This chapter argues they were conscripted into efforts of military subterfuge, pan-Indigenous revitalization, diplomatic negotiations with settler states, and Indigenous contestations of settler modernity. Through these uses, I argue that shell was conscripted into projects of *solidarity*, specifically through their movement, meaning, materiality, or in some cases rejection. I define solidarity here as a structure of feeling or unity of purpose born of mutual recognition of common interest that must in fact cross over embodied signifiers of difference in order to mount meaningful resistance to settler capitalism. This draws from Sara Ahmed, who argues that "Solidarity does not assume that our struggles are the same struggles, or that our pain is the same pain, or that our hope is for the same future. Solidarity involves commitment, and work, as well as the recognition that even if we do not have the same feelings, or the same lives, or the same bodies, we do live on common ground" (Ahmed 2014, 189).

Solidarity can take many forms at many different scales, whether between individuals, communities, or nations, between human and nonhuman beings, or between past and future generations. Solidarity is contingent and constrained by the scarcity manufactured by capitalism and colonialism and their attendant racial, gendered, classed, and sexual ideologies. Solidarity has been both successful and unsuccessful in building coalitions to mount resistance, but it

nonetheless has always existed. It is also not without contradiction and complexity. While beads helped build anti-American coalitions across shifting colonial borderlands, any "purchase" of Jersey-made shell beads also fueled the web of harm wrought by settler-capitalist production. Indigenous demand also sustained the livelihoods of people like Peter Sisco, the Pascack Valley resident who the 1850 census documented as both "Black" and a "wampum maker."

The conscripted materiality of shell beads helped fuel the solidarity required to combat oppression and sustain alternative ways of being in the world. Two cases of 19th century Indigenous resistance demonstrate how shell beads produced in New Jersey constituted Indigenous sovereignty in the face of American empire: Tenskwatawa and Tecumseh's confederacy in the War of 1812 and the U.S. wars against the Oceti Sakowin (or Great Sioux Nation) after the Civil War. The former featured wampum while the later demonstrates the growing influence of hair pipes on the Plains. These stories have been told many times by historians, though the role of wampum and other shell beads is typically a footnote in a larger narrative. Here, I retell these cases with shell beads in the foreground. Both make clear the role of beads and solidarity in the face of settler colonialism, private property, and market relations. They also demonstrate the importance of Indigenous spiritual movements in combating settler capitalism and tending to its harms.

8.1 Tenskwatawa and the Spirit of Indigenous Anti-Capitalism in the Old Northwest

The same year that David and Hannah Campbell built their home and started a life as wampum makers in the Pascack Valley, the War of 1812 raged across the Old Northwest. Wampum played an important role in this conflict, some of which was likely produced by Euro-Americans in New Jersey. Wampum belts and strings flowed across lines of difference in this conflict to signal solidarity and weave alliances. Indigenous leaders and British and American officials both relied on and took advantage of the good faith that wampum implied.

The Old Northwest was home to some of the first pan-Indigenous movements of resistance to the United States after its founding. These movements came in two generations, first with the Western Indian Confederacy led by Mohawk chief Joseph Brant and followed by the Shawnee brothers Tenskwatawa and Tecumseh (Ostler 2019, 70–74, 141–179).

North American settler states had practiced "wampum diplomacy" in the region long before 1812 (Peña 2006; Williams 1996). By the opening of the 19th century, Indigenous faith in American treaties had been deeply eroded. In the years after the Revolutionary War, many Indigenous nations living on U.S. borders understood its intentions as genocidal (Ostler 2015). Some nations came together as the Western Confederacy to contest rapacious American settlement west of the Allegheny Mountains (Calloway 2007; Hogeland 2017). This movement ended with the battle of Fallen Timbers in 1794 followed by concessions at the Treaty of Greenville. The Treaty of Greenville was replete with wampum exchanges. Here, belts served to remind delegates of previous treaties, establish credentials, demonstrate sincerity, and record treaty terms (Harrison 2017). Written treaties had been the norm for some time, but "although some tribal leaders had abandoned using wampum with Americans because they felt Americans failed to understand its significance, Indian leaders at Greenville returned to beaded belts and strings as a medium of historical storytelling" (Buss 2011, 193).

In the decades after Greenville, a younger generation of Indigenous leaders were dissatisfied with concessions and continued encroachment and violence on the frontier. Viewing the United States as an existential threat, two Shawnee brothers—Tenskwatawa (the Open Door, also known as The Prophet) and Tecumseh—effectively mobilized diverse nations into a new resistance movement. Building on previous coalitionary efforts of Pontiac and Joseph Brant in the later 18th century (Cave 2006; Dowd 1992), Tenskwatawa's movement took new spiritual

heights. As Roxanne Dunbar-Ortiz puts it, the Shawnee brothers' organizing was "made all the more potent by combining Indigenous spirituality and politics" (Dunbar-Ortiz 2014, 85).

To understand the spirit of Tenskwatawa's resistance, one must first understand the logic of settler colonialism in the Old Northwest (Ostler 2015; Saler 2014). Of course, settler colonialism was fueled by settlers' desire for land, but it also demanded a specific way of life. Through the Northwest Ordinance of 1787, the American settler state sought to colonize the region by comporting its inhabitants to specific Anglo-American conceptions of kinship, spirituality, property rights, subsistence regimes, and market relations: "Social commentators specified that the ideal western settlers be not only settled producers but also reproducers: married men and proprietors of families." (Saler 2014, 24). As with other Indigenous anti-colonial and anti-capitalist movements (Taussig [1980] 2010), Tenskwatawa and Tecumseh's resistance to the American state was explicitly spiritual. Often cited as a syncretic revitalization movement, it harkened to Native traditions that had changed with the advent of settler colonialism, but it also reimagined these traditions in a new framework (Cave 2006; Edmunds 1983).

Circulations of wampum grounded this new pan-Indigenous spirituality. In 1807, Le Maigouis, an Ottawa warrior who Tenskwatawa deemed "the Herald of the new Religion," traveled to Michilimackinac, the heart of Euro-American trade in the northern Great Lakes. As reported in a letter from Captain Dunham to William Hull,[66] Le Maiguois held "eight strings of Old Wampum four white and four blue" given to him by Tenskwatawa: "These strings of Wampum come from the Great Spirit, do not despise them—For he knows everything—they are

[66] "Speech of Indian Chief to Various Tribes." Enclosure in letter from Captain Dunham to Willian Hull, May 20, 1807. *Michigan Historical Collections* (1929), vol. 40: 127–133.

to go all round the earth till they are lost." Speaking in the voice of the Great Spirit, Le Maiguois outlined Tenskwatawa tenants of anti-American spiritual resistance:

> *My Children* You are to have very little intercourse with the Whites. They are not your Fathers, as you call them; but your *Breathren* … [The Americans] grew from the Scum of the great water, when it was troubled by the Evil Spirit … They are numerous—But I hate them—They are unjust—They have taken away your Lands which were not made for them.

The Great Spirit warned against settler subsistence regimes, market relations, and adornment commodities:

> *My Children* You must plant corn for yourselves, for your Wives, and for our Children; and when you do it you are to help each other. But plant no more than is necessary for your own use. You must not sell it to the Whites—It was not made for them. I made all the trees of the forest for your use.—But the Maple I love best, because it yields sugar for your little ones—You must make it only for them—But sell none to the Whites … Besides by making to[o] much you spoil the Trees, and give them pain by cutting and hacking them—For they have a feeling like yourselves—If you make more than is necessary for your own use, you shall die, and the Maple will yield no more water …
>
> *My Children* You are indebted to the White Traders—But you must pay them no more *than half their credits because they have cheated you* … You must not dress like the Whites nor wear Hats like them—But pluck out your hair as in ancient times.

Officers at Fort Michilimackinac were disturbed by the effect of the speech. Circulations of shell beads signaled a pan-Indigenous solidarity they found threatening. The movement of wampum between nations, sometimes former enemies, was a potent symbol of this threat. As Captain Dunham reported, "there appears to be an extensive movement among the savages of this quarter, which seems to carry with it much of the *dark* and *mysterious*. Belts of *wampum* are rapidly circulating, from one tribe to another; and a spirit is prevailing, by no means pacific."[67]

[67] Letter from Captain Dunham to Willian Hull, May 20, 1807. *Michigan Historical Collections* (1929), vol. 40: 123–124.

In the early years of the movement, Tenskwatawa's anti-American tenets came also with tests of Indigenous purity. Occasional flashes of religious zeal ended in violence, including against Native people accused of witchcraft. In contrast to Euro-American witch hunts—which attended the rise of capitalism's demographic crises as a war against women's control over their bodies, reproduction, and sexuality (Federici 2004)—Tenskwatawa's followers conducted witch hunts against Native people who had adopted settler-capitalist ways of being in the world. This included Anne Charity, an elderly Delaware who Moravian missionaries described as "an active, industrious woman, and admired for her cleanliness" (Edmunds 1983, 44). These rare instances of violence soon gave way to more peaceful inter-Indigenous relations, a less puritan spirituality, and a more explicitly political movement against the American state.

Tenskwatawa and Tecumseh had gathered a large following, first settling at Greenville, and later establishing a settlement known as Prophetstown. While Tenskwatawa proselytized at Prophetstown, Tecumseh traveled west and south in an attempt to unite Indigenous nations into ending all sales of land to Americans (Grenier 2005, 206). Taking advantage of Tecumseh's absence, William Henry Harrison advanced on Prophetstown in November of 1811, drawing Tenskwatawa into the infamous "battle of Tippecanoe": "Only after some two hundred of the Indigenous residents had fallen did the troops overpower them, burning the town, destroying the granary, and looting, even digging up graves and mutilating the corpses" (Dunbar-Ortiz 2014, 86).

The assumptions of solidarity that wampum carried could also be manipulated for Indigenous advantages, and it played a crucial role in the aftermath of Tippecanoe. In the winter of 1812, Harrison sought an audience with Tenskwatawa and Tecumseh. He sent a wampum belt as a symbol of Americans' offer of peace, suggesting the brothers join him on a trip to

Washington to negotiate (Edmunds 1983, 120–122). The brothers pretended to accept the belt in order to buy themselves time to regroup, and only later did they reject the wampum to signal their true intent (Cave 2002, 664). That same winter, Isadore Chaine—a mixed-race Wyandot working for the British—presented himself as a peacemaker at Prophetstown, bearing white wampum given to him by the Americans. In reality, he was an Indigenous agent and also carried a concealed string of black wampum from the British, symbolizing war. Thus, wampum facilitated flows of information between the Shawnee brothers and the British while keeping the Americans from suspicion (Edmunds 1983, 122).

In July of 1812, Tenskwatawa sent a representative with pipes and belts of wampum for western nations, including delegates of the Kickapoo, Potawatomi, Oceti Sakowin, Iowa, Miami, and others, entreating them to join his forces. His argument was against white settlement and the dependencies of settler-capitalist market relations, again through the medium of wampum:

> Your Friend, the great Narrator on the Wabash River has sent to each of you this Wampum & Pipe for you to receive and join him at his village when the corn is made, so we can agree there where & where to strike on the Americans. They are a bad People and never will tell you the truth, they will also cheat you out of your lands and keep you and your families in poverty. [68]

The response of attendees at the time was cautious, but after resounding Indigenous victories in August at Monguagon, Fort Michilimackinac, and Fort Dearborn, "the fields were full of corn, and warriors from the western tribes again flocked to [Prophetstown]" (Edmunds 1983, 128). The influx of Indigenous forces fueled the movement through 1812 and was made in part through the solidarity of wampum belt exchanges.

Ultimately, the Shawnee brothers' pan-Indigenous movement was overcome. Tecumseh was killed in the fall of 1813 at the Battle of the Thames, and Tenskwatawa fled to Canada.

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[68] Carter, C. (1934). *The Territorial papers of the United States*. Washington, D.C.. July, 1812. p. 579

Despite the military fame that carried Harrison to the White House, the movement was undercut not so much by Harrison's troops but his decision in 1813 to unleash citizen militias, or "frontier rangers," on Indigenous civilians, their settlements, and agricultural resources, part of a long U.S. policy of settler-citizen participation in Indigenous genocide (Grenier 2005, 209–213).

Tenskwatawa eventually retired in Shawnee reservation land near modern day Kansas City. Through a happenstance of history, the painter George Catlin traveled through Fort Leavenworth sometime either in 1830 or 1832 and painted a portrait of Tenskwatawa, then in his sixties (Figure 8.1). Assuming the portrait reflects a degree of reality, the figure follows a common trope in Catlin's work in wearing necklaces of long tubular beads resembling hair pipes. The sketchy style of these necklaces makes it difficult to know for certain whether Tenskwatawa in fact wore hair pipes. However, he stands out from Catlin's other work by holding "what Catlin called his 'medicine fire,' a short rod ornamented with feathers and wampum" (Catlin 1841, 117; Edmunds 1983, 186).

Tenskwatawa's wampum-fueled spiritual movement was not the first or the last Indigenous act of resistance to the United States. Uses of wampum were similar in the conflict known to settler histories as the Black Hawk War of 1832. As Patrick Jung describes it, "While the defeat of Tecumseh's confederation during the War of 1812 greatly diminished this ideology of resistance, it did not destroy it. Indeed, the Black Hawk War was proof of its continued existence almost twenty years later" (Jung 2007, 4). In reality, the Black Hawk War was a little more than "a slaughter of Sauk farmers" (Dunbar-Ortiz 2014, 111). Roughly one-thousand Native people gathered with the Sauk leader Black Hawk to defy an order by the U.S. government to leave Illinois, where again the U.S. military let lose "untrained and undisciplined frontier militia volunteers who did the bulk of the fighting … and sought nothing less than

[Indigenous] extermination" (Jung 2007, 7). Wampum belts had circulated among the Sauk nation during the War of 1812 (Nichols 1992, 34), and they were used similarly to marshal support. However, during this conflict the United States exploited different Indigenous factions in ways that undermined wampum's capacity for solidarity. George Catlin painted a portrait of Black Hawk (Figure 1.1), where wampum features prominently. In his words, "When I painted this chief, he was dressed in a plain suit of buckskin, with strings of wampum in his ears and on his neck" (Catlin 1841, 221). Another portrait of Black Hawk by Charles Bird King also depicts the leader featuring wampum necklaces and ear ornamentation (Figure 8.2).

Figure 8.1: George Catlin, *Ten-squát-a-way, The Open Door, Known as The Prophet, Brother of Tecumseh*, 1830, oil on canvas, Smithsonian American Art Museum, 1985.66.279, https://americanart.si.edu/artwork/muk-tah-mish-o-kah-kaik-black-hawk-prominent-sac-chief-3925

Figure 8.2: Charles Bird King, *Ma-ka-tai-me-she-kia-kiah - Black Hawk A Saukie Brave*, 1838, hand-colored lithograph on paper, National Portrait Gallery, https://npg.si.edu/object/npg_NPG.99.168.7

8.2 **Breastplates, Buffalo Robes, and the Oceti Sakowin**

According to ledgers from Campbell Factory finances, between October and December 1860, the Campbells sold twelve "buffalo robes" for roughly $7.75 each to their fellow Pascack Valley residents.[69] One of these robes is now housed in the Pascack Historical Society museum in Park Ridge, New Jersey. These objects were likely given to the Campbells by fur trade merchants through the American Fur Company, including Chouteau merchants mentioned in the Campbell ledgers. Hides were perhaps as bartered payment for hair pipes and moons. The continental flow of beads westward and buffalo (or technically bison) hides eastward was part of a project of settler-colonial capitalism. It was capitalist in the sense that buffalo hides were the American Fur Company's most recent target for commodity extraction and profit accumulation. It was settler-colonial in the sense that it relied on and perpetuated the elimination of Indigenous and nonhuman nations on the Great Plains. Hair pipes and moons were conscripts in this project, but they were also part of a project of Indigenous solidarity and resistance to U.S. empire, one that shook the settler state to its core, leading it to ratchet up its genocidal policies to achieve settler-capitalist interests.

