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National Park Service Battlefield Preservation

It Takes a Village: Community Based Preservation of Revolutionary War Battlefields in New York State
Michael Jacobson, Brian Grills, and Nina Versaggi

Past conflicts continue to haunt us as previous struggles are imprinted materially and socially on landscapes of conflict, especially battlefields. Artifacts and features provide material evidence of the event, while the memories of descendants and descendant communities connect the struggles of the past to those of today. Memorials to these conflicts establish a material presence for ideologies shaping people’s perception of these past events. These memorials are a materialized voice in a continuing dialogue as communities and descendants struggle to develop a sense of place and maintain their connections to past events.

The dialogue related to these conflict sites is ongoing, and the research and preservation work related to them walks a tenuous line balancing multiple perspectives and interpretations of past events. To participate in conflict archaeology fully, researchers must develop methods for community engagement that acknowledge often emotionally and ideologically charged memories, and integrate these with the data acquired from historical and archaeological research. The archaeology of conflict should go beyond archival and field research to involve communities of descendants, and individuals, who often do not see the conflict as a distant event, but rather a livable memory.

Taking a pragmatic approach allows for such engagement in that it involves stakeholders as active partners and collaborators in the framing of research questions and interpretation of results. Pragmatism applies a conversational structure that questions and breaks down essentialist and foundational perspectives; instead basing understanding on the input of multiple stakeholders (Dewey 2004; McDavid 2002:305; Saitta 2007). The act of questioning, experimentation, and dialogue develops a new interpretation that aligns with a larger spectrum of the community. The process also ensures that no single stakeholder’s views dominate the interpretation. In such an approach, the archaeologist serves as a mediator for research and interpretation rather than as an apologist or advocate.

This paper presents two case studies in which we implemented such a pragmatic approach by having our historical and archaeological research serve as an arena for introducing and mediating discussions with stakeholders. Public meetings and informal conversations in the field served as a venue for stakeholders to assert their own interests and concerns in relation to our presentation of research questions, methods, and results. These open and collaborative conversations provided a setting for the discussions of preservation and memory. In our role as researchers and mediators, we asked stakeholders questions that not only aided our research, but also allowed them to voice their interests in the history of the conflict.

Case Studies

Binghamton University’s Public Archaeology Facility (PAF), with the support of the National Park Service’s American Battlefield Protection Program (ABPP), conducted research and advocacy for the preservation of the three Revolutionary War battlefields: Fort Anne, Newtown, and Chemung. The Battle Fort Anne was part of the 1777 Burgoyne Campaign while the Battles of Chemung and Newtown were associated with the 1779 Sullivan-Clinton campaign. These battles marked pivotal events not only for New York State’s involvement in the American Revolution, but the overall war itself. We see the path to preservation predicated on a balanced and inclusive history of the battles and their associated campaigns. We have attempted to use our research as a venue for stakeholders to voice their interests in these two campaigns, and to assist them with making their connections and perspectives visible, realizing that stakeholders tend to support preserving history if they see it representing their history. These perspectives enhance, and in some instances shape, the
interpretations of the campaigns while building local level support for the preservation of the battlefields’ landscapes.

This paper will present the historical background for the military campaigns, discuss stakeholder perspectives of the battles, and present our approach to community engagement that has informed and assisted the path to preservation for these nationally significant events. This discussion will also show the importance of both historical and current community context in the conversations on preservation. Preservationists need to consider audience as well as history in establishing their conversations. Discussions with stakeholders not only focus on the past event, but also relate to current issues, specifically property rights, economics, and the consequences Native American removal from home territories. As such, our research recognized the impacts of each battlefield’s multiple contexts. Overall, was the recognition that preservation is an ongoing process, not a single dimensional event requiring the engagement of multiple interested parties. Our discussion will start with the 1777 Battle of Fort Anne.

Fort Anne

In 1777, British Major General John Burgoyne attempted to divide New England from the other colonies in rebellion and bring to an end to the American Revolution. His plan involved a multi-pronged attack into present day New York State (Alden 1969:287-295; Cubbison 2012:178-186; Graymont 1972:114; Ketchum 1997:84; Luzader 2010:1-32; Scott 1927:62; Watt 2002:49-51; Williams 2005:50). Burgoyne led his main force through the Champlain and Hudson Valleys towards Albany, while Brigadier General Barry St. Leger led a force across the Mohawk Valley towards Albany. Burgoyne hoped Major General William Howe would aid him from New York City and advance up the southern Hudson River Valley. The result of such a campaign would cut off New England, including Boston, from the rest of the colonies and most likely force their submission.

At the beginning of his campaign, Burgoyne was successful in routing segments of the Continental Army. On June 30, 1777, he captured Crown Point (Ketchum 1997:162-163; Luzader 2010:45). The next week, the Continental Major General Arthur St. Clair abandoned Fort Ticonderoga to Burgoyne (Ketchum 1997:172-184; Luzader 2010:56). St. Clair presented no effective defense against the British; instead withdrawing from the fort during the night. Then on July 7, Burgoyne’s army defeated the main Continental Army withdrawing from Fort Ticonderoga at the Battle of Hubbardton (Ketchum 1997:194-207; Luzader 2010:60-67). By mid-July 1777, Burgoyne controlled the Champlain Valley and was on the verge of entering the Hudson River Valley. Up to this point, the Continentals could achieve only minimal resistance to Burgoyne’s army.

During the withdrawal from Fort Ticonderoga, St. Clair divided his Continental troops. He led the main army overland towards present day Vermont, while a second group composed of women, sick and injured soldiers, and guards under the command of New Hampshire’s Colonel Pierse Long withdrew to Skenesborough (Ketchum 1997:172-184). At Skenesborough, Long’s forces joined with a company of the Continental Army’s 3rd NH under the command of Captain James Gray (Gray 1777). The trip from Fort Ticonderoga to Skenesborough brought the Continentals across the southern portion of Lake Champlain; which also provided Burgoyne’s naval fleet a quick means for attacking the Continentals (Burgoyne 1780:Appendix XVII). Shortly after Long’s forces reached Skenesborough, Burgoyne’s ships arrived and commenced bombardment of the port (Thacher 1823:100). Facing cannon fire from Burgoyne’s ships and approaching land forces, Colonel Long ordered the destruction of the Continental Army’s baggage, supplies, and artillery before withdrawing to Fort Anne (Gray 1777).

The withdrawal to Fort Anne was not easy - the Continentals made slow progress along bad roads and a shallow creek throughout the night of July 6 into the morning of July 7. Long’s withdrawal to Fort Anne followed the military road from Skenesborough to Fort Anne while the women, sick, and injured soldiers took boats on Wood Creek. The military road running parallel to Wood Creek was in disrepair having received little
maintenance, and its bridges were destroyed (Burgoyn 1780: Appendix XVIII). Burgoyn dispatched 190 soldiers of the 9th Regiment of Foot to pursue the Continentals (Hagist 2004:39).

In the early hours of July 7, the Continental forces mounted an attack against the British that significantly paused their advance. The stand was a temporary one, but it allowed time for the rest of the Continental Army’s Northern Department under the command of Major General Philip Schuyler to concentrate its resources and troops to mount a more effective defense at Fort Edward and later Stillwater, New York (Hogeboom Pension 1818; Miller Pension 1832; Van Alstine Pension 1818; Van Rensselaer Pension 1818; Wittbeck Pension 1818).

The Battle of Fort Anne was composed of two skirmishes fought over two days and centered on what was later called Battle Hill. The hill was located approximately ¾ mile north of Fort Anne (Hagist 2004:39). On July 7, the 9th Regiment of Foot under Colonel John Hill established a camp to observe Fort Anne. That same day, Capt. Gray led a force to engage the British (Gray 1777). He started by attacking the British camp a half mile north of Fort Anne. The fighting occurred in an area of heavy woods and steep terrain. The British soldiers were unable to see the Continentals attacking them (Hagist 2004:39). Unable to withstand the Continental attack and obstructed by the woods, the British withdrew up the slope of Battle Hill. The Continentals returned to Fort Anne ending the first day of the battle.

On July 8, the Continentals returned to the base of Battle Hill and attacked again. On the summit of Battle Hill, the British established a long fighting line consisting of a single row of scattered British Regulars to prevent the Continentals from surrounding them (Hagist 2004:40). Aided by the steep slope, heavy fire prevented the Continentals from overwhelming the British position. By the afternoon both sides were running low on ammunition.

A war whoop from a British scout put an end to the battle. Captain John Money advanced towards Battle Hill with a contingent of Native American warriors. Seeing the fighting, the warriors abandoned Captain Money rather than join the battle. Alone, Captain Money let out a war whoop and created the impression that British reinforcements had arrived (Hagist 2004:40). With their ammunition running low and believing that Burgoyne came to reinforce the 9th Regiment, the Continentals withdrew from Battle Hill, and burned Fort Anne before withdrawing to Fort Edward (Gray 1777).

The Battle of Fort Anne allowed Gen. Schuyler of the Continental Army time to prepare a sustained strategy against Burgoyne. While the British were occupied at Fort Anne, he removed supplies from Fort George and Fort Anne (Van Rensselaer Pension 1818). He concentrated his forces at Fort Edward and made his way to Stillwater in preparation for Burgoyne’s advance. As Burgoyne advanced, he became more committed to following his campaign to the end. His supply line grew longer and his advance slowed as he invested more time in moving his supplies and artillery across the terrain of the Hudson Valley. Along the way, Schuyler’s forces destroyed and obstructed roads causing more delays (Ketchum 1997; Luzader 2010). Fort Anne became a turning point in Burgoyne’s campaign, slowing his momentum and leading to his defeat and surrender at Saratoga in October of 1777.

Fort Anne’s position in public memory has shaped its preservation. Overshadowed by other events related to Burgoyne’s Campaign, such as the Fall of Fort Ticonderoga, the Battles of Hubbardton and Bennington, and ultimately the Battles of Saratoga, historians and the public either have forgotten Fort Anne or relegated it as a footnote. Many descriptions of the battle refer to it as a one-day skirmish rather than recognizing the two days of heaving fighting that occurred there. This lack of memory continues in a newly updated roadside marker located approximately a half mile south of Battle Hill. Unfortunately, the marker erroneously continues the storyline that condensed this two-day engagement into a single day.

Locally, the Village of Fort Anne has continued to remember the battle since the end of the war. Fort Anne resident and Revolutionary War veteran, Daniel Weller, requested that he be buried within the battlefield in the event of his death in recognition of the battle. Maps dating back to 1853 referred to the location of
fighting as “Battle Hill”. In 1927, the State of New York and the Town of Fort Anne erected a bronze plaque on the side of Battle Hill along what today is US 4, a busy two-lane highway, north of the Village of Fort Ann. Yet, despite these early initiatives at commemorating the battle, it is largely forgotten.

The battle’s forgotten role in the Revolutionary War led to threats to its preservation. A proposed topsoil and granite mine on Battle Hill directly threatened erase the battle’s material presence. As the battle was not widely recognized, the granite mine quickly passed through the permitting process.

This situation changed when a small group of preservation-minded citizens came together to advocate for the preservation of their community’s Revolutionary War landscape. These preservation advocates consisting of the local historical society and the American Legion Post, none of whom had formal training in grant writing or administration of a research project, called for increased recognition of the battlefield and for reconsideration of the permits. New York’s Governor Cuomo stepped in the process and allowed time to conduct more research and evaluation of the battlefield. The Fort Anne community secured two successive ABPP grants, and contracted with the Public Archaeology Facility to accomplish their preservation goals.

Following the completion of fieldwork and reporting, the community made huge steps to place Battle Hill on the Path to Preservation. Our historical and archaeological research helped to determine the important role the Battle of Fort Anne had on the Burgoyne Campaign and the pristine condition of the battlefield. Using the results of this research, a joint effort by the American Legion Post, Fort Ann Historian, Civil War Trust, Town officials, and other advocates convinced the landowner/quarry operator to sell the land eliminating the immediate threat. Advocates continue to maintain a dialog within the local community to build pride in this significant part of local and national history. This effort resulted in more landowners inquiring about the process of creating a preservation easement or selling the property to the town. The Town, along with other stakeholders, are applying for grants to hire a preservation planner to assist in development of a long-term interpretive strategy, such as trail planning and informational signage. The citizens remain vigilant against continued attempts to impact their cultural resource to this day. Throughout the project, PAF recognized the importance of the local historical perspective and privileged their preservation goals in our research. The combination of independent professional research and community interests and advocacy achieved the common goal of preservation of this landscape of conflict.

