Privy to the Details: Biographies of the Teagar/Weimer Site (45SN409) in Arlington, Washington

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Abstract

This thesis examines the historical and archaeological traces of European American settlers at the confluence of the Stillaguamish River in Washington State as a representation of settler-colonial interactions in the Pacific Northwest from the mid-19th to mid-20th centuries. I use a privy assemblage originally excavated through cultural resource mitigation in 2008 in conjunction with archival research to construct a biographical picture of the Teagar, Lovelace, and Weimer families who occupied the site between 1890 and 1940. My use of the biographical approach weaves together narratives of landscape, humans, and objects to challenge and critique prevailing narratives of frontier and the mythos of the American West. The mechanisms of biography are a combination between objects' lives before being brought to their final deposition in the privy, the meanings constructed around multiple cultures and families interacting with the privy, and the larger shifting social, economic, and geographic landscape. I demonstrate that the biographical approach to material culture analysis is uniquely suited to collections-based research. It also adds nuance to frontier histories due to its incorporation of complex and sometimes conflicting multivalent meanings of artifacts.

Acknowledgments

To honor the first peoples of these lands I acknowledge that the University of Idaho, Moscow, is located on the homelands of the *Nimiipuu* (Nez Perce), *Palus* (Palouse) and *Schitsu'umsh* (Coeur d'Alene) tribes. As a member of this institution, I want to extend my gratitude to the indigenous people who have called this place home since time immemorial. I also recognize that it is my responsibility to build relationships with indigenous peoples to ensure integrity of tribal voices and values surrounding heritage and future academic research.

I also wish to honor the *stuləgʷábš*, People of the River, the Stillaguamish Tribe of Indians. The Stillaguamish people and Tulalip Tribes have inhabited the lands and waters surrounding where the data for this thesis were collected since time immemorial and their descendants remain in this territory to this day. I thank them for their ongoing work to ensure the preservation of culture and history in their homeland.

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Dedication

This thesis is dedicated to my grandmother, Melva JoAnn Gardner née Marvin, who helped instill my initial love of history. Her passion for genealogy and tireless fundraising efforts helped to establish the Yakima Valley Genealogical Library. The results of her scouring through church archives and cemeteries all over the United States for our 'dead relatives,' connected me to the past in a deeply personal way. The connections she provided fuel my dedication to share histories that are relatable and meaningful to others.

Throughout my schooling, she has often remarked that if she'd had the opportunity to pursue a formal degree, she would have loved to be an archaeologist. Perhaps the next best thing will be for her to know that through her dedication to our family – past, present, and future - she helped me become what she could not. Thank you, Grandma JoAnn!

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Content Warning

All of the content within this thesis, including material that may be intellectually or emotionally challenging, has been intentionally curated to convey facts about the past and break down barriers to empathy (Spector 1993:128). Examples of this content include primary sources that use derogatory language about indigenous individuals, brief discussions of American Indian Residential Schools (to adhere to the limited scope of this thesis, this topic is also only cursorily discussed and does not do justice to the broader context and significance of this part of history), infant mortality, and suicide. The decision to include such material is not taken lightly. This warning is intended to reduce harm by making readers aware of potentially traumatizing content so that they may make an informed decision about reading this thesis. When we encounter a topic that is intellectually challenging it can manifest feelings of discomfort and upset, which often provides a valuable learning opportunity if we are able to process this discomfort with support. However, if a reader has experienced trauma related to these subjects, it may trigger trauma responses or re-traumatize the individual if they are unprepared to encounter such content. I encourage readers to be mindful of their wellbeing when reading this thesis and other literature.

This statement was developed using the "Trigger and Content Warning Guidance" provided by the University of Connecticut Office of the Provost (Ballestrini 2022).

Chapter 1: The Stories We Tell

This thesis, in its simplest form, is a story about the past. The main characters of this story are perhaps not entirely traditional as they include objects and places, not just people. This is a biography of the intertwined lives and experiences of the land at the confluence of the Stillaguamish River, the tribes who have called this place home since time immemorial, the European American immigrants and settlers who moved to this place and named it Arlington, Washington, and the many objects that they used and discarded over a century ago. Since this thesis is on archaeology, these objects from the Teagar/Weimer Site are the window into the past through which the story unfolds. I have chosen to share my work in this way for many reasons, but the underlying theme of all these reasons is that I enjoy telling stories and stories about the past resonate with many audiences.

One of the fundamental ways that humans go about understanding their world is through telling stories. Anthropologically this means that stories are one of the key tools we have in our study of humans. Within the archaeological context of understanding the past, history is the story that has been or is being told about the events of the past. Postmodern conceptualizations of knowledge production have critiqued the power dynamics of who and how the stories of the past and present are created and presented (Foucault 1972; Geertz 1973; Hodder 1990; Spiro 1996). The power of a well-crafted and meaningful narrative lies in the ability to dominate at the expense of other narratives or the ability to resonate across many of the social, temporal, and spatial divisions among people. The key ethical conundrum is to ensure that through awareness of this power, archaeologists and historians, as knowledge producers, ensure our work does the latter.

As privileged producers of stories about the past, the time-periods, sites, identities, or artifacts that we study are imbued with more meaning and transformed into evidence simply because we have chosen them (Burström 2014:77). The bias of archaeological focus may be addressed by employing a standard method of cultural anthropology first described by Geertz (1973) as 'thick description.' By providing as complete and detailed a description of the cultural phenomena as possible, and in archaeology the artifact and its context, we endeavor not to obscure information with initial interpretations of what such details signify. This approach argues that the more layers of interpretation that can be stripped away from our initial descriptions, the more authors temper the biases and power dynamics of narrative construction. In realistic practice, biases and power can never really be eliminated or avoided. Therefore, it is essential to position myself within this narrative and explain how my biases and power inevitably impact the story I am telling (see Research Constraints).

An insightful perspective on fitting material culture into broader historical 'narratives' such as colonialism or globalization is presented by Riello (2009). He discusses three different relational

frameworks for this endeavor: "history *from* things," "history *of* things," and "history *and* things" [emphasis in original] (Riello 2009:25–26). In the first relationship, history *from* things, scholars typically approach objects as primary sources. Much in the same way that we would read a manuscript to learn about the past, Riello suggests that objects in this instance are used as raw data and evidence for what occurred in the past. He asserts that the second relationship, history *of* things, is what the bulk of historians practice, in which we conduct a "historical analysis of the relationships between objects, people and their representations" (Riello 2009:25). The third relationship, history *and* things, is what he sees practiced more frequently within anthropology, with flexible methodologies that provide objects agency both within and independent from larger historical frameworks. He argues that by placing objects in equal status to the narratives of history, we are able to explore an ongoing dialogue between structures and objects of the past in more complex and meaningful ways.

These relational distinctions are useful to consider how scholars interact with material culture and use it in storytelling. History *from* things projects a false sense of objectivity similar to the concept of purely descriptive anthropology minimizing biases. This falsely envisioned objectivity led processual archaeologists to regard "the reconstruction of the role of men and women in economics, ideology, and social and political relations in prehistory […] as quite unvalidated and unvalidatable" (Tringham 1991:97). However, any construction of a historical narrative, regardless of the subject or data source, inherently requires interpretation, which reflects the specific perspectives and biases of the interpreter or storyteller. Constructing a historical biography *from* things is therefore not a viable method for the kind of story I will tell about the past lives surrounding the Teagar/Weimer Site.

Similar to Riello's discussion of historians writing about the history *of* things, Spector argued that the standard archaeological rhetoric tends "to be lifeless, with little sense of individual character, action, motivation, or emotion" (1993:30). Many feminist and postmodernist anthropologists critique the general avoidance of humanization in archaeological interpretation and the privileging of specific writing styles being construed as more or less objective or scientific (Rosaldo 1986; Collins 1986; Gero and Conkey 1991; Spector 1993; Franklin 2001; Wylie 2003, 2012). Tringham (1991:94) astutely asks why we as archaeologists are compelled to tell stories of "faceless blobs," rather than living and agentive "human entities with a social, political, ideological, and economic life?" By focusing solely on the history *of* objects and not the people who made, used, and discarded them, historians and archaeologists severely limit the utility of their disciplines. This limited approach is also not an ideal fit for exploring the stories of the Teagar/Weimer Site.

The general dissatisfaction with history *of* objects led Spector to envision a story of an object's life that was informed by rigorous historical and cultural data. By presenting her results in

this manner, her hope as a "producer of public knowledge" was to "play a positive role in breaking through […] barriers to empathy" (Spector 1993:128). At this time in archaeology, Spector's work was frequently dismissed as unscientific, but as the post processual theoretical movement grew, her work became lauded as revolutionary. While anthropologists, and by extension archaeologists, are well-versed in thinking critically about theory and interpretive frameworks, there is a relatively persistent stagnation surrounding a similar internal critique of methods and techniques (Agbe-Davies 2015:19). Following Spector's lead, feminist archaeologists have taken to directly challenging technique and methods by developing an intersectional interpretation of the past that encompasses nuanced understandings of overlapping identities such as race, ethnicity, class, sexuality, *and* gender (Conkey and Spector 1984; Collins 1986; Voss 2000; Franklin 2001; Voss 2005; Wilkie and Hayes 2006; Blackmore 2011; Agbe-Davies 2015; Eichner 2019).

Spector's (1993) pioneering narrative work in archaeology, and the many authors who have since followed suit, demonstrates the effectiveness of making archaeological writing more accessible and meaningful when archaeologists utilize the framework of history *and* objects (Deetz 1998; Praetzellis 1998; Gibb 2000). The value of this approach is in recognizing the equal agency of objects and humans in their daily interactions. This allows archaeologists like me to explore stories of objects and people from the past in tandem. This kind of exploration requires that the limitations of processual archaeology as previously discussed are transcended and careful examination and acknowledgement of interpretive biases in the story must be highlighted rather than ignored. Spector also explicitly calls out archaeological ignorance of biography. Since her critique, the biographical approach, initially introduced by Igor Kopytoff in 1986, has become a widely accepted method to draw meaningful connections between the objects studied and the people whose past lives archaeologists are seeking to understand (Gosden and Marshall 1999; Joy 2009; Burström 2014).

Biographical Approach

Examining the roots of the word 'biography' we are able to identify that at its core means simply: life, written. Since its Byzantine Greek origins, the definition of biography has shifted somewhat over the centuries. Definitions within the *Oxford English Dictionary Online* progress from "a written account of the life of an individual" to "the events or circumstances of a person's life, viewed collectively." Meanwhile, *Merriam-Webster's Online Dictionary* (2023) expands the definition further still as "an account in biographical form of the life of something (such as an animal, a coin, or a building)." Biography has been reframed - not simply as a noun, but as a method or style of telling a story; a story not just of a person's life but the life of any person, place, or thing (Dannehl 2009).

This evolution of biography is linked to the development of the anthropological method of biography, and more broadly a biographical approach to history and material culture (Kopytoff 1986). The underpinning assumption of this methodology is that objects have use-lives, during which they have relationships, interactions, and agency within social networks in much the same way people do (Kopytoff 1986; Latour 1991; Ingold 1993; 2000; Burström 2014:66). This assumption stems from the concept of non-human agency, which is by no means a new concept since it is integral to numerous indigenous cosmologies but has only recently been adopted by archaeologists (Ingold 1993; Dornan 2002; Sellers 2010; Lindstrøm 2015; Marker 2018; Rosiek et al. 2020). The archaeological community is still theoretically at odds regarding applications of non-human agency, particularly surrounding the level of agency imbued in humans, animals, landscapes, or objects and how that agency may or may not be associated with animism (Ingold 2006; Lindstrøm 2015; Ribeiro 2019). In these discussions, the disagreement is partially about the attribution of a soul to non-human beings such as animals, plants, landforms, or objects, but often hinges principally on the question of whether things that are understood as inanimate in Western culture (e.g., objects or landforms) have sentience and the 'decision making' capabilities that we commonly associate with the broader concept of agency (Ingold 2006; Lindstrøm 2015).

For my application of object and landscape agency within the biographical approach, objects, buildings, or landscapes are understood as animate only insofar as they have a 'lifetime' of use or social interaction. They are considered agentive only in that their existence and materiality have influence over other actors within the social network. A modern example of a highly agentive object is the cellphone. A cellphone is not understood to be sentient, but the role it plays in most humans' everyday lives significantly influences our behaviors and interactions with other humans, the environment, and other objects. While it is not considered 'alive,' it has a beginning to its use life when it is first manufactured and an end when it no longer serves its intended purpose and is discarded or replaced.

The study of object or landscape lifetimes has been approached in two different ways by practitioners of the biographical approach (Dannehl 2009; Burström 2014). The first way is the closest to the application of biographies of people, where there is an assumption of monodirectional life-course and a finite beginning and end to the object's life. This perspective focuses on the uniqueness of an object within a larger social network and how the specific interactions with other objects and people through time shape narratives. This approach is also the most similar to the example I listed above with the cellphone. The object's life 'ends' when it is removed from the network of social interactions and discarded.

The second application of the biological method is often referred to as the life cycle or life-history perspective where the focus is primarily on the mundanity and standardization of an object's use-life. Removal of these objects from cyclical use patterns is what brings them to an archaeologist's attention and how the object gains meaning in the present (Dannehl 2009; Burström 2014). Going back to the cellphone example, the use life of a phone doesn't necessarily end when it's primary user discards or replaces it. Cellphones are frequently 'traded-in' for a newer model and refurbished; alternatively, a phone may be recycled, and its component parts repurposed for other electronics that take on different purposes and participate in multiple different networks of interaction.

These two kinds of object lives provide different contextual value to a biographer but are inherently limited in isolation. Depending on the context of the object, either of these perspectives may be useful. Additionally, throughout an object's use-life their status may shift repeatedly between unique and mundane. A flexible biographical approach provides the opportunity to not just create historical narratives *from* things or *of* things but to craft "conscious and vivid" narratives of history *and* things (Burström 2014:6). In the narratives of this thesis, there are some objects or families whose biographies are approached from the life-course perspective where they have a finite and monodirectional interaction. There are also objects, identities, and landscapes whose biographies within the larger narrative represent cyclical interactions that are more aptly described using the life cycle or life-history approach. By seamlessly incorporating both approaches, I am able to include as many interactions as possible to tell a more complete and interesting story of the experiences of people living at or around the Teagar/Weimer Site during the mid-19th to mid-20th century.

Within the method of biographical approach, the scale and mechanism of the biography are of primary importance. The scale is determined by whether the researcher is discussing a single object or "distinct geographical and chronological assemblages" (Joy 2009:542). A biography may seek to understand how a portable object's meaning changed throughout its circulation or how static objects such as buildings, landscapes, or monuments accumulate meaning throughout their lifetimes (Hicks and Horning 2006; Joy 2009). These meanings are contextually specific and reflect semiotic patterns. Initially developed as part of linguistic studies, semiotics is the study of how meaning is created and communicated (Preucel 2006; Swenson and Cipolla 2020; Tamm and Preucel 2022). The fundamental units of semiotic processes are described as signs, which refers to anything through which meaning may be created. Signs are composed of a three-part relationship: the signifier, referring to the form that the sign takes, and the signified, which is the concept or meaning that the signifier represents, and the individual who interprets the meaning through their experience of the signifier (Preucel 2006). In this thesis signifiers include artifacts, buildings, or landscapes and signified concepts include frontierism, capitalist ideologies, or gender and national identities. My

position as the interpreter of these meanings will be elaborated in the later section entitled Research Constraints.

My use of the biographical approach weaves together narratives of landscape, humans, and objects in an overarching biography sourced from a single archaeological assemblage. The scale of this biography is defined by the specific privy associated with the Teagar/Weimer site in Arlington, Washington, and the assemblage created by multiple families over a relatively short chronology. The mechanisms of biography are a combination between individual objects' lives before being brought to their final deposition in the privy, the meanings constructed around multiple cultures and families interacting with the static location of this privy, and the relationship of this relatively static deposition site with the changing landscapes surrounding it. This thesis will use histories of these families *and* objects associated with their lives to craft a biography that readers can empathize with and relate to in new and different ways than prevalent narratives of European American settlement of the Pacific Northwest.

Public Engagement

Over the last fifty years, stakeholders and scholars have driven a significant ethical push for archaeology to engage with the modern public to whom their research relates (Deloria 1988; Forman 1994; Blakey 1998; Mullins 2003; Praetzellis and Praetzellis 2004; Echo-Hawk and Zimmerman 2006; Atalay 2006; Little and Shackel 2007; Habu et al. 2008; Mullins 2011a; Pitblado 2014; Richardson and Almansa-Sánchez 2015). Some of the most vocal and effective proponents of this public archeological method have included indigenous (Deloria 1988; Atalay 2006), black (Blakey 2010), and black feminist (Franklin 2001) stakeholders and scholars. Their primary critique is that archaeologists often get so focused on their work about the past that they forget to make meaningful connections with those in the present who do not share their specific interests, value systems, or who reside outside the immediate circle of professional peers. One key reason for implementing the biographical approach in this thesis is to include multiple perspectives and contexts in my interpretation of the past. This approach allows for more nuanced and accurate representations of archaeological data.

There are numerous examples of successful public archaeological projects from the last fifty years, but very few of these projects meaningfully engage with descendant communities long-term (Little and Shackel 2007). A particularly excellent example of civic engagement and sustained community collaboration is the West Oakland/Cypress Archaeology Project (Praetzellis and Praetzellis 2004). The California Department of Transportation (Caltrans) contracted with the Anthropological Studies Center (ASC) at Sonoma State University to ensure legal compliance for the

reconstruction of over three miles of Interstate 880 that had been damaged by a large earthquake in 1989. The project's stated overall goal was "not to make exclusively archaeological discoveries of fact, but rather to weave data from a variety of sources into a multifaceted interpretation" (Praetzellis and Praetzellis 2004:25). While the extensive excavations and associated archival research were excellent, the public engagement that this project fostered was truly exemplary.

The ASC's oral history component of the project fostered genuine connections and collaboration with community members in the cities of Oakland and Emeryville, including descendants of the communities whose lives are reflected by the excavated archaeological materials. ASC's multifaceted interpretation included research questions surrounding consumer behaviors and strategies, ethnicity, race, and urban subcultures, industrialization and technology, urban geography and city planning, municipal waste disposal strategies, and emphasis on public interpretation and accessibility for all of these conceptual explorations (Praetzellis and Praetzellis 2004:26–27). Their collaborative research, interpretation, and dissemination of nuanced stories about the West Oakland/Cypress materials and communities empowered descendant communities, highlighted ongoing social justice issues specific to the area, and facilitated empathy among non-community members (Praetzellis and Praetzellis 2004).[1] Using the past as a case study for the present creates a temporal buffer of comfort in which to explore social justice issues that may be too fraught or heated to discuss in the same way in the present. The ASC's collaborations showed the systemic challenges and social and economic strategies used to overcome these challenges in the past, which were reflected by changes in the present, including re-routing of the highway to mitigate community disruption (Praetzellis and Praetzellis 2004:1–3). Adding the material culture component to the cultural, economic, ethnic, and racial identities and stories that are already important to modern community members, creates a tangible link to the past.

This example demonstrates that early and frequent consideration of who benefits from archaeological or historical work is critical. This thesis serves the primary purpose of my own professional development and career progression but cannot only be a means to my own ends. Much of my archival data was originally collated by volunteers from the community surrounding the archaeological site. These community members share my passion for their local history and expressed avid interest in my research. Acknowledging that my knowledge and eye for diagnostic features is significantly limited compared to people who have been working with a specific object type for as

[1] Over one hundred outreach and academic projects, including coffee-table books, traveling and local exhibitions of artifacts and photos, lectures and discussions in both the local community and at professional meetings, a documentary film, and many archaeological reports and articles with different intended audiences, were produced and dissemination through the Cypress Archaeology Project between 1994 and 2004 (Praetzellis and Praetzellis 2004)

long as I have been alive, I also reached out to collectors through online forums to consult on specific artifact identification. These "more-than-academic" sources allowed me to build connections with extended communities who engage with history and material culture in different ways than I do (Pitblado 2014; Clement 2020).

Incorporating these alternative perspectives helped to both reaffirm and challenge my assumptions and understanding. The interest and investment of these descendant community stakeholders also ensured that my research was beneficial to more than just my own academic circles. I view making the results and interpretation of my work accessible to diverse audiences as an ethical imperative (Edwards-Ingram 1997; Franklin 2001; Zimmerman et al. 2003; Atalay 2006; Richardson and Almansa-Sánchez 2015). Pragmatically, the utility of my research depends on how much meaning non-archaeologists are able to gain from this publication (Little and Shackel 2007; Agbe-Davies 2015). The biographical narrative approach employed here will ideally make my interpretations of archaeological data more accessible and enjoyable to audiences beyond the traditional academic sphere by focusing on relationships within and among social networks.

Collections-Based Research

Collecting and displaying objects from our surroundings is likely a trait that can be traced to the earliest human ancestors, but until the Enlightenment era, collectors' organization and cataloging systems were frequently idiosyncratic (Pearce 1993; Schulz 1994). The transition towards universal standards for documentation, long-term care, and public access and understanding of unique or otherwise remarkable objects for intrinsic or aesthetic value is exemplified by a 1727 German publication called *Museographia* (Neickelius 1727; Pearce 1993; Schulz 1994; Murdoch 2005). The suggested practices outlined in these early documents established the still-used rationale that museums and artifact collections are vital tools for preserving information and presenting narratives to the public about the nature of the world and human history (Pearce 1993; King 2008).

Modern archaeological curation is distinguished from these antiquarian notions of curation in some ways but retains the primary scientific purpose. Gathering archaeological data is an inherently destructive act and once a site is excavated all of the associated contextual information is only preserved in field notes, photographs, and other documentation. To mitigate the loss of data inherent in excavation, archaeological collections are intended to preserve *all* materials and associated documentation for long-term research and interpretation so that future developments in the field or technology may shed new light on our understanding of the past (Sullivan and Childs 2003; Luby et al. 2013:259–262). The significant amount of space and money required for the ongoing curation of archaeological collections presents a particular problem. The excavation of sites has increased

dramatically since the early twentieth century without much regard for how and where the artifacts and records from these excavations are to be housed in perpetuity (Childs 1999; Thompson 2000; Bustard 2000; Sullivan and Childs 2003). This major logistical and ethical conundrum currently faced by the archaeological community has been termed the 'archaeological curation crisis' (SAA Advisory Committee on Curation 2003). Since the late 1990s, national and international professional archaeological organizations have formed committees and published detailed guidelines to address these issues (SAA Advisory Committee on Curation 2003; Trimble and Marino 2003; SHA Collections Management Forum 2011; Kersel 2015). While the literature generally focuses on the curation side of these issues, a movement among archaeologists to utilize collections for new research questions has gained momentum as a potential mitigation of the crisis at hand (Barker 2003; Voss 2012; Luby et al. 2013; Stansell 2015; MacFarland and Vokes 2016; Stone 2018; Frieman and Janz 2018).

One of the most fundamental reasons to maintain archaeological collections is to facilitate application and testing of new methodologies, research frameworks, and theoretical approaches to existing large archaeological collections (Barker 2003; Luby et al. 2013). Revisiting existing collections allows researchers to gather and disseminate new valuable information about assemblages that have frequently been otherwise unused since their accession (Luby et al. 2013; King 2016). Reanalysis of the same assemblage using multiple approaches and perspectives enriches understandings and highlights the multivocality of interpretations of the past (Habu et al. 2008; Luby et al. 2013). Collections-based research provides opportunities for replicating results, honing methods, and new method development for ongoing scientific archaeological practice (King 2008; Voss 2012; Luby et al. 2013). The ongoing research utility of these collections validates the financial and space requirements and, in some cases, may defray the costs of curation. Rather than original archaeological research requiring new excavation and the subsequent production of new archaeological collections, there are many cutting edge research questions that may be explored through existing collections (Barker 2003; King 2016).

An excellent example of the depth and quality of research possible with collections-based research is the work done work on a shellmound collection accessioned over a century ago at the Phoebe A. Hearst Museum of Anthropology (PAHMA) at University of California, Berkley. The Ellis Landing Shell Mound collection was originally excavated between 1906 and 1908 by Nels Nelson, a prolific modern northern Californian archaeologist, and was curated at PAHMA prior to 1910 (Luby et al. 2013). In the 1990s, the collection was identified as well suited for reanalysis since it was from a systematically excavated site with continuous high-quality curation and was subsequently reanalyzed and catalogued (Sullivan and Childs 2003:16; Luby et al. 2013). By 2015, at least ten

publications and two dissertations were completed using the Ellis Landing collection. These projects explored new interpretations surrounding the construction, formation, symbolism, and cultural significance of the shellmounds, studies of paleodiet using molecular sequencing, geochemical studies to understand site formation and occupation, and meta-analysis of collection curation practices and research opportunities (Luby and Gruber 1999; Luby 2004; Luby et al. 2006; Schweikhardt et al. 2011; Lightfoot and Luby 2012; Beasley et al. 2013; Finstad et al. 2013; Lightfoot et al. 2013; Luby et al. 2013; Schneider 2015).

Although the Teagar/Weimer assemblage does not represent a collection nearly as old as the Ellis Landing collection, there are similarly numerous opportunities to explore new avenues of research. Most collections typically have the benefit of associated documentation that provide the context necessary to reconstruct the original site to some degree. By employing the biological approach, even artifacts or collections lacking detailed provenience can still yield valuable insights into the past (Voss 2012). Framing research questions around specific objects and identities[2], existing collections may be explored using the biographical approach to provide new insights into understanding the past. Within the context of historical period collections, which often consist of primarily mass-produced objects, individual object biography provides new opportunities for narrative contextualization. While many of the common artifacts of the late 19th and early 20th centuries are not truly unique, the specific and individual life-courses of the objects in the Teagar/Weimer assemblage take on unique meanings through their interactions with the families and landscape of the site.

Research Constraints

As cautioned above, the construction of narratives is power-based and has the potential to be at least distortive and at worst malevolent. Archaeological data are inherently distanced from the present despite being the subject of present analysis, this can result in a paradoxical application of contemporary ideas and values to individuals and materials in the past (Olivier 2019). Historical archaeology presents a unique opportunity to navigate this temporal paradox. Through incorporation of historical sources archaeologists can at least partially envision what cultural and behavioral standards were in the past. There are many records which speak to these norms such as newspaper editorials, published advice on social etiquette and practices, advertisements and sales catalogs,

[2] Voss (2012:158–160) discusses the utility and prevalence of "artifact-inspired studies," in the Market Street Chinatown Archaeology Project. While these studies are not explicitly using the biographical approach the publications and reports generated from these studies to closely resemble the methods and interpretive framework of object biography that I have described previously. For more information on this ongoing project that dovetails historical archaeological work and public outreach, visit: https://marketstreet.stanford.edu/

among others. While we can use this documentation to approximate perspectives closer to those of the researched time period, the narratives that I craft in this project will be inherently impacted by my personal and temporal biases.

Given that my identities and position will influence the interpretations that I produce, it is useful to explicitly discuss my identity and position here. I am a white, upper-middle-class American who identifies as queer,[3] who has had numerous educational and travel opportunities due to my parents' careers in education and our family's socio-economic status. I acknowledge that my race, ethnicity, socio-economic class, and education have afforded me numerous privileges that influence my perspectives. Although my queer gender identity and sexuality typically do not negatively impact my daily experiences, because I am frequently perceived as a normatively understood woman, this aspect of my identity has provided valuable insights into at least one facet of minority experiences. Standpoint theory argues that the insights provided by occupying at least one marginalized identity facilitate a greater awareness of structures of social power that are less visible to individuals who are comparatively privileged (Collins 1986; Wylie 2003; Wylie 2012:62–63). The benefit of this increased awareness supports the foundational characterization of standpoint as "a matter of cultivating a critical awareness, empirical and conceptual, of the social conditions under which knowledge is produced and authorized" (Wylie 2012:63).

Another key risk of the biographical approach is "ending up with accumulation, description and rendition rather than with analysis and interpretation" (Burström 2014:69). The key is to draw connections from the accumulated descriptive facts about an object or a family and weave them into a narrative. This link between the factual data and the story being presented is where facts about the objects are presented and interpreted to be significant to the overall stories or themes presented. Linkage of this kind is where the biographical approach draws its particular utility for the accessible presentation of archaeological data. Paraphrasing an essay by Virginia Woolf, "facts give the biography its *reason* to be written, the writer's conscious selection and intellectual and artistic abilities make it *meaningful*" (Burström 2014:73).

The construction of a coherent narrative from archaeological data also runs the risk of straying from a biography into the realm of hagiography (Kopytoff 1986:66; Burström 2014). Hagiographies are "neat and tidy, glorifying histories with a predetermined content and course of events" (Burström 2014:71). Awareness of this inherent risk in biography construction as well as some of the predetermined narratives surrounding European American immigrants to the Western

[3] I use this term in the sense of the linguistic reclamation of the former slur (Birch-Bayley 2019). Due to its generalized rejection of normative Western conceptualizations of gender and sexuality I find that it provides inclusivity and acceptance that transcends what might be perceived as more traditional identity language such as 'lesbian,' 'gay,' 'trans,' or 'non-binary.'

United States, often regarded as "frontier" narratives, can mitigate the production of hagiography. The ethos of the American West, derived from ideologies of manifest destiny and United States imperialism, will be interrogated throughout this thesis.

One of the other limitations of this research specifically is the scope of the biography. There are thousands of artifacts in the assemblage, and I am only discussing a fraction of the larger narrative. The objects that are included will be explored in great detail, but it is important to acknowledge that for many, if not most, of the artifacts that are not included in my thesis, the same level of detail could be applied. For the purposes of this narrative, however, artifacts have been selected as they relate to the chronology of this site to provide dialogues between overarching historical themes.

Organization of this Thesis

This introductory chapter has discussed the overall intent and theoretical basis of my research. In the following chapter, I will present a brief overview of the excavation and curation of the archaeological assemblage, the methods and rationale of my reanalysis, and the early historical and cultural context of the Teagar/Weimer site. The biographical narratives for the site will proceed in roughly chronological order from the earliest context of the site towards the present. Beginning with the indigenous families in the area and the complex ways that they adapted to settlers encroaching on their lands and culture, Chapter 3 discusses the treaty and policies that formally established the state of Washington in the mid-19th century. Next, the first European American family to construct and utilize the privy and the primary theme of capitalist colonial changes will be discussed through the lens of the Teagar[4] family's story during the 1890s in Chapter 4. Themes of gender performance and domesticity within frontier spaces will be approached in Chapter 5, through members of the extended family of matriarch Almira Hurd, several of whom owned the property between 1899 through at least 1914. The story of the Weimer family at this site begins in 1918, and Chapter 6 will consider the wider theme of nationalism and immigrant identity through their documented experiences in conjunction with the discarded remains of their consumer practices. The concluding chapter will provide a quick overview of the events leading to the end of artifact deposition at the site and reflect on the overall meaning that can be drawn from the stories of these families and the assemblage of their discarded refuse.

[4] A note on spelling: All primary sources list this family's last name spelled as "Teagar," but when the site was legally recorded in the Washington State Department of Archaeology and Historic Preservation (DAHP) database, the name was submitted as "Teager/Weimer Site." In this thesis, all mentions of the Teagar name will be spelled as the family spelled their name. I have also recommended to DAHP that the recorded site name be changed to reflect the accurate spelling.

Following the lives of three separate families in relation to this archaeological assemblage, quickly became rather complicated. Appendix C summarizes the results of archival research surrounding the timing and context of the families' occupations of the site. To provide a baseline going forward, this is the most basic chronology of the family occupations of the site as I have interpreted them: From circa 1890 through 1892, the Teagar family occupied the site. From 1892 through at least 1899 the occupant of the site is uncertain, but may have been local farmer, Andrew Irwin. In 1899, Irwin sold the land to a woman named Almira Gooding, who may have lived at the site with two of her adult children from a previous marriage or it may have stood vacant until another child of Almira's, Martha, moved to the site around 1906 with her husband Marion "Jack" Lovelace and their seven (soon to be eight) children. The structure in which the Lovelace family lived was sold and moved to another part of town in 1911 and, presumably, the site was vacant until the Weimer family took ownership in 1918 and built a new dwelling at the site. Members of the Weimer family occupied the site until circa 1940 when new owners of the property took ownership and poured a concrete foundation for a garage in the location where the privy deposit had been accumulating since 1890. The details of this chronology are summarized in table C.1 and abridged family trees are also included in Appendix C to better contextualize the lineages and movements of the members of the families who lived at the Teagar/Weimer Site.

While this thesis does not follow the standardized presentation of data commonly used in formal scientific writing, the archaeological results and interpretation will be evidently incorporated in the telling of these families' stories throughout the text and footnotes will be used to maintain the accessibility and readability of this document. A glossary addendum including definitions of technical archaeological terminology and methodology will also be included with copies sent to community organizations. The raw data collected for all the artifacts researched for this study from the privy assemblage are presented (sorted by material) in Appendix A. Dissemination of these data in this thesis increases their accessibility and provides other researchers with the opportunity to verify my results and interpretations or utilize the data for future original research. Appendix B presents the chemical analysis results from four of the objects in the assemblage. Not all of the chemical results are included in the body of the thesis and the inclusion of all of the chemical analysis documentation ensures transparency and accessibility. Through the many strategies listed above, this thesis will endeavor to use factual historical data to construct compelling stories about the people who contributed to the early European American urbanization of Arlington, Washington.

Chapter 2: A Preface of Sorts

As discussed in the previous chapter, I am ethically bound to contextualize my work within the larger framework of knowledge production. I am also obliged as a storyteller to situate the biographies that I am presenting within the overall narrative of the past. This first section contextualizes how the assemblage of artifacts that I am analyzing came to be housed at the Burke Museum of Natural History and Culture. The second section establishes the chronological cultural significance of the site. Finally, the third section presents my academic theoretical framework surrounding the concepts of 'frontier' and 'American West'.

Assemblage Context

When working with existing archaeological collections it is essential to trace the assemblage's path to the repository, since unlike traditional archaeological research, the researcher does not participate in the excavation, cataloging, and initial analysis. Federal and Washington state laws require that any undertakings that take place on public land, or that receive federal or state funding, must evaluate the potential impacts upon cultural resources (U.S. Congress 1966, 1970; Governor's Executive Order 21-02). In 2006, Northwest Archaeological Associates (NWAA), Inc., was contracted to complete a cultural resource assessment of the city property near the edge of the Stillaguamish River in preparation for the Arlington Wastewater Treatment Project (Gillis 2006a). This section outlines the details of the excavations, analysis, and curation of the assemblage by NWAA, and my reanalysis of the assemblage.

Excavation

In September 2006, field investigations began at the site including pedestrian survey at 20-meter intervals, 13 opportunistically placed (in areas absent of pavement, gravel, or buildings) shovel probes, and 2 shallow (approximately 50 cm) backhoe trenches measuring approximately 2 by 3 meters (Gillis 2006a). NWAA staff dug 12 shovel probes on 12 September and identified a concentration of positive[5] probes (5 through 9 and 13) in lots 8, 9, and 10 (Figure 2.1). This subsurface historical debris scatter was recorded as site 45SN409 based on the Smithsonian trinomial

[5] Gillis (2006a) does not specifically define what constitutes a 'positive shovel probe,' but I can surmise from my experience in the cultural resource industry and from the context cues in the report that this terminology is used to describe any subsurface tests that yielded cultural materials (regardless of diagnostic characteristics).

system.[6] On 13 September, backhoe trenches were excavated in the locations where privies were indicated on the 1905 Sanborn Fire Insurance map.[7] Trench 2 revealed a feature approximately 150 cm square, and shovel probe 13 was placed in the center of the feature. Based on the size, shape, dark soil matrix, and high artifact concentration, the feature was interpreted to be consistent with a privy (Gillis 2006a, 2006b). A piece of particle board was placed over the privy feature, and it was reburied (White et al. 2008). Using National Register criteria (National Park Service 1995), NWAA determined that debris scatter represented by the shovel probes five through nine was not likely to yield additional data beyond what had already been learned (Gillis 2006a:23). However, because the privy feature was likely to yield valuable data about the early urbanization of Arlington, NWAA recommended that the feature either be completely avoided or mitigated in order for the wastewater facility project to continue (Gillis 2006a:24–25).

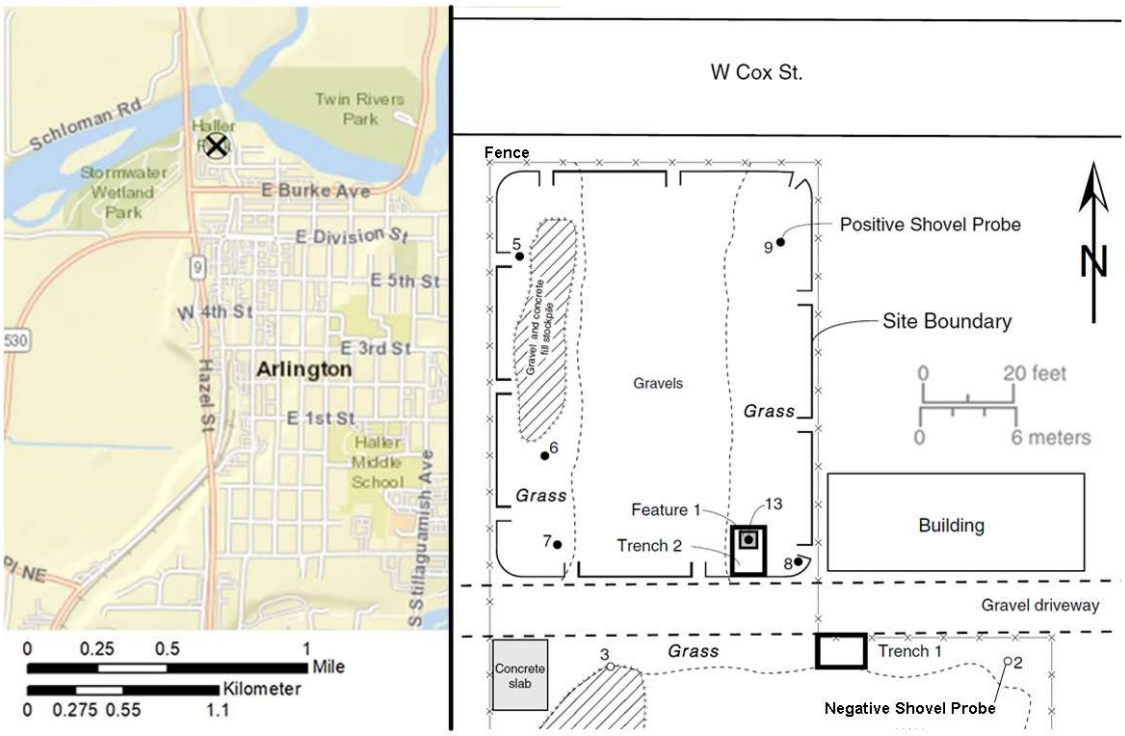

Figure 2.1 Teagar/Weimer Site Maps: Left: Map of the City of Arlington with X marking approximate location of Teagar/Weimer Site. Right: Digitized sketch map of site, originally drawn by Yonara Carrilho, 12 September, 2006. Site map shows locations of positive and negative shovel probes, the machine excavated trenches, and the identified location of the privy feature (Feature 1) as well as the site boundary established based on the spatial distribution of the sub-surface cultural materials.

[6] The Smithsonian Institution's trinomial site naming system was initially developed during the 1930s and 1940s and many states, including Washington, continue to use the system to assign unique identifiers to every archaeological site (DAHP 2022). The trinomial system follows this standard pattern: State Number (alphabetically, Washington is 45th), County Abbreviation (SN for Snohomish County), Chronological Site Number (409th site recorded in the county).

[7] This is the earliest known map of the site specifically and indicates that both the structures associated with the site were single story wood-frame structures with wood-shingled roofs.

In 2008, the City of Arlington contracted NWAA to complete a data recovery mitigation of the privy cultural resource prior to the conversion and expansion of the existing Arlington Water Reclamation Facility (White et al. 2008). Over the span of 6 days in late January, four one-meter units were excavated to a maximum depth of 150 cm below the start of the feature, which was exposed after removal of approximately 58 cm of overburden with a backhoe. Artifacts from overburden were collected despite being from a very disturbed context (excavated at least two times prior to the data recovery) and included carnival glass, stoneware crockery, bottle glass, and faunal materials. Community members corroborated assessor records. In their recollection, the area where the privy was located was capped with slab-on-grade concrete and a large garage when the city purchased the property in 1998. Informants indicated that during demolition of the structures in 2005, the city removed the garage foundation and fill was brought in to smooth out the grade (White 2008a). Excavation units were placed over the privy feature footprint with unit one in the northeast and two, three, and four following counterclockwise (Figure 2.2). Units 1 and 2 were excavated in arbitrary 10 cm levels to identify the stratigraphy and units 3 and 4 were subsequently excavated by stratigraphic levels. Excavated matrix was passed through ¼ inch screen and matrix from the lower layers that had peaty texture was water screened to improve separation of matrix from cultural materials.

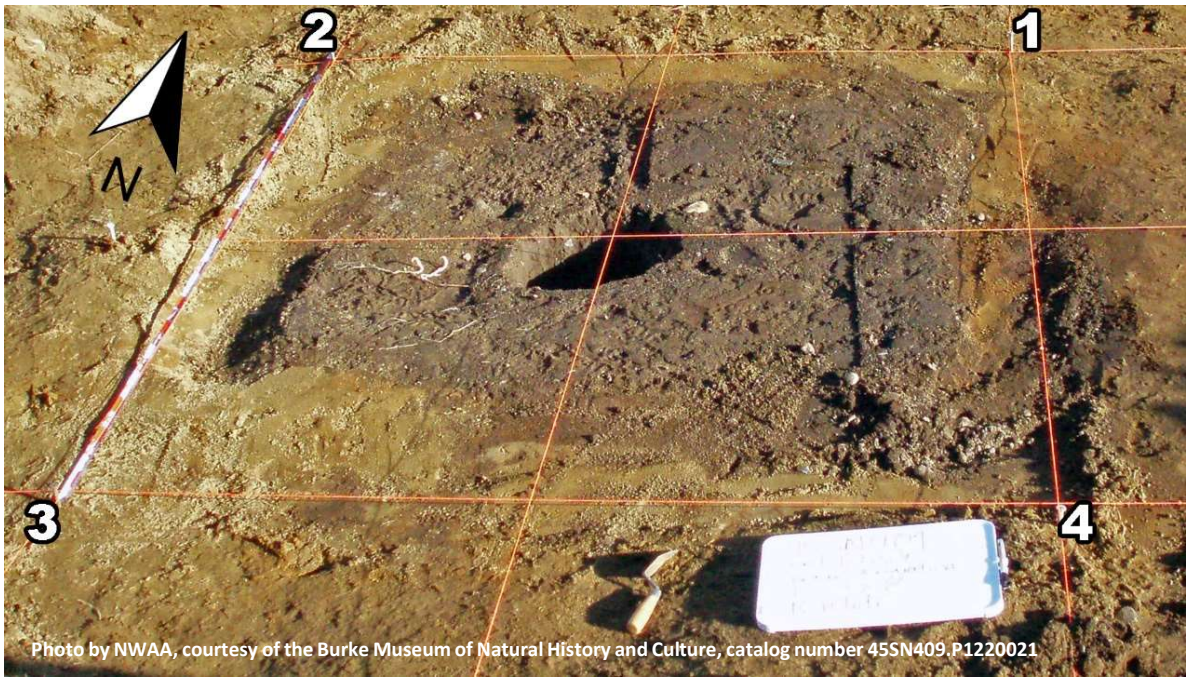

Figure 2.2 Overview of the beginning of data recovery excavation in January 2008 with excavation grid strung in high-visibility orange string. Trowel in foreground indicates north. Darker brown soil in rectangular shape indicates approximate feature outline. Circular void at the center of the feature is the shovel probe excavated in 2006. Unit numbers are superimposed at the margins of the excavation grid and a digitized north arrow is superimposed in upper left.

Original Analysis

Upon completing the excavation of these units, NWAA archaeologists identified seven distinct strata that were later segregated into three analytical units (AUs) based on interpreted depositional events and diagnostic artifacts (Figure 2.3).[8] All artifacts were collected and brought back to the NWAA office in Seattle for cleaning, analysis, and cataloging. Artifact analysis was primarily completed by Bill White and Alicia Valentino and faunal analysis was completed by Ross Smith. Historical artifact analysis included classification of objects by provenience, material, functional type (based on Sprague's 1982 classification article), quantity, diagnostic markings (if any), and temporal implications. In addition to counts of whole and fragmentary specimens, White and Valentino also analyzed cross-mends and calculated minimum number of items (MNI).[9] Nine bottles that were still sealed upon recovery had chemical residue/contents analysis conducted by the University of Washington's Department of Medicinal Chemistry (White et al. 2008). Smith's faunal analysis identified all bone fragments to the lowest possible taxonomic level, whole and fragmentary specimens were identified to element, region, and side, when possible, and butchering mark presence, orientation, and completeness were recorded in accordance with Lyman (1977) (White et al. 2008).

Based on the stratigraphy, artifact frequency and dates, and matrix composition, (Table 2.1) White et al. (2008) interpreted the analytical units within the privy as follows: AU A (0-90 cmbs[10]) consisted of secondary deposit fill some time post 1920. AU B was located immediately below large cobble fill (90-130 cmbs), appeared to be from household activity between 1895 and 1911, and was somewhat characteristic of percolation fill. AU C (130-148 cmbs) had the highest artifact density and was tied to the Teagar family's occupation of the site with diagnostic artifacts dating prior to 1900. Dense peaty matrix suggested that the privy had human waste deposition during this period as well. The authors' framework of analytical units is almost certainly based on the same term used in the extensive analyses of urban privies conducted by the West Oakland/Cypress Archaeology Project (Praetzellis and Praetzellis 2004).

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[8] See later section titled, Site Formation Reanalysis, for more detail on the definition and classification of AUs.
[9] This calculation is also called minimum number of vessels (MNV) or minimum vessel count (MVC) in other historical archaeological analyses (Miller and Moodey 1986; Voss and Allen 2010). For clarity and simplicity, I will continue to use MNI in this thesis. According to the report, "minimum number of individual items were calculated based on decorative attributes or, in the case of faunal remains, animal specimens. Undiagnostic artifact classes were weighed because individual items could not be discerned" (White et al. 2008:18).
[10] The report indicates that for all measurements of depth made within the excavation units. This assumption cannot be made for artifacts excavated in 2006 and the 'surface' referred to in those measurements is more likely the unexcavated surface that matches the grade of the overall site.

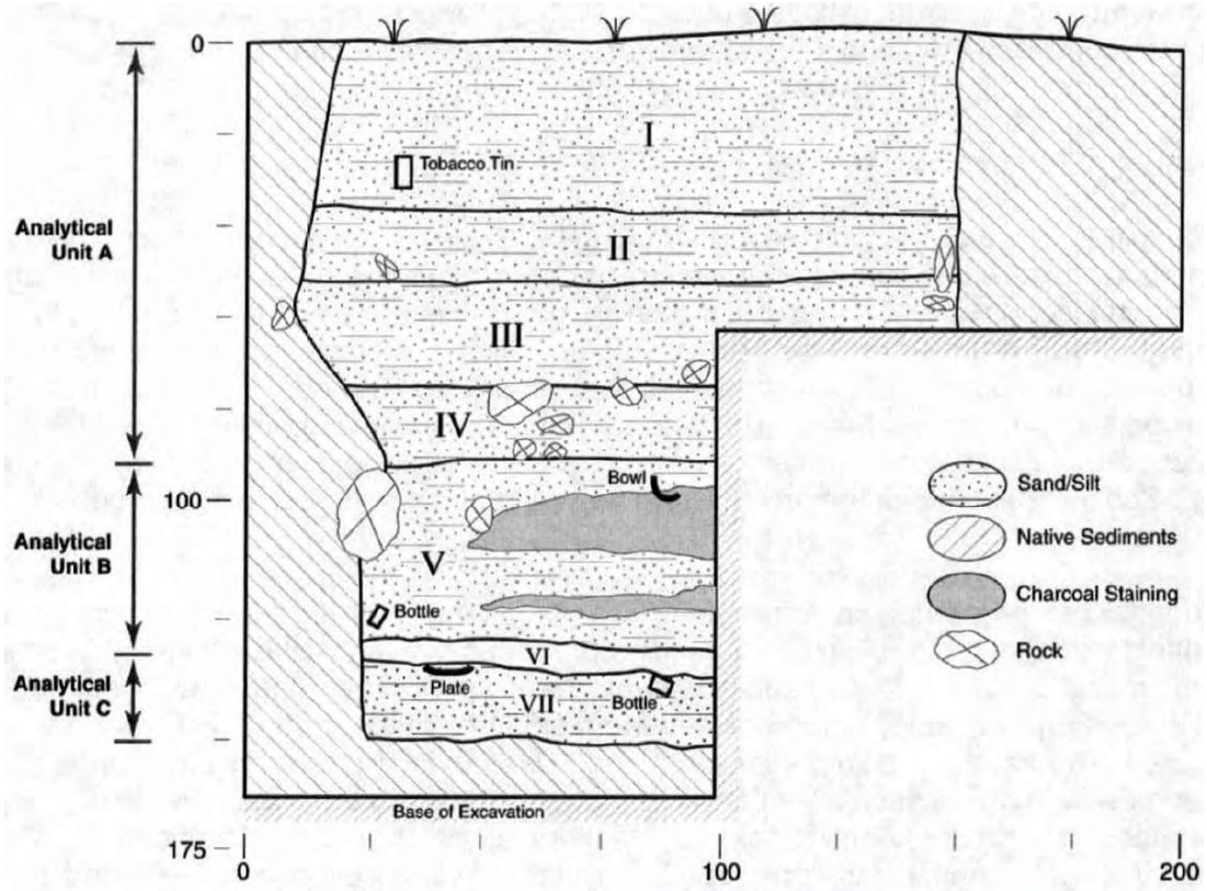


Figure 2.3 Profiles of privy feature; Top: Central profile of privy feature, digitization of original profile drawn by Alex Stevenson (White et al. 2008:16); Roman numerals indicate individual strata – strata are described in Table 2.1
Bottom: photograph showing southern profile of analytical unit A in excavation units 1 and 2 with whiteboard text and north arrow superimposed for clarity.

Table 2.1 Description and characterization of the feature stratigraphy. Based on Table 1 from White et al. (2008) with annotations by me shown as strikethrough and bracketed text

Stratum	Depth (cmbs)	AU	Sediment Description	Characteristics
Overburden	58 cm above 'surface'	-	Previously disturbed mottled brown sandy silt and yellowish-brown medium sand	Overburden removed by backhoe; some artifacts throughout [artifacts common]
I	0-30 [0 is actually 58 cm below ground surface]	A	Start of ~~privy~~ [feature] matrix – dark brown sandy silt with few small cobbles	High frequency of artifacts; artifacts broken more than once, high frequency of nails, wood, and rusted metal; coins from 1895 and 1920 recovered from this layer [clearly mixed fill that was likely redeposited from surface of surrounding site]
II	30-50	A	Dark brown sandy silt with few small cobbles	Lower artifact frequency, much architectural [milled] wood; [likely from demolition of privy structure]
III	50-70	A	Dark brown sandy silt with few medium to small cobbles	Very low artifact frequency; no architectural [milled] wood [period of disuse following the likely construction of indoor bathroom ca 1918]
IV	70-90	A	Dark brown sandy silt with large to medium cobbles	Boundary between primary and secondary ~~privy~~ [feature] matrix; artifact frequency increases because large cobbles sank into plastic privy matrix below [alluding to upward displacement of artifacts from below?]
V	90-127	B	Dark brown sandy silt with some rounded cobbles	Very high frequency of artifacts; artifact fragments are larger and complete vessels are common. Burn deposits characterized by pockets of decayed [highly oxidized/corroded] metal, charcoal and wood are common
VI	127-134	B	[Ash and] calcined bone with many burned or melted artifacts	Large [stove] cleaning episode that separates AU B from AU C [possibly reflects change in home ownership/occupation]
VII	134-148	C	Dark brown sandy silt with high frequency of fruit seeds and inclusions of dense dark brown peaty sediment	Highest density of artifacts; complete vessels common; dense peaty sediment result of decayed [fecal] solid waste; partial remains of the cedar privy crib present in southwest and northwest corners of [excavated feature] ~~excavation area~~

Summarizing the privy deposit as a whole, the NWAA report found that of the 8,785 artifacts recovered (Table 2.2), the vast majority were "discarded household items, primarily glass bottles," and the privy deposits provided a mean date of 1908 (White et al. 2008:18). Based on this interpretation, the site form addendum recorded the name for site number 45SN409 as the "Teagar/Weimer Site" (White 2008b). These data were used by White et al. (2008) to explore five primary research domains that built upon the initial eligibility documentation completed by Gillis in 2006, and interpreted the extensive data collected. These five domains included: 1) socio-economic structure and class identity, 2) household economic strategies in response to urbanization, 3) material reflections of gender role performance, 4) household health including evidence of specific ailments or possible drug abuse, and 5) the relationship of the privy to overall sanitation practices in Arlington.

At the conclusion of their analysis, the authors found that there were several questions yet unanswered. One of the immediate questions was who the residents of the site were between 1897 and 1917, since their archival research was inconclusive. White et al. assert that "the Teagar/Weimer site is an example of what can be called the 'Counterclassic West,'" which challenges the mythos of the 'wild west' by shedding light on wage labor, minorities, women, urbanization, and industrialization (White et al. 2008:51; Hardesty 1991:4). This led the authors to ponder what the lives of the families associated with the Teagar/Weimer site were like and how they compare to the broader experiences of the American West.

Table 2.2 Summary of original analysis results
The majority of these data are directly transposed from Table 2 of the original report. However, ceramic and glass MNIs at the AU level are transposed from Table 3 and Table 6 of the original report. Cells shaded gray indicate values calculated by me. All faunal values are transposed from the faunal analysis appendix of the report, which supersedes the summary data provided in Table 2 of the report body.

Material/Form	AU A		AU B		AU C		Entire Assemblage	
	Count◊	MNI*	Count	MNI	Count	MNI	Count	MNI
Ceramic								
Earthenware	191	24	108	24	94	5	405	53
Porcelain	42	9	28	1	6	3	80	13
Stoneware	16	2	9	2	6	-	35	4
Button	7	7	11	11	3	3	21	21
Toy	7	-	1	-	-	-	8	4
Other	1	-	2	-	-	-	3	-
Ceramic Subtotals	*264*	*42*	*159*	*38*	*109*	*11*	*552*	-
Glass								
Automatic/Machine Made Bottle	392	17	157	13	48	11	613	42
Hand Manufactured Bottle	29	1	96	12	43	10	206	23
Lighting	37	-	243	13	885	11	1179	24
Jar/Jar Lid	14	3	124	14	333	16	511	33
Decorative Vessel	20	1	21	4	16	3	58	8
Window/Flat Glass	433	-	457	-	612	-	1509	11.66 g
Clothing/Toy	3	-	1	-	1	-	6	6
Other/Melted/Unknown	625	-	267	-	172	-	1016	-
Glass Subtotals	*1553*	-	*1366*	-	*2100*	-	*5100*	-
Metal								
Ammunition	5	4	2	2	8	5	15	11
Bottle Closure	7	-	1	-	1	-	11	10
Coin	2	2	-	-	-	-	2	2
Culinary and Food Packaging	46	-	6	-	3	-	53	12
Clothing/Jewelry	6	-	8	-	-	-	14	9
Tools/Hardware/Machinery	193	-	82	-	17	-	308	10
Cut Nails	9	-	5	-	-	-	16	81.20 g
Wire Nails	1055	-	264	-	17	-	1351	9.83 kg
Miscellaneous/Unknown	106	-	265	-	41	-	396	8.58 kg
Metal Subtotals	*1439*	-	*633*	-	*87*	-	*2166*	-

Table 2.2 continued – summary of original analysis results

Other								
Brick	22	-	4	-	1	-	27	4
Coal/Slag	19	-	2	-	-	-	11	8
Linoleum Flooring	14	-	45	-	3	-	62	1
Rubber/Plastic	9	-	1	-	1	-	14	5
Textiles	1	-	33	-	8	-	42	2
Wood	27	-	7	-	9	-	27	4
Other/Unknown	41	-	17	-	6	-	55	-
Other Subtotals	*133*	-	*109*	-	*28*	-	*238*	*24*
Organic								
Faunal								
Avian	NISP§ = 4		NISP = 1		NISP = 8		NISP = 13	
Mammal	NISP = 220		NISP = 231		NISP = 25		NISP = 520	
Marine	NISP = 3		NISP = 11		-		NISP = 14	
Floral	5	-	26	-	51	-	84	-
Leather								
Boot	42	-	-	-	2	-	44	4
Shoe	18	-	19	-	-	-	37	6
Unknown fragments	4	-	1	-	-	-	5	-
Other/Unknown	-	-	-	-	-	-	37	-
Organic Subtotals	*306*	-	*299*	-	*88*	-	*729*	-

* MNI stands for 'minimum number of items.' Weights are given for the MNI of bulk materials.
◊ Counts combine fragments and complete items for all contexts. The AU summary columns exclude artifacts recovered from the ground surface, but the "entire assemblage" summary count does include those artifacts.
§ NISP stands for 'number of identified specimens.' The faunal AU summaries do not include 22 mammalian NISP recovered from the surface, or the shovel probe excavated in 2006; these NISPs are included in the "entire assemblage" total.

Curation

To ensure the ongoing preservation and utility of the assemblage, NWAA cataloged and packaged all artifacts and associated documentation in accordance with Burke Museum of Natural History and Culture collection standards (Burke Museum Archaeology Curation Services 2023) and the assemblage was accessioned in December 2008 (Accession Number 2008-185). Thorough condition reports on the entire assemblage were completed by Burke staff and students in 2011 and 2012, which are documented in the PastPerfect database. The assemblage has often been used to highlight local turn of the 19th century sites for annual museum member events and behind-the-scenes tours (Laura Phillips 2021, elec. comm.). Two of the bottles from the assemblage were also selected for the Burke's new permanent archaeology exhibit, which opened in October 2019. These artifacts were selected because they strongly supported the message of the exhibit regarding different cultural perspectives and applications of medicine, were in good condition and with readable embossing, and represented a time period and locality that was meaningful and relatable to museum goers (Laura Phillips 2021, elec. comm.). The status of this assemblage as one of the Burke's prime examples of early 20th century materials is what led a former museum archaeologist and graduate of the University of Washington doctoral program, Jack Johnson, to suggest the assemblage to me for

my thesis research. I was graciously granted a four-week research visit to the museum to reanalyze parts of this assemblage in the archaeological collections workroom at the Burke. This research trip would not have been possible without financial support from the College of Letters, Arts, and Social Sciences' John Calhoun Smith Endowment Fund and the Burke Museum Archaeology Collections Research Fellowship Program.

Artifact Reanalysis

I visited the Burke Museum to reanalyze the collection from 19 July through 13 August 2021. Since the collection had previously been analyzed by NWAA, I was selective about the kinds of artifacts I reanalyzed and the kinds of data I collected to fit my specific research needs. My prioritization focused on objects that had easily identifiable chronologically and socially or culturally diagnostic information (Table 2.2). Attributes examined included: material class and type, object name and description, manufacture method, portion represented (e.g., complete object or base, body, rim, etc.), percent complete (percentage range estimated based on entire object as identified), mends and cross-mends with other catalog entries, maker's marks, manufacturing company name and location, the product name, manufacturer, and location, and overall dimensions (measured in centimeters) including length, width, rim diameter and base diameter. For the ceramic material class, I conducted scratch tests where necessary to identify specific ware type and also documented paste color, glaze type, and decorative descriptions (MACL 2002; Eichner 2021; Campbell 2021). For the glass material class, I additionally documented the color, vessel or object shape, and specific descriptions of the finish, base, shoulder, neck, and decoration of vessels where applicable (Jones and Sullivan 1989; Fike 2006; Eichner 2021b; Lindsey 2023a).

I determined the most likely date range[11] for diagnostic artifacts based on all of these attributes after the initial data collection. The most common temporally diagnostic attributes used included: date ranges of maker's mark or headstamp use by the manufacturer, date ranges of product manufacture or marketing, and the earliest implementation dates of specific manufacture techniques, decoration techniques or designs (Kowalsky and Kowalsky 1999; Miller et al. 2000; Maryland Archaeological Conservation Lab 2002; Fike 2006; Haught-Bielmann 2011; Ross 2012; Barnes 2012; Karklins 2012; Thistlewood and Thistlewood 2020; Lindsey 2023b).

[11] *Terminus post quem* (TPQ) and *terminus ante quem* (TAQ) are the most commonly used phrases for the start and end of date ranges with the Latin translating to "time after which," or the earliest date, and "time before which," the latest date.

Table 2.3 Attributes examined during artifact reanalysis.

Attributes examined for all artifacts (where applicable)	Additional attributes examined for Ceramic material class	Additional attributes examined for Glass material class
Material Class and Type	Paste Scratch Test	Color
Object Name and Description	(documenting which artifacts tested)	Vessel/Container Shape
Manufacture Method	Paste Color	Finish
Portion represented	Glaze Type	Method
Percent complete	Decoration	Type/Description
Mend within same catalog entry	Method	Base
Cross-mend with other catalog entries	Design Description	Basal profile
Maker's Mark	Color	Heel type/description
Maker Name/Company		Shoulder description
Maker Location		Neck description
Product Name		Decoration
Product Manufacturer		Method
Product Manufacture Location		Design Description
Dimensions		
Length/Height (cm)		
Width (cm)		
Percent of rim represented		
Rim diameter		
Percent of base represented		
Base diameter		
TPQ (earliest date)		
TAQ (latest date)		

As seen in Table 2.2, the original analysis only calculated MNI at the entire assemblage level, not by each AU. To better understand the overall assemblage, I very conservatively estimated MNI for glass bottles (both automatic and hand manufactured) based on the original NWAA catalog as submitted to the Burke Museum in 2008. All vessels or bases that were over 90% complete were included. I excluded any isolated finishes since their potential association with bases was unclear. There were several vessels listed as 'automatic/machine made' that were described in the comments as canning jars, these were not included in my MNI calculations due to the slim possibility of their already being accounted for in the "jar/jar lid" form MNI. AU level MNI for "ammunition" was also calculated by me based on baseplate presence, isolated bullets or cartridges missing baseplates were excluded and my calculations concur with the assemblage total indicated in the original report.

While I made sure to closely redocument any items that were unique within the assemblage, this detailed level of reanalysis was applied to as many diagnostic materials as possible during my research visit. As discussed in the previous chapter, the benefit of the biographical approach allows us to highlight both unique and mundane objects in different ways to better understand or challenge historical narratives. In total, my reanalysis produced 325 detailed entries from 272 distinct catalog numbers (out of the total 1336 catalog items in the assemblage). The cataloged results of my artifact reanalysis are presented in Appendix A.

Site Formation Reanalysis

Secondary to prioritization of objects based on their biographical significance, I prioritized identifying duplication of objects and cross mending to better understand the depositional context of the privy from one family's occupation to the next. Archaeological sites, with privy deposits as no exception, are principally governed by the law of superposition, which states that what is found at the deepest point is older than what is found above in more shallow contexts (Harris 1989; Thomas and Kelly 2006:153). The relative chronology provided by this basic assumption is the foundation of geophysical sciences as well, allowing us to contextualize the soil matrix accumulation that occurs surrounding the artifacts that archaeologists are primarily interested in. With privies the assumption is that while material culture is being discarded into the hole, there is also a somewhat proportionate deposition of human waste that is similar to sediment deposition in a non-privy context. However, in the case of the Teagar/Weimer privy, there are several contextual factors that complicate these assumptions.

Privy vaults are of a finite size and when they fill up with human waste they are often cleaned, which results in the removal of the upper deposits and likely mixing up whatever materials were not easily removed (Geismar 1993). Secondly, the use of this privy as an actual privy, with concurrent deposition of discarded material culture and human waste, was probably only between 1891 and around 1911. It is very likely that all deposits after 1918 only consisted of household refuse, since the privy began to serve solely as a trash pit rather than an actual privy when the Weimer family purchased the land and built a new house. This change in depositional process likely resulted in a lot of open space within the trash pit allowing smaller fragments of objects to fall through the spaces to lower strata and confuse standard archaeological assumptions of superposition.[12] It is also very likely that when the concrete garage foundation was placed in the southeast corner of the property around 1940, that the privy had not yet been entirely filled. So, when the landowners were preparing to pour the foundation, they likely used whatever rocks, sand, and soil that was available in the immediate vicinity to fill in the remaining space before pouring the concrete. This appears to have resulted in a redeposition of artifacts that had been scattered throughout the area surrounding the privy into a jumbled non-chronological series of strata that White et al. (2008) described as AU A. To complicate matters further, the upper privy deposits may have been disturbed during the city's demolition of the structures at the site and removal of the concrete foundation (White et al. 2008). Finally, disturbance of the deposits certainly occurred through the archaeological excavation process with the initial

[12] An excellent way to visualize this is to consider a jar full of marbles, while it may be filled to the top, when sand is poured into the jar the grains will slide between the marbles and fill from the bottom.

shovel probe being excavated at the center of the feature two years prior to the comprehensive data recovery (Gillis 2006a; White et al. 2008).

My hope in better understanding the depositional context and stratigraphy was to attribute the materials in each AU as identified by White et al. (2008) to specific family occupations through time. The level of detail accounted for in my artifact reanalysis allowed me to better visualize and understand how artifacts were deposited and disturbed prior to their final removal from this context in 2008. Cross-mend comparisons were particularly useful in this endeavor. When an everyday object breaks or is discarded for other reasons, the logical assumption is that all fragments are thrown away at the same time, rather than saving pieces and throwing them out over the course of several months or even years (Eichner 2021a). Based on this assumption, when archaeologists see fragments of the same object distributed across several different strata in the deposit, we are able to infer the scale and possibly the significance of the past disturbances to the site. A particularly good example of this phenomenon is seen with an imported Japanese plate in the assemblage that consists of at least three large fragments (Catalog Nos. 2006/78, 2008/108, & 2008/548).[13] One fragment was recovered in 2006, from Trench 2 between 100 and 150 cmbs (AU B), the second and third fragments were recovered in 2008, from Unit 1 between 5 and 15 cmbs (AU A), and from Unit 4 between 70 and 88 cmbs (AU A). These plate fragments very clearly cross-mend (Figure 2.4), suggesting that AU A and possible AU B reflect at least one if not two fairly rapid fill episodes since large fragments such as those seen with this cross-mended plate do not percolate to the 50 centimeter or more extent observed here.[14]

[13] A note on catalog numbering - the Burke Museum utilizes a standard catalog numbering system following this structure: “Smithsonian Trinomial Site Number/Year Collected/Artifact Number”
Since all of the artifacts discussed in this thesis are from the same site (45SN409), this portion of the catalog number will be omitted from all catalog references in the body of the text.

[14] Alternatively, the depositional environment was potentially unstable following the excavation of the probe in the center of the feature or otherwise disturbed prior to 2006, or 2006/78 was assigned to the wrong AU, based on a misinterpretation of the depth measurement based on the lack of clarity surrounding from which ‘surface’ the depth was measured as discussed previously.

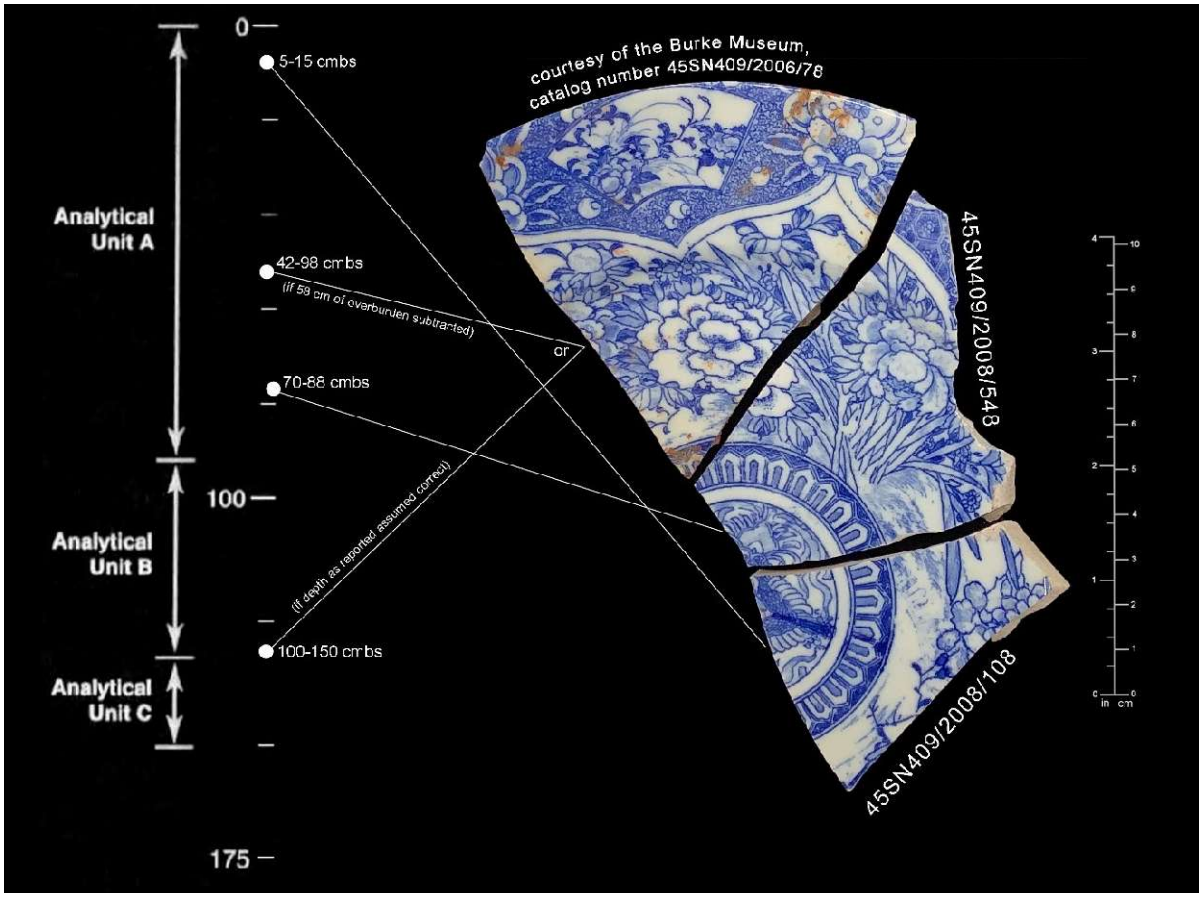
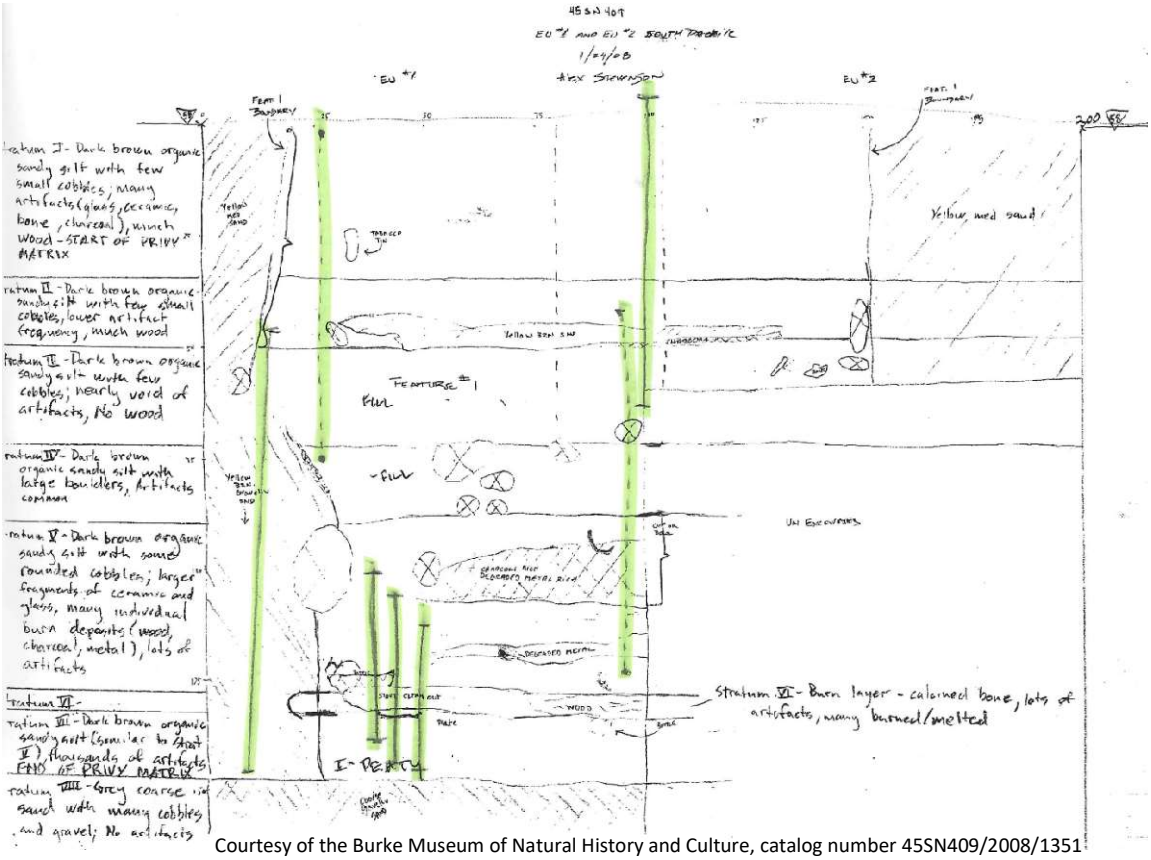


Figure 2.4 Cross-mended photograph of imported Japanese porcelain cobalt transferprint (*Sometsuke Doban*) plate fragments with relative depths indicated.

In addition to the cross-mend analysis, I investigated the concept and utility of the analytical units applied in the original analysis. The report states that AUs were distinguished "based on stratigraphic position, artifact content, artifact dates, and matrix composition" (White et al. 2008:15). As mentioned earlier, the framework of analytical units as a tool for privy analysis is almost certainly drawn from the work of the West Oakland/Cypress Archaeological Project (Praetzellis and Praetzellis 2004). In the statistical appendices of the extensive project report analytical units are defined as "single or multiple stratigraphic units taken to represent a single sample of refuse from a single residential context, such as a house" for his comparative analyses of faunal materials and glass bottles (Owen 2004:F.2). A later affiliated publication, more clearly describes how analytical units are determined, stating that the Harris Matrix (1989), "helps to define meaningful analytical units from contexts (layers and features) associated with various phases of site occupation" (Medin et al. 2010:211). By piecing together these methodological sources, I was able to better understand the analytical units defined and proposed by White et al. (2008). Examining the original profile drawn by Alex Stevenson, we can see his possible identification of occupation 'phases' with green highlighter (Figure 2.5).



Courtesy of the Burke Museum of Natural History and Culture, catalog number 45SN409/2008/1351

Figure 2.5 Stratigraphic profile sketch by Alex Stevenson; the green highlighting may indicate hypothesized periods of occupation based on Harris' (1989) definitions or methods. The significant overlap and lack of clarity in distinguishing 'periods' reflects the common percolation of cultural materials and ambiguity of the strata.

Site formation processes are some of the most challenging aspects of the archaeological method, which has prompted many researchers to specialize specifically in the study of these processes in the sub-field of geoarchaeology (Ghilardi and Desruelles 2009). Unfortunately, geoarchaeology is not my specialty and the discussion of influences on site formation that I have discussed here are limited at best. My distance from the original excavation both physically and temporally, further limits my ability to reconstruct the contexts from which this assemblage was excavated. I have studied the detailed documentation made by the excavators with freezing wet fingers in January of 2008, but can only take the data they recorded at face value. While I still have some doubts about the clarity and efficacy of the analytical unit separations as established by White et al. (2008), I have minimal tools to challenge or refine their conclusions. The sample of tightly diagnostic material in the assemblage is relatively small and without a complete reanalysis of all the

excavated materials,[15] the chronological affinity of materials in the privy cannot be viably tested. Furthermore, my research interest in the social meanings and interactions of these objects does not explicitly require a finite chronology. The relative chronology of superposition and the specific dates of manufacture associated with objects are sufficient for the correlation of objects from this assemblage to specific family occupation periods for the biographical approach. The AUs as established (Table 2.1) will be further contextualized and questioned using the additional information gathered throughout my artifact reanalysis and archival research in the remainder of this thesis.

Chemical Residue Testing

Building off of the chemical analysis conducted in 2008, I also obtained curatorial approval to collect samples from four vessels that had preserved contents but had either not been tested during the initial analysis or had inconclusive results. It is unclear why three of these bottles were not tested during initial analysis, but it may have been based on their seals not being intact, therefore suggesting that their contents may have been contaminated. Residue samples were collected from these three bottles (Catalog Nos. 2008/926, 2008/1278, 2008/1313). The primary rationale for testing these bottles was to determine if the contents of the bottles match the embossed labels' intended purposes or if they had been subject to reuse or repurpose (Woff 2019).