Hair pipes and moons feature prominently in photographic portraiture of Plains nations in the 19th century (Ewers 1957). Many portraits emerged from Native delegations to Washington. Taken and collated by photographers such as Charles Milton Bell (b.1849, d.1893), Alexander Gardner (b.1821, d.1882), Matthew Brady (b. 1822, d. 1896), Antonio Shindler (b.1823, d.1899), William Henry Jackson (b.1843, d.1949), and others, delegation photography at this time approached the status of a genre (Viola 1981). Under settlers' photographic gaze, images of Indigenous peoples were conscripted into settler-colonial narratives, whether through the

[69] James Campbell Ledgers, #5215, Pascack Historical Society, Park Ridge, NJ.

commoditization of the "vanishing Indian trope" or as case studies in anthropological types (Alison 1998; Fleming 2003; Johnson 1998; Lidchi and Tsinhnahjinnie 2009). New photographic technologies—relative to paintings and drawings of George Catlin or Charles Bird King—held a heightened sense of objectivity, fueling settlers' desire to analyze and consume Native American authenticity. In 1859, Smithsonian Secretary Joseph Henry described the purpose of the Shindler Catalogue of Native American photography "to begin anew … a far more authentic and trustworthy collection of likenesses of the principal tribes of the US" (Fleming 2000, 57). Despite their striving for authenticity, these uses denied the agency of those in front of the lens, sometimes distorting the reality of Indigenous self-fashioning to attend to settler expectations (Fleming 2003).

More recent approaches have re-read delegation photography by retelling stories of photographic subjects for what they were: Indigenous leaders fighting to preserve their land against the violence of American imperialism. Beaded adornment such as hair pipes and moons cited Indigenous sovereignty in these moments of political recognition. As Wendy Red Star and Shannon Vittoria argue, "While it is necessary to acknowledge that such works functioned as symbols of colonial domination for their makers and collectors—including [Charles] Bell, the Bureau of Ethnology, the United States government, and non-Native consumers—to interpret them only in this way is to deny the ambitions and intentions of the sitters, who, we argue, actively fashioned themselves as independent leaders of a sovereign nation" (Red Star and Vittoria 2020). Here, I retell the events surrounding photographic images of Hunkpapa warrior Moving Robe Woman and a Lakota delegation to Washington led by Oglala leader Red Cloud (Mahpiya Luta), both of which prominently feature hair pipes (Figures 8.3 and 8.4).

Figure 8.3: Smithsonian Institution, Bureau of American Ethnology, *Red Cloud Delegation* (before 1876). Seated from left to right are Red Dog, Little Wound, Red Cloud, American Horse, and Red Shirt. Standing behind is John Bridgeman, interpreter. National Archives, Washington, DC.

Figure 8.4: F.B. Fiske, *The Hunkpapa Lakota, Moving Robe Woman*, 1937. National Anthropological Archives, Smithsonian Institution. Printed in Hardorff (1997:89)

At the same time that the Campbells sold buffalo robes to their neighbors, American settlers, prospectors, and railroad companies increasingly sought to settle the land and extract the minerals stewarded nations across the Plains and intermountain West (Blackhawk 2006; West 1998; White 2012). The Oceti Sakowin (or Great Sioux Nation) have been central figures in narratives of resistance to American imperialism (Estes 2019; Hamalainen 2019; Ostler 2004, 2010). The following discussion centers on particular leaders such as Red Cloud, Moving Robe Woman, Spotted Tail, and Crazy Horse. However, it should be noted that the positions and tactics of individual leaders were not necessarily fully representative of the Oceti Sakowin as a whole. Disagreements between factions were common, particularly when it came to tactical debates about resisting and surviving American empire, between accommodation and military action. American officials often leveraged factionalism for their own gain. Unlike the American military, political authority was not centralized for the Oceti Sakowin but rather was worked out through councils where disagreements were accepted with little coercion. Oceti Sakowin historian Nick Estes clarifies that if political disagreements between nations were serious, "individuals or entire nations were allowed to leave. Just as easily as they could leave, they could also rejoin their relatives. … But when the entire Oceti Sakowin was confined to the reservation, this harmony was disturbed because differing factions could not depart each other's company. In other instances, 'agency chiefs' were selected to represent an entire Indigenous nation, breaking down internal democratic processes" (Estes 2019, 106–107).

In the years leading up to 1851, the U.S. military had failed to prevent white settlement on sovereign Oceti Sakowin territory. Sicangus and Oglalas along the Powder River demanded remediation for damages to the land caused by settler traffic in the region. In response, the U.S. established the military garrison of Fort Laramie, and Indigenous nations from across the plains

convened for the 1851 Treaty of Fort Laramie (also knowns as the Horse Creek Treaty) (Hamalainen 2019, 215–223; Neville and Anderson 2013; Ostler 2004, 36–38). The treaty allowed for the U.S. to build roads and railroads and provided $50,000 payment for previous damages. As Jeffery Ostler notes, "It is difficult to know for sure what the Sioux understood they were doing when they signed this treaty. As they gained more experience with treaties, they came to understand much more about American protocols and customs, but in 1851 Sioux leaders knew little about this aspect of U.S. colonialism" (Ostler 2004, 37). A brief and uneasy period of peace ensued, yet the flaws of the treaty sowed seeds for future breakdowns and flashes of violence.

At this point, shell hair pipes had been circulating the Northern and Southern Plains for at least a decade. Ewers (1957) suggests that the Oceti Sakowin at this point wore hair pipes more commonly as ear ornaments, necklaces, and chokers. The hair-pipe breastplate form was coming into popularity with the Comanche and the Kiowa around this period, but only later diffused north (Ewers 1957, 54). One major trading post on the Northern Plains at this time was Fort Union in western North Dakota (Barbour 2001; Hunt 1994; Sunder 1965), which was the commercial center of the bison robe trade between 1829 until the end of the Civil War. Archaeological investigations at Fort Union from 1968–1972 yielded 38,496 glass beads and 80 shell beads, some of which were identified as shell hair pipes (DeVore 1992; Ross 2000), though these have yet to be analyzed in detail. The small number of hair pipes relative to other types of beads from this period demonstrates their presence but not ubiquity before the Civil War.

Tensions arose quickly after the 1851 Treaty, sowing seeds for a second Fort Laramie Treaty in 1868 (Chaky 2012). In the interim, the Oceti Sakowin had increasingly turned their ire toward merchant capitalism in ways reminiscent of Tenskwatawa's anti-capitalist and anti-

colonial stance toward American market relations. In 1853, for instance, Hunkpapa leader Little Bear sabotaged an American Fur Company outpost to keep settler capitalist influence at bay. As Estes describes it (2019, 97),

> White traders were welcomed for their seemingly endless supply of highly prized commodities such as guns and cloth, for which the Oceti Sakowin called them "Wasichun," or "people who possess mysterious power." Now, it was clear that this power also brought evil, earning them a second name, which played on the first: "Wasicu"—the "fat taker," the settler, the colonizer, the capitalist … It meant that a person behaved selfishly, individualistically, with no accountability, as if they had no relatives.

Some leaders called for a return to subsistence buffalo hunting and a rejection of alcohol in both peaceful and military terms to disentangle themselves from market dependencies. In 1860, hundreds of Hunkpapas attacked Fort Union in response to a column of U.S. troops seeking to establish a route to a new garrison—Fort Randall—on the Missouri to surveil Lakota activity. While the early days of shell bead trading at Fort Union might be described as a cautious but sometimes mutually-beneficial middle ground (Barbour 2001), in the 1860 attack, one fur trader was surprised that the Hunkpapas "acted with us more as a people at war with us than otherwise" (Hamalainen 2019, 251–252).

Indigenous grievances mounted, including the Homestead Act of 1862, the establishment of U.S. forts along the Bozeman Trail after the discovery of gold in Montana, and diminishing buffalo herds. At this time, the Lakota leader Red Cloud (Maȟpíya Lúta) waged a successful campaign to defend the Powder River country from 1866 to 1868, sometimes referred to as Red Cloud's War. In his own words,

> Now where the buffalo ranged there are wires on posts that mark the land where the white man labors and sweats to get food from the earth; and in the place of the buffalo there are cattle that must be cared for to keep them alive; and where the Lakota could ride as he wished from the rising to the setting of the sun for days and days on his own lands, now he must go on roads made by the white man; and when

> he crosses the bounds the white man has set about us, the white man says to us Indians, "You must not be on the lands that are not on the road." (Walker 1980, 139)

Red Cloud's fight was one to sustain the existence and sovereignty of both the Lakota and the buffalo against emergent settler-capitalist landscape of fences, roads, and fields.

After a resounding Indigenous military victory known as the Fetterman Fight in December of 1866, U.S. officials sought peace again at Fort Laramie. In a successful act of Indigenous refusal, Red Cloud rejected invitations to meet until all the forts along the Bozeman Trail were abandoned (Goodyear 2003, 12). The subsequent 1868 Fort Laramie Treaty established The Great Sioux Reservation, including 32-million acres with stipulations that buffalo hunting could continue outside of it. Reconstructing perspectives from Sioux leaders at the time, Ostler (2004, 49) argues "the 1868 Treaty entailed the making of a permanent peace between two equal parties." Estes (2019, 109) clarifies this from an Indigenous perspective, adding that "the 1868 Treaty was not just an agreement between two human nations, but also an agreement among the nonhumans ones as well—including the buffalo nations."

Americans defied the 1868 treaty almost immediately, reconstructing Fort Fetterman along the Bozeman Trail and encouraging a project of buffalo genocide (Smits 1994). Red Cloud led a delegation to Washington D.C. in 1870 to communicate his grievances directly to President Grant, but Grant refused to act. During his visit, Red Cloud refused offers to be photographed, noting "he was not dressed for the occasion" (Goodyear 2003, 14). This refusal reveals his agency and deliberation in the act of self-fashioning a portrait for settlers' lens. Red Cloud was later photographed many times, and as Frank Goodyear argues (2003, 6), he "asserted his presence through the ceremony of portrait photography. Refusing to allow others within Euro-

American society to define him, he seized upon this new technology for his work of self-representation."

In a later trip to Washington in 1872, two members of Red Cloud's delegation wore hair-pipe breastplates, demonstrating that the style had made its way to the Northern Plains after the Civil War, though it was not necessarily widely used. According to Ewers (1957, 60), "the more traditional type of Dakota breastplate, that made of dentalium shells, was worn by a greater number of the 1872 delegates than was the hair-pipe ornament … suggesting that the hair-pipe breastplate had not yet replaced the one of dentalia in popularity." Meanwhile, on the Southern Plains, archaeological evidence supports the fact that shell hair-pipe breastplates were increasing in popularity, as well as in size and complexity. In 1951, a shell hair-pipe breastplate was excavated by geologist Grayson E. Meade from a historic burial context in Yellowhouse Canyon, twelve miles east of Lubbock, Texas (Newcomb 1955). The skeletal remains were reburied in 1974 after controversies regarding the display of human remains, but artifacts from the burial were transferred to the Texas Archaeological Research Laboratory and re-examined by William Walsh (1997). Walsh reports a date of sometime after 1860 for this burial but more likely post-Civil War, based on the fact that the Yellowhouse breastplate was arranged in four columns of 22 hair pipes each (Ewers 1957). Walsh left the tribal affiliation of the burial open to debate, a common, pernicious, and continued thorn in the side of repatriation law in the United States. However, he suggested the burial could have been any of the five major tribes of the Southern Plains (Comanche, Kiowa, Kiowa Apache, Southern Arapaho, and Cheyenne) (Walsh 1997, 259). The shell hair pipes described by Walsh (50 mm in length, n=88) match the two-inch pipes produced by the Campbell Factory analyzed in Chapter 6.

On the Northern Plains, the confrontations of the late 1870s ended in the Battle of Greasy Grass (or The Battle of Little Bighorn), in part due to settler-capitalists' unyielding attraction to mineral resources of the Black Hills, a sacred Oceti Sakowin site (Ostler 2010). In June of 1876, Lieutenant Colonel George Armstrong Custer led a force of 650 men against a camp of Lakotas, Cheyennes, and Arapahos numbering in the thousands. The settlers were ably defeated, and the event was memorialized in narratives and war books (McLaughlin 2013).

For many Indigenous Plains nations, women were also warriors, including the Hunkpapa warrior knowns as Moving Robe Woman, then 23 years old (Estes 2019, 114–115). She recalled the Battle of Greasy Grass years later in her own words:

> The soldiers began firing into our camp. Then they ceased firing. I saw my father preparing to go to the battle. I sang a death song for my brother who had been killed. … Revenge! Revenge! For my brother's death. … I ran to a nearby thicket and got my black horse. I painted my face with crimson and braided my black hair. I was mourning. I was a woman, but I was not afraid. (Hardorff 1997, 89)

In delegation photography, hair pipes are most iconic in breastplates adorning men in ways that signal marshal strength and diplomatic authority (Carocci 2012). Yet women also wore hair pipes. Building on Plains dentalia traditions, women typically wore hair pipes in vertical rows (Ewers 1957; Karklins 1992). Moving Robe, also known as Mary Crawler, was photographed in 1937 by F.B. Fiske at Fort Yates, North Dakota. She wears an impressive body-length hair-pipe shawl, complete with cowrie beads lining the base (Figure 8.4). While complex hair-pipe objects were not necessarily worn into battle, they carry symbolism of military prowess across gender in ways that mark and sustain Indigenous survival and resistance to U.S. empire.

Congress responded to so-called Custer's Last Stand at Greasy Grass with a blatant violation of the 1868 Treaty of Laramie. In 1877, Congress passed the "sell or starve" rider to the Indian Appropriations Act of 1867, cutting off rations and claiming ownership over the Black

Hills. This treaty violation was later deemed illegal by the U.S. courts in 1980 (Estes 2019, 242–243). Today, Oceti Sakowin refuse to accept monetary remediation for the theft, a sum worth $1.3 billion in 2011.[70]

In September of 1877, Red Cloud, Spotted Tail, and twenty-three other delegates traveled to Washington again. This was shortly after the death of Crazy Horse, who had been murdered by an American guard while resisting arrest at Fort Robinson. As reported in the *New York Times*, Red Cloud's demands were simple, "I did what the white people asked me to do, and with Spotted Tail have kept our people quiet. We want to live among our own people. I was raised in my country and know it well. The foot of the Hills is a good place to put my agency. I did not come here to beg anything. The Black Hills were mine."[71] Soon after meeting with President Hayes, Matthew Brady photographed the delegation. Two photos depict at least three leaders wearing hair-pipe breastplates, and five examples of hair-pipe chokers (Figure 8.3). Red Cloud and Spotted Tail's demands were flatly ignored. In many ways, this was part of newly elected liberal Republican President Rutherford Hayes' increasingly violent and capitalist policy of Western Reconstruction; capitalist transformations and inequalities in Europe and the Eastern United States sparked an influx of white migration to the frontier, Hayes' government sought to restrict the movement Native peoples across the Plains and intermountain West through reservations and regimes of violence (Blackhawk 2006; White 2017a, 431–435). Still, the images produced of Red Cloud's 1877 delegation reveal their use of hair pipes to cite Indigenous leaders' legitimacy as sovereign nations. They are, as in most cases of Indigenous identity, meaningful claims about the *self* and *land* simultaneously.