Newtown and Chemung

Almost immediately following the end of the Sullivan-Clinton Campaign, audiences began fitting the campaign into larger contexts, connecting with both state and national struggles related to government relations with Native Americans and land claims. Today, the campaign is largely forgotten in the national memory of the American Revolution with historians debating its place in the larger Revolutionary war as either a failed attack on Native American sovereignty or a successful defense against British Allied Native American raids (Williams 2005). Yet, the campaign has maintained a local significance due to its enduring memory. In exhibits, state parks, monuments, and continued discussions among descendant communities, the campaign is one of the most commemorated historical events in New York State. Understanding the reasons why what some see as a marginal Revolutionary War campaign would merit such commemoration requires community engagement that incorporates the descendant communities’ memories into the dominant historical narrative.

Historical research has shown that by 1779, extensive raids on American settlements, mostly in the Mohawk Valley, were straining the Continental Army (Berleth 2010; Glatthaar and Martin 2007; Graymont 1972; Williams 2005). The attacks destroyed crops used to supply the Continental Army, and Continental soldiers abandoned the front lines to protect their farms. To counter these raids, General George Washington ordered Major General John Sullivan and Brigadier General James Clinton to conduct a campaign against the Crown Haudenosaunee (British allied Iroquois).
The expedition you are appointed to command is to be directed against the hostile tribes of the six nations of Indians, with their associates and adherents. The immediate objects are the total destruction [sic] and devastation of their settlements and the capture of as many prisoners of every age and sex as possible. It will be essential to ruin their crops now in the ground & prevent their planting more.... parties should be detached to lay waste all the settlements around, with instructions to do it in the most effectual manner, that the country may not be merely overrun but destroyed (Flick 1929c: 90-91).

The campaign consisted of Sullivan marching north from the Wyoming Valley, Clinton marching south and west along the Susquehanna River, and the two armies uniting before entering the Crown Haudenosaunee’s territory. Along the march, the Continental Army was ordered to destroy British allied Native American villages and crops.

Prior to the Revolution, the Haudenosaunee implemented a defensive strategy of positioning allies and refugee communities, such as the Delaware and Mesquakie, in areas that served as a buffer with colonists, thus protecting the core Nation territories (Cobb 2008; Jordan 2013). The villages of New Chemung and Newtown were both part of this system of strategically placed resettlements. Besides providing a defensive barrier protecting the Cayuga and Seneca cores, the villages also housed increasing numbers of Loyalist and Native American refugees coming from the east. Raiding parties used New Chemung as a base of operations for their raids, making these villages prominent targets for Continental troops.

On August 13, 1779, Gen. Sullivan’s forces destroyed the Village of New Chemung and successfully repelled an attempted ambush by British allied Delaware warriors (PAF 2011; 2014). After the destruction of New Chemung, the Seneca demanded that Loyalist Major John Butler’s Rangers along with British allied Native American warriors make a stand at Newtown to stop the Continental’s advance into Crown Haudenosaunee territory (Flick 1929a:282). Butler established a mile and half long defensive breastworks east of Newtown. Butler’s Rangers stood at the center while Mohawk and other Native American allies stood along the flanks of the defensive line in an attempt to halt the approaching Continental forces.

On August 29, 1779, the combined forces of Sullivan and Clinton’s troops engaged with Butler’s Rangers and his Native American allies at Newtown (PAF 2010; 2012; Williams 2005). Sullivan attempted to outflank and surround the Crown forces, but due to delays caused by the landscape, specifically wetlands, the Crown forces were able to withdraw following a short counterattack.

After Newtown, Sullivan and Clinton continued their march throughout the Finger Lakes region and parts of Western New York halting their advance in the Genesee Valley in late September 1779. The Crown Haudenosaunee offered little resistance, and sought refuge at the British Fort Niagara. In total, the campaign destroyed 40 Native American villages and associated fields. As Sullivan stated in his final report, “…I am well persuaded that, except one town situated near the Allegany, there is not a single town left in the country of the Five Nations” (Cook 1887:303).

The immediate view of the campaign from both sides was that it provided justification for American expansion rather than aiding Continental efforts in the American Revolution. Continental troops on the campaign noted the landscape’s potential for farming (Cook 1887:6, 97-98, 139, 151, 229; Flick 1929b:128; JSP 3:97, 100). New York State officials defined the region destroyed by Sullivan’s march as conquered territory. John Jay advised New York’s Governor George Clinton to establish posts within the region to lay claim to the territory (Morris 1975). Following the war, New York State and the Federal government established land grants in the region to compensate veterans for their service and to encourage settlement. In a 1790 letter to then President George Washington, Seneca Leaders, including Cornplanter, described the tenuous territorial relations between Native Americans and the Federal Government by stating, “When your army entered the Country of the Six Nations, we called you the Town-destroyer… When you gave us peace we called you father, because you promised to secure us in the possession of our Land. Do this and so long as the Land shall remain that beloved name shall live in the heart of every Seneca” (Graymont 1972:195).
Later remembrances of the campaign also recognized its role in territorial policies. At the commemoration of the Battle of Newtown’s centennial in 1879, General William T. Sherman spoke of the importance of Newtown. For Sherman, Newtown played an important role in the nation’s later expansionist policies, noting “Battles are not measured by their death-toll, but by their results, and it makes no difference whether one man was killed or five hundred, if the same result followed. This valley was opened to civilization; it came on the heels of General Sullivan’s army, and has gone on, and gone on until to-day” (Cook 1887:439). Sherman saw the Sullivan-Clinton Campaign as the start of an expansionist policy that led to the western Indian Wars of the late 19th century.

This struggle over territory continues today in individual memories of the Sullivan-Clinton Campaign. Descendants of the Native Americans who fought in the battles or lost their villages during the campaign suffered the loss of a physical connection with the territory of their ancestors. Many of the current families who are associated with the Newtown and Chemung Battlefields have a familial tie to the landscape dating back to the late 18th century when their Continental ancestors received veteran plots or purchased the land. A 1788 map (Hathorn and Contine 1788) of parcels given to Revolutionary War veterans in the vicinity of the Newtown battlefield displays the transition from Native American lands to United States territory. During a recent meeting and battlefield tour for Native American representatives, we visited one landowner who presented this map - not out of malice, but of pride in the long history of the community. Some of the Native Americans were overcome by the map’s symbolic representation of the loss of Native American territory. The juxtaposition of pride in community history, and loss of ancestral land drives our goal to balance each group’s interests and concerns for the interpretation and preservation of the battlefields’ landscapes. The pragmatic approach PAF followed provided a methodological guide for including and balancing various views in a successful preservation plan.

Integration is most prominent in our presentation of historical research. Prior to field excavations, we conducted historical reviews and archival research on the battles. As part of these studies, we asked Native American historians and scholars to discuss oral histories and their nations’ memories of the battles and the campaign. The inclusion of Native American memory moved beyond pure Section 106 consultation to active involvement in the research. We asked these scholars to write their own histories as sections of our report without our input or editing. It provided a direct voice for the Native American community.

Often, these narratives provided few details on the battlefield’s landscape. However, the Native American scholars offered powerful insights into the campaign’s effect on the Haudenosaunee. As noted by Peter Jemison, a Seneca Faithkeeper and participant in our project, “My personal research…has led me to a number of conclusions… Principle among those …is my conviction that the war between the British and Americans was about land – our land” (Jemison in PAF 2010:41). Further, Rick Hill, a Tuscarora from Six Nations in Canada stated, “…a new land rush took place that would eventually dispossess the Haudenosaunee of the majority of their land…the war cost the Haudenosaunee their territorial integrity and their political jurisdiction over a vast amount of land” (Hill in PAF 2011: 92). The Haudenosaunee survived what the 18th century Seneca Elder, Farmer’s Brother, called the Great Whirlwind, a term applied to the devastation caused by the Sullivan-Clinton Campaign. The raw emotions related to this devastation reverberates to this day.

Continued consultation, field meetings and conferences with Native Americans provided further insights. Native American consultants reiterated the social roles the clans had in political and military structures. They contributed thoughts on the relations between the Haudenosaunee and associated Nations, such as the Delaware. The social obligations between these groups provided a foundation for military defense of all the British allied Native Americans. One key aspect asserted by the Native American scholars was the refugee status of the residents of Villages of New Chemung and Newtown. The presence of refugee communities and the defense of Haudenosaunee homelands helps to explain why the Seneca and Cayuga demanded that the Loyalist Rangers support them in making a stand at Newtown.

Our fieldwork also served as a point of integration with the interests of landowners. PAF had a history of archaeological fieldwork around Newtown and Chemung dating to the 1970s. Our testing for Newtown and
Chemung continued this tradition of local fieldwork, and made us a near constant presence in the lives of landowners. We developed regular interaction and contact with them, and they offered their homes and churches as venues for local presentations. Landowners expressed their intense pride in local history at these meetings, and their strong interest in keeping the results of our research local, in the form of presentations and museum exhibits. Landowners also pushed us to expand our Newtown research to include the lesser known Battle of Chemung. They are committed to the recognition of Chemung with a National Register listing, and our research is advancing this effort. Finally, we conducted an archaeological field school on a post-Revolutionary War farmstead to answer questions that two landowners had about their pioneer ancestors’ use of the post-war landscape. Just as the inclusion of Native American perspectives in our reports provided them a voice in our interpretation of Newtown and Chemung, our excavation of sites with a familial connection with landowners helped to provide a material connection between the landowners and the landscape’s history.

The importance of recognizing, respecting, and balancing multiple perspectives is again illustrated by the reactions to the 1788 parcel map. The emotional reaction to that map, juxtaposed to the pride the landowner showed when he displayed it, could have derailed the conversation. However, due to the ultimate shared goal of preservation, the meeting ended with promise. The Delaware representatives stated their appreciation for the history of their communities at Newtown/Chemung that we uncovered. While they mourned the fact that they had lost their connection to this part of their history, a history that we knew more about than they did, they were thrilled to be able to now reconnect with this ancestral landscape. In fact, they are sending Delaware flags to the landowner, and he has agreed to fly them over the battlefield features on his land. This is a first step in healing the devastation created by the “Whirlwind” and reinterpreting the battlefield from a new perspective. Native Americans are also in discussions with New York State to try to find a way to restart the now defunct annual reenactment and commemoration of the Battle of Newtown. A formerly one-sided commemoration could become a performance of a shared memory, which will hopefully lead to a unified momentum for the preservation of the Newtown and Chemung battlefields. While landowners act to preserve the physical landscape, Native Americans are asserting their role in interpreting the history of the campaign by proposing new texts and media for future signage. PAF has been approached by the Delaware Nation to help them secure funding for new marker with text written by the Nation. As mediator, our research results provided a platform for collaborations that balanced stakeholder interests, thus producing stronger integrated efforts to aid future preservation plans.

CONCLUSION

In these examples, we have shown that although these battles may be absent from a larger discussion and memory of the American Revolution, they are present in the memories of local communities and descendant communities. For Fort Anne, the local memory of the Battle of Fort Anne founds local identity. The threat to the battlefield’s preservation also presented a threat to this identity. For Native American descendant communities, the Battles of Chemung and Newtown represent a loss of identity and connection to place. The battles also frame discussions between them and the state and federal governments. For landowners and descendants of the early white settlers, Newtown and Chemung marked a sense of identity in the formation of their current community. Although both groups had the same goal of preserving Newtown and Chemung, their reasons for doing so were not the same. Moving beyond preservation to interpretation requires mediation.

For these various stakeholder groups, the landscape offers a material presence of pride and/or trauma that may not be reflected in the larger narrative or memorialization of these spaces. By moving beyond traditional historical and archaeological research and taking part in true engagement with various stakeholder communities, we worked to develop a more inclusive interpretation of these battlefield landscapes that also serves the needs of these local communities.

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Memory & Legacy

Healing Heritage Through Decolonization in Indigenous New England
Seaboard Museums The Mashpee Wampanoag Museum: Identity, Pre- and Post-War
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Introduction

The Mashpee Wampanoag community has long been at war for their identity. It began with one of the last wars the British colonizers waged on Native communities in the Northeast: King Philip’s War. Seeking to impose their own religion, culture, and government, the British started to create transgressions committed by Native Americans, until tensions were high enough to declare war. Both sides suffered losses, but it wasn’t until devastating diseases brought by the colonizers dramatically thinned out local Native communities that the tide began to turn in favor of the British. For many historians, like Colin G. Calloway, the end of the war was decided when the Mashpee Wampanoag sachem Metacomet (known in English as King Philip) was ambushed, killed, and cut to pieces by Captain Benjamin Church, which Calloway details in the introduction to his book After King Philip’s War: Presence and Persistence in Indian New England (1997). This was the end of the Mashpee Wampanoag’s pre-colonial way of life, and the beginning of creating a new identity in a colonized world. Literal war faded away, though its effects are still strongly felt, and a new type of war began: the kind done in courtrooms and in public.