Another goal was to clarify inconclusive results relating to two bottles originally tested in 2008. The results presented by White et al., list the contents of an aqua bottle with embossed text reading "Hall's Catarrh Cure" containing a purple substrate in colorless liquid (Catalog No. 2008/1311) as bituminous coal tar and the analysis of the contents of a vial containing dark brown to black 'resin' and liquid (Catalog No. 2008/1312) as inconclusive. However, visual inspection of these two artifacts suggested that the results had been switched. The contents of the vial (1312) are visually consistent with coal tar primarily based on viscosity and color, while the bottle (1311) contents do not resemble either visual or chemical properties of coal tar. In order to test my hypothesis, a sample of the purple substrate from the bottle was collected for testing. The vial has limited contents due to smaller volume, and I wanted to avoid unnecessary destructive analysis if the results could be clarified by process of elimination.

The samples collected from these four bottles, were transported back to the University of Idaho, where archaeological chemistry student, Claire Qualls, analyzed their chemical properties

[15] Technically a complete reanalysis of all excavated materials is not possible since there were several bulk samples that were not accessioned because of their minimal data potential and large storage space requirements. For example, Dr. White recalled a nearly full 5-gallon bucket of glass fragments all recovered from the same layer that were all determined to be the same thickness and interpreted as likely from one single window. After these glass fragments were quantified by weight, they were recycled rather than included in the collection to minimize the cost and space requirements of curation (Bill White 2023 pers. comm.).

under the supervision of chemistry department chair and analytical chemist, Dr. Ray von Wandruszka. Results of the analysis are included in discussions of artifact biographies as relevant and complete documentation of the chemical analysis, including sample collection methods, analysis techniques, and results, can be found in Appendix B.

Archival Research

Throughout my research trip in 2021, I conducted artifact collections reanalysis Monday through Friday at the Burke Museum, and on weekends, I traveled north to conduct research in the Arlington area. The Hibulb Cultural Center and Natural History Preserve provides interactive cultural exhibits created by the Tulalip Tribes for the preservation of their own culture as well as a way to share their lifeways and values with the public (Hibulb Cultural Center 2023a). I learned a great deal through experiencing the multimedia presentations and exhibits that provided essential context for biographical interpretation of the Teagar/Weimer assemblage. I also met with members of the Stillaguamish Tribe's cultural resources staff before, during, and after my research to discuss their recommendations and endorsements of specific primary and secondary sources and what traditional knowledge they were comfortable with sharing. I continued extensive online archival research endeavoring to provide as much context to the artifacts as possible and answer the questions raised by White et al. (2008) in the conclusion of their report.

A large portion of this work entailed finding specific details about the individuals listed in the property title report generated by the Chicago Title Company in Everett, Washington. To find information predating the report, I researched General Land Office records through the Bureau of Land Management website and accounts by and about the earliest European American settlers in the area. The scope of my thesis allowed me to scour genealogical records through the now widely available web resources such as FamilySearch and Ancestry. In combination with the research conducted in person at the Stillaguamish Valley Genealogical Society (SVGS) located in Arlington, I was able to cross reference census records from all over the US and Canada to identify individuals listed on the title report and track their major life events before, during, and after occupying the site. Life events were identified using records of births, marriages, deaths, grave sites, draft registrations, border crossings, and naturalization applications. Appendix C includes family trees that summarize the most pertinent results of these genealogical investigations. In the regional directories published between 1895 and 1941 held at the SVGS, I was able to identify owners of the property, their families, and their occupations and likely socio-economic status. Table C.1 synthesizes the results of the original title search with the findings of my archival research as well as the archaeological context generally associated with each occupation period. The Stillaguamish Valley Pioneer Museum also

holds unpublished manuscripts written by early settlers, an extensive historical photograph collection, and, in collaboration with SVGS, a digital archive of newspapers from 1895 forward. While physical objects are often the only things contextualized as artifacts, it is valuable to remember that all textual and photographic archival primary sources are also artifacts of their time and place.

Early Site Context

This thesis tells the stories of people who arrived in this place very recently. It is essential to convey the value and weight of the lives and stories which precede European American settlement, because without the former the later could not have occurred. To cite a popular colloquialism among indigenous activists, indigenous people were not born in America, rather America was born on their land. This section contextualizes the physical location of the Teagar/Weimer site in a deeper framework of time and space. It also positions non-indigenous families' stories within the larger story of Coast Salish people,[16] who have been a part of this place since time immemorial.

Patrick J. Twohy (2003), meditates on what the earliest encounters between Coast Salish people and Europeans might have been like:

> Let us begin with the memories of the great-grandmothers,
> The grandmothers and the grandfathers,
> With all that they were told and all that they have seen,
> Memories that stretch back to the terror and wonder
> Of seeing the new beings who appeared one day
> In the wide bays where the ancient rivers
> Ran their way to the sea.
>
> The People thought that they were spirits
> Riding high over the water in large canoes
> That moved through the mist like islands with trees.
> Sounds traveled over the waters, strange to the ear.
>
> […]
>
> These beings would shout and hold up hides
> Of animals that the People knew well, sea otter,
> Fur seal, beaver, pointing to the furs shining
> And then to large clubs with edges sharp as chipped flint.

[16] Cost Salish is a cultural categorization created by colonizer descendants to refer to the numerous ethnically and linguistically similar indigenous nations, tribes, and bands from areas surrounding the Georgia Strait, Puget Sound, and Strait of Juan de Fuca, which became collectively known as the Salish Sea in the 1980s. Coast Salish derives its name from Salishan language family, which includes well over 50 languages, dialects, and subdialects spoken by indigenous groups throughout the Pacific Northwest, including parts of British Columbia, Washington, Oregon, Idaho, and Montana.

They lifted up blankets, woven tight, longer
And wider than the People's goat and dog hair capes.
They held out what looked like stone baskets
And round beads and buttons that even in the mist
Seemed to hold the color of the sky.

The Europeans referenced here serve as symbolic stand-ins for the Spanish and English colonial maritime and fur trading expeditions along coastal Washington in the mid to late 18th century. In this poetic representation of cultural interaction, objects and material descriptions are used to emphasize the difference between foreign and familiar.

The Stillaguamish River and surrounding lands have been used for transportation, subsistence, trade, and interpersonal and spiritual connection for the Coast Salish peoples (Figure 2.6). Utilization and stewardship of the Stillaguamish River and the confluence deeply connects to Coast Salish identity, particularly so in the case of the *stuləgʷábš* (anglicized to Stillaguamish),[17] whose name in Lushootseed means, "people of the river" (Stillaguamish Tribe of Indians 2021; Tulalip Tribes 2023a). "The Stillaguamish Tribe has had these lands and cultural traditions passed on to them by their ancestors who believed that everything has a spirit and that they are caretakers of these lands and waters" (Stillaguamish Tribe of Indians 2021).

The confluence of the north and south forks of the Stillaguamish River is known as *sq̓ʷúʔalqʷúʔ* (anglicized to Skabalko) in the Lushootseed language of the region (Figure 2.7) and means "to gather or unite fresh water" (Tracey Boser 2020, elec. comm.). *Sq̓ʷúʔalqʷúʔ* long served as the economic center of the region, facilitating regular trade among members of the Skagit, Snohomish, Sauk-Suiattle, Swinomish, Samish, Kikiallus, and Stillaguamish tribes. Regular seasonal gatherings in this location also transcended what non-indigenous people might conceptualize as economic function, since intermarriage among these groups has long been practiced and to gather in this place and manner reunited extended families throughout the region (Bruseth 1910; 1950; Breda 2021).

[17] Although I do not speak *dxʷləšúcid* (anglicized to Lushootseed) or any other indigenous languages fluently, I have chosen to use spellings and phonetics commonly used by present-day indigenous speakers for any applicable words throughout this thesis. My reasoning for this is threefold: 1) to practice and learn the language, 2) to respect and highlight the primacy of indigenous words and knowledge, and 3) to resist and challenge the cultural and linguistic hegemony of Anglo academics.

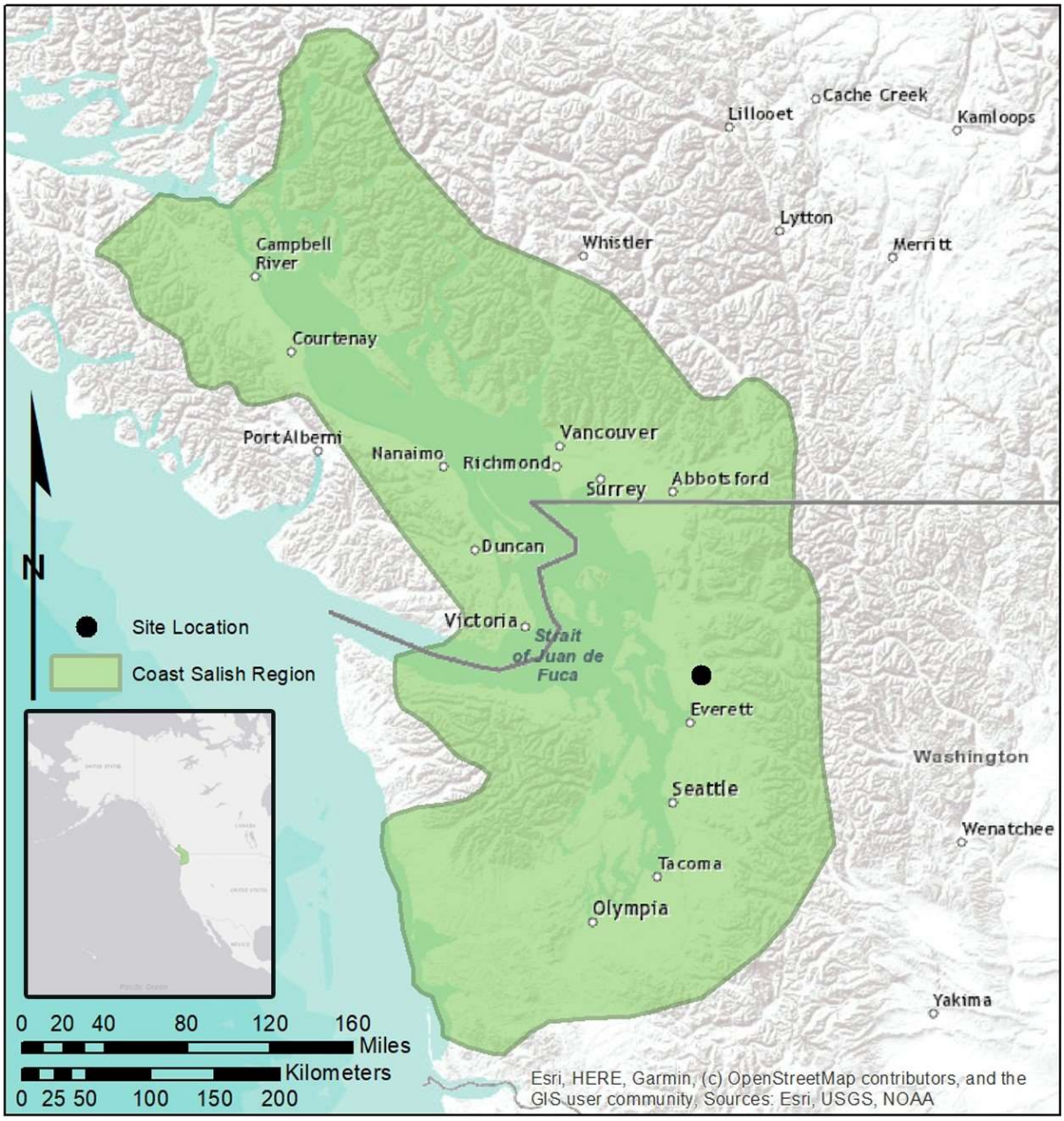


Figure 2.6 Map of the traditionally understood region of the Coast Salish People. The approximate site location is indicated with a large black dot. *Disclaimer: This map does not represent or intend to represent official or legal boundaries of any Indigenous nations. To learn about definitive boundaries, contact specific tribal nations.*

One of the earliest English written documentations of the *stuləgʷábš* is found in *The Narrative of Samuel Hancock,* one of the many published accounts of European American immigrants[18] to the Pacific Northwest via the Oregon Trail. Hancock describes encountering *stuləgʷábš* in the late spring and early summer of 1850[19] as he was looking for coal resources along the river (Blue 1923). His account mentions a small camp where he stayed for a night before continuing upriver to a larger settlement, which is presumed to be *sq̓ʷúʔalqʷúʔ* (Figure 2.7). Hancock describes coming upon a village consisting of "a number of houses made of [cedar] mats […] where I suppose there were three hundred Indians" (Smith 1927:108–114). His account of the interactions that follow portray the *stuləgʷábš* as very wary and at times confrontational and naturally portrays himself in a more heroic light. This narrative was originally self-published as an account of "Thirteen Years Residence on the north-west coast, containing an account of the Travels and Adventures among the Indians, their manners and Customs and their Treatment of Prisoners, and also a Description of the Country" by Hancock in 1860 (Blue 1923).

The accounts that Hancock published are specifically informed by his identity much the same way that academic accounts are informed by the methods they employ. Hancock was born in Virginia into a family of English and French Protestant reformers and was described as a "opportunist and contented materialist" based on his many shrewd business ventures throughout the Pacific Northwest (ibid: xxix). Although not particularly politically active in the dynamic governmental landscape of the Oregon Territory, Hancock was a self-proclaimed democrat[20] and was frequently described as economically and socially generous in keeping with traditional Southern Christian values (ibid: x). His white, protestant, southern, and entrepreneurial identities are seen in his description of the specific interaction with *stuləgʷábš* peoples during his 'exploration' of the area for resources to exploit. The formal transcriptions and publications that most historians work with were produced several decades after the events described by Hancock in his original manuscript, further introducing opportunities for interpretive liberties. The 1927 publication was also edited by American novelist and historian, Arthur D. Howden Smith, likely to make the narrative as compelling to the general

[18] I use this word intentionally in this context to call attention to the fact that European Americans were new to this part of the world and to challenge the assumption of the western region of North America being 'unsettled' prior to their arrival.

[19] Hancock's narrative has numerous inconsistencies regarding chronology. As a result, this event has also been cited as occurring in 1851, 1854, and 1855. Blue's critical analysis of the text suggests that 1850 is likely the most accurate, but the context of the encounter is not dependent on the exact date.

[20] Note that prior to the Civil War the democratic party's values were aligned with what we now understand to be republican conservative values, which is supported by Blue's (1923) assertion that he was a "true Jeffersonian."

public as he could.[21] As I have previously discussed, any narrative construction is inherently biased. Acknowledging the temporal context and specific perspectives or goals of the author allows readers to identify how these biases might impact the narrative.

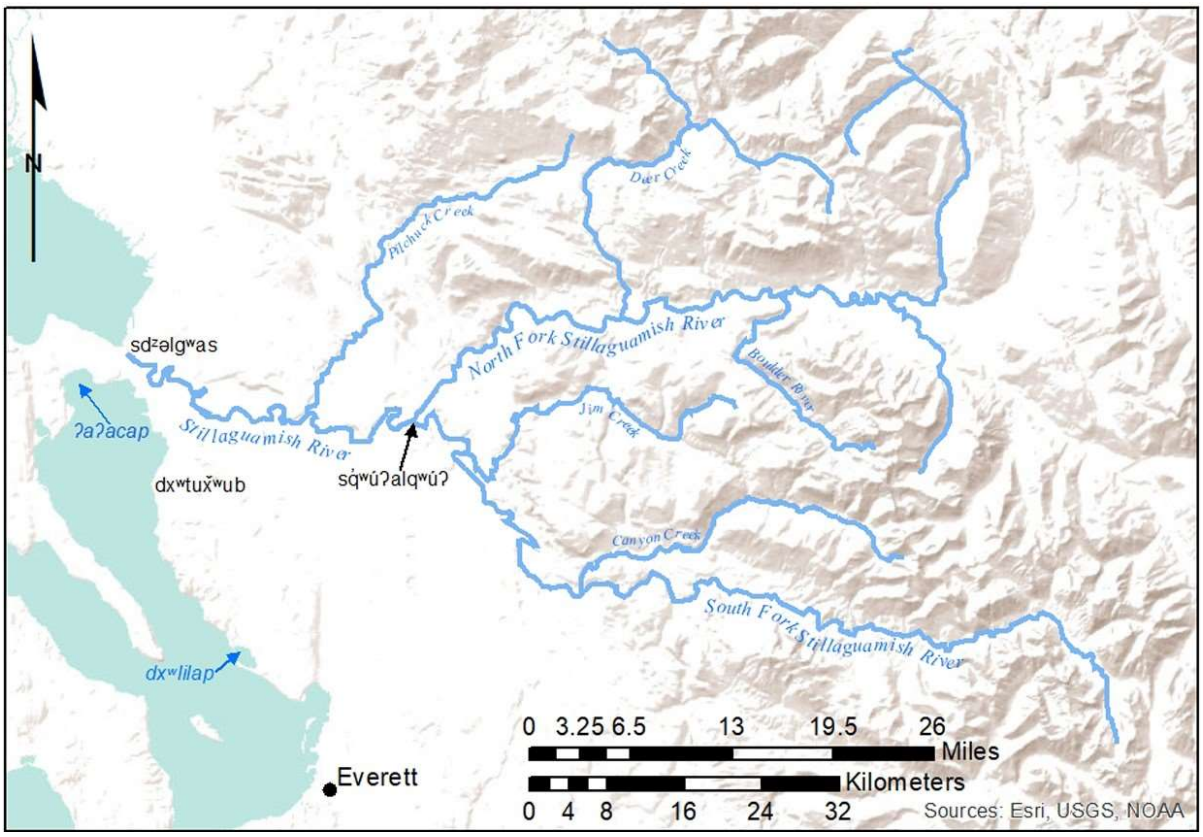


Figure 2.7 Stillaguamish River Watershed with several referential place names indicated in Lushootseed: *sdᶻəlgʷas* (Stanwood), *ʔaʔacap* (Livingston Bay), *dxʷtuxˇʷub* (Warm Beach), *sq̇ʷúʔalqʷúʔ* (Skabalko), and *dxʷlilap* (Tulalip Bay). The present location of Everett, Washington, is included for reference.
These place names are courtesy of the Tulalip Tribes of Washington (2023b).

[21] The multiple levels of interpretation built into Hancock's narrative harken back to Geertz's (1973) condemnation of removal of the reader through numerous layers of interpretation. While an adequately thick description of this time frame is outside the scope of this thesis, I highly recommend the interpretive materials produced by the Tulalip Tribes at the Hibulb Cultural Center & Natural History Preserve in Tulalip, Washington, for a more nuanced perspective of the earliest interactions between Coast Salish people of this region and European American immigrants to the area. Sources such as Bruseth (1910, 1950), Bates et al. (1994), Tribal web publications (Stillaguamish Tribe of Indians 2021; Tulalip Tribes 2023a), and conversations with tribal members are cited throughout in an attempt to incorporate additional perspectives.

Conceptualizing the 'American West'

To further contextualize the narratives about early interactions between Coast Salish people and European Americans, it is useful here to give a brief overview of academic understandings of the 'American West' and 'Frontier'. The concept of a uniquely American 'frontier' as synonymous with the American West is largely attributed to Frederick Jackson Turner. At the 1893 meeting of the American Historical Association, Turner spoke on *The Significance of the Frontier in American History* and defined the frontier as the outer edge of the wave of expansion of European American settlement - "the meeting point between savagery and civilization" (1894:200). Turner argued that the entire country of the United States has at one point been a frontier; initially a European frontier, but as Europeans moved physically west from the east coast, the notion of frontier space became more and more American. He traces the development of a uniquely American social, political, and economic identity for the country by each unique area of southcentral North America that the nation 'subsumed,' looking at different frontiers experienced by "the Indian Trader," "the Rancher," "the Farmer," and "the Army" (Turner 1894). World Systems Theory contextualizes Turner's perspective by connecting the fall of feudalism in Europe to the socio-economic motivation for imperialism (Wallerstein 1992). European nations used imperial power-dynamics overseas to offset the labor deficit and profit from new marketable goods obtained from their colonies. To demonstrate their economic strength, the United States mirrored the imperialist practices of other powerful nations as they invaded and exploited the lands and cultures of North America. Turner then reflects on how these interactions have resulted in the "composite nationality" (a term alluding to 'the great melting pot' colloquialism, which assumes cultural assimilation), the industrial independence, and the growth of democracy in the United States. In this summation, Turner also declares that the frontier definitively closed in 1890, and we have arrived as a country and as individuals in our national character and personal fortitude as Americans because of it (Turner 1894).

Following Turner's assertions, narratives of acculturation and assimilation have been lasting residues on the historic understandings of cultural interactions in the American West. Within the context of early archaeological discussions, "in trying to become 'objective,' Western culture made 'objects' of things and people when it distanced itself from them" (Anzaldúa 1987:37). The combination of objective distance and the binary understandings necessary for subordinate cultures to be assimilated or acculturate to that of the dominant European American colonist left Indigenous peoples to be subsumed in archaeological interpretations (Lightfoot and Martinez 1995). As Beaudoin (2013:45) points out, however, "nobody exists to disappear" and as such, Indigenous people were consciously and subconsciously exercising agency towards a positive and meaningful future in every action regardless of colonial pressures.

Discussion of the grandiose mythology of 'American West' grew out of Turner's initial assessment. Henry Nash Smith's (1950:12) publication of *Virgin Land: The American West as Symbol and Myth* described several specific kinds of myths that had collectively created an American West with "visions of an American Empire". Similar to Turner, Smith presents mythic identities of "the leatherstocking", western heroes and heroines, and yeoman. He also presents mythic landscapes describing the agrarian utopia and agricultural west as a specific theatrical stage required for these mythical identities to perform upon (Smith 1950). *Virgin Land* added a level of complexity to Turner's frontier hypothesis, by demonstrating the specific ways in which Americans had collectively written a folk history of and for themselves. Characteristics of these stories can be traced to specific authors but also simultaneously have been produced by an anonymous nationalistic hive-mind. Perhaps more importantly, despite the discordance between the real world and these myths, our perceptions shape reality, and the more we perpetuate a myth the more power it has to affect reality. Worster (1991:7) describes this connection between popular belief and historical reality as a "continuous circle, moving back and forth in a long, halting, jerky, interplay."

Between 1972 and 1996, annual celebrations of the "history and progress" of the Stillaguamish Valley called 'Frontier Days' were spearheaded by the town of Arlington (Stillaguamish Valley Pioneers 2023).[22] What started as a month-long, tri-community collaboration quickly morphed into a five- to ten-day event surrounding the Fourth of July held in Arlington each year. 'Frontier Days' events included various exhibitions, music shows, bazaars, farmer's markets, sports tournaments, pageants, dances, picnics, and parades. These events were advertised in a supplemental issue of *The Arlington Times* that also featured photos, memories, and reprinted stories from the turn of the 19th century. These publications aptly demonstrate the kind of interplay and how we collectively fit our histories into the larger mythos of the frontier. Many of the featured stories reference 'pioneer spirit' as the fortitude and ingenuity required by the early settlers to build the infrastructure and communities of the valley. As Worster (1991) alludes, this narrative building process is cyclical and endemic to most cities and towns in the Western United States – historical events shaped and continue to shape frontier ideology, meanwhile frontier ideology shapes the way we narrate historical events.

[22] It is important to contextualize why specific investment in 'pioneer' heritage arose during the 1970s. The bicentennial of the nation was ostensibly the motivation, but I would be remiss to ignore the civil rights movement's influence. Black Pride and Red Power movements specifically emphasized the systemic injustices experienced by African Americans and Native Americans. In reaction to these movements, 'pioneer' heritage was a politically correct way for European Americans to re-assert their cultural pride in the changing socio-political landscape (Limerick et al. 1991; Bernstein 1995; Gallagher 2003; White 2015). This reactionary behavior evokes the concept that when someone is accustomed to privilege, equality feels like oppression.

New Western History and Archaeology

From a theoretical perspective in the field of history, critical analysis of the mythos of the 'American West' and the definition and linkage of 'frontier' started in the 1980s creating what is often called 'New Western History' (Limerick 1987; Limerick et al. 1991; Lightfoot and Martinez 1995; Dixon 2014). The historical reframing of the 'new west' sought to move away from Turner's conceptualization of westward expansion of the people and structures of the United States as a unilaterally positive and progressive movement and acknowledge the complexity and nuance of interactions that occurred in the American West (Limerick et al. 1991).

One of the biggest challenges of New Western History is coming to a realistic and useful definition of the 'west' and 'frontier'. Most often, new western historians see the 'American West' as all lands west of the 100th meridian, but this extremely geographically diverse region seems to have more differences than commonalities with unique subregions including the Pacific Northwest, the Great Plains, and the Southwest (Limerick et al. 1991). Despite the marked differences between these subregions, there is still utility in contemplating the overarching west for comparing experiences and interactions from one sub-region to another to better understand the kinds of similarities occurring throughout the period of American emigration from the east. For instance, drawing connections from the specific experiences of frontier in the Pacific Northwest as explored through this story can be connected to larger ideologies and frameworks of imperialism as a whole.

The language surrounding 'frontiers' is also intensely debated among new western historians partially because of the close association with conceptualizations of the Old Western History and the disjunction between divorcing such a nationalistic and emotionally charged word from those meanings without divorcing the word from any meaning all together (Limerick et al. 1991). Alternative terms such as 'conquest' and 'imperialism' have been suggested to reflect the socio-political meaning of white movement westward more accurately and have the benefit of being separate from the mythos of the 'American West'. Many have suggested, however, that the complex history of the word itself is vital to understanding the nuance and specificity of American frontierism[23] and how it differs from more universal frameworks of conquest and imperialism (Limerick et al. 1991; Massip 2012). Through acknowledgement and contextualization of the meaning of 'frontier' in their research, historians are able to interrogate the story of the past as a

[23] I want to clarify that I use this word in this thesis to refer to the ideologies encapsulated by Turner's frontier thesis, not the political perspective regarding government size and involvement that is situated opposite the political spectrum from 'supportism'. While this political perspective is largely informed by Turner and others' ideological perspectives, my use of the word here expands beyond this political alignment.

manifestation of the frontier mythos and show the discrepancies and contradictions within that mythology that reflect larger patterns of imperialism.

Similar to the post-modern perspective shift seen in the history academy, archaeology moved to broaden conceptualization of the more recent past in the 1990s. Lightfoot and Martinez (1995) sought to decolonize archaeological research in the context of frontiers through a shift away from the focus on core-periphery relationships (see Hudson 1969; Wallerstein 1992) to the diverse cultural interactions and exchanges that were occurring throughout initial European American exploration and ongoing immigration to the West. Numerous models of cultural interaction arose in the literature attempting to provide a less dichotomous understanding of the cultural entanglements of the 'American West' (Cusick 1998; Voss 2008; Ferris 2009; Card 2013; Dixon 2014; Lightfoot 2015). These approaches endeavor to explore interactions in the American West without continuing to emphasize problematic cultural binaries of core/periphery, colonizer/colonized, change/continuity, or modern/traditional (Lightfoot and Martinez 1995; Naum 2010; Voss 2015a).

Archaeological research of frontiers continues to focus on "how people establish and maintain interethnic ties in frontier contexts, how multiple kinds of interactions take place within and between groups that intersect both newcomers and natives, and how frontier relationships can facilitate cultural innovations" (Lightfoot and Martinez 1995:488). Concepts of the West and the frontier are, if anything, defined by their ambiguity and somewhat vague understandings shared by historians and archaeologists. In many ways this is fitting since the western frontier was itself composed of shifting amorphous spaces often saturated with uncertainty for indigenous people and immigrants alike.

I define frontier following closely with Eichner, who conceptualizes frontier as a "fluidly bounded […] newly defined center of comingling conceptualizations and world views" (Eichner 2017:33). In these spaces that are neither temporally nor physically discrete, individuals both indigenous to the area and those traveling through, and new arrivals repeatedly navigate intersecting geographic, political, and social boundaries (Eichner 2019:139). The frontier prompted complex interactions among diverse identities and ideologies resulting in challenging to interpret and potentially contradictory patterns within the archaeological record (Liebmann and Rizvi 2008:5). Focusing on the lived experiences of individuals and families within these ambiguous frontier spaces, the biographical approach is well suited to frontier assemblages. The following narratives demonstrate some of the entanglements of identity negotiation and sociocultural expectations in the shifting landscape of the frontier in the Stillaguamish River Valley.

Chapter 3: (Un)settling Spaces

The concept of a western frontier as defined by Turner is predicated on the notion that European American settlers were bringing the West and subsequently to the people indigenous to those lands into a better and more prosperous social and economic system represented by the United States. This worldview projected by American settlers in the mid-19th century focused on bringing industrial capitalist practices, which they paternalistically viewed as obviously superior systems, to the Western territories (Limerick et al. 1991). The ideology of industrial capitalism arose surrounding the shift from merchant capitalism, which focused on specific skilled trades and products, to a framework of industrialization, which was predicated on piecemeal mass-manufacturing and factory labor to increase efficiency and monetary profitability, following the conclusion of the American Civil War (Wallerstein 1992; Shackel 2009; Matthews 2012). This ideology was characterized by systems of commodification, standardization, ordered delineation of spaces and people, and a focus on monetary 'capital' rather than the practical goods or services within the economy (Leone 1984, 1995; Deetz 1996; Orser, Jr. 1996; Church 2002; Mullins 2004; Shackel 2009; Matthews 2012).

This way of thinking was rationalized as superior and righteous by citizens of the colonizing nation primarily because it provided opportunities for social and economic advancement in the West that had not been available to them in the East (Shackel 2009:14–15). Conceptualizations of Christian liberty and manifest destiny allowed American settlers to rationalize the newfound status and wealth even though their success came at the steep cost of dispossessing indigenous nations of their lands and resources through cultural genocide (Foner 1998). Simultaneously, industrial capitalism emphasized the purported values of independence, competition, and bootstrapism[24] that have since become foundational to the American socio-economic system (Shackel 2009; Matthews 2012). One of the most obvious and large-scale manifestations of industrial capitalism, was the importance of privatized commodities in the form or resources of property (White 2000; Matthews 2012:18–19)

[24] Based on the idiom, 'to pull oneself up by the bootstraps,' this doctrine speaks to individualism and the ability for someone who works hard enough to achieve anything they set their mind to. However, this ignores the significant impacts of structural inequalities that facilitate the success of certain individuals over others depending on their identities (Briskin 1994)

Frameworks of Ownership and Property

Isaac Stevens was elected Governor and Superintendent of Indian Affairs for the Washington Territory after it was separated from the larger Oregon Territory in 1853. In a letter to the federal Commissioner of Indian Affairs, George Manypenny, Stevens outlines his understanding of the Coast Salish perspectives on settler encroachment:

> For years they have been promised payment for their lands by the whites; and they have waited with an abiding faith that the whites would redeem their many promises. For the last two years however, the great numbers of settlers, who have located in this Territory, has made them suspicious and uneasy; and they upbraid the whites for the want of faith. All these tribes live on the different water-courses, on the bays and inlets of the sound, subsisting on roots and berries, and the various species of fish which abound in the waters. But few of these Indians ever leave this basin, but roam about the sound, leading, for the most part, an idle life. They have all, however, singled out a few spots in their domains, which they wish to reserve, and contemplate the sale of the rest of their lands to the whites. These spots are not only permanent places of residence, but are hereditary. Near them are the graves of the relatives and friends, and they cherish an affection for them which I have scarcely ever seen equalled. […] I cannot urge this matter too strongly on your attention. The longer treaties are delayed, the more difficult it will be to make them satisfactorily; and to make reservations for them, in a short time will be impossible, without moving whites from their land claims."
> (Stevens 1900:454)

It is clear from this excerpt that Governor Stevens understood at least some of the nuanced ways that Coast Salish peoples view their homelands and the ways those views differed from imperial American perspectives. However, his motivations to find solutions that benefited white settlers eclipsed the implementation of this understanding.

Agbe-Davies (2015:179) highlights how legislation like that proposed by Stevens, forms "a grammar for the production of social meanings." This is particularly evident when we consider the assimilationist goals that he charged his treaty negotiators with reaching later in 1853. Negotiators were instructed to minimize the number of reservations to which Indians would be relocated and encourage them to adopt "settled and civilized habits." Stevens conceded that "as the change from savage to civilized habits must necessarily be gradual" Indigenous fishing, hunting, gathering, and pasturing livestock until they were prepared to farmland in a manner consistent with Euro-American frameworks (Stevens 1900:454). The intentions and long-term plans of acculturation were not clearly conveyed to tribal leaders with whom negotiations took place. The negotiations took place through

linguistic degrees of separation passing from English to Chinook Jargon[25] to local dialects of Lushootseed and back. Even if everyone had been speaking the same language, the difference of perspectives and worldviews might have been fundamentally lost in translation (Hibulb Cultural Center 2011a). Stevens and his negotiators were operating under capitalist frameworks which assumed land value, private ownership, and written legal contracts. Meanwhile Coast Salish leaders were operating from a sacred duty of land and resource stewardship based on familial connection. Another cultural juxtaposition saw the Coast Salish people unable to verify that the oral agreements that they held as binding were honored in the treaty text (Hibulb Cultural Center 2011a; Breda 2021). In order to protect what dwindling rights and resource access they could under the immense pressure from colonial encroachment, on 22 January 1855, at Point Elliott, Washington, tribal leaders marked their X next to phonetic approximations of their names and tribal affiliations (Hibulb Cultural Center 2011a). On behalf of their tribes and all "other allied and subordinate tribes and bands" these representatives relinquished and conveyed all rights and claims to their lands to the federal government save for four reservations set aside (Figure 3.1) and the guarantee of continued access to areas where fish, berries, and roots were gathered (U.S. Congress 1855).

[25] Based on the original indigenous Chinook language, Chinook Jargon is a pidgin trade language that incorporated French and English words into the grammar of the original language. This language was used throughout the Pacific Northwest throughout the early to mid-19th century among numerous indigenous groups and Europeans (Lang 2008). Many linguists who continue to study and preserve the creole language, prefer the term *Chinok Wawa*. I use the name 'Chinook Jargon' as a reflection of what the language was commonly called during the treaty negotiation era and to match the terminology utilized in Tulalip Tribal interpretive materials (Hibulb Cultural Center 2011a).

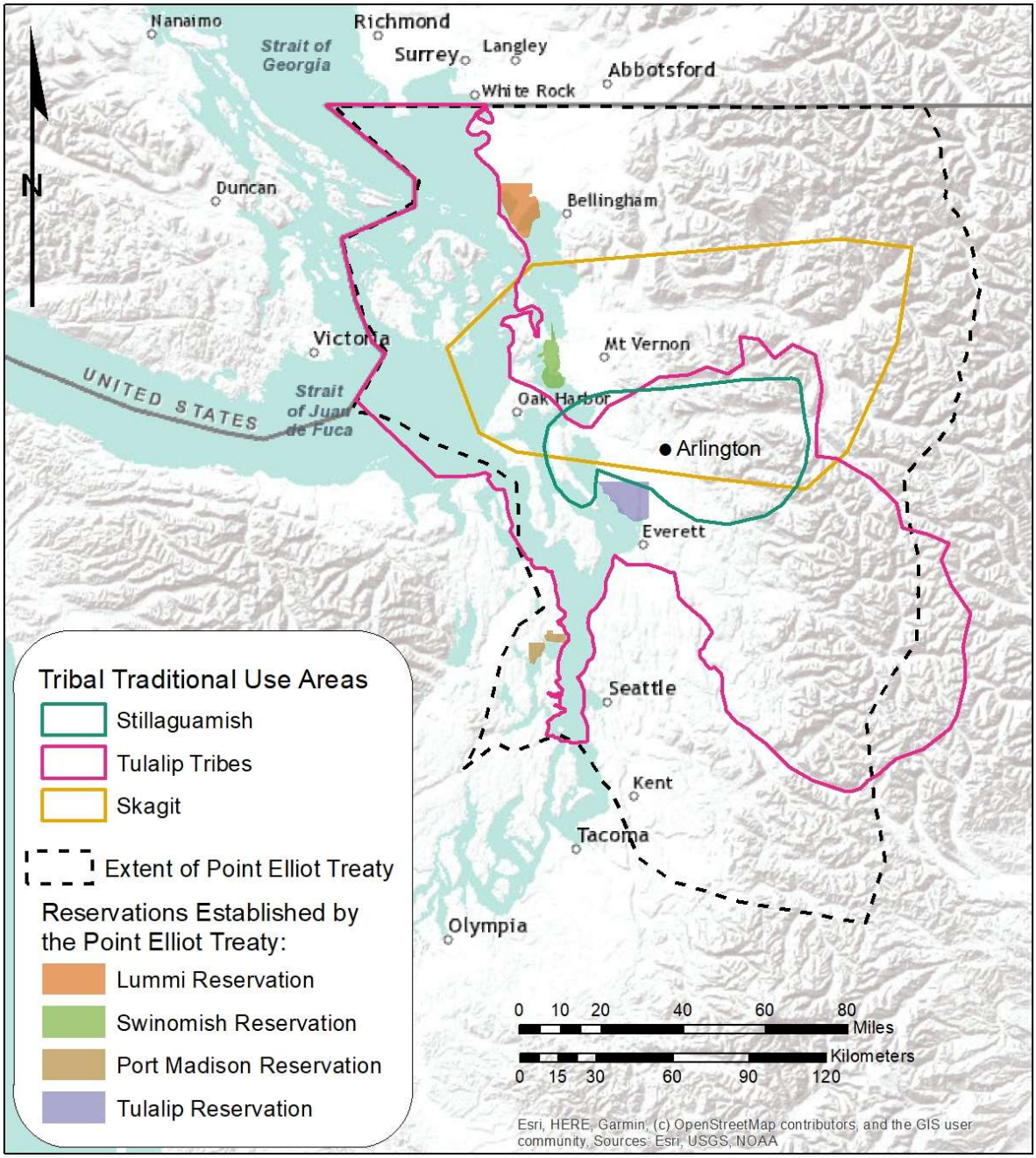


Figure 3.1 Map showing traditional use areas for the Stillaguamish, Skagit, and Tulalip Tribes (based on Native Land Digital), the extent of the lands ceded in the Point Elliott Treaty of 1855, and the four reservations that the treaty set aside. While there were at least 22 different tribes and bands whose lands were legally ceded to the United States Government in this treaty, I have only included the tribal traditional use areas that overlap with the site location to maintain the legibility of this map. To learn more about the tribal nations impacted by the Point Elliott Treaty, visit https:\\native-land.ca.
Disclaimer: This map does not represent or intend to represent official or legal boundaries of any Indigenous nations. To learn about definitive boundaries, contact the nations in question.

In For a Penny…

Within this context, the first artifact from the assemblage I want to highlight is a United States penny (Catalog No. 2008/318). The design of this penny is colloquially known as the Indian Head cent or penny (Snow 2009) and was introduced in 1858, just three years after the signing of the treaty at Point Elliot. On the obverse of the coin, a bust of lady liberty including head and neck, with generic white female features, wears a simplified war bonnet with the text "LIBERTY" along the band. Text reading "UNITED STATES OF AMERICA" arches around the perimeter of the coin with the minted year below the bust. The reverse has the text "ONE CENT" encircled with an oak leaf wreath. At the crown of the wreath is a shield and at the base three fletched arrows with a ribbon wrapped around the arrows and branches (Figure 3.2). While the personification of liberty as a Greco-Roman woman (particularly on coins) was prevalent among many Western civilizations throughout antiquity, the specific association of this imagery with the American conceptualization of liberty was directly tied to the founding of the United States (Higham 1990; Fischer 2004; James 2019; Duncan 2021).

Prior to the foundation of America as a nation, European artists frequently used the personification of indigenous women, typically with minimal clothing, as a personification of the Americas and the so-called New World.' However, as the United States strove to establish itself as an imperial contender with other powerful western nations, the artistic allegory shifted towards a Greco-Roman personification of liberty (Higham 1990; Fischer 2004). Production of this penny design, which is now colloquially referred to as an 'Indian Head Penny,' began in 1860 and continued until 1909, when the Lincoln cent honoring president Abraham Lincoln went into circulation (Snow 2009). The production of this coin design coincides with the creation of the most well-known personification of American liberty: the Statue of Liberty. The statue concept was proposed in 1865 and unveiled in the Upper New York Bay in 1886 as a testament to the global economic powers of France and the U.S. as well as industrial craftsmanship (National Park Service 2023). While this specific penny was not minted until 1895, which skips ahead slightly in our story, I include it here to demonstrate the larger social trends of the treaty era.

Figure 3.2 1895 penny – images of artifact on top with comparative nearly uncirculated coin as posted on eBay for comparison on bottom: a) obverse of coin with young woman wearing war bonnet; b) Reverse of coin with shield, oak-leaf wreath and embossed text that reads “ONE CENT”

The mintage of these coins fluctuated greatly throughout this design’s use-life, particularly surrounding the American Civil War, the average annual mintage was over 34 million (Snow 2009). It is also worth noting that pennies were much more frequently utilized in day-to-day exchange than they are today. The imagery on this coin would have been ubiquitous to all citizens of the US during the nearly 50 years of the coin’s production and circulation. The design reflects and even champions national sentiments regarding indigenous identity, land rights, and imperial values. James B. Longacre advocated his design to the mint director in an 1858 letter: “From the copper shores of Lake Superior, to the silver mountains of Potosi from the Ojibwa to the Araucanian, the feathered tiara is as characteristic of the primitive races of our hemisphere, as the turban is of the Asiatic. […] I regard then this emblem of America as a proper and well-defined portion of our national inheritance; and having now the opportunity of consecrating it as a memorial of Liberty, 'our Liberty', American Liberty” (Snow 2009:25). Longacre’s statements reflect a sweeping national pattern of using the iconography of the war bonnet as a symbol of homogenized indigenous identity used to distinguish America from other nations (Higham 1990). Longacre also makes references to the ‘national

inheritance' and 'American Liberty' making this imagery synonymous with ideals of manifest destiny and continentalism claiming North American lands and assimilating their indigenous peoples (Turner 1894; Limerick et al. 1991).

What is also strikingly ironic with the imagery found on this penny given its location at the site, is that the compensation signatory tribes of the Treaty of Point Elliot received was primarily in annuities not money. While the tribes were promised compensation for the land relinquished to the United States at the valuation of seven cents per acre, Stevens specific policy was "to pay for their lands not in money, but in annuities of blankets, clothing, and useful articles during a long term of years" (Stevens 1900:454). A compounding issue was that while tribes believed that the treaty went into effect at the time of signing, it was not ratified by congress until 1859 (U.S. Congress 1855; Riddle 2008; Hibulb Cultural Center 2011a). Thus the $150,000 owed to the signatory tribes was not approved until four years later than tribal members expected. Once federal funds were approved, the annuities distributed were done so at discretion of an agent appointed by the Bureau of Indian Affairs only to indigenous people living on the established reservations. While some of the *stuləgʷábš* did move to the reservation as mandated, most of the people stayed in their ancestral lands along the river. By staying, these members of the tribe were ineligible for the annuities provided through life on the reservation, meaning that they did not receive any compensation for their land and in many cases had to file land patents or purchase their ancestral lands back from the government (Stillaguamish Tribe of Indians 2021).

This penny as an object illustrates the nuanced and at times contradictory cultural conceptualization of the American West among European American governmental officials during the latter half of the 19th century. The economic commodification of Indigenous lands and even indigenous identity reflects larger ideology of industrialized capitalism. As the United States began to convey itself as a national power at the same imperial level as the other global colonizers, it became increasingly important to visibly and ideologically demonstrate how America as a nation was similar to other powerful nations, but also distinguish itself as unique. The symbolic imagery of this interplay is seen with the age-old use of the Greco-Roman embodiment of liberty on coinage with the incorporation of the specifically unique Native American war bonnet as a representation of American colonization of the West. Following their so-called purchase of indigenous lands, the United States Government needed a way to efficiently and legally provide settlers in the West access to the land.

Drawing Lines on the Land

One of the key systems for land ownership in the West was established by the Land Ordinance of 1785, with the use of an arbitrary grid system delineated by North to South Townships and East to West Ranges, which were each subdivided into numbered one-mile sections that could be further divided down to individual blocks and lots within future cities (U.S. Congress 1785). This grid system came to be known as the Rectangular Survey System or the Public Land Survey System (PLSS) and provided a system for the federal government to allocate acquired frontier lands to settlers. The PLSS arrived in the Oregon Territory when the Willamette Meridian was established in 1851 as the baseline for township and range in the soon to be separated territories of Washington and Oregon (Vaughan 2022). In 1875, the area surrounding the confluence of the north and south forks of the Stillaguamish River, colloquially referred to as "The Forks" by early settlers, was surveyed using PLSS so that land patents could be issued to settlers (McMicken 1875). "By drawing lines upon the land, federal officials created parcels of property that could be bought and sold and taxed and leased and bequeathed to heirs," reflecting a fundamentally capitalist interaction with the landscape (Findlay 2016).

This delineation of the landscape is reflected in the Teagar/Weimer assemblage in the form of structural materials and objects from the site as well as by the concept of a privy structure in itself. Among materials described in the original analysis, but not curated at the Burke Museum, there are three specific entries that allude to the practice of land segregation and privatization (Table 3.1). The NWAA catalog lists a fence staple, and several lengths and thicknesses of wire that may have been utilized to fence off boundaries of the property.[26] The use of fences to manifest control and order in frontier spaces that had historically been characterized by an absence of this kind of infrastructure on the landscape, signaled a material manifestation of symbolic and ideological shift following the signing of treaties and implementation of the PLSS in the Pacific Northwest (Matthews 2012:49–51; Shier 2021; Feit 2021). Taking a step back to examine the concept of a privy as a fixed location surrounded by four permanent structural walls and a roof, speaks to specific cultural norms surrounding privacy. In addition to the practical sanitation reasons for digging a privy, the dichotomization of public and private as binary oppositions is a reflection of Georgian and Victorian classification and separation of space (Leone 1984; Geismar 1993; Klein 1995; Rotman 2006; Tulchinsky and Varavikova 2014; Hoagland 2018; Dale and White 2021). Later chapters will further explore scientific household practices and gendered conceptualizations of the private-public

[26] Without photo documentation of these artifacts prior to their disposal, it is difficult to say with certainty if these were directly connected to boundary delineation around the home due to the ubiquity of utilitarian wire as a fastener, fencing material, or electrical infrastructure.

dichotomy. A specific artifact that illustrates the conceptualization of privacy at the household scale is a ceramic doorknob with metal hardware (Catalog No. 2008/818) which could have been used on any door associated with the structures at the site (Figure 3.3), but its association with earlier in-tact deposits (AU B; 90-110 cmbs), suggests that it was associated with the earliest occupation period at the site.

Table 3.1 Materials associated with fencing as a reflection of regimented space delineation.
(These artifacts were not curated, nor photo documented.)

Catalog No.	Unit	Depth	Stratum	AU	Count and Mass	Description
2008/617	4	130-140	VII	C	n = 1 (0.7 g)	fence staple
2008/814	2	90-126	V	B	n = 1 (64.0 g)	1.5-foot-long thin wire
2008/824	1	95-105	V	B	n = 17 (142.2 g)	Wire fragments, 3 different thicknesses

Figure 3.3 Ceramic doorknob with black enamel glaze and ferrous metal spindle hardware.

Persistence as Resistance

Land patents could be issued under several laws, but the most common precedent used was the Homestead Act of 1862. Homestead patents were mainly issued to European American settlers despite not having any explicit provisions about racial identity (U.S. Congress 1862; Bruseth 1910, 1950). However, close examination of historical records show that several of the earliest land patents in the immediate area of 'the Forks' were actually issued to indigenous families in 1884 (Figure 3.4). "James Garney" and "John Pline" were granted patents on 15 April for the lands between the forks (Garney 1884; Pline 1884).[27] While the names on these patents do not correspond to census records of

[27] Another *stuləgʷábš* man named Bob Harvey obtained a land patent for the remaining lands between the forks in 1890, which coincided with the arrival of the Teagar family at the site across the river (discussed in Chapter 4), as well as Marion Gooding, who will be discussed in Chapter 5 (T. Boser 2023, elec. comm.).

any individuals in the area, extended archival research allowed me to draw connections to two well-known indigenous families among the *stuləgʷábš*. The patent issued to "James Garney" corresponds to an individual listed as James (Jim) Gardner on the 1880 census in the Stanwood area (U.S. Census 1880; Garney 1884).[28] Commonly known among later European American settlers as "Split Lip Jim" or "Indian Gardner," his given name in Lushootseed was *Da Quashkud* (Oliver 1902; Bruseth 1950). Jim is described as well-traveled and serving an important leadership role within the tribe. His wife, Jessie, known by her Lushootseed name, *Ilh-basalth*, was also respected as a tribal leader[29] (Bruseth 1950:9; T. Boser 2023, elec. comm.).

The other patent issued to "John Pline" corresponds to an individual who is listed in the same 1880 census residing immediately next to the Gardner family as John Bliney (U.S. Census 1880; Pline 1884). The name on this patent likely corresponds to John Friday, whose Lushootseed name was *Sees Athlat*; Friday was pronounced 'Plidy,' which better demonstrates the connection to 'Pline' and the potential transcription error in the census (Bruseth 1950:12). John Pliney was brother to one of the most well-known indigenous women of the region, Pilchuck Julia, who was said to have been at the signing of the Point Elliot Treaty and was much photographed throughout her lifetime (Gaeng 2020; T. Boser 2023 elec. comm.). Later local accounts in newspapers attribute this land to Jimmy Dorsey (*Aath Alht*), who was Jim Gardner's nephew (Spoerhase 1976; T. Boser 2021 pers. comm.). Jimmy Dorsey's father, *Chad-is*, was the chief of the nearby village of *chuck-kol-che*, which is now known as Trafton (Bruseth 1910; 1950; Stillaguamish Tribe of Indians 2021). Further supporting the connection of the Dorsey family to the last name "Bliney," is that James' wife Susie[30] who is listed in his census household is also listed under the last name Dorsey in other sources (McQuesten 1891; *Arlington Times* 1928)

The census records only captured these indigenous families in what is now Stanwood, yet their land patents were held upriver at the confluence. This reflects the maintenance of traditional seasonal movements and practices of *stuləgʷábš* as they were adapting to the legal systems imposed upon their lives. Despite the village at *sq̓ʷúʔalqʷúʔ* serving as a communal gathering place for numerous families and tribes since time immemorial, the legal frameworks provided by the federal government did not allow for a nuanced conceptualization of land ownership. Similar to the issues of English literacy encountered at the time of treaty signing, these patents were issued to men who could

[28] At the time of the census recording this area was called Centralia, but the Lushootseed name for this place is s*dᶻəlgʷas* which is also spelled s*ŭl-gwähs'*, referring to the river's outlet meaning straight or slough (Hunt and Kaylor 1917:534; Tulalip Tribes 2023b)
[29] Jessie *Ilh-Basalth* was sister to Tracey Boser's grandmother, Polly *Che-che-yel*.
[30] Susie Dorsey was from the Upper Skagit tribe and her Lushootseed name was S*al-se-blue* (T. Boser 2023, elec. comm.)

not verify their names as listed by the land office. There also may have been a linguistic disconnect between the oral pronunciations of their names and the name as written by various English speakers (Bruseth 1950). Different world views regarding the cultural utility of names and their meanings may also have played a role.

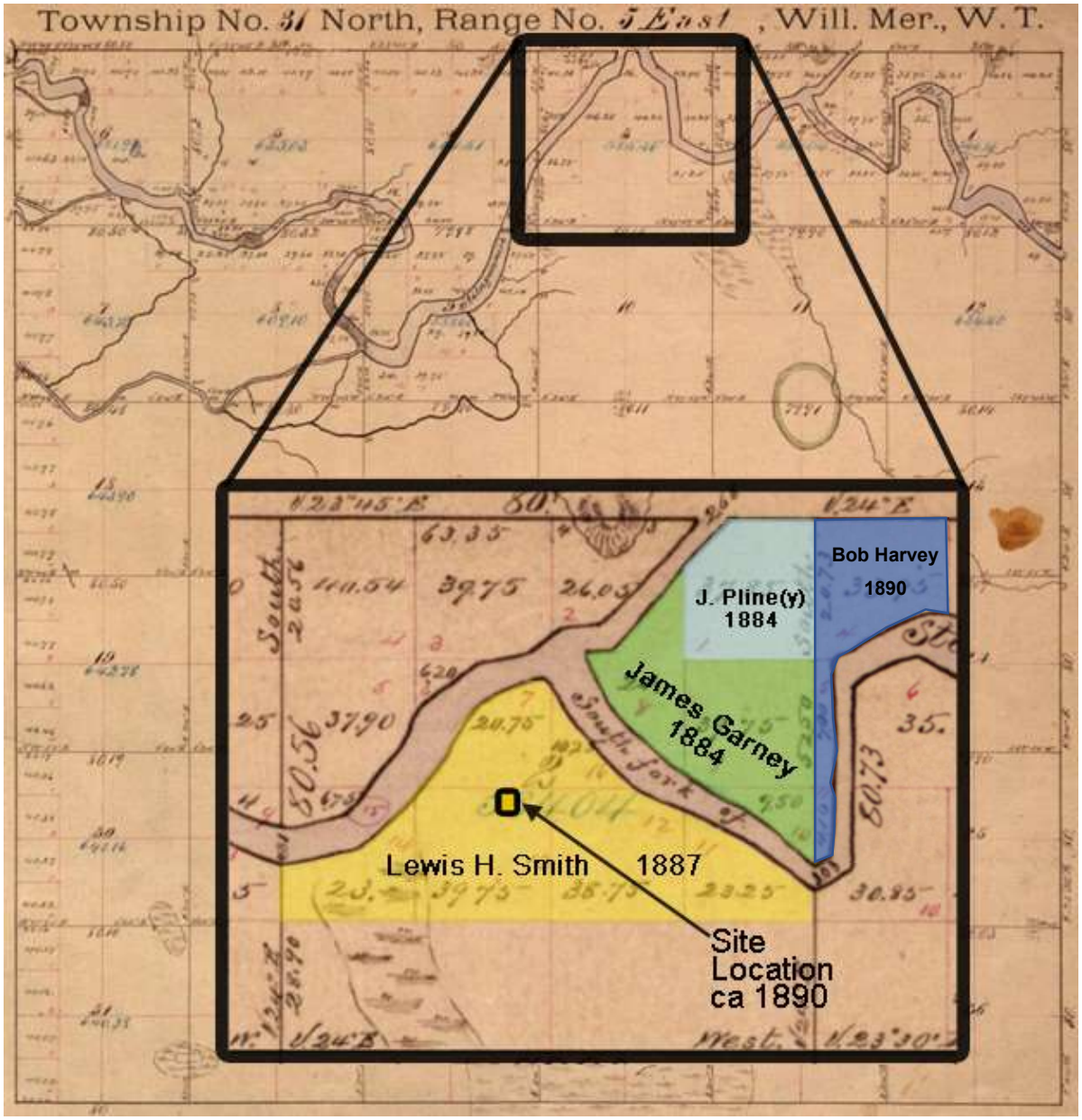


Figure 3.4 Original survey plat of Township 31 North, Range 5 East, drawn by William McMicken, Surveyor General, in 1875. Inset shows Section Three with relevant land patent information and the approximate site location digitally superimposed.

The symbolic power of names as a social and legal reflection of personhood and identity is a primarily a construct of capitalist economic practice, whereby independence and ownership can be associated with specific individuals (Agbe-Davies 2015:182–186). European American census takers

and other government representatives lacked the cultural and linguistic context for *stuləgʷábš* names or identity, a common ethnocentric perspective that likely led to particular confusion surrounding *stuləgʷábš* individuals who chose to persist in traditional occupation and practices on the Stillaguamish River as settlers continued to inundate their homeland. I have no doubt that members of the Stillaguamish Tribe today have clear and specific knowledge surrounding the familial connections to each other and their landscapes which I have only been able to guess at through the distorted lens of historical governmental documentation. My interpretation is based on publicly available published sources that the Stillaguamish Tribe has explicitly or implicitly approved for the general public to access. As an outsider in every sense of the word, I am not privileged to (nor would I be able to fully comprehend) the connections or significance of these prominent indigenous families. The full story belongs only to the *stuləgʷábš*, and no outsider is entitled to information not volunteered.

The "Gardner," "Plidey," and "Dorsey" families were among some of the most prominent indigenous peoples discussed in historical accounts during the late 19th and early 20th century. Their status within the *stuləgʷábš* tribe is well recognized in both indigenous and non-indigenous accounts but it is unclear if their particular visibility in the European American historical record is a result of other tribal members moving to the Tulalip reservation, thereby heightening the visibility of those who stayed. These family's choice to stay in their traditional lands demonstrates persistence in the face of unfamiliar social, economic, and physical systems and openly defies the imperial assimilationist intent of forcing relocation to reservations. Moreover, these families found ways to benefit from capitalist frameworks of commerce. Indigenous community members were documented as primary customers for local stores as early as 1888 (Figure 3.5), when the first mercantile was built by recent immigrants on land patented by 'Indian Gardner' (Oliver 1902; Interstate Publishing Co. 1906; Whitfield 1926). Members of these prominent indigenous families adopted the capitalist ideology of empowerment through the commodification of goods and services by selling fish that were caught in the river, selling traditionally made baskets and blankets, offering canoe freight and passenger services up and down the frequently log-jammed river (Figure 3.6). As participants in the early industries of logging, shingle-milling and hops cultivation brought to their lands by white entrepreneurs, indigenous laborers were instrumental to the industrialization of the region using capitalist frameworks (Interstate Publishing Co. 1906; Bruseth 1910; Whitfield 1926; Bruseth 1950).

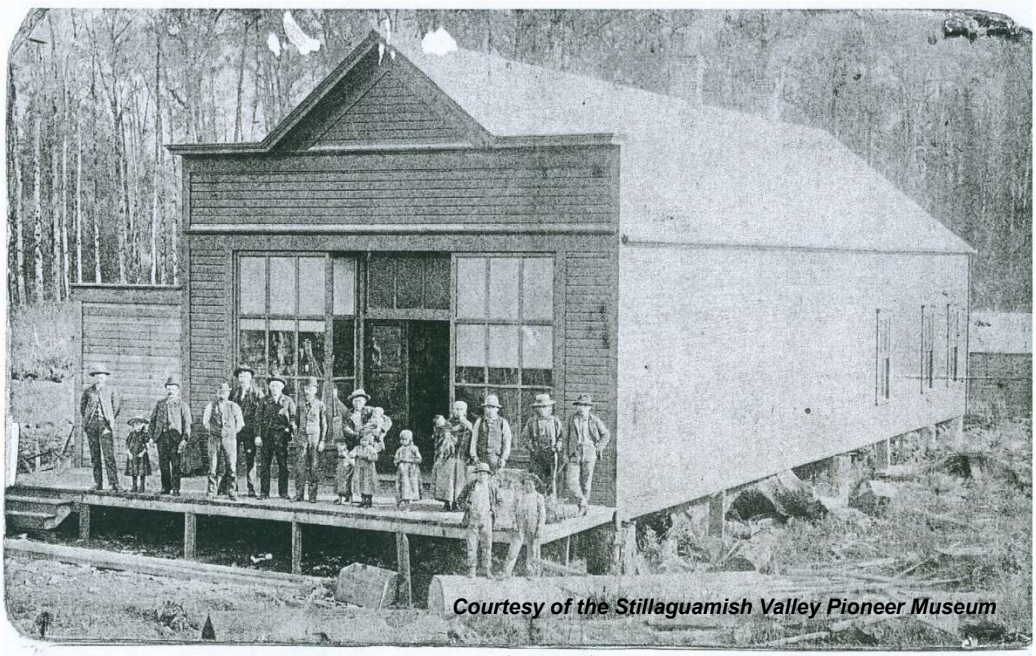


Figure 3.5 Historical photographs of early indigenous interactions with European American settlers in the Stillaguamish Valley; Top: Earliest known photo of *sq̓ʷúʔalqʷúʔ* ca 1890, overview of the confluence facing east with likely boarding house structure with several individuals standing out front, it is very likely that members of the families discussed above are among those pictured; Bottom: 1891 photograph of the McQuesten General Store with several individuals standing in front – only known instance of named indigenous individuals in overview historical photographs (not including portraits) from the Pioneer Museum's archive - "Indians include: Susie, Henry and Jimmie Dorsey, Billie Price and --- Jackson"

Figure 3.6 Indigenous economic empowerment using encroaching industrial capitalist systems: a) *stuləgʷábš* family on the riverbank with salmon, baskets, and cedar-mat shelters, likely a seasonal camp; b) canoe passenger service for three European American women; c) indigenous laborers utilizing the river to transport timber resources to the shingle mills.

Multivocal Material Modification

As discussed in the theoretical context section of Chapter 2, archaeological interpretations are continually working towards more nuanced representations of cultural interactions in frontier spaces. This is in large part reactionary to archaeological models of "culture-contact," which perpetuated colonial and racist frameworks of the presumably 'superior' culture assimilating the other into its likeness (Silliman 2005; Voss 2015b; Eichner 2017) By oversimplifying interactions between different cultures as punctuated and confrontational, "contact" lacks nuance surrounding the numerous ways that cultures might change or behave through ongoing and continuous interactions. Archaeologically, this has meant that researchers look specifically for materials of the newly arrived culture being adopted by the indigenous culture to determine the level of cultural assimilation (Cusick 1998; Silliman 2009).

In an effort to flip this antiquated archaeological model of material culture assimilation on its head, one of my initial research questions when reanalyzing the Teagar/Weimer assemblage was to look for material reflections of indigenous culture in the materials associated with this European American household. A primary locus for investigating this kind of material cultural interaction is the use of manufactured glass as a raw material to which indigenous tool making techniques are applied. There are numerous archaeological sites with evidence of intentionally modified manufactured glass artifacts (MMGAs), but there is particular diversity of cultural interactions seen in North American sites (Martindale and Jurakic 2015). Sites include homesteads, plantations, logging settlements, fur trade posts, and multiple eras and kinds of indigenous habitation; these sites also represent numerous identities including Native Alaskan and American peoples, freed, marooned, and enslaved African Americans, Chinese immigrant laborers, and Russian, British, Spanish, and American colonizers (MacCord 1973; Sappington 1991; Wilkie 1996; Crowell 1997; Silliman 2004; Martindale and Jurakic 2006; Blume 2010; Beaudoin 2013; Bagley et al. 2015; Sunseri 2015; Eichner 2017; Lightfoot and Gonzalez 2018; Wilkie 2021). The breadth of site types, ethnicities, races, and time periods, reflect the ways in which MMGAs serve as a unique material reflection of the nuanced cultural interactions that occur throughout the American frontier. Positively identifying MMGAs when they are present in sites can be extremely challenging because the physical properties of glass allow it to break conchoidally[31] during natural taphonomic processes, which can obfuscate if such breaks were intentionally made by a human to improve the shards use as a tool (Clark 1981; Blume 2010; Martindale and Jurakic 2015). Some of the key traits used to identify MMGAs include site or

[31] Conchoidal fracture patterns are 'shell-like' in that they emanate from the point of impact in a wave like pattern that is similar to the rippled surface and shape of a clam (or any bivalve mollusk) shell. These fracture patterns are specific to glassy or crystalline materials due to their molecular structure (Whittaker 1994).

feature contextualization, identifiable formal tool types, overall morphology, and the shape and nature of wear along the hypothesized utilized edge. Figure 3.7 is a flowchart I developed to help identify and classify potential MMGAs throughout my reanalysis based on the key traits identified by experts in MMGA analysis (Martindale and Jurakic 2015).

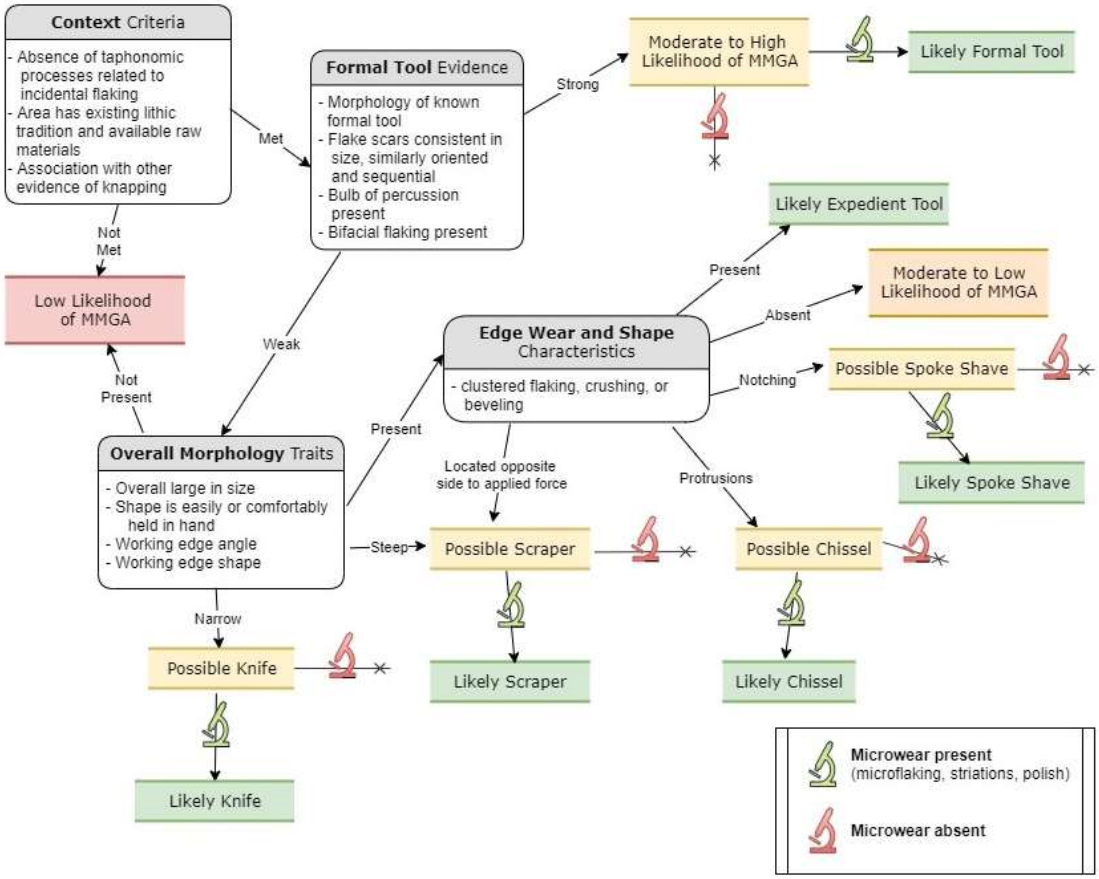


Figure 3.7 Flowchart developed to more easily identify and classify potential Mass Manufactured Glass Artifacts (MMGAs). Based on key traits as defined by Martindale and Jurakic (2015).

I first investigated an entry in the Burke Catalog that described "worked glass" hoping that this was indicative of some kind of modification. Two pieces of a colorless glass mug showed no sign of modification or even chipping along the edge. However, upon investigating the entry immediately following this mug, I found something more promising. The glass fragment (Catalog No. 2008/395) appears to be from the front of a flask based on the embossed markings visible (Figure 3.8): "'UNION / AF (in a football-shaped oval) / MADE' with 'TRADE' to the left (up) and 'MARK' to the right (down)" (Lockhart et al. 2019:195). This maker's mark is diagnostic of liquor flasks manufactured by the American Flint Glass Workers Union ca. 1885 and ca. 1895 through ca. 1905 (Lockhart et al. 2019).

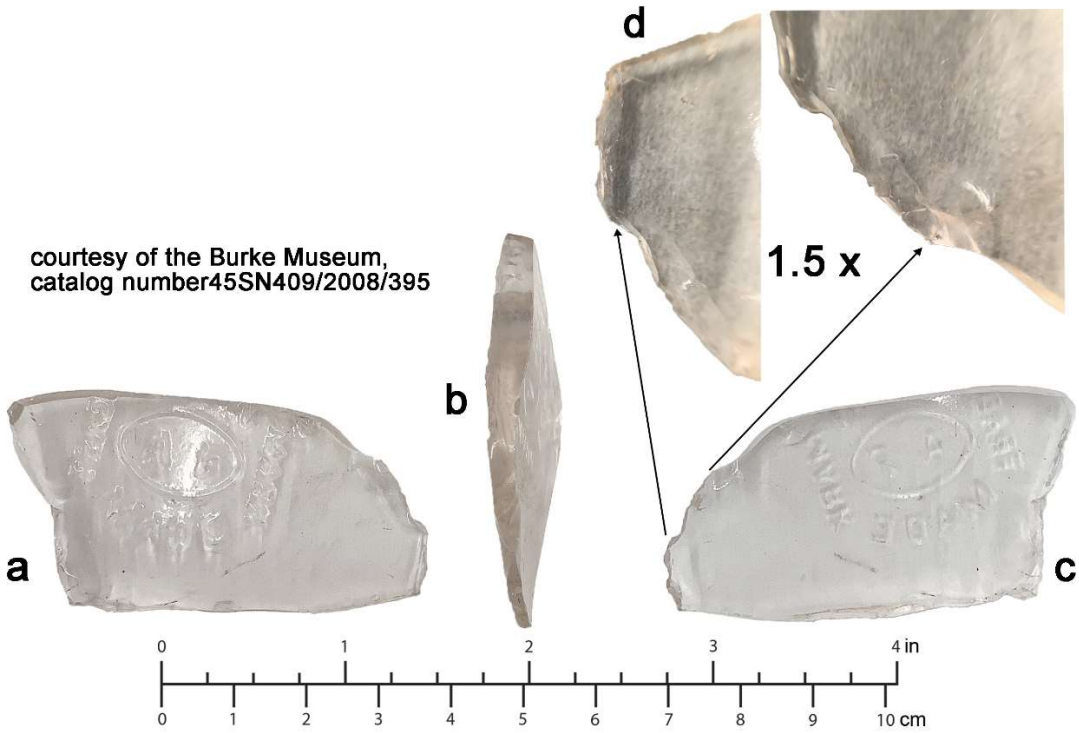


Figure 3.8 Likely expedient tool or utilized fragment of a likely flask manufactured by the 'American Flint Glass Union: a) exterior of vessel body fragment with embossed text; b) transverse profile of fragment; c) interior of vessel body fragment; d) bifacial conchoidal fractures exhibited on thinnest edge of fragment, suggesting intentional modification or expedient use.

Following the identification criteria set forth by Martindale and Jurakic (2015), this fragment is likely an expedient tool. The fragment has bifacial flaking on one edge and exhibits multiple conchoidal fractures along each margin (Figure 3.8d). This suggests a higher likelihood of intentional modification than natural edge chipping that we would expect to be associated with the disposal of the bottle or this fragment. The modification occurs at the thinnest portion of the fragment, taking advantage of the natural thinning of the bottle body towards the shoulder portion of the vessel as is often seen in mold blown manufacturing. The overall shape of the fragment is also effective for holding the rectangular side of the fragment and using the modified sloped side as a potential cutting edge. Based on these criteria, I am comfortable saying that this artifact represents a likely expedient tool, but to definitively identify it as such, an expert would need to examine the fragment for microscopic use wear (Martindale and Jurakic 2006; 2015).

A second colorless glass fragment (Catalog No. 2008/1239.06) exhibits a different kind of edge modification, which suggests that this could have been scraped against another surface repeatedly. The edge modification on this fragment is limited to one side of the glass fragment opposite the direction of applied force, which combined with the relatively small size is evocative of a recognized tool type called a thumb scraper, which is used to shave wood or bone (Over 1937; Shaeffer 1961; Clark 1981; Martindale and Jurakic 2015). This artifact also has some evidence of

microwear visible with a macro lens (Figure 3.9), but as previously stated to definitively identify this artifact as a thumb scraper, expert microscopic use wear analysis should be conducted.

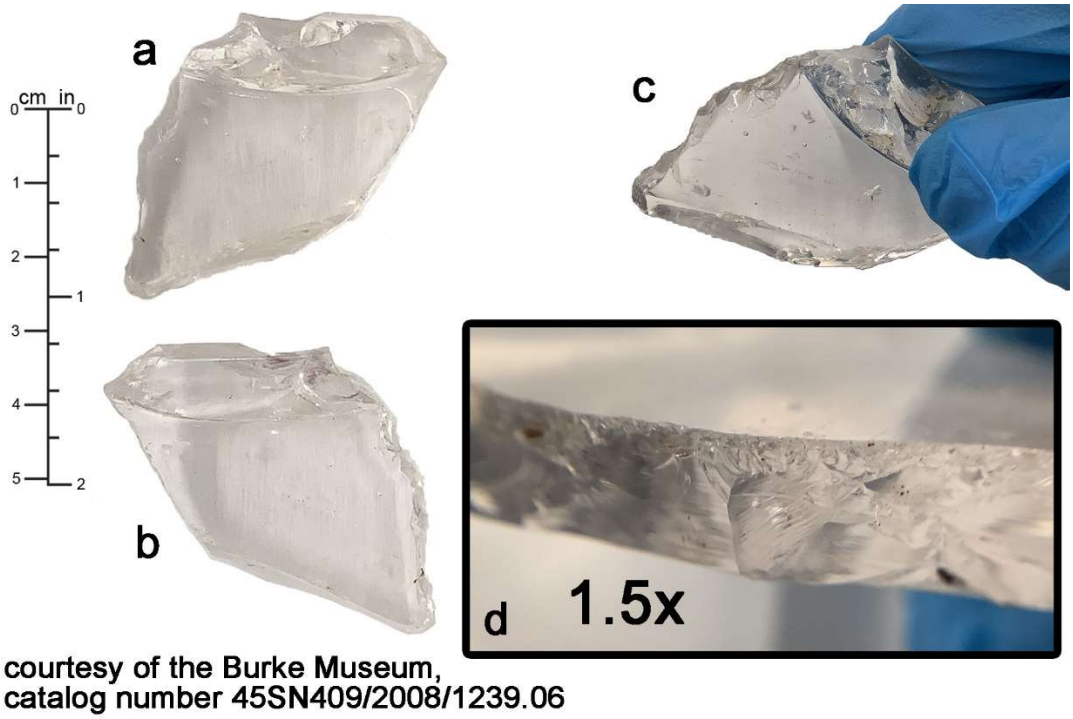


Figure 3.9 Likely small scraper made from mass-manufactured vessel glass; a) side a – no obvious directional microwear or flaking); b) side b – conchoidal fracture pattern along margin that is consistent with use of fragment as scraper; c) oblique angle on flaked side of scraper showing repeated flake removal and size relative to my thumb for hypothesized use as a thumb-scraper; d) macro image of possible microwear on scraper edge (1.5X magnification).

Now that I have established the potential for two MMGAs in this assemblage, the vital question is how do these artifacts fit into the larger story? The previous section described how *stuləgʷábš* families were adapting traditional lifeways to negotiate capitalist frameworks imposed by American worldviews and policies. This artifact reflects another possible way in which their cultural practices were incorporating the influx of mass manufactured European American materials such as this glass bottle. Regardless of if an indigenous individual purchased or utilized the bottle in its intended function, they may have recognized material similarities to the basalt chert, and obsidian from which they and their ancestors had crafted tools for thousands of years (Hibulb Cultural Center 2023b). Recognizing its utility may have allowed one of these family members to synthesize ancestral knowledge with an immediate need for a cutting or scraping tool and used whatever was handy and then discarded it.[32]

[32] These artifacts are located in a section of the privy deposit that was very disturbed and characteristic of local fill meaning that these artifacts may have been redeposited from the larger area surrounding the home when the privy pit was filled in.

The property on which the site is situated legally passed to European American ownership in 1887 and the privy was not likely dug until after 1890, which suggests that *stuləgʷábš* were not likely residing on or occupying the immediate site area during this time frame. Wilkie (1996) and Eichner (2017) have separately demonstrated that the requisite of specific indigenous connection to sites may be limiting or erroneous for identification of intentional modification of glass in historical contexts. Others have cited gunflint manufacture as a lasting European knapping tradition which does not preclude Europeans or European Americans from knapping or expediently utilizing pieces of manufactured glass (Skertchly 1879; Silliman 2004; Beaudoin 2013; Martindale and Jurakic 2015). Alternatively, these artifacts could be the result of the European Americans who occupied the site observing or learning indigenous tool making or utilization methods at some point and emulating them. The timeframe of European American occupation of this site post-dates the popularity of flint-lock weapons[33] by at least 60 years and I doubt that any of the European American habitants would have encountered examples of flint knapping outside of indigenous interactions.

Scientific collecting of indigenous artifacts and a generalized European American fascination with indigenous lifeways and practices during the 19th century may have led the earliest non-indigenous inhabitants of the site to experiment with imitating knapping techniques on the glass materials that they had at hand. Both of these potential MMGAs were recovered from AU A, which is confirmed to be a mixed redeposition of materials, likely from the surface surrounding the privy in mid to late 1930s. This depositional context may also indicate that later European American occupants of the site were exploring the utilization of glass in various ways and Chapter 6 will revisit this idea. Despite the disturbed context and tenuous connection to specific indigenous individuals or families who were clearly present well after initial "contact" with European Americans at *sq̓ʷúʔalqʷúʔ* or the transferred "ownership" of the land where the archaeological site would later form, these MMGAs highlight the fluidity and continuity of cultural interactions in frontier spaces that traditional models of "contact" obscure. Regardless of the specific cultural or ethnic identity of the individuals modifying these mass-manufactured materials that are typically associated with European Americans, by interrogating common archaeological assumptions, artifacts like this can be used to reinfuse multivocal narratives into interpretation of the past.