[70] "Why the Sioux Are Refusing $1.3 Billion". PBS NewsHour. 24 August 2011. https://www.pbs.org/newshour/arts/north_america-july-dec11-blackhills_08–23, accessed March 24, 2021.
[71] "The Indian Conference." *New York Times*, September 28, 1877, p. 5.

8.3 **Hair pipes and Indigenous Futurity**

The two cases of hair pipes and the Oceti Sakowin—Moving Robe Woman and the Red Cloud's delegations—represent two strategies of engaging the settler state in the face of existential threats, either through military confrontation or diplomacy. By the 1880s, Native Plains resistance to genocide had shifted from direct confrontation to survival. Hair pipes and moons on the Plains had long been incorporated into Indigenous identities, yet, as *trade* beads, they were also inexplicably tied to Euro-Americans and settler capitalist modernity. The adoption or rejection of trade beads, like many other elements of modernity, represented different strategies for living under settler-colonial rule.

Despite settler expectations of the "vanishing Indian," demand for hair pipes on the Plains increased in the 19th century. Orders for shell beads at the Campbell Factory became more sporadic into the 1880s, yet this was in part due to Native preference for bone hair pipes. Bone was lighter and more durable than *Lobatus gigas*:

> Although [shell] material was used in making hair-pipe ear and hair pendants, necklaces, chokers, and breastplates, it was not ideal for those purposes … A number of photographs of breastplates worn by Indians prior to 1880 depict one or more broken pipes … About the year 1880, at a time when the demand for large umbers of hair pipes for use in making elaborate breastplates was increasing, the Plains Indians began to obtain a cheaper and much less fragile hair pipe than the shell one long in use. (Ewers 1957, 61–62)

The bead continued to flourish across the Plains. Indigenous nations may have seen bone as a more fitting companion for the projects of maintaining Indigenous futures, in part because of hair pipes' use in ceremonial dances. Dances such as the Sun Dance and the Ghost Dance became even more critical to Native survival after the 1880s. Pan-Indigenous sentiment grew in the early 20th century, and hair-pipe exchanges were key to this solidarity: "Visits back and forth among [formerly hostile] Indians were accompanied by the exchange of gifts between members of

different tribes. These conditions encouraged diffusion of hair-pipe breastplates and necklaces during the Reservation Period" (Ewers 1957, 64).

It is at this same time that the hair pipe also flourished in the settler imaginary. Its iconic place in Hollywood representations of Native Americans was solidified by the combined work of Thomas Edison, William F. Cody (or Buffalo Bill), and Lakota dancers in Buffalo Bill's Wild West show. In 1893, Thomas Edison established the world's first film production studio in West Orange, New Jersey, coincidentally just twenty miles southwest of the Campbell Factory. Edison's studio captured the earliest surviving filmed records of Native Americans while Buffalo Bill's Wild West show was stopped in New Jersey. Edison's famous *Sioux Ghost Dance* is a thirty-second clip of Oglala and Lower Brule dancers who performed as part of Buffalo Bill's show (Gaudio 2019, 125–188); it features at least four hair-pipe breastplates.[72]

The visual experience for viewers of Edison's *Sioux Ghost Dance* would have been novel. As Gaudio notes (2019, 125) of the kinetoscope's debut in midtown Manhattan, "A customer would pay twenty-five cents to see five films or fifty cents for all ten and then peer into a kinetoscope's peephole and watch for about twenty seconds as fifty feet of film sped by on a continuous spool." The early technology of filming itself makes hair pipes one of the most visually striking aspects of the *Sioux Ghost Dance*. While the light levels are quite low in the image, "the brightness of the dancers' bone breastplates, the white feathers on their heads, and the white beadwork on their moccasins help us to track them as they circle in clockwise fashion" (Gaudio 2019, 128). According to Alison Griffiths (2001), Edison's representations comported to American consumer's expectations of Native peoples and influenced the antecedents of the

[72] Thomas A. Edison (Producer), & Heise, W. and William, K. L. D. (Directors). (1894). *Sioux ghost dance*. Retrieved from https://video-alexanderstreet-com.ezp-prod1.hul.harvard.edu/watch/sioux-ghost-dance-2, accessed April 19, 2021

Western film genre, such as *The Call of the Wild* (1908) and *Red Eagle's Love Affair* (1910). With the massacre at Wounded Knee fresh in the minds of both dancers and viewers, the film was reported at the time as yet another case of modernity's "dominating" influence over Native people (Gaudio 2019, 129–130). The reality of the Lakota dancers in Edison's representation of the Ghost Dance is much more complex.

Following in the tradition of the Shawnee Prophet Tenskwatawa, another Indigenous prophet emerged in the late 19th century to spark a pan-Indigenous spiritual movement. A Paiute man named Wovoka predicted a time when the current world would end and the United States would be destroyed, thereby restoring precolonial relations (Andersson 2018; Mooney 1991; Ostler 2004; Warren 2017). Sometimes described as Christian messianic syncretism, Nick Estes argues the Ghost Dance was "a growing anticolonial theory and movement. Participants were transported to a forthcoming world where the old ways and dead relatives lived. It was a utopian dream that briefly suspended the nightmare of the 'wretched present' by folding the remembered experience of a precolonial freedom into an anti-colonial future" (Estes 2019, 124). The religion spread to the Oceti Sakowin in 1889 when Lakota delegates Short Bull and Kicking Bear traveled to Nevada to see Wovoka. Despite the heightened disciplinary regimes, dependencies, and pressures to assimilate in reservation life, the tenets of the Ghost Dance spread across the Northern Plains. Settler paranoia about the Ghost Dance as a military uprising quickly ratcheted into horrific violence, resulting in the assassination of Sitting Bull and the massacre of Wounded Knee in 1890.

After Wounded Knee, Americans imprisoned twenty-seven Lakota Ghost Dancers, including Short Bull and Kicking Bear at Fort Sheridan, Illinois. Twenty-three of these prisoners were released into the employment of Buffalo Bill Cody, beginning a journey in which "Native

performers authenticated the Wild West in ways that no mere cowboy could match … Cody's own power drew from the presence of the show's Indian people" (Deloria 2004, 60). As evidenced by Edison's *Sioux Ghost Dance*, the Wild West show conscripted hair pipes and Native people into settler narratives, though not without contradictions and assertions of Indigenous agency.

The performances of the Ghost Dance in Buffalo Bill's Wild West drew on popular perceptions of the dance as a violent uprising in order to simulate the effect of "Indian hostiles" (Maddra 2002, 2006). While American officials and missionaries interested in civilizing Native communities saw the Wild West show as "regressive" to the project of assimilation (Maddra 2006, 64), beaded objects were key in these depictions of "hostiles" in ways that were both real and imagined. While on tour in Britain in 1891, the *Leeds Evening Express* noted "Nearly all the men have long hair like women, plaited and decorated with beads and 'wampum'". [73] Despite these representations of vanishing Native hostiles, unexpectedly modern Indians existed backstage and in the city streets of the show's tour. Native performers moved freely through urban space, defying the fixity that reservation life demanded while at the same time contradicting the extinctionist and assimilationist expectations of settler society. As Philip Deloria notes (2004, 68), "hundreds of Indian people took advantage of Wild West tours in order to adventure around the world, producing the modern through their mobility and their works of representation."

While hair pipes flourished among many Indigenous nations across the Plains, they could also be rejected in ways that acknowledged the trade bead's ties to settler capitalism. Ironically,

[73] "In the Wild West Camp," *Evening Express* (Leeds), June 20, 1891.

despite Edison's and Buffalo Bill's representations, the Lakota Ghost Dance intentionally rejected hair pipes, favoring instead a Ghost Shirt imbued with protective qualities:

> Any viewer who has a basic familiarity with the Ghost Dance can easily see that this is not the dance we witness in … the Edison films. The dancers do not hold hands; one of them, Last Horse, carries a tomahawk … none of the dancers wear Ghost Shirts; the motion in both dances is quick rather than a slow shuffle; and while the Ghost Dance had no instrumental accompaniment, the dancers … follow the beat of a drum. (Gaudio 2019, 134)

Short Bull himself reported owning a "beaded vest" which he sold on his way to visit the prophet Wovoka (Maddra 2002, 76). Mrs. Z. A. Parker, white-settler teacher on the Pine Ridge reservation, was surprised to observe that beads were not incorporated into the Ghost Dance: "I noticed an absence of any manner of bead ornaments, and, as I knew their vanity and fondness for them, wondered why it was. Upon making inquiries I found they discarded everything they could which was made by white men" (Mooney 1991, 916). Here, the Ghost Dance sought to reject American-made beads and the relations they represented. In reality, "rejection" is a complex and contingent social practice. As archaeologists point out, revitalization is rarely a purist rejection of market relations and more accurately an innovative, heterogenous engagement with material culture (Liebmann 2008), and the material engagements of the Ghost Dance were no exception.

The Ghost Dance was also not a militaristic movement, despite the paranoia of violence that haunted the settler imaginary. It was bound by faith and solidarity. As Short Bull noted, "How could we have held weapons? For thus we danced, in a circle, hand in hand, each man's fingers linked in those of his neighbor. Who would have thought that dancing could make such trouble? For the message that I brought was peace" (Maddra 2006, 208).

In all the diversity of Indigenous uses of hair pipes, moons, and wampum at the turn of the 20th century—from their rejection in the Ghost Dance, pan-Indigenous diffusion and

solidarity in reservation life, or “playing Indian” in Buffalo Bill’s Wild West—bead styles that had been mass produced at the Campbell Factory entered new era of modernity and its contradictions. The sovereign beaded tapestry of Indigenous anticolonial struggle woven by Algonquian women chiefs in the 17th century (Brooks 2018) continues today. Beads adorn Indigenous political action against settler capitalism today, as the Standing Rock Dakota Access Pipeline Protests make clear. This continuity of shell beads and political action in North America is itself a kind of solidarity that stretches across time and generations—into the past and future—and across human and nonhuman worlds.

9 CONCLUSION

Shell beads have been central to Indigenous lives and sovereignty in North America for millennia. They have also served settler-colonial interests, whether in profit accumulations or in projects of statecraft. Further still, they have mediated between contesting interests and helped to define the meaning of good relations. Wampum diplomacy between settlers and Indigenous peoples, for instance, attempted to codify mutual obligations between nations, despite miscommunications and often intentional misappropriations. Yet the interests of actors who harvested, transported, transformed, and adorned shell in this story are not so straightforward as the line between settlers and Indigenous peoples. Mollusks and their shells—with their own materiality and ecology independent of human needs and desires—complicate this story even further. This chapter first summarizes shell as conscripted materiality in projects of settler capitalism and Indigenous sovereignty. Archaeological and historical data suggest ways that shell afforded and constrained a diversity of overlapping and contradictory political-economic interests. I then turn to examine questions about the morality of shell bead exchanges between settler-capitalist production and Indigenous consumption, unpacking the complexity of actors' interests in the context of heightening dependencies and inequalities of life in the United States by the end of the 19th century.

9.1 **Shell as Conscripted Materiality**

Along their itinerary from mollusk home to woven beaded object, humans were drawn to conch, whelk, and quahog shells for their materiality—their color, size and shape, luminescence, mineral content, structure, and durability. Examining these elements from an archaeological perspective, some material characteristics forwarded human intentions while others constrained it. As discussed in Chapter 2, the term "conscript" acknowledges the agency of humans in acquiring, transforming, circulating, refusing, or breaking nonhumans in projects of political

action. Yet mollusk species and their biomineralized homes may or may not be willing participants in these projects. They may not be ideally suited to the task. They have breaking points, reproductive imperatives, or population pressures. In the process of defecting from human action, shell may also have unpredictable effects, for good or ill.

On its way into Indigenous hands, shell wove through settler subjectivities and political-economic structures of private property, monetary value, propriety, wage labor, possessive individualism, and white civilizational supremacy. As such, it became part of a larger settler-colonial and capitalist entanglement. As discussed in Chapter 2, by "entanglement" I simply mean an increasingly complex set of human and material interdependencies and inequalities that become more and more difficult for any individual actor to escape or transform over time (Bauer 2019; Bolender and Johnson 2018; Der and Fernandini 2016; Dietler 2010; Hodder 2012, 2014; Thomas 1991). Workers in New Jersey and Indigenous consumers on the frontier—whether by choice or through coercion—depended on increasingly global commodities to make a living. In some cases they flourished through new opportunities of industrial production and global exchange. Yet this productive dependence also entailed dependencies: asymmetrical and uncertain relations that made it difficult to opt out of capitalist markets of commodities and labor.

First, shell conscripts afforded a local project of capitalist industrialization in New Jersey. When settlers in appropriated beadmaking from Indigenous wampum makers of coastal New England, they primarily manufactured what archaeologists call Late Wampum, a style not so different in size, shape, and color than traditional 17th century wampum. This is confirmed from data at the Albany Almshouse, Stoltz Farm, and the David Campbell House. The Campbell Factory, however, produced Campbell Wampum (which was 1/4 inch longer than Late

Wampum), hair pipes, moons, and mother-of-pearl pendants. It appears that the factory's success in New Jersey was tied to cornering the market on new bead styles as consumption (and American imperialism) shifted from the Great Lakes to the Plains. Through the invention of the wampum drilling machine, the introduction of water-powered grinding wheels, and wage labor, the Campbell Factory was also able to produce beads at a higher rate than household producers, perhaps up to double that of the David Campbell House, as suggested in Chapter 6.

The shift in wampum styles from 1/4-inch Late Wampum at Stoltz Farm to 1/2-inch Campbell Wampum in the 19th century may reflect the bead's changing use in the Lower Midwest and the Plains, where wampum belt diplomacy was not as common as in the Great Lakes and the coastal Northeast. Haudenosaunee wampum belts typically emphasized one bead color over the other, depending on whether the belt communicated a positive (white) or negative (black) social message (Hamell 1992). Yet for the Osage, Iowa, Otoe, Pawnee, Sauk and Fox, and Kansa, wampum was often observed as ear and hair ornamentation in equal alternating black and white patterns, which Keagle (2013, 230) suggests was a break with northeastern uses and meanings. Combined with emergent demand for hair pipes on the Plains, these changes in Indigenous demand, new technologies of bead grinding and drilling, and the affordances of conch shell combined to facilitate the Campbells' monopoly over the bead industry.

Native demand for specific shapes, styles, colors, lengths, and quality of beads on the one hand afforded aspects of industrialization, but it also entailed constraints, imperatives, and interruptions in the transition to factory production. In Chapters 4 and 7, I noted the ways that Indigenous demand and rejection of imperfect products made its way to the factory floor. The practice of bleaching and whitening of hair pipes before export, for example, was introduced to stretch the inherent materiality of conch shell while attending to Native interests. Nineteenth-

century cases of Indigenous "quality control" were not new. The rejection of imperfect wampum dates to the earliest settler attempts to manufacture wampum in the 17th century (Kraft 1986, 203). I read this particularity as one example of Indigenous agency influencing the manufacture of shell beads, despite its appropriation by settlers. Of course, this kind of consumer agency has its limits. To the extent that the will of modern consumers is realized by capitalist markets, its effects are typically limited to overlapping interests of capital and individual desire (Wurst and McGuire 1999). However, it nonetheless demonstrates Indigenous refusal when capitalist production failed to meet Native needs.