The Mashpee Wampanoag were certainly not ready to give up their personhood to the settlers, and so began the battles for their land and ability to govern themselves. After the war, the community scattered to various places in Rhode Island and Massachusetts, with the majority settling in Mashpee, on Cape Cod, where the museum and this particular community is located. Mashpee was a haven, a refugee settlement for displaced Natives from all over New England who had lost their own homes and communities, as well as for freed or runaway African slaves. In the beginning they staked a claim on quite a large piece of land, but as time went on more and more of their land was taken surreptitiously by English settlers, who felt the community did not deserve it. As the Mashpee leaders struggled to make their voices heard, they also found themselves having to deal with a legal system that was so different from their own, especially in regards to ownership. According to original documents detailed in American Indian Non-Fiction: An Anthology of Writings, 1760s-1930s, edited by Bernd C. Peyer, the Mashpee Wampanoag were battling via this system to keep their land as early as 1665, but were consistently defeated by settlers. Finally, in 1763, Massachusetts declared Mashpee a “plantation,” or modern-day reservation, in order to placate them by giving them their “own” land. The court even allowed the community to appoint their own leaders—but they were overseen by settlers who ultimately made all the decisions. Again, the Mashpee Wampanoag identity was being forced to adjust itself to a new world. They were being forced to participate within settler demands, demands of their sense of self and their sense of the world around them.

The legal war was on. Until 1834, the Mashpee Wampanoag fought in court, argued with settler neighbors, and demanded to be seen as a people with their own autonomy. The state feared revolution and another literal war. A cause was taken up, the Mashpee Wampanoag drafted a formal protest, many went to jail, and in 1870, the Mashpee Wampanoag were finally allowed to govern themselves, and given the town of Mashpee. The battle was won, but the war for their identity was not over. The final battle was the eminent 1977 court case Mashpee Tribe v. New Seabury et al., which anthropologist James Clifford wrote about in “Identity in Mashpee,” a chapter of his book The Predicament of Culture (1988). The case was an effort by the Mashpee community to prove that they were a tribe, and the state to prove they were not. Clifford presents the various testimonies, evidence, and histories used to show how “tribe” was being defined by each side and what
was going into the construction of the Mashpee Native identity (or lack thereof). Use of modern culture versus traditional ways was the main defining issue, with the state believing that because the community has used modern medicine, wore modern clothes, and ate modern food meant that they were not still Native. But how could they not use these modern amenities, after their traditional ways were eradicated in a vicious war and this “modernity” imposed on them?

The jury ultimately ruled “no,” that the Mashpee Natives had not existed as a continuous tribe, but Clifford argues that even though they assimilated into European culture in a variety of ways and that they lacked a specific (to the colonizers) central government for some time, this did not mean they weren’t Native, or that they had lost their Native identity. Although, through the evidence and testimonies presented in the case, it is difficult to confirm what exactly does makes the community a tribe, it is undeniable that the narrative Clifford constructs fully accepts that the community has a separate and unique identity as Native. Ultimately, he makes the reader believe that there is something about the community that gives them a valid and undeniable “Native-ness.” Their situation may be unique, but the questions aren’t. These questions ask what it really means to not just be Mashpee Wampanoag, but to be Native, and it’s a question a lot of Native communities struggle with.

**Cultural Essentialism**

Native people, and specifically the Mashpee Wampanoag, have to contend with a heritage and history that has been largely wiped out, not only through the genocide of their people, but also through the deliberate destruction of their homes, land, cultural objects, cultural rituals, and language. They also have to connect that with a modern, colonized identity (including homes, land, objects, rituals, and language) that has been forced on them. The answers to the questions presented in the trial and Clifford’s work is long and complicated at best, but heavily features Stuart Hall’s and Mary Lawlor’s definition of “cultural essentialism.” In the introduction to her book *Public Native America: Tribal Self-Representation in Casinos, Museums, and Powwows*, Mary Lawlor summarizes Stuart Hall’s theory that “cultural essentialism in communal self-representation can function as...a grounded reference that might be remembered and deployed to renegotiate identity in the midst of the dramatically altering effects of colonialism.” Here Lawlor is defining “cultural essentialism” as a strategy that colonized peoples use to represent themselves that both recognizes and dismisses stereotypes about them.

Cultural essentialism is when a community acknowledges the symbolizers that are recognized by the rest of the world and the inaccurate portrayals or interpretations of those symbolizers. For Natives this may include things like tipis, war bonnets, rain dances, moccasins and the like. All of these objects and activities are actually part of one Native community or another, but they are not pan-Indian. Nor are they always used in the way films or novels portray them as being used. Cultural essentialism allows for Natives to acknowledge that these are indeed parts of some of their communities, while also acknowledging that that is not the whole truth and that they have different or wider stories to share about these symbolizers, on their own terms. Lawlor goes on to summarize Hall as saying that “this is the moment of decolonization...when history begins...to be produced by [marginalized peoples] in various forms of self-representation” (Lawlor 2006, 12). By representing their homes--whether tipis or wigwams--and other aspects of their culture in places like museums, they are taking control of their narrative. It also includes concepts of power, of tradition and preservation, and of stereotypes. In this case, the museum is a tiny cornerstone of a much larger discussion. In the Mashpee Wampanoag museum, there are three main sections of the museum, each representing a different time: life before colonialism (what little they have left after the war), life during colonialism, and life (ostensibly) after colonialism. All of these time periods are essential to understanding the identity of the Mashpee Wampanoag, what made them a people, a community, and “legitimate.”

According to Clifford, the state of Massachusetts believed that “there never had been an Indian tribe in Mashpee. The community was a creation of the colonial encounter, a collection of disparate Indians and other minorities...Mashpee was originally an artificial community, never a tribe. It was created from Indian survivors in an area between the traditional sachemdoms of Manomet and Nauset,” citing the way the community was made up of refugees, who had lost their home, original community, and way of life (Clifford 1988, 294-295).
It’s true that the Mashpee Wampanoag could not necessarily be defined in terms of bloodline, which Clifford says is “a debatable measure of identity” because using “quotas for determining ‘tribal’ status is always a problematic exercise” (Clifford 1988, 306). Instead, they existed as a community in a more complex but perhaps more connected way, even though it included people from other Native communities, African freedmen, and even some white settlers. This, the state could not understand. According to the Mashpee Wampanoag community in testimonies during the trial, “the residents of Mashpee had managed to keep alive a core of Indian identity over three centuries against enormous odds. They had done so in supple, sometimes surreptitious ways, always attempting to control, not reject outside influences” (Clifford 1988, 302). In order to survive next door to a people that had just finished waging war on them in order to wipe them out, the community had become more like their non-Native neighbors and enemies, in order to avoid persecution. That is to say, they had become more modern, more colonized, and in the eyes of many, less Native.

During the trial, various community members were asked about use of modern medicine, eating “non-traditional” foods, and how they participated in Native rituals such as powwows. The speakers maintained that even though they used modern technology and other colonized amenities, they were still Native. This is where the issue of cultural essentialism becomes more complicated. What the court was asking is if this assimilation and lack of confirmation to their own traditions (sometimes stereotypes) meant that they were no longer Native. As Clifford points out, it was more than just the color of their skin, since the community ranged from very pale to very dark because of intermarriages into the African-American community (who were also seeking to escape persecution) and the local white community. It was a question of heritage; not just bloodline, or use of material objects, but the question of a continued connection to the past and to each other in the present. In Clifford’s writings it’s clear that he believes, yes, this heritage and thus tribal status does exist. But the court ultimately ruled no. Specifically, the government of Massachusetts did not believe that the Mashpee community had existed continuously as unified, Native, and whole.

**The Museum**

The Mashpee Wampanoag museum is unique. It presents a very contained insight into some bits and pieces of their community and is clearly intended to be an overview rather than in-depth. It had some baskets and pots, an exhibit on Mashpee Wampanoag whalers, a recreation of part of the museum when it was the house of a prominent community member in the 1800s, and a timeline of Mashpee Wampanoag leaders beginning when the British arrived, which only briefly mentioned Metacomet. The small size and bareness of the museum suggest just how much was lost in the war, including objects, but also including wider, less physical, history and identity. When I asked my guide, Mother Bear, who the museum was for she answered that it was for outsiders and that the community has their own “cultural things for kids” (personal communication, 2016). Unlike other Native museums, such as the Tantaquidgeon Museum of the Mohegan community, the Tomaquag Museum of the Narragansett community, and the Mashantucket Pequot Museum, this museum is not necessarily supposed to be a place where both Natives and non-Natives could come to learn about the community history. Instead it’s a place for outsiders.

The exhibits clearly demonstrated the communities long-standing traditions, such as displays of basket weaving, pottery, wigwam and a *mishoon* (canoe). It also emphasized that the community was never completely wiped out in war, but continued to exist through colonialism and into the modern day. A whaling exhibit shows that they participated in “non-traditional” activities (whether voluntary or coerced) and a recreation of an early 1800s living room that belonged to a prominent Native community member shows how they existed in (relatively) modern America, just as any other normal American citizen. The museum clearly shows the adaptation that was argued in the court case. A mannequin at the front of the museum, I think, was the clearest representation of this, wearing both buckskin and a Mashpee Wampanoag Museum t-shirt. As Clifford says, “One can be fully a[n American] citizen and fully an Indian” (Clifford 1988, 306). It shows how this community--like all Native communities--exists in two worlds. Mario A. Caro elaborates on this when he writes in *The National Museum of the American Indian: Critical Conversations*, “The case of Native American visitors is also one that often produces a complicated response to the question of national identity. A Native individual may negotiate between a national identification based on tribal or cultural affiliation, which itself may be multiple, and an identification aligned with U.S. nationalism” (Caro 2008, 431). There are examples of
This the other museums mentioned above as well. The Tantaquidgeon Museum features America-themed regalia, and the Mashantucket Pequot Museum has wax figures who are shown wearing Civil War military uniforms and living in trailer homes. The Tomaquag museum also has a large exhibit called “The Pursuit of Happiness: An Indigenous View,” which highlights their presence in the modern world and their attempt to hold onto and construct their identity within it.

CONCLUSION

On the first wall, on the right, are two glass cases with scrimshaw, a pottery bowl, a blubber knife, and ceramic dolls. There is also a miniature sleigh made from a whale mouth—a gift from the Inupiat Heritage center. Next to this is a huge panel that lists all the names of the Natives from the community that were conscripted onto whaling ships, along with some maps and photographs of some of the men listed. At the back of the room, on the second wall, are harpoons and a model ship, and binders that feature profiles of some of the men who were conscripted. On the third wall is a large panel, with a map that shows places around the world where some of these Native sailors went on their voyages.

We turn the corner again into a living room that is a recreation of what it might have looked like when Mabel (Nakoomis) Avant owned the home. Dark wood pieces line the room, topped with photographs, some of which were clearly very old and some from only a decade or so ago. Dolls of all shapes and sizes cover the piano and cabinet. They are made of cloth and while they feature traditional outfits, they are clearly modern. A small TV on a stand sits in front of an unlit fireplace. On the wall nearest the door to the whaling exhibit is a tapestry, which—from the bottom up—features a row of either snakes or worms, a row of turtles, then a row of fish, then sideways tear drops, then dots, then frogs, then plants with red berries, then a row of golf holes with flags and a gold ball. Above black lettering on the wall clarifies that this is “a multi-media work of art depicting the evolution of the town of Mashpee.”

Mother Bear takes me back through the whaling exhibit and out the back door, to a wigwam. A mishoon (or canoe) sits a little bit past it, up the hill. The wigwam consists of traditional wooden supports and bark walls, with a fire pit in the center, a bench all around the inside covered in furs, and hung with beaded jewelry and bows and arrows hung along the walls. Mother Bear points out the canvas also hanging from the walls and ceiling, noting that that is a modern addition and not traditional. We don’t climb up to get a closer look at the mishoon, but she tells me that it was built in the traditional way, by setting a hot, slow-burning fire on top of half a log and scraping away the coals, a process that takes months. Mother Bear answers a few questions and tells me about some of the values of the community (like why they don’t have jails or eat animals that eat other animals) and then goes back inside, while I take some time to explore the museum on my own. As I walk back into the parking lot, a Native family pulls up in a suburban van, with dreamcatcher decals on the back in bright colors. The kids jump out in flip-flops and tank tops and make for the museum while a young woman in a hot pink shirt attempts to corral them. There is no other sound except for the whine of cicadas.