[33] All of the munitions found in the assemblage exhibit percussion ignition technology (see Appendix A).

The Business of Building

The patent for the land immediately south of the confluence was issued to Lewis H. Smith in 1887 (Figure 3.4), marking the first legal ownership of the Teagar/Weimer site land by a non-indigenous individual (Smith 1887). One account suggests that Smith did build a cabin on his land under the pretense of homesteading but deeded his land to another, likely some time before Washington Territory was admitted into the union as the 42nd state in November 1889 (Interstate Publishing Co. 1906). The completion of the Northern Pacific Railroad line through Stevens Pass made the formation of the state economically viable by efficiently connecting both the east and west sides of the state to larger marine and overland commercial networks (Ficken 2002). Shortly following statehood, G. Morris Haller[34] obtained the title to Smith's original land patent and set about establishing Haller City. As one of the founding members of the Seattle, Lake Shore, and Eastern Railroad (SLSER), he anticipated that the northern extension of the rail line would bring a significant economic boon to the area. Although G. Morris died from accidental drowning just months before the city was officially established, his property interests passed to three other individuals, including his bother Theodore, who formally platted Haller City in April 1890 (Interstate Publishing Co. 1906:360; Whitfield 1926:526). Keeping with capitalist practices of open market competition, a contractor for the SLSER, J. W. McCleod, knew of Haller's plans and platted the town of Arlington just one month prior and only a quarter mile to the south (Whitfield 1926:528).

Early narratives of the area discuss how the viability of these towns was tied completely to the business prospects provided by the railroad. When the first freight train arrived in Arlington in July 1890 the topography of the area quickly determined which of the competing cities was most likely to reap the majority of the railroad associated economic benefits. Haller city's position at the river's edge meant that there was a high risk of flooding and the meandering river created unpredictable and uneven topography (Figure 3.10). Meanwhile Arlington was set back far enough in the flood plain to boast plenty of open flat space well suited to host the rail depot and train yard (Oakley 2008). In 1892 SLSER was absorbed by the Northern Pacific Railway as the company vied for control of rail traffic in the Pacific Northwest (MacIntosh 1999). The capitalist competition among railroad tycoons was mirrored at the settlement level, as narratives of dueling towns struggling for economic viability became prevalent (Interstate Publishing Co. 1906; Whitfield 1926)

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[34] Born George Morris Haller, however, several accounts including those cited above, list his name as Maurice. He and his brother Theodore Haller were sons of Granville O. Haller, a noted military officer who fought for the U.S. Army in the Seminole War, Mexican American War, Yakama War, and the Union Army during the American Civil War (Haller 1863). The family's connections to multiple imperial campaigns of the United States, which continually pressured tribes to sign treaties and forced them to vacate their ancestral lands, further demonstrates the interwoven contexts of European American colonization throughout the U.S.

The platting of Haller City and Arlington established individual city blocks along a grid of streets (Figure 3.11) that allowed for the formal structure of homes and businesses to be placed within the context of a regimented community (Findlay 2016). As each town worked to establish industries that signaled superiority and modern convenience, existing community leaders and newly arriving settlers clamored to establish post offices, newspaper offices, shingle mills, butcher shops, pharmacies, hardware stores, hotels, churches, and schools (Interstate Publishing Co. 1906; Whitfield 1926). The individualization of land ownership continued as settlers wishing to contribute to the urbanizing space purchased individual lots within city blocks to build their homes and businesses. It is at this individualized and privatized level of ownership that the modern understanding of the archaeological site and assemblage as described in Chapfter 2 came into existence. Located between Cox and Haller Avenues, block 40 consisted of 32 lots separated by an alleyway. Lots 9 and 10 were located centrally on the south side of Cox Avenue, where the Teagar/Weimer site would soon begin formation.

Figure 3.10 Comparison of local topography for railroad infrastructure ca. 1893

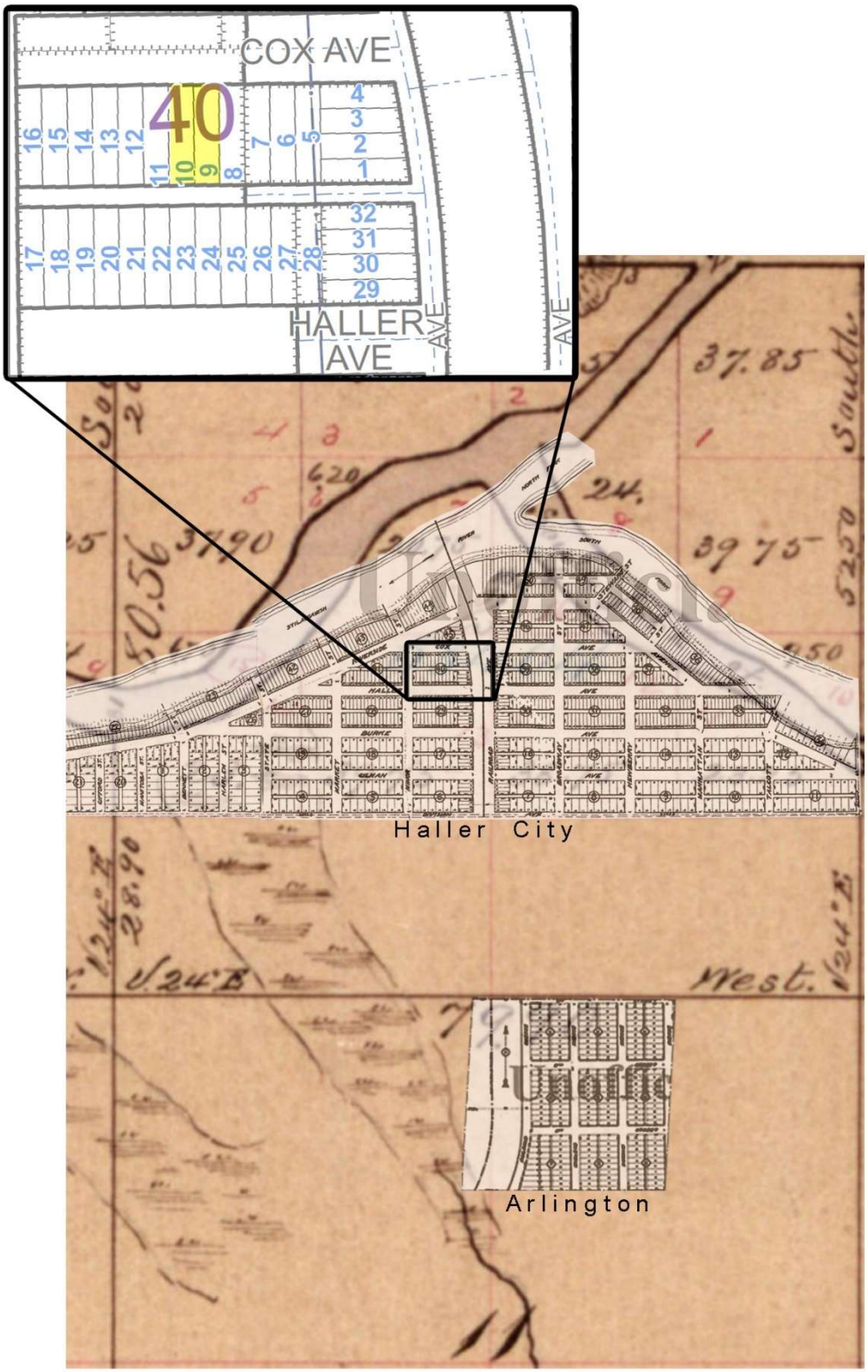

Figure 3.11 GLO Plat (1875) of Section 2 and the north half of Section 11 of Township 31 North, Range 5 East with the townships of Haller City and Arlington as platted in 1889 superimposed. The inset shows the lots as defined in Block 40 of Haller City with the Teagar/Weimer site located in lots 9 and 10 (highlighted in yellow). The dramatic shifting of the river's path over the previous decade can also be observed in these map overlays.

Using the artifacts and historical documentation presented in this chapter, I have explored the theme of industrial capitalism as the primary mechanism for colonizer encroachment to the Pacific Northwest. Starting with the 1895 penny, I explored the commodification of lands and the shift in ideology that this represented for the Coast Salish peoples. The commodification of land within the industrial capitalist framework hinged on clear delineation of individual or private property, reflected in objects from the assemblage such as a fencing staple, wire, and a doorknob. In the face of the immense social and economic pressure to relinquish their lands and assimilate to government expectations of reservation life, prominent families among the *stuləgʷábš* found ways to hybridize ancestral cultural practices within the industrial capitalist frameworks forced upon them. Using their ancestral lands and knowledge, these families were able to not only survive the intense influx of colonizers and their ideology, but to benefit and thrive from the commerce and mass-manufactured items that European Americans brought to the Stillaguamish Valley. While there is no specific evidence that the "Gardner," "Plidey," or "Dorsey" families specifically interacted with the objects used throughout this chapter's narrative, the biographical approach provides the flexibility to (re)infuse indigenous stories into the academic historical record. The interpretive framework employed here provides a model of how objects that are typically only associated with colonizers may be critically analyzed to peel back multiple layers of meaning and better understand the nuance and multivocality of human experiences in the past. The following chapters adhere to more traditional archaeological narratives in many ways, but the continued interrogation of objects' assumed cultural associations will enhance the depth of the stories.

Chapter 4: Teagar Family Values

The previous chapter discussed the framework of industrial capitalism within the context of landscapes and indigenous identity. This chapter will explore how members of the colonizing culture's social values reflected industrial capitalism. As an economic system, industrial capitalism is purportedly based on the false assumption that workers as individuals own their own labor and have the independence to negotiate with employers regarding the compensation for that labor (Matthews 2012:18–19). This not only ignores larger structural frameworks of power and inequality, but also fragments community investment since, by this assumption, each laborer fails or succeeds based on their own merits and choice (ibid.:117). The deterioration of community focus surrounded industrial capitalism's shift from individual specialized work (e.g., material craftsmanship or community healers and midwives) to standardized labor, which was often represented as repetitive factory work where products were mass-manufactured, and workers functioned as interchangeable parts of much larger industries such as the clothing or pharmaceutical industries at large (Shackel 2009). From this conceptualization of laborers as cogs in the American industrial capitalist machine, there arose a new social and economic hierarchy in the workforce. With the depersonalization of labor in this mechanized metaphor there is still a necessity for maintenance and repair to the industrial capitalist machine. Foremen and other middle-class managerial laborers were required to provide every-day maintenance of efficiency and productivity (Matthews 2012). This subdivision of laborers based on their power to affect change within the industrial capitalist structures, led to the clear definition of a middle-class that was neither factory owner, nor factory laborer, but in between.

The Teagar family, who occupied the site from circa 1890 through 1896, were solidly members of this recently established middle-class. To provide some regional context and nuance to this conversation of industrial capitalism during this era, it is useful to note that most laborers in Washington State (who did not benefit from imperial capitalist systems in the same way the Teagar family would have) resisted and challenged the ideologies presented here. Surrounding the time of the Teagar's occupation of the site, Washington was well-known as a locus for labor radicalism and socialist ideology that aggressively pushed back against the frequently exploitive paradigms of industrial capitalism (Gregory 2017). While this is not necessarily germane to the narrative scope of this chapter, it is important to challenge the assumption that laborers went quietly into these new roles created by the managerial middle-class represented by the Teagar Family.

Calvin Teagar was born in the town of Towlsburg, Kentucky, in 1854. Myrtelle[35] Lovell was born in Rockingham, Vermont, in 1865. By the time she was 16 years old her family had moved to Emmetsburg, Iowa. She met Calvin while he was studying medicine at the State University of Iowa (Iowa State University 1883; L. Kraetz 2021, pers. comm.). Calvin completed only one year of medical school and he and Myrtelle were married in March 1884 and moved to the town of Home in Marshall County, Kansas, by March 1885 (Kansas State Census 1885). Their first child, Roy Edwin Teagar, was born in October of that same year (U.S. Selective Service 1918a). Their second child, Bertram S. Teagar, was born two years later (U.S. Census 1900a). (See Appendix C for a more complete Teagar family tree.) Dr. Teagar ran a pharmacy in the city of Home, and Myrtelle worked as a teacher while also raising her two sons (Kansas State Census 1885; *Marshall County News* 1886:1). While we now consider working mothers to be commonplace, at the time, teachers especially were expected to be single. It is likely that because there were few educated women able to take on teaching in this rural area, the typically strict social expectations were relaxed in favor of the childcare and skills provided for the community.

The Teagar family purportedly arrived in Haller City in October 1890 and began operating their drug store near the river's edge (*Arlington Times* 1923). While the title for lots did not legally pass to the Teagar family until 30 November 1892, some time prior to 1891 a large wood frame one-story building and a privy were constructed on the property and the Teagars moved in (Sanborn Map Company 1905; *Arlington Times* 1926a; White et al. 2008). This structure served as the family home, a drug store, and the earliest post office for Haller City (Stillaguamish Valley Genealogical Society 2003). This single-story wood frame structure is documented in the earliest detailed map of the area, dated 1905 and produced by the Sanborn Fire Insurance Company (Figure 4.1).[36] Facing Cox Avenue and the river beyond, the building had a false front simulating a second story and a sign atop the façade that read "Dr. C. Teagar's Drug Store" (see Figure 4.4)

[35] Her full given name is Myrtella Clara Lovell, but many variations of her first and middle names are documented throughout her lifetime. It appears that when in her parents' household Myrtella was more common and by the early 20th century Myrtelle and Myrtle are more common. For the sake of clarity, I will only use Myrtelle for the remainder of this thesis. This version preserves both "Myrtella" as given by her parents and "Myrtle" listed in all Arlington City directories, and also appears to be the spelling she and her family seemed to use most (Iowa Marriage Records 1884; Polk 1901-1923; *Arlington Times* 1923).

[36] It is essential to note here that the Sanborn maps number the lots on this block in the reverse order of the numbering utilized by the Snohomish County Assessor. This means that lots 9 and 10, which comprise the Teagar/Weimer site based on the Assessor data appear as lots 7 and 8 on the Sanborn maps.

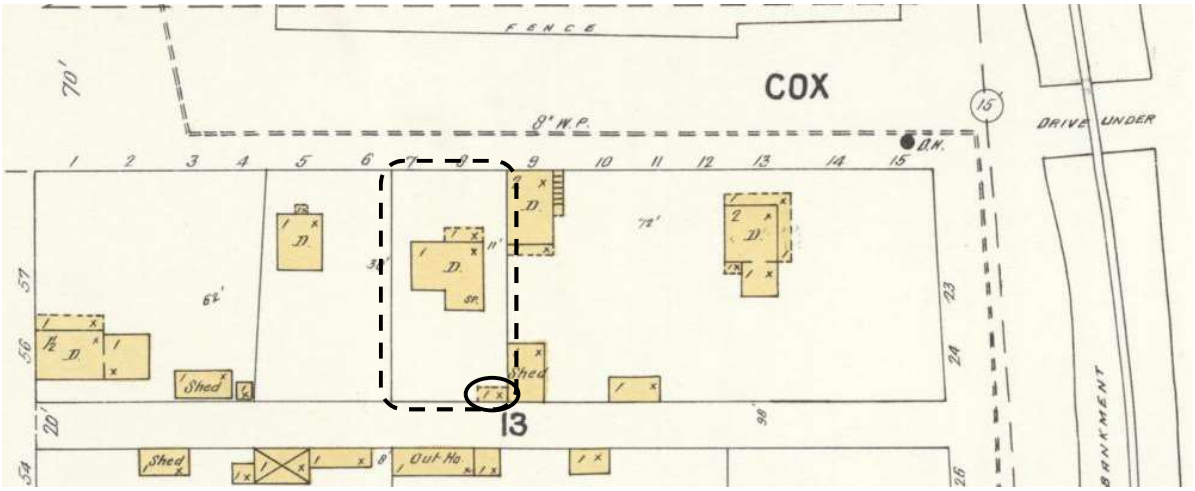

Figure 4.1 Sanborn Fire Insurance map of the site ca. 1905 showing the Teagar/Weimer site boundary (bold dashed outline), the primary dwelling, and the privy (circled).

While the majority of the family's busy day-to-day experiences likely took place in this primary dwelling structure, all of the archaeological materials analyzed in this thesis are from an associated privy located in the southeast corner of the lot (circled in Figure 4.1). Rather than an intentionally crafted narrative that might have been presented in the home, diaries, or newspaper articles about the family, privies provide archaeologists with a uniquely unfiltered snapshot of what daily life entailed. A small frame structure covered a privy vault that when initially dug around 1890, had a cedar plank box crib (Figure 4.2) installed to reinforce the walls of the hole and help support the weight of the structure on the surface (White et al. 2008). The preservation of the crib for over 100 years is a testament to the durability and utility of Western Red Cedar (*Thuja plicata*). Cedar continues to be highly valued and utilized by the *stuləgʷábš* and every other Coast Salish tribe and served as a strong motivation for the logging industry, which exploited hardwood resources in the Pacific Northwest (Bruseth 1910; Whitfield 1926; Stewart 1984; Limerick et al. 1991; Bierwert 1999; Edmonds 2010; Hibulb Cultural Center 2011b; Stillaguamish Tribe of Indians 2021). Cedar oil also has antimicrobial properties (Hudson et al. 2011), which in conjunction with the high moisture content of the surrounding soil matrix provided a uniquely excellent preservation environment - especially for other organic materials such as faunal materials - in the otherwise very acidic soils of the Pacific Northwest.

The assemblage materials most closely associated with the remaining privy crib structure, comprise what White et al. (2008) identified as AU C, which the authors associated with the era of the Teagar family's habitation at the site. My reanalysis of artifacts did not comprehensively gather data to calculate specific occupation dates, but around 40% of the diagnostic artifacts that I examined

from AU C may predate the turn of the 20th century.[37] I have selected several objects from AU C that may specifically reflect the Teagar family's interaction with industrial capitalism as introduced above. Myrtelle's role as a teacher in the community and the family's pharmaceutical practice provide several opportunities to explore individualism, commercial competition, specialization of labor practices, and the development of a distinctive American middle class as reflections of industrial capitalism.

Figure 4.2 Milled cedar wood in base of privy showing as-built dimensions of the privy vault.

Teaching Tools

A similar item to the modified manufactured glass artifacts from the previous chapter, is a flake of slate with a straight worked edge that appears almost serrated (Figure 4.3) (Catalog No. 2008/746). My initial focus was on the edge modification and how this object might have been of a similar multi-cultural context. While it could very well be hand-modified stone intended for use as a cutting or scraping implement, the uniform nature of the serration led me to believe it was mechanically modified. As previously explored, 'worked stone' has held an important role in European history as well with the gun flint and slate industries having significant cultural and

[37] The earliest production or manufacture date (TPQ) for these diagnostic objects predates the turn of the 20th century, however there is nothing precluding these objects from being manufactured in the early 1900s (their TAQs are inconclusive or typically fall within the first decade of the 1900s). See Appendix A for details.

economic influence during the 18th and 19th centuries both in the (Skertchly 1879; Eryl Wyn Rowlands 2002). To understand the possible use-life of this slate fragment, I explore two possible narratives: use of the slate in an educational context or as a roofing material.

courtesy of the Burke Museum of Natural History and Culture, catalog number 45SN409/2008/746

Figure 4.3 Transverse, top, and bottom views of slate fragment with uniformly serrated edge.

Following the pattern established during the family's time in Kansas, Myrtelle Teagar served as Haller City's first schoolteacher.[38] In the only historical photograph of the Teagar/Weimer site dated circa 1891, the first class of students she taught are assembled in front of the family business and home (Figure 4.4). We see two women on the left, one of which must by Myrtelle, and what must be Calvin on the far right. Among the pupils are likely the Teagar boys: Roy, age 6, and Bert, age 3. Accounts vary, but class was likely held in the second-floor storeroom of the Brounty family's Butcher Shop located immediately east of the site (Stillaguamish Valley Genealogical Society 2003; Loren Kraetz 2023, pers. comm.).[39]

[38] A schoolhouse had been operating approximately a mile to the south since 1885, but after the platting of the towns it was much more convenient for students to be closer to town (Verd 1936)

[39] Other students pictured included C.H. Tracy, Ted Brounty (who likely lived next door at his father's Butcher Shop), and Elmer and Leroy Mose (Stillaguamish Valley Genealogical Society 2003).

Figure 4.4 Photograph of the Teagar Drugstore and Home circa 1891 at least 20 students assembled in front as well as Myrtelle (presumably the woman wearing the pinafore on the left) and Dr. Calvin Teagar (with the black jacket and mustache on the right).

Surrounding the turn of the 19th century, writing slates were not as ubiquitous as they had been in previous centuries for individual student use. Paper and pencil had become more affordable after the Civil War and were considered more hygienic (Dylan Rowlands 2002; Bayles and MacDonald 2013). However, in lieu of a formal classroom space, it is highly conceivable that a writing slate was used either by Myrtelle to demonstrate writing or arithmetic to students or for students to practice without the concern of wasting paper. While the railroad ensured that supplies were likely to be reliably available, the cost of paper, which had a very limited use-life compared to a reusable slate, may have been economically unfeasible for many if not most of the students' families in this rural community. Larger instructional 'blackboards' made by painting black liquid slating onto fabric or wood had been in use since the early 1800s in one form or another and were being commercially manufactured by 1840 (Sears, Roebuck and Company 1896; Krause 2000; Buzbee 2014). There is no record that Myrtelle had any financial support from the community to furnish her informal school and large blackboards were significantly more expensive than writing slates (Sears, Roebuck and Company 1896). It is possible that the Teagars or other members of the community may

have purchased black slating paint and made a blackboard for her, which would have been more affordable (Sears, Roebuck and Company 1896; Buzbee 2014). However, the community was more likely investing in the construction of the new two-room schoolhouse, located on the corner of Haller Ave. and Broadway Street and completed in 1893 (McClellan 1984; *Arlington Times* 1986; Stillaguamish Valley Genealogical Society 2003).

It is impossible to say with certainty that this slate was associated with early education in Haller City,[40] but it is worth noting how such education changed the cultural landscape of the area. As the younger generation of both European American and indigenous students in Haller City attended school, they were taught not only to read and write but also the cultural expectations of American society.[41] Education during this era emphasized rote memorization and repetitive recitation as best pedagogical practice (Bayles and MacDonald 2013). This teaching method included the hidden curriculum of repetitive labor, which prepared children – most of whom would not attend school past age 12 – for their future role as a laborer in the industrial capitalist system. Possessing literal educational literacy as well as implicit literacy of the expectations and values of industrial capitalism, benefited the new generation's ability to navigate the social and economic systems of America.[42] It also ensured that those in comfortable middle-class and above social status, like Myrtelle and her family, weren't as likely to have as much direct competition for social and economic managerial status (Hibulb Cultural Center 2011a; Bayles and MacDonald 2013).

It is very likely that this slate fragment is a piece of a roofing tile. Well after the Teagars moved to another part of town, the 1909 Sanborn Fire Insurance Map indicates that the privy roof was changed from wood shingles to a tin or slate roof sometime between 1905 and 1909 (Sanborn Map Company 1909). Slate would have been a rather costly material to select for the re-roofing of a privy, particularly in comparison to the original wood shingles since there were at least three shingle mills in the township of Arlington at the time (Anderson Map Company 1910). I would also expect to see more slate fragments in the assemblage associated with the other remains of the demolished privy structure in stratum II if the privy roof had been slate-tiled, but this is the only instance of slate in the

[40] The presence of several ink bottles (2006/40; 2008/69; 2008/831) and graphite (2008/733) in the assemblage also speaks to the generalized emphasis on writing as a particularly valued form of literacy during this era.
[41] Anecdotally, the earliest schools in the area in 1886 were predominately attended by indigenous students and the ongoing presence and community involvement of several *stuləgʷábš* families strongly suggests that at least some of the students in Mrs. Teagar's class were indigenous (Verd 1935).
[42] Literacy came at a cost to some. On the nearby Tulalip Reservation around this same time, children were taken from their families and forcibly taught how to assimilate into American culture (Hibulb Cultural Center 2011a; Tulalip Tribes 2016). While there is no written documentation that indigenous students in Haller City experienced the same kind of regimented and forceful assimilation, the expectations and methods of schooling certainly intended the same outcome. Please consider learning more about the harmful legacy of Indigenous Boarding Schools in the United States by visiting the National Native American Boarding School Healing Coalition's website at https://boardingschoolhealing.org

entire assemblage. Alternatively, perhaps the later residents of the site could not afford to re-roof the dwelling with slate, and they elected to utilize the more durable and aesthetic material for the privy roof as a financial compromise and a status marker. The principle of Occam's razor would encourage the interpretation of this slate fragment as roofing material.[43] However, to quote a conversation between two paragons of archaeological storytelling - Adrian Praetzellis and James Deetz – "I'd rather be wrong in an interesting [and respectful][44] way, than right and boring" (Praetzellis 1998:2). I have acknowledged in previous chapters that all archaeological interpretation is biased by the methods, techniques, and backgrounds from which we draw meaning and connections. While it is safer to assume that this is a fragment of roofing slate, there is little potential for understanding past ideologies or identities within the 'safe' interpretation.

Bottling Capitalist Ideology

The drug store in Haller City represented the only formal medical care available at The Forks besides the skilled local midwife, Rosamund Spoerhase, who arrived the same year (Interstate Publishing Co. 1906; Whitfield 1926; Loren Kraetz 2021 pers. comm.). The combination of the rural social, economic, and geographic landscape also likely emphasized the capitalist ideologies surrounding independence and self-reliance. Rather than making the trip into town each time a malady arose, residents of the Stillaguamish Valley likely would have used home remedies, premade multipurpose medicines, or "cure-alls" as a way to manage symptoms; these kinds of treatments will be discussed shortly. In addition to providing pharmaceutical compounds, Calvin served as doctor and dentist as needed, and since Myrtelle was also a licensed pharmacist, she could help with all aspects of the store (*Arlington Times* 1923). Their entrepreneurial homelife earned great respect from the community and reflected the frontier values of enterprising pioneers and shrewd business managers, intent on building a city from the ground up. Unsurprisingly, a large number of pharmaceutical and medicinal bottles are associated with the earliest deposits in the privy (White et al. 2008).[45]

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[43] Other commonplace uses for slate of this kind included flooring or landscaping, which would also have been socially representative of middle-class status.

[44] I add this caveat due to my grounding in feminist and post-modernism to recognize that playing in the interpretive conceptual sandbox of the past is a reflection of the immense privilege I possess. Being wrong provides great opportunities for learning, but I am also ethically bound to ensure that I consider and avoid causing harm through incorrect interpretation of the past. In the instance provided here I do not foresee dramatic harm from my somewhat tenuous argument for this fragment being associated with a writing slate, but I am very conscious of the precedent this sets and have therefore included this meta-narrative regarding my intention.

[45] The MNI for medicinal bottles in AU C is 23, which includes "Stomach, Respiratory, and Other Medicinal" vessel forms as defined by White et al. (2008:24). This accounts for over 44% of all medicinal bottles observed all analytical units combined and 32% of all glass vessel types represented in AU C.

Lines on the Dram

Among these medicinal bottles, the majority are compounding bottles that would have been filled with ingredients specifically combined based on the patient's complaints (Higby and Stroud 2000). The mass manufacture of glass bottles utilizing mold blowing, semi-automatic, and later fully automatic manufacturing techniques allowed for uniform bottle shape and volume (Lindsey 2023a). The reliable volumes provided by bottle molds were of particular use for pharmacists to be able to select the appropriate size bottle depending on dosage. Two examples of these bottles from the assemblage also demonstrate another benefit of bottle molds, they have embossed text labeling the volume (Catalog Nos. 2008/1306 and 2008/1310). The first bottle is labeled "ʒ iv" (four ounces), and the second "ʒ iii" (three ounces) (Figure 4.5). ʒ is the pharmaceutical symbol for ounce, which is derived from the symbol for dram ʒ, approximately equivalent to an eighth of an ounce, and used by apothecaries since at least the 17th century (Barrough 1624; Higby and Stroud 2000; NIST 2011). Both of these bottles contain white powder suspended in solution. Chemical tests conducted in 2008 revealed that the four-ounce bottle contained phosphoric acid, which was used in soft drinks such as colas, as a preservative and anti-nausea medication, while the three-ounce bottle contained a mixture of chemicals indicative of use as soap, shampoo, or a skin moisturizer (Harthshorne 1883; Sonnedecker et al. 2002; White et al. 2008).

Figure 4.5 Pharmaceutical bottles with embossed volumetric information: a) four-ounce bottle reads "ʒ iv" b) three-ounce bottle reads "ʒ iii" c) bottle body fragment with graduation lines and Arabic numerals embossed on exterior.

White et al. (2008) eloquently discuss the social implications of these medicines and the Teagars community function as druggists, but what I found particularly interesting was these bottles connection to the larger social frameworks of industrialization and capitalism. Similar to the delineation of space using meridians, townships, and ranges, these bottles reflect a cultural necessity for predictable order and uniformity. Another paneled bottle fragment (Catalog No. 2008/326) takes this delineation one step further, with embossed capacity graduation markings for measurement or dosage (Figure 4.5c).[46] We can also see the emerging frameworks of modern scientific medicine reflected in the form and function of these vessels. Other ideologies surrounding the rise of scientific perceptions of health will be explored in more detail in the following chapter. These gradations extend beyond the context of pharmacological necessity for uniform volume and allow the patient to visualize a more exact dosage than colloquial amounts such as "table spoon." With standardization of bottle size and amount, consumers also were able to visualize that what they paid for was commensurate with the amount of product they received for their money (Mullins 2004). Through standardization of bottle size, the use and sale of these compounds could fit into existing structures of measurement that did not require as much time or attention as weighing ingredients or pouring liquids into a measuring glass before pouring them into the bottle (Higby and Stroud 2000). This increased efficiency and convenience, even if only perceived by druggists or customers, likely improved the perceived profit or value as well. These outcomes of mass-manufacture reflected an industrial-capitalist-driven shift away from highly specialized training in pharmacology or other kinds of medicinal knowledge through standardization and simplification. While this made certain products more affordable or accessible, it also potentially resulted in the devaluation and loss of knowledge among certain community members (see my discussion of scientific mothering in Chapter 5 and Wilkie 2003 for the later impacts of this shift in the contexts of maternal knowledge and midwifery).

Patenting Far More than Land

Another parallel reflecting capitalism is reflected in the use of patents seen in the assemblage. The phenomenon of what came to be called 'patent medicines,' had begun in the 18th century, but "the golden age of American patent medicines" was primarily during the latter half of the 19th century until the passage of the U.S. Pure Food and Drugs Act in 1906 (Fike 2006; Young 2015; Petty 2019:288). While numerous individuals with varying levels of medical knowledge produced

[46] Recovered from AU A, this fragment is almost certainly part of a 2-ounce bottle from the "Lyric" design line sold by the Illinois Glass company between 1915 and 1930 (Illinois Glass Company 1920:14–15; Lindsey 2023). Although this object postdates the context of this specific narrative, graduated standardized glassware for chemists and subsequently druggists had been developed by the late 19th Century (Espahangizi 2015). Incidentally, the first standardized measuring cups for home cooking use were also conceptualized and popularized in 1896 (Farmer 1896).

these medicines, a large majority were physicians, pharmacists, or practitioners of alternative medicines who genuinely wanted to help people maintain their health. Yet some entrepreneurs were most interested in helping themselves by profiting off of the booming industry and exaggerated the efficacy of their treatments with such lofty claims as curing cancer (Adams 1912; Young 2015; Linn 2022). Although some of these medicinal formulas were patented, most were mainly focused on trademarking their brand, regardless the name 'patent medicine' became commonly used to describe any medicinal products marketed directly to the customer (Petty 2019).

The patent medicine industry is cited as the origin of modern marketing and advertising practices in America. It is estimated that more print advertisements were placed in the late 1800s for patent medicines than any other industry with at least a quarter of all advertisements after 1870 relating to patent medicine (Norris 1990; Anderson 2015). By the 1890s, as targeted advertising began to expand to almost all consumer products, most agents had gotten their start in patent medicine and those clients continued to be their biggest accounts (Wood 1958; Petty 2019). Even though this revolution in advertising allowed brands to reach their customers directly, patent medicine sales through local stores were mutually beneficial to patent medicine companies and druggists and not necessarily beneficial to the consumers themselves. Linn (2022:686) emphasizes that the critical role pharmacists played in communities lent brands specific credibility through pharmacist influence. Meanwhile, local drug stores could sell premade medicines that did not require the time, ingredients, and expertise demanded by pharmaceutical and other medicinal compounding.

These national trends surrounding the patent medicine industry can also be seen in the Teagars' pharmaceutical practice at the small-town level of Haller City. Throughout The Haller City Times there are numerous advertisements for patent medicines. For example, nearly every issue from the year 1895 has advertisements for various patent medicines endorsed by and for sale at "Dr. Teagar's Drug Store" (Stillaguamish Valley Genealogical Society 2023a). Referring back to the photograph taken in 1891, upon close examination we see several signs in the windows of the store advertising various patent medicines including "Best Cough Medicine Piso's Cure for Consumption" and "CASTORIA" (Figure 4.6).

Figure 4.6 Drugstore window detail, inset shows advertisements for "Best Cough Medicine ~ Piso's Cure for Consumption" and "CASTORIA."

Piso's "Cure" for Consumption

The Hazeltine Company was established in 1869 and had opened their factory for mass manufacture of Piso's Cure by 1870. Shortly after, they removed opium from the formula, but the primary ingredients throughout the latter half of the 19th century were cannabis indica, chloroform, and alcohol (Adams 1912; Sullivan 2007). Published testimonials in the early 1890s stated that this cough syrup had cured patients' consumption and was "the best cough medicine," which drove the advertising campaign we see both in the Teagars' window in 1891 and in the *Haller City Times* starting in August 1896 (Figure 4.7) (Sullivan 2007; Antique Cannabis Museum 2018). This archival evidence of Piso's Cure contextualizes the presence of a complete emerald, green glass rectangular paneled bottle found in the assemblage in two pieces, both in AU A between 47 and 83 cmbs (Catalog Nos. 2008/365 & 2008/394). The vessel has embossed product information on three of the four faces of the bottle body, the fourth panel would have had a paper label glued on with dosage instructions for infants, children, and adults (Figure 4.8).

Figure 4.7 Recurring advertisement for Piso's Cure found in The Haller City Times throughout August 1896

Figure 4.8 Views of all embossed sides of Piso bottle from assemblage, cross mend illustrated in front-facing view. Comparative image at right showing paper label placement and content from WorthPoint.

The ailment that this patent medicine claimed to cure, consumption, later came to be known as tuberculosis and is now known to be caused by a bacterial respiratory infection. It wasn't until the 1940s with the development of streptomycin antibiotic that a medically effective treatment for tuberculosis was identified (American Lung Association 2016). The curative properties of Piso's would have suppressed the symptoms of coughing and discomfort but would have done nothing to stop or prevent the transmission of the bacterial infection that was the leading cause of death in the

United States at the turn of the 20th century. Due to this artifact's context in redeposited fill, it is unclear if members of the Teagar family or later occupants of the site consumed the contents of this bottle or if it was discarded due to damage or use in the retail context associated with the Teagar's operation of the drug store. Based on the vessel shape and non-automatic manufacture method, the bottle appears to be consistent with the Teagar occupation period prior to the turn of the 20th century, however the embossed product information as listed may postdate the 1906 Food and Drug Act, which prompted the company to change their branding to the more truthful: "Piso's Cure a Medicine for Coughs, Colds, etc." (Fike 2006; Antique Cannabis Museum 2018). Calvin's obituary does list "lung disease" as his cause of death (*Arlington Times* 1910). He had relocated to San Diego purportedly for his health in the final months of his life and warm dry climates were considered helpful in treating consumption, these concurrent lines of evidence suggest that he had symptoms consistent with tuberculosis and may have died from the disease (ibid; Lawlor and Suzuki 2000). Although the context for this object remains ambiguous, the product it represents is a prime example of the misleading profit-driven aspect of the patent medicine industry and emphasizes the early free-market capitalist framework of 'buyer beware' (Trumbull 2006).

Pitcher and Fletcher's Castoria

In the artifact assemblage, there are two partial bottle fragments from at least one if not two Castoria bottles (Catalog Nos. 2008/713 & 2008/846). Their stratigraphic context was also disturbed, as one fragment (2008/713) was recovered from AU A between 65 and 90 cmbs and the other (2008/846) was recovered during the final clean-up of Unit 1. Based on the embossed product information – specifically the Chas. H. Fletcher facsimile signature on 2008/713 and the plant code stamped on the base fragment, these bottles postdate the Teagar family's occupation of the site. However, the advertisement of the Castoria product by the Teagars and the occurrence of the product in a part of the assemblage associated with later occupants of the household demonstrates a continuity of use throughout the late 19th and early 20th century. The story of the Castoria product demonstrates ideologies and values related to industrial capitalism and will also be discussed in the following chapter in connection with the scientific ideologies of motherhood.

Figure 4.9 Fragments of paneled glass Castoria bottles; according to comparative research by Lockhart et al. (2014) both fragments are diagnostic of post 1910 manufacture.

A United States Patent for an "improved medicine […] to be employed as a cathartic, or substitute for castor-oil" called 'Castoria' was issued to Samuel Pitcher in 1868, who founded a manufacturing company in 1869. The ingredients as listed in the patent include "senna leaves, bicarbonate of soda, essence of wintergreen, extract of taraxacum [dandelion], and sugar," but later on other ingredients such as "pumpkin, anise and worm seed, Rochelle salts, peppermint, and 3 per cent alcohol" were also added (Holcombe 1979: 163-164 in Lockhart et al. 2014). Senna plant derivatives are still used today as a gentle laxative for adults and children - almost exactly the same primary use suggested in Pitcher's patent over 150 years earlier (Pitcher 1868; IBM Watson Health 2023). By 1888, Charles H. Fletcher became president of the Centaur Company (Lockhart et al. 2014) Just months before he formally took control, the patent expired, opening the door for numerous imitation products that traded on the brand recognition of Pitcher's Castoria name (Widman 2012; Lockhart et al. 2014). In the 1890s Fletcher used a facsimile of his signature as a trademark for his company's product and litigated against other Castoria companies with mixed success; it was impossible to regain market exclusivity.

The courts' hesitancy to rule in Fletcher's favor surrounding brand infringement highlights the social and cultural investment in competition through free-market industrial capitalist systems. These values are mirrored in the platting of the towns of Haller City and Arlington. Even though there was a clear conflict of interest as both Haller and McCleod were affiliated with the railroad, the free-market framework dictated that the best man or the best town would win-out based on their own merits. Only a quarter mile apart, the towns of Haller City and Arlington were essentially in the same location, but the topography was just different enough that it made a very significant long-term

difference. Similarly, several judges ruled that the Castoria imitations were different enough that Fletcher had no legal recourse, but similar enough to the original product that Fletcher felt pressure to compete directly with those products and may have felt some genuine concern for consumer confusion.

In 1897, Fletcher launched an advertising campaign in newspapers and pharmacy journals to directly reinforce brand recognition with members of the public and druggists (Lockhart et al. 2014:4–5). In the Haller City Times, this advertisement first appeared in early June 1897 (Figure 4.10). The generic Castoria sign seen in the Teagar Drug Store window may have been a reflection of the brand confusion that began in 1890. Perhaps to capitalize on the recognized name that had functionally become synonymous with any senna laxative solutions, the Teagars used more generalized marketing. The sign may have been brought and repurposed from their previous store in Kansas and predated the popularity of Castoria knockoffs. Alternatively, the Teagar family could have been actively participating in the brand infringement that Fletcher was fighting against by marketing their own sena laxative compounds under the Castoria name. This subversion of national capitalist systems does not seem particularly likely in this case. The Teagars' use of brand name advertising both at their storefront and in local newspapers and potentially even consuming these products themselves suggests that their family business wholeheartedly bought into national marketing and tied their business' success and possibly their own personal health to these large brand name products.

Figure 4.10 Castoria Ad that was first published in The Haller City Times around June 19, 1897

Proprietary Bottle Designs

Mechanization of bottle manufacturing began in the 1880s and increased in popularity and widespread utility through the end of the 19th century (Barnett 1925; Lindsey 2023a). Surrounding the adoption of the semi-automatic bottle manufacture technologies, there was also an increase in patenting specific designs for bottles so that if they were to be mass-produced the designer, or the company they worked for, could have exclusive rights to that specific bottle shape. Numerous glass vessels in the assemblage exhibit embossed patent claims, but the two earliest patent dates are 1896 (2008/1315) and 1897 (Catalog No. 2008/1305). These bottles (Figure 4.11) represent a valuable tool for associating specific dated materials with analytical units to establish their association with specific occupational periods. Both bottles were recovered from the lowest stratum of AU B (Table 4.1) firmly placing the occupation period associated with this analytical unit after 1896. Accounting for the delay between design patenting and bottle manufacture as well as the delay following bottle manufacture, purchase, and eventual discard and deposition, these diagnostic objects support my previous assertion that AU B is associated with the extended family who occupied the site following the Teagar's sale of the property (see Table 2.4 and Appendix C).

Table 4.1 Archaeological context for bottles with earliest embossed design patent dates

Catalog No.	Unit	Depth	Stratum	AU	Patent Year	Description
2008/1305	2	90-120	V	B	1897	Mold blown paneled bottle with diamond shaped base and hand-tooled prescription finish/lip
2008/1315	4	110-130	V	B	1896	Mold blown paneled bottle with rounded square base and hand-tooled flared finish/lip

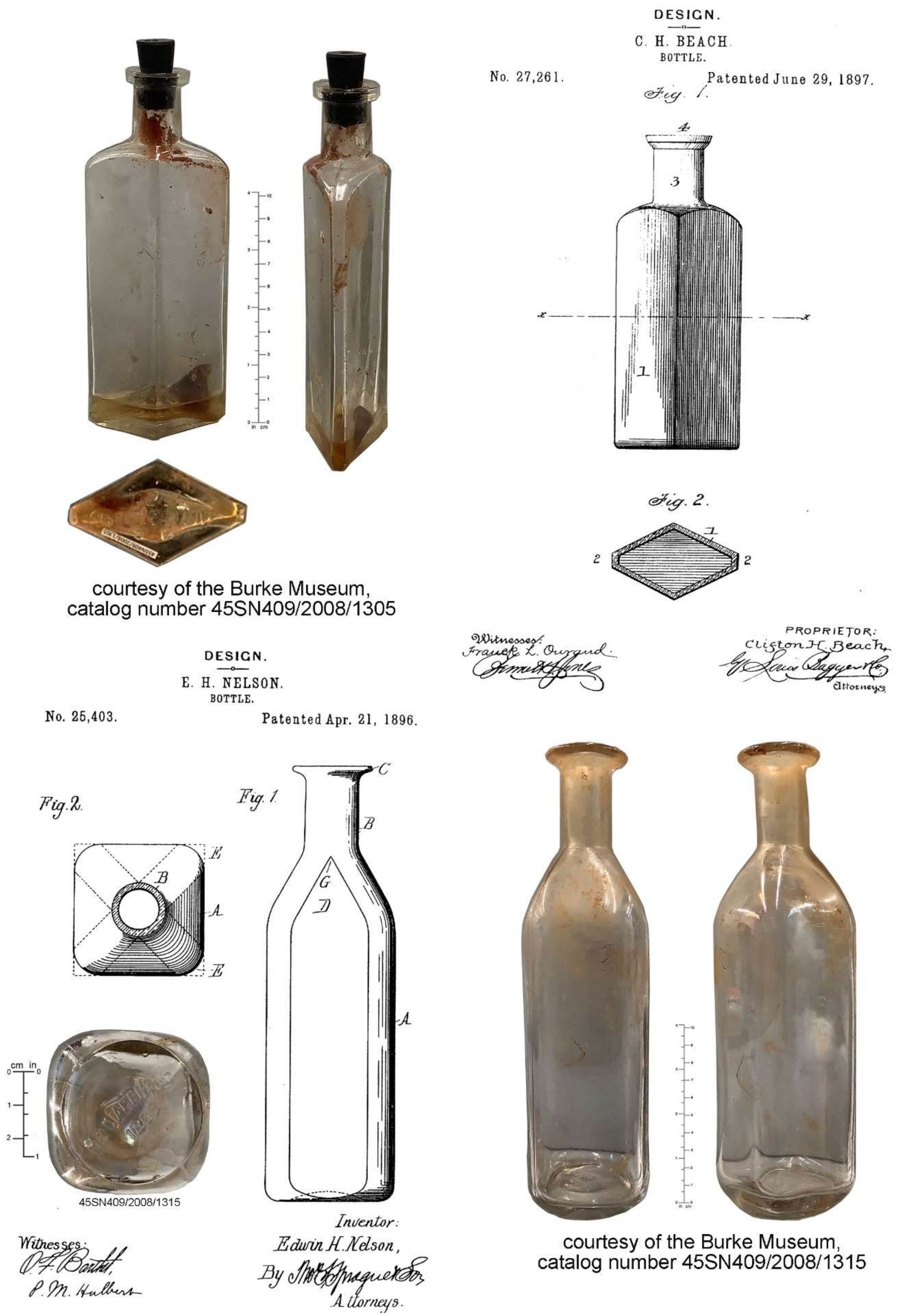
DESIGN.
C. H. BEACH.
BOTTLE.
No. 27,261.
Patented June 29, 1897.
Fig. 1.
Fig. 2.
Witnesses:
Franck L. Ourand
PROPRIETOR:
Cliston H. Beach
Attorneys
courtesy of the Burke Museum,
catalog number 45SN409/2008/1305
DESIGN.
E. H. NELSON.
BOTTLE.
No. 25,403.
Patented Apr. 21, 1896.
Fig. 2.
Fig. 1.
45SN409/2008/1315
Witnesses:
P. M. Hulbert
Inventor:
Edwin H. Nelson,
By
Attorneys.
courtesy of the Burke Museum,
catalog number 45SN409/2008/1315

Figure 4.11 Examples of patented bottle designs from the assemblage with direct comparison to their design patents.

While these bottles were likely not used by the Teagar family, whose occupation is generally associated with AU C, the dates of the design patents themselves do coincide chronologically. Ideologically, both of these patented bottle designs reflect the repeated capitalist framework of individual ownership and competition in commerce (Matthews 2012). The bottle designs as presented and executed do not include any particularly creative or unique elements and without the patent numbers embossed on their bases, I would not have singled them out from any of the other complete glass vessels in the assemblage. It is perhaps because of their generally unremarkable designs that the patentees felt compelled to register the designs with the patent office to ensure that their individualism was acknowledged, and competitors could not profit from these specific designs. As mass-manufacturing rapidly became the norm, the business opportunities presented shifted towards making something unique in a sea of similarity, even if it was only artificially so. These objects also speak to a larger ideology of American exceptionalism (Turner 1894; Lipset 1996; Matthews 2012). Materially, industrial capitalism is about mass production of commodities with enough variation for manufacturers to have free-market competition and for consumers to perceive and perform uniqueness despite their social function within industrial capitalism being reduced to a homogenized abstraction of demand (Trumbull 2006; Matthews 2012).

The physical characteristics of the bottles discussed in this section as well as the products sold within them represent frameworks of industrial capitalism characteristic of the turn of the 20th century. The standardization and delineation of mass-manufactured bottles was a direct result of factory models of production requiring skilled laborers to complete the repetitive task of blowing molten glass into molds and then hand-tooling the bottle finishes in the sweltering environment of glass shops all over the world (Lindsey 2023a). Mass-manufacture also created a paradigm shift in what kinds of labor were considered valuable. Craftsmanship and specialization were not of benefit in the factory system as efficiency, consistency, and quantity eclipsed the social or economic needs for quality of the product (Mullins 2004; Matthews 2012). Standardization of manufacturing techniques were mirrored in the purported standardization of the products that consumers purchased, which can be seen in the volumetric information and gradations embossed on bottles of the era. As early as the 18th century, industrial capitalism emphasized this standardization as a way to ensure the reciprocal relationship between laborers and companies and between companies and their consumers (Leone and Shackel 1987). The values of individualism and self-determination at the core of capitalism purported that labor and consumers could freely choose their line of work and which products to purchase, which in turn was intended to motivate manufacturers to ensure that the products produced were commensurate with the time and labor required to make affordable and reliable products.

This free-market capitalist system is fundamentally based on competition within the labor market and the choice within the consumer market (Mullins 2004; Trumbull 2006). This emphasized the importance of patenting and trademarking ideas, formulas, or designs to ensure that competitors could not infringe on an individual's or a company's legal property. The patent medicines discussed above demonstrate the particular increase in marketing discourse as competing companies vied for the business of consumers with bold claims of being the 'cure for consumption' and attempts to protect brand recognition and consumer loyalty in the face of widely available functionally indistinguishable products such as Castoria laxatives. The competition between companies to gain the trust and respect of consumers is only necessary due to the fictive capitalist framework that consumers have complete autonomy and agency in their consumption choices (Trumbull 2006). In reality, the systems of socio-economic inequality limit the assumed pure agency of consumers, forcing most participants in an industrial capitalist society to make the least bad choice within the limitations of other social structures such as race, class, gender, or nationality. As business owners, Calvin and Myrtelle Teagar's financial and social success in the small community of Haller City was dependent on frameworks reciprocity with their suppliers and consumers. They clearly utilized larger national branding and economic infrastructure to ensure their business' success and maintain their middle-class status in the community.

Arlington City, Inc.

The Teagars sold their property on Cox Avenue sometime between 1895 and 1896 and had formally moved their business to Arlington by 1897, as part of a general exodus of businesses from Haller City to Arlington (Interstate Publishing Co. 1906; White et al. 2008). Their relocation reflected a desire shared by many Haller City businesses to situate themselves in the economic core of the community in close proximity to the rail depot, while also avoiding the costly seasonal flooding at the river's edge (Interstate Publishing Co. 1906; *Arlington Times* 1921). The communities at The Forks entered the 20th century with a singular drive to improve and strengthen the quality of their living conditions and economic prospects:

> According to the United States census of 1900, there were 853 people in Arlington. It must be remembered, however, that at that time the town was not incorporated; its limits were not defined, and the enumerator had a wide latitude in judging how much should be included in his report. It is said that, being interested in booming the town as much as possible, he made the most of his opportunity. (Interstate Publishing Co. 1906)

The verb 'incorporate' has three primary meanings according to the *Oxford English Dictionary*: 1) to combine or unite into one body 2) to put (one thing) in or into another so as to form one body or integral whole, 3) to combine or form into a society or organization; especially to constitute as a legal

corporation. In 1903, when the town of Arlington voted in favor of incorporation, their intention encompassed all three senses of the word (*Arlington Times* 1903b). Through incorporation, the community established clear boundaries and annexed the now smaller, primarily residential and industrial Haller City into their boundaries (Figure 4.12). The town gained economic legitimacy within Snohomish County by legally constituting their community as a social corporation. By situating their community in the larger industrial capitalist system, Arlington was able to develop reliable municipal infrastructure including water and electricity, as well as financially profit through economic growth (ibid.:2; Interstate Publishing Co. 1906; Anderson Map Company 1910; Whitfield 1926). In the five years following incorporation, the population of Arlington doubled, the city's footprint grew by at least 500 acres, and the list of community amenities grew to include several hotels, an opera house, two banks, a number of general stores, six churches, two grade schools, and an accredited high school (Snohomish County Land Records 1890-1906; Polk 1908:373; Anderson Map Company 1910).

In order to achieve these goals through incorporation, there needed to be viable candidates to represent the town's interests in municipal government. According to the editor of *The Arlington Times*, C. L. Marsh, "the only strong ticket would be one composed of conservative citizens who have extensive business or property interests in the town." (1903a:2). The assumed practicality of this statement somewhat disguises the cultural biases and limitations inherent in the legal municipality system. While citizens who are invested in the community do make the most sense as leaders, the specific quantification of their level of community investment through ownership of business and property further reflects how Arlington's municipal government was based on industrial capitalism. Matthews (2012:117) contrasts how community is differently perceived in industrial capitalist systems:

> Outside of capitalism, communities are produced by a common (though constantly negotiated) interest in survival and well-being defined by a mutual dependence of persons on one another. Communities in capitalism, by contrast, are aggregations of discrete individuals defined by attributes and interests that allow persons to find identity, but not necessarily affinity, with other persons. [… In capitalist communities,] persons are not social constructs, but abstract, self-interested individuals whose well-being is their private responsibility.

In the context of the Teagar family, it is evident that both Calvin and Myrtelle were invested in their industrial capitalist community, providing education opportunities, medical care, and economic growth to the town. However, we can assume that Myrtelle Teagar, despite being very highly respected, would not have fit Marsh's description of a candidate for the strong ticket. The gender dynamics of life in the urbanizing town of Arlington will be explored in the following chapter.

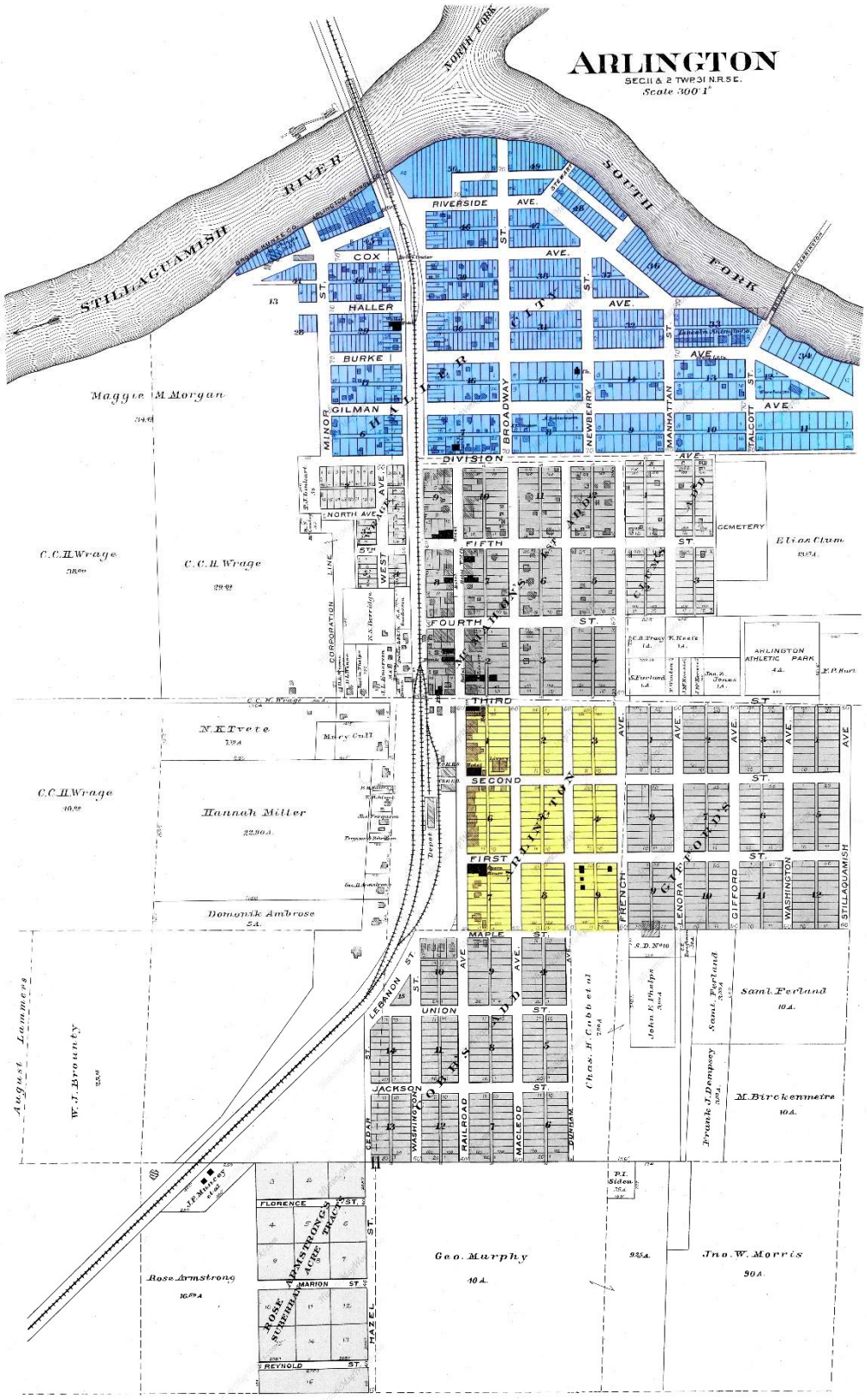

Figure 4.12 Map of Arlington, published 1910 by Anderson Map Company showing the various additions to the original platted towns of Haller City (blue) and Arlington (yellow).

Myrtelle and Calvin Teagar's habitation at the site as interpreted through the artifacts discussed in this chapter, materially demonstrates the industrial capitalist values that led to their social and professional success within the community. Myrtelle taught the next generation literacy in the basics of English and mathematics as well as literacy in the social structures of the industrial capitalist society in which most of her students would become laborers for the logging, agriculture, or manufacturing industries. Through the standard pedagogy of the time, she may have used slates with individual students or to instruct the class collectively through repetition and rote recitation. Her value in the community was of a dual nature, in maternal caretaking for not only her children but numerous others and as a key contributor to the economic development of the City of Arlington. In her obituary, titled "Respected Pioneer Woman Passes On," Myrtelle was lauded as "a woman of liberal education, of excellent business ability and of an exceptionally well poised nature" demonstrating the attributes of her identity the community found most valuable (*Arlington Times* 1923).

In the Teagars' use of the site as a place of business, trends in industrial capitalist ideologies were seen through bottle manufacture, volume, and design standardization and in the competitive marketing of proprietary medicinal products. The Teagar Drug Store's long-term value and significance within the Haller City and later Arlington community was twofold. As one of the earliest formal stores in the community and the only early source of scientific medical resources, their services provided access to the necessary commodities of the rural community that was inextricably linked to the industrialization of the Pacific Northwest. The last chapter discussed how the establishment and later success of both the State of Washington and the local towns of Haller City and Arlington were extremely dependent on the economic frameworks provided by the local and national railroad industry. The industrial capitalist ideologies symbolically represented by the object biographies in this chapter demonstrate how values that led to the economic transformation of the Pacific Northwest as a whole were also significant at the household and individual level for the Teagar Family.

Chapter 5: Motherhood née Hurd

The previous chapter primarily explored Myrtelle Teagar's identities as a teacher and businesswoman, while her identity as a mother was only briefly discussed. Her early community role as a teacher was likely tied to her gender identity and role as a mother in addition to her college-level education. During the 19th century, ideologies surrounding the appropriate social roles for women became more clearly and explicitly defined than they had been previously and were particularly visible to the literate middle and upper class in the form of prescriptive literature (Wilkie 2003; Vandenberg-Daves 2014).[47] Throughout the historical discourse and literature on what we now commonly refer to as the "cult of true womanhood," one of the most essential ways for women to be perceived as a socially acceptable and valuable was to be a mother – specifically a good mother (Welter 1966; Lindley 1996; Wilkie 2003; Vandenberg-Daves 2014). By the early 20th century there were three primary ideologies widely held in the American consciousness surrounding what good mothering looked like and who was able to embody these ideals.

Following the Revolutionary War, the ideology of women having and raising children in the right way - particularly raising good sons - was conceptualized as their civic duty to the republic; this has since been defined as the republican ideal of motherhood (Kerber 1976; Blackwell 1992; Wilkie 2003; Vandenberg-Daves 2014). This civically minded ideology gradually came to include moral and often religious overtones with a mother's responsibility to raise good children giving her a specific kind of piety and moral superiority that non-mothers or 'bad mothers' could not achieve (Blackwell 1992; Wilkie 2003). Jodie Vandenberg-Daves (2014) has termed this specific connotation of mothers as morally superior and venerated as the ideology of "moral motherhood." During an era where men were considered the economic head of the household, this shift provided many women with newfound empowerment as the moral head of the household. As modern scientific medical concepts became widely accepted following the American Civil War, women's proper caretaking of the home took on increasingly scientific requirements surrounding nutrition, healthcare, exercise, and hygiene to raise healthy and successful children (Blackwell 1992; Apple 1997; Wilkie 2003). A popular publication from the mid-19th century titled: *American Woman's Home: Or, Principles of Domestic Science: Being a Guide to the Formation and Maintenance of Economical, Healthful, Beautiful, and Christian Homes* by Catharine E. Beecher and Harriet Beecher Stowe (1869) highlights the ideological dovetailing of scientific knowledge with moral mothering. One final ideology of motherhood

[47] While these social expectations were most explicitly conveyed through prescriptive literature to the literate middle and upper class, these ideas were quite pervasive and have been demonstrated to have percolated throughout all socio-economic classes and races through daily social interactions (Davis 1981; Wall 1994; Wilkie 2003; Vandenberg-Daves 2014)

similarly arose as a combination between moral and scientific mothering is called intensive mothering, "whereby women's lives become child-centered to the exclusion of other interest, obligations, or desires" (Wilkie 2003:180; see also Ruddick 1980 and Hays 1996). Through this ideology the republican and moral obligations of proper mothering were made paramount and scientific knowledge and practice became tools to ensure the success of the all-consuming task and subsequent identity of motherhood.

These four primary ideologies – republican, moral, scientific, and intensive motherhood – prescribe very specific characteristics of gender identity and roles that mothers needed to adhere to in order to be considered 'good' in society's eyes. Vandenberg-Daves (2014:30-31) summarizes the effects of these ideological shifts within social consciousness:

> The ideas of republican motherhood and moral motherhood, respectively, were born from the Enlightenment, Protestant religious developments, and the early Industrial Revolution's separation of home and work for the growing middle class. […] moral motherhood represented a vast cultural shift toward elevating the psychological, spiritual, and even civic contributions of women in the home. It created a new sense of self-consciousness, introspection, and arguably empowerment for middle-class women who tried to understand and more deliberately shape the development of their children.

Reading these ideologies of motherhood through a critical lens, it is clear that they also signaled a specific race, ethnicity, and socio-economic class requisite of good mothers. The privilege to engage with motherhood in the way prescribed by these ideologies was easiest for white women who were citizens of the United States and had the time and resources to dedicate their lives to their children and curating a 'sacred home' (Davis 1981; Wilkie 2003; Vandenberg-Daves 2014). This chapter will explore how the white female owners and occupants of the Teagar/Weimer site navigated and expressed ideologies of motherhood surrounding the turn of the 20th century in Arlington as a way to demonstrate their social value and belonging to the middle-class.

The Names on the Deed

As previously discussed, the residents of the site after the Teagar family's departure were still unknown upon completion of analysis and reporting in 2008. The void of information for this era was partially a product of the somewhat puzzling title records for the property. The property was held from 1896-1899 by Andrew Irwin, a local farmer who had been in the area since at least 1894 (Polk 1894; Gillis 2006a; White et al. 2008). A single 35-year-old, "A. Irwin," is listed living in a boarding house in town in the 1900 census, and this is likely the same individual. It appears that he lived at the site for just two years before moving to a cheaper living situation at the boarding house. Andrew Irwin is also listed as the owner of farmland southeast of town, so it is unclear if he maintained two residences or if he was living in town while building a residence on his land (Myers 1910). Without

confirmation or further details of this individual's short occupation, there are limited interpretive conclusions to be drawn.

Following Irwin's ownership, several women's names were listed, and the title passed back and forth several times between the two of them. It was not until I delved into genealogical records of the women listed and traced the kinship that taking their husbands last names had obscured (Appendix C), that the story began to take shape. Almira Gooding acquired the property deed in 1899 (Chicago Title Company report in Gillis 2006a). She married her second husband, Marion Gooding, in 1896 and they had likely been living on his land west of town (Figure 5.1), for which he had received a land patent in 1890 (Gooding 1890; Snohomish County Marriage Records 1896). Almira's three youngest children likely accompanied her when she moved from Nebraska to marry Gooding. The 1900 census lists Almira's son, Walter, and her youngest daughter, Lora, living with her and her husband. Her youngest son, Fred had married a local woman Isa Smith and they had moved to Seattle the year prior. Perhaps Almira purchased the property on Cox Avenue as a gift for her son and his new wife, or in hopes of having her other children and grandchildren who were still in Nebraska move to Arlington.

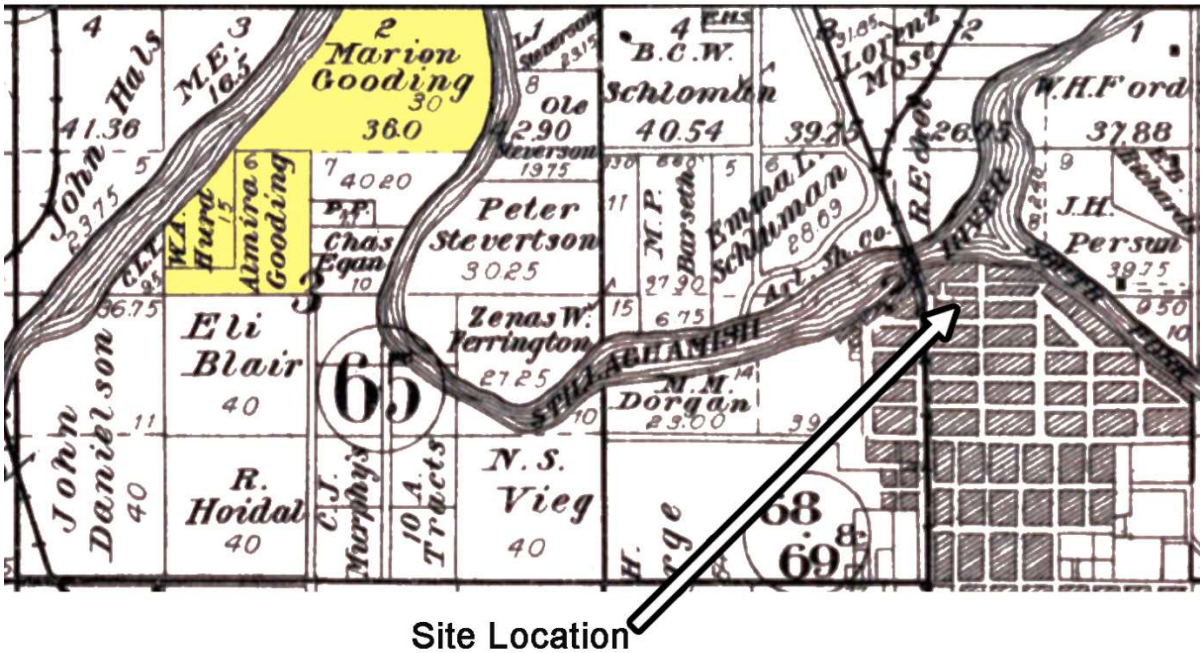

Figure 5.1 Map Sections 2 and 3 of Township 31 North, Range 5 East circa 1910, showing Gooding and Hurd land holdings west of Arlington in relation to the site location on Cox Avenue (Anderson Map Company 1910).

In 1906, the property was mortgaged to Almira's daughter, Martha Lovelace née Hurd, who moved in with her husband Marion "Jack" and their six children (Chicago Title Company report in Gillis 2006a). One year later the property was mortgaged in Almira's name and then in 1910 the mortgage was in Martha's name. This exchange was puzzling to me until I discovered the family

connection. The Hurd women may have been able to creatively manage their finances and family assets by changing the name on the title without changing who was living on Cox Avenue. The Lovelace family lived in Arlington until 1917, but it is unclear if they were living on the farm or in town. Their occupation would have ended prior to 1911[48], when the main structure was sold to Arlington Lodge No. 84, Ancient Order of United Workmen and moved to a new location to serve as their meeting hall (*Arlington Times* 1926a; White et al. 2008). After Almira died in 1913, her land holdings outside of town passed to her widowed daughter Carrie McCounahay, and in 1914 the deed for the lots on Cox Avenue was placed in Carrie's name as well. While this exchange of property among these women may seem rather unremarkable, a brief overview of women's property rights in Washington provides valuable context.

As discussed in chapter 3, the Homestead Act of 1862 made no stipulations regarding race for the issuance of land patents. The only stipulations of eligibility outlined in the fact were household position, age, U.S. citizenship, and not having "borne arms against the United States government or given aid and comfort to their enemies" (U.S. Congress 1862). The act was also unique in that it explicitly referenced women holding property three separate times. Following the stipulations as outlined above, the act stipulated that patent applications must be "made for his *or her* exclusive use and benefit [emphasis added]" (U.S. Congress 1862: Sec. 2). In 1881 territorial legislation gave married women the right to maintain property ownership and litigation rights throughout their marriage as they would have had were they single as well as the same rights as their husband to inherit and will community property (Larson 1976). When Washington was admitted to the union in 1889, Article 31 of the state constitution stated that "equality of rights and responsibility under the law shall not be denied or abridged on account of sex." However, only men over 21 were eligible to vote (Washington State Legislature 1889). By 1900, every state in the US had codified married women's right to hold property separate from her husband, but Washington, like most of the west had been among the earlier governments to acknowledge this right, largely due to strong and persistent women's rights activists and organizations (Larson 1976; Stevenson 2009).

As is often the case with research, finding an answer to the question posed by White et al. (2008) of who lived at the site between 1896 and 1917, has led to more questions. I wonder what prompted Almira to purchase the site in her own name in the first place. Could it have been because this was her second marriage, and she wanted more or already had more independence? Was it perhaps because the property was intended to be for her children from her first marriage, and her new

[48] Newspaper articles state that the move occurred in 1898, but the Sanborn Fire Insurance Company map from 1909 showed the structure on the lot and the Lovelace Family was captured in the 1910 census living on Cox Avenue, which supports the 1911 date used in White et al. (2008) citing the Chicago Title Report from 2006.

husband didn't feel any financial duty to that part of her family? After the initial purchase, why did the property stay in Martha's name not her husbands? Was this a manifestation of the familial connection of mother and daughter or just out of convenience? Without diaries or descendant interviews, these questions are beyond the scope of what this project can answer, but by examining the assemblage from the era during the extended family's ownership and occupation may shed some light on their daily experiences.

Motherhood is All-Consuming

During the Lovelace Family's known occupation of the site (ca 1900-1910) there are several vessels for products specifically marketed or applicable to mothers found in the assemblage, suggesting their connection or appeal to Martha Lovelace (Table 5.1). Two of these products were recovered in duplicate, which reflects continued or repeated use of these products and possibly a specific brand preference during this occupation period. There are at least three bottles for a product called Mother's Friend, at least four jars that would have originally contained Mother's Salve, as well as at least one Castoria bottle (mentioned in the previous chapter). The archaeological context for these artifacts is primarily in AU B, but there are several outliers, which reflect the disturbances and percolation discussed in the site formation reanalysis section of Chapter 2. By exploring the biographies of these items, we can learn more about life in the Lovelace household and Martha's investment in the prevailing ideologies of motherhood at the time.

Table 5.1 Products from the assemblage associated with motherhood and directly marketed to mothers.

Product	Catalog Numbers	Unit	Depth	Stratum	AU
Mother's Friend MNI = 3	2008/926	1 (NW)	95-105 cmbs	V	B
	2008/1090	4 (NE)	70-88cmbs	IV	A
	2008/1129.01	4 (NE)	90-110 cmbs	V	B
	2008/1136	4 (NE)	90-110 cmbs	V	B
Mother's Salve MNI = 4	2006/49	Trench 2	0-50 cmbs	-	A
	2008/571	-	Surface	-	-
	2008/411	1 (NW)	105-125 cmbs	V	B
	2008/716	2 (SW)	65-90 cmbs	IV	A
	2008/877	4 (NE)	130-140 cmbs	VII	C
Castoria MNI = 1	2008/713	2 (SW)	65-90 cmbs	IV	A
	2008/846	1 (NW)	Clean up	-	-

Mother's Friend

The Mother's Friend was manufactured as early as 1876, by the Bradfield Regulator Company based out of Atlanta, Georgia (Fike 2006:53). The bottles in the assemblage (Figure 5.2) are diagnostic of ca 1880 through ca 1920 based on the observed manufacturing characteristics[49] (Lindsey 2023b). As one of the many patent medicines of the era, Mother's Friend is accompanied by extensive advertising literature with various claims for results. Recommended for expectant mothers "as a liniment for massage of the abdominal muscles during pregnancy," advertising claims suggested that use of Mother's Friend resulted in painless birth, speedy recovery, and maintenance of a "shapely figure" for the mother as well as prettier and healthier children (*The Canton Press* 1894:4; *Cincinnati Enquirer* 1894:16; *Spokane Chronicle* 1905:2; *The Bellingham Herald* 1905:3; *Nashville Banner* 1909:2). Said to contain ingredients "combined in a manner hitherto unknown," residue analysis of one of the Mother's Friend bottles in the Teagar/Weimer assemblage (Catalog No. 2008/926) found the primary ingredient to be lanolin (Appendix B). Lanolin is the term used for oils obtained from the wool of sheep and continues to be used as a skin moisturizer that is still specifically marketed to nursing mothers as a natural and safe skin lubricant (Lansinoh 2023; Medela 2023).

While I can't say that this product necessarily lives up to the broad claims made in its advertising, the topical use of lanolin products would likely have eased the potential skin discomfort of second and third trimester abdominal growth, reduced the appearance of stretch marks, treated symptoms of eczema (which is common in babies), provided a protective barrier from the newly agreed upon germs, and protected skin elasticity in much the same way as moisturizing products still used today. In fact, the Bradfield Regulator Company was eventually purchased by the SSS Pharmaceutical Company,[50] who still sells a "Mother's Friend Liquid" in the "original formula", which they state contains "cottonseed oil combined with soft-liquid soap, camphor and menthol" (SSS Pharmaceuticals 2022b). Another product also available through SSS, is the "Mother's Friend Cream", which contains lanolin. It is likely that during the original manufacturing of the Mother's Friend product, several different emollients were used in the formula and the lanolin documented as the residue in the bottle tested, was included in the original contents.

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[49] Diagnostic characteristics include side-panel embossing with a diagonal two-piece cup mold seam, a tooled double ring finish, and natural green glass color indicative of turn of the century hand manufacturing methods (Lindsey 2023b; Eichner 2021b).

[50] Incidentally, the SSS Company marks the start of their company in the year 1826, when "the mighty Creek Indians bequeathed a treasured remedy of theirs, now known as S.S.S. Tonic, to Captain Irwin Dennard of Perry, Georgia, as a reward for having saved the life of one of their Chieftains" (SSS Pharmaceuticals 2022a). The appropriation of indigenous medicine was a popular narrative among patent medicine manufacturers, regardless of the accuracy of these origin stories.