In affording industrialization, shell also facilitated heightening inequalities in New Jersey along lines of gender, race, and class. As noted in Chapter 7, spatial analysis at the David Campbell House suggested a correlation of domestic artifacts and worked shell, providing no evidence that domestic refuse and beadmaking debitage was spatially segregated. This supports accounts that note women as primary household bead-makers, particularly in the first half of the 19th century. In the later 19th century, sources make no mention of women working in the space of the Campbell Factory, and texts discussed in Chapter 7 suggest the factory's masculine dimensions. By one Marxist-feminist reading, this "change of place" from outwork to factory work entailed a gendered "change of hands" of beadmaking (Halperin 1994, 58–59; Jordan 2014, 75–76) where industrialization helped redirect the control over profits and capital to men. This phenomenon was not unique to wampum production. For rural households across the Northeast, when imperatives to economic specialization met new technologies, "tasks formerly completed by women, such as butter/cheese making and egg production, were appropriated by men as these activities became more significant to farm revenues" (Rotman 2019, 347). This followed an increasingly rigid Victorian ideal for Euro-American women in Northeast that tied itself to settler

conceptions of propriety, sexuality, and domesticity. That said, the story of gender inequality in the Northeast is far more complex than the rhetoric of domesticity implied, as women actively participated in the emergent commercial, monetary, credit, and service economies of the Atlantic World, particularly in urban areas (Hartigan-O'Connor 2009). It is likely the women of the Campbell family played key roles in the industry behind the silences of the archival record. Additionally, while the exclusion from factory work may have led to less control over wampum profits for women, it also kept them from the bodily harms of intensive bead-grinding in the Campbell Factory.

For African-descendant residents of northern New Jersey, the confluence of conch shell, western Indigenous demand, and industrial capital led to an appropriate of surplus value for of Black laborers in Bergen County. As discussed in Chapter 4, many names in the northern Pascack Valley listed in merchant ledgers as purchasing conch shell and selling finished wampum beads are also labelled either “Black” or “Mulatto” in the U.S. censuses. Beadmaking outwork sustained the households of those such as Jane and Peter Sisco, a Black household with three children ages three, five, and seven in 1850 according to the U.S. census. By the later 19th century, some of these same surnames—such as James Williams—are found ledgers from the Campbell Factory, where they feature as waged bead grinders. These workers probably had less control over their time and profits in beadmaking than the Sisco family in 1850, suggesting that the Campbells’ monopolization of conch shell bead production heightened inequalities in New Jersey along lines of race and class. Keeping in mind the ways that beads were also used by government officials and traders in projects of dispossession, either through wampum diplomacy or incursions of debt at private and governmental trading posts, the case of the Campbell

Wampum factory reveals the deeper history of how white exploitation of Black labor entangled with settler dispossessions of Indigenous land.

While shell and its resident mollusk were conscripted into shifting inequalities of racial capitalism in New Jersey, they also constrained its profits and led to unintended effects. Nineteenth-century sources note that the Campbells would have preferred to manufacture purple wampum as much as possible. However, archaeological data presented in Chapter 6 show a declining percentage of *Mercenaria mercenaria* in assemblages from Stoltz Farm, the David Campbell House, and the Campbell Factory. Larger mature quahog shells were in limited supply, particularly into the 1880s. Popularization of clam bakes and littleneck consumption on the East Coast meant that quahogs were being harvested before their outer hinge grew thick enough for beadmaking (MacKenzie et al. 2002, 24). In this way, settler appropriations of "nature" met with realities molluscan life to constrain the wampum industry's profits, both for independent producers and factory owners.

Chapter 6 also showed how shell's material breakability limited the project of settler capitalism in New Jersey. Analysis of debitage categories from Stoltz Farm and the Campbell Factory collections cast doubt on claims that mechanization of drilling reduced the risk of breaking beads. Despite the ambiguities of excavation and provenance, extreme differences in ratios of debitage to wasters make it difficult to argue that the drilling machine produced fewer broken hair pipes than bow-drill wampum drilling. While the Campbell Factory could produce hair-pipe product up to double the rate of product compared to a single household, Stoltz Farm and the David Campbell House produced very few drilling wasters relative to total debitage. The David Campbell House, where excavations were highly controlled, yielded only a handful of drilling wasters for somewhere between 3,250 and 5,400 beads, or one or two weeks of work.

Here again, the demand for long, elaborate conch shell hair pipes facilitated monopolization and capital accumulation, but *Lobatus gigas* shell did not do so without a trail of wasted broken products along the way.

Lobatus gigas's mineral composition, when combined with concentrated capital and intensive production, also led to unexpected negative effects for workers in the Campbell Factory. As outlined in Chapter 7, archaeological data from the Campbell Factory help estimate volumetric measurements of shell grinding. Data highlight the real risks of silicosis from calcium carbonate inhalation for workers in the factory. Smaller scale, dispersed, and outdoor production performed in earlier periods, while not eliminating these risks, may have mitigated them. In the context of workers paid a wage for operating the grinding wheels in the factory, this case reveals the bodily harms of settler-capitalist beadmaking borne by people categorized as "Black" or "Mulatto" in censuses who were also erased in the site's 20th century historiography. This point remains salient today, as the Ramapough Lunaape (Lenape) Nation fight for justice for the harms wrought by the environmental racism of 20th century industrialization in New Jersey (Meltzer 2020).

As shell beads traveled west, they afforded projects of statecraft for both settlers and Indigenous nations. As explored in Chapters 4 and 8, when European and American governments commissioned settler-made wampum for treaties such as Fort Pitt, Fort McIntosh, Easton, and many others, they did so in part to accommodate Indigenous practices of political mediation. Yet the results and effects of these treaties (as well as evidence of Indigenous refusal of wampum diplomacy) suggest that by the opening of the 19th century, settler institutions had eroded away wampum's capacity to signal good faith and mutual obligation. These cases can be

considered a misappropriation of wampum diplomacy to further the interests of both settler capitalism and American imperialism.

Yet shell also sustained Indigenous sovereignty in the face of colonial incursion, in part through the solidarity that shell beads garner in their circulation between diverse Native nations. Covering the full scope of these projects of Indigenous sovereignty in the 18th and 19th centuries is too much to examine here, and the topic deserves future attention considering wampum production data presented in this dissertation. However, a few key examples help capture the diversity of shell materiality used for Indigenous interests. As noted in Chapter 4, Wampanoag women in the 17th century wove political and kinship histories of their nations into wampum belts. These belts—combining with complex color symbolism and ontologies of Indigenous political mediation—embody northeastern Indigenous nationhood in ways that still function today, particularly for the Haudenosaunee. Chapter 8 highlighted the role of shell beads in the story of Tenskwatawa and Tecumseh's pan-Indigenous spiritual resistance to settler capitalism. Leading up to 1812, war wampum circulated from Prophetstown in the Old Northwest to assemble pan-Indigenous solidarity in the fight against removal. In the later 19th century on the Northern Plains, warriors of the Oceti Sakowin—both women and men—donned hair pipes and moons as claims to Indigenous identity and military strength. As resistance on the Plains shifted from military confrontation to survival, hair pipes adorned delegations to Washington. These ways of identifying using settler-made shell beads were claims about the social *self* at complex intersections of gender, race, nation, status, sexuality, and age. However, shell bead adornment was simultaneously a political claim to *land*, a point often lost if we reduce shell bead "consumption" to a kind of self-expression tied to modern consumerism.

Just as shell limited and interrupted settler interests in New Jersey, shell beads were not always ideal conscripts for sustaining Indigenous sovereignty. As noted in Chapter 8, hair pipes on the Plains transition from shell to bone after the 1880s. Despite the durability of *Lobatus gigas*' home, shell hair pipes were still breakable. This limited their effectiveness in delegation photography and ceremonial dances. In the end, the constraints of conch shell materiality led to the end of the Campbell Factory. Indigenous demand for bone hair pipes was facilitated through another capitalist bead manufacturer, as Armour & Co.'s Livestock Bureau was contracted to supply hair-pipe beads from cattle bones leftover from the Chicago stockyards.

9.2 **On the Morality of Settler-Capitalist Exchange**

Many readers may respond to the story of white-owned shell bead factories in New Jersey with moral claims. Given the contemporary landscape of inequality and exploitation in North America, we are drawn to ask, what ought to have happened? What are we to learn? Whose actions are defensible? Who is to blame? This was also true when the Campbell Wampum Factory was in operation. Caroline Chesebro concluded her article in *Our Young Folks* exculpating the "men of the mint": "Whoever defrauds the red folk, it is not these men, whose business it is to produce the perfection from lovely ocean shell ornaments which vie in their tints with opal and amethyst, with pearl and carbuncle, with emerald and with sapphire" (1872, 303). This dissertation has approached the topic from a specific point of view, namely that of Marxism and critical Indigenous studies with a focus on settler capitalist inequalities along lines of gender, race, and class. I have emphasized the harms of capital accumulation in New Jersey and settler tactics of dispossession. This was motivated in part to provide a counternarrative to stories of industrial progress and valorization of settler society found in the Campbell Factory's historiography. It is also an attempt to understand the history of present-day inequalities and injustices. Given this, I want to conclude by exploring the moral complexity of shell beads,

capitalism, and settler colonialism more explicitly. In the tradition of Maurice Bloch and Jonathan Parry's *Money and the Morality of Exchange* (1989), we might consider moral claims in general—our own, those of Caroline Chesebro, or Indigenous critics of settler capitalism—as a site of anthropological inquiry while trying to attend to the diverse interests in this complicated and wide-ranging history.

While certain questions of morality are straightforward in hindsight, human choices are always shaped by their historical and material conditions. No one actor can see or understand the harms of a complex society in its entirety. If, as this dissertation has argued, agency is distributed across a vast entanglement of humans and nonhumans, then "blame" is equally diffuse and elusive (Bennett 2009, 38). This framework is refreshing in the sense that it moves us away from notions of individual responsibility so often tied to capitalist consumption and neoliberal moral psychology. Yet it also makes the task of remediation and justice as difficult as the web of harm is complex. My point here is less to judge past actors and more to examine parallels with our present and future, as the moral complexity of the past is true of the present.

James Williams, the waged bead-grinder at the Campbell Factory, did not know the Afro-Caribbean conch shell harvester any more than he knew the vibrant seven years of *Lobatus gigas* metabolic lifework. The North Dakota trader at Fort Union did not know Hannah Campbell's hours of drilling, the soreness of her wrists or the calcium carbonate in her lungs. Hannah was likely unaware of the New York merchant's long line of credit soon to implode in the Panic of 1837. Nor did the Lakota hunter necessarily know any of these lives as he brought buffalo hides to trade for hair pipes and other goods. He may or may not have been aware of United States' impending policy of buffalo genocide intended to sever his relations with the landscape of the Plains or the entrapments of debt meant to acquire his nation's land (Smits 1994).

Shell conscripts served many different interests, but not all interests were equal. Nor were they all entirely *self*-interests. As I have noted, diverse Indigenous peoples used Jersey-made beads to sustain cultural identities, polities, and relations to land, in part by building solidarity across lines of difference and by weaving international histories and futures of moral obligation. In participating in market dynamics of supply and demand, they were also *consumers* by the classic modern definition, and knowingly or not, they were caught in the same moral quandary as all consumers of capitalist products.

Any purchase of shell beads on the frontier served the interests of capital in New Jersey. Yet in the first half of the 19th century, beadmaking capital was more widely distributed, and this helped to sustain a range of households in the Antebellum hinterlands of New York City. These included middling Euro-Americans such as the David and Hannah Campbell household and recently emancipated independent Black wampum makers such as Peter and Jane Sisco. Given the ambiguity of racial data in the censuses, this could have also included descendants of the Munsee-Lenape who remained in New Jersey (today known as the Ramapough Lenape Nation). In this way, specific interests of Indigenous sovereignty and settler capitalism overlapped, just as they had for 17th century Indigenous wampum makers who used European-made drills in coastal New England to manufacture an early American currency. However, as the end of the 17th century also makes clear, the fact that many people benefitted did not mean everyone benefited equally, particularly in the long-term.

After 1850, the shift to new forms of industrial capital for hair-pipe production at the Campbell Factory led to heightening inequalities. Control over wampum production in New Jersey shifted from Euro-American women to men in the 19th century. Black and possibly Indigenous wampum makers saw a proletarianization of their labor from independent household

producers to bead-grinders in the Campbell Wampum Factory. All the while, American state and capitalist actors on the frontier were invested in the dispossession, assimilation, and elimination of the shell bead industry's consumer base. In other words, human actors in story entered an increasingly complex entanglement of both empowering dependence and constricting dependency, one whose center of gravity followed ratcheting logics of industrial capitalism and American imperialism. By "ratcheting," I simply mean that the traps of this entanglement made it difficult to reverse course or opt out, for both waged workers in the Campbell Factory and Indigenous consumers of imported goods on the frontier (Brophy 2018; White 1983). Moments in which the entanglements of settler capitalism were legitimately threatened in the 19th century took place only through mass movements of collective action, in this case pan-Indigenous solidarity made in part through circulations of shell beads.

Another moral question this dissertation invokes is that of the "authenticity" of settler-made shell beads. Depending on the subjectivity of the reader, one might see settler-made wampum as "fake," as did Erminnie Smith when she visited the factory to investigate reports of "artificial wampum" for the Smithsonian's Bureau of Ethnology (Smith 1885). Claims of "fake wampum" typically arise from the fact that the bead was not made by Indigenous hands. This assumes that for objects to be authentic or sacred they must be exempt from long-distance exchange across cultural difference or free from the alienation of capitalist production. It is an understandable claim, yet there are many examples to the contrary (Cipolla 2017; Joyce and Gillespie 2015; Liebmann 2015; Thomas 1991). To take a comparative case, do American flags truly authentic if they were made in China? The answer of course depends on who you ask.[74]

[74] Michael D. Breidenbach, "Raising the American Flag Made in China," *The Atlantic*, July 4, 2018, https://www.theatlantic.com/technology/archive/2018/07/raising-the-american-flag-made-in-china/564293/, accessed April 14, 2021.

The question of whether settler-made shell beads were authentic is perhaps the wrong question entirely. For proponents of the object biography or itinerary approach in anthropology, Nicholas Thomas was correct to argue that "objects are not what they were made to be but what they have become" (1991, 4). Rather than asking "is settler-made wampum authentic?", we might instead ask, in what instances did settler-made wampum become authentic? And where does the impulse to call capitalist commodities "inauthentic" come from? It is here that questions of the morality of production and exchange typically enter the discourse.

Chapters 4 and 8 outlined how Jersey-made beads became sacred, social, political, and powerful as they were woven into Indigenous worlds. However, we cannot deny cases where Indigenous crafting matters in the making of something sacred, as was the case for powerful Wampanoag women who made beads and belts of coastal New England and wove the tapestry of international and community histories (Brooks 2018; Loren 2013). Without projecting modern conceptions of "ethical consumption" onto the 19th century, we might see cases of Indigenous refusal and rejection of capitalist commodities as a statement about how something was made matters.