This represents one of the most important facets of Indigenous museums: that they participate in and are part of contemporary, colonized, American culture—even though it is a culture that wanted them dead for so long (and in many ways still does). For many non-Natives, who believe that Natives either always have to be “traditional” or died out, this duality is difficult to grasp. Indigenous museums resist this through the very fact that they are museums, even if that in and of itself is a European creation. This, itself, is a representation of this duality. The museum that is most commonly seen and understood in the present day was created and controlled by the dominant, white Europeans for a very long time. According to Karen Coody Cooper in her article “Have you been to an Ethnic-Specific Museum?” European museums “like to amass material wealth (creating collections of objects), compartmentalize objects, study them, and seek to preserve them at great cost and effort” (Cooper 2000, 12). They was primarily meant to collect (and display) the material culture of others, including, but not limited to, Native Americans. In fact, according to Amy Lonetree in her book Decolonizing Museums, “In the late nineteenth and early twentieth centuries, many anthropologists made their careers on systematically collecting American Indian material culture” often in disregard for the actual, living communities that still used those materials—or recently slaughtered communities that would probably not have
agreed with those materials being taken by settlers (Lonetree, 2012, 9). The subversion of this is part of what makes Native museums so powerful and so interesting. Although many European museums are used to represent various European nations and cultures, they are an indulgent addition to an already vast representation of culture and power in everyday life. For Native Americans, museums are often the only representation of their nation and culture that they have personal control over. They are also often the only way non-Natives can find personal introduction to these communities.

By taking a modern, imperial invention and using it for themselves, Natives can use cultural essentialism to define themselves on their own terms. George P. Horse Capture says:

We must recognize and preserve the traditional while at the same time contending with the changing social environment of the contemporary world. And these two perspectives must be integrated within the Indian community. When this is achieved, the museum will no longer be an “institution,” but will merge into the continuing culture and become part of it. Such a new, total community can turn the tide of cultural erosion and save our “Indianness” for ourselves and for the world (Horse Capture 1981, 134).

This “Indianness” is the same idea of cultural essentialism that has threaded its way through this entire paper, defined in Chapter 2. Museums help these communities retain their “Indianness” by giving them a place to preserve and revel in their past, while presenting them as a contemporary people that exist in the modern day alongside other Americans.

I also believe that Horse Capture is saying that museums are only the first step for Native communities. Despite the good they do, they still put the communities on display for people who may have had no introduction to this history or these cultures at all. And that’s not an ideal situation. Ideally these communities should be fully recognized and understood, and their history and heritage honored and respected. Museums give them a chance to represent themselves, which makes them powerful and in control of their own story and this is incredibly important. But this should not be visitors’ only introduction to Native communities. In addition, the community should know its own history and traditions and be able to celebrate these within the community (as well as with outsiders). This celebration is an act of doing that I believe is ultimately more important and powerful than the museums’ act of showing. This is what I believe Horse Capture means when he talks about the “total community” that Natives strive for when they employ the museum.

Specifically looking at the case of the Mashpee Wampanoag, it’s clear that there is something that binds Natives and Native communities together that is something other than physical objects, practices, traditions, or blood relation. Something that cannot be taken, even in war. Lawlor’s definition of cultural essentialism takes the first step towards defining identity and this is represented in museums. It’s clear that there is something else that is simply undefinable about this relationship. It has much to do with Anthropology’s basic concept of “meaning making,” or understanding the world in a specific, shared way within the community. However, I don’t believe this is the full answer either, because of the way Natives have assimilated (or been forced to assimilate) into American-European ways of making meaning. The question of identity always depends on who is asking. As Clifford says, “Although tribal status and Indian identity have long been vague and politically constituted, not just anyone with some native blood or claim to adoption or shared tradition can be an Indian; and not just any Native American group can decide to be a tribe and sue for lost collective lands...Powerful ways of looking thus [become] inescapably problematic” when considering the “authenticity” of a Native community or individual (Clifford, 1988: 289, emphasis original). As Clifford points it out, it is something more than just blood relation or knowledge of a tradition or practice. It’s about something that’s shared on a very deep level.

This connection is something that anthropologists have been seeking to understand since the beginning of their practice and their collection of these community’s objects. Quite frankly, I don’t believe this is something that can be understood from an etic perspective. Rather it’s something that exists deep inside the psyche of members of these communities. Anita Fowler, director of the Tantaquidgeon museum, talked to me about a “deeper level” of connection that Natives feel to activities like making baskets and going to or participating in powwows. It’s something these communities grow up with and she said this sense of
community, of participation, of belonging, something in the subconscious (personal communication, 2016). Museums can give non-Natives a surface insight into this bond and museums can give Natives a starting point to access and learn about this subconscious connection, but ultimately it’s not something non-Natives have access to. Museums serve their purpose in this way, but ultimately there is something that exists that makes these people Native that is simply undefinable. Museums have attempted to capture this, first through foreign hands and now through Indigenous hands, yet it remains elusive.

Identity in a world that doesn’t want you and did everything it could to eradicate you is difficult to say the least. The work of Native American museums such as the Mashpee Wampanoag shows that these communities stand in defiance. These museums demonstrate--literally and figuratively--the past, present, and future of these communities. Not only are they still here, they intend to be here for a long time, and they draw on their rich cultural history (what they have left of it) to inform their place in this world. Using this heritage enables them to claim identity on their own terms, instead of having it pressed on them by non-Natives and stereotypical media, or even by European museums. By taking an institution that was “an institutional tool of culture that quite possibly could serve as the fourth major force of colonization after guns, God, and government,” as Amanda Cobb, Chickasaw Native and author of several important works on Native American museums says, Indigenous people are starting to win the war.

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INTRODUCTION

The topic of battle disposal practices is, generally, not one that has received much attention from historians. They have tended to focus, instead, on the tactics or political consequences of a battle. Archaeologists, too, still have a fairly poor understanding of battle disposal practices: only two battles of this period in Britain have fairly well attested battle burials (the fifteenth-century battles Towton and Stoke), and most of these were found accidentally. The purpose of this research was to look at what the historical sources said about how the dead were disposed of after battle by the English in fifteenth to seventeenth-century Britain. The understanding gained from the historical record was then applied to the archaeology, to see what implications it might have for the understanding and interpretation of the archaeology, and vice versa. Did the historical sources, for example, attest to practices for which there is no archaeological evidence, or might they propose an alternative interpretation for the form and nature of some of the battle mass graves already found? It was hoped that this interdisciplinary approach would deepen our understanding of battle disposal practices both historically and archaeologically.

Although many military histories make some reference to the disposal of the dead at specific battles, very little research has been done that focuses on battle disposal practices as a topic of study in their own right. For the fourteenth and fifteenth centuries, the only work of any substance (and even this is only a preliminary survey) is an article by Curry and Foard, which briefly looks at the evidence for the disposal of the dead at a few battles and proposes a few ideas for what the evidence might mean as a way of setting the scene for future research. They argue that, because of the unusually large number of bodies requiring disposal, battles are likely to lead to unusual forms of disposal, although they also observe instances where individuals, particularly the high-status, were buried according to standard practice (that is, they were buried in the grounds of a church). They also observe how high-status men during the Hundred Years War (1337-1453) could be taken some distance so that they could be buried in their home churches, while others might be buried in churches closer to the battlefield. However, these cases either relate to Frenchmen or Englishmen fighting in France, and it is unclear whether English disposal practices would have been different when fighting abroad and when fighting on home soil.

Research into battle disposal practices in the sixteenth century is similarly lacking: there is only a single, small-scale study looking into the ways in which the dead were treated during the Anglo-Irish conflict called the Nine Years’ War (1593-1603). Even this article is not wholly relevant, however, as it documents disposal practices of the English in Ireland rather than in England, Scotland or Wales (which are the countries this study focuses on) and, as already noted, it cannot be assumed that English battle disposal practices were the same


3 Ibid., pp. 64-5.


when they were fighting different opponents or when they were abroad. There are more works for seventeenth-century battle disposal practices, especially the British Civil War (1642-51). A major issue of these, however, is that they cover disposal practices of all types of conflict in the Civil War, including skirmishes and sieges, without differentiating between the types. This is problematic as it is possible that practices changed between different types of conflict, but the fact that the evidence has been combined in these studies makes it difficult to distinguish if that was the case. Overall, they argue that officers might have expected to receive a normal church burial, but because of the large numbers of dead this may not have been the case for the common soldiers, who were sometimes buried on the battlefield.

As for the methodology of this study, there would have been too much historical material to look at all documents which related to the disposal of the dead in this period, so the research focused on battle accounts. All of the battles that the English fought in Britain in this period were studied, and these were established using Foard’s Fields of Conflict database. The battle accounts were found from a survey of the secondary literature on each battle. Each account was then read, the relevant information extracted and entered into a table from where the examples were compared and contrasted and conclusions about the evidence formed. The battles were studied in three groups: pre-Reformation, transitional and post-Reformation, periods that were defined for the purposes of this study as 1400-1513, 1514-1639 and 1640-1700, respectively. It was decided to split the battles by date into those fought before, during and after the Reformation as one of the aims of the research was to see if the religious Reformation of the sixteenth-century had any impact on battle disposal practices. Therefore, by studying the battles from before, during and after the Reformation separately, it was hoped that we would be able to observe any changes. In total, the accounts from 67 battles were studied, of which there were 25 in the pre-Reformation period, 9 in the transitional period and 33 in the post-Reformation period.

Some quantitative analysis was also conducted on the battle accounts, in order to gain a better understanding of the sources themselves. The aim was to see, for example, if a certain type of source, such as letters or biographies, or those sources written within a week of a battle were significantly more likely to mention the disposal of the dead than others, such as chronicles or those written twenty years later. This was achieved by classifying the sources into different categories of analysis that covered the type of source they were, when they were written and whether they were written by an eye-witness or second hand author. The number in each group was counted, and the total recorded, and then each group was further divided into whether or not they mentioned the disposal of the dead and each of those totals recorded. These totals were then converted to percentages, which allowed the different groups to be compared, looking for significant or unexpected results.

QUANTITATIVE ANALYSIS RESULTS

One of the first things to stand out from the quantitative analysis was just how few battle accounts actually mentioned the topic of the disposal of the dead. For each of the three groups of battle under study (pre-Reformation, transitional and post-Reformation), less than 15% of the sources studied referred to the disposal of the dead (Figure 1). The proportion of each of the three main groups that did mention the dead was also very consistent, ranging only between 12.0% (36/300) and 14.6% (48/330). This was particularly surprising given that the types of battle account studied for each of the three periods was substantially different. The most common type of source studied for the pre-Reformation period were second-hand, chronicles and accounts that were written over fifty years after the battle they described, whereas for the post-Reformation period, the most common were eye-witness accounts, most often in the form of letters that were written within a week of the

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7 Atherton, pp. 1-4, 6; Donagan,, pp. 129-31. Please note, the page reference numbers for Atherton relate to a draft he was kind enough to send the author, rather than the page numbers in the published book chapter.
battle they described. This suggests that the general nature of a source did not have a significant impact on whether or not they mentioned the dead, otherwise we would have expected less consistency across the three periods; instead, it suggests that it was the individual interests, knowledge and purpose of a writer that led them to mention the topic.

![Figure 1. The number of sources that refer to the disposal of the dead, by period](image)

The relatively low proportion of sources that mentioned the disposal of the dead suggests that contemporaries were not particularly interested in the topic. This point is supported by the fact that almost half of the post-Reformation sources that mentioned the disposal of the dead only did so incidentally. The seventeenth-century antiquarian William Dugdale wrote in relation to the battle of Edgehill (1642), for example, that ‘upon strict enquiry from the adjacent Inhabitants, who buried the Bodies…it appears that there were not one thousand complete there interred’. Dugdale’s interest was not what had happened to the bodies, instead he used that information to find out how many had died, which was his true interest. The other sources that referred to the dead incidentally did the same thing, using the number of bodies buried to verify how many combatants were killed, as such information was useful for determining who had won, the state of an army following a battle and the extent of a military victory.

**MEANS OF DISPOSAL**

This section will look at the evidence for how the dead were disposed of: were they buried, cremated, left unburied? The majority of sources (115/132) referred to the burial of the dead (Figure 2). It has already been noted, however, that the sources were generally disinterested in the dead. This is relevant here, as it means that those instances where the disposal of the dead was mentioned may have been because what happened was unusual or exceptional (which would have made it of particular interest to contemporaries and worth writing down). Therefore, it cannot be assumed that simply because the majority of the sources mentioned a particular type of disposal that that was the normative, expected practice. This means that we must analyse what the sources say and how they say it, to determine what was normal and expected and what was not. When the sources that describe the burial of the dead are studied, it becomes clear that burial was the way that contemporaries expected the dead to be disposed of in all three periods. At the battle of Bryn Glas (1402), for example, multiple sources note how the victors after the battle ‘refused to allow the bodies to be given up

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for burial without payment of a large ransom’. The fact that the victors tried to extract a ransom for burying the dead implies that burial was the expected, normal way to dispose of the battle dead, and that people were desperate enough to obtain it that they might even pay money. For the post-Reformation period, one source noted that ‘about 50 common Souldiers [were killed at the battle of Naseby, 1645], as neer as can be present guessed until they come to bury the dead’, again implying that they had assumed the dead would be buried, most likely as it was the normal practice. That the battle dead were buried is not at all surprising as those who died under normal circumstances were also buried throughout these periods, although in normal instances the dead would have been given a Christian burial in the consecrated ground of a church.