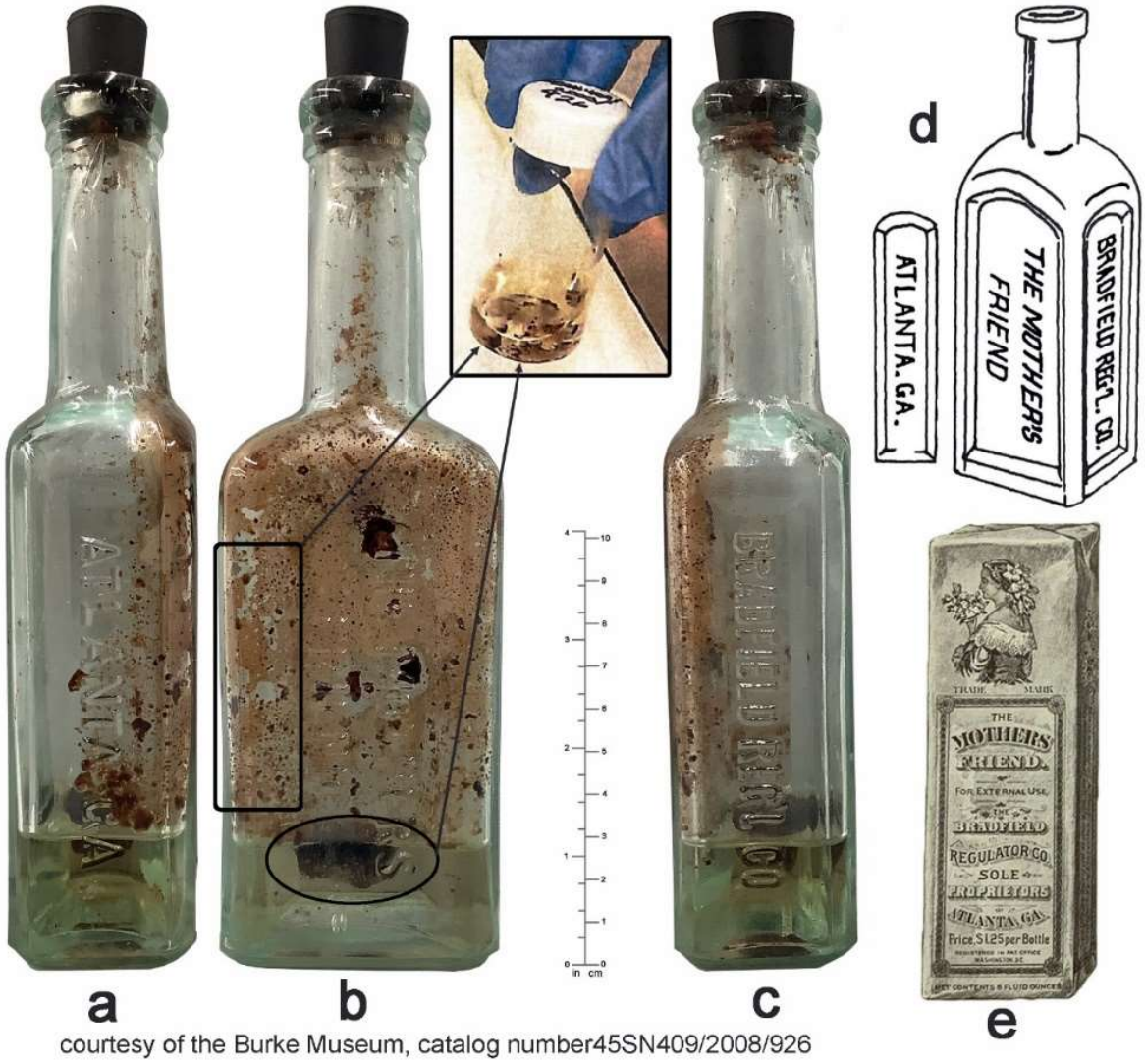
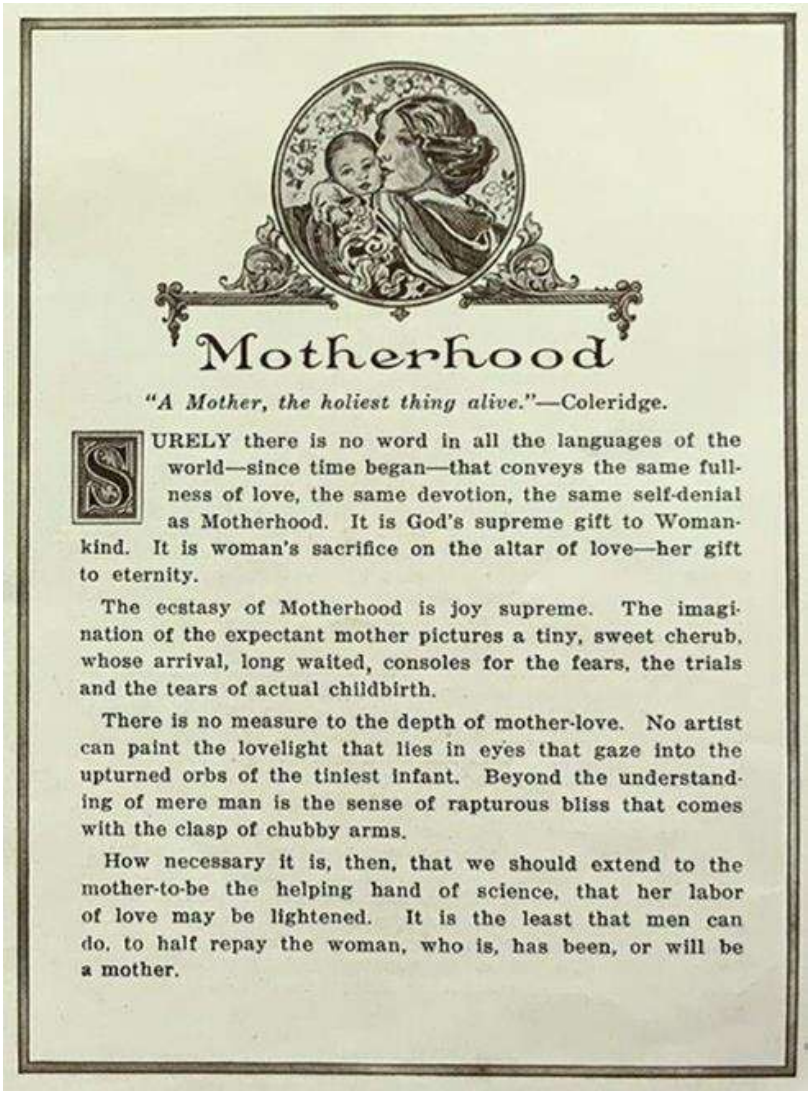


Figure 5.2 The Mother's Friend product bottle with: a) right bottle panel with embossed text that reads "ATLANTA, GA"; b) front of bottle with embossed text that reads "THE MOTHER'S FRIEND" inset shows the areas from where the residue sample was collected for chemical analysis; c) left bottle panel with embossed text that reads "BRADFIELD REG'L CO."; d) illustration of bottle from Fike (2006:53); e) facsimile of product packaging as marketed by Bradfield Regulator Company circa 1910.

The 1910 census for the Cox Avenue home shows that (Marion) Rosabell Lovelace was the newest member of the family at five months old (U.S. Census 1910a). She was born 10 November 1909, and it appears that Martha Lovelace likely used The Mother's Friend throughout her pregnancy with her youngest child after the family's arrival in Arlington (Washington Birth Index 1909). In many of the advertisements for Mother's Friend, Bradfield Regulator Company entreated readers to write in to receive a free pamphlet entitled "Motherhood" that included "valuable information and voluntary testimonials" (*Canton Press* 1894:4). Examining a copy of this pamphlet provides unique insight into cultural perceptions of motherhood during the late 19th and early 20th centuries (Bradfield Regulator Co. ca. 1910).

This pamphlet's portrayal of mothers and motherhood directly reflects all four of the ideologies of motherhood defined previously. On the very first page of the pamphlet (Figure 5.3), the company appeals to both moral and scientific motherhood with mothers being praised as holy, motherhood being described as "woman's sacrifice on the altar of love" and beseeching consumers to extend "the mother-to-be the helping hand of science." The remainder of the Mother's Friend pamphlet includes explicit instructions on diet, exercise, and hygiene for mother and baby as well as recommended medical supplies for labor and practices for bottle sterilization. These topics all appeal to the ideology of scientific motherhood. Additionally, the pamphlet's discussion of proper attire for mother and baby and the discussion surrounding breastfeeding versus bottle-feeding takes on more of a morally prescriptive and intensive tone to ensure that modesty is protected and that a mother should sacrifice her own comfort or pursuits to ensure the child's wellbeing by breastfeeding.



Motherhood

"A Mother, the holiest thing alive."—Coleridge.

SURELY there is no word in all the languages of the world—since time began—that conveys the same fullness of love, the same devotion, the same self-denial as Motherhood. It is God's supreme gift to Womankind. It is woman's sacrifice on the altar of love—her gift to eternity.

The ecstasy of Motherhood is joy supreme. The imagination of the expectant mother pictures a tiny, sweet cherub, whose arrival, long waited, consoles for the fears, the trials and the tears of actual childbirth.

There is no measure to the depth of mother-love. No artist can paint the lovelight that lies in eyes that gaze into the upturned orbs of the tiniest infant. Beyond the understanding of mere man is the sense of rapturous bliss that comes with the clasp of chubby arms.

How necessary it is, then, that we should extend to the mother-to-be the helping hand of science, that her labor of love may be lightened. It is the least that men can do, to half repay the woman, who is, has been, or will be a mother.

Figure 5.3 First page of the "Motherhood and the Baby" pamphlet distributed by the Bradfield Regulator Company, which directly references scientific and moral ideologies of motherhood.

Examining the matrilineal connections of the Hurd family overall sheds more light on the significance of motherhood for the women associated with the household. I established Martha's connection to her mother through the property exchange discussed in the previous section. Through examining the genealogical information further, I found that Almira was one of four daughters to Hannah Hoyt née Sherman, and all of these women ended up living in Washington by around 1900 (Figure 5.4). Hannah lived with her son Luther for a short time after she was widowed in 1870, demonstrating the ethos of mother reverence for all members of the family (U.S. Census 1900b). She then spent the final decades of her life with at least one of her daughters in the Stillaguamish Valley demonstrating the familial values surrounding female kinship and particular duty and care owed to their mother (U.S. Census 1910b). When Almira died in 1913, her family further memorialized the importance of this identity in their selection of her gravestone and again with Martha's gravestone over one-hundred miles away in 1954 (Figure 5.5). The multigenerational significance of motherhood for these women is much more complex than just cultural constructions of republican, moral, and scientific motherhood, but it is likely that their values were shaped consciously or subconsciously by these prevailing ideologies. It is likely that these women enjoyed each other's company and held close emotional and social connections (Smith-Rosenberg 1975). However, Vandenberg-Daves points out that "moral motherhood ideas both heightened women's authority in the family and increased their susceptibility to guilt and regret" (2014:25). The standards of Victorian femininity to which these women ascribed and incidentally had learned from their mother dictated that the primary duty of women to both their husbands and society was to serve as good mothers and care for their own mothers as they aged.

Figure 5.4 Women of the Hoyt family in Arlington, Washington, circa 1910-1914. From left to right starting at the back: Olive Warner née Hoyt, Almira Hurd (Gooding) née Hoyt, Elsie Mae Burch (Cornagie) née Hoyt; in the front Hannah Hoyt née Sherman and Emma Maudana Rickard née Hoyt. In the upper left corner of this image the is a clear representation of material curation of a sacred domestic space using figurines, photographs, decorative dishes, and a sign reading "Home Sweet Home," associated with the moral motherhood ideology. Image courtesy of Robert Blum, descendant of Emma Rickard.

Figure 5.5 Gravestones of Almira (Hurd) Gooding née Hoyt and Martha A. Lovelace née Hurd. Over 20 years and one-hundred miles apart, their families chose to specifically memorialize thier identities as mothers.

Mother's Salve

Advertised as early as 1887 in trade catalogs, Mother's Salve came to be regarded as "a guaranteed remedy for Catarrh, Croup and colds," by 1900 (*Morning World-Herald* 1900:10; *Fike* 2006:173). The product (Figure 5.6) was likely a mentholated ointment almost identical to widely available Mentholatum and was sold in almost identical milk glass jars for the same price (Smithsonian Institution 2023). I began to wonder why there was such a preference for this product within this assemblage since there were at least four Mother's Salve jars (Table 5.1) and only one mentholatum jar (Catalog No. 2008/1160).[51] Three of these jars are complete vessels with two jar fragments also recovered. The complete jars were found on the surface of the site, and in AU A, and AU B; the jar fragments were found in AU A and AU C. The diffuse archaeological context of this product raises several important points regarding the depositional environment and my narrative construction. The majority of the Mother's Salve vessels occur in the upper portion of the assemblage suggesting their consumption in the more recent occupation periods. However, given that AU A is understood as redeposited fill, meaning that objects from this analytical unit could be from any other

[51] In addition to the mentholatum and Mother's Salve jars, there are at least five (MNI=5) non-specific milk glass jars in the assemblage. Since these could have held cosmetics or other patent ointments and therefore have been excluded from this comparison.

trash piles or deposits from any time during the site's occupation that were pushed into the privy hole prior to 1940. Additionally, the delineation between analytical units is not purely discrete due to disturbance and percolation. I believe that the consumption of this product is likely associated with either the Lovelace or Weimer families (Table C.1). For the purposes of presenting a compelling and linear narrative of the assemblage, I am discussing the Mother's Salve product in association with the Lovelace family in relationship to their conceptualization of motherhood. The biography I present surrounding these objects could just as easily reflect identity and ideology negotiations within the Weimer family. This entanglement of narratives will be discussed further in Chapter 7.

Figure 5.6 Representative images of Mother's Salve jar; a) profile view showing standard milk glass jar shape and continuous threading; b) enhanced image of jar base showing embossed product information that reads, "MOTHER'S / SALVE / CHICAGO."

The single complete Mentholatum jar represented in the assemblage is from AU C, suggesting that it was associated with the Teagar family's occupation of the site. While Myrtelle did share the identity of mother, her education and subsequent role as a teacher and business owner gave her additional identities beyond motherhood. Meanwhile, Martha Lovelace's (and her mother Almira's) sole occupation was as a wife and mother. I argue that this difference in identity investment was reflected in Martha's consumption practices. The Marketing of Mother's Salve, as a fairly generic product with another brand name equivalent, is a reflection of the broader social investment in the identity of motherhood that had become idealized throughout the previous century. Just as middle-class women were using "ideas of moral motherhood to expand their sphere of influence" so

too were companies (Scranton 2001; Vandenberg-Daves 2014:48). By emphasizing alignment with the moral power and responsibility of motherhood, the product positioned itself as virtuous and scientifically tested in the eyes of consumers. Building off of the identities explored in the previous section, Martha may have selected this product over Mentholatum due to the perceived alignment with her identity as a mother and the social benefits motherhood afforded her.

A secondary aspect of this product draws a connection between the ideologies of industrial capitalism and the ideology of intensive motherhood. In order to capitalize further on mothers' moral and social power as consumers, the Mother's Remedy Company ran promotional campaigns where people could write to request their products including 6 free jars Mother's Salve to sell at 25 cents each and upon sale of a certain number of products, their sales 'agent' could select one of the free "beautiful premiums" such as a ladies' handbag, parlor lamp, a tea set, or tableware (*The Royal Neighbor* 1905:10; *Chattanooga News* 1925:2s).[52] These premiums also aligned with the ideological aspect of mothers decorating their homes to craft sacred domestic spaces to celebrate and demonstrate their middle-class status and domestic prowess through conspicuous consumption (Purser 1992; Wilkie 2003; Mullins 2004). While the property laws discussed in the first section of this chapter afforded women with protection for the property that they brought into a marriage and expanded their inheritance options, there were no explicit protections for what they earned while in their marriage (Coontz 1992:11). This meant that despite the power mothers gained within their domestic sphere, their power to meet economic needs for themselves or their children beyond a socially normative domestic family were severely limited (Blackwell 1992; Vandenberg-Daves 2014:28).

The advertising campaign in conjunction with the economic consumption realities of motherhood may explain the prevalence of Mother's Salve in the assemblage. If Martha participated in the company's promotion, she may have been able to realize economic as well as moral empowerment through her role as a mother. The Snohomish County Directory published by R. L. Polk & Company provides valuable insight into the economic situation of the extended Hurd family and a comparison to other citizens of the city of Arlington around this time (Table 5.2). 1913 is the earliest year in which the directory included property valuation for Arlington residents. I utilize this data as a proxy for earlier years during their occupation of the site, which assumes that their economic status did not fluctuate dramatically between their latest occupation date at the site in 1911 and 1913. The Lovelace family's household valuation in 1913 placed them squarely in the middle-class of the Arlington community (their valuation falls just below the 50th percentile). It is plausible that

[52] This campaign is among the earliest implementations of this kind of business structure, which is now referred to as multi-level-marketing or pyramid selling and is ethically controversial due to the frequency of companies misrepresenting financial benefits and exploiting participants' social and community networks (Federal Trade Commission 2009).

economic, civic, and moral pressures to provide the best future for her children motivated Martha to supplement the family's income despite the negative implications that employment of any kind had within the intensive mothering ideology. The specific kind of employment offered through the Mother's Salve multi-level marketing campaign was perhaps a compromise to balance her internalized values of motherhood based on republican, moral, and intensive mothering ideologies while also improving the family's financial standing. This hypothetical dilemma that Martha was faced with illustrates the inherent contradiction of good mothering requiring middle-class status in order to adhere to intensive mothering ideologies while intensive mothering practices prevented mothers from working in any financially significant capacity. The mutually exclusive ideology and practicality of intensive motherhood highlights the systemic inequalities that made the capitalist components of prescribed mothering ideologies an ever-moving target and an unattainable goal for the majority of American women during the early 20th century (Wilkie 2003; Vandenberg-Daves 2014).

Table 5.2 Socio-economic data for the extended Hurd family in 1913 with cross-community comparisons compiled from the R.L. Polk & Company's Snohomish County Directory

Name		**Occupation**	**Valuation**
Lovelace, Marion "Jack" (Martha)		Carpenter	$185
	Average for Carpenters	[n=14*; $30 < $160]	$118
Gooding, Marion (Almira)		Farmer	$825
Hurd, Fred (Isa)	[Martha's youngest brother and his wife]	Sawyer	$175
McCounahay, Carrie	[likely living with brother, Walter Hurd]	Widow, unemployed	$66
Teagar, Myrtle C		Drugs	$175
	Arlington Overall Average	[n=644; $20 < $2,175]	$292

* There were more than 14 carpenters listed in the directory, but only 14 (including Marion "Jack" Lovelace) reported their property values to be listed

"An Open Letter to All Mothers"

The ideological interaction between industrial capitalism and good mothering practice has been hinted at throughout this chapter. The final product related to motherhood from the assemblage draws an explicit connection between the industrial capitalist values of competition, brand recognition, and targeted marketing and the ideology of scientific mothering. The two Castoria bottle fragments in the assemblage discussed in the previous chapter are diagnostic of the period during which the Lovelace family occupied the site (Figure 5.7). The first fragment (Catalog No. 2008/846)

was manufactured sometime between 1908 and 1914 based on the direction of the word Castoria on the side panel and the code "S. 85" embossed on the base (Lockhart et al. 2014:39). The other fragment, which exhibits the embossed facsimile of Fletcher's signature (Catalog No. 2008/713), postdates 1910 since prior to this date the facsimile was only on the paper labels of Castoria bottles (Lockhart et al. 2014). These dates indicate that while Castoria was being advertised and sold by the Teagar family, the only material evidence of it being used at the site is by the Lovelace (or possibly the Weimer) family.

Reexamining the advertising campaign launched by Fletcher in 1897, the pattern of medicine purchasing choices seen in the Lovelace household is continued by their use of Castoria. The complete newspaper advertisement referenced in the last chapter (see Figure 4.10) is addressed as "An Open Letter to Mothers," imploring the targeted consumers of the Castoria product to look for the trademarked signature that signifies the product manufactured by the original patent holder's company (Figure 5.8). This product and presumably Martha Lovelace's choice to purchase it for her family, is a reflection of the shift in marketing and advertising specific to the patent medicine era which later became the norm in American advertising (Wood 1958; Norris 1990; Young 2015). Similar to the other "Mother's" products in this chapter, the use of targeted advertising to mothers by Charles Fletcher for Castoria utilizes the moral and scientific motherhood paradigms of the era to inspire brand loyalty. There is also a particular empowerment of mothers on behalf of their children in this advertisement that reflects the values of scientific motherhood that appeared to be so important to this family. By entreating mothers not to endanger the life of their child "by accepting a cheap substitute that *some druggist* may offer you [emphasis added]" the advertisement promotes motherly independence. Rather than relying on solely the recommendation of storekeepers or pharmacists, or even familial knowledge, mothers were empowered to make decisions for their family's health and wellbeing based on their own knowledge (Rotman 2006).

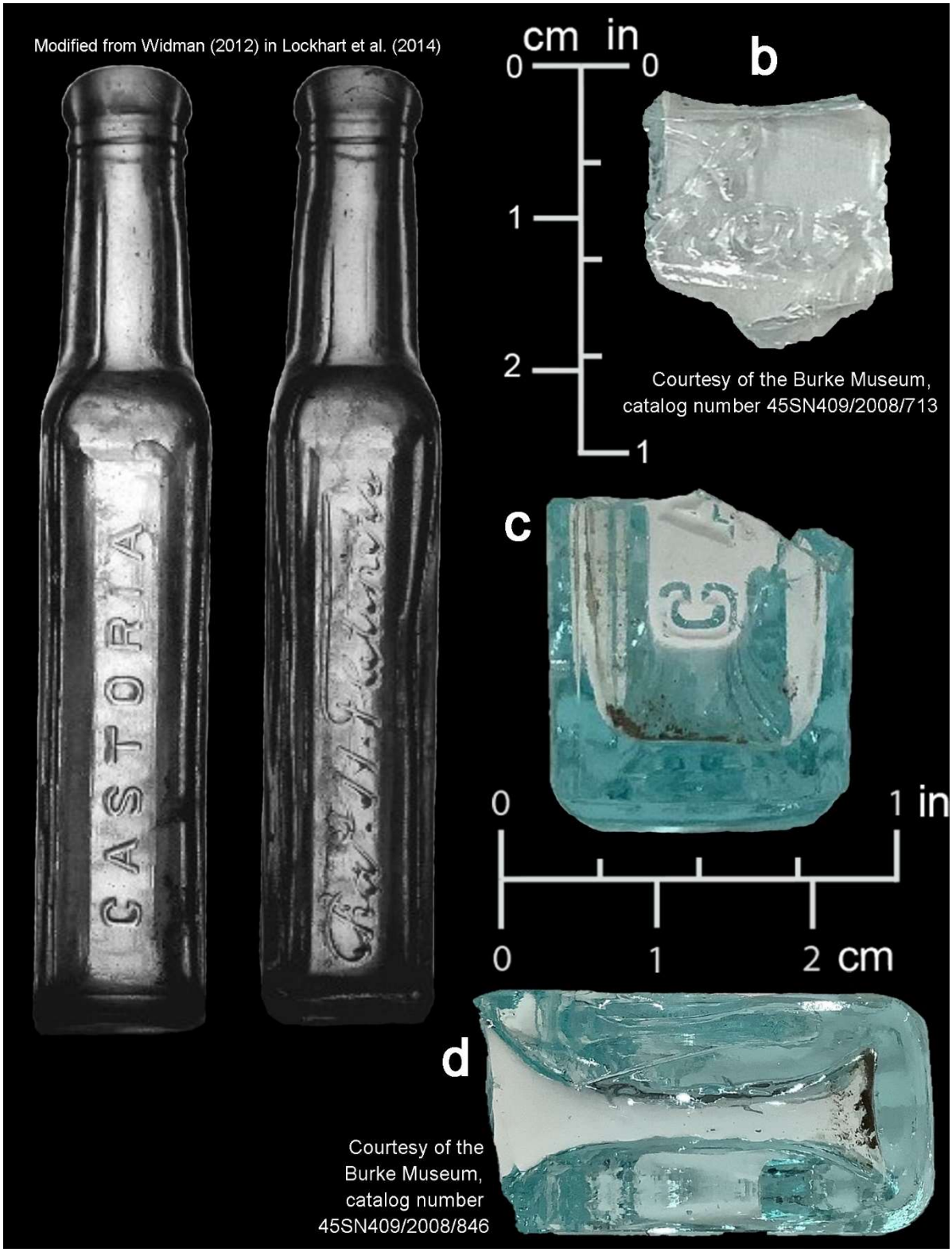
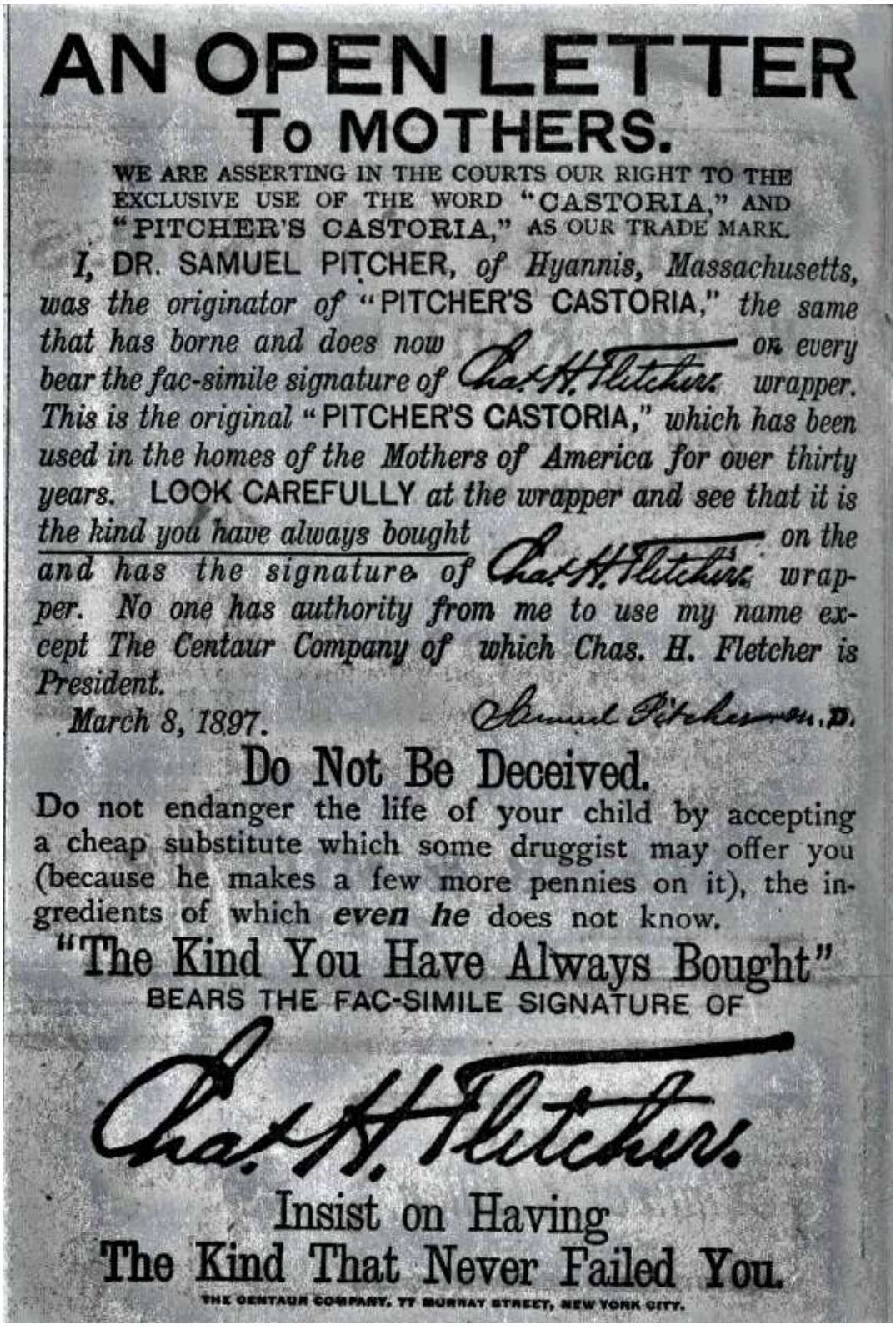


Figure 5.7 Comparative images of complete representative Castoria bottle and fragmentary artifacts: a) enhanced images of side panels of Castoria bottle produced between 1900 and 1940; b) panel fragment with "Chas" portion of embossed facsimile signature; c) profile view of bottle side panel with embossed text that reads "CA…" from CASTORIA panel; d) base view of same fragment showing embossed manufacturing code "S. 85" consistent with code used by the Streator plant of American Bottle Company between 1908 and circa 1910 (Lockhart et al. 2014).



AN OPEN LETTER
To MOTHERS.

WE ARE ASSERTING IN THE COURTS OUR RIGHT TO THE EXCLUSIVE USE OF THE WORD "CASTORIA," AND "PITCHER'S CASTORIA," AS OUR TRADE MARK.

I, DR. SAMUEL PITCHER, *of Hyannis, Massachusetts, was the originator of* "PITCHER'S CASTORIA," *the same that has borne and does now bear the fac-simile signature of* Chas. H. Fletcher. *on every wrapper. This is the original* "PITCHER'S CASTORIA," *which has been used in the homes of the Mothers of America for over thirty years.* LOOK CAREFULLY *at the wrapper and see that it is the kind you have always bought and has the signature of* Chas. H. Fletcher. *on the wrapper. No one has authority from me to use my name except The Centaur Company of which Chas. H. Fletcher is President.*

March 8, 1897. Samuel Pitcher, M. D.

Do Not Be Deceived.

Do not endanger the life of your child by accepting a cheap substitute which some druggist may offer you (because he makes a few more pennies on it), the ingredients of which ***even he*** does not know.

"The Kind You Have Always Bought"

BEARS THE FAC-SIMILE SIGNATURE OF

Chas. H. Fletcher.

Insist on Having
The Kind That Never Failed You.

THE CENTAUR COMPANY, 77 MURRAY STREET, NEW YORK CITY.

Figure 5.8 Fletcher's "Open Letter to Mothers," published in newspapers throughout the nation, beseeches that mothers use their power as moral head of the household to make scientifically sound consumption choices for the health and well-being of America's children. This appeal to all four ideologies of motherhood discussed so far demonstrates how these ideologies were used to ensure brand recognition and loyalty in a competitive market.

Toddler Trainee

The many ideologies of good mothering strongly influenced the prevailing American cultural perspective that womanhood and motherhood are "treated as synonymous identities and categories of experience" (Arendell 2000:1192). These belief systems were frequently cyclically reinforced as women's gender identities were socially tied to the value of motherhood and through mothering, women were expected to teach their children how to appropriately perform their gender identities (Chodorow 1990; McMahon 1995; Glenn 1999; Vandenberg-Daves 2014). This enculturation of female children by their mothers has been framed as an "apprenticeship system," where daughters learned their role within a middle-class household first by imitating their mother, then helping with motherly duties, before leaving to start the process over again in their own home (Smith-Rosenberg 1975:16). By exploring the possibility of this practice in the Lovelace home, we can gain some insight into the relationships between Martha and her two daughters, Grace and Rosabell.

Imitation of motherhood was frequently facilitated with toys, where child appropriate versions were provided for young girls to practice with (Baxter 2005). This can be seen in the assemblage in the form of dolls, where at least two different dolls are fragmentarily represented (Table 5.3). All of these doll-associated fragments were recovered from the upper two strata of AU A, which is firmly within the portion of the assemblage that is definitively a massive redeposit of likely local fill material (compared to the lowest strata of AU A, which is more characteristic of gradual filling after the privy was no longer in use). The highly fragmentary nature of these artifacts further supports the argument for a massive, likely mechanical, redeposition event wherein construction machinery of some kind was likely used to push surface materials into the remaining privy depression prior to the concrete garage foundation being poured (or potentially surrounding the removal of the concrete pad during demolition in 2005). The likely use of large machinery with a bladed metal excavation instrument and caterpillar tracking movement would have had significant crushing and snapping force on objects as they were moved with the surrounding matrix that is consistent with the condition of the artifacts in these uppermost strata.

Table 5.3 Doll fragments from the assemblage; the interpretive assumption made here is that, based on the minimum of two types of dolls represented, any fragments or pieces that could possibly be from the same doll are assumed to be.

Doll Type	Fragment Description	Catalog Number	Unit	AU (depth)
China head Doll (possibly pet-name "Marion" doll)	Porcelain figural 'body' fragment	2008/174	1	A (15-25)
	Porcelain figural neck and shoulder fragment with black paint and textural detail on about half of the exterior surface	2008/740	4	A (40-70)
	Small (17mm) molded porcelain doll arm	2008/507.02	4	A (0-50)
Poured bisque-head doll with sleep-eyes and either bisque porcelain or composite limbs	Bisque porcelain (possibly composite) doll fragment	2008/236	2	A (0-15)
	Bisque porcelain (possibly composite) doll fragment	2008/302	3	A (0-47)
	Glass doll eyeball, dark brown iris, black pupil	2008/312	3	A (0-47)
	3 bisque porcelain doll head or body fragments with hand painted pale pink 'skin' color one fragment has light brown painted details, another has an engraved and painted partial maker's or style mark resembling the letter "X" with font serifs	2008/507.01	4	A (0-50)
	Bisque porcelain (possibly composite) molded doll arm with painted pale pink 'skin' color	2008/507.03	4	A (0-50)
	2 bisque porcelain doll head or body fragments with hand painted pale pink 'skin' color	2008/1246	4	A (0-50)

The first of these two possible dolls is a small china[53] head doll with white porcelain 'skin' and black painted hair with molded hair texture beneath (catalog numbers 2008/174 & 2008/740). This piece is likely associated with the small white porcelain arm found in the same stratigraphic context (catalog number 2008/507.02). The fragment is too small to definitively identify the hairstyle, which is used to differentiate china head dolls and estimate date of manufacture (Krombholz 2004; Bouchard 2023). Generally, these dolls were manufactured between 1840 and 1950, but reached peak popularity in the 1890s, during which the most common hairstyle was the "lowbrow." Additionally, black hair color on these dolls is associated with earlier dates compared to blonde color (Krombholz 2009; Bouchard 2023). China head dolls like this generally lost popularity after the turn of the century as more complex and interactive dolls came on the market with features such as moving or blinking

[53] The term china is used within the doll collecting community based on the thin glazed porcelain material used for these doll heads being associated with fine dining china sets. Archaeologically, we tend to avoid using the term china because it obscures the differences between different kinds of porcelain, some of which are actually 'bone china' and some of which are not. For the purposes of continuity to related literature, the terms "china head doll" and "chinas" will be used here, despite the fact that these porcelains are not bone china and the actual composition of the porcelain ceramic matrix is unknown.

eyes and speaking voice boxes (Doll Reference 2021; 2022b). The drop in popularity suggests that this doll might have been an heirloom from Martha's childhood or may have been purchased for Grace when she was born in 1897. However, it is worth noting that the Hertwig Company of Germany began releasing a version of these dolls starting in 1895 called "Pet Name" chinas (Theriault 2000; Doll Reference 2021; Bouchard 2023). All of these doll heads had the lowbrow hairstyle in either blond or black with one of twelve names painted on their front shoulder plate. One of these dolls was named "Marion" sharing Martha's youngest daughter's given first name. Marion Rosabell[54] was born in 1909 and was likely the child who prompted Martha's use of The Mother's Friend product as discussed previously. With this namesake doll on the market at the time of Marion Rosabell's birth, it is very possible that the china doll fragments in the assemblage belong to a Marion Pet-Name doll (Figure 5.9) purchased specially for her.

The second doll represented in the assemblage was likely an all-bisque doll or a bisque-head doll with composite limbs measuring around ten inches overall (Figure 5.10). She would have had a mold poured socket or shoulder head (Catalog Nos. 2008/507.01 & 2008/1246) with brown glass sleep eyes (Catalog No. 2008/312), feathered brows, a sewn or glued wig, and bisque arms (Catalog Nos. 2008/236, 2008/302, 2008/507.03). The partial "X" mark on one of the fragments may be from a maker's mark or indicate the doll style, which was commonly inscribed on the back of the neck or 'shoulder' portion of the mold (Doll Reference 2022a). Alternatively, the X may have been inscribed at the middle of the crown of the head to indicate where to place the doll's wig. The shoulder mount design of the arm is very similar to the Kestner all bisque doll mold 620 (Doll Reference 2023). This mold number has been found in the ten-inch size but is very rare as most all-bisque dolls are between three and eight inches. Kestner was one of the few German companies who manufactured complete dolls not just bisque porcelain heads roughly between 1880 and 1950, but there are several German bisque doll companies that could have manufactured these pieces. There are also examples of dolls with shoulder bisque heads and similar arms that were sold on stuffed fabric bodies (Lisa Stoddard 'RagTagOldies' 2023, elec. comm.).

[54] She was likely named in honor of her father, who was also named Marion but went by Jack or Jackson, and her step-grandfather Marion Gooding.

Figure 5.9 China doll fragments with comparative complete collectors' items for sale on Etsy.

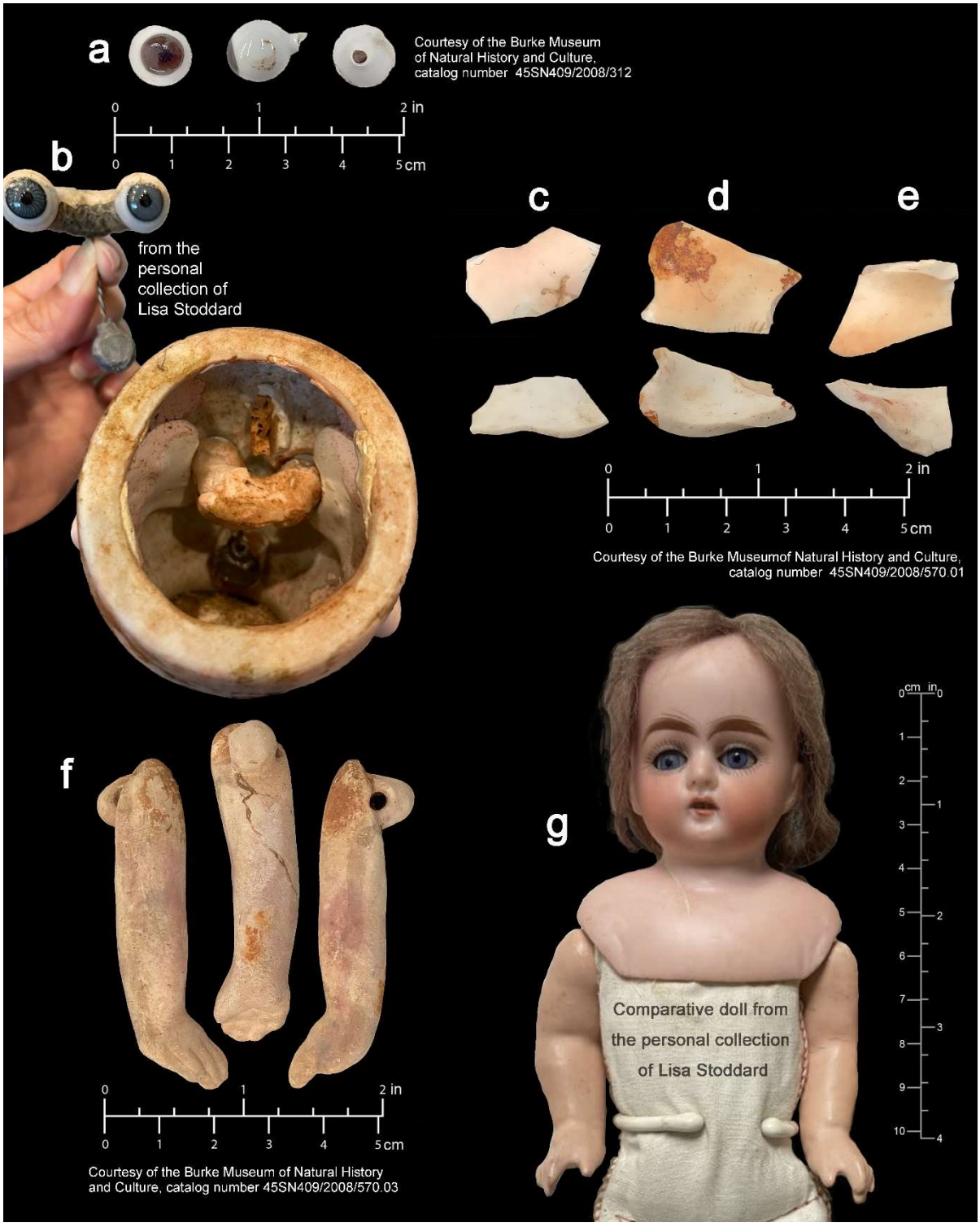


Figure 5.10 Bisque-head doll fragments with reference images of a similar doll design, and 'sleep-eye' weighted mechanism: (a) glass doll eye, would have been attached to a weighted assembly like that shown in (b) so that when the doll was laid flat her eyes would appear closed; (c) fragment of bisque head with engraved or impressed letter “X” with serifs; (d) fragment of bisque head face with small amount of brown hand painting, likely from the eyebrow; (e) curved bisque porcelain fragment consistent with bisque-head based on size, shape, color, and manufacturing method; (f) single doll arm, possibly unglazed porcelain, most likely composite.

Despite not knowing the specific manufacturer or model, these doll fragments are consistent with dolls sold in Sears & Roebuck catalogs and by other retailers during Rosabell's early childhood (Sears & Roebuck Co. 1910:399-400). The movable limbs and sleep eyes also would have facilitated increased involvement and 'mothering' practice compared to the china head doll. While we may imagine Rosabell playfully practicing on dolls, Grace, who was twelve years older, was likely serving as a maternal assistant to Martha in taking care of her baby sister and the home. Well on her way to journey-woman status, Grace would likely have been audience to many of the aspects of Martha's pregnancy, nursing, and rearing of Rosabell as well as keeping their home on Cox Avenue (Baxter 2005). This was of great benefit when she married in 1915, at age 18, and had her son four years later (U.S. Census 1930).[55] Through her close connection with her mother, she would have picked up the requisite skills to be a wife and mother and conceptions of her identity and role as a woman (Smith-Rosenberg 1975).

While this narrative of the journey from apprentice to master mother is easy to follow, it is key to remember that the concept of mothering in the sense of nurturing and caring for family is not "inevitably the exclusive domain of women" (Ruddick 1980; Arendell 2000:1192). It is probable that the Lovelace family was adhering to gender norms and roles based on social expectations or prescribed conceptions of good mothering. However, Martha also would have had her own beliefs that were shaped by her experiences and surroundings that consequently shaped her choices regarding how to raise her children. Rotman (2006:667) aptly states that "social relations and the ideologies shaping them are fluid, allowing for differential adoption of gender roles and variation in the physical spaces in which [those roles] operated." There were also many other family members contributing perspectives including Grace and Rosabell's father and five adult older brothers living at home, as well as their uncle Walter, who never married and their widowed aunt Carrie, who never had children and never remarried (Kruczek-Aaron 2002:183). It is quite probable that Carrie and other aunts and great-aunts of the extended Hurd family worked together in communal family care and mothering, particularly since they all relocated to the region around the same time period. The era of the Lovelace family's occupation at this site was certainly shaped by ideologies of motherhood and to a lesser extent industrial capitalism, but this era was also largely shaped by many new rights afforded to women, including the State of Washington granting women suffrage in 1910, which was in step with

[55] During this era, waiting this long after marriage to have children was not particularly common and may suggest that Grace employed scientific mothering for family planning. Adapting the ideologies of motherhood that she had learned from her mother and grandmother to the changing social and economic realities of womanhood is also not mutually exclusive of the delay resulting from difficulties conceiving or difficulty carrying pregnancies to term.

shifting national ideologies of equal-rights and domestic reform (Larson 1976; Rotman 2001; Stevenson 2009).

We cannot know the inner thoughts of these women to fully understand the context of their identities as mothers in this dynamic space and time. Operating under the assumption that women's social position was likely to be different from men's, the nuanced connections and choices exhibited by the women of the Hurd lineage disrupt "facile claims of universal female subordination" (Hendon 2007:158). When the matriarchs[56] of the family, Almira and Hannah, passed away in 1913 and 1915 respectively, familial ties to the town of Arlington were severed. By 1915, Marion Gooding had remarried and by 1917, all members of the extended family had left the Stillaguamish Valley (Western States Marriage Index 1915; U.S. Census 1920a). This suggests that one of the primary motivations for the family's occupation was to be near Almira following her marriage to Gooding. The family was also much more far flung throughout the state of Washington following the loss of their matriarchs, perhaps reflecting the increased ease of long-distance transportation after 1920, or the social and emotional role that Almira played as a familial keystone.

Throughout this chapter I have examined the complex negotiation of identities, specifically those surrounding gender and socio-economic class, in the urbanizing environment of Arlington, Washington, at the turn of the 20th century. Despite capitalist and gendered frameworks of property ownership and marriage initially obscuring the significance of broader kinship networks, three generations of women relocated at least one-thousand miles from Nebraska to build a support network around their mothers, daughters, and sisters, reflecting familial investment in female kinship. Discarded remnants of Martha Lovelace's regular consumption practices as the moral head of her household demonstrate a specific investment in the four principal ideologies of motherhood commonly prescribed to by middle-class literate women such as the women of her family. By the time the Lovelaces relocated to Arlington, Martha had already raised five hardworking voting sons as her civic duty under the ideology of republican motherhood and she may even have considered it her duty to raise her daughters with a similar civic mindset since women in her new home state were granted the right to vote one year after her youngest was born. If civic duty had not been part of her

[56] This term is typically associated with feminine strength and respect in white middle-class frameworks, which is my intention here. However, it would be negligent to ignore that 'matriarch' was specifically used in a negative way towards African Americans in a pivotal discussion of race and poverty known as the Moynihan Report in 1965. As assistant Secretary of Labor under President Lyndon B. Johnson, Daniel Moynihan, asserted that, what he deemed the 'matriarchal structure' of black culture, undermined black men's ability to function as authority figures and economic providers, thereby essentially blaming black women for the extreme socio-economic imbalance commonly observed in African American communities at the time (Moynihan 1965). Moynihan's argument clearly obfuscated the socio-economic inequality resulting from the systemic and institutional racism that has pervaded American society both during and following the abolishment of slavery (Davis 1981; Wilkie 2003:58–59).

mothering practices with her daughters, her moral duty would have certainly been ensuring the girls learned appropriate performance of domesticity, middle-class womanhood, and one day proper mothering of their own children through behavior modeling and apprenticeship in their 'sacred home.' She also taught them the value of scientific knowledge for the home in her selection of medicinal products that vociferously proclaimed their scientific nature and efficacy as well as their affiliation with the implicit endorsement of mothers as morally revered.

When the family experienced apparent financial stresses after the death of Martha's mother and grandmother, she may have been torn between her investment in the ideology of intensive mothering and the new economic reality prompting her to take on employment. Striving to maintain her family's middle-class status, which was also tied to her investment in her identity as a mother, Martha may have turned to the multi-level marketing opportunity provided by Mother's Salve. These kinds of ideological disjunctions are particularly characteristic of frontier spaces where different ideologies met and shifted as social groups and community infrastructures developed and transformed. The urbanizing social and economic environment of Arlington in the early 20th century was no exception. While the extended Hurd family likely experienced the tension of navigating their ideal identities, they were able to align with ideologies of industrial capitalism and good mothering much more readily than their indigenous, African American, or immigrant neighbors. The next chapter will discuss some of the specific misalignments and realignments of identity and ideology surrounding American citizenship and national identity experienced by a family who came from geographical and cultural spaces more distant than Nebraska.

Chapter 6: Where Were the Weimers From?

When contemplating the question of "Where are you from?" each of us probably has different immediate thoughts – some of us may think of our hometown, others might reference our ancestry. It is first essential to establish what that actually means in this context. In the context of this narrative, I will be utilizing the modernist conception of nations as mental constructs or 'imagined communities' (Anderson 2016). As Upadhyaya so aptly writes, "the essence of the nation is a psychological bond that joins a people and differentiates it, in the subconscious conviction of its members, from all non-members" (2006:79). A national identity can be composed of similar attitudes, behaviors, emotions, and perspectives that the bearer has developed through the passive dialogue of social learning (Parekh 1994:504; Wodak et al. 2009:4) These similarities are often shared due to a shared history or cultural heritage, which can be conceptualized either as shared ethnicity or shared governmental or civic alliance (Tilley et al. 2004; Das and Harindranath 2006). Ethnicity in this case is primarily a result of shared cultural experience or ancestry, while a civic identity reflects the political and governmental bounds and systems shared by citizens of a nation-state. Envisioning these ethnic and civic dimensions of national identity as continuous along intersecting axes (Figure 6.1) one individual may embody multiple national identities in varying degrees at the same time (Tilley et al. 2004). These dimensions could also be expanded to include as many identities as applicable for specific individuals beyond the primary dyad presented. For instance, one could add a gendered dimension of national identity as discussed surrounding the ideology of Republican Motherhood to visualize and conceptualize intersectional identities and experiences.

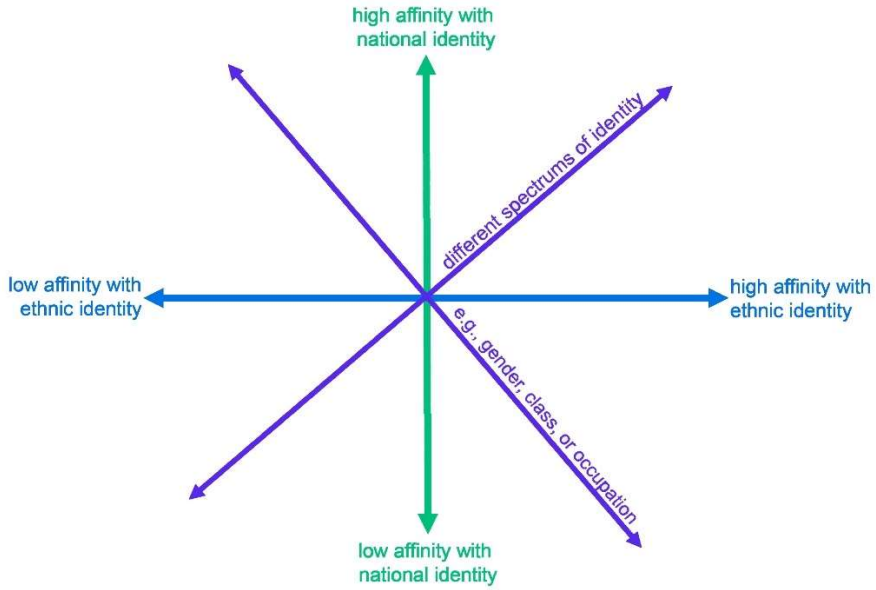


Figure 6.1 Dimensions of identity represented by intersectional axes representing the spectrums of ethnic and civic identity and the further intersection of other related identities such as class, gender, or occupation. Adapted from Tilley et al. (2004).

This fluid conceptualization of national identity is closely related to what Aihwa Ong (1999) has conceptualized as "flexible citizenship." Her definition of citizenship acknowledges the continuous dialogue between subordinated groups or individuals, such as subjects, citizens, or immigrants, and the subordinating nation-states, who act based on their economic demands or needs for prosperity (Ong 1999; Camp 2013). I employ Ong's definition because it allows for the ongoing processual conceptualization of citizenship "beyond the dichotomous categories of legal documents, which one either does or does not have, to encompass a range of gradations" and compliments the spectrum of national identities that individuals may fluidly embody or possess (Rosaldo 1994:57; Tilley et al. 2004; Camp 2013). Additionally, the process of flexible citizenship mirrors the processes of frontier interactions, where there is a defined locus of interaction, but that interaction is not temporally or spatially bound and may frequently present ambiguous or contradictory patterns (Liebmann and Rizvi 2008; Naum 2010; Eichner 2017; 2019). It is also valuable to recognize that "citizenship is not a legal or social category of belonging to which everyone aspires" (Camp 2013:9). Through this lens, citizenship may be simultaneously conceptualized as emancipatory and exclusionary, deeply meaningful and superficial, or pragmatic and idealistic (Holston and Appadurai 1996; Camp 2013:42). The interplay among these contradictions is most active in urban spaces such as the rapidly booming town of Arlington, Washington. Following the 1911 sale and removal of the original structure on lots nine and ten, the land stood vacant for nearly seven years until Canadian citizen, Hilda Weimer took ownership of the property and her husband, a German immigrant named Joseph, built a new dwelling on the property. While the Weimer family's occupation and contribution to the site was partially explored in the original research of 2008, the expanded scope of this thesis revealed more dimensions of family members' identities that raise important questions about national identity and citizenship.

"Racial or Tribal origin. *Origine selon la race ou ia tribu*."

Interpreting archival sources as artifacts of their lives, complexities of the Weimer family's ancestry provide valuable insights into the family's negotiation of citizenship and nationality. Anne Kemper[57] was born to a German hunter/trapper and an indigenous woman in Victoria, B.C. This meant that under the Canadian census field above, she would have been listed as "half-breed."[58]

[57] This is the most commonly used spelling of the family name, but one census more phonetically lists "Camper" which may suggest that their surname may have been closer to original German surnames such as Kamper, Kämpfer, Kaemper, Kaempfer, or Kamfer.

[58] In 1869, an immigrant to Canada named Joseph Hargrave remarked on this classification with distain, "This idea of the people of this country is not only unfortunate but uncalled for, as those who come here to judge for themselves soon see. The word half-breed merely signifies where there is a tinge more or less of Indian blood—but whoever started the term Breed ought to have been choked before he had time to apply it to human beings."

Anne's mixed ancestry and upbringing in the Catholic faith and surrounded by the fur trade situated her close to the cultural and ethnic identity of the Metís, who historically have catholic and French cultural practices developed along fur trade routes throughout Canada (Dahl 2013; The Royal Canadian Geographical Society/Canadian Geographic 2018a). Linguistically and legally the Canadian government did not differentiate between "Metís" and "half-breed" until 1982, treating the latter as a literal English translation of the former (Dahl 2013). As discussed above, identification with Metís as a civic or ethnic nationality would have to be something ideologically known by the Kemper or Luckovich family. None of the records to which I have access provide specific insight to how they identified. However, from the names chosen for their children and the racial identities listed on later census documents, we can see that the families selected Germanic names suggesting an affinity for this part of their heritage (Appendix C). Throughout Hilda's childhood the family lived in traditional areas of Nuu-Chah-Nulth (Figure 6.2a) settlement,[59] and her father was a fur trader like her grandfather had been (Census of Canada 1891, 1901). However, after the death of Hilda's indigenous mother, Anne, the Luckovich children's racial and ethnic background was declared as white and European, or at least the family was perceived as such by census takers. Here we see variation in the reading or expression of ethnic identity influenced by civic national identity.

Throughout different historical sources, Hilda's father, Antonio, is listed as being born or from several different places. On his marriage license to Anne Kemper, he is listed as born in "Porto Re (Austria)" (BC Vital Statistics 1885). Porto Re is the Italian name for a port city called Kraljevica in the Bay of Kvarner in Croatia, which is located approximately 80 miles south of the present-day Austrian border. Census documentation lists his ethnicity as Austrian, but his parents' birthplaces as Podgorica, Montenegro. Also, the family's first names are very traditionally Italian - including Giuseppe, Mary, and Antonio - while sharing the Slavic surname name Luckovich. These conflations of language and identity demonstrate Hilda's paternal heritage to be an amalgamation of political boundaries surrounding the Adriatic Sea (Figure 6.2b). Antonio Luckovich's listed occupation when he married Hilda's mother in the port city of Victoria, British Columbia, was 'sailor,' solidifying an ethnic heritage transcending land-based political boundaries or civic identity.

[59] Nuu-Chah-Nulth refers to a regional cultural and linguistic affiliation that encompasses the First Nations from the Western coast of Vancouver Island. However, it is important to note that the discrete delineations illustrated in Figure 6.2 are a product of colonizer frameworks and ideologies of land and space as discussed in Chapter 3 (The Royal Canadian Geographical Society/Canadian Geographic 2018b).

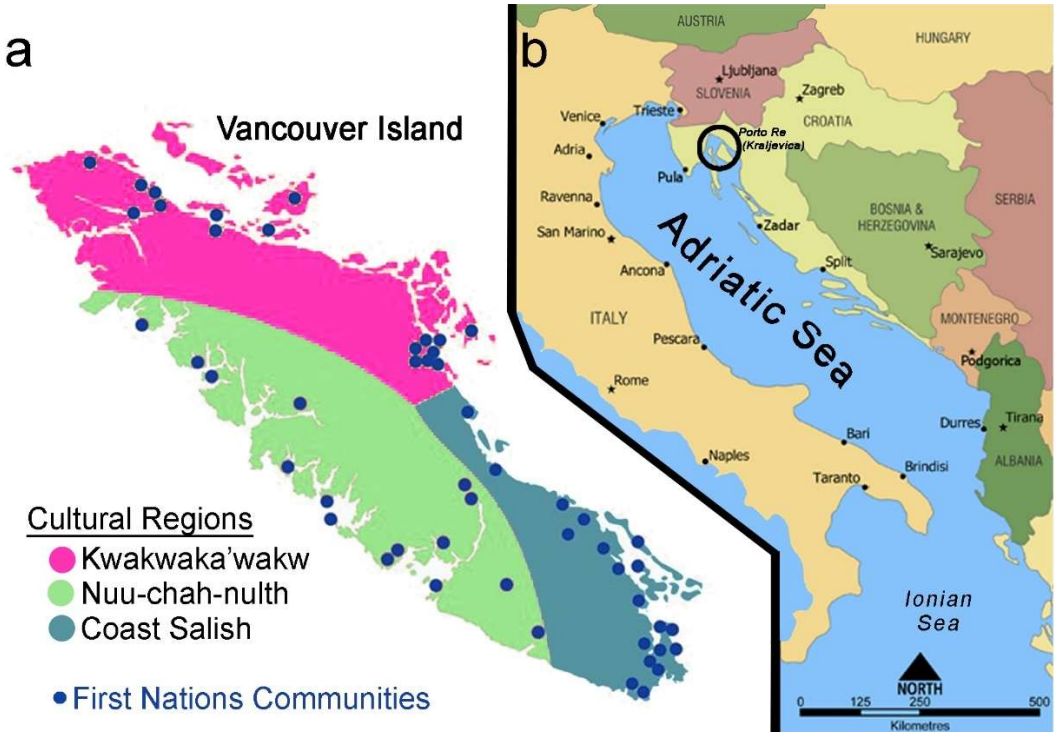


Figure 6.2 Maps illustrating Hilda Weimer née Luckovitch's maternal and paternal geographic heritage. a) First nations cultural regions and communities of Vancouver Island, British Columbia, Anne Kemper was tribally descended from Nuu-chah-ulth peoples; b) Regional map surrounding the Adriatic Sea, with Antoni Luckovitch's birthplace indicated.

Hildaagard Magdalen Luckovich and her five siblings were born at or near Hesquiaht on the west coast of Vancouver Island. This settlement has been the home of the Hesquiaht First Nation since time immemorial, but the establishment of a Roman Catholic mission in 1875 and the Indian Act passed by Canadian Parliament in 1876, changed the landscape drastically. Amidst assimilation policies and the creation of Indian Reserves,[60] the ongoing Kemper and Luckovich familial connection to this place suggests a connection to Hesquiaht tribal lineage within the larger Nuu-Chah-Nulth indigenous group. Hilda married Joseph Weimer in 1909, just nine years after he arrived in the pacific northwest from northwestern Germany (BC Vital Statistics 1909). Born in Aachen, there is very little documentation of Joseph Weimer's first years in Canada. Additionally, the couple had two daughters in the first five years of their marriage (Census of Canada 1911; U.S. Census 1920b).

Records suggest that sometime in 1914, Joseph left Canada for Southeast Alaska, leaving Hilda pregnant with their third child in Victoria under the care of her father. In November 1915, Hilda and her three young daughters traveled north to join Joseph via steamship (Immigration and Naturalization Service 1915). The couple's fourth daughter, Margaret, was born in Douglas, Alaska, on 19 May 1917 (*Alaska Daily Empire* 1917:7; U.S. Census 1920b). The birth announcement

[60] While there are obviously many parallels between the American and Canadian imperial structures imposed upon indigenous people, there are significant contextual differences that are beyond the scope of this narrative.

mentions that the family was bound for Chichagof, a nearby island where the population was primarily *Łingít* (anglicized to Tlingit) Native Alaskans and the largest industry at the time was the Hoonah Fishing Fleet and Packing Company (*Alaska Daily Empire* 1917; City of Hoonah 2018; Icy Straight Point 2023). The primarily indigenous Hoonah salmon seining and trolling fleet was considered one of the best in the world and also boasted exceptionally skilled shipwrights (Cheslock 2020). It is possible that there was a familial connection between Hilda's indigenous ancestry and this community along the northern Pacific Coast, or the family moved to participate in the economic boom of salmon fishing. Perhaps Joseph worked with the shipwrights or developed his skills as a carpenter in another capacity in the town of Hoonah. It is even possible that the *Łingít* shipwrights in Hoonah taught Joseph to work wood with glass fragments such as the possible thumb scraper MMGA recovered from AU A and discussed in Chapter 3.

Sources indicate that the Weimers moved to Arlington shortly after Margaret's birth, but there is no record of when the family legally acquired the property title. Joseph built the family a new home on lots nine and ten sometime during 1918 (Polk 1908; *Arlington Times* 1926b).[61] When applying for naturalization in 1919, the Weimers listed their departure from Seattle for Alaska as their arrival date in the United States. The earliest record of their residence in Washington State is September 1918, when Joseph registered for the draft, just two months before the armistice that concluded "the Great War" (U.S. Selective Service 1918b; Library of Congress 2023). The time period of the family's assumed residence in Alaska aligns almost exactly with the duration of World War I, and this is likely not a coincidence. Joseph's identity as a German immigrant likely provided strong motivation to leave the British commonwealth after the nation declared war on his homeland in August 1914. Hilda's family heritage was also closely linked to the assassination of the Austrian Archduke in the Balkans - which sparked what would become a global conflict - with her father's family roots in that region. The levels of investment in or expression of the many dimensions of Hilda and Joseph's national identity may have varied between them or over time individually, but it is clear that these identities shaped the events that led the family to Arlington.

[61] The home as constructed is shown on the 1940 Sanborn fire insurance map and there is no associated privy by this time. While Arlington didn't have municipal septic service until 1959, it is likely that when Joseph constructed the home an indoor bathroom was included and connected to a septic tank. There is no definitive record, and no clear evidence of a septic tank was found during the initial 2006 evaluation. While the privy was not being used for septic, it is very likely that the privy pit continued to be used as a trash repository by the Weimer family.

America, where they give you the world on a plate

Following their immigration to the United States, the Weimer family continued to navigate the complexities of national identity. The ethos of American nationalism during the era in which the Weimers immigrated was characterized most simply as exclusionary. The Immigration and Nationality Act of 1875 began a trend of legislation that made citizenship attainable for fewer and fewer individuals and life for non-citizens more and more challenging (Camp 2013).[62] Some scholars argue the motivation behind this exclusionary trend was due to the high volume and increased diversity of immigrants coming to the United States but these assumptions are overly simplistic and are simply not supported by the immigration data, which does not show any marked increase in number or diversity of immigrants arriving between 1900-1940 (Daniels 2004).[63] The most compelling reasons for the heightened American nationalism and exceptionalism of this era include: 1) the growing racism in the nation's collective consciousness, particularly through scientific racism and eugenics movements, 2) the global political shifts associated with World War I (WWI), and 3) the severe economic downturn following the collapse of the New York Stock Exchange in 1929 (Orser 2007; Camp 2013:32–38). To better understand the quotidian aspects of American nationalism and the Weimer's negotiation of American citizenship following their arrival in Arlington, the privy assemblage provides a material lens to examine how the family "used the acquisition of goods to express their beliefs about citizenship and their desire to make it in their own image" (Camp 2013:20).

Building upon the discussion of domestic homemaking begun in the previous chapter, choices for the decoration and management of the home were typically made by women (Purser 1992; Rotman 2001; Mullins 2004). Through consumption or shopping choices women were not only able to exercise power over their lives and that of their families but were also able to express individual and cultural identities through aesthetic preferences, values, and leisure activities such as entertaining guests or the ritual of tea service (Beaudry et al. 1991; Purser 1992; Cook et al. 1996; Grier 2014). According to the 1920 census, Joseph, Hilda, and their daughters, Anne (age 9), Hilda Teresa (age 7), Gertrude (age 4), and Margaret (age 2), were living on Cox Avenue. The year before they had lost a daughter, named Kathline, who died the day after she was born, but just over a year later their youngest daughter, Agnes, was born (Washington Birth Index 1919, 1921; Washington Vital Statistics 1919). With Joseph's self-employment as a carpenter providing the primary source of the

[62] Arguably this trend is still continuing, but more on that in Chapter 7.
[63] Historians commonly refer to this period as the "Progressive Era," I have chosen to not use this language due to the implicit association with specific values surrounding the concept of 'progress' or 'progressive' ideologies.

family's income, Hilda likely spent a great deal of time at home raising her five daughters (*Arlington Times* 1926b).

It follows that she would want her surroundings to be comfortable and affirming of her values, heritage, and identity. In examining the ceramics of the privy assemblage, I identified at least 26 examples of decorative dishes and teacups that were likely used as display pieces primarily and not necessarily for everyday functional use (Mullins 2011b; Grier 2014).[64] These ceramics were primarily recovered from AU A with some in AU B and percolation resulted in small fragments' deposition in AU C (Table 6.1). The development of china cabinets and curio cabinets as home display furniture during the 18th century reflected upper class European collection of ceramics and other objects from around the world (Lucie-Smith 1979; Johnson 1986; Rivers and Umney 2003). By the 20th century, china cabinets, also referred to as hutches, had become a common furniture fixture for middle-class dining rooms or parlors as part of the Arts and Crafts design movement (Lucie-Smith 1979; Dowdy 2005; Halder 2022). Given Joseph's skill as a carpenter he may have built the family's china cabinet to display the dishes that his wife likely purchased. Two of the decorative vessels from the assemblage (Catalog Nos. 2008/550, 2008/898, & 2008/1183) exhibit potential chipping on their back surfaces that could possibly be associated with display stands. One saucer has an iconic Flow Blue repeating floral transferprint decoration, and based on the manufacturing stamp is the Devon pattern manufactured by Alfred Meakin Ltd. from Tunstall, Staffordshire, England (Figure 6.3a). The other one of these dishes, a bowl with polychrome floral decals and possibly a gilt monogrammed letter "L" in the center, is almost certainly from the period associated with the Lovelace family's occupation based on its recovery from the lower strata of AU B and the upper strata of AU C and the narrow manufacturing window of 1905 to 1909, suggesting that the Lovelaces were also signaling middle-class status using decorative dishes (Figure 6.3b). Whether in a china cabinet or on a shelf with a stand, displaying ceramics from all over the world as decorative objects elevated a functional form to an art piece for the home and epitomized the notion of conspicuous globalized consumption (Majewski and Schiffer 2001; Dowdy 2005; Warner 2017; Halder 2022).

[64] This quantification is based on the entire assemblage MNI for ceramic wares (refined earthenware and porcelain) that exhibited decalcomania (MNI = 17), hand pained (MNI=5), and gilded (MNI=4) decorations, which are applied on top of the glaze and were therefore liable to wear off if used and washed regularly (White et al. 2008:21). Nearly all of the decorated ceramics in the assemblage exhibit multiple kinds of decoration, but the MNI classifications as listed appear to have been calculated based on the primary decoration type to eliminate duplication in counts. No decoration specific MNIs were reported for individual analytical units (ibid.).

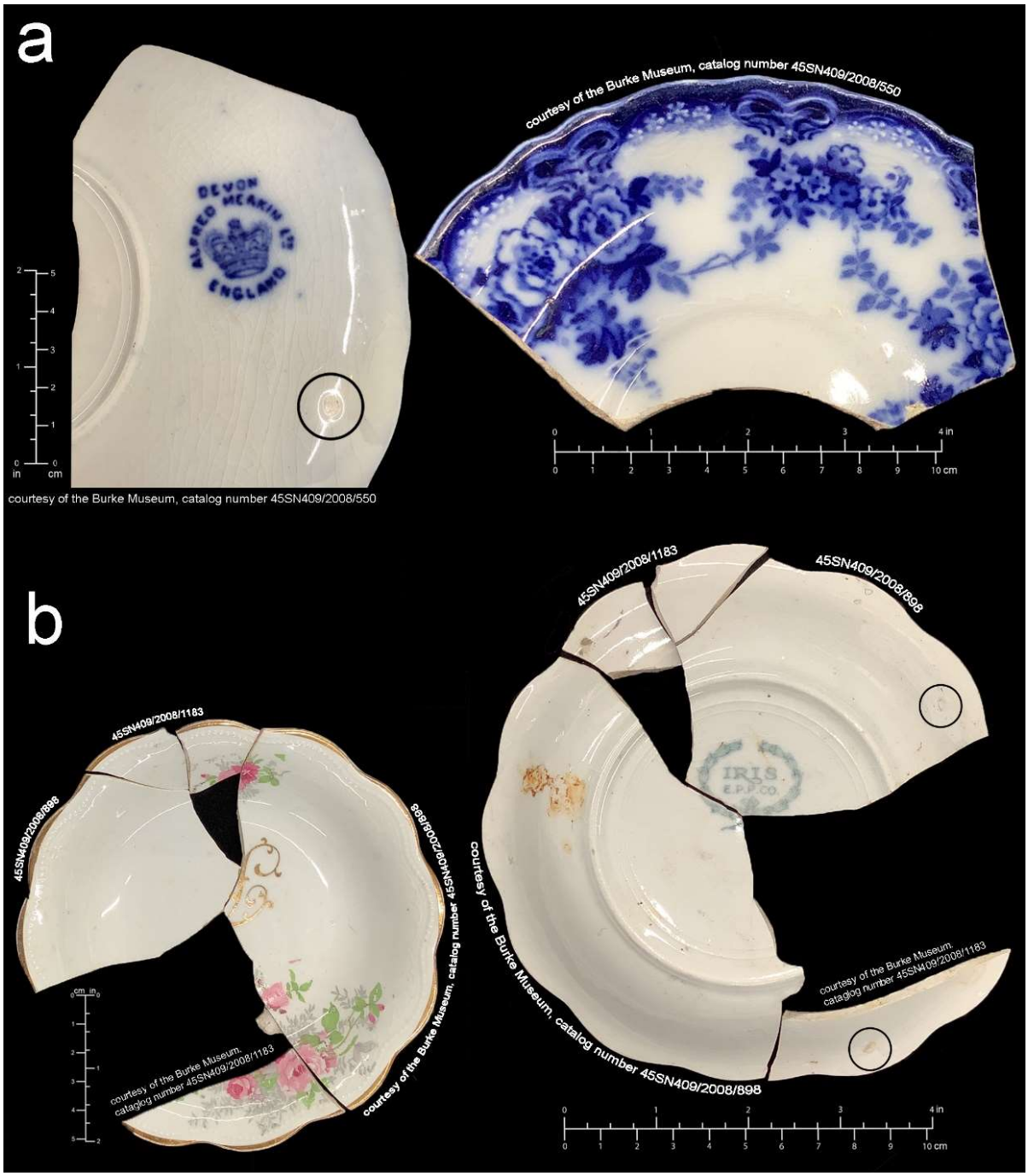


Figure 6.3 Decorative dishes exhibiting possible chipping from display stands (circled): a) Flow Blue saucer - Devon pattern, manufactured by Alfred Meakin, England; b) bowl with polychrome rose decals and possible gilded monnogrammed "L" manufactured by the East Palestine Pottery Company, Ohio, USA.

In addition to the choices made for comfort and aesthetic value, it is also possible that as immigrants, the Weimer family was attempting to conform to standards of modern middle-class American identity. Earlier in the 19th century, industrialization and steam engines had revolutionized commerce throughout the world by making trade along existing global networks more efficient and affordable (O'Rourke and Williamson 2002; Jacks et al. 2010). In the early 20th century middle-class

Americans consumption now had further reach, allowing families to demonstrate their modern and cosmopolitan sensibilities through their purchases. Although the Weimers had diverse heritage and experiences, to demonstrate their belonging in their new nation, they likely felt some pressure to 'keep up with the Jonses' in the increasingly metropolitan town of Arlington.[65] Using several examples of the decorative ceramics from the assemblage, we can see reflections of the Weimers' participation in global commerce as an ideological reflection of middle class 'Americanness' (Table 6.1).

Table 6.1 Summary of representative decorative table wares from the assemblage

Decoration and Object Description	Catalog Number(s)	Unit	Depth (cmbs)	Stratum	AU
Hand-painted holloware					
· porcelain holloware fragment	2008/172.01	1	15-25	I	A
Sometsuke doban (cobalt transferprint)					
· central floral medallion plate	2006/78	Trench 2	100-150	-	B
	2008/108	1	15-25	I	A
	2008/548	4	70-88	III	A
· cross-hatched floral saucer	2008/713	2	65-90	IV	A
· Ho-o Bird (Phoenix Ware) Teacup	2008/225	1	25-35	II	A
	2008/512	4	0-50	I	A
Multiple Overlapping Decorations					
· Saucer – Mignon pattern (Z. S. & C^{O} / BAVARIA) Molded embossed, hand painted (possibly airbrushed), pink rose decals, gilt rose decals and edge accent	2008/639	4	130-140	VII	C
	2008/832	4	110-130	VI	B
	2008/941	4	110-130	V	B
	2008/946	3	130-145	VII	B
· Monogrammed(?) Bowl Scalloped edge, molded dot border, polychrome pink floral decal, gilded edge and curvilinear central decal	2008/898	3	110-130	V	B
	2008/1183	2	126-132	VII	C
· Saucer – Devon pattern (ALFRED MEAKIN L^{TD} / ENGLAND) Scalloped edge, molded curvilinear and floral border, flowed blue floral transferprint	2008/550	4	70-80	II	A

Japanese Export Wares

Porcelain ceramics were originally only produced in China beginning around the time of the Eastern Han Dynasty (Weiss 1971; UNESCO 2023). By the 17th century both English and Japanese ceramicists had begun imitating Chinese techniques, but Imari (Japanese) porcelain was far superior functionally and aesthetically to their English counterparts (Weiss 1971). Japanese porcelains were only exported to the United States after 1854 following the signing of the Treaty of Kanagawa, which marked the end of isolationist national policies (ibid.; Ross 2012). Imari porcelain was typically made

[65] The phrase 'keeping up with the Joneses' comes from a popular comic of the same name in *The New York Globe* between 1913 and 1938. The comic illustrated the humorous somewhat futile struggles of a middle-class family to maintain their social standing by keeping up with the lifestyle of their archetypal neighbors, the Joneses (Holtz 2012).

for Japanese consumers in the vessel types that were applicable to their culture and customs and was popular among European and European American upper-class collectors due to its quality and exoticism (Jahn 2004; Ono 2013). However, by the 1890s, Japanese porcelain manufacturers began to market mass produced and highly decorative ceramics in styles other than Imari to Western consumers of the middle and upper classes (Mueller 1987; Ross 2012; Bibb 2023). These wares featured Japanese decorative techniques and motifs but were often applied to vessels that were specific to western cultural practice, including teacups with handles and matching saucers as well as cream and sugar vessels (Oates 1984; Van Patten 1986; Ross 2012). Within the privy assemblage there are at least two different Japanese decorative techniques represented that were commonly used on export wares after the turn of the century. One porcelain fragment from the uppermost strata of AU A (catalog no. 2008/172.01) exhibits both black and the tiniest bit of cobalt blue designs hand-painted over the glaze of what was likely from a bowl or cup based on its curvature and thickness (Campbell 2022; Renae Campbell 2023, elec. comm.). This fragment is too small to be particularly diagnostic and polychrome hand-painted designs were common on many Japanese export wares. However, the other decorative technique seen in the assemblage, called *sometsuke doban*, yields much more insight.

Sometsuke Doban (Cobalt Transferprint)

The use of transferprint (*doban* in Japanese) decoration on Japanese porcelain began in the 1880s, with its peak in export to the United States between 1900 and 1930. The characteristic use of cobalt pigment is referred to as *sometsuke* in Japanese, and was an aesthetic replicated by European ceramicists resulting in the well-known and popular flow blue whiteware (Gaston 1983). Within the privy assemblage there are at least three different examples of this decoration. The first representation of this decorative technique is a fragmentary plate (Catalog Nos. 2006/76, 2008/108 & 2008/548) with characteristic Chinese-inspired repeating floral motifs surrounding a central medallion (Ross 2012; Campbell 2021).[66] This object (Figure 6.5a) does not have any observable maker's marks but is stylistically consistent with several other Japanese export wares that date between 1890 and 1930 (Figure 6.5b) (Ross 2012:8; Renae Campbell 2021, elec. comm.). Another fragment of a dish (Catalog no. 2008/72.01) exhibits characteristic Japanese cross-hatching within the cobalt transferprint floral design (Figure 6.5c). As a generic representation of the decorative style of this era on what is likely a saucer based on the rim and footring diameter, this is an example of applying Japanese design elements to a western cultural ware type.

[66] The smaller, repeating geometric designs filling background spaces are also reflective of Japanese *doban* design elements called diapers (HJCCC 2023).

The third example of *sometsuke doban* in the assemblage, exhibits a design that typifies the multicultural nature of these ceramics. The vessel is a fragmentary porcelain teacup consistent in form with European tea service with a pattern called Ho-o Bird or Phoenix Ware (Catalog Nos. 2008/72.02 2008/512, 2008/225). This pattern "commonly includes images of ho-o birds, *karakusa* tendrils,[67] and paulownia and chrysanthemum flowers, along with one of several stylized rim designs" (Dower 1971:52; Oates 1984:18; Campbell 2021). On the fragments of the teacup in the assemblage, we see three of these characteristic design elements (Figure 6.5e). The other two elements were likely represented on the complete vessel and are seen in the comparative image of a small dish or saucer (Figure 6.5d). The Ho-o bird design is specifically Chinese in origin but was chosen by Japanese ceramicists to use for export to America and therefore is primarily found on western vessel forms as seen here (Oates 1984; Bibb 2023). This pattern was most popular from just prior to 1914 through the 1930s (Van Patten 1986:60). However, despite its notoriety as an export pattern, examples of Phoenix Ware have also been found at Japanese American archaeological sites, further reflecting the complexities of how this ware type was used to signal national identities and as the Praetzellises might say, 'mangle' symbols of the American middle-class (Praetzellis and Praetzellis 2001; Ross 2012:18; Campbell 2021). The commodification of these Japanese ceramics reflects a commercialization of cultural and national identity and an imperial consumption of other cultural identities as a reflection of American nationalism. The designs utilized on these wares have contextual symbolic meaning in Chinese and Japanese cultures but were likely not perceived in the same way by American consumers (Dower 1971). The exoticism of the designs and these objects symbolic status associated with their worldliness was likely more significant for middle-class Americans or recent immigrants like the Weimers who were seeking to perform middle-class American identity conspicuously.

[67] *Karakusa* is Japanese that is commonly translated as "arabesque" and literally translates as "Chinese grass/weeds" (Historical Japanese Ceramic Comparative Collection (HJCCC) 2023b). This winding, spiraling motif is said to have originated in Ancient Egypt or Greece but made its way to China via the silk road; by the 7th century the design was brought to Japan along with Buddhism and has since become a motif peculiar to Japanese design (Fuchigami 2001).