While Native people may not have been aware of who exactly produced the beads they encountered at private or government-run trading posts, they certainly had reasons to be suspicious of the morality of the society behind it. Whether through observation or direct participation, Indigenous peoples experienced the morality of settler-capitalist exchange on the borderlands of settler colonialism, from overharvesting of beaver, mollusk, or buffalo to the debt incursions of double-entry bookkeeping. Bloch and Parry, in examining "the range of cultural meanings which surround monetary transactions," observed a pattern in the way different societies show a "concern with the relationship between a cycle of short-term exchange which is

the legitimate domain of individual—often acquisitive—activity, and a cycle of long-term exchanges concerned with the reproduction of the social and cosmic order" (1989, 1–2). The voices of Indigenous critics of settler colonialism follow a similar moral concern. In Black Hawk's autobiography, continuing after he "touched the goose quill to the treaty" at Rock Island quoted in Chapter 1, he goes on to describe a kind of possessive individualism of settler subjectivity. He decried what he saw as settlers neglecting the consequences of their lives after their death:

> We can only judge what is proper and right by our standard of right and wrong, which differs widely from the whites … The whites *may do bad* all their lives, and then, if they are *sorry for it* when about to die, *all is well!* But with us it is different: we must continue throughout our lives to do what we conceive to be good. If we have corn and meat and know of a family that have none, we divide with them. If we have more blankets than sufficient, and others have not enough, we must give to them that want. (Nichols 1999, 40–41 emphasis in original)

In this light, it is possible to interpret the occasional hardline anti-capitalist and anti-American tenants of Indigenous spiritual revitalization in the 19th century—from Tenskwatawa's Open Door to the Ghost Dance—as a purist response to the complexity of settler-capitalist harms, where the only escape is through a total and sometimes violent rejection of the dependencies and violence of the settler economy. And yet, as the Battle of Tippecanoe and Wounded Knee Massacre demonstrate, the American state and citizenry made clear that to exit or threaten the entanglement of capitalism and imperialism is rarely without severe consequences, from impoverishment to genocide.

The tradition of Black Hawk's critique of individualism and concern with material redistribution continues today. For contemporary Indigenous critics, the struggle against capital is not solely tailored to the concerns of human labor. This dissertation has emphasized the role of nonhumans in this story in part to acknowledge the effects of settler capitalism on the nonhuman

world. Nick Estes reflects on the role of Water protectors at the Standing Rock protests in 2016; in considering "How can settler society, which possesses no fundamental ethical relationship to the land or its original people, imagine a future premised on justice?", Water protectors ask,

> What does water want from us? What does the earth want from us? Mni Wiconi—water is life—exists outside the logic of capitalism. Whereas past revolutionary struggles have strived for the emancipation of labor from capital, we are challenged not just to imagine, but to demand the emancipation of earth from capital. For the earth to live, capitalism must die. (Estes 2019, 256–257)

Justice, in this view, is premised on disentangling capitalist relations of humans and nonhumans—relations of private property, resource extraction, appropriation, accumulation, propriety, and white supremacy. Despite the complexities and moral ambiguities of living in settler capitalist society, one can begin with questions of obligation and solidarity. These questions must extend into the long-term, to ancestors and descendants, and to nonhuman lives.

In recent decades, there have been engagements between post-humanist, scientific, and Indigenous ontologies and ethics (Ingold 1986, 2000; Kimmerer 2013), potentially productive (Cipolla, Quinn, and Levy 2019), potentially appropriative (Todd 2016). Willingness to engage across these lines typically depends on the subjectivity of the author. On the one hand, those with secularist and scientific concerns about the dangers of anthropomorphism (in asking "what does water want from us?" on the subject of morality) might take a cue from political ecologist Jane Bennett: "Maybe it is worth running the risks associated with anthropomorphizing … because it, oddly enough, works against anthropocentrism: a chord is struck between person and thing, and I am no longer above or outside a nonhuman 'environment'" (2009, 120). Meanwhile, Robin Wall Kimmerer frames engagements between science and Indigenous ontology as a matter of different types of questions, across fields of knowledge, wisdom, beauty, and ethics. As a botanist and member of the Citizen Potawatomi Nation, Kimmerer relies on Indigenous conceptions of

reciprocity in thinking through ecological restoration: “Restoration is imperative for healing the earth, but reciprocity is imperative for long-lasting, successful restoration. Like other mindful practices, ecological restoration can be viewed as an act of reciprocity in which humans exercise their caregiving responsibility for the ecosystems that sustain them. We restore the land, and the land restores us” (2013, 336).

In this light, rather than envisioning the material and human world as conscripts to individual desires and appropriations, we might imagine an alternate story. At what point does a conscript become a companion, an accomplice, or a comrade? These terms suggest other ways of relating, ones that require questions of moral obligation and solidarity. These questions arise not from a place of scarcity, which we are so well disciplined to presume, but armed with the assumption that there is a way to account and accommodate for diverse needs. What would *Lobatus gigas* want of its harvesters, for instance? What did quahog populations need to thrive and mature? What would the Campbells ask of their merchant contacts? What did the Campbells owe their neighbors? What would the Munsee Lenape ask of the Campbells? What would the Pascack Brook ask of the factory as it powered its grinding wheels? What resources did the Sisco household need to live well in a world after enslavement? What did James Williams’ lungs need to breathe into a long life? What kinds of relations to land were Tenskwatawa and Red Cloud trying to preserve? What did they ask of the American government and corporations? Ultimately, any one individual in this story had very little capacity to change their material conditions. Yet by asking questions of obligation along conch shell’s entangled itinerary—from St. Croix to New Jersey to the Plains—one might begin to see the shape of solidarity across these relations. It is this kind of solidarity that is the precondition of transformative power.

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APPENDIX A: MUSEUM COLLECTIONS DATA

Museum	Collection ID	Site	Name	Count	Weight (g)	Collection Date	Accession Date
NJSM	AE393.3259	Campbell Factory	Campbell Wampum Factory - Schondorf	402	2152.7	1924	1924
NYSM	A-36361.11	Campbell Factory	BLWP - wampum blanks, partially shaped	178	1140.92	1924	1924
NYSM	A-36361.12	Campbell Factory	SCON - conch shell	1	79.09	1924	1924
NYSM	A-36361.13	Campbell Factory	OWSH - other worked shell	2	172.9	1924	1924
NYSM	A-36361.14	Campbell Factory	CTSH - cut shell, wampum manufacture	1	36.96	1924	1924
NYSM	A-36361.15	Campbell Factory	OWSH - other worked shell	4	236.68	1924	1924
NYSM	A-36361.16	Campbell Factory	OWSH - other worked shell	2	124.69	1924	1924
NYSM	A-36361.17	Campbell Factory	CS - clam shell	1	199.91	1924	1924
NYSM	A-36361.18	Campbell Factory	CTSH - cut shell, wampum manufacture	1	29.94	1924	1924
NYSM	A-36361.19	Campbell Factory	SHEB - shell bead	1	10.62	1924	1924
NYSM	A-36361.20	Campbell Factory	SHEB - shell bead	8	7.84	1924	1924
NYSM	A-36361.21	Campbell Factory	SHEB - shell bead	7	3.78	1924	1924
NYSM	A-36361.22	Campbell Factory	OWSH - other worked shell	50	213.12	1924	1924
NYSM	A-36361.23	Campbell Factory	BLWP - wampum blanks, partially shaped	99	249.796	1924	1924
NYSM	A-36361.24	Campbell Factory	SHEB - shell bead	26	54.5	1924	1924
NYSM	A-36361.25	Campbell Factory	CTSH - cut shell, wampum manufacture	17	219.61	1924	1924
NYSM	A-36361.26	Campbell Factory	OWSH - other worked shell	1	1.18	1924	1924
NYSM	A-36361.27	Campbell Factory	SHEB - shell bead			1924	1924
NYSM	A-36361.28	Campbell Factory	SHEB - shell bead			1924	1924
NYSM	A-36361.29	Campbell Factory	BLWP - wampum blanks, partially shaped	3	17.43	1924	1924
NYSM	A-36361.30	Campbell Factory	SHEB - shell bead	4	14.14	1924	1924
NYSM	A-36361.31	Campbell Factory	CTSH - cut shell, wampum manufacture	1	126.49	1924	1924

NYSM	A-36361.32	Campbell Factory	CTSH - cut shell, wampum manufacture	7	109.33	1924	1924
NYSM	A-36361.33	Campbell Factory	OSH - other shell	2	3.31	1924	1924
NYSM	A-36361.34	Campbell Factory	BLWP - wampum blanks, partially shaped	16	24.4	1924	1924
NYSM	A-36361.35	Campbell Factory	CTSH - cut shell, wampum manufacture	3	120.39	1924	1924
NYSM	A-36361.36	Campbell Factory	SHEB - shell bead	2	3.35	1924	1924
NYSM	A-36361.37	Campbell Factory	OSH - other shell	1	0.25	1924	1924
NYSM	A-36361.38	Campbell Factory	BLWP - wampum blanks, partially shaped	159	1080.92	1924	1924
NYSM	A-36361.39	Campbell Factory	BLWP - wampum blanks, partially shaped	3	22.26	1924	1924
NYSM	A-36361.40	Campbell Factory	BLWP - wampum blanks, partially shaped	3	26.31	1924	1924
NYSM	A-36361.41	Campbell Factory	OWSH - other worked shell	2	8.15	1924	1924
NYSM	A-36361.42	Campbell Factory	SHOR - shell ornament	5	45.94	1924	1924
NYSM	A-36361.43	Campbell Factory	OWSH - other worked shell	1	36.3	1924	1924
NYSM	A-36361.44	Campbell Factory	SHOR - shell ornament	5	229.54	1924	1924
NYSM	A-36361.1	Campbell Factory	OSH - other shell	1	537.66	1924	1924
NYSM	A-36361.2	Campbell Factory	OSH - other shell	3	1049.79	1924	1924
NYSM	A-36361.3	Campbell Factory	OWSH - other worked shell	1	235.14	1924	1924
NYSM	A-36361.4	Campbell Factory	CTSH - cut shell, wampum manufacture	1	25.18	1924	1924
NYSM	A-36361.5	Campbell Factory	OSH - other shell	4	227.96	1924	1924
NYSM	A-36361.6	Campbell Factory	OWSH - other worked shell	2	206.74	1924	1924
NYSM	A-36361.7	Campbell Factory	SHEB - shell bead	4	18.91	1924	1924
NYSM	A-36361.8	Campbell Factory	CTSH - cut shell, wampum manufacture	4	139.78	1924	1924
NYSM	A-36361.9	Campbell Factory	OWSH - other worked shell	4	53.26	1924	1924
NYSM	A-36361.10	Campbell Factory	OWSH - other worked shell	8	157.53	1924	1924

PM	73:2:1	Stoltz Farm	Wampum shell fragments and clam shell	1110	389.12	1916	1916
PM	73:2:2	Stoltz Farm	Wampum shell fragments, Carl Schondorf Collection	2823	984.62	1916	1916
PM	73:2:3	Stoltz Farm	N.J. Wampum Shell Fragments, Carl Schondorf Collection	4892	1604.552	1916	1916
PMAE	24-9-10/94298	Campbell Factory	Conch shells (strombus gigas)	2	772.7	1924	1924
PMAE	24-9-10/94299	Campbell Factory	Worked conch shell used in making beads	18	520.81	1924	1924
PMAE	24-9-10/94300	Campbell Factory	Conch shell cut and worked roughly in shape of beads	141	985.692	1924	1924
PMAE	24-9-10/94301	Campbell Factory	Conch shell beads, unperforated and unpolished, in various stages	363	1520.026	1924	1924
PMAE	24-9-10/94302	Campbell Factory	Conch shell beads ready for finishing and perforating	54	154.77	1924	1924
PMAE	24-9-10/94303	Campbell Factory	Conch shell beads finished, some broken and rejects	74	136.83	1924	1924
PMAE	24-9-10/94304.1	Campbell Factory	Conch shell (strombus gigas)	1	1056.27	1924	1924
PMAE	24-9-10/94304	Campbell Factory	Conch shell cut for manufacture of white wampum beads	17	1066.33	1924	1924
PMAE	24-9-10/94306	Campbell Factory	White wampum beads	8	3.13	1924	1924
PMAE	24-9-10/94308	Campbell Factory	Worked conch sehll used in making 'moons' - round shell discs	27	1318.91	1924	1924
PMAE	24-9-10/94309	Campbell Factory	Conch shell worked and shaped for making discs	11	467.69	1924	1924
PMAE	24-9-10/94310	Campbell Factory	Fragments of conch shell discs all polished on one side	24	140.24	1924	1924
PMAE	24-9-10/94293	Campbell Factory	Broken quahog shell	77	408.6	1924	1924
PMAE	24-9-10/94306	Campbell Factory	Quahog shell cut for manufacture of purple wampum bead	8	3.13	1924	1924
PMAE	24-9-10/94311	Campbell Factory	Purple wampum beads	6	2.93	1924	1924

PMAE	24-9-10/94297	Campbell Factory	Broken Wampum shells	8	181.33	1924	1924
PMAE	24-9-10/94295	Campbell Factory	Broken Wampum shell	41	415.619	1924	1924
PMAE	24-9-10/94296	Campbell Factory	Broken Wampum shell	1	8.18	1924	1924
PMAE	24-9-10/94294	Campbell Factory	Broken abalone shell	19	253.08	1924	1924
NMAI	029813.000	Campbell Factory	Necklace of Campbell and genuine wampum beads.	65	NA	1/1/1910	
NMAI	044732.001	Campbell Factory	Pieces Of Shell	12	198.53	1915	
NMAI	075263.000	Campbell Factory	Columnella Conch Shell	1	276.5	Unknown	1/1918
NMAI	075264.000	Campbell Factory	Roughly Chipped Circular Blank for Making Moon	4	250.56	Unknown	1/1918
NMAI	075265.000	Campbell Factory	Fragment Of Moon Shell Ornament, Perforated.	1	2.53	Unknown	1/1918
NMAI	075266.000	Campbell Factory	Small Moon Shell	1	4.47	Unknown	1/1918
NMAI	075267.000	Campbell Factory	Blank Showing Unfinished Wampum	10	71.06	Unknown	1/1918
NMAI	075268.000	Campbell Factory	Fragment Of Clam Shell	3	12.35	Unknown	1/1918
NMAI	107099.000	Campbell Factory	Blue wampum beads	7	NA	1921	1967
NMAI	107100.000	Campbell Factory	Whit [sic, white] wampum Beads	9	NA	1921	1967
NMAI	120017.000	Campbell Factory	Shell blank for circular ornament	27	847.22	Unknown	5/1923
NMAI	120019.000	Campbell Factory	Shell strip for bead blank	12	183.9	Unknown	5/1923
NMAI	120020.000	Campbell Factory	Shell bead blank cut on four sides	34	319.66	Unknown	5/1923
NMAI	120021.000	Campbell Factory	Shell bead blank partly rounded	24	83.34	Unknown	5/1923
NMAI	120570.000	Campbell Factory	Roughed out shell blank for circular ornament	16	791.08	Unknown	6/1923
NMAI	120571.000	Campbell Factory	Shell strip for bead blank showing working	15	116.12	Unknown	6/1923
NMAI	120572.000	Campbell Factory	Fragment of shell blank for circular ornament	2	44.8	Unknown	6/1923
NMAI	120573.000	Campbell Factory	Fragment of shell bead blank, drilled	1	2.99	Unknown	6/1923
NMAI	120574.000	Campbell Factory	Fragment of thin shell circular ornament	4	39.51	Unknown	6/1923