Figure 2. The number of sources that describe the dead being buried compared to the number that describe an alternative means of disposal, by period

Although the majority of the references to the disposal of the dead described them being buried, a few other types of disposal were mentioned. There were twelve references to the non-burial of the dead (Figure 2). These included an eye-witness account for the battle of Pinkie (1547), which graphically described how the ‘moste parte of the dead corpse[s] [were] liyng very ruefully with ye colour of their skynnes changed greenish about ye place they had been smitten in’. The difficulty with most of these non-burial references is that they related to one point in time, usually just after the battle, when the ultimate fate and disposal of the dead had not yet been decided, so while they were technically unbudded, this may not have remained the case. Indeed, in most cases, it can be demonstrated that the dead were later buried (or that there was some intention to bury them). Payments in the financial accounts of a Scottish official, for example, indicate that men were sent to get carts to help in burying those left at Pinkie, showing a clear intent to bury the dead. In looking at the context of these non-burial examples, the most common reason that the dead were left unburied was the military

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situation: an army had been routed or forced to retreat quickly, meaning that they had not had the opportunity to collect and dispose of their dead. Thus, at Hopton Heath (1643) it was noted that one army was given 'such a salute that [they], in a disordered manner, drew off and marched away...but left many dead bodies behind them.' There, while there are examples of non-burial in the sources, analysis of their context indicates that, in most cases, non-burial was not the intended, final form of disposal. As for the other forms of disposal mentioned (which consisted of throwing the dead into bodies of water), there is not the room to discuss them here, but it is worth noting that the lack of examples and tone of the sources suggest that it was not a common means of disposing of the dead.  

While there is little evidence to indicate that the dead were intentionally left unburied, there is evidence from Edgehill (1642) to show that the dead could be accidentally left unburied. Three months after the battle, sources describe how people started seeing 'strange and portentous Apparitions of two jarring and contrary Armies' which would re-enact the battle in the sky. People were clearly unsure of the cause, but 'some learned men...delivered their opinions that there may yet be unb Buried kackasses found.' This suggests that they thought the apparitions had been caused by wrongs (in this case, non-burial) committed against the individuals represented by the apparitions, that is, the battle dead. One of the sources then noted that a 'diligent search hath bin made, and found it so,' indicating that the people, after a deliberate search, had indeed found unburied bodies of individuals killed at Edgehill. The fact that a 'diligent' search had to be made implies that the bodies had not been lying out in the open, a point that supports the belief that the dead were not intentionally left unburied. No further detail is given on where the bodies were found, but they may have been obscured from view by foliage or, perhaps, were simply located away from where the majority of the casualties had fallen. This example has some potentially important implications for the archaeology. Firstly, none of the sources say what happened to the dead after they were located, but it is possible that they were buried where they were found (particularly if they were in quite an advanced state of decomposition). This could, therefore, result in isolated burials possibly with weapon trauma, in slightly unusual or out-of-the-way locations in relation to the main battlefield. Secondly, it could also result in burials with trauma where there is evidence of a secondary burial (that is, skeletal elements out of correct anatomical position implying that the body had been moved after it had begun to decompose). There is already one archaeological exemplar of this second possibility from burials linked to the battle of Good Friday (1520), fought outside Uppsala in Sweden, although in this case the dead were deliberately denied burial, rather than it being accidental.

Another example where incidental events could have an impact on the archaeological signature of battle burials is when combatants drowned in bodies of water, usually when they were fleeing the battlefield. There are examples of this from all three periods, like at the battle of Solway Moss (1542), where one of the examples of throwing the dead into bodies of water relate to the first battle of Newbury (1643) and Hopton Heath (1643): Peter Heylyn, Mercvrivs Avlicvs, Communicating the Intelligence and Affaires of the Court to the Rest of the Kingdome, ed. Henry Hall and William Webb (Oxford: Henry Hall for William Webb, 1643), E. 69[18], p. 530; Anon, "Contemporary Account of the Battle of Hopton Heath, 19 March 1643," Staffordshire and Stoke-on-Trent Archive Service, http://www.staffs pasttrack.org.uk/exhibit/distinctivestaffs/disorder1.htm.


Ibid., p. 8.

commanders noted that ‘dyverse drowned’ on fleeing the battle. This example is particularly notable as, although the commander failed to note what ultimately happened to the bodies of those who drowned (something that is, unfortunately true for all the historical sources that mention combatants drowning), he did note that ‘ten men was drawyn with fisher nettes further of [the River] Heske thre[e] daies after.’ This comment suggests that at least some of the combatants’ bodies had not been recovered after the battle, but had instead been carried downstream where they were caught in local fishing nets days later. This, therefore, opens up a whole host of possibilities as to the fates of such men’s bodies, each of which will have different archaeological implications. Some of those who drowned in rivers may have been recovered from the water near where they had entered it. If this body of water was on the battlefield, then they may have been buried on the battlefield; however, if the water source was not on the battlefield, then it could result in battle-related burials at some distance from the battlefield near the water source. If the bodies were carried downstream but were recovered at some point along the water’s course, then it means battle-related burials could be found either along the banks of rivers, if they were buried near where they were recovered, or in churches along the same route (if the locals went to the effort of giving them a normative burial). Other bodies may have been carried out to sea, while some may have never been recovered at all, particularly if they were weighed down by armour and so will, therefore, have decomposed in the water.

**LOCATION OF DISPOSAL**

It is clear that the majority of the dead were buried, and this leads to the question of where the dead were buried. Were they being taken to churches for normative burial, or perhaps simply buried where they were on and around the battlefield? Only a small proportion of those accounts that mentioned the disposal of the dead gave any explicit location (most instead follow the same vague lines as John Rushworth who simply said of Newburn Ford (1640) that ‘the Scots buried the dead’). Of those that did give a location, most talk about the dead being taken to a church for burial, like one source for the battle of St Albans I (1455), which said that ‘the bodies of the noble men were buried in the monasterie.’ The chronicler was only discussing what had happened to the high-status dead, and this is a pattern that can be observed more widely: of the 32 individual references to church burials, 28 relate to the high-status dead. This may suggest that status was a factor that impacted on how the dead were treated – and where they were buried – but the rest of the information must be analysed first, to look at what happened to the lower status dead, as it possible that this evidence just shows that the sources were more interested in the high-status dead and actually the rest of the dead had also been buried in churches, but they simply failed to note it.

The evidence indicates that the high-status dead were taken to quite a wide variety of churches. Some were simply buried in the churches closest to the battlefield, like ‘lord Dacres slayne at Towton felde [who] is buried in Saxton churchyard’, which occurs just over a kilometre to the south of the 1461 battlefield. Others were buried in the churches closest to an army’s post-battle quarters and both of these imply the churches were chosen for convenience. Other high-status individuals appear to have been buried in churches that were relatively close to the battlefield, but were not the closest. Two men killed during the Prayer Book Rebellion of

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20 Ibid.
23 Lucy Toulmin Smith, ed. The Itinerary of John Leland in or About the Years 1535 to 1543 with Appendices Including Extracts from Leland's Collectanea (London: George Bell and Sons, 1909)., vol. 4, p. 77.
1549, for example, were carried the 5km and 30km from their respective battlefields, past various other churches, so that they could be ‘buried in martial Manner very honourably’ in Exeter’s Cathedral. This seems to suggest that the church had been chosen for its prestige, as a means of suitably honouring those men who had died for their cause. Other men were taken away and buried in churches on their home lands, which in some cases resulted in journeys of hundreds of kilometres. The Duke of Norfolk, who was killed at Bosworth (1485) in Leicestershire, for example, was taken almost 150km so that he could be buried in Thetford Priory in Norfolk; while a knight who died shortly after being wounded at the battle of Lansdown (1643) was taken some 160km for burial at his home estate of Kilkhampton in Cornwall (Figure 3). This wide range of churches used for the burial of the high-status dead has important archaeological implications. It means that individuals buried in a church with weapon trauma were not necessarily killed in a battle or conflict that took place nearby, they could have been killed in a battle a hundred kilometres away.

Figure 3. A map showing the distance travelled by the bodies of the Duke of Norfolk (blue) and Sir Bevil Grenville (green) from the battlefields where they were killed to the places where they were finally buried.

While most of the historical sources that gave an explicit location for the burial of the dead identified churches as being where combatants were buried, a handful of sources from the pre- and post-Reformation periods noted or implied the use of the battlefield for the burial of the dead. One chronicle, for example, noted that 3000 ‘of the comons’ were killed at the battle of Barnet (1471) and ‘were buried in the said playn’, while at Towton (1461) another source noted that ‘many’ of those that were killed in the battle ‘were first buried in fiue pits, yet appearing halfe a mile off by North Saxton Church’. That the Towton dead were buried on the battlefield is confirmed by a royal order, issued over twenty years after the battle, to have the ‘bodies [that] were notoriously left on the field...thoroughly outside the ecclesiastical burial-place’ exhumed and reburied in

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nearby churches.\textsuperscript{27} There was further confirmation for the use of the battlefield for the burial of the Towton dead when archaeologists found what are likely to be the remnants of these exhumed graves in the centre of the battlefield.\textsuperscript{28} Therefore, the archaeology and history do seem to agree that the battlefield could be used for the burial of the dead.

For each of the battles where combatants were said to have been buried on the field, there were also multiple example of high-status individuals receiving church burials. Thus, at Barnet, where the 3000 ‘comons’ were buried on the field, it is known that the Lord Barnes and Earl of Warwick both received church burials.\textsuperscript{29} Likewise, after the battle of Cropredy Bridge (1644), an eye-witness described how, in marching up the ‘lane [which] the enemy enjoyed before we found many dead corpses lying naked and unburied, forty graves in the highway...and in the church and churchyard at Moriton were many commanders buried who had been slain in the fight, one Lord...2 Collonels and other Officers’.\textsuperscript{30} The fact that some of the dead had been left unburied suggests that the army had been opportunistically burying their dead, but had run out of time and so were forced to leave some. And yet, the fact that they seem to have been in a rush, but still managed to retrieve the high-ranking officers, rather than a mixture of men, implies that they had deliberately prioritised the officers over the common soldiers when it came to bringing them away for a church burial. This, therefore, suggests (since rank in this period generally also reflected one’s social status) that the high-status did receive priority when it came to choosing who was taken for a church burial. This is something that archaeologists could help confirm, since although status cannot be determined from the skeleton, they could look for the location of individuals with weapon trauma within church grounds. If the hypothesis is correct, then we would expect to find more individuals with weapon trauma buried in places associated with high-status burial, such as within the church, rather than outside in the churchyard.\textsuperscript{31}

If those individuals most likely to be taken to churches for burial were high-status, then this has implications for some existing battle-related burials. In 1996, a mass grave containing at least 61 individuals (some of whom were reburied before archaeologists were made aware of the discovery) with large amounts of weapon trauma was excavated and linked to the battle of Towton (1461).\textsuperscript{32} The initial theory for the mass grave was that, because it occurred 1.6km north of the battlefield, it contained the bodies of soldiers from the defeated army who had fled from the field, but who had then been caught, killed and buried near where they

\textsuperscript{31} Some work on this has already begun. Rebecca Seed, a Masters student at Bradford University, is using current archaeological literature to study the relative burial locations of individuals with interpersonal trauma for her dissertation, under the supervision of Dr Jo Buckberry.
fell. Historical research has since indicated that the mass grave probably stands in the grounds of a chapel that would have existed in 1461, so it is a church burial. The results from this historical research suggest that those individuals most likely to have been taken for a church burial, however, were the high-status dead, not those who simply lay closest to the church, suggesting that the mass grave may contain high-status individuals, not the rout dead.

On the other hand, it has already been noted how few of the historical sources actually described what happened to the dead, and even when they do, it is often in little detail. Therefore, it is quite likely that the historical record for battle disposal practices is incomplete, that there were disposal practices for which there is no historical evidence. This may be the case with the Towton mass grave: it may actually contain individuals for whom there is no historical evidence that they were ever taken for church burials. Perhaps one of the most plausible alternative explanations for who the Towton mass grave does contain, is that they were men who fled to the chapel for safety, but who were killed by their pursuers anyway and then buried in the chapel’s grounds. There is historical precedent for this. At the battles of Tewkesbury (1471) and Evesham (1265), combatants are known to have fled to nearby churches in the hope that the holy ground would deter attackers from killing them, but in both cases, this hope failed. None of the sources that described these incidents went on to describe what happened to those men killed in the churches, but it seems likely that they would have been buried in the church grounds, given that this was where the dead were normally in this period, so perhaps this is what happened at Towton.