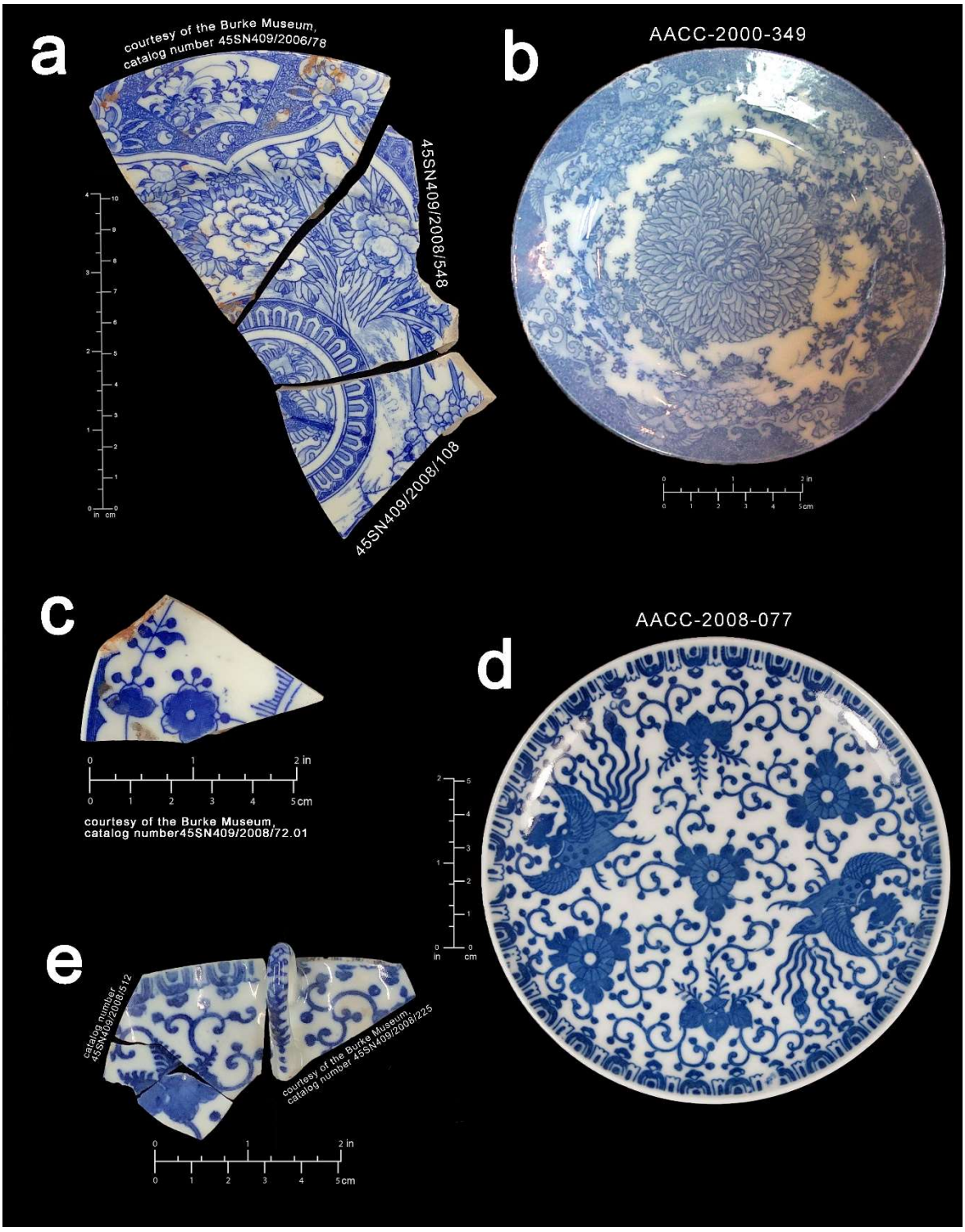


Figure 6.4 Examples of *Sometsuke doban* ceramics from the assemblage: a) cross-mended plate with typical Japanese design elements including a central medalian, floral motifs, and diapers; b) comparative dish with similar design elements as the preceeding plate, courtesy of the Asian American Comparative Collection, University of Idaho; c) saucer or small dish fragment exemplifying Japanese *doban* crosshatching decorative technique; d) representative image of a saucer with the Ho-o Bird design, courtesy of the Historical Japanese Ceramic Comparative Collection; e) cross-mended fragmentary western style teacup with Ho-o Bird *doban* design.

Decal-co-Mania

Industrialization and mechanization of ceramic manufacture during the late 18th and early 19th centuries resulted in an explosion of decorative techniques. Building off of the concept of transfer printing, decalcomania allowed even more complex designs in multiple colors to be transferred to ceramics on top of the glaze very efficiently and affordably (MACL 2015; Eichner 2021). Demonstrative of the accumulation of decoration techniques by the early 20th century, is a nearly complete saucer in the privy assemblage with embossed relief designs, hand painted green gradient background, a gold gilt rim, pink rose decals, and gold gilt rose decals (Catalog Nos. 2008/639, 2008/832, 2008/941 & 2008/946). This fragmentary object was recovered primarily from AU B, with at least one fragment percolating downward into AU C (Table 6.1). Acknowledging that AU B, particularly these lower strata, is generally most likely to be associated with the Lovelace née Hurd occupation era of the site, I am leaning heavily on my past arguments of percolation and depositional disturbance and also taking some interpretive liberties by including this saucer in the narrative context of the Weimer family.

The hodgepodge of design elements incorporated in this single saucer reflects an overt expression of consumption approaching gaudiness that is not reflected in earlier ceramics (Figure 6.6). The indiscriminate use of design elements reflects values of conspicuous consumption in demonstrating what could be done with modern ceramic decoration without the restraints of past techniques, aesthetic boundaries, or functional practicality[68]. This saucer is also imported, reinforcing patterns of global commerce. The maker's mark on the base of the plate (Figure 6.6 inset) indicates that the saucer was manufactured by Zeh, Scherzer & Company, which was located in the city of Rehau in Bavaria, Germany (Marshall 2023). Based on the partial text above the manufacturer information, it appears that the design of the saucer is in the "Mignon" series. This maker's mark dates the manufacture of this saucer between 1880 and 1918.

The selection of a German manufactured ceramic may also be a nod to the Weimer family's German heritage, which was potentially a source of pride for multiple generations based on given names in the family. It wasn't until the late 19th century that Germany's ceramic and porcelain manufacturing became highly respected on a global level and the positive visibility of their ancestral country may have helped ease the discomfort of American anti-immigration rhetoric. Alternatively, this object illustrates historical archaeology's unique ability to explore the "space between often very powerful master narratives of cultural and social identity, and much smaller, stranger, and potentially

[68] Were this tea service subjected to regular use, the decals and gilding that were applied over the ceramic glaze would have worn off quite quickly. Their extremely well-preserved condition in the archaeological assemblage suggests that this object was clearly for display, not practical every-day use.

subversive narratives" (Johnson 1999:34 in Praetzellis and Praetzellis 2001). Even as the Weimers were asserting their American citizenship and distancing themselves physically from the German continent, this saucer may have been a way to express their German heritage through the acceptable lens of decorative dishes. While the plate certainly epitomizes conspicuous consumption, the manufacturing information is inconspicuous and may have provided a subtle or secret way for the Weimers to reinforce and display German heritage and identity. As discussed in the opening of this chapter the nuance of identity and citizenship expression or investment is fluid and there may have been times throughout the family's occupation at the site where either or both of these proposed meanings could have been accurate for one or more members of the Weimer family.

Figure 6.5 Nearly complete saucer exhibiting numerous ceramic decorative methods; upper right shows the maker's mark as seen on the base of the saucer and a comparative complete maker's mark as seen on a complete object, like the one shown at the bottom right.

The eldest daughter, Anna either joined or was sent to the Home of the Good Shepard convent in Seattle (*Arlington Times* 1926c:6; Washington Vital Statistics 1926). The convent included a girls' orphanage and a commercial laundry with young women segregated into two areas: 'Angel Guardian' and 'Sacred Heart'. The northern Angel Guardian portion was where novitiates were educated, and orphans were cared for. The Sacred Heart in the south of the convent was for young women who were considered wayward and in need of moral correction; they worked as laundresses as part of their penance (Harris 2002). It is unclear the reasons or motivations that led Anna to the convent or which of these groups of women she would have been placed in. While

compliance with the cult of domesticity and other ideologies of middle-class American womanhood were clearly important to the family, perhaps Anna did not embody her parents or her community's expectations sufficiently. Alternatively, she may have felt that joining the convent was the most socially acceptable way to adhere to social expectations of moral womanhood without the requirement of becoming a mother.

Penny for your thoughts…

It seems fitting that since the biography of this site began with a penny, it should end with one as well. The second penny (Catalog No. 2008/482) is a 1920 Canadian large cent. The obverse (Figure 6.7a), designed by Sir E. B. MacKennal, features a bust of King George the Fifth in coronation regalia with Latin text circumscribed, "GEORGIVUS V DEI GRA: REX ET IND: IMP:" (Haxby 2011; Kokotailo 2023; Piva 2023). The reverse (Figure 6.7b) reads "ONE / CENT / CANADA / 1920" encircled in a wreath of maple leaves with concentric dot borders and was designed by W. H. J. Blakemore (Haxby 2011; Kokotailo 2023). This penny reflects the Weimer family's ongoing cross-border connection to Hilda's father and siblings and raises some interesting questions regarding cross-national dynamics surrounding the time of its mintage.

Figure 6.6 Canadian Large Cent minted in 1920, artifact photos top, nearly uncirculated coin as posted on eBay for comparison on bottom; a) reverse of coin with oak leaf wreath and text that reads, "ONE CENT CANADA 1920." b) obverse of coin with bust of King George and latin inscription.

As prohibition was ramping up in the state of Washington and the United States overall, the province of British Columbia was withdrawing their liquor prohibition laws (Becker 2010; Hallowell 2020). The fallout of World War I had resulted in the destabilization of the German economy and growing political influence and support of German nationalism (United States Holocaust Memorial Museum 2023). Based on these global events the Weimer family's national identities continued to potentially put them at odds with the American identity that they were attempting to assimilate during the 1920s. In addition to likely being affected by these global social patterns, the family experienced a series of events that the archaeological record does not provide sufficient tools to understand. Hilda was widowed in 1926, when Joseph drove nearly a mile north of their home and drowned himself in Lake Armstrong. This event was front page news in *The Arlington Times* (1926b), and the newspaper printed his informal will and suicide note that he had left on the front seat of the vehicle:

> Joseph Weimer.
> Leave everything I own to my wife, Hilda Weimer.
> Good by, darling children. Hope you ─
> Too much for one man.
> Good by, everybody"

Suicide is frequently met with profound confusion in addition to the grief and hurt experienced by the loss, and Joseph's family, friends, and community speculated "as to the incentive for the rash deed" (*Arlington Times* 1926b). Explanations included the prevalence of familial illness causing financial insecurity, or Joseph's dissatisfaction with his health leading him to confide that he would rather not be a burden to his family despite appearing in good health and successful in his work. With his Catholic faith at odds with his decision, I am led to wonder if Anna had been sent to the convent for something her family or society deemed a violation of the cult of true womanhood and how this might have played a role in Joseph's state of mind. Alternatively, his identity as a German immigrant in the wake of the first World War, and his possibly intentional avoidance of participation in the conflict in Alaska, may have weighed on his conscience. At the time, the town of Arlington's civic pride was very tied to honoring veterans who fought in the war, which may have been at odds with Joseph's heritage and past decisions as he sought to integrate into the community. Ultimately, as his obituary stated, that the reasoning for his choice, "as is usually the case, is best known to the deceased," but I am sure that Hilda and her daughters would have given much more than a Canadian large cent to know Joseph's mind (ibid.).

Three months after her father's suicide, on Christmas Eve, 16-year-old Anna died of tuberculosis at the convent (Washington Vital Statistics 1926).[69] Anna is listed as a 'student' on her death certificate suggesting she was more likely a novitiate than a 'wayward girl' of Sacred Heart. She had two aunts who were Sisters of St. Anne in Vancouver and Victoria B.C., which may have influenced Anna's decision to join or her family's motivation to send her to the convent (*Arlington Times* 1926b). The obituary published for the Weimer's eldest daughter was less than 50 words and did not mention her family attending her funeral services and burial in Seattle, perhaps reflecting the profundity of the family's grief, Hilda's shame or disownment of her eldest daughter, or financial destitution following Joseph's unexpected death (*Arlington Times* 1926c).[70] These ultimately tragic experiences for the Weimer family during the decade following the manufacture of this final artifact reflect one of the most significant limitations of (historical) archaeology. While the discipline has developed numerous methods, tools, and models of understanding based on broader social patterns and implications of belief systems and personal identity, all archaeological interpretations are based primarily on what we can observe materially. Despite our desire to understand the thoughts and intentions of people in the past, we are only able to make educated interpretations using the data available through artifacts, archives, and memories.

End of an Era

1920 was the last year that Canadian one cent coins were struck on the standard size of the British half penny and during that same year, the Royal Canadian mint began striking small cents that were the same standard size as American pennies (Kokotailo 2023). Hilda Teresa would have used these new Canadian pennies after moving back to British Columbia sometime before she was married there in 1931 (BC Vital Statistics 1931). The coin may have been brought back to the Arlington home on one of the eldest daughter's visits or by other extended family from Canada who were known to be in town at least for Joseph's funeral in September 1926. In 1935, Gertrude Weimer married a man in the U.S. Navy and moved to California. She was followed by younger sister, Margaret, sometime soon after (*Arlington Times* 1940:3; Sacramento Public Health 1968). In 1939, Hilda was still living at Cox Avenue with her youngest daughter, Agnes, and her son-in-law when she quit claim deeded the property to her neighbors, Roy and Helga Thompson (U.S. Census 1940; Chicago Title Company

[69] Her death certificate specifically lists "hemoptysis" (coughing up blood) as the cause of death, with pulmonary tuberculosis as contributory. Perhaps the jars of Mother's Salve were utilized by the Weimer family to ease her cough before she moved to Sacred Heart. Anna's highly specific cause of death contrasts the vague discussion of Calvin Teagar's death from 'lung disease' and his possible use of Piso's Cure for Consumption with alcohol and cannabis just 20 years prior.

[70] Census records show that Hilda took up work as a house servant in Arlington and later a housekeeper to financially support her youngest children, effectively dashing her hopes of demonstrating citizenship through ideologies of middle-class motherhood.

report in Gillis 2006a; White 2008a). By 1941, Hilda moved to Everett, Washington, where she remarried (Polk 1941:494; Snohomish County Marriage Records 1941) Agnes also remarried in 1942 and then moved to California likely to be closer to her sisters (Snohomish County Marriage Records 1942; Sacramento Public Health 1991). Presumably the Thompsons moved into the house after Hilda's departure and sometime before 1944 they built a garage in the southeast corner of the parcel, covering whatever may have been left of the privy with the concrete foundation for this new structure (Snohomish County Assessor 1971). This seemingly unremarkable concrete garage floor served to seal the privy and ensured the preservation of the assemblage around which this whole narrative is built.[71]

The final aspect of the Canadian penny to discuss here is the overt imperialism reflected in the object. The translation of the Latin text on the obverse of the penny, "George the Fifth by the Grace of God: King and Emperor of India," which speaks to Britain's specific imperial legacy throughout the world. American national identity has always been defined by imperial politics and tensions surrounding citizenship, the colonies were sovereign to George III when the founding fathers of the United States questioned if their rights as British citizens were being upheld overseas. Interestingly during the earliest years of America's infancy, the socio-political attitudes surrounding citizenship were much more inclusive than during the era surrounding the Weimer's immigration (Camp 2013). The newly established republic was motivated to produce goods and food for the British Empire, meaning that the arrival of immigrants signaled the arrival of additional labor. The American conceptualization of citizenship ebbed and flowed from inclusive to exclusive to varying degrees prior to the early 20th century, when the Weimer family entered into these ongoing negotiations of national identity and citizenship. The family's primary symbolic dialogue with these ideologies was through what Stacey Camp (2013:11) describes as the "gnarly, tangled relationship between citizenship aspirations and consumption." Their particular engagement with global markets through imported ceramics from Japan, England, and Germany demonstrates the throughline of imperial politics in American identity. Within this larger global framework, the Weimer family "creatively and strategically merged material practices […] redefining American citizenship on their own terms" and contributing to the diversification and refashioning of what Americanness looks like in the archaeological record (Camp 2013:64).

[71] When the concrete foundation was later removed during demolition by the City of Arlington, fill material from offsite was brought in to fill the void left from the foundation (White 2008a). This fill comprises what has been referred to as 'overburden' in the assemblage context presented in Chapter 2.

Chapter 7: The Story Continues

The biographies presented in the preceding chapters have been constructed using relatively few objects, from a relatively short timeframe, in a relatively small space. Through these stories of 'small things', I have drawn connections among and between these objects and national and global narratives of the past with which we continue to engage throughout our modern lives (Deetz 1996). In these biographies we see "the value of studying actions and interactions formerly considered too small in scale, too common in occurrence, and too intimate in psychological affect to contribute to models of social evolution or the explanation of culture change" (Hendon 2007:158). Throughout this narrative I have explored colonization and urbanization of the Pacific Northwest through themes of delineation of physical space, industrial capitalism, gendered ideologies of motherhood, and national identity and American citizenship. In this final chapter, I will briefly contextualize the afterlife of the site to provide readers with a snapshot of other lifetimes beyond the end of the archaeological scope. I will then explicitly enmesh what I have thus far mainly presented as separate themes for separate households using the concept of gestalt. Finally, I will revisit the application of the biographical approach to archaeological collections as a particularly valuable tool for nuanced narrativization of the past and highlight the numerous opportunities for continued work with this assemblage and others like it.

Artifact Afterlives

The end of discrete deposition at the location of the privy curtailed the site context and therefore the scope of the archaeological narrative. But where the site ends, where this thesis ends, the story does not. The data presented in this thesis represent only a fraction of the assemblage from the Teagar/Weimer site. Based on the discussion of entangled and ambiguous narratives just discussed, there are hundreds of stories that have yet to be told about these artifacts, these families, and this place. The assemblage itself has its own life course that has yet to be fully realized. The story of these artifacts will continue to grow and change as the collection is maintained at the Burke Museum. As other researchers and members of the public interact with these objects, they will shape their meaning and have their understanding of the past and present shaped by them in turn. For archaeologists, the present is multitemporal, intrinsically composed of an infinite number of time spans that are inscribed in the matter of the world (Buchli and Lucas 2001; Hartog 2015; Olivier 2019). The past itself is nothing other than that which has survived, constantly prolonging and transforming itself to arrive in the present. Moreover, the communities surrounding this site have also continued to grow and change

beyond the context of the privy assemblage. The ripple effects of the themes discussed throughout this thesis continued to shape peoples' lives.

In 1936, the Tulalip Tribes adopted a constitution for tribal government and in 1953, the Stillaguamish Tribal Council approved a separate constitution for Stillaguamish Tribal governance (Stillaguamish Tribe of Indians 2021; Tulalip Tribes 2023a). By adopting constitutions fitting with the American federal standards of governance, tribes are able to operate as sovereign nations with government-to-government recognition from the United States. Between 1976 and 1978, the Stillaguamish Tribe of Indians achieved federal recognition as a nation and tribe separate from the amalgamation of Tulalip Tribes originally established by the Treaty of Point Elliot in 1885 (Ruby and Brown 2001; Stillaguamish Tribe of Indians 2021). In 2011, the Hibulb Cultural Center and Natural Preserve opened on the Tulalip Reservation as a place of cultural preservation, education, and legacy for the tribal community (Hibulb Cultural Center 2023a). The Stillaguamish Tribe was granted a 64-acre reservation by the federal government in 2014, to centralize their community and create a "permanent homeland" for the tribe (Bray 2014). Three months after I completed my research visit to the Burke Museum and the Stillaguamish Valley in 2021, the Arlington City Council "unanimously adopted a land acknowledgement recognizing the city as the homeland of the Stillaguamish people" (Breda 2021). A councilmember sponsored the acknowledgement out of respect and an acknowledgement that the indigenous inhabitants had been "swept aside" by the white settlers who came to the area. Tribal members shared that the land acknowledgement was a positive reflection of cultural acceptance; Tracey Boser, a tribal elder and cultural resource specialist said "…now everybody remembers that we're still here" (Breda 2021).

Starting in 1972, the Stillaguamish Valley Pioneer Association, which was originally created in 1912, organized and promoted Stillaguamish Valley Frontier Days to celebrate the progress achieved by the strong and adaptable pioneers of the area. Frontier Days celebrations dwindled by the mid-1990s, but the Pioneer Association still holds annual picnics to remember their community heritage on the third Sunday of August every year (Rausch 2023; Stillaguamish Valley Genealogical Society 2023a). In 1985, the Stillaguamish Valley Genealogical Society was established and has grown to include "thousands of genealogical and historical" resources within their independent library (Stillaguamish Valley Genealogical Society 2023b). These organizations preserve and educate descendants and the general public alike about how the lives of early settlers of this area were both strikingly different and similar to our lives today.

In January 1998, the deed for lots 8, 9 and 10 of block 40, where the Teagars, Lovelaces, and Weimers lived, was purchased by the City of Arlington. A year later, the city of Arlington annexed the nearby community of Smokey Point into the incorporated city, much in the way Haller City was

originally annexed in 1903 (City of Arlington 2023). In 2005, the city public works department demolished the home built by Joseph Weimer in 1918 and the outbuildings built in the 1940s in preparation for the development of The Arlington Water Reclamation Facility (White et al. 2008). Between 2006 and 2008, Northwest Archaeological Associates provided cultural and historical resource consultation and mitigation for the City of Arlington resulting in the recording of the Teagar/Weimer site and the successful implementation of the state-of-the-art water reclamation facility for Arlington Public Works (Gillis 2006a; White et al. 2008; City of Arlington Public Works 2009). The Public Works office is located on West Cox Avenue and their parking lot covers the location of the archaeological site; Cox Avenue was originally named by Maurice Haller in 1890, likely in honor of his mother's and wife's shared maiden name (Conrad 2023). Although the site would now be unrecognizable to the occupants whose lives were explored throughout this thesis, the collection from the privy assemblage continues to offer innumerable opportunities to question identity and meaning in the past.

Gestalt Understanding

In order to more clearly conceptualize the story of this assemblage, I found the framework of "gestalt" to be extremely useful. Based on the German word which literally means 'shape' or 'form' the concept of gestalt has come to refer to an organized whole that is more than or different from the sum of any or all of its parts (Merriam-Webster 2023b). This meaning originated with Goethe in the early 19th century and has come to be applied in philosophy, psychology, and visual arts (Wagemans 2015). The artistic use of gestalt theory led to the development of ambiguous images or reversable figures, where the observers' perception of an image results in two or more different subjects within the same image (Kornmeier and Bach 2012). The duck-rabbit illusion and "My Wife and My Mother-in-Law" (Figure 7.1) are examples of this visual effect in practice (Fliegende Blätter 1892; Hill 1915).

Extending these principles to archaeology and the narrative construction surrounding the Teagar/Weimer site, the assemblage and its meaning are significantly more than the sum of the strata, the analytical units, or the individual objects (Wenger 1997). Considering an archaeological image of each 'household' represented by each family's occupation and deposition of material waste into the same privy pit, there are overlapping images of frontier experience and social and individual identity that can be perceived from the same overall picture of the assemblage as a whole. We can also see how slight perspective shifts allow our mind to draw connections between individual and familial identities and the national ethos of the American West and global contexts of consumerism, socio-economic class, and gender performance.

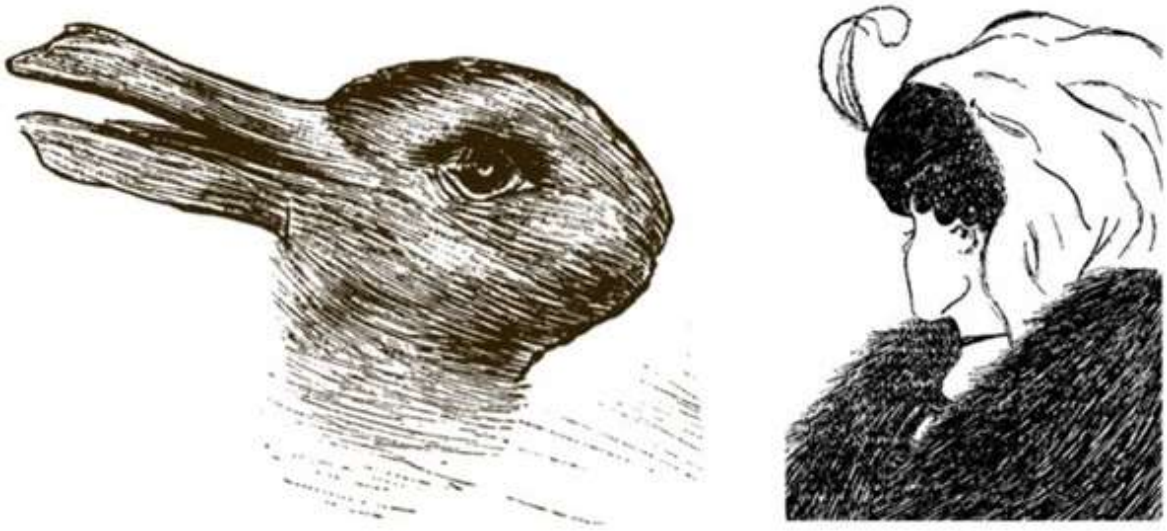


Figure 7.1 Optical illusions that illustrate the concept of gestalt. Do you see a rabbit facing right or a duck facing left? Do you see a young woman looking away with a feather in her hat or an old woman with a large nose shrugging down into her fur coat? Are you able to visually switch back and forth between duck and rabbit, young and old?

For example, in the same way that the explanation of the images above allows the brain to hold overlapping subjects of the same image simultaneously, the doll narrative presented in Chapter 5 is one subject within the picture of the assemblage while another subject using the same exact data could just as easily have been used to describe the relationships between Hilda Weimer and her five daughters. By shifting the perspective just slightly, new insights are gained in considering that the immense popularity of German-made dolls in the early 20th century, may have been a point of ethnic pride for the Weimer family and allowed the first- and second-generation immigrant parents to share a facet of their national identities with their children. Similarly, Myrtelle Teagar was almost certainly mindful of republican, moral, and scientific motherhood as she raised her two sons alone and was the sole proprietor of the Teagar Drug Store after Calvin left her for another woman in 1903 (U.S. Census 1910c; L. Kraetz 2021, pers. comm.). The examination of the Weimer family's identity as immigrants is also just one subject within the larger framework of national identity construction, but by shifting perspective slightly and considering the indigenous families who had lived around s*q̓ʷúʔalqʷúʔ* since time immemorial, the Teagar and Hurd families were just as much, if not more so, immigrants when compared to Hilda who had regional indigenous heritage.

When considering these examples, almost every interpretive perspective used throughout this narrative is primed for these minute shifts allowing multiple meanings (frequently more than two) to coexist in the narrative simultaneously. Due to the limitations of the scope of this thesis and my inherent biases of experience and interest, there are numerous subjects obscured throughout the picture of the assemblage that are not necessarily recognizable. To expand the metaphor of the illusions, perhaps another person observing the duck-rabbit image sees a piece of driftwood as well.

In the context of my interpretive frameworks, an example of this can be seen in my discussion of gender roles and performance. My work here exclusively focused on womanhood, motherhood, and femininity as constructed by white European cultural conceptions of gender identity and the gender roles associated with that identity. However, there are numerous cultural and ideological frameworks from which the gendered aspects of this assemblage could be approached such as queer theory or theories of masculinity that would exponentially expand the meanings of the biographies of objects and families presented here.

Entangled Narratives

While each of the previous chapters were centered around specific familial groups and often linked a specific theme to each family's experiences to present a linear and traceable narrative, I hope that you as the reader began to notice that none of the themes discussed operate independently. Instead, these themes are all part of a complex inter-related network of systems and ideologies that feed into each other (Figure 7.2). Examples of how these themes are entangled can be seen throughout this narrative. The delineation of space, volume, and value that I have associated primarily with capitalism is also mirrored in the delineation between domestic and public spaces and the associated genders presumed to be dominant in those spaces. Performance of gender and national identities within the American middle-class are explicitly linked to the capitalist frameworks of consumption, which are also inherently connected to racial and ethnic identities. While explicitly acknowledging the complex relationships among these concepts is at times cumbersome or overwhelming and frequently imperfect, the ability to increase the depth and nuance of our understanding of material culture is well worth it.

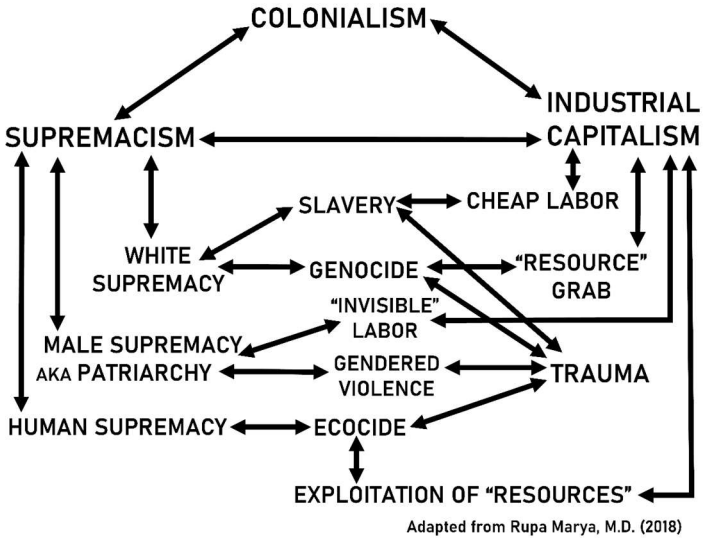


Figure 7.2 Diagrammed network demonstrating the cyclical entanglement of structures and ideologies surrounding colonization, supremacism, and industrial capitalism.

Empathy as a Catalyst

Olivier (2019:19) eloquently describes temporal entanglement of the archaeological method, stating that "archaeology is not the study of 'the past in the past', but rather of 'the past in the present', which means that archaeology does not really deal with the past as it once was, when it had not yet become the past – but rather with the memory of the past as it still exists in the material present." This interwoven reality of past and present is what allows archaeological work to have meaning in contemporary conversations and evoke empathy across time and identities (Spector 1993; Reilly 2019). The aphorism that "those who cannot remember the past are condemned to repeat it," still rings true, but I believe that remembering alone is not enough (Santayana 1905:284). The ability to empathize with the past allows people in the present to recognize the trauma caused by systems of oppression and make intentional and acute choices to dismantle structures that no longer serve our present or future. This ongoing discourse with the past is one of the tools we can use to break the cycles of oppression illustrated in Figure 7.2 and empathy serves as the catalyst.

The narratives of landscapes, objects, and people that I have presented in this thesis strive to make their lives relatable to specifically demonstrate how the concept of frontier as imagined and experienced at the confluence of the Stillaguamish River from 1890 to 1940 was not so different from the socio-cultural challenges our nation is grappling with today. The discussion of Chapter 3 is extremely relevant as indigenous scholars and activists continually negotiate and reassert treaty rights, land stewardship, and indigenous sovereignty under the constant threat of industrial capitalist 'resource exploitation' endeavors such as the Hanford Site on ceded Yakama lands, the Dakota Access Pipeline on the Standing Rock Sioux Reservation, and Pebble Mine in Bristol Bay (Fitterman 2003; Shinn 2019; Reynolds 2023). The economics and social values of product manufacture, marketing, and sale, as discussed surrounding the Teagar family business, have taken on heightened significance in the modern paradigm of online shopping and "free two-day delivery," which have increasing social ramifications surrounding class and consumption in America (MacGillis 2021). In this rapidly shifting economic landscape where middle-class households cannot survive on a single income, the prevailing American ideologies of republican, moral, scientific, and intensive mothering that the extended Hurd family valued, continue to disproportionately impact working mothers socially, economically, and psychologically as they negotiate identities of motherhood (Bueskens 2018; Cukrowska-Torzewska and Matysiak 2020). Immigrants to the United Sates continue to navigate increasingly opaque and extremist immigration policies while negotiating and asserting national identities and American citizenship in multivalent ways, just as the Weimers did prior to the end of archaeological deposition at the site (Camp 2013; American Immigration Council 2014;

Krogstad and Gonzalez-Barrera 2022). Understanding the experiences of these families through the lens of their material culture allows us to empathize with their experiences and apply interpretations of their lives to our own.

Biography as a Bridge

I began this thesis with a discussion of storytelling and the inherent power associated with producing narratives about the past. My initial discussion focused greatly on the potential harm resulting from lack of awareness or misuse of this power, but this power can also be used to address some of the social inequities that I have just illustrated as well as the manifestations of structural problems within the discipline of archaeology. From a practical perspective the biographical approach provides a fairly straightforward way to narratively engage with collections regardless of their condition or curation status. Attention to specific and individual objects on their own terms using the biographical approach provides several benefits: 1) it provides increased contextualization for future museum interpretive materials or future researchers; 2) the detailed scope provides opportunities for valuable community engagement, outreach and public education, particularly collaboration with more-than-academic experts such as community genealogists and collectors like I have done with this project; and 3) the approach serves to address the 'collections crisis' by reducing the influx of newly excavated materials as well as finding new utility and meaning for existing excavated or curated assemblages.

Methodologically the biographical approach also provides valuable strategies to address several of the interpretive challenges specific to archaeologies of frontiers. Interpretations of cultural interactions in the ambiguous and shifting ideological environments that frontiers represent are difficult and uncomfortable from an academic perspective – there are no clear answers or simple solutions. The tendency of archaeological interpretations of frontiers to fall into binaries is a product of how challenging it can be to hold more than two potentialities or dimensions of identity in view at the same time. Similar to hagiography, it is simply easier to tell stories that are neat and tidy with clearly defined plotlines. But the courses of people's lives and their values and identities are inherently messy, so compelling stories of the past, particularly within the context of frontiers, are bound to get messy. By extending agency to objects and landscapes in addition to the many individuals and ideologies coming together at frontier loci of interaction, the biographical approach provides a method for nuanced and multivocal interpretation that recognizes the inherent multivariate ways that objects as signs become signifiers of those interactions. This valuable opportunity to include multiple and sometimes contradictory interpretations enriches the depth and utility of the stories that archaeologists are able to tell. Throughout this biography, the interwoven lives of objects,

peoples, and places are seen to be much greater than the sum of their parts. There is a rich and beautiful history surrounding where the fresh water gathers at “the Forks” and I hope that the stories told in this thesis have done justice to the many generations of people who have called and continue to call this place home.

t’igwicid Thank you.

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Appendix A: Artifact Catalog

This appendix includes the collated data originally collected during the four-week research visit at the Burke Museum during late July and early August of 2021. Over the past two years I have determined manufacturing or product details for numerous fragmentary artifacts that had previously been unidentified, strengthening the depth of cataloged data for future users of the collection. Please note that, as discussed in Chapter 2, this catalog does not include all of the artifacts within Teagar/Weimer assemblage, only those that I selected for reanalysis. The catalog data are grouped into three material class sections: ceramic, glass, and all other materials. The data are presented in this way due to the different attributes analyzed for each of these material types and to minimize the amount of page space required. Specific references used for artifact identification and analysis are cited by artifact within the catalog and correspond to the bibliography at the end of this appendix.

There are many catalog entries held in this assemblage that are comprised of 'bulk bags' for the same material class, such as colorless glass fragments or whiteware ceramic sherds from mixed vessel or container types. For my reanalysis, I subdivided these catalog numbers using decimals, for example: 2008/919.01 and 2008/919.02 for two fragments that are clearly not from the same object. These subdivisions were arbitrary based on my prioritization of documentation as described in Chapter 2, and do not necessarily encompass all of the materials within the bulk catalog entries. For instance, there are some entries where decimal entries are included for all subsets of items based on the presence of diagnostic traits, while others consist of only one decimal entry for the single fragment from the bulk entry that was of interest for my reanalysis. This is a potential source of confusion as the Burke also assigns decimal numbers for artifact-associated destructive samples. The decimals I have included in my reanalysis catalog all include leading zeros (e.g., 2008/919.01), while the decimal catalog numbers assigned by the Burke Museum for destructive samples do not (e.g., 2008/926.1). To minimize confusion artifacts from which samples were collected for my research are all complete (not fragmentary or bulk), the samples were completely consumed during analysis, and are not included in my reanalysis catalog.

A comprehensive Excel spreadsheet of these data will be available upon request from the Burke Museum. Please contact the Archaeology collections staff via their website and complete the appropriate cultural research request paperwork, to request records.

As of May 2023, the Burke Archaeology Collections Staff may be contacted using this link:
<https://www.burkemuseum.org/collections-and-research/culture/archaeology/contact-form>

As of May 2023, the generic research request form can be found here:
<https://www.burkemuseum.org/sites/default/files/2019-07/culture-research-request-form-2015.pdf>

Table A.1 Artifact Catalog, Material Class: Ceramic

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/670	1	9 (95-105)	B	V	Earthenware, refinec (inceterm nate)	Vessel, utilitarian	1	< 25%		opaque dark brown slip glaze over entire inter or/exterior	body fragment of utilitarian vessel with dark brown slip glaze on both interior and exterior surface (not particularly similar to catalog 2008/376, as NWAA catalog suggests)			
45SN409/2008/934	2	8 (90-125)	B	V	Earthenware, refinec (inceterm nate)	Unidentifiec	4	< 25%		molded line of dots around edge	four fragments of tableware from four different vessels; 1st fragment is ~3cm and is undecorated but has scallopec rim; 2nd fragment is ~1.8cm and has scalloped rim with molded dot design along edge; 3rd fragment ~2cm round rim fragment with molded line of dots along edge; 4th fragment is base fragment with partial makers mark, brown stamped crown and banner motif that if complete would read: "ROYAL/ SEMI-PORCELAIN/JOHNSON BROS T / ENGLAND" scratch test indicates this fragment is ironstone	Johnson Bros. Ltd. Hanley, Staffordshire, England	after 1900 (Maker's Mark)	Kowalsky and Kowalsky 1999: 246
45SN409/2008/1021.02	3	4 (83-109)	B	IV	Earthenware, refinec (inceterm nate)	Unidentifiec	1	< 25%		Undecorated	listed in burke catalog as the second fragment; thick rim sherd likely from hol owware; does not match thickness or rim design of 1021.01 and so has been distinguished as separate vessel			
45SN409/2008/1022.02	3	5 (83-109)	B	IV	Earthenware, refinec (inceterm nate)	Tableware, flat	7	< 25%		Undecorated, other fragment has decalomania partial green, blue and purple linear somewhat floral design	7 white-paste with white glaze refined earthenware fragments, first fragment is thicker body fragment with slight scalloping of profile (~7cm) and curvature suggesting bow shape; second fragment is a tableware (flat) rim fragment (~6.5cm) with molded edge decoration and estimated full diameter of 24cm; third fragment is also a holloware rim fragment (~4.5cm) with partial blue, green and purple linear decoration evocitive of floral design, estimated full diameter of 18cm; fourth fragment is thicker undecorated tableware (flat) rim fragment (~5.5cm) with estimated full diameter of 26cm; fifth fragment is thick body fragment with crazing and chipped glaze on one side (~1.7cm); sixth fragment is thin rim fragment with little to no staining (~2cm). seventh fragment is rim fragment with some discoloration/staining of the paste and glaze chipping on one edge (~2.2cm); scratch test conducted on all to determined refined earthenware		after 1890 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2006/13	Trench 2	1 (0-50)	A	-	Ironstone	Plate	1	< 25%		Undecorated	Portion of white refined earthenware tableware fragment; incomplete green stamped makers mark on base with "ROYAL IRONSTONE CHINA/ JOHNSON BROs" with lion and unicorn motif; unclear if "ENGLAND" is included below company name, if it were the TPQ would be 1891	Johnson Bros. Ltd. Hanley, Staffordshire, England	1883-1913 (Maker's Mark)	Kowalsky and Kowalsky 1999:246
45SN409/2008/381	3	2 (47-65)	A	II	Ironstone	Dish	2	50% to 75%		Undecorated	two fragments of small dish (like teabag dish?); makers mark is green stamped with three straight lines, middle line has letter "V" at the right terminus indicating KT&K S -V CHINA maker's mark; two embossed lines around outside of marly	Knowles Taylor and Knowles East Liverpool, Ohio, USA	1905-1929 (Maker's Mark)	DeBol: 1994.74; Gates and Ormerod 1982:126; Haught-Bielmann 2011

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/388	3	3 (63-83)	A	III	Ironstone	Teacup	1	25% to 50%	Same decoration as 45SN409/2008/1018	transferprint, flowed blue flowers with vines/leaves; molded curvilinear design along heel with garland effect of dots and lines	cup fragment with rim, body with bulge (tapered due to rim), and small portion of base represented; extreme 'flow' effect with pooling in the cup base		after 1850 (Decoration)	Samford 1997; MACL 2002; Eichner 2021a
45SN409/2008/508.01	4	1 (0-50)	A	I	Ironstone	Plate	1	< 25%		Undecorated	fragment of small plate, part of base, footring, and marley represented; transfer oxidization and other res due likely from burning covers majority of upper surface; base has blue/green stamped makers mark "K.T. & K./ S--V/ CHINA" below the makers mark are the numbers "23 (25?) 11 2"	Knowles Taylor and Knowles East Liverpool, Ohio, USA	1905-1929 (Maker's Mark)	DeBolt 1994:74; Gates and Ormerod 1982:126; Haught-Bielmann 2011
45SN409/2008/549	4	3 (70-88)	A	III	Ironstone	Saucer	1	25% to 50%	Crossmends with 45SN409/2008/1016	molded dotted perimeter around scalloped edge with much lighter scalloped scrollwork running concentrically inside the dots	Molded ironstone saucer fragment (based on estimated vessel diameter of 15.2cm and depth of 2cm); see detailed decoration notes, ~30 complete, complete stamped dark green makers mark would read "ROYAL IRONSTONE CHINA/ALFRED MEAKIN LTD/ENGLAND"	Alfred Meakin Ltd. Tunstall, Staffordshire, England	1897-1930 (Maker's Mark)	Kowalsky and Kowalsky 1999: 277
45SN409/2008/626	4	6 (130-140)	C	VII	Ironstone	Pitcher	10	50% to 75%	Crossmends with 45SN409/2008/1272; 45SN409/2008/901; 45SN409/2008/1007	Hand painted underglaze red/orange cherry fruits, brown branches, and green leaves; gold gilt along rim/mouth with decorative accents on spout and handle	10 fragments of pitcher; handle attached to body fragment, 4 rim fragments including spout, 5 body fragments	Avon Division of the Wheeling Pottery Co. Wheeling, West Virginia, USA	1902- ca. 1910 (Maker's Mark)	Glass and Pottery World 1906b; Murphy 2005; Collinge 2013
45SN409/2008/628.01	4	6 (130-140)	C	VII	Ironstone	Chamber Pot	28	75% to 99%		molded scalloped relief around body and stepped circles below flared vessel rim	most of a single chamber pot; 6 base fragments that mend to form complete base with blue stamped makers mark "THE/WHEELING/ POTTERY/CO."; 3 rim fragments, one includes body fragment with complete handle; 10 body fragments (mend unverified, but thickness and glaze indicate same vessel) definitely in use by 1905	Wheeling Pottery Company Wheeling, West Virginia, USA	1894-1910 (Maker's Mark)	Barber 1904: 150; Kowalsky and Kowalsky 1999: 71
45SN409/2008/628.02	4	6 (130-140)	C	VII	Ironstone	Tableware, fla	2	< 25%		Undecorated	2 unrelated fragments (significantly different thickness from eachother and from 628.01) of tableware; 1st fragment is a dish body/base sherd with large raised foot dot; 2nd fragment has base, footring, marley, and rim represented			
45SN409/2008/957.01	4	5 (110-130)	B	V	Ironstone	Platter	1	< 25%	Same decoration as 45SN409/2008/1322; 45SN409/2008/1271	molded wavy line along edge with scalloped rim; gold curvilinear floral decals along edge inset from molded edge	rim, marly, and brink included in fragment; scalloped rim with ~3cm marly, very pronounced brink, and angled/curved base; same decoration as 2008/1322, but no refit and different thickness; scratch test conducted to confirm ironstone		after 1890 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2008/938	4	5 (110-130)	B	V	Ironstone	Saucer	3	75% to 99%		molded curvilinear scrollwork along scalloped edge	footring/base fragment; scratch test conducted to determine refined earthenware, whitewear based on paste color; footring stepped on inner edge and additional step back up ~5mm further in (see profile image); maker's mark reads: "JOHNSON BROS/ENGLAND"	Johnson Bros. Ltd. Hanley, Staffordshire, England	after 1913 (Maker's Mark)	Kowalsky and Kowalsky 1999: 246; Birks 2015
45SN409/2008/1007.01	3	6 (130-145)	C	VII	Ironstone	Pitcher	5	25% to 50%	Crossmends with 45SN409/2008/1272; 45SN409/2008/901; 45SN400/2008/626	Hand painted underglaze red/orange cherry fruits and brown branches; gold gilt along rim/mouth and foot	5 fragments of pitcher; 1 fragment is intact base with some body attached, makers mark is stamped "AVON / W PTS Co" with steeple A over rectangular building with windows; 2 large body fragments; 1 rim fragment; 1 very small body fagment with no clear refit	Avon Division of the Wheeling Pottery Co. Wheeling, West Virginia, USA	1902- ca. 1910 (Maker's Mark)	Barber 1904:151; Murphy 2005; Collinge 2013

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/1007.02	3	6 (130-145)	C	VII	Ironstone	Holloware	1	< 25%		Undecorated	Single rim fragment from possible teacup based on thickness and diameter; much thinner than pitcher fragments within main catalog number; scratch tested (negative) and observed under UV light (no fluorescence)			
45SN409/2008/1016	3	4 (83-109)	B	IV	Ironstone	Saucer	2	50% to 75%	Crossmends with 45SN409/2008/549	molded dotted bar meter around scalloped edge with much lighter scalloped scrollwork running concentrically inside the dots	Molded ironstone saucer fragment (based on estimated vessel diameter of 15cm and depth of 2cm); see detailed decoration notes; ~60% complete; complete makers mark would read "ROYAL IRONSTONE CHINA/ALFRED MEAKIN LTD/ENGLAND" with lion and unicorn motif; also has impressed stamp that reads "T" - likely mold or mattern indication	Alfred Meakin Ltd. Tunstall, Staffordshire, England	1897-1930 (Maker's Mark)	Kowalsky and Kowalsky 1999: 277, Eichner 2021a
45SN409/2008/1018	3	4 (83-109)	B	IV	Ironstone	Teacup	2	< 25%	Same Decoration as 45SN409/2008/388	transferprint, flowed blue flower with vines/leaves; molded curvilinear design along heel with garland effect of dots and lines	cup fragment with rim, body with bulge (tapered up to rim) represented		after 1828 (Decoration)	VIACL 2002; Eichner 2021a
45SN409/2008/1019.01	3	4 (83-109)	B	IV	Ironstone	Plate, dinner	3	50% to 75%		molded edge of ovals within rectangles around outer edge with curvilinear and floral repeating pattern inset; decals of blue flowers with green and light brown leaves	three fragments of a plate (possibly for serving/round platter? based on marly angle/depth); 1st fragment is middle section of base with one side of rim, has green stamped makers mark with "ROYAL" over crown motif and "FIRENZE/CHINA" beneath; 2nd fragment refits with 1st and has ~20% of rim and ~40% of footring; 3rd fragment is rim fragment with molded decoration but no decal present; scratch tested to determine ironstone; Glass and Pottery World lists this as a "new stamp" in the February 1906 issue	Akron China Company Akron, Ohio, USA	after 1906 (Maker's Mark)	Glass and Pottery World 1906b; Haught-Bielmann 2011
45SN409/2008/1019.02	3	4 (83-109)	B	IV	Ironstone	Unidentified	2	< 25%		molded curvilinear designs on border; decals of pink flower with green and yellow leaves; gold gilt accent line around rim	two fragmetns; 1st fragment is ~4.5cm and represents base/footring fragment, has pink buds with green and ye low foliage decal over molded curvilinear decoration; 2nd fragment is ~3.5cm and is scalloped rim fragment with gold gilt line on outer rim and curvinlinear vine molded design; scratch tested to determine ironstone		after 1890 (Decoration)	VIACL 2002; Eichner 2021a
45SN409/2008/1020.01	3	4 (83-109)	B	IV	Ironstone	Teacup	4	25% to 50%		two molded curvilinear lines of scalloped garland-like decoration on bulged heel	4 fragments of teacup that mend; 2 fragments with base/footring represented with small amount of body; 1 large fragment with heel, body and rim represented; 1 fragment with body, rim, and handle represented; handle is decoratively molded with "scrollwork" on sides and crown/top of handle			
45SN409/2008/1020.02	3	4 (83-109)	B	IV	Ironstone	Teacup	1	< 25%		two molded curvilinear lines of scalloped garland like decoration on bulged heel	base and small portion of body represented in fragment; either corresponding saucer to the cup seen in 1020.01 or a duplicate teacup base			

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/1022.01	3	4 (33-109)	B	IV	Ironstone	Plate, dinner	4	25% to 50%		Undecorated	four plate fragments, 3 mend forming ~14% of rim and 45% of base; 4th fragment is same material, thickness, diameter, curvature, and is likely associated with the same vessel; complete makers mark stamped on largest fragment (base) "IRONSTONE CHINA/[Lion&Unicorn]/J&G. MEAKIN /HANLEY./ENGLAND" scratch test completed to confirm ironstone	J. & G. Meakin Ltd. Hanley, Staffordshire, England	after 1891 (Maker's Mark)	Kowalsky and Kowalsky 1999:275; Gibson 2011: 111
45SN409/2008/1022.03	3	5 (33-109)	B	IV	Ironstone	Tableware, flat	2	< 25%		Undecorated; other fragment exhibits gold gilt rim edge accent	two ironstone flatware fragments; the first fragment (~2.7cm) represents approximately 5% of a flat rim with gold gilt edge from a vessel with an estimated full diameter of 15cm; the second fragment is an undecorated body fragment of varying thickness (~3.3cm); scratch test conducted to determine ironstone			
45SN409/2008/1027.01	3	4 (33-109)	B	IV	Ironstone	Cup/Mug, Coffee	2	25% to 50%		Undecorated	2 fragments of coffee cup that mend; 1st fragment has large portion of body and rim represented (~25%); 2nd fragment has smaller portion of body and complete handle represented			
45SN409/2008/1122.01	1	5 (45-55)	A	II	Ironstone	Plate, dinner	1	<25 %		Undecorated	fragment includes base, footring, marly, and rim of ironstone plate; partial black ink stamped makers mark from "ROYAL IRONSTONE CHINA/JOHNSON BROs/ENGLAND" with lion and unicorn motif; scratch test conducted to confirm ironstone; unclear if "ENGLAND" is included below company name, if it were the TPQ would be 1891	Johnson Bros. Ltd. Hanley, Staffordshire, England	1883-1913 (Maker's Mark)	Kowalsky and Kowalsky 1999: 246
45SN409/2008/1122.02	1	5 (45-55)	A	II	Ironstone	Plate, dinner	1	< 25%		Undecorated	rim fragment of likely dinner plate; same material as 1122.01 but not same thickness or diameter			
45SN409/2008/1271	1	11 (125-145)	C	VII	Ironstone	Platter	7	50% to 75%	Same decoration as 45SN409/2008/937.01; 45SN409/2008/1322	molded curvilinear scrollwork on edges; gold gilt floral decal applied on top of molded edge	oval platter fragments; 4 rim fragments (2 fragments mend); 3 body/base fragments (2 mend); same gilt floral pattern is observed on 45SN409/2008/1322 and 45SN409/2008/937.01; SCRATCH TESTED			
45SN409/2008/1291	1	8 (75-95)	A	IV	Ironstone	Tableware, flat	1	< 25%		decalomania large maroon flowers (roses?) with small white buds or green stems with green leaves	small base fragment of tableware with decal florals, complete maker's mark "CARROLLTON CHINA" crown over medallion with text and bird within circle; Glass and Pottery lists this maker's mark in association with a description of the company with "a new plant" in the January 1906 issue; participated in the American Chinaware Corporation (which filed for bankruptcy in 1932), but Carrollton continued to produce until 1936	Carrollton Pottery Company Carrollton, Ohio, USA	1906- ca. 1930 (Maker's Mark)	Glass and Pottery World 1906a; Kowalsky and Kowalsky 1999:97; Rinker 2023
45SN409/2008/1322	4	5 (110-130)	B	V	Ironstone	Plate	1	< 25%	Same decoration as 45SN409/2008/937.01; 45SN409/2008/1271	curvilinear molded perimeter with gold gilt curvilinear design decal applied inset from molded edge	rim fragment of scalloped edge tableware with molded and gilt edge decoration; same decoration as 2008/937.01 and 2008/1271 but no refit and unlikely same vessel; rim diameter indeterminate; scratch test for ironstone determination		after 1890 (Decoration)	MACL 2001; Eichner 2021a
45SN409/2008/72.01	1	2 (15-25)	A	I	Porcelain	Saucer	1	< 25%		transferprint, doban blue floral repeating pattern with characteristic crosshatching in areas of 'solid' color	saucer fragment with cobalt crosshatching tranferprint that is characteristic of Japanese exportwares; portion of base, marley, and rim represented		1888- ca. 1939 (Decoration)	Ross 2012; Campbell 2021

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/72.02	1	2 (15-25)	A	I	Porcelain	Hollowware	1	< 25%	Same decoration as 45SN409/2008/225	transferprint, doban blue Ho-o Bird (Phoenix Ware)	small body fragment with same design as 2008/225 likely from same teacup based on fragment thickness and shape		1888- ca. 1939 (Decoration)	Ross 2012; Campbell 2021
45SN409/2006/78	Shovel Probe 13	3 (100-150)	B	-	Porcelain	Plate	1	< 25%	Crossmends with 45SN409/2008/108; 45SN409/2008/548	transferprint, doban blue Japanese repeating floral design with detailed shading, sectioned curvilinear delivisions surrounding central medallian	plate fragment with ornate possibly lotus floral pattern; Japanese exportware - transferprint/doban; the cross mend is between both the 2006 excavation as well as multiple units/levels		after 1888 (Decoration)	Ross 2012; Campbell 2021
45SN409/2008/108	1	1 (5-15)	A	I	Porcelain	Plate	1	< 25%	Crossmends with 45SN409/2006/78; 45SN409/2008/548	transferprint, doban blue ornate Japanese floral design with detailed shading, sectioned curvilinear divisions surrounding central medallian	plate fragment with ornate possibly lotus floral pattern; Japanese exportware - transferprint/doban; the cross mend is between both the 2006 excavation as well as multiple units/levels		after 1888 (Decoration)	Ross 2012; Campbell 2021
45SN409/2008/172.01	1	2 (15-25)	A	I	Porcelain	Hollowware	1	< 25%		stenciled (fukizumi) black curvilinear and possible leaf design, two small blue marks, perhaps from other color applied in stencil pattern	porcelain body fragment with spray stencil japanese Fukuzumi decoration technique; multiple colors afterdates 1893, regained popularity between 1920 1930s also		after 1893 (Decoration)	Jahr 2004:342; Campbell 2021
45SN409/2008/174	1	2 (15-25)	A	I	Porcelain	Doll Head	1	< 25%		molded; possible 'body' shape of animal/person	fragment of hollow figurine based on thickness and molded shape, some relief possibly associated with clothing or body shape on sherd; possibly 'china head doll			
45SN409/2008/225	1	3 (25-35)	A	I	Porcelain	Teacup	1	< 25%	Crossmends with 45SN409/2008/512	transferprint, doban blue Ho-o Bird pattern (Phoenix Ware) curvinilear design with floral accents	teacup fragment with partial rim and body and nearly complete handle represented; cobalt Ho-o Bird design; handle has scrolling vines and dottec design		1914-1930s (Decoration)	Jahr 2004; Campbell 2021
45SN409/2008/314	3	1 (0-47)	A	I	Porcelain	Teacup	1	< 25%	Crossmends with 45SN409/2008/315	Undecorated	lower portion of teacup handle with decorative protrusion near base			
45SN409/2008/315	3	1 (0-47)	A	I	Porcelain	Teacup	1	< 25%	Crossmends with 45SN409/2008/314	Undecorated	upper portion of teacup handle with decorative protrusion near top, where the handle attaches to a triangular body portion			
45SN409/2008/316	3	1 (0-47)	A	I	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	15mm diameter, 4 hole, dish type prosser button		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/320	3	1 (0-47)	A	I	Porcelain	ceramic basket	1	75% to 99%		molded vertical lines evoking basket weave	molded unglazed basket figurine fragment with numerals 4921 on heel; mold seam on base			
45SN409/2008/475	4	1 (0-50)	A	I	Porcelain	Button, underwear	1	Complete/ Entire Object		possibly painted or dyed/colorized ceramic matrix; light green color fading to tan/beige	15 mm diameter pantywaist button with two holes (~3.5mm inside diameter) with painted decoration fade from green/turquoise to beige/peach			
45SN409/2008/479	4	1 (0-50)	A	I	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	complete 4-hole, dish type prosser button 12.64mm or 1/2 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/480	4	1 (0-50)	A	I	Porcelain	Button, prosser	1	50% to 75%		Undecorated	fragment of two-hole prosser button, like tire type but square profile instead of rounded, ~15mm OR 19/32 inch diameter		after 1840 (Manufacture)	Sprague 2002

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/481	4	1 (0-50)	A	I	Porcelain	Buttor, prosser	1	25% to 50%		Undecorated	heat affected fragment of tire-type 4-hole prosser button; ~15 mm diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/507.01	4	1 (0-50)	A	I	Porcelain	Doll Head	3	< 25%		painted pink pale skin-tone	Three porcelain doll fragments, first fragment is likely from face with peach colored skin and brown eyelashes or eybrow painted on; second fragment has same peach colored skin painted on, third fragment has light pink overall color with brown paint in an incribed or embossed seriffed "x" shape with brown paint painted into depressions		after ca. 1860 (Manufacture)	Doll Reference 2023
45SN409/2008/507.02	4	1 (0-50)	A	I	Porcelain	Doll Arm	1	< 25%		Undecorated	very small (1.7cm) molded doll arm (RIGHT) with attachment loop broken; scratch test to confirm porcelain (not shiny, bisque)			
45SN409/2008/507.03	4	1 (0-50)	A	I	Porcelain	Doll Arm	1	< 25%		Undecorated	molded ceramic doll arm (RIGHT) with body attachment loop in tact; either bisque porcelain or possibly composite		after ca. 1860 (Manufacture)	Doll Reference 2023
45SN409/2008/512	4	1 (0-50)	A	I	Porcelain	Teacup	3	< 25%	Same decoration as 45SN409/2008/225	transferprint, doban blue curvilinear design with dots	3 fragments of teacup that mend with eachother; 1 rim fragment, 2 body fragments; transferprint Ho-o Bird (Pheonix Ware) designs include curvininear with dots, floral/leaf accents, rim design has repeating concentric scalloped design		1888-ca. 1939 (De	Ross 2012; Campbel 2021
45SN409/2008/548	4	3 (70-88)	A	III	Porcelain	Plate	1	< 25%	Crossmends with 45SN409/2006/78; 45SN409/2008/108	transferprint, doban blue ornate Japanese floral design with detailed shading, sectioned curvilinear divisions	plate fragment with ornate possibly lotus floral pattern; japanese exportware decoration; the cross mend is between both the 2006 excavation as well as multiple units/levels		after 1888 (Decoration)	Ross 2012; Campbel 2021
45SN409/2008/569	Surfece	Ground Leve	-	-	Porcelain	Doll	1	< 25%		painted pink pale skin tone with brown linear accents	base of porcelain doll head/shoulder? pink color very similar to third fragment of 2008/507.01, has molded edge where painting stops suggesting base of head		after ca. 1860 (Manufacture)	Doll Reference 2023
45SN409/2008/639	4	6 (130-140)	C	VII	Porcelain	Saucer	1	< 25%	Crossmends with 45SN409/2008/832; 45SN409/2008/941; 45SN409/2008/946	hand painted (airbrushed?) green background with decal pink roses placed within specifically placed voids; gold gilt line accent on rim and repeating rose flower around ecge with periodic full rose flowers goint out onto marly; curvilinear molded edge located just inside gilded rose decoration with repeating spade-like projections towards center	rim fragment of decorative saucer 3 of 4 decorations represented; cross-mends with other listed catalog numbers to form nearly complete object		1880-1918 (Maker's Mark)	Marshall 2023
45SN409/2008/674	1	9 (95-105)	B	VII	Porcelain	Buttor, prosser	1	Complete/ Entire Object		Undecorated	white 4-hole dish type (biconcave) prosser button with raised line impressions on outer rim; diameter ~11mm		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/697	4	6 (130-140)	B	VII	Porcelain	Buttor, prosser	1	Complete/ Entire Object		Undecorated	typical 4-hole tire rim white prosser button; ~16mm OR 40/64 of an inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/740	4	2 (40-70)	A	II	Porcelain	Doll	1	< 25%		black glaze or paint over molded texture on approximately half of fragment	curved/molded fragment of figurine, likely part of 'china head' doll			Doll Reference 2023

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/742	4	2 (40-70)	A	II	Porcelain	Button, prosser	1	50% to 75%		Undecorated	four-hole dish type prosser button, 14.5mm or 73/128 inch diameter; broken across second set of holes		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/748	2	7 (65-90)	A	IV	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	complete 4-hole dish type prosser button, 13.5mm or 17/32 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/749	2	8 (65-90)	A	IV	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	complete 4-hole dish type prosser button, 10.8mm or 27/64 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/801	2	8 (90-126)	B	V	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	4-hole, dish type, calico prosser button; ~12.5mm OR .5 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/802	2	8 (90-126)	B	V	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	4-hole, tire type off-white prosser button; 11.23mm OR 57/128 of an inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/832	4	5 (110-130)	B	VI	Porcelain	Saucer	1	25% to 50%	Crossmends with 45SN409/2008/839; 45SN409/2008/941; 45SN409/2008/946	hand painted (airbrushed?) green background with decal pink roses placed within specifically placed voids; gold gilt line accent on rim and repeating rose flower around edge with periodic full rose flowers point out onto marly; curvilinear molded edge located just inside gilded rose decoration with repeating spade-like projections towards center	half of decorative saucer with rim, marley, footring and base represented; has all 4 decorations present, cross-mends with other listed catalog numbers to form nearly complete object			
45SN409/2008/839	4	5 (110-130)	B	VI	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	white 4-hole dish type button (biconcave); ~10.1mm or 51/128 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/840	4	5 (110-130)	B	VI	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	white 4-hole dish type prosser button, 15.6mm or 79/128 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/872	4	5 (110-130)	B	VI	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	white, 4-hole, dish type prosser button; 9.96mm or 25/64 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/915	4	4 (90-110)	B	IV	Porcelain	Button, collar	1	Complete/ Entire Object		Undecorated	shirt stud/collar button; off-white/ivory color with concentric circle impressed design on base, diameter at base ~12mm, diameter at front ~8.66mm		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/917	4	4 (90-110)	B	IV	Porcelain	Button, prosser	2	Complete/ Entire Object		Undecorated	Two complete ceramic prosser buttons; the first is larger, off-white, 4-hole tire type button, ~14.7 mm OR 37/64 inch diameter; the second is smaller, white, 4-hole dish type (biconcave) button with flat raised edge on front, ~11.5mm OR 29/64 inch diameter.		after 1840 (Manufacture)	Sprague 2002

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2C08/941	4	5 (110-130)	B	V	Porcelain	Saucer	5	25% to 50%	Crossmends with 45SN4C9/2C08/639; 45SN4C9/2C08/832; 45SN4C9/2C08/946	hand painted (airbrushed?) green background with decal pink roses placed within specifically placed voids; gold gilt line accent on rim and repeating rose flower around edge with periodic full rose flowers goint out onto marly; curvilinear molded edge located just inside gilded rose decoration with repeating spade-like projections towards center	5 fragments of decorative saucer; 1st fragment is largest, with rim, marley, footring, and base represented as well as all 4 decoration elements; 2rd fragmert is rim fragment (~5.5cm); 3rd fragment is rim fragment (~3.5cm); 4th fragment is rim fragment (~2.5cm); 5th fragment has marley, footring, and base represented and majority of green stamped makers mark on base "Z. S. & Co / BAVARIA", partial pattern name present: "MAGNON"; scratch tested 4th fragment to confirm porcelain	Zeh, Scherzer & Co. Rehau, Bavaria, Germany	1880-1918 (Maker's Mark)	Marshall 2023
45SN409/2C08/946	3	6 (130-145)	C	VII	Porcelain	Saucer	1	< 25%	Crossmends with 45SN4C9/2C08/639, 45SN4C9/2C08/832; 45SN4C9/2C08/941	hand painted (airbrushed?) green background with decal pink roses placed within specifically placed voids; gold gilt line accent on rim and repeating rose flower around edge with periodic full rose flowers goint out onto marly; curvilinear molded edge located just inside gilded rose decoration with repeating spade-like projections towards center	fragment of decorative saucer with rim, marley, footring and very small portion of base represented; remainder of green stamped makers mark present on base fragment, when complete "Z. S. & Co / BAVARIA"	Zeh, Scherzer & Co. Rehau, Bavaria, Germany	1880-1918 (Maker's Mark)	Marshall 2023
45SN409/2C08/976	1	4 (35-45)	A	II	Porcelain	Lid Rim	1	< 25%		transparent colored glaze in various shades of pale yellow/green along outer surface; gold gilt linear accent along rim	delicate rim fragment of possible porcelain box lid, wavy overhang from lid lip with gilt on bottom edge and colored glaze on external surface of lid			
45SN409/2C08/1023	3	4 (83-109)	B	IV	Porcelain	Button, collar	1	50% to 75%		Undecorated	partial shirt stud/collar button, base and stem present, base has impressed concentric circle design, base diameter ~9.74mm or 49/128 inches		after 1840 (Manufacture)	Sprague 2002
45SN409/2C08/1024	3	4 (83-109)	B	IV	Porcelain	Button, collar	1	75% to 99%		Undecorated	partial shirt stud/collar button with complete head and shaft but only partial base		after 1840 (Manufacture)	Sprague 2002
45SN409/2C08/1026	3	4 (83-109)	B	IV	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	complete 4 hole, dish type white prosser button; ~13.5mm OR 17/32 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2C08/1110	1	6 (55-65)	A	III	Porcelain	Dish	1	25% to 50%		gold gilt linear accent along rim	oval dish with base, body, and rim represented; base has two molded hemispherical "feet" to lift the vessel up off of a surface, suggesting function for wet environment (possible soap dish or shaving mug.; gilt edge is mostly worn off			
45SN409/2C08/1124	1	5 (45-55)	A	II	Porcelain	Holoware	3	< 25%	Same decoration as 45SN4C9/2C08/1141	molded scalloped curvilinear edge with dots; decalomania pink roses and leaves; gold gilt curvinilear floral accents	3 fragments of porcelain, 1st fragment is same pattern as 2C08/1141 and has rim and marley represented; 2nd fragment has molded curvilinear decoration, small portion of rim represented; 3rd fragment is very small body fragment; NO makers mark as NWAA catalog/report indicates		after 1890 (Decoration)	MACL 2002; Eichner 2021a

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/1141	1	8 (75-95)	A	IV	Porcelain	Plate	6	25% to 50%	Same decoration as 45SN409/2008/1124	molded scalloped curvilinear edge with dots; decalomania pink roses and leaves; gold gilt curvinilear floral accents	6 fragments of likely same tableware object (4 of them menc); same pattern as 2008/1124; NC maker's mark as indicated in NWAA catalog/report		after 1890 (Decoration)	MAC. 2002; Eichner 2021a
45SN409/2008/1159	3	6 (130-145)	C	VII	Porcelain	Button, prosser	1	Complete/ Entire Object		Undecorated	complete 4-hole, dish type (bi-concave) white prosser button; ~11.7mm OR 59/29 inch diameter		after 1840 (Manufacture)	Sprague 2002
45SN409/2008/1246	4	1 (0-50)	A	I	Porcelain	Doll	2	< 25%		painted light pink to peach gradient pale skin	2 fragments of porcelain doll (likely face pieces), 1st fragment has square edge and curves up and away; 2nd fragment is rectangular 'body' fragment of rounded portion of doll		after ca. 1880 (Manufacture)	Doll Reference 2023
45SN409/2008/1316	4	5 (110-130)	B	V	Porcelain	Lightning Stopper	1	75% to 99%		Undecorated	lightning bottle stopper, complete ceramic portion (few chips) with ferrous metal threaded through top (broken off of actual clamping mechanism)		after 1875 (Manufacture)	Miller et al. 2000
45SN409/2006/34	Shovel Probe 13	2 (50-100)	A	-	Redware, refined	Molded Turkey	1	50% to 75%		figural mold	half of a press-molded unglazed refined earthenware turkey figurine; a hole was punched through the base and there is evidance of high heat and oxidation on interior surface surrounding puncture; possibly a figural lid handle?			
45SN409/2008/390	3	3 (63-83)	A	III	Stoneware	Crock lid	1	< 25%	Crossmends with 45SN409/2008/576; Same decoration as 45SN409/2008/803; 45SN409/2008/1144	Bristol slip glaze	rim fragment of crock with lip on underside and circle of unglazed surface inset from rim; crossmends with 2008/576		after 1835 (Decoration)	MAC. 2002; Eichner 2021a
45SN409/2008/576	4	3 (70-88)	A	III	Stoneware	Crock lid	4	< 25%	Crossmends with 45SN409/2008/ 390; Same decoration as 45SN409/2008/803; 45SN409/2008/1144	Bristol slip glaze	4 fragments of bristol glazed crock lid that refit with eachother and 2008/390		after 1835 (Decoration)	MAC. 2002; Eichner 2021a
45SN409/2008/640	4	6 (130-140)	C	VII	Stoneware	Ocarina	5	25% to 50%	Crossmends with 45SN409/2008/1063	Possibly slip glazed or lead glazed with dark brown or black	majority of fragments mend to form most of the right half of ocarina; long fragment with partial single hole crossmends with 2008/1063; one piece of 1063 crossmends (base portion with stamp) to complete right half of instrument	Heinrich Fiehn Alto Ocarina (F10); Vienna, Austria	after 1879 (Maker's Mark)	Fiehn and Witte 1878; Sears, Roebuck and Co. 1896; Ocarina SubReddit Feb 3, 2023
45SN409/2008/668	1	9 (95-105)	B	V	Stoneware	Canister or Bottle	1	< 25%	Same decoration as 45SN409/2008/232; 45SN409/2008/376; 45SN409/2008/708; 45SN409/2008/900	interior surface has brown albany slip glaze; exterior unglazed	vessel base and body fragment with glaze inside but not on base or exterior; sides too vertical for bowl form same decoration seen on several other fragments		after 1835 (Decoration)	MAC. 2002; Eichner 2021a
45SN409/2008/803	1	7 (65-75)	A	III	Stoneware	Crock lid	1	< 25%	Same Decoration as 45SN409/2008/ 390; 45SN409/2008/576; 45SN409/2008/1144	Bristol slip glaze	1 rim fragment of bristol glazed crock lid with large portion of lid lip present; does not obviously refit with other associated catalog numbers but is clearly from same vessel; rim has chip missing and there is a void in one edge of the lip		after 1835 (Decoration)	MAC. 2002; Eichner 2021a

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/900	3	5 (110-130)	B	V	Stoneware	Bottle	1	< 25%	Same decoration as 45SN409/2008/232; 45SN409/2008/376; 45SN409/2008/668; 45SN409/2008/708;	dipped orange/brown glaze from shoulder up on entire interior surface; unglazed below shoulder on exterior surface	body fragment of partial jug or bottle with partial shoulder represented; glazed from shoulder up and unglazed the rest of the exterior very similar to jamaica ginger bottle decoration; all interior glazed			
45SN409/2008/1025	3	4 (83-109)	B	IV	Stoneware	Toy, marble	1	Complete/ Entire Object	Duplicate of 45SN409/2008/752	brown and yellow swirled glaze (like Rockingham), but on a toy marble known as Bennington glaze	ceramic marble with slip glaze, stippled texture, especially on base where fired; rockingham glaze coloration with marbled/splotchy yellow and brown slip coloration consistent with 'Bennington' marble decoration; ~1.5cm diameter		after 1879 (Maker's Mark)	Fiehn and Witte 1879; Sears, Roebuck and Co. 1895; Ocarina Reddit Feb 3, 2023
45SN409/2008/1063	4	6 (130-140)	C	VI	Stoneware	Ocarina	3	50% to 75%	Crossmends with 45SN409/2008/640		two fragments of ocarina, one refits with the long partial single hole piece from 2008/640 and the other refits to form the 'heel/base' of the other fragments that make up the half mostly represented by 2008/640, this fragment has impressed seal/award from the 1879 Sydney International Exhibition and the stamps "F/10" indicating pitch and number of holes - matches size and pitch of Alto Ocarina as advertised in Montgomery and Ward and Sears and Roebuck catalogs; glaze was likely black or navy blue with gold accents like the majority of these mass produced after the 1890s	Heinrich Fiehn Alto Ocarina (F10); Vienna, Austria	after 1879 (Maker's Mark)	Fiehn and Witte 1879; Sears, Roebuck and Co. 1895; Ocarina Reddit Feb 3, 2023
45SN409/2008/1144	1	8 (75-95)	A	IV	Stoneware	Crock lid	1	< 25%	Crossmends with 45SN409/2008/803; Same Decoration as 45SN409/2008/ 390; 45SN409/2008/576	Bristol slip glaze	crock lid rim fragment; crossmends with 2008/803; some burning evident on paste		after 1835 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2008/752	2	7 (65-90)	A	IV	Stoneware	Toy, marble	1	Complete/ Entire Object	Duplicate of 45SN409/2008/1025	brown and yellow swirled glaze (like Rockingham), but on a toy marble known as Bennington glaze	glazed ceramic marble with stippling over most of surface, several spots where paste shows through (likely holding spots in kiln); ~1.5cm diameter		1875-1910 (Manufacture and Decoration)	Samford 2018
45SN409/2006/18	Trench 2	1 (0-30)	A		Whiteware	Ceramic, unidentified	1	< 25%		all over dark gray opaque glaze	curved body fragment of ceramic vessel; appears to have grey opaque glaze or grey slip with colorless lead glaze over, chips of glaze indicate white matrix underneath gray; splotches of white on one side resemble heat affectation or perhaps uneven glaze application			
45SN409/2008/72.03	1	2 (15-25)	A	I	Whiteware	Tableware, flat	1	< 25%		transferprint, flowed blue floral design	very small fragment/sliver of tableware with floral flowed blue decoration		after 1828 (Decoration)	Samford 1997; MACL 2002; Eichner 2021a
45SN409/2006/77	Shovel Probe 13	3 (100-150)	B	-	Whiteware	Tableware, flat	1	< 25%	Same decoration as 45SN409/2008/380	decalomania pink floral design with green leaves and blue-grey vine/leaves	small fragment with brink represented; adhered oxized iron and crazing on surface		after 1890 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2008/252	2	6 (50-65)	A	III	Whiteware	Plate	1	< 25%		transferprint red floral design over dots with different scalloped patterns on rim and brink	red (intense medium red, based on DAACS color standards) transferprinted plate fragment with rim and marley represented, dots behind continuous repeating floral design, at least three different kinds of flowers represented		After 1828 (Decoration)	Samford 1997, Stelle 2001; MACL 2002, DAACS 2006, 2023

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/319	3	1 (0-17)	A	I	Whiteware	Plate	1	< 25%		Undecoratec	base fragment with partial makers mark green stamped curvilinear design above eagle in circle with text around bottom circle "SEMI-VITREOUS... ELAIN" "K. T. &..." straight; would comp etely read "SEMI-VITREOUS PORCELAIN,/ K.T.& K. CO." with eagle holding crossed branches in circle and curvilinear motif above circle; scratch test conducted, indicates refined earthenware, color of paste indicates whitewear; same makers mark as 2008/932.01, but different footring design (unclear if same dish set)	Knowles Tay or and Knowles East L verpool, Ohio, USA	1900-ca. 1920 (Maker's Mark)	DeBolt 1994:72; Gates and Ormerod 1982:126; Haught-Eiclmann 2011
45SN409/2008/378	3	2 (47-65)	A	II	Whiteware	Unidentified	1	< 25%		transferprint blue curv linear design with large dot accents; gold gilt detail accents on specific parts of the transferprinted design	nearly square fragment (~5cm) of tableware (based on thickness, design, and curvature of brink/marly area of plate or saucer) with transferprint design with gilt detail; scratch test conducted to determine refinec earthenware, whiteware based on paste color			
45SN409/2008/379	3	2 (47-65)	A	II	Whiteware	Plate	1	< 25%		ornate floral designs with curvilinear partitions and floral/oval edge design; non continuous	plate fragment with rim, marley and small amount of brink represented; wide gentle scalloped rim, non-continuous repeating floral design; blue flow/bleeding not particularly extreme, pattern very dark in color		afer 1878 (Decoration)	Samford 1997; MACL 2002; Eichner 2021a
45SN409/2008/380	3	2 (47-65)	A	II	Whiteware	Tableware, flat	3	< 25%	Same decoration as 45SN409/2005/77	pink floral desgn with green leaves and blue-grey vine/leaves	3 fragments that mend to form piece with base, brink, and marley represented; glaze very deteriorated/chipped;		afte- 1890 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2008/550	4	3 (70-88)	A	III	Whiteware	Saucer	1	< 25%		floral design around edge	plate fragment with partial base, footring, marley and rim represented, flow blue design, maker's mark "DEVON/ALFRED MEAKIN LTD/ENGLAND" pattern name is Devon	Alfred Meakin Ltd. Tunstall, Staffordshire, England	afte- 1907 (Maker's Mark)	Kowalsky and Kowalsky 1999: 277
45SN409/2008/722	1	10 (105-125)	B	V	Whiteware	Saucer	1	25% to 50%		pink flowers with green leaves that have brown detail/accents	nearly half of saucer with footring, marley and rim represertec; molded edge design with transferprint over		afte- 1890 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2008/796.01	2	8 (90-126)	B	V	Whiteware	Tableware, flat	1	50% to 75%		Undecoratec	base fragment with partial makers mark with globe motif text reads "ANTHONY SHAW &.../ENGLAND/WARRANTED/SEMI-PORCELAIN"; could possibly be either "& Sons" which began use in 1862 or "& Co" which began use in 1888. it is most likely & Co. as the globe and crown design has been documented in association with this; in 1900 Shaw died and the business was taken over by A.J. Wilkinson Ltd.	Anthony Shaw & Company Burslem, Stoke-on-Trent, England	1888-1900 (Maker's Mark)	Kowalsky and Kowalsky 1999:332; Birks 2003
45SN409/2008/796.02	2	8 (90-126)	B	V	Whiteware	Holloware	1	< 25%		Undecoratec	thick walled vessel body fragment, curvature suggests bowl/pot of some kind; much thicker than 2008/796.01, which indicates very unlikely body fragment associated with the thinner base fragment			
45SN409/2008/897	3	5 (110-130)	B	V	Whiteware	Saucer	2	< 25%	Crossmends with 45SN409/2008/1323; Same decoration as 45SN409/2008/1019.03	yellow and pink flowers with green and brown branches/leaves; blue 'glow' behind flowers	2 fragments of saucer. 1st fragment is small rim fragment; 2nd fragment is larger fragment with rim, marley, footring, and base represented; on center of base light blue stamped maker's mark "...CO." is present, C has slight serifs		afte- 1890 (Decoration)	MACL 2002; Eichner 2021a