NMAI	129962.000	Campbell Factory	Shell wampum beads	41	52.5	1924	6/1924
NMAI	129962.001	Campbell Factory	Shell wampum beads	14	16.08	1924	6/1924
NMAI	129963.000	Campbell Factory	Long cylindrical shell wampum bead	5	24.88	1924	6/1924
NMAI	132902.000	Campbell Factory	Clamshell from which wampum was made	1	63.43	1924	6/1924
NMAI	132903.000	Campbell Factory	Cut piece of clamshell	3	15.52	1924	6/1924
NMAI	132903.001	Campbell Factory	Cut piece of clamshell	2	6.05	1924	6/1924
NMAI	132904.000	Campbell Factory	White shell bead blank, drilled	1	3.38	1924	6/1924
NMAI	132905.000	Campbell Factory	White shell bead blank, partly drilled	1	2.21	1924	6/1924
NMAI	132906.000	Campbell Factory	White shell bead blank	2	4.01	1924	6/1924
NMAI	132908.000	Campbell Factory	Purple shell bead blank, partly drilled	2	1.17	1924	6/1924
NMAI	132909.000	Campbell Factory	Purple shell bead blank, drilled	3	1.38	1924	6/1924
NMAI	161811.000	Campbell Factory	Fragment of clam shell	10	47.73	Unknown	8/1928
NMAI	182101.000	Campbell Factory	Set of seven moons.	7	NA	Unknown	3/1932
NMAI	206133.000	Campbell Factory	Unfinished blue wampum beads	20	12.54	Unknown	1943
NMAI	206134.000	Campbell Factory	Necklace of blue wampum beads	37	NA	Unknown	1943
NMAI	206135.000	Campbell Factory	String of blue wampum beads	16	NA	Unknown	1943
NMAI	216221.000	Campbell Factory	Moon shell.	5	57.15	Unknown	1950
NMAI	216222.000	Campbell Factory	Original string of wampum beads.	44	NA	Unknown	1950
NMAI	216223.000	Campbell Factory	Wampum beads	92	30.39	Unknown	1950
NMAI	234118.000	Campbell Factory	Conch shells.	2	2406.05	Unknown	1950
NMAI	241218.000	Campbell Factory	String of wampum. 55 beads.	55	NA	Unknown	1964
NMAI	241453.000	Campbell Factory	Original string of purple shell, Campbell wampum.	23	NA	1870	1968
NMAI	241454.000	Campbell Factory	White a purple, Campbell, shell wampum.	19	NA	1870	1967
NMAI	241455.000	Campbell Factory	Purple, Campbell, shell wampum.	93	NA	1870	1967
NMAI	244205.000	Campbell Factory	Shell runtee.	1	45.89	Unknown	1971
NMNH	E115693-0	Campbell Factory	Strings, Wampum Beads	76	NA	1884	1886

NMNH	E115695-0	Campbell Factory	Tubular Shell Beads	8	65.86	1884	1886
NMNH	E115696-0	Campbell Factory	Tubular Bead in the rough	1	35.64	1884	1886
NMNH	E115698-0	Campbell Factory	Shell Disc, in the rough	1	84.67	1884	1886
NMNH	E115700-0	Campbell Factory	Shell Disc	9	96.86	1884	1886
NMNH	E331963-0	Campbell Factory	Conch Shell Wampum-Stock	199	1589.047	1924	1926

APPENDIX B: DAVID CAMPBELL HOUSE ARTIFACT DATA

Context	Material	Count	Weight	Class	Subclass	Decoration	Comments
100.1	Ceramic	1	0.32	Earthenware, refined	Whiteware		
100.1	Ceramic	1	0.3	Earthenware, coarse	Redware		
100.1	Ceramic	1	6.76	Earthenware, refined	Yellow Ware		
100.1	Faunal	14	31.15	Shell	Worked Shell		
100.1	Glass	2	1.59	flat, undetermined	solarized		
100.1	Glass	2	6.25	bottle	aqua		
100.1	Glass	1	4.27	bottle	brown		
100.2	Ceramic	1	1.08	Earthenware, refined	Pearlware		
100.2	Faunal	16	50.11	Shell	Worked Shell		
100.2	Glass	1	1.5	bottle	solarized		
100.2	Glass	1	1	window	aqua		
100.3	Ceramic	1	4.98	Earthenware, refined	Pearlware		
100.3	Ceramic	1	0.27	Earthenware, refined	Pearlware	Transfer printed	
100.3	Faunal	2	0.63	Shell	Worked Shell		
101	Ceramic	2	1.17	Earthenware, refined	Indeterminate earthenware		
101	Ceramic	5	1.36	Earthenware, refined	Pearlware		
101	Ceramic	3	1.6	Earthenware, refined	Pearlware	Transfer printed	
101	Ceramic	7	2.22	Earthenware, coarse	Redware		
101	Ceramic	1	1.9	Earthenware, coarse	Redware		
101	Ceramic	1	0.29	Earthenware, coarse	Redware		
101	Ceramic	1	0.27	Earthenware, coarse	Redware		
101	Coal/Coal Ash	17	20.14				
101	Faunal	24	60.67	Shell	Worked Shell		
101	ferrous	6	13.49	Nails	Cut (machine)		
101	Glass	1	1.53	flat, undetermined	aqua		
101	Glass	1	1.79	curved, indet.	aqua		
101	Glass	1	0.94	curved, indet.	colorless		
102	Ceramic	4	0.95	Earthenware, coarse	Redware		
102	Ceramic	4	2.33	Earthenware, coarse	Redware		Burning on exterior.
102	Ceramic	2	1.35	Earthenware, coarse	Redware		
102	Ceramic	1	0.99	Earthenware, coarse	Redware		
102	Ceramic	2	0.78	Earthenware, refined	Pearlware		
102	Ceramic	1	0.05	Earthenware, refined	Creamware		
102	Coal/Coal Ash	4	13.96				
102	Faunal	18	36.43	Shell	Worked Shell		

102	ferrous	30	25.86	Object			Probably fragments of one object. Metal can?
102	Flint	1	2.66				
102	Glass	1	1.06	curved, indet.	solarized		
102	Glass	1	0.49	flat, undetermined	aqua		
102	Glass	1	0.51	bottle	colorless	embossed	
103	Ceramic	5	4.69	Earthenware, coarse	Redware		
103	Ceramic	1	0.26	Earthenware, coarse	Redware		
103	Ceramic	2	0.93	Earthenware, coarse	Redware		
103	Ceramic	1	1.9	Earthenware, coarse	Redware		
103	Ceramic	1	1.19	Earthenware, refined	Indeterminate earthenware		Charred
103	Ceramic	4	2.01	Earthenware, refined	Pearlware		
103	Ceramic	1	0.36	Earthenware, refined	Pearlware		
103	Ceramic	1	0.12	Earthenware, refined	Indeterminate-factory-made		
103	Coal/Coal Ash	5	1.99				
103	Faunal	1	2.82	Bone			
103	Faunal	46	134.61	Shell	Worked Shell		
103	ferrous	1	4.79	Nails	Cut (machine)		
103	Glass	4	1.13	curved, indet.	aqua		
104	Ceramic	5	3.68	Earthenware, coarse	Redware		
104	Ceramic	5	6.63	Earthenware, coarse	Redware		
104	Ceramic	4	2.83	Earthenware, refined	Pearlware		
104	Ceramic	1	0.38	Earthenware, refined	Whiteware		
104	Ceramic	1	0.41	Earthenware, refined	Whiteware		
104	Ceramic	1	0.14	Earthenware, refined	Pearlware		Possibly scratch green white saltglazed stoneware?
104	Ceramic	2	3.05	Earthenware, refined	Indeterminate earthenware		
104	Coal/Coal Ash	15	28.43				
104	Faunal	1	6.51	Bone			
104	Faunal	29	202.38	Shell	Worked Shell		
104	ferrous	3	6.85	Nails	Cut (machine)		
104	Glass	2	1.69	flat, undetermined	aqua		
104	Glass	1	0.55	curved, indet.	aqua		
104	Glass	1	2.06	flat, undetermined	milkglass		
104	Slag	1	1.44				
105	Ceramic	1	0.32	Earthenware, coarse	Redware		
105	Coal/Coal Ash	3	3.31				
105	Faunal	1	0.44	Bone			

106	Ceramic	1	0.13	Earthenware, coarse	Redware		
106	Ceramic	2	0.88	Earthenware, refined	Creamware		Mend.
106	Coal/Coal Ash	5	5.02				
106	Faunal	1	1.12	Shell	Worked Shell		
106	ferrous	1	1.89	Nails	Drawn (modern)		
106	Glass	2	1.56	flat, undetermined	aqua		
106	Glass	2	1.83	bottle	aqua		
107	Ceramic	2	0.31	Earthenware, refined	Pearlware		
107	Stone	1	54.23	"Jersey Dutch" Red Sandstone			
107	Stone	1	143.74	Coursed stone with molding.			
108	Ceramic	1	1.55	Earthenware, refined	Pearlware	Transfer printed	
108	Coal/Coal Ash	1	0.64				
108	Faunal	3	28.82	Shell	Worked Shell		
108	ferrous	1	2.15	Nails	Cut (machine)		
108	Glass	3	0.52	lamp	colorless		
108	Glass	3	2.61	flat, undetermined	aqua		
108	Stone	1	67.44	Cut stone - resembling headstone			
109	Ceramic	3	2.82	Earthenware, coarse	Redware		
109	Ceramic	1	28.39	Earthenware, coarse	Redware		
109	Ceramic	1	10.79	Earthenware, coarse	Redware		
109	Ceramic	1	1.18	Earthenware, coarse	Redware		
109	Ceramic	1	0.1	Earthenware, refined	Whiteware		
109	Coal/Coal Ash	8	12				
109	Faunal	11	11.28	Bone			
109	Faunal	17	43.12	Shell	Worked Shell		
109	ferrous	1	3.92	Object			wire clip / fastener? Same object as CXT 122.
109	ferrous	2	3.01	Nails	Too Corroded to ID		
109	ferrous	1	1.97	Object			bottle cap
109	Glass	9	35.55	window	colorless		
109	Glass	9	17.09	curved, indet.	colorless		
109	Glass	2	7.92	bottle	colorless		
109	Glass	2	10.47	curved, indet.	solarized		
109	Glass	1	1.17	window	aqua		
109	Glass	1	0.9	bottle	brown		
109	Slag	2	6.82				
110	Ceramic	1	1.15	Earthenware, coarse	Redware		
110	Ceramic	1	5.54	Earthenware, coarse	Redware		
110	Ceramic	1	4.56	Earthenware, refined	Creamware		

110	Ceramic	5	0.8	Earthenware, refined	Pearlware		
110	Ceramic	1	0.57	Earthenware, refined	Pearlware		
110	Ceramic	1	1.87	Earthenware, coarse	Redware		
110	Ceramic	1	0.61	Earthenware, refined	Rockingham		
110	Coal/Coal Ash	3	12.16				
110	Faunal	27	88.48	Shell	Worked Shell		
110	ferrous	1	10.87	Nails	Cut (machine)		
110	ferrous	3	12.89	Object	Too Corroded to ID		
110	Glass	1	9.64	bottle	solarized		
110	Glass	1	1.89	bottle	solarized		
110	Glass	1	1.91	jar	colorless	embossed	"8" embossed
110	Glass	6	8.64	window	aqua		
110	Glass	1	1.53	curved, indet.	dark green		
110	Glass	1	1.34	insulator	colorless		small glass tube
110	Slag	1	0.56				
111	Ceramic	1	39.94	Earthenware, coarse	Redware		
111	Ceramic	3	16.06	Earthenware, coarse	Redware		
111	Ceramic	7	6.7	Earthenware, coarse	Redware		
111	Ceramic	1	1.87	Earthenware, refined	Indeterminate earthenware		
111	Ceramic	2	0.87	Earthenware, coarse	Redware		
111	Ceramic	4	3.14	Earthenware, refined	Whiteware		
111	Coal/Coal Ash	3	12.81				
111	Faunal	27	106.22	Shell	Worked Shell		
111	ferrous	2	11.53	Nails	Cut (machine)		
111	ferrous	1	27.14	Object			metal band
111	Glass	1	0.54	bottle	brown		
111	Glass	7	3.69	curved, indet.	colorless		
111	Glass	9	6	flat, undetermined	aqua		
113	Ceramic	7	6.47	Earthenware, coarse	Redware		
113	Ceramic	1	0.83	Earthenware, coarse	Redware		
113	Ceramic	1	0.65	Earthenware, coarse	Redware		
113	Ceramic	2	0.65	Earthenware, refined	Pearlware		
113	Ceramic	2	0.39	Earthenware, refined	Pearlware	Transfer printed	
113	Ceramic	2	1.42	Earthenware, refined	Pearlware	Underglaze painted	mend. floral pattern. Minimal cobalt (1795-1815)?
113	Coal/Coal Ash	2	3.82				
113	Faunal	2	2.63	Bone			
113	Faunal	26	210.74	Shell	Worked Shell		
113	Ferrous	3	22.89	Spoon			
113	Glass	1	2.99	tableware	solarized		
113	Glass	3	3.46	window	aqua		

114	Ceramic	7	6.11	Earthenware, coarse	Redware		
114	Ceramic	3	9.55	Earthenware, coarse	Redware		
114	Ceramic	3	15.51	Earthenware, coarse	Redware		
114	Ceramic	1	1.01	Earthenware, coarse	Redware		burning
114	Ceramic	2	1.81	Porcelain	Indeterminate porcelain		
114	Ceramic	2	2.53	Earthenware, refined	Pearlware		
114	Ceramic	3	0.62	Earthenware, refined	Pearlware		
114	Coal/Coal Ash	3	2.58				
114	Faunal	1	1.33	Bone			
114	Faunal	11	5.95	Shell	Worked Shell		
114	ferrous	7	3.5	Object			
114	ferrous	8	13.57	Nails	Cut (machine)		
114	Glass	4	4.6	window	aqua		
115	Ceramic	12	6.25	Earthenware, coarse	Redware		
115	Ceramic	1	0.77	Earthenware, coarse	Redware		
115	Ceramic	5	1.74	Earthenware, refined	Pearlware		
115	Ceramic	1	0.66	Earthenware, refined	Pearlware	Transfer printed	
115	Ceramic	1	0.51	Earthenware, refined	Yellow Ware		
115	Ceramic	2	19.44	Earthenware, refined	Pearlware		
115	Ceramic	2	46.34	Stoneware, coarse	Undetermined buff paste		
115	Charcoal	1	0.13				
115	Cuprous	1	0.24				
115	Faunal	6	50.13	Shell	Worked Shell		
115	ferrous	2	4.84	Object			
115	ferrous	5	12.88	Nails	Drawn (modern)		
115	ferrous	8	21.3	Nails	Cut (machine)		
115	Glass	1	0.63	bottle	aqua		
115	Glass	1	0.53	curved, indet.	colorless		
115	Glass	2	2.01	window	aqua		
115	Mortar	7	7.51				
116	Ceramic	4	2.48	Earthenware, coarse	Redware		
116	Coal/Coal Ash	1	0.39				
116	Faunal	2	29.8	Shell	Worked Shell		
116	Glass	1	0.31	window	colorless		
117	Ceramic	1	0.13	Earthenware, refined	Pearlware		
117	Faunal	1	0.28	Bone			
117	Faunal	4	3.7	Shell	Worked Shell		
117	Undetermined	1	0.27				
118	Ceramic	2	2.96	Earthenware, coarse	Redware		
118	Ceramic	2	2.16	Earthenware, coarse	Redware		
118	Faunal	1	0.36	Bone			
118	Faunal	6	12.65	Shell	Worked Shell		