We may be able to demonstrate the fact that the historical record for battle disposal practices is incomplete by looking at the archaeology. A mass grave excavated in 1982 containing at least eight individuals has been linked to the battle of Stoke (1487) due to the general location of the find and the presence of sharp force trauma on some of the bones indicating the individuals died violently. The current interpretation for the battle, however, places the main action to the south-west of where the grave occurs, so it has been suggested that the grave is, as was suggested for Towton, a grave containing men killed as they fled the battlefield who were then buried where they fell. This battlefield has not yet been archaeologically located, so it is possible that this interpretation could be revised in future, if the battlefield was found to be of a greater extent or in a slightly different position. If not, however, the mass grave represents a rout burial, which is not something explicitly described or mentioned by any of the historical sources. There may be further examples of rout burials at Roundway Down (1643), where an antiquarian seems to have reported finding skeletons with ‘bullet and sabre wounds’ in a trench some distance from the likely battlefield, but in the direction that the defeated army is thought to have fled. This shows how archaeology can be used to demonstrate where the historical record may be incomplete.

CONCLUSIONS

The writers of historical sources in fifteenth to seventeenth-century Britain appear to have been largely disinterested in the fate of those killed in battle, as indicated by the fact that so few of the sources studied mentioned the topic. This paper has shown, however, that by taking an interdisciplinary approach, we can get a fairly good understanding of battle disposal practices. By looking at the historical and archaeological data together, we can not only test the conclusions we make from the two different types of data, by comparing them against each other to see where they agree and disagree, but we can also suggest where that data may be incomplete. Thus, while the burials from Stoke and Roundway Down seem to suggest that the rout dead may sometimes have been buried where they fell, even though none of the historical sources mention the possibility, the accidental non-burial of some of the dead at Edgehill indicates how the historical sources can show where there are gaps in our archaeological understanding, too. This shows how having a good understanding of both the historical and archaeological data could be mutually beneficial to researchers in both disciplines, as it could help to inform their interpretations and widen their understanding of a topic. This is certainly the hope for this research, that it will help archaeologists to fully interpret the battle burials that they excavate, and perhaps even to help in showing where they might be most likely to find such burials.

Battle disposal practices are still a largely unexplored topic of study and there is a lot more that could be done to develop our understanding further. Expanding our geographical and chronological timeframe, for example, could help to shed light on some of the practices that we have begun to get an understanding of here, while it may also be useful to study smaller scale conflicts, like skirmishes, to see how their disposal practices compare. It would also be interesting to look at conflicts that were primarily religious, to see if the treatment of the dead changed according to different normative disposal practices.
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**Secondary Sources**


Introduction

This epidemiological report is a result of a collaboration in local prevention efforts aimed at reducing the rates of suicide, substance use, and mental health risk factors among youth in the New London County of Connecticut since 2007. Several communities have been awarded federally funded prevention grants through SAMHSA specifically aimed at reducing population level rates of substance use and suicide through the implementation of environmental strategies. The scope of the work is guided through the five steps of the Strategic Prevention Framework that include conducting a community needs assessment, building local capacity and leadership, developing a strategic plan, implementing community wide interventions, and evaluating the short and long-term outcomes. Some of these projects include the Drug Free Communities Support Grant, Partnerships for Success, Strategic Prevention Framework State Incentive Grants, Sober Truth On Preventing Underage Drinking Act Grant, and Native Connections. Throughout the past decade of data collection and coordinated prevention interventions, subpopulations who may be at higher risk for substance abuse and mental health risk factors in the region have been identified as priority populations for health disparities. These populations within New London County CT have included (but are not limited to) Native American and female youth populations. The purpose of this report is to highlight these subpopulations of need and emphasize the importance of trauma-informed prevention planning and interventions and to support the use of culturally based interventions for effective prevention through building on cultural protective factors that build resiliency in youth.

Historical Trauma and Behavioral Health Outcomes

The theory of historical trauma was developed largely in response to the need to address the suffering of indigenous people (Brave Heart, n.d.). This suffering was incurred in numerous ways across multiple generations ranging from death, abuse, neglect, separation, and isolation that resulted in significant loss and trauma symptomology. Interventions based on native historical trauma in the United States and Canada can be found as far back as 1992 with the development and work of the Takini Network. The primary goals of such initiatives have focused on trauma healing, prevention, and community education.

Dolores Subia Bigfoot, PhD (2008) outlined four interrelated categories of trauma that have a ripple effect on individuals, families, generations and communities. These categories include: cultural trauma, historical trauma, intergenerational trauma, and present-day trauma. Cultural trauma is experienced through the attack on the fabric of one’s society that affects the members and the community directly. Historical trauma is the cumulative exposure of traumatic events that in turn affect subsequent generations. Intergenerational trauma occurs when the trauma has not been resolved and is internalized and passed on from one generation to another. Present trauma is categorized as the experiences of youth and vulnerable populations occurring on an ongoing and daily basis.

Historical trauma has many effects on Native American populations (SAMHSA 2014). It changes the traditional ways of child rearing, family structure and connectedness, and interpersonal relationships. The sense of community is disrupted within the tribe and reinforces the mistrust of others and government providers which can create barriers to accessing resources, services, and supports. The breakdown in family
and relationships results in low social support for individual members and may present signs of lower self-esteem, depression, substance use, and suicide.

Dolores Subia Bigfoot, PhD (2015) noted the over-representation of American and Alaskan Native populations within various areas such as child welfare, criminal justice, homelessness, mental health, healthcare care, special education, and victims of violent crimes. It is particularly notable that the research on mental health risk factors is limited due to the size of the population, heterogeneity and the wide range of beliefs and cultural perceptions regarding mental illness. However, she noted that these subpopulations are more likely to experience a higher risk for psychological distress, anxiety, depression, suicide, and substance abuse. These issues of mental health and substance abuse are particularly impacted by historical trauma.

Native Youth Mental Health and Substance Use

SERAC, a non-profit organization located in Norwich Connecticut and serving 39 towns in the eastern corridor of Connecticut, provides prevention services and community awareness on issues related to behavioral health. SERAC has been conducting youth surveys in collaboration with local school districts and communities throughout Southeastern Connecticut since 2006. The survey instruments are derived from the Connecticut Governor's Prevention Initiative For Youth (GPIY) survey, which was administered in 2006 by the Connecticut Department of Mental Health and Addiction Services (DMHAS) and UConn Health Center in 2000 in 16 towns and 3 regional districts across the State.

The survey was designed to ascertain prevalence, attitudes and behaviors related to the use of substances (tobacco, alcohol, and illicit drugs). Over the years, refinements have been made to the original survey to include emerging legal and illegal substances of abuse, questions related to gambling behaviors, mental health indicators and other risk-taking behaviors. Special acknowledgements are made to Archie Swindell, PhD (Quantitative Services) and Bonnie Smith, MPH, CPS and ERASE for collaboration in those refinements and data sharing. The surveys are administered anonymously to students under the supervision of teachers, staff and volunteers from the local schools. They are administered during class time using the online SurveyMonkey.com website or in paper copies. Prior to survey administration, passive consent is obtained from parents and legal guardians through written notification regarding the purpose of the survey and methods to ensure anonymity of respondents. Parents are given the opportunity to examine the survey instrument and to excuse their child from participation by informing the school. Youth are also able to voluntarily decline to take the survey by logging off the computer or not completing the paper instrument.

In 2016 and 2017 SERAC surveyed over 8,500 students in grades 7-12 from 13 communities in Southeastern Connecticut. Data was extracted from the regional report based on youth who self-identify as Native American. It should be noted that this report is based solely on youth-reported ethnicity and not in conjunction with existing census data or official tribal enrollments. While this may appear to present a limitation with regard to representation, the sample size resulted in a substantial number of youth from New London County CT and is likely to provide a more accurate sample since many indigenous families may be less inclined to report their ethnicity in traditional ways due to the long history of trauma among the population. The dataset was organized to report the best response rate for the overall measures that reflect mental health and substance use risk factors. Data cleaning and preparation activities resulted in the following analysis of responses from 203 youth, representing 7 communities (Griswold, Groton, Ledyard, North Stonington, Norwich, Stonington and Waterford), enrolled in grades 9-12 who described themselves as Native American. No specific tribal information was collected and cannot be identified. For future prevention planning efforts, it is noted that the area is home to indigenous members from several tribes, including two federally recognized tribes: Mashantucket Pequot Tribe and Mohegan Tribe.
Mental Health Indicators

Overall, nearly one-third (31%) of youth report having felt sad or hopeless almost every day for two weeks or more so that it stopped them from doing their usual activities (Figure 1). The rate among females (39%) tends to be higher than the rate among males (16%). About one-fourth (26%) of all youth report having had thoughts of hurting themselves in the past year. Again, the rate among females (30%) tends to be higher than the rate among males (15%). Fewer youth report having hurt themselves on purpose (18%) or having seriously considered attempting suicide (15%). The fewest youth report having had a boyfriend or girlfriend hurt them on purpose (5%). About 40% of youth report having experienced at least one of the mental health risk factors in the past year. The rate among females (48%) tends to be higher than the rate among males (24%).

Figure 1: Prevalence of Mental Health Indicators by Gender

Substance Use
Alcohol is the most common substance of abuse among these high school age youth (Table 1). Both lifetime and recent alcohol use rates tend to be similar among males and females. Slightly more than one-third of youth (35%) report ever having consumed alcohol (more than a sip and not for religious purposes) in their lifetime. About 12% report having consumed alcohol in the past 30 days. About one-quarter of youth report ever having used marijuana while 8% report having used marijuana in the past 30 days.

Table 1: Reported Recent (Past 30 day) and Lifetime (Ever in lifetime) Use Rates for Common Substances of Concern

<table>
<thead>
<tr>
<th>Substance</th>
<th>Use</th>
<th>Female</th>
<th>Male</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime</td>
<td>33.3%</td>
<td>34.8%</td>
<td>35.0%</td>
<td></td>
</tr>
<tr>
<td>Recent</td>
<td>11.4%</td>
<td>13.3%</td>
<td>12.4%</td>
<td></td>
</tr>
<tr>
<td>Cigarettes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime</td>
<td>15.5%</td>
<td>9.5%</td>
<td>13.1%</td>
<td></td>
</tr>
<tr>
<td>Recent</td>
<td>2.7%</td>
<td>6.3%</td>
<td>4.7%</td>
<td></td>
</tr>
<tr>
<td>Marijuana</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime</td>
<td>24.9%</td>
<td>24.5%</td>
<td>25.5%</td>
<td></td>
</tr>
<tr>
<td>Recent</td>
<td>5.5%</td>
<td>10.4%</td>
<td>7.9%</td>
<td></td>
</tr>
<tr>
<td>Electronic Cigarettes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime</td>
<td>11.2%</td>
<td>9.3%</td>
<td>10.6%</td>
<td></td>
</tr>
<tr>
<td>Recent</td>
<td>3.0%</td>
<td>3.6%</td>
<td>3.7%</td>
<td></td>
</tr>
</tbody>
</table>

Overall, use of illicit drugs other than marijuana tends to be low among these youth (Table 2). Less than 1% of youth report ever having used cocaine (0.5%) and no youth report ever having used crack cocaine, or heroin. More youth report having used ecstasy (1.1%) or synthetic marijuana (2.1%). Nearly 3% of youth report having used hallucinogens in their lifetime.

Table 2: Reported Lifetime Use Rates for Various Illicit Drugs

<table>
<thead>
<tr>
<th>Illicit Drug</th>
<th>Female</th>
<th>Male</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocaine</td>
<td>0.0%</td>
<td>1.3%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>
Methamphetamine is often referred to by slang names such as "speed," "crank," or "Crack Cocaine." The data shows that Crack Cocaine misuse is 0.0% among females, 0.0% among males, and 0.0% among all youth.

Ecstasy, also known as MDMA, shows misuse rates of 0.9% for females, 1.3% for males, and 1.1% for all youth.

Hallucinogens, which include substances like LSD and PCP, have reported misuse rates of 3.1% for females, 2.7% for males, and 2.9% for all youth.

Heroin misuse is shown to be 0.0% for females, 0.0% for males, and 0.0% for all youth.

Synthetic Marijuana, a relatively new category of drug, is reported to have misuse rates of 2.8% for females, 1.2% for males, and 2.1% for all youth.

Mental Health and Substance Use Associations in Native Youth

Compared to youth who do not report having experienced at least one mental health risk factor in the past year, youth who report having experienced at least one mental health risk factor in the past year were statistically more likely to report alcohol use (1.5 times as likely), cigarette use (2.1 times as likely), pain medication misuse (2.2 times as likely), downer misuse (1.9 times as likely), tranquilizer misuse (2.7 times as likely) and upper misuse (2.2 times as likely, Table 4).