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/898	3	5 (110-130)	B	V	Whiteware	Bowl, serving, small	2	50% to 75%	Crossmends with 45SN409/2008/1183; Same decoration as 45SN409/2008/943	scalloped edge with dots following edge and ring of curvilinear design inside; decalomania pink floral design with green and brown leaves and grayish blue vines; good gilt rim accents and decorative curvilinear design (possibly a letter) at center/bottom of bowl	small decorative bowl; fragments mend; light blue stamped makers mark "IRIS/E.P.P. CO." with floral laurel with tied ribbon around branches; scratch test to determine whiteware;	East Palestine Pottery Company East Palestine, Ohio, USA	1905-1909 (Maker's Mark)	DeBolt 1994:46-47; Haught-Bielmann 2011
45SN409/2008/932.01	2	8 (90-126)	B	V	Whiteware	Saucer	1	25% to 50%		evenly spaced groups of 3 raised lines radiating from base along marly; decalomania pink flower with green, blue, and light brown branches/leaves	whiteware saucer with molded linear design emanating from base to rim in groups of three at regularly spaced intervals (~3cm spaces between groups), transferprinted floral design of multiple colors over top of molded design; partial makers mark presentgreen stamped eagle in circle with curvilinear design above with text around bottom edge of circle: "SE ... CELAIN", would completely read "SEMI-VITREOUS PORCELAIN", same maker as 2008/919 but different footring size and diameter, unclear if from same dish set; scratch test conducted to determine refined earthenware, whiteware based on paste color; oxidizidation residue prevalant;	Knowles Taylor and Knowles East Liverpool, Ohio, USA	1900- ca. 1920 (Maker's Mark)	DeBolt 1994: 72; Gates and Omerod 1982: 126; Haught-Bielmann 2011
45SN409/2008/932.02	2	9 (90-126)	B	V	Whiteware	Unidentified	4	<25%		Undecorated	four whitewear fragments, first fragment is base fragment with portion of footring (6.3cm) has oxidizing metal accreted to one side; second fragment (3.6cm) is potentially brink fragment, very smooth but has a wave; third fragment (4cm) is body fragment with curve; fourth fragment (1.1cm) mends to small end of third fragment			
45SN409/2008/937.02	4	5 (110-130)	B	V	Whiteware	Plate	1	<25%		Undecorated	footring/base fragment; scratch test conducted to determine refined earthenware, whitewear based on paste color; footring stepped on inner edge and additional step back up ~5mm further in (see profile image)			
45SN409/2008/943	1	5 (110-130)	B	V	Whiteware	Bowl, serving, large	1	<25%	Same decoration as 45SN409/2008/898	scalloped edge with dots following edge and ring of curvilinear design inside; decalomania pink floral design with green and brown leaves and grayish blue vines; good gilt rim accents and decorative curvilinear design (possibly a letter) at center/bottom	same decoration as 2008/898 but larger bowl; scratch tested to confirm whiteware (and confirm the same dish set)		after 1890 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2008/959	3	4 (83-109)	B	IV	Whiteware	Plate	1	<25%	Crossmends with 45SN409/2008/1021.01	transferprint dark turquoise ornated curvilinear edge design with gold gilt decal accents	rim fragment with much less staining and no crazing compared to 1021.01, cross-mends between fragments 3 and 5 of 1021.01 (see group image)			

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Makers Mark Information	Date Range (Basis)	References
45SN409/2008/1019.03	3	4 (83-109)	B	IV	Whiteware	Unidentified	3	< 25%		decalomania yellow flower with blue glow behind and brown and green leaves; other fragment has decalomania blue flowers with light green leaves; other fragment has molded scalloped edge with gold gilt linear rim accent	blue and green floral decal; 2nd fragment is rim fragment with yellow floral decal; 3rd fragment is scalloped rim fragment with gilt accent around outer rim; scratch tested to determine whiteware; AT LEAST 2 different decal designs represented		after 1890 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2008/1021.01	3	4 (83-109)	B	IV	Whiteware	Plate	4	25% to 50%	Crossmends with 45SN409/2008/959	transferprint dark turquoise ornated curvilinear edge design with gold gilt decal accents	Four plate fragments that mend to form large portion of plate base, appears to be large decorative plate (circular shape not oval); crazing on base and oxidization staining on other fragments. First fragment (4.9cm) appears to have more recently broken from 4th fragment (12.5cm with partial makers mark on back - green printed curvilinear design on base (likely from banner) because no staining on paste; the third fragment (3.5cm) mends with 4th fragment and has some of the marly present with curvilinear design; the fifth fragment (12.3cm) is a rim fragment that exhibits scalloped edge form showing the best representation of the dark turquoise hand painted curvilinear design			
45SN409/2008/1183	2	9 (126-132)	C	VII	Whiteware	Bowl, serving, small	5	< 25%	Crossmends with 45SN409/2008/898; Same decoration as 45SN409/2008/943	molded scalloped edge with dots following edge and ring of curvilinear design inside; decalomania pink floral design with green and brown leaves and grayish blue vines; gold gilt rim accents and decorative curvilinear design (possibly a letter) at center/bottom	5 fragments of decorative small bowl; all 3 rim fragments cross-mend with 2008/898; footring fragment and other body fragment may be from same vessel (physically appear to correspond but no mend evident)		1905-1908 (Maker's Mark)	DeBot 1954:46-47; Haught-Bielmann 2011
45SN409/2008/1321	4	6 (130-140)	C	VII	Whiteware	Plate	1	< 25%		Undecorated	base fragment with green stamped circular makers mark, text reads "AMER CAN CHINA CO." over shield motif with USA in center and text below "TORONTO. OHIO"; scratch tested to determine whiteware	American China Company Toronto, Ohio, USA	1905-1908 (Maker's Mark)	Kowalsky and Kowalsky 1999: 21
45SN409/2008/1323	4	5 (110-130)	B	V	Whiteware	Saucer	1	< 25%	Crossmends with 45SN409/2008/897	decalomania yellow and pink flowers with green and brown branches/leaves; blue "glow" behind flowers	fragment with rim, marley, and footring represented; crossmend in group photo		after 1890 (Decoration)	MACL 2002; Eichner 2021a
45SN409/2008/1332	4	4 (90-110)	B	V	Whiteware	Plate	3	< 25%		transferprint green foliage/vines; orange enameled overglaze flowers on the vines; gold gilt decal with repeating linear patter with intermitent floral rosettes	3 fragments of plate that do not appear to mend to eachother, 1st fragment has marley, footring, and base represented; 2nd fragment has footring and marley represented; 3rd fragment is small, likely marley with little bit of gilt present. SCRATCH TESTED			
45SN409/2008/1333	4	4 (90-110)	B	V	Whiteware	Plate	1	< 25%		transferprint, flowed blue floral design; pearlescent white enameled overglaze dots around rim	small fragment with frim and marley represented, dotted background on transferprint, flow effect is not very; extremme		after 1828 (Decoration)	MACL 2002; Eichner 2021a

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Type	Object Description	Item Count	Percent Complete	Associated Catalog Number(s)	Decoration Description(s)	Comments	Maker's Mark Information	Date Range (Basis)	References
45SN409/2008/1336.01	4	4 (90-110)	B	V	Whiteware	Plate	2	< 25%		decalomania orange flowers with green stems and leaves	two base fragments of plate or platter, one fragment has portion of footring represented, mends with other fragment that has partial blue stamped makers mark "LA FRANCA.../PORCELA..." with second line of text in banner; scratch tested to determine whiteware	French China Company Seibring, Ohio, USA	1898-1916 (Maker's Mark)	Glass and Pottery World 1906a; Kowalsky and Kowalsky 1999:36
45SN409/2008/1336.02	4	4 (90-110)	B	V	Whiteware	Plate	1	< 25%		Undecorated	thicker vessel than 1336.01, differentiated based on this; no identifiable marks			

Table A.2 Artifact Catalog, Material Class: Glass

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2006/23	Trench 2	1 (0-50)	A	-	Bottle	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color:** Black **Shape:** Cylindrical **Finish:** Absent **Base:** Flat indentation basal profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	asymetrically thick bottle base with embossed text that reads "BOTTLE.../ 8" and has 5 in star makers mark bellow the letter E, parison mold line on base (ghost seam)	5 in star; Southern Glass Company; Vernon, California, USA		1926-1930 (Maker's Mark)	Lockhart et al. 2019 (SHA Bottle Website)
45SN409/2006/40	Shovel Probe 13	2 (50-100)	A	-	Bottle, Ink	1	Semi-automatic / Machine Molded (Owen's Scar)	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Stepped **Base:** Flat indentation basal profile **Shoulder:** Stepped **Neck:** Cylindrical **Decoration:** Undecorated	fully automatic machine made ink bottle (mold seam goes all the way up the finish); appears to be a stopper closure type; finish is straight and then flares out within ~1cm and then has step at joint with shoulder, (possibly 4-part mold?)		Sanford Ink; Chicago, Illinois, USA	1903-ca. 1950 (Manufacture)	Miller et al. 2000; Lindsey 2021, 2022a (SHA Bottle Website)
45SN409/2006/41	Shovel Probe 13	2 (50-100)	A	-	Bottle	1	At least Two-part Mold; Down-tooled Finish	25% to 50%	**Color:** Natural Green **Shape:** Paneled **Finish:** Double Ring Finish **Base:** Absent **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Unknown	bottle fragment representing finish, neck and partial shoulder of rectangular pannel bottle; likely "Mother's Friend" bottle fragment			after ca. 1825 (Manufacture)	Miller et al. 2000; Lindsey 2022a (SHA Bottle Website)
45SN409/2006/53	Trench 2	1 (0-50)	A	-	Tumbler	1	Press Mold	< 25%	**Color:** Carnival **Shape:** Cylindrical **Finish:** Flared Lip **Base:** Absent **Shoulder:** Nonexistent **Neck:**Nonexistent **Decoration:** Molded Ribs and Flutes; Floral (Rose)	rim and body fragment of purple carnival glass vessel with 'electric' iridescence; molded ribbing/flutes on interior; molded floral design (rose flower and leaves) on exterior with rectangular section outlines and smooth lip/rim; fragment is consistent with an Imperial Carnival Glass tumbler, pattern: Lustre Rose, color: Amethyst; could have been part of the "7 piece glass water or lemonade set" as marketed by Montgomery Ward, Lee Manufacturing, and G. Sommers & Co throughout the early 20th century			ca. 1915 - ca. 1950 (Manufacture and Decoration)	Thistlewood and Thistlewood 2018, 2020, 2023a
45SN409/2008/59	1	2 (15-25)	A	I	Container Glass	1	At least Two-part Mold	< 25%	**Color:** Amber **Shape:** Unknown **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	fragment with embossed rectangular "panels" adjacent to eachother, left panel has partial curvilinear design and right panel has asterisks with text "MARK" below; consistent with body fragement of "Warner's Safe" product line		One of "Warner's Safe" products; H.H. Warner & Company; Rochester, New York, USA	1879 - 1944 (Product)	Fike 2006:107
45SN409/2008/69	1	2 (15-25)	A	I	Bottle, Ink	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Bead / Lip **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	vertical cylindrical ink bottle fragment; finish, neck and partial shoulder represented; mold seams go all the way up the finish indicating automatic machine manufacture, text on shoulder reads "...CO"			after 1903 (Manufacture)	Miller et al. 2000; Lindsey et al. 2022c (SHA Bottle Website)

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/70	1	2 (15-25)	A	I	Glass Stemware	1	Press Mold	< 25%	**Color:** Uranium **Shape:** Stemware Foot **Finish:** Absent **Base:** Decorative **Shoulder:** Absent **Neck:** Absent **Decoration:** Molded Sunburst	2-part molded stemware base with stem broken off at base; uranium glass confirmed with black light; most popular manufacture era between 1880s and 1920s but this is likely an example of "depression glass" (ca 1930s) based on the press molding in conjunction with coloration			ca. 1840 - 1943 (Manufacture)	Vaseline Glass Collectors 2022
45SN409/2008/73	Shovel Probe 13	3 (100-150)	B	-	Decorative Vessel	1	Flashed	Complete/ Entire Object	**Color:** Milk / Opaque / White **Shape:** Unknown **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Pink Flashing	possible tile fragment with translucent white glass for majority of thickness with ~1mm applied translucent pink glass applied to front surface; refits with other two listed catalog numbers indicating depositonal disturbance from 2008 trench excavation; cross-mends with catalog numbers 45SN409/2008/1191 and 45SN409/2008/1254				
45SN409/2008/94	1	1 (5-15)	A	I	Bottle, Ink	1	At least Two-part Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Flat Lip; Applied / Tooled **Base:** Absent **Shoulder:** Absent **Neck:** Cylindrical **Decoration:** Undecorated	fragment with neck and finish representec; no mold seams visible, tooled finish "twist" marks visible, applied flat lip finish				
45SN409/2008/155	1	2 (15-25)	A	I	Glass Mirror	1		< 25%	**Color:** Natural Blue / Green **Shape:** Flat **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Silvering	fragment of colorless glass with reflective silvering coated on one face, unclear which metal is actualy achered to the surface, likely silver or possibly tin			after 1835 (Manufacture)	Melchior-Bonnet 2001
45SN409/2008/172.02	1	2 (15-25)	A	I	Unidentified	1		< 25%	**Color:** Milk / Opaque / White **Shape:** Unknown **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	'milk glass' body fragment from undertermined vessel			after 1815 (Manufacture)	Miller et al. 2000
45SN409/2008/175	1	2 (15-25)	A	I	Bottle	1	Semi-automatic / Machine Molded (Owen's Scar)	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Threaded Continuous **Base:** Shallow Concave Basal Profile **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Undecorated	small complete bottle with likely dried adhesive contents (yellowec thin film that has shrunk from sides of bottle), wood toothpick stuck in contents; base has embossed numerels/text "3f215"			after 1903 (Manufacture)	Miller et al. 2000
45SN409/2008/269	3	3 (68-83)	A	III	Bottle, Medicine / Patent	1	Two part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Oblong Prescription **Finish:** Prescription / Lip ; Flat Lip **Base:** Flat Indentation Basal Profile **Shoulder:** Sloped Down **Neck:** Cylindrical **Decoration:** Undecorated	complete perscription bottle, molded parallel lines going up from base with curved top end text above reading "℥ IV" meaning four ounces, embossed text perpendicular to vertical axis "ARLINGTON DRUG CO/PRESCRIPTIONS/ARLINGTON, WASH." (plate stamped); base has text that reads: "W T CO. / A / U.S.A."	W T CO. / A / U.S.A., Whitall Tatum Company; Millville, New Jersey, USA		ca. 1901 - 1924 (Maker's Mark)	Lockhart et al. 2020 (Whitall Tatum Part I and Part II) ISHA Bottle Website)

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/312	3	1 (0-47)	A	I	Doll Eye	1	Free Blown	Complete/ Entire Object	**Color:** Milk / Opaque / White **Shape:** Doll Eye **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Brown Iris with Black Pupil Glass	doll eye 1.2cm diameter; brown and black glass for pupil/ iris blown opaque white glass for the rest of the object; the 'stalk' of glass visible at the rear of the eyeball is characteristic of doll eyes that were attached to a weighted rocker mechanism allowing the eyes to 'close' when the doll was laid down, and are known as 'sleep eyes' for this reason			ca. 1880 - ca. 1950 (Manufacture)	Doll Reference 2023
45SN409/2008/324	3	1 (0-47)	A	I	Bottle	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color:** Aqua **Shape:**French Square **Finish:** Absent **Base:** Completely Flat **Shoulder:** Absent **Neck:** Absent **Decoration:** Undecorated	square bottle base with beveled corners, side length ~5.4cm; heel represented on all 4 sides, body represented on 3 sides; appears to have suction scar on base; no discernable diagnostic markings			after 1903 (Manufacture)	Miller et al. 2000
45SN409/2008/326	3	1 (0-47)	A	I	Bottle, Pharmacy	1	At least Two-part Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Unknown **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	corner fragment of graduated bottle with numerals 1 and 2 celiniated			1915 - 1930 (Manufacture)	Illinois Glass Company 1926:14 15; Lindsey 2023
45SN409/2008/331	3	1 (0-47)	A	I	Bottle	1		< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	body fragment of colorless glass bottle fragment with embossed text reading: "...S BROS. &... /...GRASS... /...LE.." Complete text would read "FULL QUART / JONES BROS & CO / BLUE GRASS BELLE VINEGAR"		Blue Grass Belle Vinegar; Jones Bros & Co.	after 1906 (Manufacture)	Miller et al. 2000
45SN409/2008/336	3	1 (0-47)	A	I	Bottle Stopper	1	Press Mold	25% to 50%	**Color:** Transparent/Clear/Colorless **Shape:** Stopper Flat Oblong Head **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Molded Fan; Embossed Cursive Text "Blocki"	decorative imitation crystal (pressed glass, evocative of depression glass manufacture style) bottle stopper top with engraved cursive text that reads "Blocki" indicating bottle stopper from perfume bottle		Blocki Perfume; John Blocki & Son Perfumers; Chicago, Illinois, USA	after ca. 1930 (Manufacture)	Miller et al. 2000
45SN409/2008/341	3	1 (0-47)	A	I	Bottle, Cleaning / Chemica	1	Cup Mold	< 25%	**Color:** Brown **Shape:** Cylindrica **Finish:** Absent **Base:** Flat Indetation Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Undecorated	bottle base fragment; base has embossed diamond with text inside that reads "CLOROX/ REG"		Clorox Household Bleach; Chlorox Chemical Company, San Francisco, California, USA	1929 - 1930 (Maker's Mark)	Lindsey 2022c
45SN409/2008/353	3	1 (0-47)	A	I	Glass Stemware	2	At least Two-part Mold	25% to 50%	**Color:** Transparent/Clear/Colorless **Shape:** Stemware Stem and Bowl **Finish:** Absent **Base:** Absent **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** True Baluster Stem	2 fragments of stemware vessel; 1st fragment has small portion of foot represented with a bulbous step and stem with no knops and a vertical mold seam; 2nd fragment is a small portion of the bowl, rounds with stem; plane of fracture is at heat joint between bowl and stem				

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/365	3	2 (47-65)	A	II	Bottle, Paneled	1	Two-part: Mold; Cup Base	75% to 99%	**Color:** Olive Green **Shape:** Blake **Finish:** Absent **Base:** Chamfered Heel **Shoulder:** Sloped Down **Neck:** Absent **Decoration:** Embossed	diagonal mold seams on rectangular body; embossed text on front panel reads "THE / PISO COMPANY"; embossed text on right side panel reads "TRADE - PISO'S - MARK"; embossed text on left side panel reads "HAZELTINE & CO."; base has the embossed text "21" in center; cross-mends with catalog number 45SN409/2008/394		Piso's Cure for Consumption; Hazeltine & Company; Warren, Pensylvania, USA	1870 - 1906 (Product)	Sullivan 2007; Fike 2006:104
45SN409/2008/377	3	2 (47-65)	A	II	Jar, Medicine / Toiletry	2	Semi-automatic / Machine Molded (Owen's Scar)	50% to 75%	**Color:** Milk / Opacue White **Shape:** Cylindrical **Finish:** Threaded Continuous **Base:** Flat Indentation Basal Profile; Convex Base Within Indentation **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Undecorated	thick walled glass jar with "C 601" embossed on base (2 fragments that mend)			after 1903 (Manufacture)	Miller et al. 2000
45SN409/2008/392	3	3 (63-83)	A	III	Cup / Mug	2	Press Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical Mug **Finish:** Fire Polished Lip **Base:** Absent **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Molded Horizontal Ribs; Hexagonal Mug Handle	two fragments of molded cup/mug that mend; hexagonal handle attached to rim and body portions, molded relief designs on body; not worked as Burke catalog indicates			Manufacture	
45SN409/2008/394	3	3 (63-83)	A	III	Bottle, Paneled	1	At least Two-part Mold	< 25%	**Color:** Olive Green **Shape:** Paneled **Finish:** Packer / English Ring / Deep Lip; Tooled **Base:** Absent **Shoulder:** Absentt **Neck:** Cylindrical **Decoration:** Unknown	the neck and finish to the PISO bottle (2008/365) total bottle height 13.2 when refit; cross-mends with catalog number 45SN409/2008/365			1870 - 1906 (Mendi	Sullivan 2007; Fike 2006:104
45SN409/2008/395	3	3 (63-83)	A	III	Bottle, Flask	1	At least Two-part Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Flask **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Undecorated	fragment of glass with embossed text horizontal (above/below): "...N/MADE" vertical (right/left) "TRADE/MARK" surrounding "A F" in circle; tapered edge has bifacial flakes removed, UNCLEAR if intentional human modification to edge	"A F" in a football-shaped oval; American Flint Glass Worker's Union		ca. 1885 - 1903 (Maker's Mark)	Lockhart et al. 2019 (other "U" marks); Martindale & Jurakic 2015
45SN409/2008/411	2	10 (105-125)	B	V	Jar, Medicine / Toiletry	1	Semi-automatic / Machine Molded (Owen's Scar)	Complete/ Entire Object	**Color:** Milk / Opacue White **Shape:** Cylindrical **Finish:** Threaded Continuous **Base:** Flat Indentation Basal Profile **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Undecorated	complete cosmetic-like jar with text on base "MOTHERS/SALVE/CHICAGO"; duplicate of 2008/571 and 2008/715; likely mentho-based salve		Mother's Salve; Mother's Remedies Company; Chicago, Illinois, USA	1887-1948 (Maker's Mark)	Fike 2006: 173
45SN409/2008/413	2	10 (105-125)	B	V	Cup / Mug	1	Press Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Unknown **Finish:** Absent **Base:** Absent **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Molded	molded mug handle with bulbous prismatic shape/design, evocative of 'depression glass'			ca. 1929 - ca.1939 (Manufacture)	Jones and Sullivan 1989 (Parks Canada Glass Glossary); Miller et al. 2000

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/418	1	10 (105-125)	B	V	Jar, Medicine / Toiletry	1	Semi-automatic / Machine Molded (Owen's Scar	Complete/ Entire Object	**Color:** Milk / Opaque White **Shape:** Cylindrical **Finish:** Threaded Continuous **Base:** Decorative **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Floral	decorative cold cream jar with floral design around body and on base; metal plated top has text that reads "LARKIN/COLD CREAM" over decorative curvilinear design with ICo makers mark in center, below reads "Larkin Co./PERFUMERS/BUFFALO"; base reads "LARKIN CO./BUFFALO"; internet research indicates that cold cream for this company was also sold in emerald jars with glass stoppers, undecorated milk glass jars with a simple embossed tin lid, and colorless glass jars of the same mold as this throughout the company's tenure; based on the design elements and detail this likely was manufactured as a transition between the undecorated automatic manufactured milk glass jars and the presumably more affordable colorless glass jars using the same molds.		Larkin Cold Cream; Larkin Company Perfumers, Buffalo, New York, USA	ca. 1910 - ca. 1930 (Manufacture)	Fike 2006: 67-68
45SN409/2008/420	1	10 (105-125)	B	V	Cup / Tumbler	3	Press Mold	75% to 99%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Fire Polished Lip **Base:** Decorative **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Molded	'jelly glass' (likely marketed as reusable condiment container) with horseshoe and star motif on base; one ring of knurling just below the lip/rim of glass; mend in bag; duplicated by 45SN409/2008/889			ca. 1900 - ca 1940 (Decoration)	Whitten 2022 (Glass Bottle Marks Blog)
45SN409/2008/424	1	10 (105-125)	B	V	Bottle, Paneled	2	At least Two-part Mold	25% to 50%	**Color:** Transparent/Clear/Colorless **Shape:** Oval Philadelphia **Finish:** Bead / Lip **Base:** Completely Flat **Shoulder:** Absent **Neck:** Cylindrical **Decoration:** Undecorated	2 fragments of paneled (prescription?) bottle with, 1st fragment represents 2 sides of body and small portion of base; 2nd fragment represents finish, neck, and small portion of shoulder; tooled finish			after ca. 1825 (Manufacture)	Miller et al. 2000
45SN409/2008/426	1	10 (105-125)	B	V	Bottle, Paneled	1	At least Two part Mold	< 25%	**Color:** Natural Blue / Green **Shape:** Paneled **Finish:** Absent **Base:** Absemt **Shoulder:** Absent **Neck: Absent** **Decoration:** Embossed	small body fragment of paneled bottle, possibly patent medicine; embossed text reads "...(N?)EM.../...ANY.../YC(F?)...' Complete text would read "NATIONAL REMEDY / COMPANY / NEW YORK"		National Remedy Company; New York, New York, USA	1884 - ca. 1970 (Product)	Fike 2006: 210
45SN409/2008/436	4	5 (110-130)	B	V	Bottle, Flask	1	Two-part Mold; Cup Base	25% to 50%	**Color:** Transparent/Clear/Colorless **Shape:** Flask **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	body fragment of colorless glass flask with small portion of base; embossed text reads "...ALF-PINT/...L MEASUR..." mends with bee /body fragment from 2008/865 with embossed text that reads "H.../FUL..."; complete text would read "HALF-PINT/FULL MEASURE"; base and overall body shape consistent with either Eagle or Dandy Flask styles, the presence of the embossed statement of volume may suggest a date after the 1913 Gould Amendment to the Food and Drug Act, although liquor bottles were notably including volumetric information earlier; cross-mends with catalog number 45SN409/2008/865			after ca. 1900 (Manufacture)	Lindsey 2022d (SHA Bottle Website)

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
455N409/2008/443	3	5 (110-130)	B	V	Dish	2	Press Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Plate / Dish **Finish:** Not Applicable **Base:** Decorative **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Molded Scallop; Molded Hobnails	2 rim fragments of decorative glass dish. scalloped edge and multiple patterns represented; 1st fragment has more of marley and eleveted rim represented (~12% of rim); 2nd fragment is just rim (~10% of rim); cross-mends with catalog number 455N409/2008/495			ca. 1925 - ca. 1939 (Decoration)	Jones and Sullivan 1989 (Parks Canada Glass Glossary); Miller et al. 2000
455N409/2008/444	3	5 (110-130)	B	V	Jar, Canning	4	Semi-automatic / Machine Molded (Owens Scar)	< 25%	**Color:** Natural Green **Shape:** Cylindrical **Finish:** Threaded; Continuous **Base:** Absent **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Embossed	4 fragments of natural glass jar; 2 rim/finish fragments that do not appear to mend, which together account for ~44% of rim; 2 body fragments, 1st has embossed text "...ATE.." and 2nd has possible heel seam; text likely from "PATENT" on body, which is diagnostic of Mason Fruit Jar Company			1885- ca. 1905 (Product)	Lockhart et al. 2017 (SHA Bottle Website)
455N409/2008/486	4	1 (0-50)	A	I	Bead	1	Wound / Wire Wound / Mandrel Wound	Complete/ Entire Object	**Color:** Milk / Opaque White **Shape:** Sphere **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Undecorated	spherical cloudy white bead with very small bore hole; small airbubbles visible in bead body, and one end of bead 'pulls' out of the spherical shape, which is indicative of the wound bead manufacturing technique; consistent with Class WIb (round - specifically globular) shape according to Karklins 2012; earliest date would be early to mid-19th century				Sprague 1985; Ross 2003; Karklins & Ross 2007; Karklins 2012
455N409/2008/487	4	1 (0-50)	A	I	Bead	1	Wound / Wire Wound / Mandrel Wound	Complete/ Entire Object	**Color:** Peacock Blue **Shape:** Oblong **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Undecorated	oblong bead with cylindrical bore hole exhibiting chipping at both ends, but noticably more on one end; overall bead shape, uniform cylindrical perforation, and end chipping generally appear to be consistent with wound manufacture method [Class WIc (oval) according to Karklins 2012], earliest date is early to mid-19th century				Ross 2003; Karklins & Ross 2007; Karklins 2012
455N409/2008/494	4	5 (110-130)	B	V	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	50% to 75%	**Color:** Aqua **Shape:** Blake **Finish:** Absent **Base:** Rounded Heel; Shallow Concave Basal Profile **Shoulder:** Rounded **Neck:** Absent **Decoration:** Embossed	base and most of two sides of rectengular panneled bottle, side pannel has embossed text that reads "R.V.PIERCE.M.D.", base has embossed "10"			after ca. 1870 (Product)	Fike 2006: 110
455N409/2008/496	3	5 (110-130)	B	V	Dish	1	Press Mold	25% to 50%	**Color:** Transparent/Clear/Colorless **Shape:** Plate / Dish **Finish:** Not Applicable **Base:** Decorative **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Molded Sunburst; Molded Ribs and Flutes	nearly half of decorative dish with elevated rim on brink; molded decoration patterns include sunburst on base, ring of stippled ribs and flutes with diamond accents within ribs, ring of ovoid facets, ring of waved ribs/flutes, ring of hobnails and then a scalloped rim; cross-mends with catalog number 455N409/2008/443			ca. 1925 - ca. 1939 (Decoration)	Jones and Sullivan 1989 (Parks Canada Glass Glossary); Miller et al. 2000

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/497	4	1 (C-50)	A	I	Jar, Canning	1	Cup Mold	< 25%	**Color:** Selenium **Shape:** Cylindrical **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	large canning jar base fragment embossed text reads "KERR GLASS MFG. CO./ PORTLAND, ORE." in center "PAT/ JUNE 9 /1903" with suction scar through PAT and JUNE; this basemark is diagnostic of jars manufactured from 1904 -1914, but selenium dioxide additive only used from 1912 onward narrowing the date range		Kerr Mason Jar; Kerr Glass Manufacturing Company; Portland, Oregon, USA	1912 -1914 (Manufacture)	Lockhart et al. 2016a; Lindsey 2020a (SHA Bottle Website)
45SN409/2008/552	Surface	Ground Level	-	-	Bottle, Liquor	1	At least Two-part Mold	< 25%	**Color:** Brown **Shape:** Unknown **Finish:** Brandy / Wine **Base:** Absent **Shoulder:** Absent **Neck:** Cylindrical **Decoration:** Unknown	bottle fragment with neck and finish represented				
45SN409/2008/554	Surface	Ground Level	-	-	Jar, Canning	1	At least Two-part Mold; Cup Base	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Absent **Base:** Rounded Heel **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Embossed	body fragment of likely canning jar with some of heel one side seam and cup seam present; embossed vertical line ~1.5cm left of side seam and embossed text that reads "...T/...N"; likely last letters of "PATENT/ MASON"			1885 - ca. 1905 (Product)	Lockhart et al. 2017 (SHA Bottle Website)
45SN409/2008/568	Surface	Ground Level	-	-	Tumbler	1	Press Mold	< 25%	**Color:** Carnival **Shape:** Cylindrical **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Nonexistent **Neck:** Nonexisten **Decoration:** Molded Ribs and Flutes	thick base fragment of likely vase with dark red-purple glass and applied iridescent carnival finish on exterior above heel, molded ribbed decoration exterior, no decoration observed on interior; examination of comparative complete tumblers indicate that this base is not consistent with the design of the tumbler represented by 2008/53 despite comprable color and circumfrence; consistent design and shape with "rib" swung vases produced by Fenton and Northwood, could have been purchased to match the drinking set			1905 - ca. 1910 (Manufacture)	Doty 2016; Miller et al. 2000
45SN409/2008/570	Surface	Ground Level	-	-	Jar, Medicine / Toiletry	1	Semi-automatic / Machine Molded (Owen's Scar)	25% to 50%	**Color:** Milk / Opaque White **Shape:** Cylindrical **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Nonexistent **Neck:** Nonexisten **Decoration:** Undecorated	fragment of body with heel partial base; engraved text on base reads: "...(Y?) PACKING CO", complete text would read "THE CUDAHY PACKING CO. / OMAHA" jar likely one of the free samples advertised for Cudahy's Rex Brand Extract of Beef ca 1899.			ca. 1890 - 1911 (Product)	Wilson 2004; "HomesteadHound" 2014
45SN409/2008/574	Surface	Ground Level	-	-	Toy Marble	1	Pontil Scar	Complete/ Entire Object	**Color:** Cornflower **Shape:** Sphere **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Swirled Cornflower and Cobalt Blue	swirled dark and light blue glass marble with bare iron pontil scar and some slight chipping on surface			after 1846 (Manufacture)	Miller et al. 2000

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/605	4	6 (130-140)	C	VII	Bottle, Medicine / Patent	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: French Square **Finish**: Absent **Base**: Shallow Concave Basal Profile **Shoulder**: Absent **Neck**: Absent **Decoration**: Embossed	square base bottle with two partial body pannels present; corners are beveled; one body panel has embossed text "...D.D."; cross-mends with catalog number 45SN409/2008/885.01		D.D.D. Cream Remedy; D.D.D Company; Galveston, Texas AND Batavia, Illinois, USA	1900 - 1948 (Product)	Fike 2006: 160
45SN409/2008/611	4	6 (130-140)	C	VII	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color**: Transparent/Clear/Colorless **Shape**: Oval Philadelphia **Finish**:Pantent / Extract / Lip **Base**: Shallow Concave Basal Profile **Shoulder**: Sloped Down **Neck**: Cylindrical **Decoration**: Undecorated	complete prescript on bottle with indented 'panel' on back, applied finish (side mold seams goes all the way up to bottom edge of lip)			1850-1910 (Manufacture)	Lindsey 2022e (SHA Bottle Website)
45SN409/2008/644	4	6 (130-140)	C	VII	Toy Marble	1	Machine Made	Complete/ Entire Object	**Color:** Aqua **Shape:** Sphere **Finish**: Not Applicable **Base:** Not Applicable **Shoulder**: Not Applicable **Neck:** Not Applicable **Decoration:** Colored Glass Swirl	~1.7cm aqua colored glass with cracking on majority of surface (possibly heat affected?) causing cloudy white coloration; several large chips on outersurface, which reveals predominatnly blue swirl with some traces of yellow/red in center of marble			after 1901 (Manufacture)	Miller et al. 2000
45SN409/2008/713	2	7 (65-90)	A	IV	Container Glass	1	At least Two part Mold	< 25%	**Color:** Natural Blue **Shape:** Unknown **Finish**: Absent **Base:** Absent **Shoulder**: Absent **Neck:** Absent **Decoration:** Embossed	small body fragment of possibly pannoled bottle with embossed cursive text that likely reacs "Chas" from Chas. H. Fletcher's Castoria laxative		Castoria; Centaur Company; New York, New York, USA	1910 1940 (Product)	Lockhart et al. 2014
45SN409/2008/828	3	5 (110-130)	B	VI	Jar Foodstuff	1	Automatic / Machine Molded	Complete/ Entire Object	**Color**: Transparent/Clear/Colorless **Shape**: Figural **Finish**: Threaded Continuous **Base**: Decorative **Shoulder**: Figural **Neck**: Figural **Decoration**: Fox Reading Book	Figural fox wearing bowtie and swallowtail suit sitting on box/crate reading a book; on base embossed text reads "PAT APL^{D}/ FOR"; mold seam visible down entire midline of back of vessel (including all the way through threaded finish); small piece broken off of front right corner; vessel shape/design is consistent with the patent granted to Reuben Haley in 1907 and likely held candy and/or perfume or potpori; known among collectors as "The Learned Fox"			after 1907 (Manufacture)	Haley 1907, Desto, Poirier & Poirier 1998:28
45SN409/2008/831	4	4 (90-110)	B	VI	Bottle, Ink	1	Semi-automatic / Machine Molded (Owen's Scar)	Complete/ Entire Object	**Color:** Natural Green **Shape:** Cylindrical **Finish:** Collared Ring **Base:** Footed **Shoulder:** Rounded **Neck:** Cylindrica **Decoration:** Undecorated	ink bottle with molded rings emphasizing shoulder and hee of vessle; two vertical mold seams visible on body; differently alignec parisan seam visible on neck/lip of vessel; base reacs "SANFORD'S" and has the numeral 3 in center		Sanford Ink; "SANFORDS"; Chicago, Illinois, USA	1903 - ca. 1950 (Manufacture)	Miller et al. 2000; Lindsey 2022c (SHA Bottle Website)
45SN409/2008/833	3	5 (110-130)	B	VI	Bottle	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Bead / Lip **Base**: Four Point Resting Point **Shoulder**: Rounded **Neck**: Cylindrical **Decoration**: Embossed	complete bottle, slightly tapered from shoulder towards base; tooled bead finish; artifact duplicated 2008/1066		Larkin Soap Company; Buffalo, New York, USA	1875 - 1910 (Product and Manufacture)	Fike 2006:67; Lindsey 2022a (SHA Bottle Website)

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/846	1	Clean up	-	-	Bottle, Paneled	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color: Aqua** **Shape**: Excelsior **Finish:** Absent **Base:** Completely Flat **Shoulder:** Absent **Neck:** Absent **Decoration**: Embossed	partial base and 3 of 4 walls of body represented by fragment; relatively thick walls; base has embossed text 'S 35." with possible suction scar on base and heel with linear impressions on heel and base; embossed text on left panel reads 'CA..."		Castoria; Centaur Company; New York, New York, USA	1910 -114 (Product and Manufacture)	Lockhart et al. 2014
45SN409/2008/865.01	4	5 (110-130)	B	V	Bottle, Flask	1	Two-part Mold; Cup Base	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Flask **Finish**: Absent **Base**: Completely Flat **Shoulder**: Absent **Neck**: Absent **Decoration**: Embossed	cross-mends with heel/base off 2008/426; embossed text reads "H.../FUL..."; base and overall shape consistent with either Eagle or Dandy Flask styles, the presence of the embossed statement of volume may suggest a date after the 1913 Gould Amendment to the Food and Drug Act, although liquor bottles were notably including volumetric information earlier; cross-mends with catalog number 45SN409/2008/435			after ca. 1900 (Manufacture)	Lindsey 2022d (SHA Bottle Website)
45SN409/2008/865.02	4	5 (110-130)	B	V	Bottle, Flask	1	Two-part Mold; Cup Base	25% to 50%	**Color**: Transparent/Clear/Colorless **Shape**: Flask **Finish**: Absent **Base**: Completely Flat **Shoulder**: Absent **Neck**: Absent **Decoration**: Embossed	flask body fragment with nearly a third of the base; embossed text near heel reads "HALF-PINT/FULL MEASURE"; duplicate of object formed by 2008/436 and 2008/865.01; base and overall body shape consistent with either Eagle or Dandy Flask styles, the presence of the embossed statement of volume may suggest a date after the 1913 Gould Amendment to the Food and Drug Act, although liquor bottles were notably including volumetric information earlier.			after ca. 1900 (Manufacture)	Lindsey 2022d (SHA Bottle Website)
45SN409/2008/865.03	4	5 (110-130)	B	V	Bottle	2	At least Two-part Mold	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Unknown **Finish**: Bead / Lip **Base**: Absent **Shoulder**: Absent **Neck**: Cylindrical **Decoration**: Unknown	2 bottle fragments; 1st fragment has body and shoulder? represented with at least 3 part mold (intersecting side and shoulder seam observed); 2nd freagment has finish, neck and partial shoulder represented, tooled finish				
45SN409/2008/875	4	6 (130-140)	C	VII	Bottle, Beverage	1	At least Two-part Mold	< 25%	**Color: Aqua** **Shape**: Unknown **Finish:** Crown **Base:** Absent **Shoulder:** Absent **Neck:** Tapered **Decoration**: Unknown	tooled crown finish with two mold lines visible on neck; there is a linear imperfection on on the interior of the neck that could be mistaken for a mold seam			after 1892 (Manufacture)	Miller et al. 2000
45SN409/2008/884	4	6 (130-140)	C	VII	Vial	1	Two-part Mold	75% to 99%	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Flat / Lip **Base**: Absent **Shoulder**: Rounded **Neck**: Cylindrical **Decoration**: Undecorated	majority of a glass vial with cork stopper closure, one-piece finish				

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/885.01	4	6 (130-140)	C	VII	Bottle, Paneled	4	Semi-automatic / Machine Molded (Owen's Scar)	25% to 50%	**Color**: Transparent/Clear/Colorless **Shape**: French Square **Finish**: Absent **Base**: Absent **Shoulder**: Absent **Neck**: Absent **Decoration**: Embossed	4 body fragments of square bodied bottle . 2 fragments mend to form one side of bottle with engraved text "D.D.. ", (cross-mends with 2008/605 bottle) to complete text reads "D.D.D."; 3rd fragment mends with first 2, from 3rd side/panel; 4th fragment mends with 2008/605 for other panel; cross-mends with catalog number 45SN409/2008/605			1900 - 1948 (Product)	Fike 2006: 160
45SN409/2008/885.02	4	6 (130-140)	C	VII	Cup / Tumbler	1	Press Mold	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Fire Polished Lip **Base**: Absent **Shoulder**: Nonexistent **Neck**: Nonexistent **Decoration**: Molded Ribs	rim fragment from horseshoe and star tumbler with ring of fine ribs below smooth rim/lip; cross-mends with catalog number 45SN409/2008/885			ca. 1900 - ca. 1940 (Decoration)	Whitten 2022 (Glass Bottle Marks Blog)
45SN409/2008/885.03	4	6 (130-140)	C	VII	Bottle	10	At least Two-part Mold	Complete/ Entire Object	**Color**: Transparent/Clear/Colorless **Shape**: Unknown **Finish**: Absent **Base**: Absent **Shoulder**: Rounded **Neck**: Absent **Decoration**: Undecorated	10 assorted glass vessel fragments; 1 definitive base fragment; 3 definitive shoulder fragments (flask width); 3 body fragments (2 have mold seams); 2 possible base or shoulder fragments				
45SN409/2008/888.01	4	6 (130-140)	C	VII	Dish	4	Press Mold	50% to 75%	**Color**: Transparent/Clear/Colorless **Shape**: Dish / Bowl **Finish**: Not Applicable **Base**: Decorative **Shoulder**: Not Applicable **Neck**: Not Applicable **Decoration**: Molded Starburst; Molded Bands / Rings	4 fragments of molded glass dish with impressed starburst design on base (exterior), decorative curvilinear rim with 2 rounds of ribbing around exterior rim; sets of two flutes externally on each side of "square"; on interior base in center the Krys-Tol trademark logo (for finishing and polishing method) is impressed; 3 of the fragments mend and 4th is likely from same object; DUPLICATE object of 2008/1103; pattern is consistent with Ohio Glass Company No. 1776 (OMN) called 'Colonial' or 'Aubrey', introduced in 1906		Chippendale "Krys-tol" Glassware; Ohio Flint Glass Company; Dunkirk, Indiana, USA	after 1906 (Decoration)	Early American Pattern Glass Society 2023; Thistlewood and Thistlewood 2023b
45SN409/2008/888.02	4	6 (130-140)	C	VII	Dish	1	Press Mold	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Dish / Bowl **Finish**: Not Applicable **Base**: Decorative **Shoulder**: Not Applicable **Neck**: Not Applicable **Decoration**: Molded Bands / Rings	fragment of molded glass dish that cross-mends with 2008/1103; nearly completes dish; cross-mends with catalog number 45SN409/2008/1103			after 1906 (Decoration)	Early American Pattern Glass Society 2023; Thistlewood and Thistlewood 2023b
45SN409/2008/888.03	4	6 (130-140)	C	VII	Oil Lamp Base, Decorative	2	Press Mold	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Unknown **Finish**: Not Applicable **Base**: Absent **Shoulder**: Not Applicable **Neck**: Not Applicable **Decoration**: Molded Cross Hatching; Molded Fan	2 vessel fragments that mend along cross-hatch pattern with feet/body represented on one fragments and rim represented on the other overall decorration is molded crosshatch with fans, same molded design seen on 2008/1065; cross-mends with catalog number 45SN409/2008/1065				

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/890.01	4	6 (130-140)	C	VII	Jar Closure	2	Semi-automatic / Machine Molded (Owen's Scar)	Complete/ Entire Object	**Color**: Transparent/Clear/Colorless **Shape**: Stopper Disk **Finish**: Not Applicable **Base**: Not Applicable **Shoulder**: Not Applicable **Neck**: Not Applicable **Decoration**: Undecorated	2 fragments that mend to form complete canning jar lid meant for wire bale closure type; raised center pressure point with two knobs to hold "lightning" wire bale;			after 1906 (Manufacture)	Miller et al. 2000; Lindsey 2022b (SHA Bottle Website)
45SN409/2008/890.02	4	6 (130-140)	C	VII	Jar Closure	1	Semi-automatic / Machine Molded (Owen's Scar)	75% to 99%	**Color**: Transparent/Clear/Colorless **Shape**: Unknown **Finish**: Not Applicable **Base**: Not Applicable **Shoulder**: Not Applicable **Neck**: Not Applicable **Decoration**: Undecorated	jar closure/lid with additonal stem/handle on upper portion that has other vessel glass attached to it - related to fruit canning in some way.				
45SN409/2008/918	4	4 (90-110)	B	IV	Beads on Wire	5	Prosser Mold	Complete/ Entire Object	**Color**: Opaque Green / Jadeite **Shape**: Cylindrical **Finish**: Not Applicable **Base**: Not Applicable **Shoulder**: Not Applicable **Neck**: Not Applicable **Decoration**: Undecorated	four small opaque light blue beads strung onto ferrous wire; wire is corroded, holding beads in place; shape is consistent with Class PM1d (barrell-shaped prosser beads), consistent in size color and shape to rosary beads described by Karklins and Ross, but the wire threaded through is not consistent with this function, perhaps used as part of a hair adornment or broach			after ca. 1850 (Manufacture)	Karklins & Ross 2007; Karklins 2012
45SN409/2008/925	4	5 (110-130)	B	V	Jar, Condiment	2	Press Mold	50% to 75%	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Stepped **Base**: Completely Flat **Shoulder**: Nonexistent **Neck**:Nonexistent **Decoration**: Undecorated	2 fragments of vacuum-seal jar with stepped lip/finish on jar; mend in bag; embossed text on base reads "90RS/PAT FEB 10 03" referring to the patent for a "vacuum preserving jar" granted to Carl C Giles and Granville H Gray on 2/10/1903			1903 - ca. 1940 (Patent and Manufacture)	Giles and Grey 1903; Whitten 2022 (Glass Bottle Marks Blog)
45SN409/2008/926	1	9 (95-105)	B	V	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color**: Natural Blue / Green **Shape**: Blake **Finish**: Double Ring **Base**: Flat Resting Point **Shoulder**: Rounded **Neck**: Cylindrical **Decoration**: Embossed	diagonal mold seams on rectangular shaped bottle, tooled finish, indented pannels with embossed text (back not indented, paper label would have been applied here); front pannel has embossed text written parrallell with bottle that reads "THE MOTHERS FRIEND"; right side pannel has embossed text that reads "BRADFIELD REG'L CO."; left side pannel has embossed text "ATLANTA, GA."; sample collected for chemical analysis 8/12/2021 (45SN409/2008/926.1)		"THE MOTHERS FRIEND"; Bradfield Regulator Company; Atlanta, Georgia, USA	1876 - ca. 1910 (Product and Manufacture)	Fike 2006: 53; Lindsey 2023
45SN409/2008/927	1	9 (95-105)	B	V	Jar, Medicine / Toiletry	1	Semi-automatic / Machine Molded (Owen's Scar)	Complete/ Entire Object	**Color**: Transperent/Clear/Colorless **Shape**: Stopper Jar **Finish**: Bead / Lip **Base**: Rounded Heel; Shallow Concave Basal Profile **Shoulder**: Rounded **Neck**: Cylindrical **Decoration**: Embossed	wear on bore indicating pos. presence of glass stopper; this product was introduced as early as 1874, but the Owen's scar evident on this vessel indicates a later manufacture		"POMPEIAN MASSAGE CREAM"	1903 - 1948 (Product and Manufacture)	Fike 2006:93; Miller et al. 2000

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/928	4	5 (110-130)	B	V	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	COMPLETE/ENTIRE OBJECT	**Color:** Transparent/Clear/Colorless **Shape:** Elixer **Finish:** Prescription / Lip **Base:** Flat Indentation Basal Profile; Rounded Heel **Shoulder:** Sloped Down **Neck:** Cylindrical **Decoration:** Undecorated	prescription bottle with mold seams on sides and tooled finish; streaking and bubbles visible in lower quarter of bottle body	"(O. G.) / (CO.)"; Olean Glass Company; Olean, New York, USA		ca. 1880 - 1913 (Maker's Mark)	Lockhart et al. 2018 (SHA Bottle Website)
45SN409/2008/957	3	6 (130-145)	C	VII	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Oval Philadelphia **Finish:** Bead / Lip **Base:** Flat Indentation Basal Profile; Rounded Heel **Shoulder:** Scooped **Neck:** Cylindrical **Decoration:** Undecorated	prescription bottle with mold seams on sides and tooled finish; numeral "8" embossed at shoulder on back (slightly concave opposed to fronts slightly convex), ovoid indentations (possibly suction scars or artifacts from mold blowing) on heel and on back side; the tooled finish suggests a pre-automatic manufacture method.			ca. 1850 - ca. 1910 (Manufacture)	Lindsey 2022a (SHA Bottle Website)
45SN409/2008/958	4	6 (130-145)	C	VII	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Oval Philadelphia **Finish:** Bead / Lip **Base:** Flat Indentation Basal Profile; Rounded Heel **Shoulder:** Scooped **Neck:** Cylindrical **Decoration:** Undecorated	small medicine/pharmaceutical bottle with tooled finish, no makers markings discernable			ca. 1850 - ca. 1910 (Manufacture)	Lindsey 2022e (SHA Bottle Website)
45SN409/2008/956	2	8 (90-126)	B	V	Cup / Mug	1	Press Mold	25% to 50%	**Color:** Transparent/Clear/Colorless **Shape:** Mug Handle **Finish:** Absent **Base:** Absent **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Undecorated	thick but small mug handle with one mold seam on vertical axis; breaks at body joint locations				
45SN409/2008/1006	4	6 (130-140)	C	VII	Bottle, Paneled	1	Two part Mold	25% to 50%	**Color:** Amber **Shape:** Paneled **Finish:** Threaded Continuous **Base:** Absent **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Unknown	machine made with 2 diagonal mold seams visible on shoulders, one side goes all the way to top of finish, the continuous thread and the inconsistency of thickness around the inside of the bottle bore are indicative of an "improved" tooled finish			1900 - 1920 (Manufacture)	Lindsey 2020b (SHA Bottle Website)
45SN409/2008/1037	3	4 (83-109)	B	IV	Bottle	2		< 25%	**Color:** Natural Green **Shape:** Cylindrical **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	thick green bottle base and body fragment with illegible embossed text; base has embossed text "DR. S. B. H. & CO../PR..." with "22" in center; base mark indicative of Pe-Ru-Na tonic bottle		Pe-Ru-Na; Dr. Samuel B. Hartman & Company; Columbus, Ohio, USA	ca. 1890 - ca. 1920 (Product)	Lockhart, Schriever, and Lindsey 2015 (SHA Bottle Website)

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1038.01	3	4 (83-109)	B	IV	Bottle	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color**: Aqua **Shape:** Cylindrical **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	bottle base with some heel and small portion of body represented; blank (parisan) mold seams appear similar to 'post mold" but owen's suction scar is visible all the way around heel onto base, there is also either an embossed line just above the heel or a cup mold seam; embossed text on base has very large 'C' with smaller "22" below, there is also ghost image of "22" underneath the letter; this may be a mold designation, or could possibly be a makers mark for Canton Glass Company circa 1903, which aligns with the the earliest implementation automatic bottle manufacturing			after 1903 (Manufacture)	Miller et al. 2000; Lockhart et al. 2014 (SHA Bottle Website)
45SN409/2008/1038.02	3	4 (83-109)	B	IV	Jar	3	At least Two-part Mold	< 25%	**Color**: Aqua **Shape:** Cylindrical **Finish:** Thread Continuous **Base:** Absent **Shoulder:** Absent **Neck:** Nonexistent **Decoration:** Embossed	3 canning jar fragments; 1st fragment is finish and very small portion of shoulder; 2nd fragment is body fragment with embossed text "- ATL..."; 3rd fragment is body fragment with embossed text "..NT..."; based on text, size, and color it is highly likely that full text read '- ATLAS - / MASON'S / PATENT"	Hazel-Atlas Glass Company; Wheeling, West Virginia, USA		1898 - 1901 (Decoration)	Lockhart et al. 2016 (SHA Bottle Website)
45SN409/2008/1040	3	4 (83-109)	B	IV	Bottle, Beer	1	Post Mold	< 25%	**Color**: Brown **Shape:** Cylindrical **Finish:** Absent **Base:** Chamfered Heel **Shoulder:** Absent **Neck:** Absent **Decoration:** Undecorated	most of bottle base with approx. half of heel and a portion of body represented; post mold seams go all the way down and around heel but also a lip/seam present around heel where cup mold seam would be; base has embossed text "SB&GCo"	"SB&G Co."; Streator Bottle and Glass Company; Streator, Illinois, USA		1890 - 1905 (Maker's Mark)	Lockhart et al. 2019 (SHA Bottle Website)
45SN409/2008/1047	3	4 (83-109)	B	IV	Jar, Condiment	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Globular **Finish**: Absent **Base**: Footed **Shoulder**: Absent **Neck**: Absent **Decoration**: Unknown	jar base with embossed text: "H. J. HEINZ CO. / [?]88 / PATD" with owen's suction scar over numerals, according to the Heinz Company's published list of bottle codes, 88 was used between 1887-1895, however they also list this mold number as a hand blown, vessel, which held ketchup. The double ring scar visible on this vessel clearly indicates it was manufactured on an automatic machine so there is clearly an illegible or missing number; Heinz lists #188 as "circa 1920,' woozy sauce'; had a cork and glass stopper' which is consistent with the manufacture and vessel shape of this artifact		Woozy Sauce; H. J. Heinz Company.; Sharpsburg, Pensylvania, USA	after ca. 1920 (Product and Manufacture)	Cartwright 2006; Lockhart et al. 2016b; Lord 2022 (SHA Bottle Website)
45SN409/2008/1063	4	6 (130-140)	C	VII	Oil Lamp Base, Decorative	1	Press Mold	50% to 75%	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Not Applicable **Base**: Not Applicable **Shoulder**: Nonexistent **Neck**: Nonexistent **Decoration**: Molded Cross Hatching; Molded Fan	approximately half of a molded bowl shaped vessel? with straight vertical sides; decoration is cross hatched diamond pattern with raised dots in center of diamond and fans up and down at intersections of diamonds; on one side has large convex indent (for attachment to something?); possible candy dish or maybe lighting glass based on possible mounting indent; cross-mends with catalog number 45SN409/2008/883.03				

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1069	4	6 (130-140)	C	VI	Bottle, Medicine / Patent	2	Two-part Mold	75% to 99%	**Color**: Transparent/Clear/Colorless **Shape**: Oblong Prescription **Finish**: Prescription / Lip **Base**: Rounded Heel **Shoulder**: Sloped Down **Neck**: Cylindrical **Decoration**: Undecorated	nearly complete prescription bottle (missing base and small portion of body); no text or makers marks; tooled finish, side seams visible until base of neck; shrunken cork in bag also, unclear if associated specifically with this bottle			ca. 1850 - ca. 1910 (Manufacture)	Lindsey 2023
45SN409/2008/1070	4	6 (130-140)	C	VI	Bottle, Paneled	1	At least Two-part Mold	25% to 50%	**Color**: Transparent/Clear/Colorless **Shape**: Paneled **Finish**: Collared Ring **Base**: Absent **Shoulder**: Stepped **Neck**: Cylindrical **Decoration**: Unknown	bottle fragment representing finish, neck and partial shoulder of rectangular paneled bottle; neck joins with shoulder with molded step; daigonal mold seams continue about halfway up the neck to a tooled finish				
45SN409/2008/1073	4	6 (130-140)	C	VI	Bottle, Paneled	1	Semi-automatic / Machine Molded (Owen's Scar)	25% to 50%	**Color:** Amber **Shape:** Blake **Finish:** Absent **Base**: Flat Indentation Basal Profile; Footed **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	Owen's suction scar on base; embossed text on base reads "...P CO."; no listed medicine bottles in Fike, or makers marks on the SHA site, or the Whitten Glass Bottle Marks site correspond exactly to this mark, although the Brunswick Pharmacal Co. used B.P. & Co. on their bottles and this may be a variant of that?			after 1903 (Manufacture)	Fike 2006; Lindsey 2023 (SHA Bottle Website); Whitten 2022
45SN409/2008/1074	4	6 (130-140)	C	VI	Bottle	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color**: Transparent/Clear/Colorless **Shape**: Excelsior **Finish**: Collared Ring **Base**: Flat Indentation Basal Profile; Footed **Shoulder**: Stepped **Neck**: Cylindrical **Decoration**: Undecorated	possible cosmetics bottle; rectangular base with embossed text reacing "W T / U.D. CO." with numeral "5" aligned perpindicular to text on right side and numeral "3" below text; United Drug Company was not a bottle manufacture and is known to have their 'maker's mark' accompanied by the actual bottle manufacture in the case of the Maryland Glass Corporation so it is possible that this may have been a shared base mark with Whitall Tatum, which was one of the major producers of pharmaceutical bottles in the region at the time; bottle body bowes outward and then back in to join with neck with rounded then stepped shoulder; diagonally aligned mold seams visible to bottom of neck, tooled finish; based on these manufacturing traits this would have been among the earliest of the United Drug bottles since cup molds and tooled finishes were phased out by around 1910	"W T / U.D. CO."; Possibly Whitall Tatum?	United Drug Company: Boston, Massachusetts AND St. Louis, Missouri. USA	1910 - 1930 (Maker's Mark)	Lockhart et al. 2017, 2019, 2020; Lindsey 2023
45SN409/2008/1075	4	6 (130-140)	C	VI	Oil Lamp Base, Decorative	1	At least Two-part Mold	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Not Applicable **Base**: Absent **Shoulder**: Absent **Neck**: Cylindrical **Decoration**: Unknown	molded bottle 'shoulder' and neck; concave disc with linear mold seams, elevated rounded smaller shoulder around base of neck (seams continue through) with very short neck; likely base of lamp where burner was placed and chipping resulted from repeated removal and replacing for oil refills; cross-mends with catalog numbers 45SN409/2008/888.03 and 45SN409/2008/1065				

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1078	4	6 (130-140)	C	VI	Cup / Tumbler	1	Press Mold	75% to 99%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Fire Polished Lip **Base:** Rounded Heel **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Undecorated	possibly reusable 'jelly glass' or just condiment jar with embossed text on base that reads "PATENTED / JUN. 9. 03 / JUNE 23, 03."; vacuum seal jar finish is stepped below lip; duplicate of 2008/925			1903 - ca. 1940 (Patent and Manufacture)	Giles and Gray 1906; Whitter 2022 (Glass Bottle Marks Blog)
45SN409/2008/1089	4	3 (70-88)	A	IV	Bead	1	Drawn / Tube / Cane / Hollow Cane	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Sphere **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Undecorated	colorless transluscent spherical bead; conchoidal fracture at one end but in tact; consistent with Class IIa (non-tubular/heat rounded beads with simple/monochrome body) described by Karklins 2012				Karklins & Ross 2007; Karklins 2012; Kidd & Kidd 2012
45SN409/2008/1090	4	3 (70-88)	A	IV	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Natural Blue / Green **Shape:** Blake **Finish:** Double Ring **Base:** Shallow Concave Basal Profile **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:**Embossed	DUPLICATE 2008/925; diagonal mold seams on rectangular shaped bottle, down-tooled finish, indented pannels with embossed text (back not indented); front pannel has embossed text that reads "THE MOTHERS FRIEND"; right side pannel has embossed text that reads "BRADFIELD REG'L CO."; left side pannel has embossed text "ATLANTA, GA."; photographed/documented in case this image is more representative than 926		The Mother's Friend; Bradfield Regulator Company; Atlanta, Georgia, USA	1876 - ca. 1910 (Product and Manufacture)	Fike 2006: 53; Lindsey 2023
45SN409/2008/1093.01	4	3 (70-88)	A	IV	Bottle, Paneled	1	At least Two-part Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Paneled **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	side panel fragment of bottle with embossed text "...LLE, K..." possibly "LOUISVILLE, KY"				Fike 2006
45SN409/2008/1102	4	3 (70-88)	A	IV	Bottle	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Unknown **Finish:** Threaded Continuous **Base:** Absent **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Unknown	bottle fragment with finish, neck and very little shoulder represented; single mold seam visible all the way to the bottom edge of finish; continuous thread goes around 2 times; metal screw top is very corroded/fused to the finish (top and part of side missing)			after 1903 (Manufacture)	Miller et al. 2000
45SN409/2008/1103	4	6 (130-140)	C	VI	Dish	2	Press Mold	50% to 75%	**Color:** Transparent/Clear/Colorless **Shape:** Dish / Bowl **Finish:** Not Applicable **Base:** Decorative **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Molded Starburst	2 fragments of molded glass dish with impressed starburst design on base (exterior), decorative curvil near rim with 2 rounds of ribbing around exterior rim; mend in bag; sets of two flutes externally on each side of "square"; on interior base in center the Krys Tol logo is impressed; DUPLICATE object of 2008/888.01; cross-mends with catalog number 45SN409/2008/888.02		Chippendale "Krys-tol" Glasware; Ohio Flint Glass Company; Dunkirk, Indiana, USA	after 1906 (Decoration)	Early American Pattern Glass Society 2023; Thistlewood and Thistlewood 2020

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN403/2008/1127	4	4 (90-110)	B	V	Bottle, Medicine / Patent	1	Two-part Mold, Cup Base	Complete/ Entire Object	**Color:** Selenium **Shape:** Blake **Finish:** Double Ring **Base:** Shallow Concave Basal Profile; Abrupt Heel **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Embossed	paneled mold brown bottle with tooled finish, diagonal mold seam on right side goes all the way to bottom edge of finish but on the left is smeared away, no apparent suction scar on base; embossed text on front pannel reads "BLOOD & RHUEMATISM REMEDY / NO. 5088 / MATT J. JOHNSON CO. / ST. PAULL, MINN."; Fike lists "Great Blood & Rheumatism Cure/ No. 5088" this was presumably how this product was marketed prior to the 1906 Food and Drug Act		Blood BLOOD & RHEUMATISM REMEDY / NO. 6088"; Matt.. Johnson Company; St. Paul, Minnesota, USA	ca. 1905 - 1930 (Product and Manufacture)	Fike 2006: 99; Eichner 2021b; Lindsey 2023 (SHA Bottle Website)
45SN403/2008/1129.01	4	4 (90-110)	B	V	Bottle, Paneled	1	At least Two-part Mold	<25%	**Color:** Transparent/Clear/Colorless **Shape:** Unknown **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	portion of body panel (likely side of rectangular pharmaceutical bottle not front) and shoulder represented, embossed text reads "BRAD(?)(?)(L?)(L?)..." Very likely Bradfield Regulator Co text from another Mother's Friend bottle.				
45SN403/2008/1135	4	4 (90-110)	B	V	Jar, Canning	16	Two-part Mold, Cup Base	25% to 50%	**Color:** Natural Blue / Green **Shape:** Cylindrical **Finish:** Threaded Continuous **Base:** Shallow Concave Basal Profile **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Embossed	fragments from at least 1 canning jar including 1 base fragment, 1 rim fragment, 2 neck fragments, 12 body fragments, 3 of which have embossed lettering that reads "..AS-...", "...ON (S?).../...ENT" [from -A"LAS- mason jar]; color of fragments is higly variable (some nearly colorless, some more blue) which may suggest multiple vessels represented			1898 - 1901 (Decoration)	Lockhart et al. 2016 (SHA Bottle Website)
45SN403/2008/1140	1	11 (125-145)	C	VII	Bottle, Flask	1	At least Two-part Mold	<25%	**Color:** Transparent/Clear/Colorless **Shape:** Flask **Finish:** Brandy / Wine **Base:** Absent **Shoulder:** Rounded **Neck:** Rings **Decoration:** Unknown	flask neck and finish, mold seam continues through both neck rings, but upper part of brandy/wine finish appears to be tooled; likely duplicate of vessel type 2008/1313 which is Eagle or Dandy flask				
45SN403/2008/1145.01	1	8 (75-95)	A	IV	Bottle	1		<25%	**Color:** Aqua **Shape:** Oval **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	ovoid bottle base with small portion of heel and body (melted), body has embossed text "...ACT" (likely from arched text on front of bottle) and on base, large embossed numerals "846"			ca. 1850 - ca. 1910 (Manufacture)	Lindsey 2023
45SN403/2008/1145.02	1	8 (75-95)	A	IV	Jar	1	Semi-automatic / Machine Molded (Owen's Scar)	<25%	**Color:** Aqua **Shape:** Cylindrical **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Unknown	small portion of jar base and heel, clearly not associated with other bottle base in catalog entry				
45SN403/2008/1160	3	6 (130-145)	C	VII	Jar, Medicine / Toiletry	1	Semi-automatic / Machine Molded (Owen's Scar)	Complete/ Entire Object	**Color:** Milk / Opacue White **Shape:** Cylindrical **Finish:** Threaded Continuous Finish **Base:** Flat Incentation Basal Profile **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Undecorated	milk glass jar with neck ring parison scars on both heel and bottom of finish; embossed text on base reads "MENTHOLATUM/ REG / TRADE / MARK"		Menthclatum; The Menthclatum Company; Buffalo, New York, USA	1905 - 1955 (Product and Manufacture)	Fike 2006: 83

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1191	Surface	Surface	-	-	Decorative Vessel	1	Flashed	Unknown	**Color:** Milk / Opaque White **Shape:** Flat **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Pink Flashing	possible tile fragment with translucent white glass for majority of thickness with ~1mm applied translucent pink glass applied to front surface; refits with other two listed catalog numbers indicating depositonal disturbance from 2006 trench excavation; cross-mends with catalog numbers 45SN409/2006/73 and 45SN409/2008/1254				
45SN409/2008/1198	3	Wall cleaning	-	-	Bead	1	Mold Pressed	Complete/ Entire Object	**Color:** Orange **Shape:** Sphere **Finish:** Not Applicable **Base:** Not Applicable **Shoulder:** Not Applicable **Neck:** Not Applicable **Decoration:** Cobalt Blue Swirl through Matrix of Bright Orange	spherical bright orange bead with horizontal mold scar; swirled blue/green/brown/yellow, consistent with Class MPIa (mold pressed, round) according to Karklins 2012, earliest manufacture is early 19th century				Ross 2003; Karklins 2012
45SN409/2008/1220	1	11 (125-145)	C	VII	Bottle, Medicine / Patent	1	At least Two-part Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Unknown **Finish:** Patent / Extract / Lip **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	finish neck and very small part of shoulder of likely prescription bottle; tooled finish with diagonal mold seams			ca. 1825 - ca. 1910 (Manufacture)	Lindsey 2022a (SHA Bottle Website)
45SN409/2008/1228	4	1 (0-50)	A	I	Bottle, Paneled	1	At least Two-part Mold	< 25%	**Color:** Aqua **Shape:** Paneled **Finish:** Absent **Base:** Absent **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	one wall/body panel of bottle with small portion of heel at one corner; angle of wall joint is obtuse (estimated to be ~135 deg); text perpindicular to base going up side of bottle "L..."; body wall width ~5cm				
45SN409/2008/1227	4	1 (0-50)	A	I	Cup, Measuring	1	At least Two-part Mold	< 25%	**Color:** Yellow **Shape:** Unknown **Finish:** Absent **Base:** Absent **Shoulder:** Nonexistent **Neck:** Nonexistent **Decoration:** Embossed	body fragment of measuring vessel (likely liquid measuring cup) with embossed text that reads "CUP" with a vertical arrow above and to the left of the text indicating a horizontal line for measurement, this upper portion of the fragment shows some melting and torsional fractures; glass color and embossing consistent with depression glass measuring cups manufactured by Hazel-Atlas or Glassbake measuring cups manufactured by McKee Glass Co.			after ca. 1929 (Manufacture)	
45SN409/2008/1231	4	1 (0-50)	A	I	Bottle	12	At least Two-part Mold	< 25%	**Color:** Brown **Shape:** Cylindrical **Finish:** Threaded Continuous **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Embossed	12 vessel fragments; 5 partial base fragments, 6 body fragments; 1 rim fragment, 3 body fragments have embossed text, 1st fragment reads "...TS...", 2nd fragment reads "(H?IS?).../...W.L. .", 3rd fragment reads "...AT OFF" on embosed scrollwork motif (likely abbreviation of 'patent office')				

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1236	4	1 (0-50)	A	I	Bottle	10	Semi-automatic / Machine Molded (Owen's Scar)	25% to 50%	**Color:** Aqua **Shape:**Cylindrical **Finish:** Double Ring **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Rings **Decoration:** Embossed	vessel fragments, likely from at least 2 different vessels - one canning jar and and at least one other vessel type; 3 base fragments, 6 body fragments, 1 neck/finish fragment; 2 of base fragments refit and have suction scar as well as "Y" or "L" mark in center, one of the base fragments is melted/heat affected; 3 of the body fragments have embossed text, 1st fragment reads "...ECT...", 2nd fragment reads "...S", 3rd fragment reads "...S/...T" ("Mason's Patent" likely from Atlas jar); neck is fully automatic (mold seams all the way up and over the lip)			after 1903 (Finish Manufacture)	Miller et al. 2000
45SN409/2008/1239.01	4	1 (0-50)	A	I	Bottle	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Absent **Base:** Flat Indentation Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	complete bottle, jar, or cup base (thick) with heel and some body; base has embossed text that reads "6 (O In square) 40"	Square-O, Owen's Bottle Company; Kanawha City (Charleston), West Virginia, USA		1920 - 1929 (Maker's Mark)	Briggs 2018 (SHA Bottle Website)
45SN409/2008/1239.02	4	1 (0-50)	A	I	Container Glass	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	thin body with thick base fragment (base ~twice as thick as body suggestive of tumbler vessel type); parisan mold seam continues down around heel to seam on base				
45SN409/2008/1239.03	4	1 (0-50)	A	I	Container Glass	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Absent **Base:** Shallow Concave Basal Profile **Shoulder:** Absent **Neck:** Absent **Decoration:** Unknown	fragment of likely jar or jug base; no discernable makers marks; cross-mends with catalog number 45SN409/2008/1242.05				
45SN409/2008/1239.04	4	1 (0-50)	A	I	Bottle, Flask	1	At least Two-part Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Flask Strapped **Finish:** Brandy / Wine **Base:** Absent **Shoulder:** Absent **Neck:** Rings **Decoration:** Unknown	likely flask fragment with finish, neck and partial shoulder represented; tooled finished			ca. 1825 - ca. 1910 (Manufacture)	Eichner 2021b; Lindsey 2022a (SHA Bottle Website)
45SN409/2008/1239.05	4	1 (0-50)	A	I	Bottle	2	Four-part Mold	< 25%	**Color:** Transparent/Clear/Colorless **Shape:** Cylindrical **Finish:** Flat Lip **Base:** Absent **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Unknown	finish, neck, and partial shoulder represented in main fragment; vertical seams across from eachother that intersect with shoulder seam indicating likely 4-part mold; finish appears to be applied because side seams go all the way up the neck but has very flat (right angle) lip and rim; 2nd fragment mends with one side, partial shoulder fragment with horizontal mold seam completion; cross-mends with catalog number 45SN409/2008/1242.06			1850 - 1920 (Manufacture)	Eichner 2021b; Lindsey 2022a (SHA Bottle Website)

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1239.06	4	1 (0-50)	A	I	Container Glass	1	At least Two-part Mold	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Unknown **Finish**: Absent **Base**: Absent **Shoulder**: Absent **Neck**: Absent **Decoration**: Unknown	thick fragment with body with possibly rim represented; has numerous conchoidal breaks along one face of one side (looks scraper-like with breakage occurring opposite where force would have been applied)				Martindale & Jurak c 2015
45SN409/2008/1239.07	4	1 (0-50)	A	I	Container Glass	2	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Unknown **Finish**: Absent **Base**: Absent **Shoulder**: Rounded **Neck**: Absent **Decoration**: Unknown	2 fragments of glass vessel (no mend to eachother); 1st fragment is possible base fragment based on thickness and presence of possible suction scar; 2nd fragment has possible continuous threaded finish			after 1903 (Manufacture)	Miller et al. 2000
45SN409/2008/1239.08	4	1 (0-50)	A	I	Bottle, Paneled	1	At least Two-part Mold	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Paneled **Finish**: Absent **Base**: Absent **Shoulder**: Tapered **Neck**: Absent **Decoration**: Unknown	body fragment of tapered panel bottle; corner/apex of panels represented; cross-mends with catalog number 45SN409/2008/1242.07				
45SN409/2008/1242.01	4	1 (0-50)	A	I	Bottle	1	Semi-automatic / Machine Molded (Owen's Scar)	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Oval Plain **Finish**: Absent **Base**: Flat Indetation Basal Profile **Shoulder**: Absent **Neck**: Absent **Decoration**: Unknown	most of base and small portion of body represented; oval base shape; text on base reads OWENS with numeral "6" below the W; this maker's mark was only used on the Owen's graduated oval pharmaceutical bottles	[O]WENS; Owen's Bottle Company; Kanawha City (Charleston), West Virginia, USA		1925 - ca. 1929 (Maker's Mark)	Briggs 2018 ISHA Bottle Website
45SN409/2008/1242.02	4	1 (0-50)	A	I	Bottle, Paneled	1		< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Oval Plain **Finish**: Absent **Base**: Shallow Concave Basal Profile **Shoulder**: Absent **Neck**: Absent **Decoration**: Unknown	small portion of base and heel/body represented; numeral "2" embossed on body backwards (can be read correctly through interior); ovoid scar/impression on heel				
45SN409/2008/1242.03	4	1 (0-50)	A	I	Bottle	1	At least Two-part Mold; Cup Base	< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Oval Salamander **Finish**: Absent **Base**: Flat Indentation Basal Profile **Shoulder**: Absent **Neck**: Absent **Decoration**: Unknown	rounded rectanglular base fragment with slightly concave recess in base; ~1/3 of base and two small portions of heel/body represented				
45SN409/2008/1242.04	4	1 (0-50)	A	I	Container Glass	1		< 25%	**Color**: Transparent/Clear/Colorless **Shape**: Unknown **Finish**: Absent **Base**: Absent **Shoulder**: Absent **Neck**: Absent **Decoration**: Unknown	possible body/shoulder fragment with thick rounded shoulder that steps up to possible neck area/portion? Alternatively, footed base with rounded heel?				