118	ferrous	2	2.81	Nails	Too Corroded to ID		
120	Ceramic	1	0.27	Earthenware, refined	Pearlware		
120	Ceramic	2	3.49	Earthenware, coarse	Redware		
120	Ceramic	1	0.26	Earthenware, coarse	Redware		
120	Coal/Coal Ash	1	1.86				
120	Faunal	2	1.26	Shell	Worked Shell		
120	ferrous	3	10.1	Nails	Cut (machine)		
120	Glass	1	1.11	window	aqua		
121	Ceramic	3	1.8	Earthenware, coarse	Redware		
121	Ceramic	1	0.39	Earthenware, coarse	Redware		
121	Ceramic	1	4.78	Earthenware, coarse	Redware		
121	Ceramic	15	25.77	Earthenware, coarse	Redware		
121	Ceramic	1	0.69	Earthenware, refined	Pearlware		
121	Ceramic	1	0.67	Earthenware, refined	Creamware		
121	Ceramic	2	6.23	Earthenware, refined	Rockingham		
121	Coal/Coal Ash	6	18.82				
121	Faunal	3	1.07	Shell	Worked Shell		
121	ferrous	15	11.89	Nails	Too Corroded to ID		
121	ferrous	7	3.76	Object			
121	Glass	4	7.96	bottle	aqua		
121	Glass	1	1.49	flat, undetermined	aqua		
121	Glass	2	1.71	curved, indet.	colorless		
121	non-ferrous metal	1	1.91	Washer			
122	Ceramic	5	6.95	Earthenware, coarse	Redware		
122	Ceramic	1	9.46	Earthenware, coarse	Redware		
122	Ceramic	1	2.5	Earthenware, refined	Creamware		
122	Ceramic	1	14.43	Earthenware, refined	Ironstone (White Granite)		
122	Coal/Coal Ash	5	2.9				
122	Faunal	1	2	Shell	Worked Shell		
122	Faunal	1	10.3	Shell	Worked Shell		
122	ferrous	1	2.59	Nails	Cut (machine)		
122	ferrous	1	1.33	Nails	Drawn (modern)		
122	ferrous	1	4.76	Object			wire clip / spring / fastener? Same object in CXT 109.
122	Glass	7	11.5	window	aqua		
122	Glass	2	2.92	bottle	colorless		
122	Glass	1	0.22	curved, indet.	milkglass		
122	Glass	1	1.02	curved, indet.	milkglass		
122	non-ferrous metal	2	0.92	Washer			

122	Plastic	2	0.3				
122	Slate	6	24.19				
123	Ceramic	2	9.36	Earthenware, coarse	Redware		
123	Ceramic	2	3.16	Earthenware, coarse	Redware		
123	Ceramic	2	1.33	Earthenware, coarse	Redware		
123	Ceramic	1	2.61	Earthenware, refined	Whiteware		
123	Ceramic	1	0.55	Earthenware, refined	Whiteware		
123	Ceramic	6	4.51	Earthenware, refined	Pearlware		
123	Coal/Coal Ash	2	13.44				
123	Faunal	7	38.31	Bone			
123	Faunal	12	42.87	Shell	Worked Shell		
123	ferrous	4	19.3	Object			metal band
123	ferrous	5	15.84	Nails	Cut (machine)		
123	ferrous	1	18.57	Bolt			
123	Ferrous	3	10.59	bottle caps			
123	Ferrous	1	0.83	fish hook			
123	Glass	1	1.24	bottle	brown		
123	Glass	13	27.42	curved, undetermined	colorless		
123	Glass	1	2.49	bell jar	colorless		
123	Glass	1	0.38	curved, undetermined	colorless		thin narrow cylinder.
123	Glass	1	0.98	window	aqua		
123	Glass	1	0.41	curved, undetermined	colorless	embossed	"I L E"
124	Ceramic	1	1.71	Earthenware, coarse	Redware		
124	ferrous	2	11.53	Nails	Cut (machine)		
124	Flint	1	2.29				
124	Glass	1	0.1	flat, undetermined	aqua		
125	Ceramic	1	0.37	Porcelain	Indeterminate porcelain		
125	Ceramic	3	2.98	Earthenware, coarse	Redware		
125	Ceramic	7	30	Earthenware, coarse	Redware		
125	Coal/Coal Ash	4	3.11				
125	Faunal	7	8.35	Shell	Worked Shell		
125	Glass	1	1.3	flat, undetermined	aqua		
125	Glass	1	1.9	curved, undetermined	colorless	embossed	
126	Brick	2	23.39				
126	Ceramic	1	6.74	Earthenware, coarse	Redware		Burned
126	Ceramic	3	1.43	Earthenware, coarse	Redware		
126	Ceramic	1	3.3	Earthenware, coarse	Redware		
126	Ceramic	2	2.81	Earthenware, coarse	Redware		
126	Ceramic	21	30.69	Earthenware, coarse	Redware		

126	Ceramic	84	48.03	Earthenware, coarse	Redware		
126	Ceramic	1	1.42	Earthenware, refined	Manganese mottled		
126	Ceramic	3	0.89	Earthenware, coarse	Redware		
126	Ceramic	27	19.11	Earthenware, coarse	Redware		
126	Ceramic	4	3.14	Earthenware, coarse	Redware	slip decorated, brushed, etc	
126	Ceramic	26	13.32	Earthenware, refined	Pearlware		
126	Ceramic	9	6.16	Earthenware, refined	Creamware		
126	Ceramic	1	1.04	Earthenware, refined	Creamware		
126	Ceramic	1	6.68	Earthenware, refined	Pearlware		
126	Ceramic	3	4.13	Earthenware, refined	Yellow Ware		
126	Ceramic	1	0.5	Earthenware, refined	Rockingham		Salt-glazed stoneware.
126	Ceramic	1	0.71	Stoneware, coarse	American Buff		
126	Ceramic	1	1	Porcelain			
126	Ceramic	7	4.28	Earthenware, refined	Pearlware	Transfer printed	
126	Ceramic	1	0.1	Earthenware, refined	Indeterminate-factory-made	Banded	
126	Ceramic	1	1.19	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
126	Ceramic	1	0.11	Earthenware, refined	Pearlware		
126	Ceramic	1	0.15	Earthenware, refined	Pearlware	Underglaze painted	
126	Ceramic	1	1.42	Earthenware, coarse	Redware		
126	Ceramic	1	0.49	Earthenware, coarse	Indeterminate earthenware		
126	Ceramic	2	9.18	Earthenware, refined	Indeterminate-factory-made	Marbled ware (or granite inlay	
126	Ceramic	1	1.2	Porcelain	Indeterminate porcelain		
126	Coal/Coal Ash	61	81.85				
126	Cuprous	1	0.46	"8" number plate			
126	Faunal	3	9.9	Bone			
126	Faunal	402	1043.6	Shell	Worked Shell		
126	ferrous	1	7.87	Other			Fish hook.
126	ferrous	9	14.14	Nails	Cut (machine)		
126	Glass	1	4.31	tableware	colorless		
126	Glass	17	7.52	curved, indet.	colorless		
126	Glass	4	2.69	flat, undetermined	colorless		
126	Glass	4	3.81	bottle	brown		
126	Glass	1	0.77	bottle	green		

126	Glass	26	11.68	flat, undetermined	aqua		
126	Glass	11	51.84	bottle	aqua	embossed	
126	Glass	1	0.85	curved, indet.	milkglass		
127	Brick	2	29.09				
127	Ceramic	21	17.03	Earthenware, coarse	Redware		
127	Ceramic	3	6.85	Earthenware, coarse	Redware		
127	Ceramic	7	2.81	Earthenware, coarse	Redware		
127	Ceramic	6	5.84	Earthenware, coarse	Redware	slip decorated, brushed, etc	
127	Ceramic	2	1.48	Earthenware, coarse	Redware		
127	Ceramic	3	3.16	Earthenware, coarse	Redware		
127	Ceramic	1	1.19	Earthenware, coarse	Redware		
127	Ceramic	3	1.26	Earthenware, coarse	Redware		
127	Ceramic	1	1.89	Earthenware, coarse	Redware		Charred exterior
127	Ceramic	20	11.77	Earthenware, refined	Pearlware		
127	Ceramic	6	0.83	Earthenware, refined	Creamware		
127	Ceramic	2	3.74	Earthenware, refined	Pearlware		Mend.
127	Ceramic	1	0.2	Porcelain			
127	Ceramic	1	2.65	Earthenware, refined	Whiteware		
127	Ceramic	3	1.26	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Marbled ware (or granite inlay	
127	Ceramic	2	1.51	Earthenware, refined	Pearlware	Transfer printed	
127	Ceramic	1	0.1	Earthenware, refined	Pearlware		
127	Ceramic	1	1.79	Earthenware, refined	Yellow Ware		
127	Ceramic	2	1.29	Earthenware, refined	Pearlware	Underglaze painted	
127	Coal/Coal Ash	43	61.29				
127	Faunal	4		Bone			
127	Faunal	477	1131.4	Shell	Worked Shell		
127	ferrous	5	10.08	Nails	Cut (machine)		
127	ferrous	2	9.39	Object			
127	Glass	1	16.84	bottle	solarized		
127	Glass	1	6.19	tableware	colorless	cut	
127	Glass	2	5.07	bottle	dark green		
127	Glass	12	6.48	window	aqua		
127	Glass	5	7.83	curved, indet.	aqua		
127	Glass	11	5.72	curved, indet.	colorless		
127	Glass	1	0.6	flat, undetermined	colorless	embossed	
127	Stone	2	9.74	"Jersey Dutch" red sandstone			

128	Ceramic	3	0.61	Earthenware, refined	Pearlware		
128	Ceramic	1	0.03	Earthenware, refined	Pearlware	Transfer printed	
128	Faunal	26	30.64	Shell	Worked Shell		
128	Glass	1	3.36	tableware	colorless		
128	Glass	1	1.99	curved, indet.	colorless		
128	Glass	1	2.12	flat, undetermined	aqua		
129	Ceramic	1	0.54	Earthenware, coarse	Redware		
129	Coal/Coal Ash	8	16.06				
129	Faunal	8	88.97	Shell	Worked Shell		
129	ferrous	20	129.7	Other			Strip / band. Mends with objects in CXT 130.
129	Glass	2	0.48	flat, undetermined	aqua		
130	Faunal	4	1.4	Shell	Worked Shell		
130	ferrous	4	45.49	Other			Strip / band. Mends with objects in CXT 129
131	Ceramic	1	1.93	Earthenware, coarse	Redware		
131	Ceramic	1	0.26	Earthenware, coarse	Redware		grey underglaze color?
131	Faunal	2	30.06	Shell	Worked Shell		
131	Glass	1	0.18	flat, undetermined			
132	Brick	1	4.66				
132	Ceramic	37	16.66	Earthenware, coarse	Redware		
132	Ceramic	6	4.59	Earthenware, coarse	Redware		
132	Ceramic	9	4.65	Earthenware, coarse	Redware		
132	Ceramic	1	0.35	Earthenware, coarse	Redware		
132	Ceramic	5	3.72	Earthenware, coarse	Redware		
132	Ceramic	4	1.2	Earthenware, coarse	Redware	slip decorated, brushed, etc	
132	Ceramic	2	4.7	Earthenware, coarse	Redware		
132	Ceramic	1	0.93	Earthenware, refined	Rockingham		Manganese Mottled?
132	Ceramic	1	1.09	Stoneware, coarse	Undetermined buff paste		
132	Ceramic	3	0.64	Earthenware, refined	Indeterminate earthenware		
132	Ceramic	2	1.4	Earthenware, refined	Creamware		
132	Ceramic	33	16.37	Earthenware, refined	Pearlware		
132	Ceramic	1	7.84	Earthenware, refined	Pearlware		
132	Ceramic	4	3.06	Earthenware, refined	Pearlware	Transfer printed	

132	Ceramic	1	1.92	Porcelain	Indeterminate porcelain		
132	Ceramic	2	0.57	Earthenware, refined	Pearlware		
132	Ceramic	2	0.73	Earthenware, refined	Creamware factory-made slipware (dipt ware)	Banded	
132	Ceramic	1	0.4	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
132	Ceramic	1	1.16	Earthenware, refined	Pearlware	Underglaze painted	Floral pattern. Hand painted. Not heavily cobolt.
132	Ceramic	2	0.56	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	Mend.
132	Coal/Coal Ash	40	40.67				
132	Faunal	2	9.51	Bone			Cut
132	Faunal	107	265.75	Shell	Worked Shell		
132	ferrous	5	14.9	Nails	Cut (machine)		
132	Glass	1	0.97	curved, indet.	milkglass		
132	Glass	4	1.84	curved, indet.	colorless		
132	Glass	2	1.69	flat, undetermined	colorless		
132	Glass	18	11.25	window	aqua		
132	Glass	2	10.39	bottle	aqua		
132	Glass	1	0.51	curved, indet.	light blue		
132	Glass	1	0.69	curved, indet.	dark green		
133	Ceramic	7	2	Earthenware, coarse	Redware		
133	Ceramic	2	10.83	Earthenware, coarse	Redware		
133	Ceramic	2	1.97	Earthenware, coarse	Redware		
133	Ceramic	5	1.33	Earthenware, coarse	Redware		
133	Ceramic	1	5.62	Earthenware, coarse	Redware		
133	Ceramic	2	0.22	Earthenware, refined	Indeterminate earthenware		
133	Ceramic	2	1.42	Earthenware, refined	Creamware		
133	Ceramic	7	2.84	Earthenware, refined	Pearlware		
133	Ceramic	1	2.35	Earthenware, refined	Pearlware	Underglaze painted	
133	Ceramic	4	2.87	Earthenware, refined	Pearlware	Transfer printed	
133	Coal/Coal Ash	8	15.6				
133	Faunal	64	237.14	Shell	Worked Shell		
133	Ferrous	1	82.86	Door hinge.			
133	Glass	4	0.83	flat, undetermined	aqua		
133	Glass	2	6.28	tumbler	colorless		
133	Glass	1	2.54	curved, indet.	aqua		
134	Ceramic	4	9.15	Earthenware, coarse	Redware		

134	Ceramic	1	0.53	Earthenware, coarse	Redware		
134	Ceramic	1	1.3	Earthenware, coarse	Redware		
134	Ceramic	1	0.35	Stoneware, coarse	Undetermined buff paste		
134	Ceramic	11	11.33	Earthenware, refined	Pearlware		
134	Ceramic	2	5.06	Earthenware, refined	Pearlware	Transfer printed	
134	Ceramic	1	0.3	Earthenware, refined	Pearlware		
134	Ceramic	2	0.26	Earthenware, refined	Indeterminate-factory-made	Banded	
134	Coal/Coal Ash	1	2.59				
134	Faunal	21	54.8	Shell	Worked Shell		
134	ferrous	2	12.23	Nails	Cut (machine)		
134	Glass	1	2.16	curved, indet.	aqua		
135	Ceramic	1	0.8	Earthenware, coarse	Redware		
135	Ceramic	2	0.7	Earthenware, coarse	Redware		
135	Ceramic	1	3.76	Earthenware, coarse	Redware		
135	Ceramic	1	0.08	Earthenware, refined	Pearlware		
135	Ceramic	1	0.18	Earthenware, refined	Creamware		
135	Coal/Coal Ash	2	3.31				
135	Faunal	11	105.92	Shell	Worked Shell		
135	ferrous	1	1.27	Object			
135	ferrous	2	13.83	Nails	Cut (machine)		
135	Stone	1	34.52	"Jersey Dutch" red sandstone.			
137	Ceramic	1	0.28	Earthenware, coarse	Redware		
137	Ceramic	2	0.71	Earthenware, coarse	Redware		
137	Ceramic	1	0.66	Earthenware, coarse	Redware		
137	Charcoal	1	0.29				
137	Faunal	4	16.37	Shell	Worked Shell		
137	Glass	1	0.5	curved, indet.	colorless		
138	Faunal	1	0.29	Shell	Worked Shell		
138	Glass	2	1.79	flat, undetermined	aqua		
139	Brick	4	28.29				
139	Ceramic	43	18.61	Earthenware, coarse	Redware		
139	Ceramic	7	10.43	Earthenware, coarse	Redware		
139	Ceramic	4	5.26	Earthenware, coarse	Redware		
139	Ceramic	1	4.79	Earthenware, coarse	Redware		Charring
139	Ceramic	15	8.21	Earthenware, coarse	Redware		
139	Ceramic	2	1.07	Earthenware, coarse	Redware		