Table 3: Reported Lifetime Misuse Rates for Various Types of Prescription Medications

<table>
<thead>
<tr>
<th>Type of Prescription Medication</th>
<th>Female</th>
<th>Male</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Medications (Oxycontin®, Vicodin®, Percodan®, codeine, Dilaudid®)</td>
<td>7.8%</td>
<td>9.5%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Downers (barbiturates, sleeping pills, sedatives, quaaludes)</td>
<td>16.4%</td>
<td>5.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Tranquilizers (Valium®, Xanax®, Librium®)</td>
<td>4.1%</td>
<td>1.4%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Uppers (amphetamines, Ritalin®, Adderall®)</td>
<td>4.1%</td>
<td>4.4%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Steroids</td>
<td>0.8%</td>
<td>1.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Over the Counter Medications</td>
<td>4.2%</td>
<td>6.3%</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

Table 4: Prevalence of Any Mental Health Indicator by Lifetime Substance Use

<table>
<thead>
<tr>
<th>Lifetime Alcohol Use</th>
<th>Yes</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifetime Cigarette Use</td>
<td>Yes/No</td>
<td></td>
</tr>
<tr>
<td>Life Time Marijuana Use</td>
<td>Yes/No</td>
<td></td>
</tr>
<tr>
<td>Lifetime Electronic Cigarette Use</td>
<td>Yes/No</td>
<td></td>
</tr>
</tbody>
</table>

Comparative analysis shows that youth who report having experienced at least one mental health risk factor in the past year are statistically more likely to report alcohol use (1.5 times as likely), cigarette use (2.1 times as likely), pain medication misuse (2.2 times as likely), downer misuse (1.9 times as likely), tranquilizer misuse (2.7 times as likely) and upper misuse (2.2 times as likely, Table 4).
### Lifetime Pain Medication Misuse

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.4%</td>
<td>77.1%</td>
<td>2.2*</td>
<td></td>
</tr>
</tbody>
</table>

### Lifetime Downer Misuse

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.3%</td>
<td>65.5%</td>
<td>1.9*</td>
<td></td>
</tr>
</tbody>
</table>

### Lifetime Tranquilizer Misuse

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.6%</td>
<td>100.0%</td>
<td>2.7*</td>
<td></td>
</tr>
</tbody>
</table>

### Lifetime Upper Misuse

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.6%</td>
<td>84.5%</td>
<td>2.2*</td>
<td></td>
</tr>
</tbody>
</table>

*Yes and No rates are statistically different, z test comparing column proportions, p<0.05.

**Perception of Harm**

An associated risk factor that often correlates with substance use is the perception of harm. The more harmful a substance is perceived to be, the less likely it is to be used. This association is extremely evident in alcohol and tobacco use. Prevention and community education aimed at social norms regarding underage drinking and tobacco can be effective interventions. Underage drinking and youth substance use are sometimes viewed as a rite of passage in many global countries. With the oppression of healthy cultural rites of passages over years of acculturation, substance use among youth may fill a void with initiation and bonding practices leaving youth with the perception that substance use is normative and acceptable. In this section native youth were asked about their perceptions regarding the harm associated with the use of various substances (Figure 2 Table 5). The largest percentage of youth perceive that there is great risk associated with using prescription drugs without a prescription (66%). Slightly fewer perceive that there is great risk associated with smoking one or more packs of cigarettes per day (62%). Still fewer youth perceive that there is great risk associated with drinking five or more alcoholic beverages one or two times per week (39%). The fewest youth feel there is great risk associated with using marijuana one or two times per week (13%). For all substances, 10-12% of youth report that they do not know the risk associated with use. In general female youth report a higher perception of harm for most substances (Table 5). This may serve as a protective factor that serves to keep their rates of use slightly lower than males.
Table 5: Perception of Harm Associated with Use of Various Substances by Gender

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke cigarettes (1+ packs/day)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Risk</td>
<td>9.0%</td>
<td>13.1%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Slight Risk</td>
<td>3.9%</td>
<td>4.3%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>16.8%</td>
<td>10.8%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Great Risk</td>
<td>61.9%</td>
<td>60.2%</td>
<td>61.8%</td>
</tr>
<tr>
<td>I don’t know</td>
<td>8.4%</td>
<td>11.7%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Drink 5 or more alcoholic beverages 1 or 2 times/week</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Risk</td>
<td>6.2%</td>
<td>11.5%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Slight Risk</td>
<td>12.0%</td>
<td>9.1%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>32.7%</td>
<td>30.5%</td>
<td>32.3%</td>
</tr>
<tr>
<td>Great Risk</td>
<td>39.9%</td>
<td>37.4%</td>
<td>39.2%</td>
</tr>
<tr>
<td>I don’t know</td>
<td>9.2%</td>
<td>11.4%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Use marijuana 1-2 times/week</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Risk</td>
<td>26.1%</td>
<td>38.6%</td>
<td>32.1%</td>
</tr>
<tr>
<td>Slight Risk</td>
<td>22.2%</td>
<td>12.1%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>28.3%</td>
<td>18.7%</td>
<td>23.6%</td>
</tr>
<tr>
<td>Great Risk</td>
<td>12.1%</td>
<td>16.1%</td>
<td>13.4%</td>
</tr>
<tr>
<td>I don’t know</td>
<td>11.3%</td>
<td>14.5%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Use prescription drugs not prescribed to you</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Risk</td>
<td>6.3%</td>
<td>11.5%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Slight Risk</td>
<td>7.0%</td>
<td>2.7%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>10.0%</td>
<td>10.3%</td>
<td>9.8%</td>
</tr>
</tbody>
</table>
Cultural in Prevention and Medicine

Walters & Simoni (2002) outlined a model for addressing historical trauma, identifying positive coping styles and improving health outcomes for American Indian women. The coping strategies in the model were based on the expansion of existing cultural practices in identity, enculturation, spiritual healing practices, and traditional health rituals and practices. The model supports the targeted approach to address gender specific trauma experiences of women through cultural practices that focus on positive coping strategies and healing practices that improve behavioral and physical health outcomes.

At the local level, there have been prevention efforts aimed at addressing suicide and substance use among native youth of the Mashantucket Tribal Nation. The project titled, Skeech Wuyeekan “*Good Medicine,*” is a five-year initiative (2016-2020) funded under the Native Connections Grant to the Mashantucket Pequot Tribal Nation through SAMHSA. The federal program helps American Indian and Alaska Native communities identify and address the behavioral health needs of Native youth specifically in reducing suicidal behavior, substance use and misuse, supporting the impacts of mental health and trauma, and transition into adulthood. There are currently 102 grantees in the country. The grant is designed to activate the system as a whole for the prevention of suicide and to ensure that mental health and substance abuse disorders are identified and treated effectively at multiple points of entry such as through tribal community members, school systems and primary care providers.

The overall vision for *Good Medicine* is to develop a culturally responsive platform that seeks to address suicide and addiction prevention for the Mashantucket Pequot Tribal community to embrace and sustain for generations. These methods will encourage systematic efforts to prevent suicide and substance abuse, provide trauma-informed care, and promote positive mental health and wellness. The mission of *Good Medicine* is to provide a framework for departments and partners that service youth to include best safe practices in trauma-informed care and promote positive mental health within the community. The goal is to prevent substance abuse and suicide by increasing the effectiveness and sustainability of prevention programming at the local level in New London County. *Good Medicine* will promote widespread use of evidence-based and best practices for prevention in New London County. The emphasis is on the importance of the processes as a whole community instead of relying solely on the efforts of individuals.

Some of the ways in which these goals are being accomplished is by collaborating with internal and external resources to help raise awareness of these issues within the tribal community and to identify the different avenues and resources available to assist families who may be experiencing these issues. The project supports training, events, and community education for tribal members and families. Most recently the project has begun to incorporate a culturally based planning process known as Gathering of Native Americans (GONA) specifically with the youth tribal members. This process focuses of four themes: belonging, mastery, interdependence, and generosity (SAMHSA 2016). The areas are rooted in the theory of historical trauma healing through first establishing trust and safety and secondly taking inventory of how historical trauma has impacted their community and what parts are resiliency building opportunities. The last two processes involve developing a plan to build relationships and access resources and lastly commences with gift giving as a symbolic representation to their families and communities to help promote prevention and positive behavioral health for all.

**Implications for Future Prevention Practice**

It is important to remember that the environmental composition of a geographic location can be inherently marked with contemporary reminders of historical trauma (Mohatt, Thompson, Thai, Tebes 2014).
Public reminders such as events, symbols, monuments, and structures can also trigger and reinforce historical trauma. These reminders exist within various towns across New London County CT and are an integral part of the youth development and cultural identity across the region. In this county of CT, native populations do not exist solely in isolation or only on reserved tribal land. Regional and local prevention planning efforts should consider incorporating cultural practices that address historical trauma through public health agencies, community-based organizations, child welfare systems, and school systems that serve native youth. The healing practices of historical trauma can help empower marginalized subpopulations and new generations of youth through shifting the community narrative while still maintaining the preservation of both physical symbols and cultural narratives. The long term implications for incorporating historical trauma in prevention planning and practice could prove effective for not only building a stronger sense of trust and belonging with outside agencies but also to improve cultural responsiveness, a cornerstone of the Strategic Prevention Framework process, which could result in more equitable health outcomes for both behavioral and physical health among native populations.

REFERENCES


Inter-Generational Trauma, Justice, and the Armenian Genocide
Marian Mesrobian MacCurdy

The Armenian Genocide

The year 2015 was the 100th anniversary of the Armenian Genocide, a comprehensive effort by the Ottoman Turks to annihilate their Armenian population under cover of the First World War and the chaos that followed. By the time the genocide and the post-war attacks were over in 1923, approximately a million and a half Armenians had been killed by hanging, bullets, swords, the women and girls raped, some then set on fire or thrown into ravines and the rest of the approximately 2 million population forcibly removed, their assets confiscated by their oppressors, and sent on forced march to the desert of Der Zor where most succumbed to starvation or disease. While some of the Turkish leaders responsible for the Genocide were convicted in post-war tribunals, they escaped across the Black Sea on a German boat and were never extradited to Turkey to face their punishment.

The Armenians suffered a personal and collective trauma born not only of genocide but of its denial, the silence that followed it, and the resulting lack of justice. Crucial to the Armenians’ recovery as a people was the creation of a communal social remembrance that goes beyond the fact of victimhood and relies on individual and collective memory and resistance. Remembrance and resistance can take numerous paths—acknowledging and honoring survival in the face of overwhelming odds; the dissemination of survivor narratives that contradict Turkish denial; historical study in the academy to expose key documents that demonstrate the truth of the genocide; the focus on political actions to counter the Turkish narrative; and the dedication to justice as demonstrated in 1921-22 by Operation Nemesis, a covert Armenian effort to locate the escaped Ottoman Turkish leaders convicted of capital crimes in Turkish military tribunals and mete out the punishment they had escaped years before. Such actions within a community play a key role in trauma mitigation since they can help build resilience, personal agency, and a sense of justice. This paper concentrates on the elements of resistance that involve the need for justice and the use of narrative to transform victims into survivors.

My four Armenian grandparents had survived the Hamidian massacres of 1894-96 and those in Adana in 1909, and seeing the bloodstained handwriting on the wall, they left their homeland before the genocide never to return. Since I had lived with my grandparents until I was seven, I thought I knew my grandfather, this quiet, dignified man, an accountant by training, who bounced me on his foreleg, carried me through the doorways on his shoulders, the outer reaches of Olympus for a four-year old, took me outside at dusk to pick grapes from the arbor beyond our back door, and welcomed to our home dignitaries like General Dro, the commander of the Armenian forces in 1918 and defense minister in 1920, visits I took for granted, never questioning why such luminaries showed up at our small house in Syracuse, NY. In 1990 after my grandmother had died and twenty-five years after my grandfather’s death, my family found a file of yellowed papers—letters, telegrams, notes, and other materials—tucked into a file cabinet in his study, the tiny upstairs room I had slept in as a small child. No one in our family knew until we found that file that Aaron Sachaklian, my grandfather, was the finance officer and logistical leader for the covert operation—known as Operation Nemesis—to assassinate the architects of the Armenian Genocide.