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1242.05	4	1 (0-50)	A	I	Container Glass	1	Semi-automatic / Machine Molded (Owen's Scar)	<25%	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Absent **Base**:Shallow Concave Basal Profile **Shoulder**: Absent **Neck**: Absent **Decoration**: Unknown	fragment of likely jar or jug base; no discernable makers marks; cross-mends with catalog number 45SN409/2008/1239.03				
45SN409/2008/1242.06	4	1 (0-50)	A	I	Bottle	1	Four-part Mold	<25%	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Absent **Base**: Absent **Shoulder**: Rounded **Neck**: Absent **Decoration**: Unknown	shoulder fragment that mends with neck/shoulder of 2008/1239.05; cross-mends with catalog number 45SN409/2008/1239.05			1850 - 1920 (Manufacture)	Eichner 2021b; Lindsey 2022a (SHA Bottle Website)
45SN409/2008/1242.07	4	1 (0-50)	A	I	Bottle, Paneled	8	At least Two-part Void	25% to 50%	**Color**: Transparent/Clear/Colorless **Shape**: Paneled **Finish**: Absent **Base**: Absent **Shoulder**: Tapered **Neck**: Absent **Decoration**: Unknown	body and shoulder fragments of tapered panel bottle with apexes represented on every fragment, one fragment has vertical mold seam; no mends apparent but the taper angle of the largest paneled fragment is very similar to 2008/1239.08				
45SN409/2008/1242.08	4	1 (0-50)	A	I	Container Glass	2	At least Two-part Void	<25%	**Color**: Transparent/Clear/Colorless **Shape**: Unknown **Finish**: Absent **Base**: Absent **Shoulder**: Tapered **Neck**: Absent **Decoration**: Embossed	2 body fragments of glass containers; 1st fragment is thin and has body and small portion of shoulder or heel represented, 3 rings of faint embossing present; 2nd fragment appears to be from graduated bottle with embossed gradation and numeral "0"				
45SN409/2008/1254	Clean up	-	-	-	Decorative Vessel	1	Flashed	Unknown	**Color**:Milk / Opaque White **Shape**: Flat **Finish**: Not Applicable **Base**: Not Applicable **Shoulder**: Not Applicable **Neck**: Not Applicable **Decoration**: Pink Flashing	possible tile fragment with translucent white glass for majority of thickness with ~1mm applied translucent pink glass applied to front surface; refits with other two listed catalog numbers indicating depositional disturbance from 2005 trench excavation; cross-mends with catalog numbers 45SN409/2006/73 and 45SN409/2008/1191				
45SN409/2008/1278	2	10 (132-145)	C	VII	Bottle, Liquor	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color**: Transparent/Clear/Colorless **Shape**: Cylindrical **Finish**: Brandy / Wine **Base**: Shallow Concave Basal Profile; Footed **Shoulder**: Sloped Down **Neck**: Cylindrical **Decoration**: Embossed	Complete whiskey bottle with text on shoulder/upper body "LER'S MALT WHISKEY" text on heel "WILLOW SPRINGS DISTILLERY" text on base "PAT APPLIED FOR"; company founded in 1870 to make this product, continued to produce until Volstead Act, but manufacture suggests this bottle is from earlier than 1910; sample collected for chemical analysis 8/12/2021 (45SN409/2008/1278.1)		"ILER'S MALT WHISKEY"; Iler & Company, Omaha, Nebraska, USA	1870 - ca. 1910 (Product and Manufacture)	Egan 2023; Eichner 2021b; Lindsey 2022d (SHA Bottle Website)
45SN409/2008/1304	4	5 (110-130)	B	V	Bottle	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color**: Transparent/Clear/Colorless **Shape**: Oval **Finish**: Prescription / Lip; Un Tooled Lip **Base**: Abrupt Heel **Shoulder**: Rounded **Neck**: Cylindrical **Decoration**: Embossed	small oval base bottle with "DWD" molded mark on front, brown layer of liquid over yellowish layer			1850 - 1910 (Manufacture)	Eichner 2021b; Lindsey 2021, 2022a (SHA Bottle Website)

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1305	2	8 (90-120)	B	V	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Paneled **Finish:** Prescription / Lip **Base:** Flat Indentation Basal Profile **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Undecorated	diamond shaped base with paneled body; slightly diagonal side seams and date tooled finish; base has text that reads "PAT'D/ JUNE 29TH 1897/27261"			1897 - ca. 1910 (Patent and Manufacture)	Beach 1897; Eichner 2021b; Lindsey 2021, 2022a (SHA Bottle Website)
45SN409/2008/1306	3	7 (130-140)	C	VII	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Elixir **Finish:** Prescription / Lip **Base:** Flat Indentation Basal Profile; Abrupt Heel **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Embossed	prescription bottle with tooled finish, front has molded parallel lines going up from base with curved top and text above reading "℥ IV" meaning four ounces; SHA bottle website asserts that embossed volume information almost certainly postdates 1900			1900 - 1910 (Manufacture)	Lindsey 2022e; Eichner 2021b; Lindsey 2023 (SHA Bottle Website)
45SN409/2008/1307	4	6 (130-140)	C	VII	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Bitter **Finish:** Patent / Extract / Lip; Flat Lip **Base:** Shallow Concave Basal Profile; Chamfered Heel **Shoulder:** Rounded **Neck:** Ball **Decoration:** Undecorated	diagonal mold seam on paneled bottle with indented panels on all sides			1850 - 1910 (Manufacture)	Eichner 2021b; Lindsey 2021, 2022a (SHA Bottle Website)
45SN409/2008/1308	4	6 (130-140)	C	VII	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Oval Philadelphia **Finish:** Prescription Lip; Up-tooled Lip **Base:** Flat Indentation Basal Profile; Rounded Heel **Shoulder:** Sloped Down **Neck:** Cylindrical **Decoration:** Undecorated	side seams at bottle midline (not diagonal as with other paneled bottles); tooled finish; several linear imperfections in the body/base of the vessel			1850 -1910 (Manufacture)	Eichner 2021b; Lindsey 2021, 2022a (SHA Bottle Website)
45SN409/2008/1309	4	6 (130-140)	C	VII	Bottle, Paneled	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Bitter **Finish:** Prescription / Lip **Base:** Flat Indentation Basal Profile; Chamfered Heel **Shoulder:** Horizontal **Neck:** Cylindrical **Decoration:** Undecorated	rectangular panel bottle with diagonal mold seam and prescription finish; no markings on bottle body or base			1850 - 1910 (Manufacture)	Eichner 2021b; Lindsey 2021, 2022a (SHA Bottle Website)
45SN409/2008/1310	3	7 (132-147)	C	VII	Bottle, Medicine / Patent	1	Two-part Mold; Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Elixir **Finish:** Prescription / Lip **Base:** Flat Indentation Basal Profile; Abrupt Heel **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Embossed	prescription bottle with tooled finish, front has molded parallel lines going up from base with curved top and text above reading "℥ III" meaning three ounces; SHA bottle website asserts that embossed volume information almost certainly postdates 1900			1900 - ca. 1910 (Manufacture)	Lindsey 2022e; Eichner 2021b; Lindsey 2021, 2022a (SHA Bottle Website)

Catalog Number	Unit	Level (Depth)	AU	Stratum	Object Description	Item Count	Manufacture Method	Percent Complete	Vessel Description	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1311	4	6 (130-140)	C	VII	Bottle, Medicine / Patent	1	Two-part Mold, Cup Base	Complete/ Entire Object	**Color:** Natural Blue / Green **Shape:** Cylindrical **Finish:** Double Ring **Base:** Shallow Concave Basal Profile; Rounded Heel **Shoulder:** Rounded **Neck:** Cylindrical **Decoration:** Embossed	cylindrical neck has double ring finish with upper ring;actual finish as rolled finish, text on body is written on axis perpendicular to bottle, reads: "HALL'S CATARRH CURE"; sample collected for chemical analysis 8/12/2021 (45SN409/2008/1311.1)		"HALL'S CATARRH CURE", F. J. Cheney & Company; Toledo, Ohio, USA	1875 - ca. 1910 (Product and Manufacture)	Fike 2006: 99; Hoolihan 2001, Eichner 2021b; Lindsey 2022e (SHA Bottle Website)
45SN409/2008/1312	4	6 (130-140)	C	VII	Vial	1	Two-part Mold	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Vial **Finish:** Flat Lip **Base:** Abrupt Heel **Shoulder:** Nonexistent **Neck:** Tapered **Decoration** Undecorated	vial has mold seams on vertical axis but no aparent base/heel seams, likely 2-piece mold, brown-black vitreous substance inside (consistent with coal tar); bottle manufacture appears to predate machine manufacture based on comparison to Illincis Class catalog			ca. 1850 - ca. 1910 (Manufacture)	Eichner 2021b; Lindsey 2022e; Bitubin India 2023
45SN409/2008/1313	4	6 (130-140)	C	VII	Bottle, Liquor	1	Two-part Mold, Cup Base	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Flask **Finish:** Brandy / Wine **Base:** Flat Indentation Basal Profile, Footed Base **Shoulder:** Sloped Down **Neck:** Ball **Decoration** Undecorated	whiskey flask, no text, molded string rim on lower part of neck with seams transecting; brandy/wine finish has rolled over material imperfections, artifact very similar to 2008/1030, 2008/1043, and likely 2008/1140 (these are fragmentary, and this is best representative object; sample collected for chemical analysis 8/12/2021 (45SN409/2008/1313.1)			1850 - 1910 (Manufacture)	Eichner 2021b, Lindsey 2022d (SHA Bottle Website)
45SN409/2008/1315	4	5 (110-130)	B	V	Bottle	1	Post Mold	Complete/ Entire Object	**Color:** Transparent/Clear/Colorless **Shape:** Rounded Square **Finish:** Flared / Lip **Base:** Shallow Concave Basal Profile; Rounded Heel **Shoulder:** Tapered **Neck:** Cylindrical **Decoration** Undecorated	complete post mold/hand blown bottle with diagonal seams; tooled flared (wide prescription) finish; base has embossed text "PATD APRIL 21ST / 1896"			1896 - ca. 1910 (Patent and Manufacture)	Nelson 1895; Eichner 2021b; Lindsey 2021, 2022a (SHA Bottle Website)
45SN409/2006/20	Trench 2	1 (0-50)	A	-	Bottle, Faneled	1	Semi-automatic/ Machine Molded (Ower's Scar)	25% to 50%	**Color:** Transparent/Clear/Colorless **Shape:** Blake **Finish:** Absent **Base:** Abrupt Heel **Shoulder:** Absent **Neck:** Absent **Decoration** Undecorated	octagonal base bottle with two panels on the right and left; side tapering upward; text on base reads "DES.PAT.89237" and perpendicular to this the Owens Illinois makers mark with coded text to the left ("0"?), right ("9"), and below ("2")	I in O in diamond; Owen's Illinois Glass Company		after 1939 (Date Code)	Fuerst 1935; Lockhart and Hoenig 2018 (SHA Bottle Website)

Table A.3 Artifact Catalog, All Other Material Classes

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Class(es)	Material Type(s)	Object Description	Item Count	Manufacture Method	Percent Complete	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/125	1	1 (5-15)	A	I	Metal	Brass	Ammunition, Rifle Casing	1	Machine Made Pressed	75% to 99%	centerfire rimmed straight case, no primer present rim diameter 0.5 inch, shaft/neck diameter 0.421 inches, overall case length (incomplete edge) ~1.7 inches; no legible headstamp; consistent with a .40-50 Sharps (Straight) or .40-1 7/8-inch Sharps rifle cartridge			after 1879 (Manufacture)	Barnes 2012: 135
45SN409/2008/213	1	2 (15-25)	A	I	Metal	Brass	Ammunition, Rifle Casing	1	Machine Made Pressed	Complete / Entire Object	rimfire rifle case, crushed/broken on mouth end, hard to tell how much is missing; rim diameter 0.25 inches, case length at least ~0.425 inches (1.09 cm); possible "J" embossed headstamp; it is somewhat unlikely that two different .22 caliber rifles were represented - inclined to assume that this cartridge was once the same length as 2008/643.02 (if this supposition is incorrect this case is more consistent with either a .22 CB Cap (base .225; rim .271, case .420) OR .22 Short (base .225; rim .273; case .423) TPQ ca. 1887/1888)			after 1890 (Manufacture)	Barnes 2012: 493-493
45SN409/2008/483	4	1 (0-50)	A	I	Metal	Brass	Grommet	1	Machine Made Die-cut/ Stamped/Punched	Complete / Entire Object	grommet (possibly from tarp?) external diameter ~1.10 inch, internal diameter ~.5 inch				
45SN409/2008/616	4	6 (130-140)	A	I	Metal	Brass	Ammunition, Shotgun Shell	3	Machine Made Pressed	Complete / Entire Object	centerfire shotgun shell head, too oxidized to determine if primer is or is not present.; head diameter 0.88 inches (22.45mm), length of head 0.5 in (13.86 mm); some fragments of paper/cardboard case still attached to underside of head, no headstamp discernable, almost certainly 12-gauge based on other shotgun ammo, measurements are consistent according to Barnes, mend in bag				Barnes 2012: 524
45SN409/2008/643.01	4	6 (130-140)	C	VII	Metal	Brass, Lead	Ammunition, Bullet	1	Machine Made	Complete / Entire Object	unfired centerfire cartridge and bullet, primer appears to still be in, very corroded; rim diameter 11.2mm (0.44 in), bullet diameter 8.87mm (0.35 in); no headstamp discernable; bullet and rim size are consistent with .38 S&W ammunition observed two other times in the assemblage				Barnes 2012: 349
45SN409/2008/643.02	4	6 (130-140)	C	VII	Metal	Brass, Lead	Ammunition, Bullet	1	Machine Made	Complete / Entire Object	unfired rimfire (light), corroded rifle cartridge with lead bullet present; rim diameter 7.57 mm (0.298 in), bullet diameter 5mm (0.2 in), overall cartridge length is approximately 25mm (0.984 in); no headstamp discernable; dimensions consistent with a .22 Winchester Rimfire (WRF) / .22 Remington Special which was introduced for the Winchester Model 1890 pump-action rifle			after 1890 (Manufacture)	Barnes 2012:496
45SN409/2008/646	4	6 (130-140)	C	VII	Metal	Brass	Ammunition, Shotgun Shell	1	Machine Made Die-cut/ Stamped/Punched	Complete / Entire Object	corroded unfired shotgun shell head with primer and case, headstamp style is quadruple element: "UMC Co./ U[illegible] / 12/ ARROW"	"UMC Co.", Union Metallic Cartridge Company; Bridgeport Connecticut, USA		1901 - 1910 (Headstamp)	UMC Catalogs 1900-1910; Aussie Meta Detecting 2019

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Class(es)	Material Type(s)	Object Description	Item Count	Manufacture Method	Percent Complete	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/734	4	2 (40-70)	A	II	Metal	Brass, Lead	Ammunition, Rifle Cartridge	1	Machine Made	Complete / Entire Object	corroded unfired rifle cartridge (cracked) with bullet (deteriorating/cracking); headstamp reads "U.M.C. / .38 S & W"	"U. M. C"; Union Metallic Cartridge Company; Bridgeport, Conecticut, USA	.38 S&W / .38 Colt New Police; Smith and Wesson Revolver Company; Springfield,	1878 - 1910 (Headstamp)	UMC Catalogs 1877-1910; Aussie Metal Detecting 2019
45SN409/2008/743	2	7 (65-90)	A	IV	Metal	Brass	Ammunition, Shotgun Shel	1	Machine Made Pressed	75% to 99%	nearly complete shotgun shell head with some paper/cardboard from case retained inside; head diameter 22.3mm (7/8 in), head length 27.16mm (1 in); headstamp reads "REMMINGTON / UMC / N° / 12/ ARROW"	Remmington-UMC; Remmington Union Metallic Cartridge Company, Inc.		1911 - 1914 (Headstamp)	Remmington-UMC Catalogs 1911-1915, Aussie Metal Detecting 2021b
45SN409/2008/747	2	7 (65-90)	A	IV	Metal	Brass	Clothing Clasp Hardware	1	Machine Made	Complete / Entire Object	circular double thick metal with four 'cardinal' holes (possibly for sewing) on both sides; one side has a raised T-shaped section and other side has raised 'nipple' in center				
45SN409/2008/829	4	5 (110-130)	B	VI	Metal	Brass	Ammunition, Shotgun Shel	1	Machine Made Pressed	75% to 99%	nearly complete fragmentary shotshell head, fired primer and paper/cardboard on underside of head; head diameter 22.35mm (0.88in), head length 14.09 mm (0.55in); headstamp only partially legible "...No..."; could be from a trade catalog, but most closely resembles embossing found on US Cartridge Company headstamps from 1869-1890 and between 1910-1920	US Cartridge Company; Lowell, Massachusetts, USA		1910 - 1920 (Headstamp)	Aussie Metal Detecting 2021a (US Cartridge company)
45SN409/2008/1088	3	4 (90-110)	B	IV	Metal	Brass	Lantern Burner	5	Machine Made	50% to 75%	Scovill Manufacturing Company (est. 1850) lamp burner and other potentially associated lamp hardware; this burner most closely resembles that which the company patented in 1915; menc in bag	"SCOVILL MFG. CO"; Scovill Manufacturing Company; Waterbury, Connecticut, USA		1913 - 1979 (Manufacture)	Colina 1913; Edminster 2011
45SN409/2008/1164.01	4	1 (0-50)	A	I	Metal	Brass	Grommet	1	Machine Made Die-cut/ Stamped/Punched	Complete / Entire Object	one grommet with 1 1/10 inch external diameter and 0.5inch internal diameter				
45SN409/2008/1200	4	5 (110-130)	B	V	Metal	Brass	Ammunition, Shotgun Shel	5	Machine Made Pressed	75% to 99%	higly fragmentary shotgun shell head; head diameter 22.38mm or (0.88in), length indeterminate; headstamp is present but illegible; menc in bag				
45SN409/2008/1264.02	1	11 (125 - 145)	C	VII	Metal	Brass, Lead	Ammunition, Rifle Cartridge	1	Machine Made	Complete / Entire Object	unfired rifle cartridge and bullet, primer still in place, cartridge is cracked from bullet being forced back into the cartridge; cartridge head diameter 11mm (0.45in),; bullet diameter ~9.7mm (0.38in); headstamp reads "WRA Co. / .38 S&W";	"WRA Co."; Winchester Repeating Arms Company; Bridgeport, Conecticut, USA	.38 S&W/ .38 Colt New Police; Smith and Wesson Revolver Company; Springfield,	1890 - ca. 1940 (Headstamp)	Shuey 1999; Hood 2021; IAA Forum Post 2023
45SN409/2008/1264.03	1	11 (125 - 145)	C	VII	Metal	Brass, Lead	Ammunition, Rifle Cartridge	1	Machine Made	Complete / Entire Object	centerfire cartridge including case and bullet, corroded, rim diameter 11.46mm (0.45in), bullet diameter 9.8mm (0.387in), approximate complete cartridge length 33mm (1.3in),; no headstamp discernable; consistent with .38 S&W ammunition (1 of 4 total)				Barnes 2012: 349
45SN409/2008/318	3	1 (0-47)	A	I	Metal	Copper	Coin, Penny	1	Machine Made Pressed	Complete / Entire Object	1895 copper indian head penny; the face is embossed with the profile of a Native American head and reads "UNITED STATES OF AMERICA/1895". The reverse side is embossed with a shield and a wreath and reads "ONE CENT"			after 1895 (Date Minted)	Snow 2009; Meredith 2021

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Class(es)	Material Type(s)	Object Description	Item Count	Manufacture Method	Percent Complete	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/476	4	1 (0-50)	A	I	Metal	Copper Alloy	Stud Button	1	Machine Made Pressed	50% to 75%	cupric alloy button with text that reads "DAY'S/BIG FIVE"; front is oxidized green but back is mostly orange oxidization; Shull-Day; company established in Tacoma, WA 1905, but earliest advertisement found for the Day's 'Big Five' Overalls was in Tacoma Daily Ledger August 1910, trade catalog 1917, latest explicit advertisement June 1929 in The Tacoma Daily Ledger (company name changed to Day's Tailored Clothing, Inc. in 1928 and overall product focus shifted towards stylish menswear and sportswear rather than workwear)		Day's Big Five Overalls; Shull-Day Company; Tacoma, Washington, USA	1903 - 1929 (Product)	Day's Tailored Wear 1928, 1929; Trammell 2021
45SN409/2008/477	4	1 (0-50)	A	I	Metal	Copper Alloy	Button, flat	1	Machine Made Pressed	25% to 50%	undecorated cupric alloy button head without shank present, reddish brown corrosion				
45SN409/2008/482	4	1 (0-50)	A	I	Metal	Copper Alloy	Coin, Penny	1	Machine Made Pressed	Complete / Entire Object	large copper Canadian penny; side one has curvilinear and dot design around edge, text in middle reads "ONE/CENT/CANADA/1920", reverse side has latin text around edge "GEORGIUS V DEIGRA REX ET IND: IMP" and center design is very corroded			after 1920 (Date Minted)	Haxby 2011; Harris 2012; Royal Canadian Mint 2013; Kokotailo 2023; Pva 2023
45SN409/2008/1164.01	4	1 (0-50)	A	I	Metal	Copper	Electrical Component, Ring Terminal	1	Machine Made Die cut/ Stamped/Punched	75% to 99%	piece of electrical wiring in 80% complete ring terminal (missing ring)				
45SN409/2006/80	Shovel Probe 13	3 (100-150)	B	-	Metal	Ferrous	Stove Grate	1	Cast	< 25%	corner fragment of likely stove grate, long edge is cylindrical with diameter of 13mm and flattens towards the corner, crossed hammered/flattened pieces of similar width attached to long side				
45SN409/2008/118	1	1 (5-15)	A	I	Metal	Ferrous	Hardware, unidentified	1	Machine Made	Complete / Entire Object	tubular hardware of some kind with cap, bore continues through (drawer pull? atomizer hardware? lighting conduit?), 3.5 cm length, 2.03 cm cap diameter, 0.98 cm tube/stem diameter, 0.7cm bore diameter, cut/slit coming up from tube end for insertion into smaller hole (1.2mm wide and ~1cm long); pebbles adhered in corrosion, piece of wood adhered to shaft with grain direction in tact, cap has crown-cap like characteristics with the curve downward and slight serrations around the rim				
45SN409/2008/217	1	3 (25-35)	A	I	Metal; Organic	Ferrous; Wood	Knife	1		Complete / Entire Object	complete knife made of ferrous metal with two wood handle pieces attached with 3 white metal round double-sided fasterers; blade is very corroded with rust/rock accretions obscuring most of the surface, bottom edge is mostly visible; shape indicative of utility/carving use				
45SN409/2008/310	4	1 (0-50)	A	I	Metal	Ferrous	Buckle, Belt	1		Complete / Entire Object	buckle (likely dress belt) with sliding rod mechanism and ornate embossed geometric and hammered dot design on front, evocative of art-deco aesthetic with bold geometry, emphasis of shiny materiality, and monogram center panel; very similar to women's belt buckles designs patented ca. 1920-1921 both mechanically and aesthetically			after 1920 (Decoration)	Grossman 1920; Shields 1920; Tebeerling 1921; Davis 1922; Menten 1972; Rosales 2020, 1st Dibs Editors 2021
45SN409/2008/715	2	7 (55-90)	A	V	Metal; Glass	Ferrous; Glass	Earring, Stud	1		Complete / Entire Object	colorless glass "gemstone" stud earring, glass is in imitation "cushion cut"; metal is corroding green				

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45SN409/2008/818	4	4 (90-110)	B	V	Metal; Ceramic	Ferrous; Enameled Redware	Door Knoob	1		Complete / Entire Object	black glazed knob with ferrous, corroded square spindle; some wood and latch hardware corroded/adhered to spindle; typical manganese glaze redware knob popular during the late 19th to early 20th century			after ca. 1850 (Manufacture)	Robinson 1843; Philpott 1984:86; Eichner 2021b
45SN409/2008/919.01	4	4 (90-110)	B	V	Metal	Ferrous	Stud Button	1	Machine Made Pressed	75% to 99%	Stud button (perhaps for pants), very corroded green on front, back is red/orange ferrous corrosion, front text reads "D...'S/ B... Fi..." same as 2008/476, Day's Big Five Overall button		Day's Big Five Overalls; Shull-Day Company; Tacoma, Washington, USA	1903 - 1929 (Product)	Day's Tailored Wear 1928, 1929; Tiarnmell 2021
45SN409/2008/998	2	8 (90-126)	B	V	Metal	Ferrous	Stud Button	1	Machine Made Pressed	50% to 75%	likely pants button, no lettering or makers marks discernable, inner hole diameter ~.5cm; possibly front to the flat back represented by art fact 477				
45SN409/2008/1126	3	6 (130-145)	C	VII	Metal; Ceramic	Ferrous; Enamel	Chamber Pot	9	Machine Made	75% to 99%	enamelware chaber pot with cobalt blue and white marbled exterior enamel (mottled ware) and white enamel inside; dark grey rim and handle; mend in bag			after 1876 (Manufacture)	Gretton 2012
45SN409/2008/1164.C2	4	1 (0-50)	A	I	Metal	Ferrous	Container, Mechanical	5	Machine Made	25% to 50%	fragmented top of some kind of mechanical container with oval rim shape, rectangular hole in top with molded protrusion, appears to be crenulated soldering/crimping on vessel interior; 4 small fragments appear to have come off of the main container piece; mend in bag				
45SN409/2008/634	1	7 (65-75)	A	III	Metal	Iron	Stove Grate	1	Cast	25% to 50%	large iron rectangular fragment with comb-like edge along one side; decorative curvilinear molded design on face of fragment				
45SN409/2008/782	4	2 (40-70)	A	II	Metal	Iron	Vertical Bar of Letter "L"	1	Cast	75% to 99%	vertical bar of serif letter "L" decal, two inderts possibly for attachment/fastening on upper and lower portions of back, indent on back (likely for diminishing mass/density of metal); cross-mends to catalog number 45SN409/2008/471				
45SN409/2008/919.02	4	4 (90-110)	B	V	Metal	Iron	Eyelet	2	Machine Made Die-cut/ Stamped/Punched	Complete / Entire Object	2 eyelets, 1 complete, one fragment; complete eyelet has 11.5mm diameter; fragmentary eyelet's estimated diameter is 15mm				
45SN409/2008/1208	1	8 (75-90)	A	IV	Metal	Iron	Stove Grate	2	Cast	75% to 99%	two molded decorative stove grate fragments; semicicular cut outs on upper portion				
45SN409/2008/1264.C1	1	11 (125 - 145)	C	VII	Metal	Lead	Ammunition, Bullet	2	Cast	Complete / Entire Object	2 complete likely unfired (no evidence of impact) bullets, both have approximate diameter of ~9.5mm				
45SN409/2008/471	4	5 (110-130)	B	V	Metal	Steel	Horizontal Bar of Letter "L"	1	Cast	< 25%	Horizonal bar piece of serif letter "L" decal, beveled right angle with curved interior edge, circular indent on back in corner possibly indicative of fastener/attachment point; cross-mends to catalog number 45SN409/2008/782				
45SN409/2008/1164.C3	4	1 (0-50)	A	I	Metal	Steel	Cotter Pin and Washers	3	Machine Made	50% to 75%	3 miscelaneous mechanical metal pieces; 1st piece is cotter pin measuring 1.25 inches, 2nd piece is cut washer with ~1inch diameter, has u-shaped center cut out with two smaller circular holes (0.1inch) on either side; third piece is a circular washer fragment (~50% complete) outer diameter ~1.5cm, inner diameter ~0.6cm				
45SN409/2008/1164.C5	4	1 (0-50)	A	I	Metal	Zinc Alloy	Battery	1	Machine Made	Complete / Entire Object	ribbed/fluted battery core, likely modern				
45SN409/2008/514	4	1 (0-50)	A	I	Mineral	Mica	Possible Stove Window	3	Natural	< 25%	thin fragment of micta with square cut corner, possibly from a stove window				

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45SN409/2008/841	4	5 (110-130)	B	VI	Organic	Bone	Toothbrush	3		25% to 50%	three fragments of toothbrush stock and small portion of neck or shank that refit forming a minimum of 1 toothbrush; stock has 4 rows of holes for inserted bristles, outside rows (on either side) have 23 bristle tuft holes, middle 2 rows have 24 bristle tuft holes; mend in bag			1860 - 1920 (Manufacture)	Mattick 1993
45SN409/2008/914	4	4 (90-110)	B	IV	Organic	Bone	Button, flat	1		25% to 50%	Polished grey, blue, pink coloration				
45SN409/2008/970.01	2	8 (90-126)	B	V	Organic	Bone	Button, flat	2	Carved	75% to 99%	2 buttons represented, separated into 2 bags; first button - 3 brown/burned fragments refit to form ~80% complete button with 3 of 4 holes represented; very fragile and crumbling				
45SN409/2008/1053	3	3 (63-83)	A	III	Organic	Bone	Pipe, toy	1		Unknown	decorative tubular fragment; could possibly be lip/stem fragment of toy pipe; possibly cross-mends to catalog number 45SN409/2008/836; similar diameter and material of stem				
45SN409/2008/836	4	5 (110-130)	B	VI	Organic; Metal	Cork, Coper Alloy	Pipe, toy	1		75% to 99%	small cork piece that is reminiscent of smoking pipe stummel, with fragment of tenon (possibly ceramic or rubber?) within mortise; size and materials suggest toy; likely copper metal rim with partial hinge still attached on right side, likely from no longer present				
45SN409/2008/733	4	2 (40-70)	A	II	Organic	Graphite	Figurine, Baseball Bat?	1	Carved	Complete / Entire Object	graphite piece (possibly repurposed writing pencil) that has been shaped into a small baseball bat, green oxidization on base				
45SN409/2006/79	Shovel Probe 13	3 (100-150)	B		Organic; Metal	Leather; Ferrous	Footwear, Sole	2	Nailed and Machine Stitched	< 25%	leather boot sole fragments, the smaller nests within the larger and has two remnants of ferrous metal tacks in two of the holes; stitching punches appear to be uniformly spaced suggesting machine stitching, likely with use of a welt; mend in bag			after 1875 (Manufacture)	Anderson 1968
45SN409/2008/183	1	3 (25-35)	A	II	Organic; Metal	Leather; Ferrous	Footwear, Sole	5	Nailed	25% to 50%	thick portion of sole shank with metal tacks securing shank/waist to sole; the four small fragments re-fit in a laminar format (part of leather sole), fragments of upper sandwiched between along edges of sole; mend in bag			after 1830 (Manufacture)	Quirk and Beaudoin 2009
45SN409/2008/856.01	3	2 (C-47)	A	I	Organic	Leather	Footwear, Upper	3	Unknown	< 25%	3 shaped leather fragments suggesting toe or midsole portion from upper of boot or shoe				
45SN409/2008/870	3	2 (47-60)	A	II	Organic; Metal	Leather; Ferrous	Footwear, Sole	6	Nailed and Machine Stitched	< 25%	6 large footwear fragments with >20 tiny non-diagnostic leather fragments in bag; first fragment is heel (very crumbly) with metal tacks around edge and attached metal shank; second fragment is shaped upper fragment (possibly counter portion) with a tack at the base; third fragment is portion of sole with tack and other layers of leather attached in one spot; fourth fragment represents leather foresole fragment with stitching punches and few corroded tacks present; fifth fragment represents likely sole fragment (~8cm); sixth fragment represents sole fragment with linear scoring or composite application likely for improved traction (~6cm); other fragments in bag include punched and unpunched (from machine stitching) leather and one piece of metal shank that had broken			after 1860 (Manufacture)	Anderson 1968

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45SN409/2008/401.01	3	3 (60-83)	A	III	Organic; Metal	Leather; Ferrous	Footwear, Sole	6	Nailed	50% to 75%	7 footwear fragments; the first fragment represents the majority of a sole including insole, leather shank, and reinforcement/repair layers (see profile); the second fragment (5.5cm) represents a portion of shoe upper; the third fragment (7cm) represents a different fragment of shoe upper; the fourth fragment (4cm) is trangular in shape and has two metal tacks embedded; the fifth fragment is a small (1.5cm) fragment with a single tack imbedded; the sixth fragment (2cm) has a finished edge and a single punch visible only on one side; in the debris in the bag a small copricus? screw was also identified (detail photo); this sole shows evidence of repeated repair based on half-sole reinforcement and different kinds of nails/screws used				
45SN409/2008/515	4	1 (0-50)	A	I	Organic; Metal	Leather; Unidentified	Footwear, Boot Upper	4	Machine Made Die cut/ Stamped/Punched	< 25%	four fragments of shoe upper including eyelet row and possibly instep; first fragment (4.5cm) has two complete and one partial eyelet holes, the third retains the metal evelet; there is stinting punch marks above the eyelets on the throat edge and two lines of stitching punches below the eyelets; the second fragment (3cm) has two complete and one partial eyelet hole and two lines of stitching punches below the evelets; the third fragment (1cm) has a single line of stitching punches on one side; the fourth fragment is thicker than the other three and exhibits stitching punches along one side			after 1850 (Manufacture)	Anderson 1968
45SN409/2008/534	4	4 (90-110)	A	V	Organic; Metal	Leather; Ferrous	Footwear, Boot Sole	3	Nailed	25% to 50%	two pieces of a small shoe/boot sole and a heel that refit, a lot of ferous metal present in construction of shoe, noteably large and bulbous tacks/studs present on heel and ball of sole, suggestive of hobnail boot; size suggests likely worn by child or woman. Hobnails could have been purchased separately and added to sole or boot could have been manufactured and marketed as a hobnail boot; mend in bag			after 1830 (Manufacture)	Quirk and Beaudoin 2009
45SN409/2008/535.01	4	4 (90-110)	A	V	Organic; Metal	Leather; Ferrous	Footwear, Boot Sole	3	Nailed	25% to 50%	very similar construction to 2008/534 but not the same shoe; three fragments with more regularly distributed ferous metals around and across sole fragments; none of the fragments obviously refit; hobnails present on one of the fragments, likely on ball of sole			after 1830 (Manufacture)	Quirk and Beaudoin 2009

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Class(es)	Material Type(s)	Object Description	Item Count	Manufacture Method	Percent Complete	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/535.02	4	4 (90-110)	A	V	Organic; Metal	Leather; Unidentified	Footwear, Boot Upper	11	Machine Made Die-cut/ Stamped/Punched and Machine Stitched	< 25%	11 fragments of (likely multiple) shoe upper(s); fragments 1-8 are possibly from same shoe(s), based on leather thickness and eyelet size and corrosion; first fragment (9.3cm) represents eyelet row of 4 with metal rivets along the longer of the two finished edges, there is a felt layer between two layers of leather and machine stitching is visible on either side of the eyelets and in a double line along the other side, eyelets are corroding green and orange, portion of boot instep still attached to set of eyelets; second fragment (4cm) has two eyelets present and accretted ferous metal on the top eyelet, eyelets are corroding green and red, there is a finished edge on one side with machine stitching visible along this edge; third fragment represents a row of 9 eyelets along a finished edge, machine stitching present on both sides of the eyelets, leather has hardened in curled shape; fourth fragment has a set of three eyelet holes and single thickness leather, stitch punches visible along the finished edge outside the eyelets (no evidence of stitching on the other side of the eyelet holes; fifth and sixth fragment refit and are very thin, stretched, brittle pieces of leather; seventh fragment is rounded/curved on one side and has parallell machine stitching punches following the curved edge; eighth fragment has 3 intact eyelets along a finished edge, eyelets are corroding green and red, machine stitching visible on both sides of the eyelets, large portion of shoe upper attached to eyelet portion with curved parallell stitching visible along cut edge opposite eyelets and at the bottom of the fragment perpindicular to other stitching, ferous metal accretted to leather fragment (not eyelets); ninth fragment is a thick piece of upper leather that has curled in on itself, exhibits single line of machine stitch punching on one side; tenth fragment is thick piece of leather that has folded in half with double line of uniform stitch punching on curved cut edge; eleventh fragment is a row of 4 intact eyelets, 3 eyelets are larger than the fourth and do not appear to have corroded at all while the fourth is corroding red and green (suggesting different metals), leather is thick and doubled along eyelet set and machined stitching punches are evident on either side of the eyelets			after 1850 (Manufacture)	Anderson 1968
45SN409/2008/537	4	4 (90-110)	A	V	Organic; Metal	Leather; Ferrous	Footwear, Boot Sole	5	Nailed and Machine Stitched	75% to 99%	Fragmentary nearly complete hobnailed boot sole, square toe; 3 of the 5 sole fragments refit (the main sole and two heel fragments), the other 2 sole fragments do not obviously refit; the vamp portions of the upper are attached on both sides of the arch with four parallel lines of machined stitch punches following the cut edges; in addition to the sole there are 4 detatched hobnail heads and 1 partial and 1 complete shoe tacks; >10 non-diagnostic leather fragments also in bag			after 1850 (Manufacture)	Anderson 1968

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45SN409/2008/596	4	4 (90-110)	A	V	Organic; Metal	Leather; Unidentified	Footwear, Boot Upper	6	Machine Made Die-cut/ Stamped/ Punched	< 25%	Six fragments, first two are nearly square pieces of leather with intact eyelets, first fragment has leather folded over eyelet (second does not); third fragment is nearly square, ~1.8cm piece of leather; fourth fragment is triangular, ~1.5 cm piece of leather; fifth fragment is L-shaped, ~1.5cm piece of leather, sixth fragment is piece of rounded metal (semicular section of hollow tube? broken in half), corroding mainly red with some green; potentially part of a lace protection piece?			after 1830 (Manufacture)	Anderson 1968
45SN409/2008/618	2	4 (35-50)	A	II	Organic	Leather	Footwear, Boot Uper	2	Machine Made Die-cut/ Stamped / Punched and Machine Stitched	< 25%	two eyelet rows with finished edge on two sides; first fragment has 6 eyelet holes and folded over edge along finish; second fragment has 5 eyelet holes and is cut along finish; the two fragments refit facing eachother to create all "right side out" leather piece; evidance of machine stitching punches along folded/finished edge			after 1830 (Manufacture)	Anderson 1968
45SN409/2008/718	2	7 (65-90)	A	IV	Organic	Leather	Footwear, Upper	3	Nailed; Machine Stitched; Welted	< 25%	three fragments of shoe or boot upper, two are darker in color and mend - welt fragment, cut in a thin (0.9cm) strip and have machine punched holes for stitching on either side, left side is larger holes spaced further and right side is smaller holes closely spaced, also nail holes spaced at much larger distance; third fragment is a curved/rounded cut piece, relatively thin, likely from the vamp of a shoe upper			after 1875 (Manufacture)	Anderson 1968
45SN409/2008/789	1	7 (65-75)	A	III	Organic	Leather	Footwear, Upper	2	Nailed and Machine Stitched	< 25%	large thin fragment of shoe upper (likely vamp) with cut edges and machined stitching punches on 3 of four sides, bottom has nail holes suggesting this is where the upper was attached to the sole, right side has single line of stitching punches, top has parallell line of stitching punches; second fragment likely came off of larger fragment in storage (NOTE: photo as taken is upside down)			after 1860 (Manufacture)	Anderson 1968
45SN409/2008/851	2	6 (50-65)	A	III	Organic; Metal	Leather; Ferrous	Footwear, Sole and Upper	22	Nailed; Pegged (Heel); Machine Stitched; Machine Die-cut / Stamped / Punched	25% to 50%	22 fragments of possibly 2 shoes/boots; 8 fragments identifyable as heel fragments. 3 refit together as 1 heel (with hobnailing), >20 undiagnostic fragments of deteriorating heel in bag; 6 sole fragments in total 2 large sole fragments do not appear to refit (one is outersole with nail holes); 5 fragments of shoe upper - one is more delicate black leather, largest fragment looks similar to 2008/851 and is likely also a vamp fragment with parallel machine stitching punches; final two fragments are very thick leather and joined by metal fastener (snap-like in structure). unsure how fastener functions (corroded green and red)			after 1860 (Manufacture)	Anderson 1968
45SN409/2008/921	3	4 (83-109)	B	IV	Organic; Metal	Leather; Unidentified	Footwear, Sole	2	Nailed	< 25%	Two fragments of a leather sole heel with metal screws (oxidizing green, white, and orange) around outer perimeter, evocative of repair to heel of sole as seen in 401.01; the two fragments appear to mend and likely tore after/during excavation based on lack of patina in tear			after 1830 (Manufacture)	Clark and Beaudoin 2009

Catalog Number	Unit	Level (Depth)	AU	Stratum	Material Class(es)	Material Type(s)	Object Description	Item Count	Manufacture Method	Percent Complete	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/985	1	4 (35-45)	A	II	Organic; Metal	Leather; Ferrous	Footwear, Shoe Sole	11	Nailed	25% to 50%	11 footwear fragments; first fragment is a tapered rectangular toe and midsole portion of a sole with part of the upper attached metal nails in sole; second fragment is a partial heel and midsole with ferous metal nails; third fragment refits on bottom/exterior of second fragment and has one ferrous tack embedded; fourth and fifth fragments are smaller heel fragments but do not appear to refit with eachother or any others; sixth fragment is small laminated heel fragment, seventh fragment is a continuous leather counter (upper) fragment with sole attachment material included; eighth fragment is small curved heel portion of insole with some ferrous metal tacks embedded; fragments 6, 7, and 8 appear to form one whole heel portion of shoe; leather fragments 9 and 10 mend together to form two-part counter with few ferrous tacks (and some oxidization staining) present in heel attachment portion; fragment 11 is sole fragment with small portion of curved finished edge with 3 tacks embedded			after 1830 (Manufacture)	Quirk and Beaudoin 2009
45SN409/2008/1054	3	3 (63-83)	A	III	Organic	Leather	Footwear, Upper	1	Machine Stitched	< 25%	fragment of thick dark brown leather appears to be stretched/molded in shape of heel/counter; folded in half, some scoring on interior surface, faint evidence of parallell machine stitching along one edge			after 1860 (Manufacture)	Anderson 1968
45SN409/2008/1211	1	8 (75-95)	A	IV	Organic	Leather	Leather, Unidentified	1		< 25%	1 brown leather fragment with cut curved edge on one side				

Catalog Number	Unit	Level (Depth)	ALI	Stratum	Material Class(es)	Material Type(s)	Object Description	Item Count	Manufacture Method	Percent Complete	Comments	Maker's Mark Information	Product Information	Date Range (Basis)	References
45SN409/2008/1247	2	? (65-90)	A	IV	Organic; Metal	Leather; Ferrous	Footwear, Boot	28	Nailed; Machine Stitched; Welted; Machine Die-Cut / Stamped / Punched	75% to 99%	28+ fragments composing most of a likely woman's boot; 1st fragment consists of upper leather the complete toe, both sides of vamp portions, and welt. toe has decorative cutout with curvilinear, diamond, and circular design; 2nd through 6th fragments appear to be parts of the insole (2nd and 3rd fragments refit); 7th fragment is thick leather piece ~9cm long; 8th fragment is left half of counter (heel); 9th, 10th, 11th fragments are smaller upper fragments of varying thickness; 12th fragment is black (patent?) 1cm wide leather strip with double stitching punches on one side and a folded over finish on one end; 13th thru 18th fragments are black textile pieces, likely fom liner (same as 45SN409/2008/745); 19th fragment is thick 1.5cm wide strip of cut leather; fragments 20 and 21 are also strips 1.5 cm wide attached with a circular metal closure (snap-like construction); 22nd fragment is majority of wood/leather composite heel (>20 deteriorating pieces of heel in bag); 23rd fragment is mostly metal piece of heel (seatpiece?); 24th fragment is majority of of shank and outsole (midsole mostly) with metal inset on the edges of the shank and many tacks evenly dispersed throughout the midsole; 25th fragment is a fragment of outsole with no obvious refit; 26th fragment is a thin piece of upper (~8.8cm) with double line of stitch punches following curved edge and single line of larger further spaced punches along straight edge; 27th fragment is outer side of upper with set of 7 eyelet holes and folded over edge, stitching punches on all edges; 28th fragment is inner side of upper with row of 4 eyelet holes (refits with 27th fragment to form double thick shaft portion) with stitching punches on all but 1 edge; cross mends with catalog number 45SN409/2008/745			after 1878 (Manufacture)	Anderson 1968; Dappert-Coonroe & Mihich 2018
45SN409/2008/1259	2	10 (132-145)	C	VII	Organic	Leather	Leather, Strap	2		< 25%	2 strips of black leather, ~1cm wide with slight scoring visible on one side; possibly a vulcanized rubber gasket?				
45SN409/2008/356.02	3	1 (0-4)	A	I	Organic	Seed	Likely Seedpod	3		< 25%	black pitted brittle organic material (possibly burned?) texture possibly suggests seed?				
45SN409/2008/478	4	1 (0-50)	A	I	Organic	Shell	Button, flat	1	Carved	Complete / Entire Object	12.5 mm diameter; two-hole button; laminar cross section with grey iridescent faces				
45SN409/2008/401.02	3	3 (63-83)	A	III	Organic	Wood	Tree Bark	3		< 25%	3 tree bark fragments likely mistaken for leather upon collection				
45SN409/2008/1268	1	11 (125-145)	C	VII	Organic; Synthetic	Wood; Hard Rubber	Pipe, smoking	5	Machine Made	Complete / Entire Object	complete smoking pipe with in-tact wood stummel with pronounced bend in the shank (most closely resembles bent/billiard style), metal (likely nickel plated) ferule is fragmented into at least 5 pieces, and bent stem is made of hard rubber (aka ebonite) with fishtail bit; engraved (molded) text on stem reads "SOLID RUBBER"			after 1851 (Manufacture)	Miller et al. 2013
45SN409/2008/746	2	7 (65-90)	A	IV	Stone	Slate	Serrated Slate Flake	1	Likey Machine Made / Mechanized Saw	< 25%	tabular slate fragment in a trapezoidal shape with serration along one face of one of the long sides (not bifacially modified); some slate is flaking off in bag				
45SN409/2008/970.02	2	8 (90-126)	B	V	Synthetic	Unidentified	Button, flat	1		25% to 50%	gray with orange button fragment ~30% complete; possible mold seam on exterior edge				

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Appendix B: Chemical Analysis

I collected samples from four different objects from the Teagar/Weimer Assemblage (catalog numbers 45SN409/2008/926, 45SN409/2008/91278, 45SN409/2008/1311, 45SN409/2008/1313) on August 12, 2021, at the Burke Museum utilizing the fume hood in the Genetic Resources lab run by Sharon Birks. The amount of sample collected was primarily dictated based on the direction of the Archaeology Collections Manager, Laura Phillips, with the desired amount for analysis considered as a secondary priority. The reason for this abundant caution was to ensure that there would be as much remaining sample remaining for potential future analyses. I transported the samples from the Burke to the University of Idaho, Moscow Campus and transferred possession of the samples to Dr. Ray von Wandruszka on August 17, 2021. Claire Qualls, a chemistry student with specialization in archaeological chemistry and pre-med focus, conducted the analyses under the supervision of Dr. von Wandruszka from September through October 2021. Please note that while Qualls' qualifications as a chemist are exemplary, the artifact description and analysis included in her reports are limited due to her only having access to artifact photos and not having specific training in historical artifact analysis.

45SN409/2008/926.1
Greasy brown and white solid and brown oily liquid suspended in colorless transparent liquid (~3 mL, 6.9g)
Collected from "The Mother's Friend" paneled natural green glass bottle

45SN409/2008/1278.1
Orange translucent liquid with floating medium chunky particulates (~10 mL, 13.6 g)
Collected from "Iler's Malt Whiskey" cylindrical colorless glass bottle

45SN409/2008/1311.1
Fine dark pinkish purple particulates suspended in colorless transparent liquid (~8 mL, 10.8g)
Collected from "Halls Catarrh Cure" cylindrical aqua glass bottle

45SN409/2008/1313.1
Pale yellow-orange transparent liquid with floating small chunky particulates (~9 mL, 11.7 g)
Collected from undecorated colorless glass Eagle-style flask

Figure B.1 Summary of each of the collected chemical samples with photos.

What follows in this appendix is all current documentation surrounding the collection, analysis, and interpretation of these samples. Initial results and interpretations of these chemical analyses were presented at the Northwest Anthropology Conference in April 2022 and a version of this presentation is also included. A more in-depth exploration of the significance of these results will be presented in a forthcoming publication.

Application for Destructive Analysis

Burke Museum of Natural History and Culture
University of Washington
Box 353010, Seattle, WA 98195-3010
Ethnology: (206) 543-6623 Archaeology: 685-3849
Fax: (206) 685-3039

CULTURE
Research Request Form

Name: Meghan Campbell Caves Date: 8/3/2021

Institutional/Tribal Affiliation (optional) University of Idaho, Department of Culture, Society, and Justice

Address: 875 Perimeter Drive, MS 1110, Moscow-ID 83844-1110

Phone: (907) 903-8379 Email: cave8327@vandals.uidaho.edu

Nature of Research:

( ) Publication ( ) Basic Research (X) Student Research

( ) Exhibition ( ) Artist Research What Class?

Is it for Dissertation/Thesis? MA Thesis

Research Description:

I am requesting permission to collect and analyze chemical residues inside 4 (four) complete historical period bottles from the Teager/Weimer Privy site (45SN409). The catalog numbers of these bottles are: 4545SN409/2008/926, 45SN409/2008/1278, 45SN409/2008/1311, and 45SN409/2008/1313. The first bottle (926) has embossed text that reads "The Mother's Friend," and has dried whitish brown residue on the front side of the bottle and a small amount colorless liquid and a floating cork with brown oily substance surrounding the cork. 926 was not analyzed by authors in 2008 but appears to still have dried contents on the side or surrounding the cork that may yield results regarding the chemical composition of its contents. The second bottle (1278) has embossed text that reads "Iler's Malt Whiskey" and is approximately ¼ full of brown liquid. 1278 was not analyzed by authors in 2008, perhaps based on the assumption that the contents appeared to match the label, but I would like to determine if the contents of this bottle match its original label or if it was subject to reuse or repurpose (Woff 2019). The third bottle (1311) has embossed text that reads "Hall's Catarrh Cure" and is full of colorless liquid with magenta residue adhered to one side of bottle interior. 1311 was analyzed by original authors but the results associated with this catalog number appear to be in error. Documentation associated with 1311 lists coal tar as the contents, however it appears that the analysis for 1311 and 1312 were switched, since the vial held as catalog number 45SN409/2008/1312 contains a substance consistent with coal tar, while 1311 does not. The fourth and final bottle (1313) is an unlabeled flask full of colorless liquid with brown viscous substrate. The rationale for analysis of this vessel is like that of 1278, in that liquor may be the logical contents but cannot be assumed as such.

Samples will be collected from these bottles at the Burke Museum under a fume hood following standardized techniques developed by Dr. von Wandruszka for each context as follows: 15-20 mL of each liquid will be decanted or extracted with syringe and placed in well-sealed glass vial; solids will be extracted with a small metal spatula (0.5-1.0 g if possible) and placed in the same vial that contained the corresponding liquid. In other words, if the liquid and the solid were together in the original container, they will be kept together in their sample

Burke Museum of Natural History and Culture
University of Washington
Box 353010, Seattle, WA 98195-3010
Ethnology: (206) 543-6623 Archaeology: 685-3849
Fax: (206) 685-3039

vial. Sample collection supplies/resources required include glass screw top vials, a stainless-steel chemical spatula, glass transfer pipettes, and up to 1.5 hours of access to a fume hood. Sealed samples will be safely transported back to the University of Idaho by Meghan for in-house analysis at the Department of Chemistry. Appropriate analytical techniques will be decided based on Dr. von Wandruszka's expertise and will likely include but are not limited to Infrared Spectroscopy and Gas Chromatography (von Wandruszka & Warner 2018). Samples will likely be entirely consumed during analysis. If they are not, they will not be returned to the Burke, but disposed of safely at University of Idaho.

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Research Sponsor/Supervisor:_____Mark Warner and Ray von Wandruszka_____

Additional Researchers to Accompany Applicant ___none_____

Materials Sought:

( ) Photographs ( ) Documents

( ) Recordings ( ) Collection Records

(X) Specimens/Artifacts

(X) Other: _____glass vials, chemistry spatula, glass transfer pipettes, fume hood access__

Requested Date(s) of Access:__ASAP (preferably before conclusion of current research visit on August 13, 2021)___

Reviewed by: _____ ( ) Approved ( ) Disapproved, Reason: _____

Supervised/Assisted by:_____

Fees Charged:_____

CONDITIONS OF ACCESS/CODE OF CONDUCT

1. Faculty, student, researcher, and public access to the Libraries, Archives, and Collections is available by appointment only. Appointments must be made in advance with the relevant Collection Manager or Curator. At least two weeks' advance notice is required except under special circumstances since appointments are scheduled as staff time allows.

2. Research or class interests must be stated when scheduling an appointment. Where possible, objects of interest will be available in the laboratory upon the visitor's arrival. Access to some items may be restricted due to the

Burke Museum of Natural History and Culture
University of Washington
Box 353010, Seattle, WA 98195-3010
Ethnology: (206) 543-6623 Archaeology: 685-3849
Fax: (206) 685-3039

object's condition, other research or museum needs, or circumstances defined by staff. Access may also be restricted for sensitive or otherwise private material.

3. In collection areas, classes or groups may not exceed ten people at any one time, and must be accompanied by Museum personnel at all times. At the Collection Manager's discretion, smaller groups may be required to insure the safety and security of the collections and visitors.

4. The Culture Department has closed storage. Objects in the Archives, Libraries, or Collections may not be removed or replaced without staff authorization. Visitors, students, staff, researchers, faculty, and others may not borrow objects except in cases where formal loan arrangements have been made (cf. Loan Policy).

5. Photography and photocopy work must be cleared with the relevant Collections Manager in advance. Publication or reproduction permission for all Library, Archival, or Collection materials must be obtained through separate written authorization (cf. Photo and Reproduction Policy). The visitor will be held responsible for any violations of Museum policies or statutes regarding copyright and public use.

6. No eating or drinking is allowed in the collections at any time. Children are allowed only when accompanied by an adult and when permission has been obtained in advance. Pets are not allowed, except certified service animals. Bags and parcels are subject to inspection. Visitors must abide by any and all requests by staff members during their visit.

7. Only pencil may be used in the work area. Objects being studied should be handled as little as possible and should be left in their containers unless permission to remove them is granted by the Collections Manager or Curator. Appropriate gloves are required for the handling of all objects.

8. The Museum requires a citation in any published work based upon or utilizing the results of research conducted in the Museum collections. The Museum requires a copy of resulting research, published or unpublished, upon completion at no cost to the Museum.

9. For research on burial objects and related information, or objects that may be culturally sensitive, the Museum requires that the researcher contact the culturally-affiliated entities.

10. For records containing information exempt from disclosure under the Public Records Act (RCW 42.17.250; RCW 42.17.310(1)(k)), the Burke Museum will withhold such information when such release would result in the loss or damage to the resource. The Researcher's Signature below constitutes agreement with the Burke Museum that any records containing exempt information that are obtained by the Researcher from the Burke Museum will remain protected from public disclosure.

I affirm that the information provided on this form is correct. I agree to pay fees as invoiced for any reproduction or duplication of research material. I have read and agree to abide by the Conditions of Access/Code of Conduct if my request is approved. I understand that if I do not abide by these requirements, I may be asked to leave the Museum. I agree to be responsible for any damage to the collections occurring as a result of my research activities.

Researcher's Signature Meghan Caves Date 8/3/2021

For official use only

Materials researched

Rev. 2/2015

Burke Museum Destructive Analysis Approval and Documentation

BURKE MUSEUM

Destructive Analysis Application Form- Archaeology

Burke Museum of Natural History and Culture, University of Washington
Box 353010, Seattle, WA 98195-3010
Phone: 206-685-3849 Fax: 206-685-3039 Email: lphill@u.washington.edu

Researcher: Meghan Caves
University of Idaho, Department of Culture, Society, and Justice
875 Perimeter Drive, MS 1110, Moscow-ID 83844-111
(907) 903-8379
cave8327@vandals.uidaho.edu

Date: 8/12/2021

Type of Destructive Analysis: [ ] Carbon-14 Dating [ ] Isotope Analysis [ ] Obsidian Hydration [ ] Material Sourcing [X] **Other:**

Chemical Residue analysis (Iinfared Spectroscopy and Gas Chromatography

Lab Conducting Analysis: Dr. von Wandruska, Department of Chemistry, University of Idaho

List of Proposed Object(s):

ACCN. NO.	*CATALOG NO.*	*DESCRIPTION*
2008-185	45SN409/2008/926	**Medicine Bottle (The Mother's Friend) -- 11.7g of liquid/residue**
	45SN409/2008/1278	**Whiskey Bottle - 10.8g of liquid/residue**
	45SN409/2008/1311	**Medicine Bottle (Hall's Catarrh Cure) – 13.6g of liquid/residue**
	45SN409/2008/1313	**Whiskey Bottle – 6.9g of liquid/residue**

Rationale for Destructive Analysis (How will analysis of this specimen/collection add to the discipline? Will this add new data that is otherwise unavailable? How will this impact future research?)

Samples are requested to verify contents; this is consistent with previous research on the contents of other bottles on the site, and will add to insight into bottle re-use and pharmaceutical practices. Note that 45SN409/2008/1311 was previously analyzed by NWAA, but the researcher believes the resulting data corresponds to bottle, Cat.#45SN409/2008/1312. In all cases, no more than 20ml will be sampled, and less than 50% of the liquid in each container will be sampled, so that ample liquid will remain for future research.

Credit: If any information about this object is displayed or published, it will be credited as

Publications: *Please read Reproduction/Credit conditions on reverse.*

Special Conditions: Analysis to be conducted under a fume hood, and with direct supervision of Archaeology Staff

Destructive Analysis Approved By: see attached approval by email dated 8/9 + 8/10/2021
Curator's Signature — Date

Prepared By: [signature]
Archaeology Collections Staff Signature — Title: Arch. Coll. Mngr — Date: 8/12/2021

The Researcher hereby acknowledges receipt from the Burke Museum of Natural History and Culture of the object(s) listed above. The undersigned agrees to the conditions printed on the back of this Destructive Analysis form. By signing here, they acknowledge they are responsible for promptly returning any remaining specimens as well as all resulting data to the Burke Museum of Natural History and Culture.

Meghan Campbell Caves — Researcher's Signature
Title: Graduate Student
Date: 8/12/2021

REMAINING SAMPLE AND/OR DATA RECEIVED AT BURKE ARCHAEOLOGY DEPT:

Sample and/or Data Description — Archaeology Collections Staff Signature — Date

Remarks on condition on date of return:

For Museum use: [ ]Category 1, [ ] Category 2
[ ]Documentation completed
[ ]Fee charged_____ [ ] Payment received on:_____
[ ]Data received [ ] Publication received

Routing: White and Blue – Registrar, Yellow – Borrower, Pink – Museum Division

Laura Phillips

From: Sara Gonzalez <gonzalsa@uw.edu>
Sent: Tuesday, August 10, 2021 3:56 PM
To: Peter Lape
Cc: Laura Phillips
Subject: Re: Residue Analysis Proposal
Attachments: image005.jpg

Also looks good to me. Thanks for sussing out these issues, Laura!

I'm not familiar with their chem lab--only with Shannon's at WSU that's been getting lots of press.

Sara Gonzalez, Ph.D.
Associate Professor | Dept. of Anthropology
Curator of Archaeology | Burke Museum of Natural History
Adjunct Associate Professor | American Indian Studies
Box 353100
University of Washington
gonzalsa@uw.edu

On Mon, Aug 9, 2021 at 7:23 AM Peter Lape <plape@uw.edu> wrote:
Looks OK to me, pretty standard analysis that most chem labs could do, happy she is not using it all up.

Peter

Peter Lape
Professor, Dept. of Anthropology
Curator of Archaeology, Burke Museum
Associate Director for Research and Collections, Burke Museum
Box 353010
University of Washington
Seattle, WA 98195 USA

On Aug 6, 2021, at 2:33 PM, Laura Phillips <lphill@uw.edu> wrote:

Hi Sara and Peter,

Attached is a request from Meghan Caves, the researcher who is here working on the Arlington Privy material. She would like to take samples from four bottles. I think they all have enough liquid to allow for subsequent sampling, and I can ask Sharon Birks if we could borrow her fume hood. I do not agree with Meghan that the results from Cat.# 45SN409/2008/1311 and 1312 were switched. I think she is basing that on color. I've attached a photo of the bottle when we first got it (brown liquid), and how it looks now after settling (clear). I don't see a need to re-test that one, but I sent her an email this morning to make sure I'm correct that she is making that assumption based purely on color.

Otherwise, do you have any concerns with this? I don't know anything about the Idaho lab.

Thank,
Laura

Thomas Burke Memorial Washington State Museum
University of Washington Seattle, Washington 98195

Condition Report

Cat. # 45SN409/2008/926 Object Name: Medicine bottle

Accn.# 2008-185 Reason for Condition Report: destructive sampling

Loan # _____ Borrower/Lender: Meghan Caves – conducted sampling in Burke bio fumo hood

Exhibit Title: _____ Home Location: _____

Dimensions: Ht.:_____ W:_____ L:_____ Wt.:_____ Circ.:_____ Diam.:_____

Description: Medicine bottle with liquid and residue

Illustration:

Please attached annotated photo

* all equipment cleaned first with Ethyl alcohol

Condition: Residue along one side of interior surface and edges. This residue was sampled by scraping left side of bottle (looking at embossed "the mother's friend). Due to residue wetness, it was placed in the same vial as the liquid. (tiny bit of residue on kimwipe collected in smaller vial) Liquid was also sampled using a glass pipette (2mil). Total weight of liquid and residue: 0.20oz/6.9g (glass vial: 20ml size) – approx ≈ 3ml of liquid based on # of pipette draws taken)

note: 2ml pipette used > glass
20ml vial used

Date: 8/12/2021

To Scale _____ Not to Scale_____ Name: L. Phillips

****

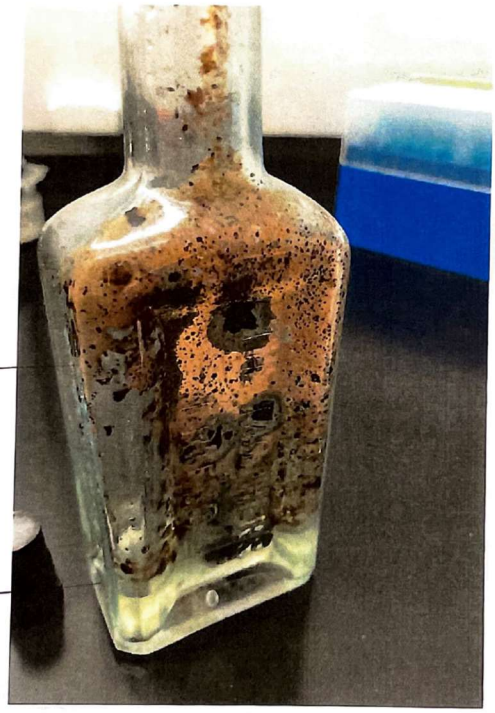
Condition upon return/review:_____

Date:_____

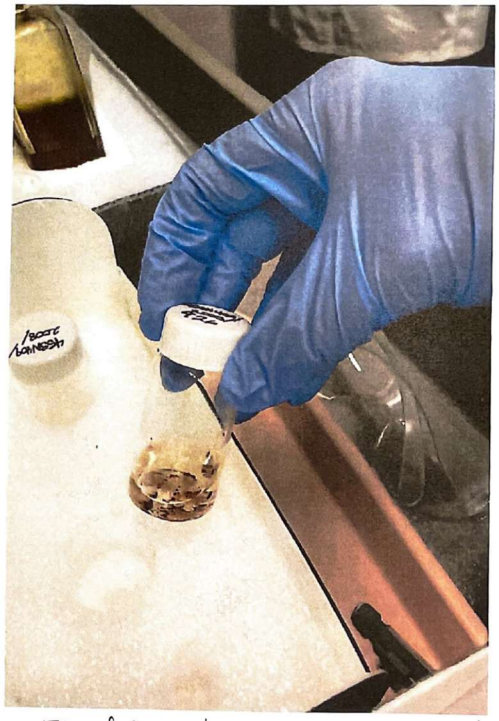
Name:_____

.5 oz vial weight for liquid

.3 oz vial weight for residue



45SN409/2008/926



Final sample : 45SN409/2008/926.1

45SN409/2008/926 initial residue removal - too wet to collect separately.

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University of Washington Seattle, Washington 98195

Condition Report

Cat. # 45SN409/2008/1278 Object Name: Whiskey bottle

Accn.# 2008-185 Reason for Condition Report: destructive sampling

Loan # _____ Borrower/Lender: Meghan Caves - Conducted sampling in Burke bib fume hood

Exhibit Title: _____ Home Location: _____

Dimensions: Ht.:_____ W:_____ L:_____ Wt.:_____ Circ.:_____ Diam.:_____

Description: Whiskey bottle containing liquid

Illustration:

Please see attached annotated photo

* all equipment cleaned first with ethyl alcohol.

Condition: Liquid in bottle stirred using a metal spatulate. Sample taken using a 2mil glass pipette (approx. 10ml removed based on number of pipette draws). Total weight of liquid: 0,30 = / 13.6g

note: 2mil pipette used > glass
20 mil vial used

Date: 8/12/2021

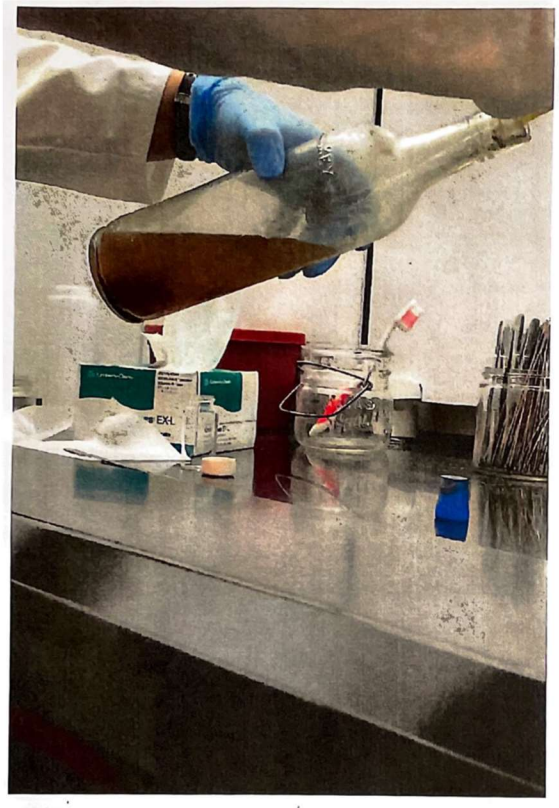
To Scale _____ Not to Scale_____ Name: L. Phillips

****

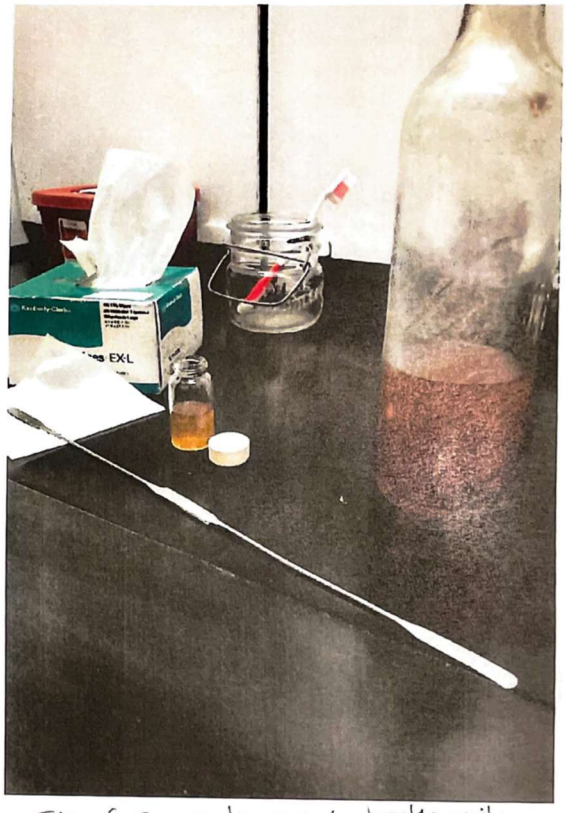
Condition upon return/review: _____

Date: _____

Name: _____



45SN409/2008/1278 -
using pipette



Final sample and bottle with
sample removed
45SN409/2008/1278.1

45SN409/2008/1278.1 Final sample

Thomas Burke Memorial Washington State Museum
University of Washington Seattle, Washington 98195

Condition Report

Cat. #45SN409/2008/1311 Object Name: Medicine bottle

Accn.# 2008-185 Reason for Condition Report: destructive sampling

Loan # _____ Borrower/Lender: Meghan Caves - Conducted sampling in Burke bio fume hood

Exhibit Title: _____ Home Location: _____

Dimensions: Ht.:_____ W:_____ L:_____ Wt.:_____ Circ.:_____ Diam.:_____

Description: Hall's Catarrh cure "medicine bottle w/ liquid + solids at bottom

Illustration:
Please see attached photo

* all equipment cleaned first in ethyl alcohol

residue is purple; liquid is clear

Condition:
Both bottom residue and liquid sampled together. Liquid was stirred to bring residue into solution. Approx. 8mil of liquid/residue removed based on number of pipette draws)
Total weight of liquid: 0.2oz / 10.8g

note: 2mil pipette used > glass
20 mil vial used

Date: 8/12/2021

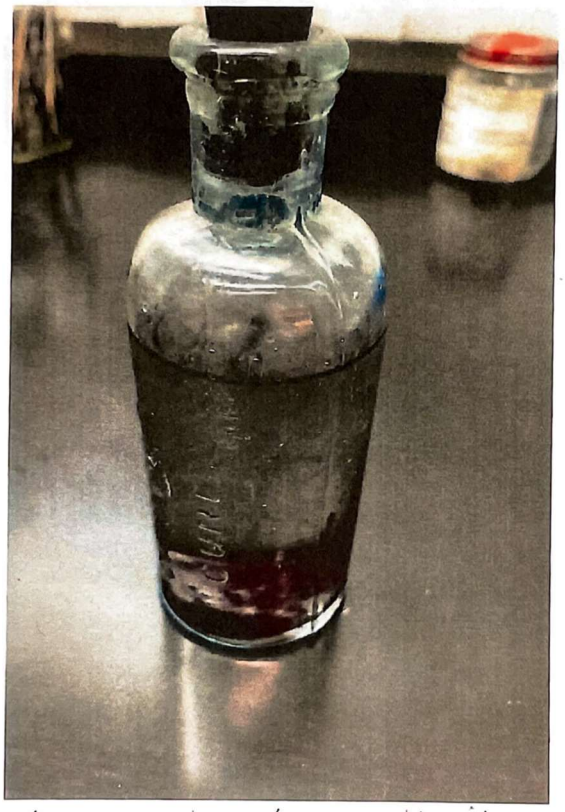
To Scale _____ Not to Scale_____ Name: L. Phillips

****

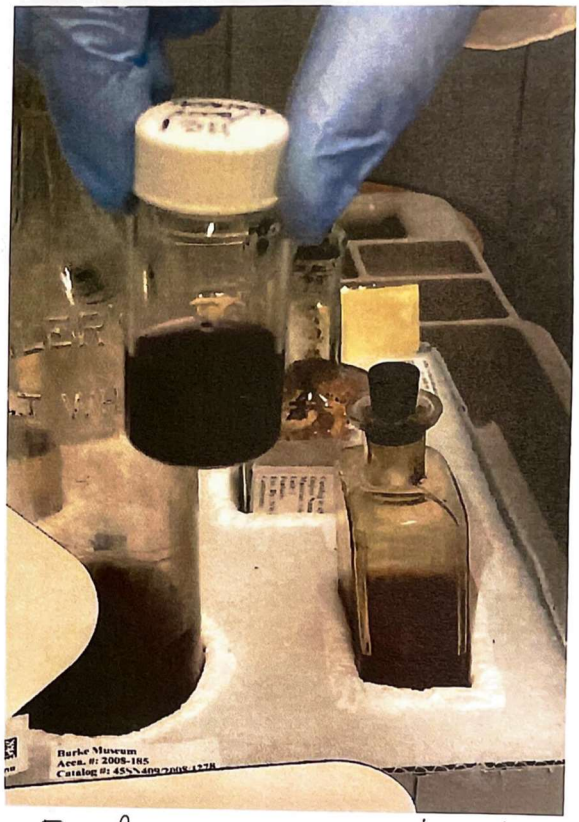
Condition upon return/review: _____

Date: _____

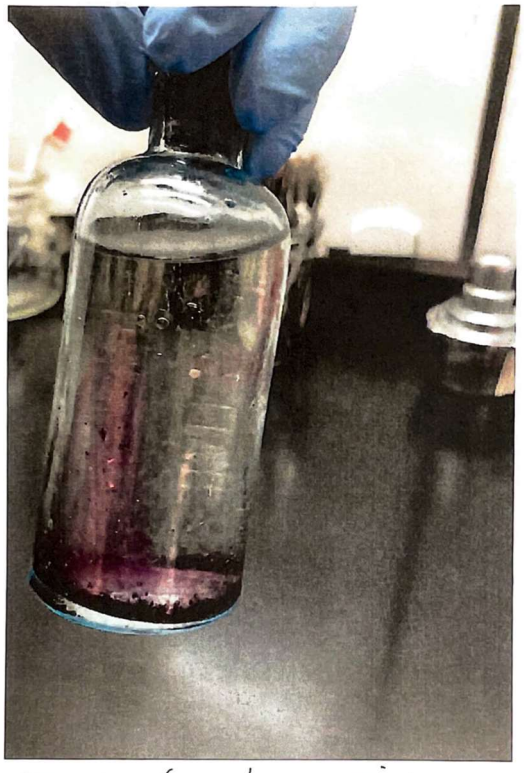
Name: _____



45SN409/2008/1311 bottle with sample removed



Final sample: 45SN409/2008/1311.1



45SN409/2008/1311 - mixing residue into solution

Thomas Burke Memorial Washington State Museum
University of Washington Seattle, Washington 98195

Condition Report

Cat. # 45SN409/2008/1313 Object Name: Whiskey bottle

Accn.# 2008-185 Reason for Condition Report: destructive sampling

Loan # _____ Borrower/Lender: Meghan Caves - conducted sampling in Burke bio fumehood

Exhibit Title: _____ Home Location: _____

Dimensions: Ht.:_____ W:_____ L:_____ Wt.:_____ Circ.:_____ Diam.:_____

Description: Whiskey bottle with liquid and residue

Illustration:

Please see attached photo

* all equipment cleaned first in ethyl alcohol

note: 2mil pipette used > glass
20 mil vial used

Condition: Both bottom residue and liquid sampled together. Bottle was gently swirled/agitated to bring residue into solution. Approx 9ml of liquid/residue removed based on number of pipette draws)
Total weight of liquid: 0.202/11.7g

N.B. Smell of alcohol released when stopper (under pressure) was removed.

Date: 8/12/2021

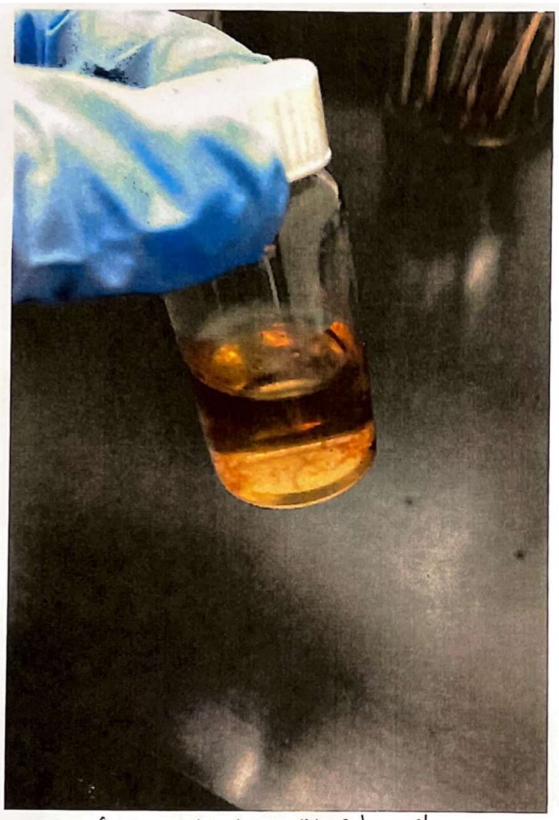
To Scale _____ Not to Scale_____ Name: L. Phillips

****

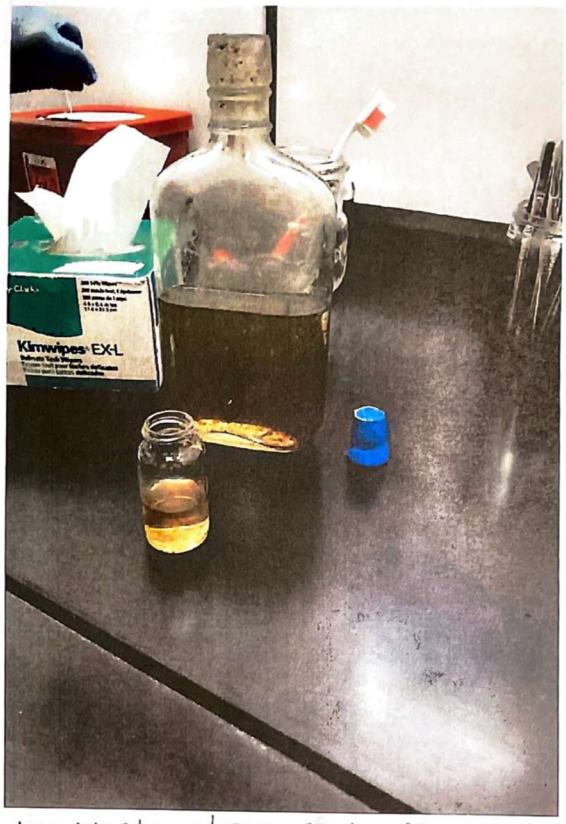
Condition upon return/review:_____

Date:_____

Name:_____



Final Sample: 45SN409/2008/1313.1



45SN409/2008/1313 Bottle with sample removed

Original Reports by Claire Qualls

Burke 926 Report: Lanolin

Origin: Megan Caves, Burke Museum
Date: 28 October 2021
ID: 455N409/2008/926

Analyst: Claire Qualls

Fig. 1 The artifact (front)

Appearance of Artifact
The artifact (Fig. 1) was a blue-green glass bottle containing a clear liquid with flecks of greasy material dispersed throughout. The remains of a paper label adhered to the exterior and the bottle was embossed on three sides: on front with "The Mother's Friend"; on one side with "Bradfield Regl. Co" (Fig. 2); on the other side with "Atlanta, GA"(Fig. 3).