139	Ceramic	5	1.61	Earthenware, coarse	Redware	slip decorated, brushed, etc	
139	Ceramic	5	4.51	Earthenware, coarse	Redware		mottling
139	Ceramic	6	1.87	Earthenware, refined	Indeterminate earthenware		
139	Ceramic	2	3.1	Porcelain	Indeterminate porcelain		
139	Ceramic	31	24.35	Earthenware, refined	Pearlware		
139	Ceramic	7	3.72	Earthenware, refined	Creamware		
139	Ceramic	7	6.19	Earthenware, refined	Yellow Ware		
139	Ceramic	4	1.23	Earthenware, refined	Pearlware	Transfer printed	
139	Ceramic	2	0.37	Earthenware, refined	Indeterminate earthenware	Transfer printed	
139	Ceramic	1	0.24	Earthenware, refined	Indeterminate earthenware	Underglaze painted	Floral
139	Ceramic	1	0.51	Earthenware, refined	Indeterminate earthenware	Underglaze painted	
139	Ceramic	1	0.21	Earthenware, refined	Pearlware	Underglaze painted	
139	Ceramic	1	0.15	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
139	Ceramic	1	0.34	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
139	Ceramic	1	1.61	Earthenware, refined	Rockingham		
139	Charcoal	1	0.29				
139	Coal/Coal Ash	94	100.42				
139	Faunal	127	405.34	Shell	Worked Shell		
139	ferrous	9	21.87	Nails	Cut (machine)		
139	ferrous	1	1.07	Object			
139	ferrous	1	134.25	Other			Rod (unbagged)
139	Glass	1	1.45	tumbler	colorless		
139	Glass	1	1.55	tableware	colorless		
139	Glass	4	6.39	bottle, beverage	brown		
139	Glass	2	0.84	bottle	dark green		
139	Glass	1	0.18	curved, indet.	red		
139	Glass	1	0.48	curved, indet.	cobalt blue		
139	Glass	1	0.25	curved, indet.	green		
139	Glass	10	3.6	flat, undetermined	colorless		
139	Glass	8	6.18	flat, undetermined	aqua		
139	Glass	12	9.39	curved, indet.	aqua		
139	Glass	21	17.04	curved, indet.	colorless		
139	Stone	1	2.51	"Jersey Dutch" red sandstone			
140	Ceramic	28	26.2	Earthenware, coarse	Redware		
140	Ceramic	2	4.66	Earthenware, coarse	Redware		
140	Ceramic	3	5.01	Earthenware, coarse	Redware		

140	Ceramic	2	2.57	Earthenware, coarse	Redware		
140	Ceramic	5	5.97	Earthenware, coarse	Redware	slip decorated, brushed, etc	
140	Ceramic	1	3.62	Earthenware, coarse	Redware		
140	Ceramic	2	27.58	Earthenware, refined	Rockingham		
140	Ceramic	13	13.47	Earthenware, refined	Pearlware		
140	Ceramic	1	4.15	Earthenware, refined	Pearlware		
140	Ceramic	3	0.5	Earthenware, refined	Indeterminate earthenware		
140	Ceramic	4	1.15	Earthenware, refined	Pearlware	Transfer printed	
140	Ceramic	2	0.87	Earthenware, refined	Creamware		
140	Ceramic	1	1.8	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
140	Ceramic	1	0.25	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
140	Coal/Coal Ash	16	27.68				
140	Faunal	1	1.47	Tooth			
140	Faunal	56	724.37	Shell	Worked Shell		
140	ferrous	3	24.67	Nails	Cut (machine)		
140	ferrous	2	10.58	Other			Can lid and base.
140	ferrous	1	4.27	Other			wire?
140	Glass	1	0.49	bottle	brown		
140	Glass	9	16.4	curved, indet.	dark green		
140	Glass	7	3.7	window	aqua		
140	Glass	3	4.59	curved, indet.	aqua		
140	Glass	1	1.43	flat, undetermined	colorless	embossed	
140	Glass	12	25.6	curved, indet.	colorless		
140	Glass	2	3.04	tableware	colorless		
141	Ceramic	1	2.48	Earthenware, coarse	Redware		
141	Ceramic	1	0.14	Earthenware, refined	Pearlware		
141	Coal/Coal Ash	2	3.26				
141	Faunal	5	110.01	Shell	Worked Shell		
141	ferrous	1	5.54	Nails	Cut (machine)		
141	Glass	3	2.87	curved, indet.	colorless		
142	Ceramic	1	0.08	Earthenware, coarse	Redware		
142	Ceramic	1	0.01	Earthenware, refined	Pearlware		
142	Coal/Coal Ash	4	2.78				
142	Glass	1	0.12	flat, undetermined	aqua		
143	ferrous	1	7.3	Bolt			
143	Glass	2	1.2	flat, undetermined	colorless		
143	Glass	2	6.4	bottle	brown		
144	Coal/Coal Ash	1	2.8				

144	Glass	1	0.9	flat, undetermined	colorless		
144	Glass	1	2	curved, indet.	colorless		
144	Glass	1	2.1	curved, indet.	aqua		
145	Brick	1	4.9				
145	Ceramic	1	0.1	Earthenware, coarse	Redware		
145	Coal/Coal Ash	2	1.1				
145	Faunal	13	21.5	Shell	Worked Shell		
145	ferrous	4	14.3	Nails			
145	Glass	1	3.8	bottle	brown		
145	Glass	7	10.7	flat, undetermined	colorless		
145	Plastic	1	0.1				
146	Brick	2	16.2				
146	Ceramic	1	0.6	Earthenware, coarse	Redware		
146	Ceramic	1	4.2	Earthenware, coarse	Redware		
146	Ceramic	1	0.2	Earthenware, refined	Pearlware	Transfer printed	
146	Faunal	1	0.1	Shell			
146	Glass	4	2.9	flat, undetermined	colorless		
146	Glass	1	0.6	curved, indet.	colorless		
148	Ceramic	1	0.5	Earthenware, coarse	Redware		
148	Faunal	1	8.2	Bone			
148	ferrous	2	8.4	Nails	Cut (machine)		
148	Glass	2	6.7	curved, indet.	colorless		
148	Glass	1	2	bottle	brown		
148	Glass	4	2.4	flat, undetermined	colorless		
149	ferrous	1	8.8	Nails	Cut (machine)		
149	Glass	4	6.6	curved, indet.	colorless		
150	Coal/Coal Ash	1	11.2				
150	ferrous	4	8.4	Object			band/strip.
150	ferrous	2	7.8	Nails	Cut (machine)		
150	Glass	2	0.5	flat, undetermined	colorless		
151	Ceramic	2	1	Earthenware, refined	Whiteware		
151	ferrous	1	52.5	File			
151	ferrous	6	11.9	Nails	Cut (machine)		
151	ferrous	1	1.9	Other			
151	Glass	1	15.6	bottle	colorless		
151	Glass	1	5.6	bottle	colorless	embossed	"E GA"
151	Glass	8	13.3	curved, indet.	colorless		
152	Brick	5	12				
152	Ceramic	1	0.7	Stoneware, coarse	American Brown		
152	Ceramic	3	1.2	Earthenware, coarse	Redware		
152	Ceramic	1	4.2	Earthenware, coarse	Redware		
152	Ceramic	2	0.9	Earthenware, coarse	Redware	slip decorated, brushed, etc	
152	Ceramic	1	0.7	Earthenware, coarse	Redware		

152	Ceramic	9	2.4	Earthenware, refined	Pearlware		
152	Ceramic	4	1.6	Earthenware, refined	Indeterminate earthenware		
152	Ceramic	1	0.1	Earthenware, refined	Pearlware	Transfer printed	
152	Ceramic	1	1.5	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
152	Ceramic	1	1.3	Earthenware, refined	Rockingham		
152	clay	2	4.2	Pipe	stem		
152	Coal/Coal Ash	2	4.4				
152	Faunal	1	0.2	Bone			
152	Faunal	1	0.6	Bone			
152	Faunal	20	153.47	Shell	Worked Shell		
152	ferrous	4	11	Nails	Too Corroded to ID		
152	ferrous	1	2.6	Other			possibly nail? or drill bit?
152	Glass	3	3.7	flat, undetermined	aqua		
152	Glass	1	1.4	curved, indet.	brown		
152	Glass	5	6.2	curved, indet.	colorless		
152	Glass						
153	Brick	3	85.2				
153	Ceramic	30	25.7	Earthenware, coarse	Redware		
153	Ceramic	56	60.1	Earthenware, coarse	Redware		
153	Ceramic	13	22.7	Earthenware, coarse	Redware		
153	Ceramic	83	74.45	Earthenware, coarse	Redware		
153	Ceramic	7	13.2	Earthenware, coarse	Redware		
153	Ceramic	15	36.6	Earthenware, coarse	Redware	slip decorated, brushed, etc	
153	Ceramic	4	60.2	Stoneware, coarse	American Brown		
153	Ceramic	6	3.6	Earthenware, coarse	Redware		
153	Ceramic	3	11	Earthenware, refined	Pearlware		
153	Ceramic	17	16.2	Earthenware, refined	Pearlware		
153	Ceramic	2	1.2	Earthenware, refined	Creamware		
153	Ceramic	8	15.2	Earthenware, refined	Whiteware		
153	Ceramic	80	35	Earthenware, refined	Pearlware		
153	Ceramic	1	0.9	Earthenware, coarse			
153	Ceramic	1	1.2	Earthenware, refined	Pearlware		
153	Ceramic	3	1.9	Earthenware, refined	Pearlware		floral molding

153	Ceramic	2	0.14	Earthenware, refined	Pearlware factory-made slipware (dipt ware)		
153	Ceramic	2	1.9	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Marbled ware (or granite inlay	possibly cat's eye. brown and gray
153	Ceramic	2	1.2	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	green incised feather pattern.
153	Ceramic	7	3.2	Earthenware, refined	Pearlware	Transfer printed	
153	Ceramic	2	1.4	Earthenware, refined	Pearlware		
153	Ceramic	5	3.8	Earthenware, refined	Pearlware		
153	Ceramic	1	2.4	Earthenware, refined	Pearlware	Transfer printed	"&C. Ch..." "Fento"
153	Ceramic	4	3.4	Earthenware, refined	Whiteware	Underglaze painted	Floral pattern. Hand painted. Not heavily cobolt.
153	clay	1	1.2	Pipe	stem		
153	Coal/Coal Ash	3	7.5				
153	Faunal	1	8.3	Bone			
153	Faunal	387	3131.2	Shell	Worked Shell		
153	ferrous	7	16	Nails	Cut (machine)		
153	Glass	2	1.5	curved, indet.	dark green		
153	Glass	1	1.1	curved, indet.	brown		
153	Glass	1	0.6	curved, undetermined	solarized	embossed	
153	Glass	6	2.9	curved, indet.	aqua		
153	Glass	11	17.8	curved, indet.	colorless		
153	Glass	16	8.3	flat, undetermined	aqua		
154	Brick	2	4.5				
154	Ceramic	39	34.41	Earthenware, coarse	Redware		
154	Ceramic	16	22.1	Earthenware, coarse	Redware		Burning.
154	Ceramic	35	32.3	Earthenware, coarse	Redware		Color ranging from light brown to dark brown.
154	Ceramic	12	28.3	Earthenware, coarse	Redware	slip decorated, brushed, etc	
154	Ceramic	7	12.6	Earthenware, coarse	Redware		
154	Ceramic	2	2.8	Earthenware, coarse	Redware		
154	Ceramic	3	2.3	Earthenware, refined	Creamware		
154	Ceramic	1	1.7	Earthenware, refined	Pearlware		
154	Ceramic	1	0.4	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
154	Ceramic	1	0.6	Earthenware, refined	Pearlware		
154	Ceramic	5	1.3	Earthenware, refined	Pearlware	Transfer printed	

154	Ceramic	1	0.1	Earthenware, refined	Whiteware	Transfer printed	
154	Ceramic	1	0.1	Earthenware, refined	Whiteware	Underglaze painted	floral pattern. green, pink, bluish purple, dark brown.
154	Ceramic	38	20	Earthenware, refined	Pearlware		
154	Faunal	1	2	Tooth			
154	Faunal	149	1165.1	Shell	Worked Shell		
154	ferrous	4	6.3	Nails	Cut (machine)		
154	ferrous	1	0.6	Object			
154	Glass	1	19.2	bottle	colorless		
154	Glass	2	3.3	curved, indet.	aqua		
154	Glass	9	4	flat, undetermined	aqua		
155	Ceramic	8	3.9	Earthenware, coarse	Redware		
155	Ceramic	6	14.6	Earthenware, coarse	Redware		
155	Ceramic	7	25.6	Earthenware, coarse	Redware	slip decorated, brushed, etc	
155	Ceramic	11	9	Earthenware, coarse	Redware		glaze ranging from light to dark brown
155	Ceramic	1	6.4	Earthenware, coarse	Redware	slip decorated, brushed, etc	burning on exterior
155	Ceramic	1	0.7	Earthenware, coarse	Redware		
155	Ceramic	11	8.8	Earthenware, refined	Pearlware		
155	Ceramic	3	1.2	Earthenware, refined	Indeterminate earthenware		pearlware or whiteware.
155	Ceramic	1	0.7	Earthenware, refined	Pearlware		undecorated rim.
155	Ceramic	1	0.7	Earthenware, refined	Creamware		
155	Ceramic	1	0.7	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
155	Ceramic	3	1.6	Earthenware, refined	Pearlware		
155	Faunal	2	0.9	Bone			
155	Faunal	59	750.6	Shell	Worked Shell		
155	ferrous	3	4.8	Nails	Cut (machine)		
155	Glass	2	2	bottle	colorless		
155	Glass	3	0.9	flat, undetermined	colorless		
157	Coal/Coal Ash	2	5.63				
157	Faunal	5	25.78	Shell	Worked Shell		
158	Ceramic	1	0.8	Earthenware, coarse	Redware		
158	Ceramic	5	9.4	Earthenware, coarse	Redware		
158	Ceramic	3	1.5	Earthenware, refined	Pearlware		

158	Ceramic	1	0.4	Earthenware, refined	Pearlware factory-made slipware (dipt ware)	Banded	
158	Faunal	10	48.03	Shell	Worked Shell		
158	ferrous	1	2	Other			