Process and Procedures
The greasy material was insoluble in water and hydrochloric acid, but partially soluble in ether, methanol, and chloroform. An initial IR spectrum of the liquid (Fig. 4) primarily indicated massive amounts of water (O–H peak, 3300 cm^{-1}), indicating and aqueous solution. An IR spectrum of the grease (Fig. 5) showed the presence of OH bonds (3300 cm^{-1}), as well as a pronounced double C-H peaks (2920 cm^{-1}, 2850 cm^{-1}). A final IR spectrum was taken after the liquid was freeze-dried (Fig. 6). The freeze-dried spectrum was similar to that of the grease, indicating that the contents of the bottle were primarily a hydrocarbon suspended in water. The freeze-dried material had a melting point of 42°C. Gas Chromatography-Mass Spectroscopy did not yield results for the sample in ether, methanol, or chloroform.

Discussion and Conclusion
The sample shares chemical similarities with a late 1800s tonic produced by Bradfield Regulator Company dubbed "The Mother's Friend". Advertisements say "Mother's Friend is a liniment for expectant mothers to use externally. It softens the muscles and causes them to expand without discomfort. If used

Fig. 2 The artifact ("Bradfield Regl. Co")

Fig. 3 The artifact ("Atlanta, GA")

during most of the period of pregnancy, there
will be no

morning sickness, no rising breasts, no headache." (Fig. 7). The advertisement also guarantees that proper use will make birth painless and easy. Other advertisements for the product include a father's testimony saying "We have three children. Before the birth of the last one my wife used four bottles of MOTHER'S FRIEND. If you had the pictures of our children, you could see at a glance that the last one is healthiest, prettiest, and finest-looking of them all." (Fig. 8). Despite these claims, the Mother's Friend is primarily composed of ***sheep lanolin*** (a lipid obtained from wool) and ***soap.*** Sheep lanolin has a melting point of 38-42°C which is consistent with the melting point of the sample. The IR spectrum of the freeze-dried sample shares many significant characteristics to that of lanolin (Fig. 9). The sample burned, which is an additional characteristic of lipids. These physical characteristics along with the embossment of the bottle indicate the contents could have been the original Mother's Friend tonic.

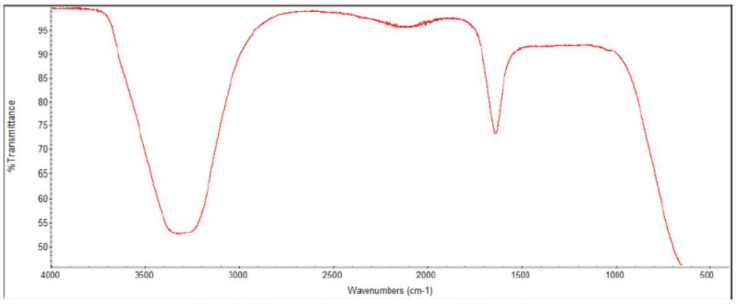


Fig. 4 IR Spectrum of original liquid

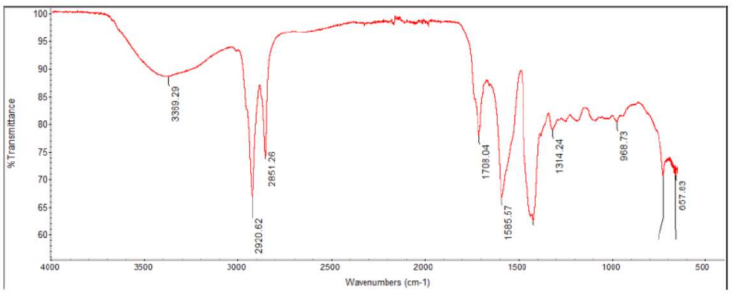


Fig. 5 IR spectrum of grease

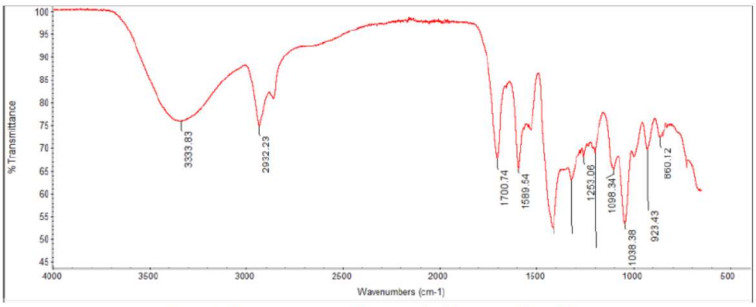


Fig. 6 IR spectrum of sample (freeze-dried)

Fig. 7 Advertisement #1

Fig. 8 Advertisement #2

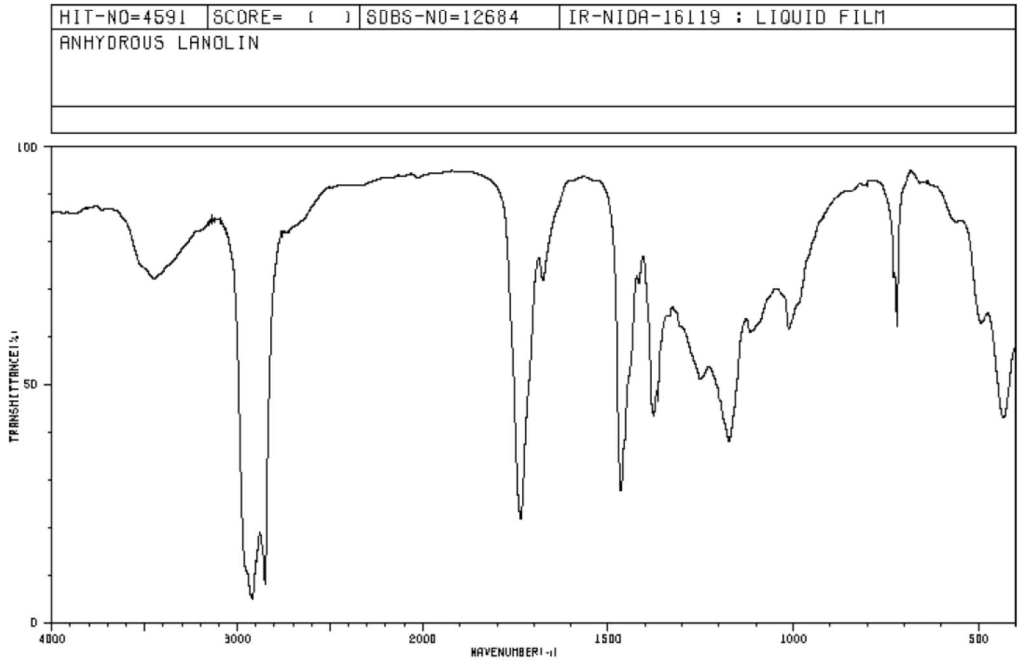


Fig. 9 IR Spectrum of lanolin

Whiskey and Urine

Origin: Megan Caves, Burke Museum
Date: 15 September 2021
ID: 455N409/2008/1278

Analyst: Claire Qualls

Appearance of Artifact

The artifact (Figs. 1, 2) was a liquid sample taken from a whiskey bottle found at a privy site in Arlington, WA. The sample was a dark yellow color and had a putrid smell. Flecks of solid matter were dispersed in the liquid, which had a relatively low viscosity.

Fig. 1 The artifact

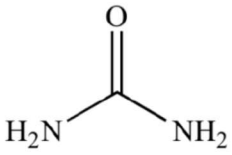
Process and Procedures

A preliminary IR spectrum (Fig. 3) of the liquid itself showed a very large OH peak (3300 cm^{-1}), two small C-H peaks (2800 cm^{-1}, 2900 cm^{-1}), and a C=C peak (1600 cm^{-1}). After the sample was freeze dried, the IR spectrum of the resulting solid was far more feature-rich (Fig. 5), notably displaying a large phosphate peak at 1100 cm^{-1}. The material also gave a positive result for a specific phosphorus spot test.

Atomic absorption showed the sample to contain potassium, but no measurable amounts of sodium, calcium, or magnesium.

Discussion and Conclusion

The IR spectrum of the freeze dried unknown was extraordinarily revealing in this case. As shown in Fig.4, it provided fingerprint evidence for the material being urea (CH_4N_2O).



Urea

Urea is the main solute in urine, which also contains phosphates. The chemical evidence therefore leaves no doubt that the whiskey bottle had been used as a urine receptacle.

Fig. 2 The artifact (bottom)

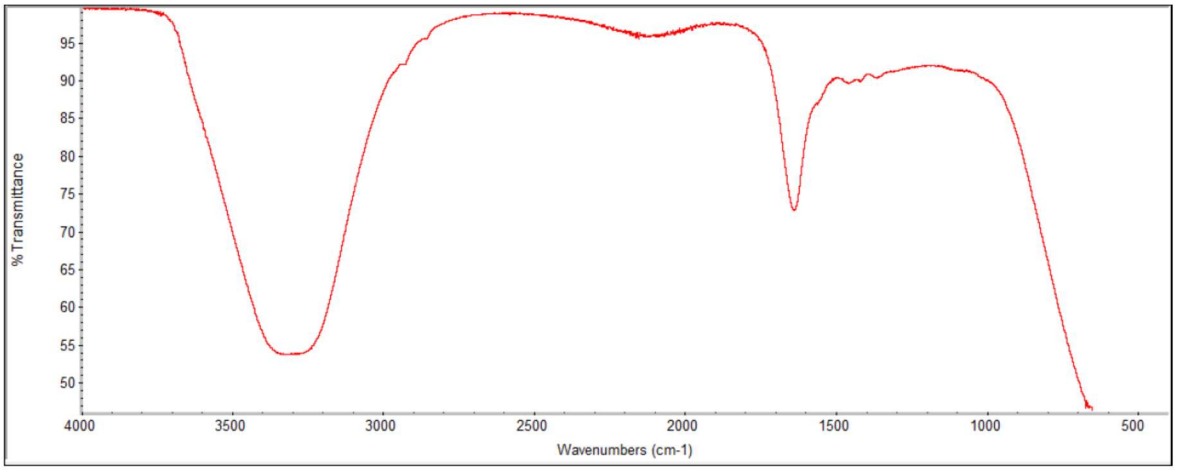


Fig. 3 IR Spectrum of sample

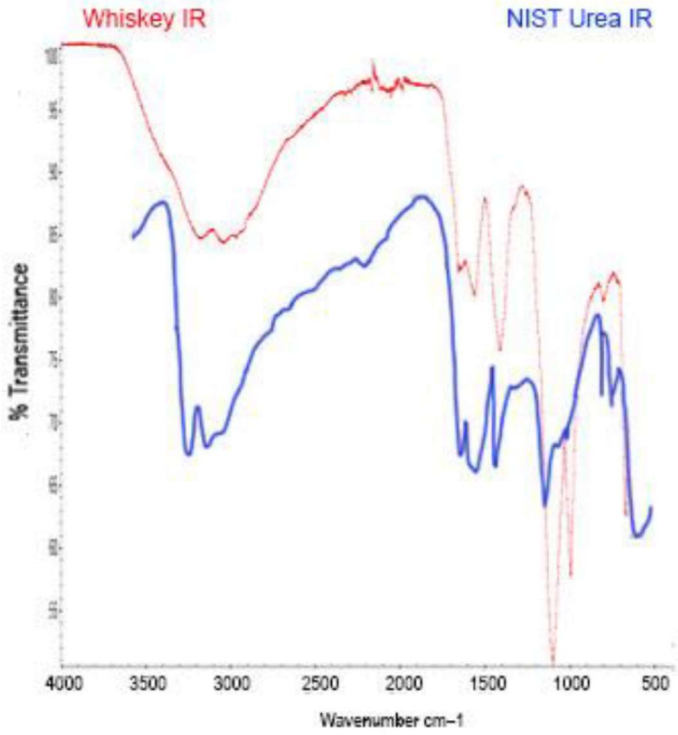


Fig. 4 IR spectrum of freeze-dried sample compared to IR spectrum of urea

Burke 1311 – Purple Solid

Origin: Megan Caves, Burke Museum
Date: 30 September 2021
ID: 455N409/2008/1311

Analyst: Claire Qualls

Appearance of Artifact

The artifact was a greenish glass bottle (Fig. 1) with "Hall's Catarrh Cure" embossed on the side. The liquid contained inside the bottle was a suspension of a clear liquid with a purple solid dispersed throughout (Fig. 2, Fig. 3).

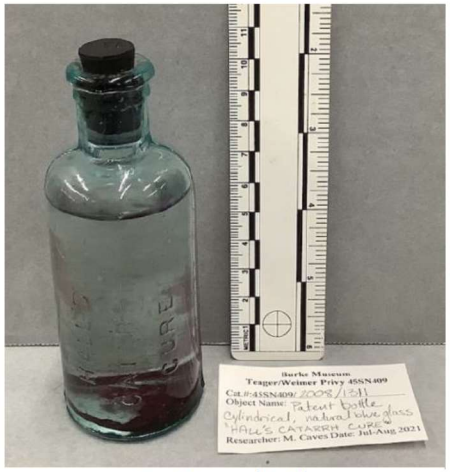


Fig. 1 Original Bottle

Process and Procedures

The solid was entirely soluble in HCl, but not in DI water. An initial IR spectrum (Fig. 4) taken of the liquid showed massive OH peak (3300 cm^{-1}) and was relatively simple. After the sample was freeze-dried, a secondary IR spectrum (Fig. 5) had a significantly smaller OH peak (3300 cm^{-1}), and possibly some C-N peaks around 1500 cm^{-1}. In addition, some of the original sample was dried in a drying oven and another spectrum was taken (Fig. 6). This also showed a diminished OH peak (3300 cm^{-1}), maybe a C-N at 1500 cm^{-1}, and C-O at 1030 cm^{-1}. Gas-Chromatography/Mass-Spectroscopy did not yield results. A spot test for phosphates provided negative results and the purple compound had a melting point greater than 260°C. A full metal screen by ICP showed the presence of Ca (65 mg/L), Fe (1.4 mg/L), K (1.7 mg/L), and Mg (9.3 mg/L).

Fig. 2 The artifact (front)

Discussion and Conclusion

Few conclusions could be drawn about the identity of the compound. One of the most well-known purple compounds is potassium permanganate, $KMnO_4$, but the sample was not water soluble, nor did it contain manganese. The purple color was probably due to the iron – some iron compounds exhibit a purple color, e.g. those containing tetraoxoferrate (VI) ions. It is likely that the Hall's Catarrh Cure bottle was reused to store this purple material,

Fig. 3 The artifact (base)

rather than it being part of the original contents.

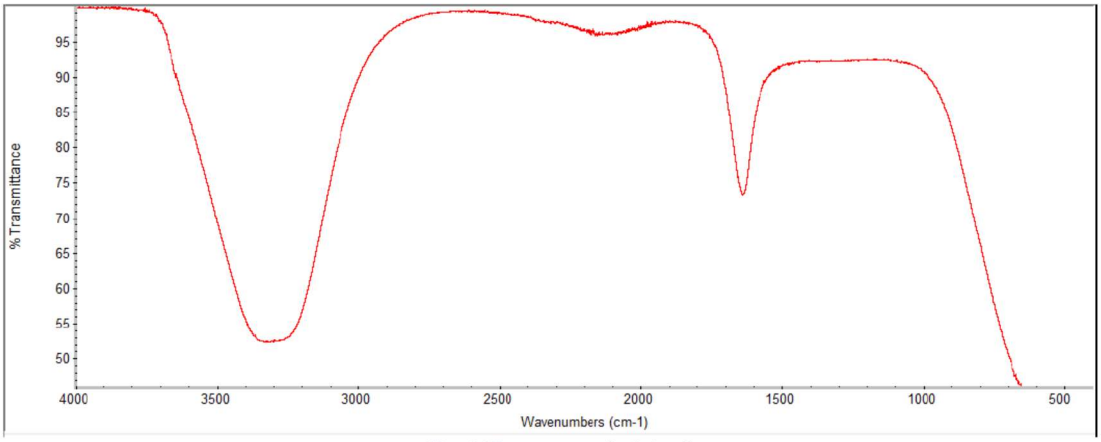


Fig. 1 IR spectrum (original)

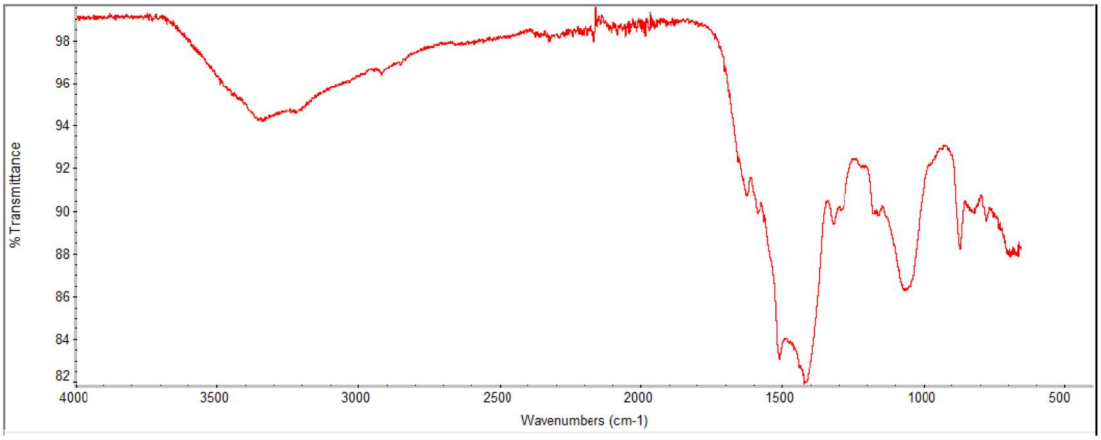


Fig. 2 IR spectrum (freeze-dried sample)

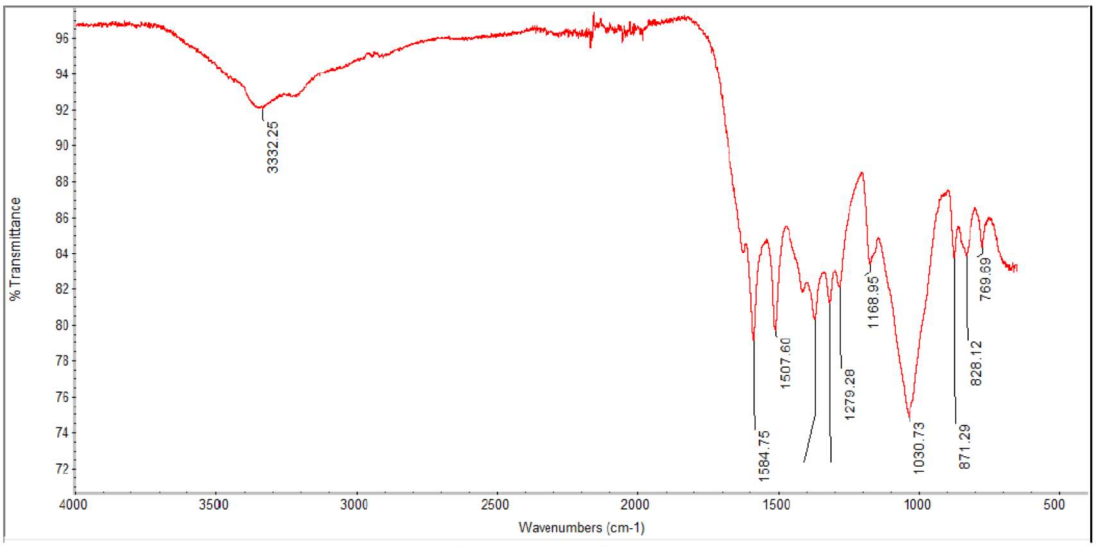


Fig. 3 IR spectrum (drying oven)

Burke 1313 – Plum Brandy

Origin: Megan Caves, Burke Museum
Date: 28 October 2021
ID: 455N409/2008/1313

Analyst: Claire Qualls

Appearance of Artifact

The artifact was a clear glass bottle (Fig. 1) containing a yellow liquid with some suspended solid (Fig. 2). The original blob-top bottle was unlabeled and appeared similar to a brandy bottle.

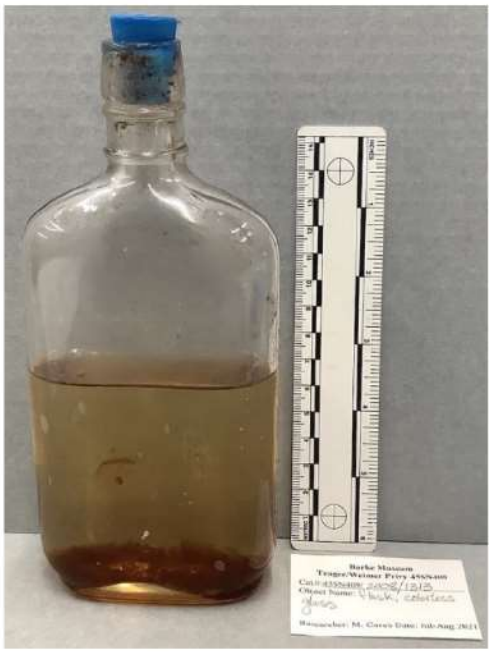


Fig. 1 The artifact (original vessel)

Process and Procedures

The solid material in the bottle was found to be almost entirely organic and dissolved readily in HCl. A phosphorus spot test was positive; the sample did not contain carbonates or chlorides. An initial IR spectrum of the sample (Fig. 3) primarily reflected an abundance of water (3300 cm^{-1}) and few additional features. A secondary IR spectrum (Fig. 4) was taken after the sample was freeze-dried and showed a reduced, but still present, OH peak (3300 cm^{-1}), C-H peaks (2800 cm^{-1}, 2950 cm^{-1}), a phosphate peak (1087.08 cm^{-1}), and an additional OH wag (1300 cm^{-1}). Gas-Chromatography Mass-Spectroscopy (GSMS) showed the sample to contain 11,13-dimethyl-12-tetradecen-1-ol acetate (89% certainty) and oleic acid (83% certainty).

Fig. 2 The artifact (laboratory sample)

Discussion and Conclusion

The combination of the type of bottle the sample was found in, the presence of phosphorus, the presence of fatty acid esters, and the presence of oleic acid in the sample are consistent with plum brandy. Plums contain a high concentration of phosphorus, and plum brandy is known to contain fatty acid esters as well as oleic acid. However, 11,13-dimethyl-12-tetradecen-1-ol and oleic acid are naturally occurring compounds in plant and animal fats, and their abundance makes it difficult to positively identify the sample with a high degree of certainty.

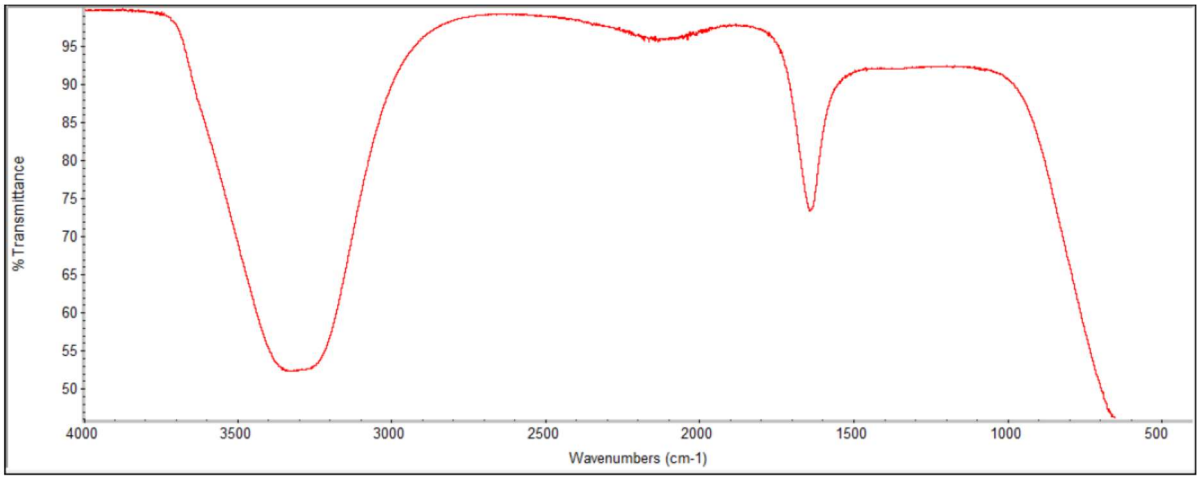


Fig. 3 IR spectrum (original)

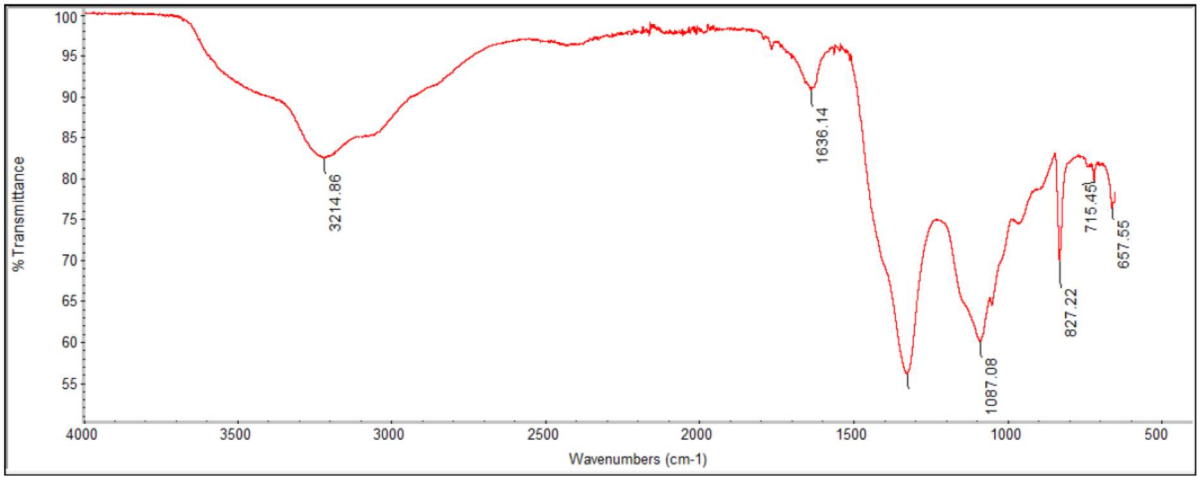


Fig. 4 IR spectrum (post freeze-drying)

Talk Presented at the 2022 Northwest Anthropology Conference

HISTORIC BOTTLE CONTENTS ANALYSIS FROM AN EARLY 20TH CENTURY PRIVY SAMPLE IN WESTERN WASHINGTON

Meghan Caves, University of Idaho

75th Annual Northwest Anthropological Conference

March 11, 2022

University of Idaho
Department of Culture, Society and Justice

Presenter Email:
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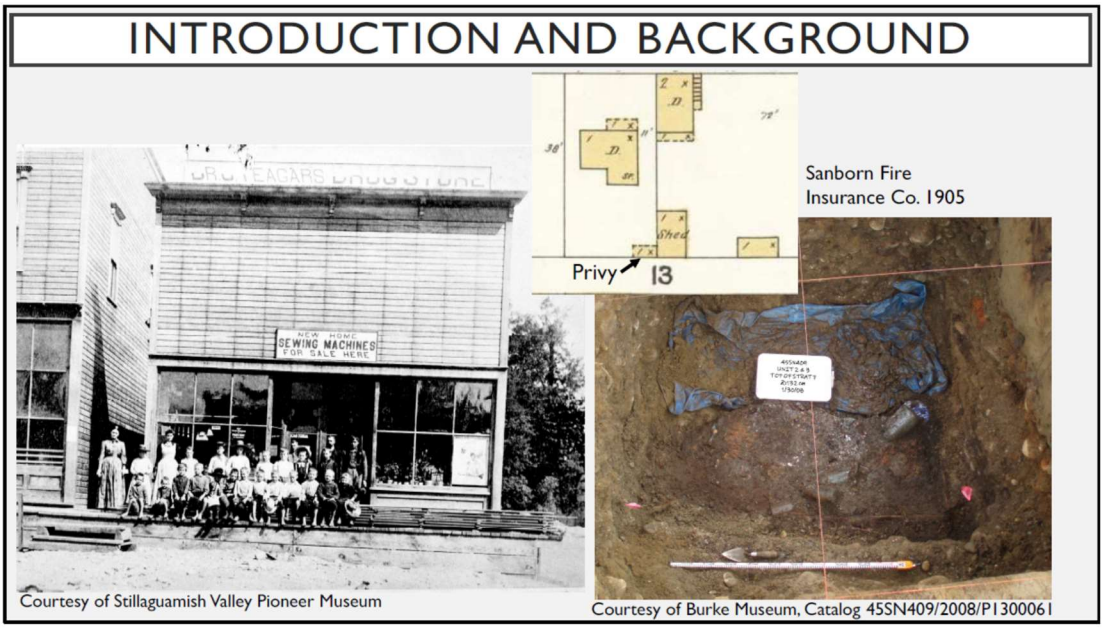
Good afternoon everyone, my name is Meghan Caves, I am a master's student at the University of Idaho and today I will be sharing a small portion of my thesis research concerning chemical contents analysis of historical bottles recovered from an early 20th century privy context in Western Washington.

INTRODUCTION AND BACKGROUND

More specifically the privy is associated with the town of Arlington, shown here at the confluence of the North and South forks of the Stillaguamish River in the Puget Sound region. The site's connection to the prevalent Coast Salish economic center called Skabalko and the early town of Haller City, which was later incorporated as part of the city of Arlington, connect the privy assemblage to life surrounding the urbanization in the so-called "frontier."



The historic site was identified by Northwest Anthropological Associates (NWAA) during cultural resource protection work in preparation for the City of Arlington Wastewater Treatment Plant expansion in 2006. The image on the left shows the original structure on the site circa 1891, which includes the faint signage connecting the property to the Dr. Calvin and Myrtella Teager, both pharmacists. This picture also shows the first class of students in Haller City, taught by Myrtella Teager.

The Teager family and the store location moved in 1896, and in 1911, title information suggests that the structure was purchased and moved to another location. The original structure and the associated privy can still be seen in this 1905 Sanborn Fire Insurance map.

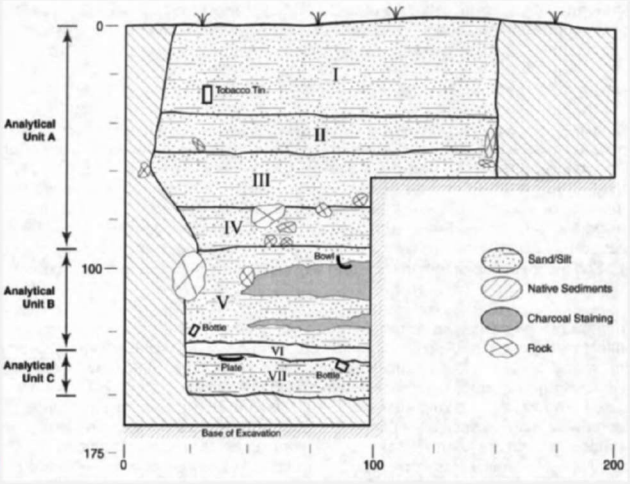
In 2008, NWAA completed a data recovery of the privy to preserve the snapshot of concentrated refuse deposition at the property, prior to construction of the Wastewater Treatment facility. The assemblage was analyzed by Bill White, Alicia Valentino, and Ross Smith prior to its curation at the Burke Museum of Natural History and Culture.

INTRODUCTION AND BACKGROUND

Vessels by Treatment/Use	AU A	AU B	AU C	Totals
Health and Beauty	2	3	3	8
Stomach	1	5	1	7
Respiratory	-	-	1	1
Other Medicinal	9	14	21	44

Medicinal Vessels by Type	AU A	AU B	AU C	Totals
Vials	1	-	2	3
Prescription	5	2	7	14
Embossed Patent	6	13	6	25
Other	6	2	2	10

Adapted from White et al. 2008



In their initial analysis, White et al. identified three analytical units, or AUs, based on stratigraphy, artifact content and dates, and matrix composition. AU A consisted of secondary deposit fill some time post 1920. AU B appeared to be from household activity between 1895 and 1911 and was somewhat characteristic of percolation fill. AU C had the highest artifact density and was tied to the earliest occupation of the site prior to 1900.

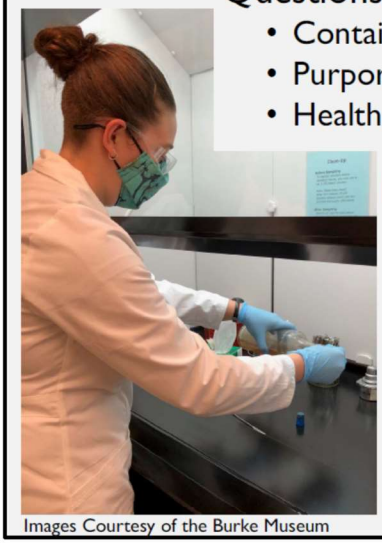
As part of their analysis, NWAA collaborated with the University of Washington Department of Medicinal Chemistry to analyze the contents of 9 bottles that were recovered with their seals intact. The vessel forms and contents results suggest these were predominantly medicinal items, which is consistent with the early occupation of the site by pharmacists.

During my reanalysis of the privy assemblage last summer at the Burke Museum, I was intrigued by 3 other bottles that still had preserved contents despite not having been sealed when excavated. I was also curious to further investigate two bottles that had previously been analyzed in 2008 with inconclusive results.

RESEARCH QUESTIONS AND METHODS

Questions:

- Container reuse or repurpose (Woff 2019)
- Purported and actual ingredients comparison
- Health practices in an urbanizing "frontier" environment



Methods of Analysis:

- Infrared Spectroscopy (IR)
- Gas-Chromatography (GC-MS)
- Atomic Absorption
- Melting Point
- Inductively Coupled Plasma (ICP-MS)

Images Courtesy of the Burke Museum

The main questions that I was curious about included the identification of containers being reused or repurposed both in the household context of the Teagers and their two young children, Mytrella's short-term use of the building for schooling, or potentially within the business context of the drug store.

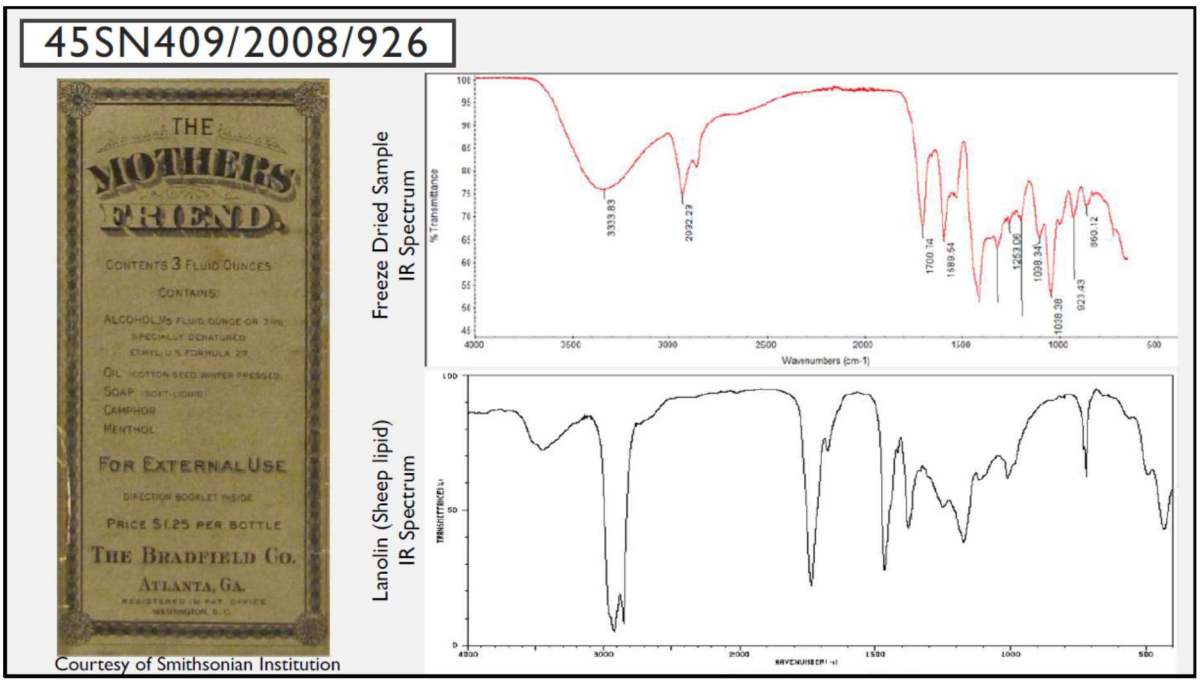
With the presence of two embossed patent medicine bottles, the comparison of the advertised purposes and ingredients of these mass-produced medicines with their actual contents was also of interest. These questions inform the larger investigation of health practices from a both the drug store and a home consumption perspective within the context of an urbanizing frontier.

Liquid samples were collected in a sterile environment using 2mL glass pipettes for liquids and a metal spatula for solids adhered to vessel interior. Chemical analysis was conducted through the University of Idaho's Archaeological Chemistry program by experienced analyst, Claire Qualls under Dr. Ray von Wandruszka. Analysis included IR, GC-MS, Atomic Absorption, Melting Point, and ICP-MS. Due to the unsealed recovery context, water was present in all but one of the samples and so oven drying and/or freeze-drying preceded many analyses.

The first of the analyzed bottles is an aqua or natural green glass rectangular, semi- automatic manufactured paneled bottle likely from the turn of the century. As the embossing on the bottle indicates this product is called "The Mother's Friend" manufactured by the Bradfield Regulator Company out of Atlanta, Georgia. This product was advertised as early as 1876, but the bottle manufacture is diagnostic of around 1890 at the earliest.

At least three of this same bottle are found in the privy assemblage both in analytical unit A and B, suggesting repeated use. The advertised purpose of this mass-produced topical liniment was presented as a treatment for both physical and psychological symptoms of pregnancy as this ad copy from 1910 suggests. Other advertisements claim that use of this product will shorten labor, make childbirth easy, and even ensure beautiful babies.

Sources: Cook 2014; Fike 1987, p. 53; Spokane Daily Chronicle February 8, 1910



IR analysis of the freeze-dried sample revealed the primary if not sole ingredient to be lanolin. This aligns well with many of the uses suggested in marketing as lanolin is still very popular with nursing mothers. Perhaps if the product was used in perineal massage, the claims of shorter labor and easier childbirth would also be substantiated.

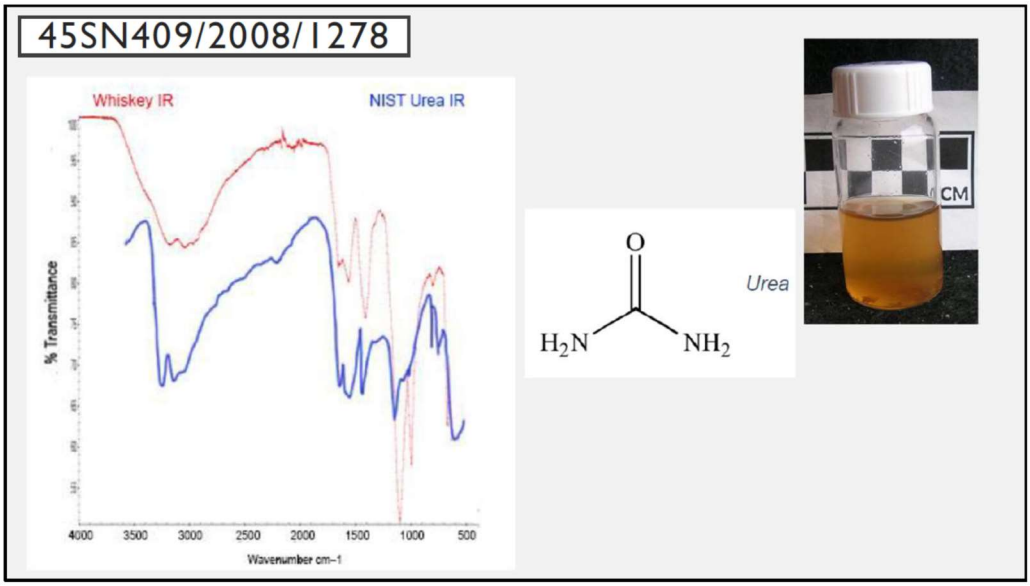
This product box from several decades later suggests that the main ingredients in Mother's Friend include alcohol, oil, soft liquid soap, camphor, and menthol. It is very possible that the formula changed between the period associated with the sample and the listed ingredients, but the lanolin could also have been a component in the soft liquid soap listed.

Source: Smithsonian Institution 2021

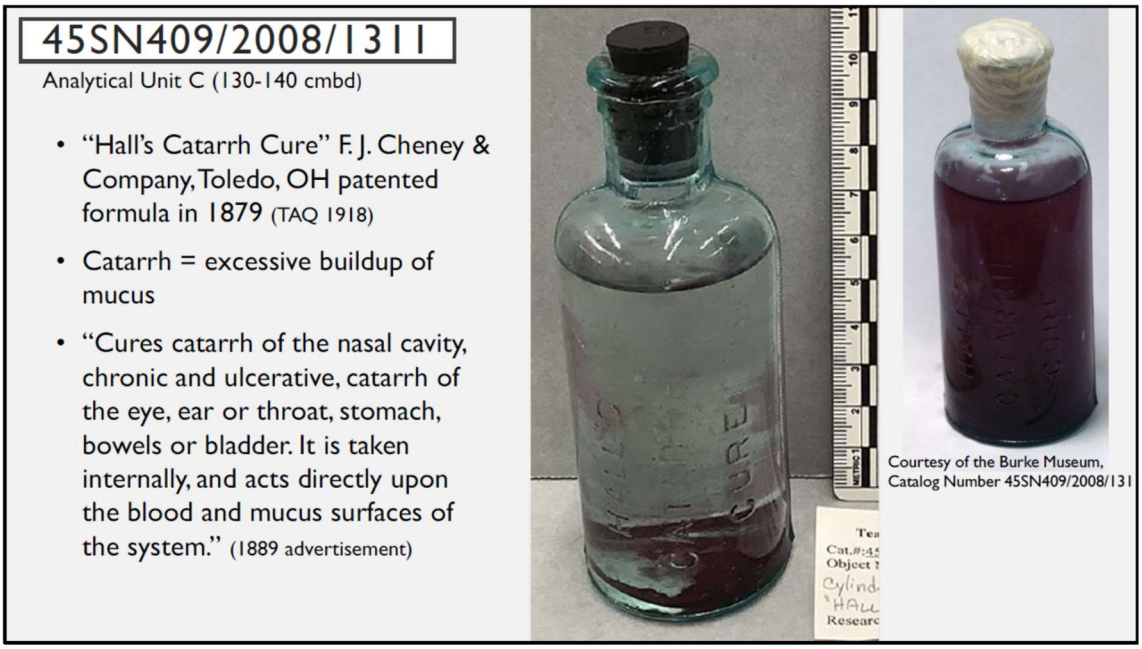
The next vessel analyzed is this colorless glass liquor bottle with embossed text on the shoulder that reads "Iler's Malt Whiskey" and on the lower body that reads "Willow Springs Distillery." Based on this text the product was identified as a medicinal grade whiskey marketed by Iler and company out of Omaha, Nebraska.

The Iler brothers founded their company in 1870 and were distributing alcohol and spirits out of until around 1917, after which prohibition effectively ended their business. Medicinal whiskey was (and in some families still is) a household staple treatment for most mild ailments.

Sources: SHA Bottle Website; Dunbar 1888; Egan 2021



IR analysis of the sample resulted in clear presence of urea in the bottle. While it is possible that this is merely cross-contamination from the bottle having been in a privy, the behavioral implications of a bottle filled with urine that was later deposited in the outhouse aren't too much of an interpretive stretch.

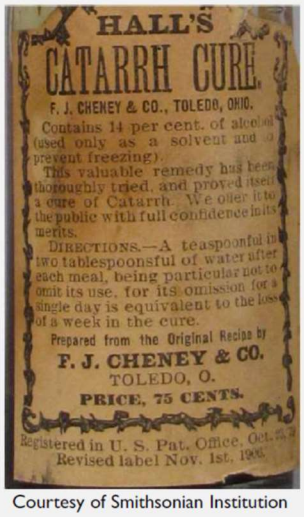


The third analyzed artifact is one that was sealed upon recovery, but the results from the initial analysis seemed inconsistent to me. The bottle is aqua in color with a tooled finish and embossed text on one side that reads "Hall's Catarrh Cure." Catarrh historically refers to any excessive buildup of mucus or inflammation of any of the body's mucosal membranes.

F. J Cheney and Company out of Toledo, OH patented this so-called cure in 1879. Based on the manufacture methods and marketing language used by the company this bottle is likely from right around the turn of the century. The dark purple solution contained in this bottle settled out into a solute in the 13 years between its initial accession and when I reanalyzed the collection.

Sources: SHA Bottle Website; Parks Canada Glass Glossary; Fike 1987 p. 99; Hoolihan and Atwater 2001 p. 184

45SN409/2008/1311



Courtesy of Smithsonian Institution

ICP-MS Results
Full Metal Screen:

- Calcium - Ca (65 mg/L)
- Iron - Fe (1.4 mg/L)
- Potassium - K (1.7 mg/L)
- Magnesium - Mg (9.3 mg/L)

Purported Ingredients:

- Gentian root in coarse powder
- Bitter orange peel in coarse powder
- Cardamom seeds in coarse powder
- Potassium Iodide
- Sufficient Dilute Alcohol

NOTE: 1311 identified as coal tar in 2008 initial contents analysis; 1312 identified as "unknown"

Courtesy of the Burke Museum, Catalog Number 45SN409/2008/1312

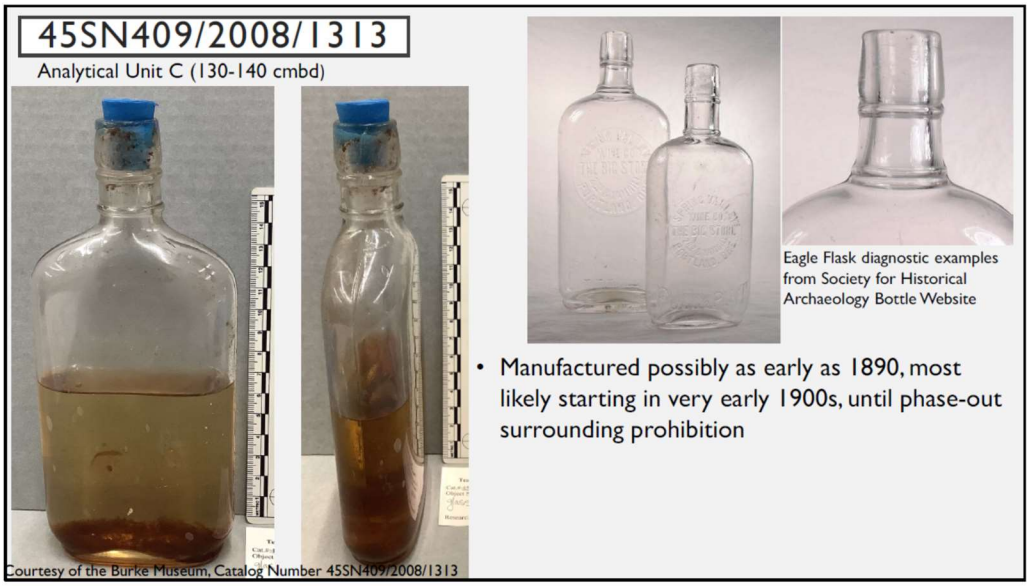
Bituminous Coal Tar as advertised on IndiaMart, eCommerce service

Based on the purple color of the solute, an early hypothesis was that potassium permanganate, known for its vivid purple color, might have been present. However, since the sample was not water soluble and did not contain any manganese, this was ruled out. IR provided very little information and GC-MS did not yield results. A spot test for phosphates was negative and the melting point of the purple solid was greater than 260 degrees Celsius. A full metal screen by ICP showed the presence of calcium, iron, potassium, and magnesium.

In 1894, Charles Oleson published a book of formulas revealing ingredients for many popular patent medicines of the era. His listed ingredients for Hall's Catarrh Cure included gentian root, bitter orange peel, cardamom, and potassium iodide diluted in alcohol. While the results do not definitively exclude the presence of these ingredients, it is very likely that this bottle could have been reused after the marketed product was consumed.

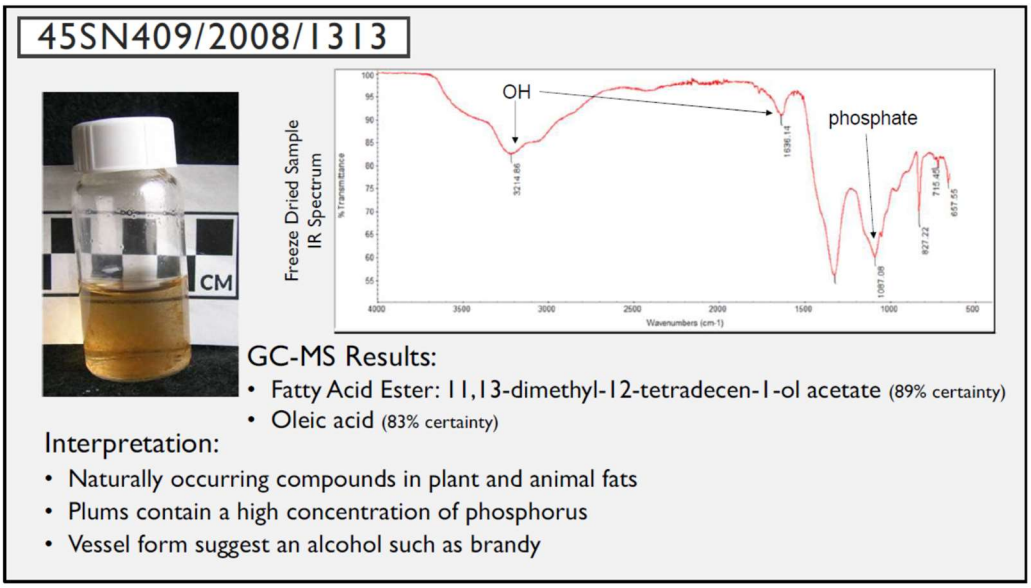
These relatively inconclusive results align with some of my initial confusions surrounding the analysis results from the 2008 report. The initial UW analysis identifies this catalog sample as coal tar using GC-MS. In this same analysis, catalog number 1312, pictured here in the vial, was unable to be identified using GC-MS, but is much more visually consistent with coal tar. Without retesting 1312, it is still unclear, but there is a possibility that the 2008 results for these two catalog numbers were switched.

Sources: Oleson 1894, p. 80; White et al. 2008; Bitubin India 2019



The final analyzed bottle is this unmarked colorless glass flask. Based on the narrow oval shape and the specific finish of the vessel, this flask is most consistent with Eagle flasks, which were manufactured mainly between the turn of the 20th century until they were phased out surrounding prohibition.

Sources: SHA Bottle Website



The solid material in the sample dissolved in hydrochloric acid and was therefor found to be almost entirely organic. The IR spectrum of the freeze-dried sample shows an alcohol peak and wag, and a phosphate peak as indicated here. GC-MS showed the sample contains a specific fatty acid ester and oleic acid. These compounds are generally associated with plant and animal fats. A positive phosphorus spot test possibly suggests the presence of plum fruit based on their naturally high concentration of phosphorus. This in conjunction with the vessel form suggests contents consistent with plum brandy.

DISCUSSION AND CONCLUSIONS

Reuse/Repurpose

- Comparison to Woff's Reliability standards
- Behavioral Implications

Ingredients

- 1906 Pure Food and Drug Act
- Issue of reuse or product inconsistency

Health Practices

- Self treatment
- Family centered care

Circling back to the research questions surrounding these samples, the results I have just presented provide some interesting insights. With regards to vessel reuse Bronwyn Woff has done a thorough study of the reliability of bottle form correlation to contents. She has developed a standardization of specific vessel forms with high, medium, and low reliability with high reliability indicating low likelihood of reuse vice versa. With her study, Woff classifies pharmaceutical bottles and most vessels with permanent labels or marks to have high reliability while wine or beer bottles have the lowest reliability. Although my sample is far too small to look at significant trends, it is interesting to see that of the 3 permanently marked vessels that were analyzed, only the Mother's Friend has a strong likelihood of having original contents, while the Hall's Catarrh Cure is very questionable, and the Iler's Malt-Whiskey was certainly reused.

Woff's study classified case gin bottles as medium reliability so perhaps the whiskey bottle should be placed in that category despite its medicinal grade. This uncertainty of whether this medicinal grade alcohol should be functionally categorized as liquor or medicinal cuts to the heart of the challenges of assumed functional classification of artifacts.

In the context of interesting behavioral insights, this analysis highlighted that human behaviors are often more intuitive or simple than we may speculate. Imagine the cold dark trek to the outhouse during a Northwest winter. Consider also the two young Teager boys possibly needing to go to the outhouse multiple times a night and it comes as no surprise that a chamber pot and this repurposed whiskey bottle are associated with Analytical Unit C and the period of the Teager Family's occupation of the site.

With regard to my second question surrounding truth in advertising for patent medicine ingredients, there are several factors that make fully understanding this challenging. The 1906 Pure Food and Drug Act, passed in large part as a response to the booming patent medicine industry, majorly changed the production of these medicines and required more transparency regarding ingredients for consumers.

If we go back to the representative paper label that I showed earlier for Hall's Cattarh Cure, we can see that this label was revised in 1906 in response to the pure food and drug act. By 1918, F. J. Cheney and Co. even changed the product name from a Catarrh "Cure" to a Hall's Catarrh Medicine to represent the product more accurately to consumers. It is possible that the formulas for medicines were also revised in the wake of this legislation.

Also, regarding the Hall's bottle, we run into the uncertainty of if the bottle was reused and that has resulted in different contents rather than an inconsistency between the expected ingredients.

Finally, to pan out to a larger picture of understanding health practices represented by this assemblage we see that in addition to their practice as druggists, the Teagers were also likely utilizing patent medicines in self treatment or perhaps even Myrtella Teagar may have administered the Hall's Catarrh cure to some snotty-nosed school children. She was lauded for her dedication to community health needs.

With regards to the presence of the Mother's Friend in the assemblage, I am inclined to connect the use to later occupants. Martha Lovelace took ownership of the property in 1906. According to the 1910 census, Martha and her husband, Jack, welcomed their 7th child in the winter of 1909. This is also taphonomically consistent because, as noted, the Mother's Friend bottles are most common in analytical unit B, which is more likely associated with the household activities of the property's occupants in the early 20th century.

With the overall increased accessibility and affordability of chemical analysis, the use of contents data for historical archaeological assemblages is one of the many ways that can improve interpretations of nuanced behaviors surrounding material culture.

What excites me most about these results is this synthesis of methods, where stories of lives lived in the town of Arlington are made more tangible and meaningful through reanalysis of a collection like this.

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Burke MUSEUM
UNIVERSITY of WASHINGTON

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Appendix C: Property Records and Family Trees

Although genealogy is not commonly associated with the field of archaeology, the generational histories of the families who occupied the Teagar/Weimer Site were extremely valuable to the interpretation of the archaeological assemblage. Of particular significance is the ease of access to genealogical records and pre-existing databases on services such as FamilySearch and Ancestry that increase the utility of these kinds of data to historical archaeologists. The narratives throughout the preceding thesis reference family lineages with regards to geographic movement throughout the world and social and national identity construction during the families' occupation of the Teagar/Weimer site. The numerous data sources for this project have led to copious avenues of interpretation over the last three years - too many avenues to keep track of without a map.

As a metaphorical roadmap, I have included a table (C.1) which synthesizes the property records (compiled from the Chicago Title Company's 2006 report, the Bureau of Land Management's General Land Office records, and Snohomish County Assessor records), the names of individuals who occupied the site or potentially contributed to the archaeological assemblage (using Census records, Polk city directories, and other archival genealogical resources), and the archaeological context of the privy deposit showing correlations between occupants and the hypothesized occupation periods or analytical units (AUs). In this table, individuals who the federal census captured living at the site are in black, while those who are only documented as owners or have unconfirmed association with the site are listed in gray. The occupation held by individuals while they lived at the site is also contextualized where applicable. As a disclaimer, the associations between occupants and analytical units are tenuous at best due to the many disturbances and methodological challenges surrounding Analytical Units discussed in the Site Formation Reanalysis section of Chapter 2.

To further contextualize the relationships established in Table C.1, I have also included abridged family trees for each of the families who occupied the site. Within each tree, the individuals who lived at the home on Cox Avenue and likely contributed to the archaeological assemblage are highlighted in yellow. Those who may have resided there or contributed to the assemblage, but for which there is no confirmation, are highlighted in gray. Three descending dots indicate descendants that are known but not included. These family trees are synthesized from many archival sources including census, immigration, birth, marriage, death, and cemetery records, draft registration cards, published news articles, and obituaries. The majority of these data are found linked to publicly accessible family trees on *FamilySearch.org*, *Ancestry.com*, or *Geneanet.org*. I hope that these trees are of some use to the Stillaguamish Valley Genealogical Society, whose volunteers provided many archival resources and valuable research support throughout my thesis work.

Table C.1 Synthesis of property records, occupancy records, and archaeological context throughout the duration of the deposition period for the Teagar/Weimer site

Property Ownership Transfer Records (based on Chicago Title Company's 2006 report, Government Land Office, and County Records)				**Household Information** (based on US Census records and Polk City Directories)		
Grantor	**Grantee**	**Date**	**Type**	**Occupant Names**§ (see family trees for relationships)	**Primary Occupation(s)** (while living at the site)	**Associated Archaeological Context**
Regional Tribal Representatives	United States Government	20 Jan 1855	Point Elliot Treaty			
United States Government	Lewis H. Smith	14 Mar 1887	Serial Patent			
Lewis H. Smith	*unknown*	*unknown*	*unknown*			
unknown	Catton (Cotton?), J. G.	*unknown*	*unknown*			
Catton (Cotton?), J.G.	Stillwell, S.J.	26 Dec 1891	Deed	Teager, Calvin	Druggist	AU C 130-148 cmbs
Stilwell, S.J.	McTeigh, M.	5 Aug 1892	Deed	Myrtelle Clara	Wife, Mother, Teacher, Druggist	
McTeigh, M. et ux.	Fredrickson, John	20 Aug 1892	Deed	Roy	school age	
Frederickson, John et ux.	Teager, C.	30 Nov 1892*	Deed	Bertram	school age	
Teager, C. et ux.	Murphy, William◊	6 Mar 1895	Deed	Irwin, Andrew	Farmer, Day laborer,	----------
Murphy, William	Erwin (Irwin?), Andrew	25 Nov 1895	Deed			
Erwin (Irwin?), Andrew	Gooding [Hurd], Almira E.	20 Jan 1899	Deed	Gooding, Marion	Farmer (dairy)	AU B 90-130 cmbs
				Almira	Wife, Mother	
				Hurd, Walter	Sawyer	
				Hurd, Laura	married/moved circa 1902	
Gooding [Hurd], Almira E. et vir.	Lovelace [Hurd], Martha	3 Nov 1906	Mortgage	Lovelace, Marion "Jack"	Carpenter	
				Martha	Wife, Mother	
Lovelace [Hurd], Martha et vir.	Gooding [Hurd], Almira E.	16 Feb 1907	Mortgage	Cleveland C. John Roy Henry Floyd Albert Ceylon Ray Jackson	All the adult sons primarily worked in the logging/timber industry in one way or another throughout their occupancy (laborer, sawyer, shingle packer, driver, etc.)	
Gooding [Hurd] (Mrs.) Almira	Lovelace [Hurd], Martha et vir.	21 Jun 1910	Mortgage	Grace L.	school age	
				Marion Rosabell	school age	
Lovelace, Marion "Jack"	McCounahay [Hurd], Carrie	21 Mar 1914	Mortgage	*Dwelling structure sold and moved offsite circa 1911, presumably no occupation nor domestic deposition between 1911 and 1918*		----------
McCounahay [Hurd], Carrie	*unknown*	*unknown*	*unknown*			
unknown	Weimer, Mrs. Hilda	circa 1918	*unknown*	Weimer, (William) Joseph	Carpenter; died 1926	AU A 0-90 cmbs
				Hildagaard	Wife, Mother; housekeeper, servant	
				Anne M.	moved away circa 1925; died 1926	
				Hilda Teresa	moved back to Canada before 1930	
				Gertrude J.	school age (married/moved before 1940)	
				Margaret Mary	school age (moved before 1940)	
				Kathline	died in infancy 1919	
				Agnes Joan	school age	
Weimer, Mrs. Hilda	Thompson, Roy et ux.	13 Apr 1939	Quit Claim Deed	Morris, Edwin A.	Logging trucker; married Agnes in 1940	privy capped ca. 1940
Thompson, Helga et vir.	City of Arlington	January 1998	Statutory Warranty Deed			

§ Occupant names listed in gray text indicate individuals who may have contributed to the assemblage but were not captured in the census records for the property.
* The date of title transfer to the Teagars conflicts with all other documentation regarding when the Teagars arrived in Arlington (ca 1890). It is likely that the Teagars were living at the property prior to obtaining the legal title.
◊ Teagar only sold lot 9 to Murphy at this time; Murphy later sold lot 9 to Erwin; the deed to lot 10 passed from Teager to Erwin on 24 Oct 1896. This splitting of the property in half may suggest that the property was unoccupied during this time or could have been a clerical error that was not rectified until 1896.

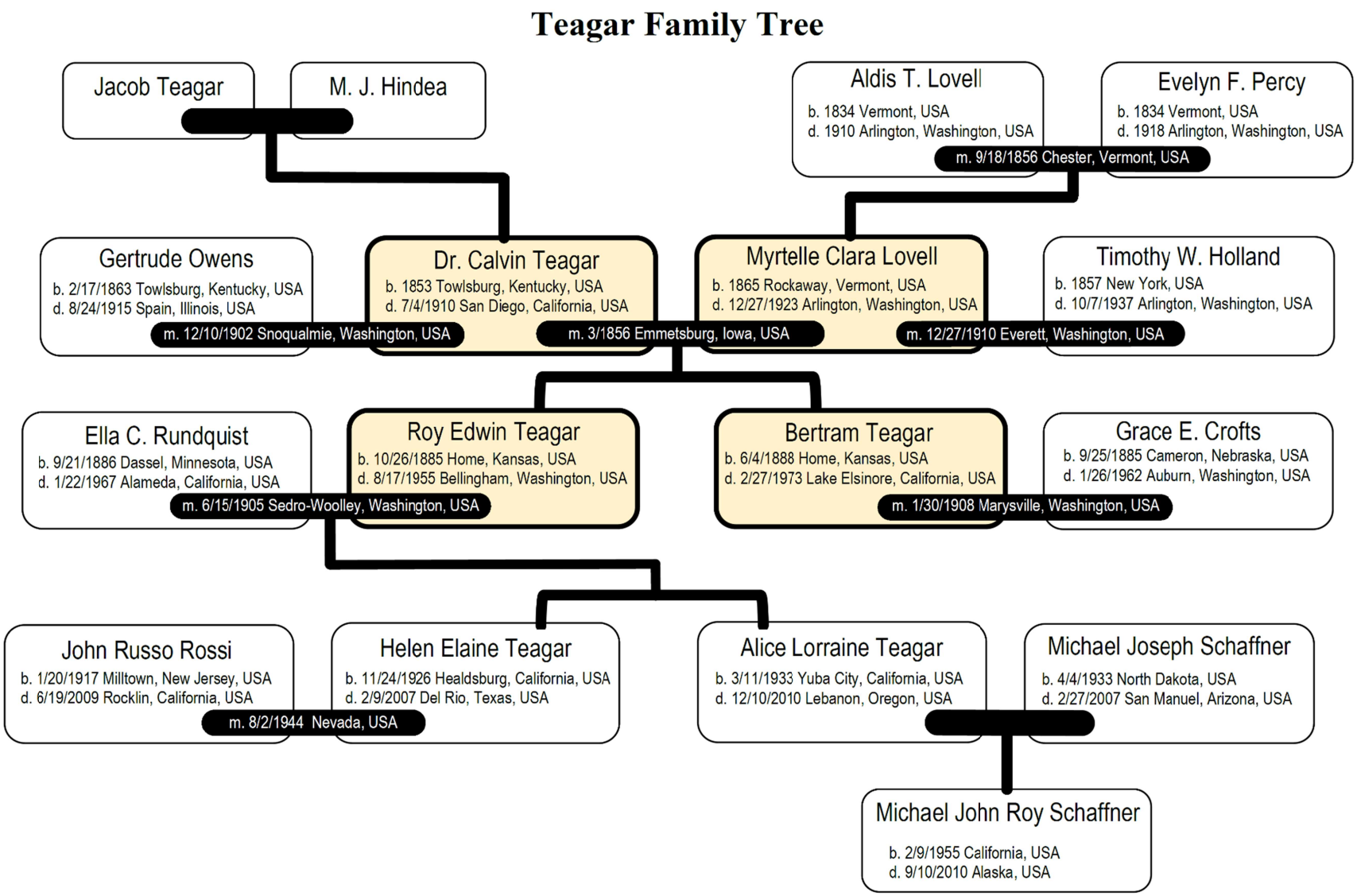

Figure C.1 Abridged family tree centered on Calvin Teagar and Myrtelle Teagar née Lovell.

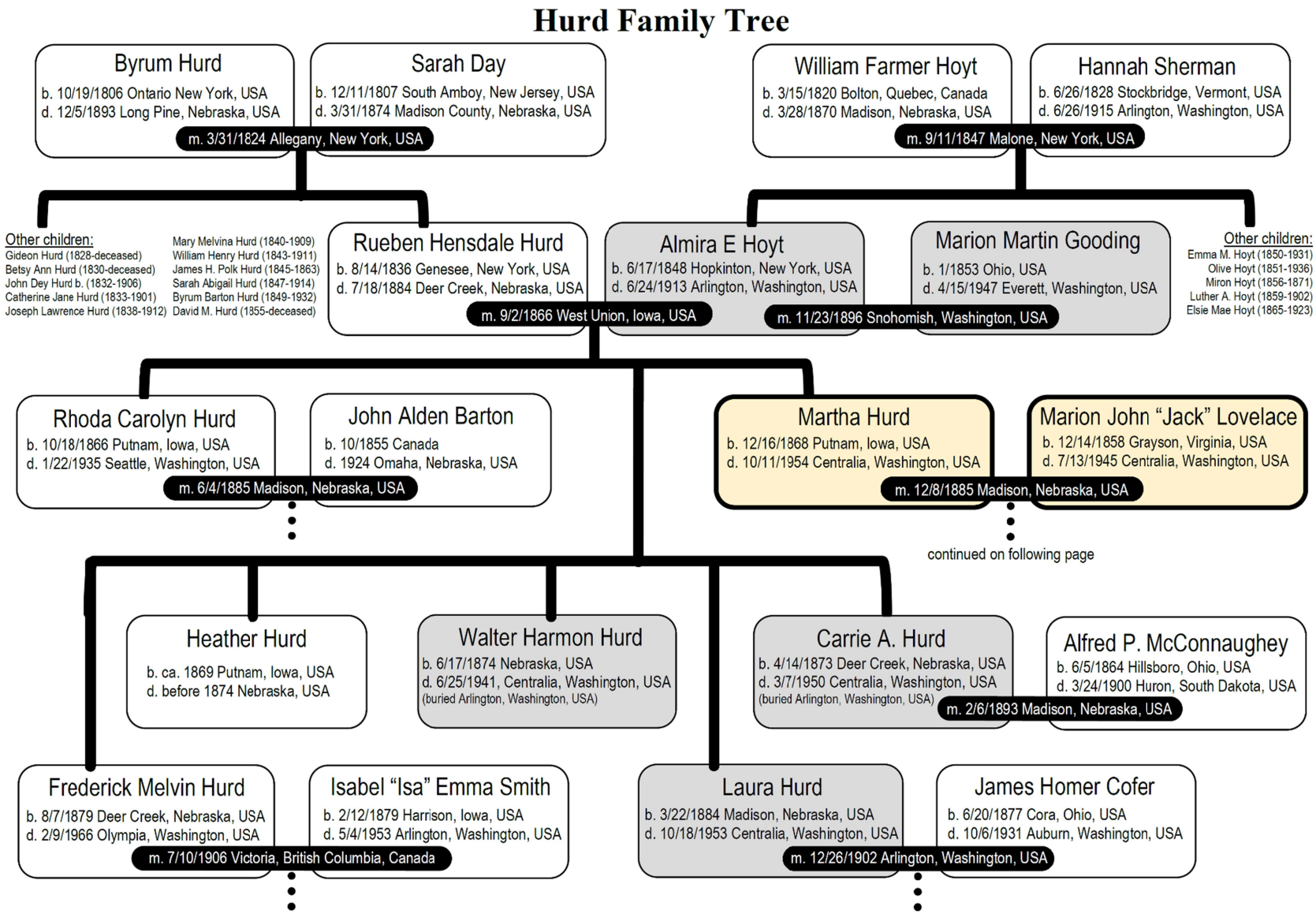

Figure C.2 Abridged family tree centered on Rueben Hurd and Almira Hurd née Hoyt.

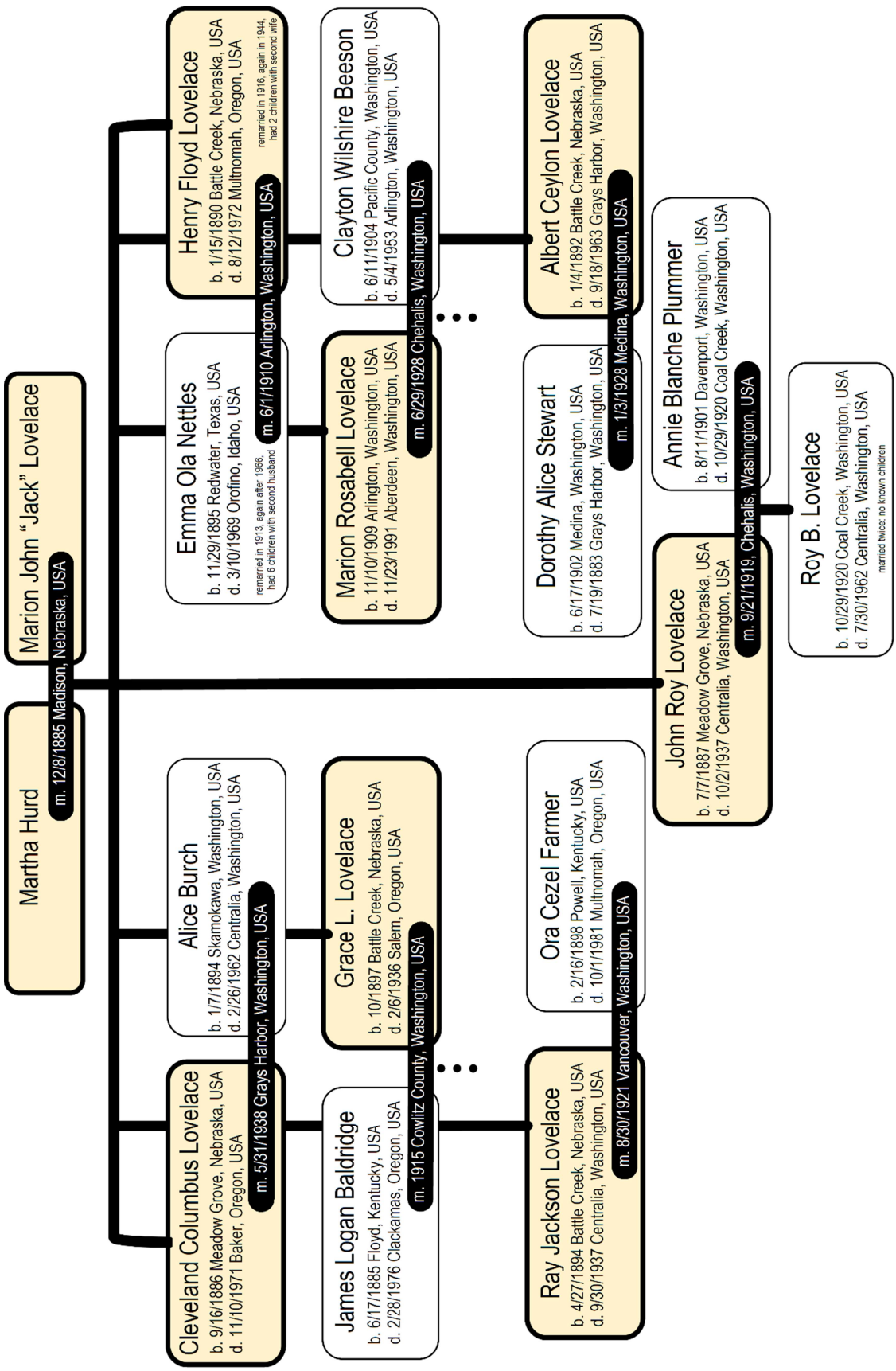

Figure C.3 Abridged family tree centered on Marion "Jack" Lovelace and Martha Lovelace née Hurd, continued from figure C.2.

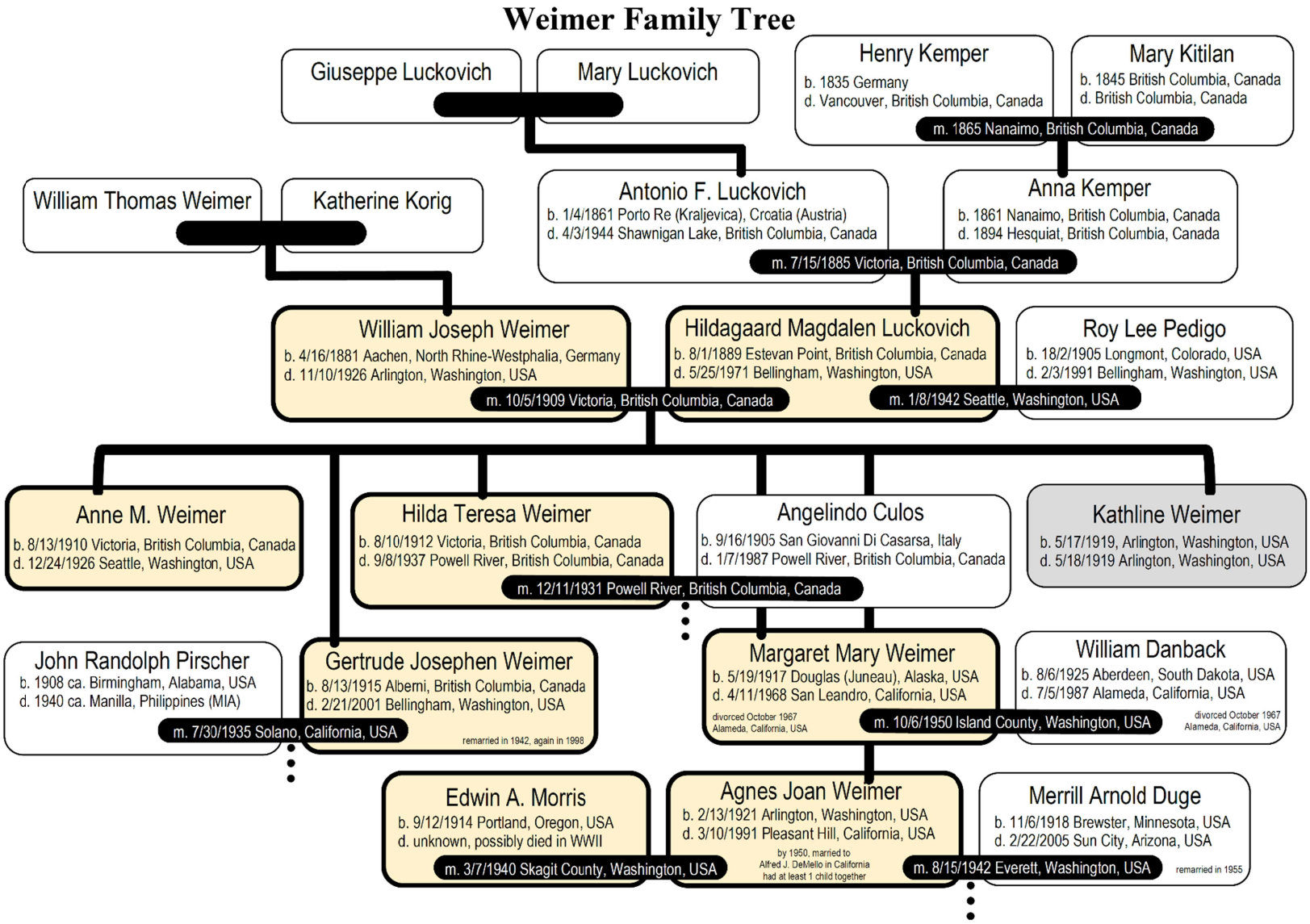

Figure C.4 Abridged family tree centered on William Joseph Weimer and Hildagaard Weimer née Luckovich.