The correspondence was written by and to the three leaders of Nemesis, Aaron Sachaklian, Armen Garo, Armenian ambassador to the United States and core organizer of Nemesis, and Shahan Natalie, in charge of Nemesis operations in Europe. Other key players included Soghomon Tehlirian, who killed Talaat Pasha, chief architect of the Armenian Genocide; Vahan Zakarians, translator at Tehlirian’s trial and, under the name of Vaza, an operative who aided Tehlirian in his mission; Zaven Nalbandian, a chemist who facilitated planning; and Hamo Paraghamian, a family friend who helped transfer money and information to field operatives. In the file I found a letter that read like jibberish, but when a cut-out template was placed on the letter, the actual message could be read. I found a list in Shahan Natalie’s handwriting of 100 names of the worst of the Turkish perpetrators of the Genocide. Also in the file were 65 photographs of these Turkish leaders. In researching my book Sacred Justice, I was able to identify all but three. The file contained close to
40 letters and telegrams that provide crucial details of the story of Operation Nemesis in the voices of the leaders of this improbable mission. None of these men was specifically trained for this work, yet Hadug Kordz (the Armenian name for Nemesis, translated as Special Mission) succeeded: the primary architects of the Genocide had been killed, including Talaat Pasha, the prime minister and leader of the effort to annihilate the Armenians; Djemal Pasha, naval minister; Dr. Behaeddin Shakir, founding member of the Committee of Union and Progress, organizer of the massacres and deportations; Said Halim Pasha, grand vizier of the Ottoman Empire, and others.

The abandonment of the Armenians and their plight by the western powers was the impetus for Nemesis. The approximately 1.5 million men, women, and children killed during the Genocide did not include the hundreds of thousands killed during the Hamidian and the Adana massacres, about 75% of the indigenous Armenian population of Turkey. To this day the Turkish government denies that their actions constitute genocide. The British had asked the Armenians to draw up lists of those most responsible for the Genocide, which they did. Yet the Armenians were offered no justice. The United States government was actively attempting to dull the public’s hatred of the Turks because oil had been discovered in Mosul. The hundreds of newspaper articles about the “starving Armenians” tapered off and disappeared after the war when it became clear that the geopolitical realities of oil, access to it, and the need to promote the Turks after World War I as potential military allies and trading partners to cement our foothold in the Middle East outweighed the desperate plight of the Armenians. Journalists concluded that the horrors of the Armenian Genocide had perhaps been exaggerated and fearing the press had been in error with its earlier stories and not wanting to be “fooled” again, journalists published far fewer stories depicting those horrors and instead began to publish counter narratives. An infamous example is a published quotation of then Rear Admiral Colby M. Chester, a Washington official who led the initiative-called the Chester Concession—to exploit the oil fields of Mosul, then on Turkish soil: “The Armenians in 1915 were moved from the inhospitable regions where they were not welcome and could not actually prosper to the most delightful and fertile part of Syria … where the climate is as benign as in Florida and California whither New York millionaires journey every year for health and recreation. This was done at great expense of money and effort” (Colby M. Chester 939-47). Here is an early twentieth century example of “fake news” created to expunge from the record a crime against humanity to allow, with no apparent rebuttal, the rich to get richer. The Turks were free to continue their oppression of their minority populations. The only justice the Armenians have had for the last 100 years is what they could deliver themselves.

One crucial distinction must be made here: the Turks called Operation Nemesis the first terrorist plot in the 20th century, but this is not correct. Contemporary terrorism refers to indiscriminate killing of innocent people to call attention to real or perceived injustices. Operation Nemesis targeted only the guilty. In fact, operatives were told if they could not take the shot safely, that is without endangering bystanders, they were not to shoot—and they did not.

All three leaders of Nemesis had lost family in the genocide. Soghomon Tehlirian, who suffered from what would now undoubtedly be called post-traumatic stress disorder, had lost his family and became epileptic, wept frequently, had nightmares, and felt tormented. Only the thought of vengeance kept him going. Armen Garo’s family had been decimated by the Turks. He fell into a deep depression afterward, could not sleep and suffered from bouts of blindness and fainting spells. “Men have become monsters,” he said (MacCurdy, Sacred Justice, 124). Garo died a few years later of heart disease, one could say of a broken heart.

Trauma and its Effects

I am the product of two divergent familial coping strategies. My maternal grandmother’s family, the Der Melkonians, included resisters who defended themselves in the Adana massacres of 1909. At the siege of Dortyol Eliza, my grandmother, loaded rifles while her brothers fired them. One brother, Mihran, became a leader of the Dortyol resistance, riding out to destroy the dam Turkish soldiers built to eliminate the town’s water supply. He was ultimately killed by a Turkish bullet in 1920, fighting alongside the French in his ancestral home city of Aintab, who then pulled out leaving the Armenians defenseless. Dortyol was one of only two Armenian communities left standing in Adana in 1909. Eliza’s husband, Aaron Sachaklian, not only
resisted by leading Nemesis but he also implored the foreign consuls in Turkey in 1909 to pressure the Turks to stop the Adana massacres, an action which may have contributed to the cessation of the attacks.

My father’s parents, on the other hand, could not fight back but could only flee from the marauding Turks during the Hamidian massacres—my grandfather into the woods and my grandmother with her infant daughter in her arms to the American mission. They were separated for nearly ten years. Their survival was ultimately the most effective resistance, but the terror they faced persisted. Elizabeth, my paternal grandmother daughter of a priest, was educated, refined, sought after in her community for her wisdom and grace—and imprinted with the terror of the massacres. Years later she echoed for my father the high-pitched screams of the Turks as they charged through their town of Kharpert, swords and scimitars raised. Elizabeth died before I was born, but I can still hear those chilling sounds my father relayed to me. The effects on the family were just as—

The two-pronged legacy left by my four grandparents was clearly evident in my parents who had inherited the genetic and behavioral characteristics of their parents: my father, the emotionally responsive one, deeply connected to and protective of his mother, sorted for potential danger in the world, and my mother, the daughter of resisters, was adventurous, cerebral, confident, loving but cool. Resisters must shut something down to act. It is difficult to feel and act at the same time. Clearly, the two sides of my family reacted differently to the trauma of genocide: one side could and did resist, and the other could not, and these actions had implications for how both sides of my family responded to their trauma.

The Armenian Genocide was accomplished on a massive scale. Few remained to tell their stories, and those who survived fell into the silence born of trauma. Who wishes to convey the unspeakable, the images that could only infect others with terror and hatred? And who could they tell—certainly not their children who did not deserve to be weighed down by their parents’ memories, certainly not their odar (non-Armenian) neighbors and friends who could have no idea what genocide could do, certainly not to each other when they were all trying to survive in a new land. Nor did anyone have a language for such events. We had no diagnosis of post-traumatic stress disorder then. So many survivors lived in silence, speaking to no one, and their images of trauma stayed within.

Traumatic memories are sensory, that is, the body reacts to them even when the conscious mind is not aware of the cause of such reactions. This is because these iconic memories are stored in the parts of the brain that not only retain these memories but are responsible for attaching emotional weight to them. For example, the hippocampus, which aids in short-term memory, will imprint exactly where on a wooded path you saw a rattlesnake, and the amygda, an organ in the brain that helps register our emotions, will ensure that the memory is encoded with the fear you felt when you first saw the snake. The surge of adrenaline that is released will help you to act quickly and ensure that your chosen action—fight, flight, or freeze—does not go through the cortex, which has survival value because that would take too long (MacCurdy, Mind’s Eye, 21).

Traumatic memories are generally not remembered as narratives but as sensory impressions, fragmented images, smells, sounds, and sensations that live in nonverbal parts of the brain and are “imprinted into the brain in the form of vivid images and sensations” (Herman 38). When these images and sensations are not located, named, and integrated into the rest of life, they can become cut out, to recur when provoked by other stimuli, or they become somaticized into a body that becomes reactive. This is what researcher and psychiatrist Bessel van der Kolk means by his phrase “the body keeps the score,” and why survivors often use language such as “I was speechless with terror” or “I was struck dumb” because they literally were. This does not mean that survivors cannot remember their experiences or use words to describe them. It does mean that the iconic nature of the traumatic image often takes precedence over language, which can make it difficult to both “feel” the image and construct a narrative about it at the same time. The emotion and the image are linked.
together, and we cannot access one without the other. The key to recovery is being able to mentally see, hear, smell those traumatic images, access them, and use language to describe them, image by image, moment by moment, like pearls on a string. These images are then linked into a narrative that shares these images, initially only lodged in the emotional, nonverbal centers of the brain, with the more cognitive parts. This attenuates the power of the traumatic images because cognition facilitates behavioral change. In creating the story of our trauma, we engage with it, then separate from it in the telling, and it no longer controls us; we control it. If this isn’t done, the image may fade with time, but the affect it can generate may never go away and could return in nightmares or when the survivor experiences stimulation that reminds him/her of the original trauma.

Traumatic or potentially traumatic images were lodged into the midbrains of most of the Armenians that settled in the United States in the early 20th century. In her book *Like One Family* Arpena Mesrobian describes the state of Armenian immigrants when they first arrived in the United States:

Everyone in those days had experienced anxiety, fear, deprivation, and severe emotional trauma. Yet … their stories were seldom voiced at that time. … It was only in later years, as they aged and as their children and grandchildren grew to adulthood and began to ask questions about “the old days” that they gradually revealed what had happened to them so long ago. (92)

Armenian survivors often did not talk about their traumas to protect both themselves and their children. As one Armenian survivor described it, “Once I started talking, I couldn’t stop and would inevitably end up in tears. So since then I have tried not to talk about it, even to my own children. My story is too sad” (Miller, Donald E. and Lorna Touryan Miller, 192).

However, telling the story can help survivors move beyond the isolation of trauma because telling our stories with imagistic detail integrates the unclaimed parts of experience into the entire structure of the self and then into the larger community. Two other important benefits of using language to describe trauma can follow: first, as research by James Pennebaker and others has shown, biological markers of illness often demonstrate improvements in immune system functioning and in mood and other indicators of well-being, and second, telling our stories is a way to resist both the effects of trauma and the efforts of those who would silence survivors. (For a fuller explanation of this process see MacCurdy, *The Mind’s Eye.*) Sharing stories of the Armenian Genocide is a rebellious act; it counters the Turkish government’s claim that there was no genocide and if it did happen the Armenians brought it on themselves. Armenians transformed themselves into survivors by telling their stories: “They are no longer the silenced victims…they are the empowered group that has maintained their culture, language, and religion through years of persecution.” as Soseh Esmaeili states in her doctoral dissertation *Intergenerational Transmission of Trauma* (2011). Equally important, it appears that those parents who share their history appropriately with their children do not harm them while those who do not speak reported more disturbances in their children.

**Intergenerational Effects of Trauma**

Few large-scale studies have been conducted to determine the intergenerational effects of the Armenian Genocide, and of course first-generation survivors have now left us. However, the research we do have indicates key hallmarks of trauma among survivors’ families. As Dr. Jack Danielian states, “without conscious knowledge, unintegrated trauma can affect first second, third, and even fourth generations—from parent to child and to great grandchild.” The trauma of genocide is “encrypted in one’s vital center, bypassing words, thoughts, communication, voice or emotional rendering. Through such a wordless process, memory is fractured and … parties are left with varying levels of distancing, disconnecting, …dissociation and possible denial (Danielian interview, *Mirror-Spectator*). Healing can only begin when the silence is broken.

Psychologist Soseh Esmaeili studied eight Armenian first- and second-generation survivors and found that trauma from the Genocide was transmitted to the next generation via the passing of defense mechanisms. One behavior Esmaeili identified that was shared by most of the subjects was hypervigilance toward their children and the anxiety that accompanies it: “All participants reported feeling worried about their children. . . . One mother said, ‘Every day when he (her son) leaves the house I have to pray for him. I call him sometimes every half hour during the day to check in.’” (Esmaeili 52). The outside world is not seen as safe, which can “lead to feelings of impending catastrophe” (Esmaeili 59). One particularly interesting
observation Esmaeili makes is that hate and anger are dominant in the second generation. In the midst of traumatic experiences, most victims cannot show an anger response. “However, with the retelling of stories generations of Armenians now feel safe to express this anger toward the perpetrator” (60). This retelling can be empowering and create a sense of agency, even for an event that happened in the past. New research is being done on the effects of genocide on the second and third generations. In their study of the descendants of Armenian refugees Karenian et al. concluded that “…almost a century later, the negative consequences along with forms of positive elaboration of the same traumatic experience though fading from generation are still active, present, and widespread” (9).

The hypothesis that children are affected by parental trauma is now supported by empirical data collected from Holocaust survivors and their children as well as other populations. Recent studies indicate another potential pathway for these effects beyond parental emotional health: this “bleeding” from one generation to the next may rest partly in what geneticists have termed “epigenetics,” a term derived from the Greek prefix for over, outer, above. These epigenetic modifications are responses to the cellular environment, outside changes in the DNA, that turn genes on and off. The mechanism for this change includes the biochemical processes of DNA methylation and histone modification, proteins that play a role in gene regulation without changing the underlying DNA. This means that non-genetic factors—like trauma—may cause changes in genes such that they can be expressed differently: our genes as well as our experiences may affect our behavior—and perhaps the behavior of our children. Jablonka and Lamb state in their book, *Evolution in Four Dimensions* that “some epigenetic information does pass from one generation to the next” (139), and more to the point “epigenetic changes are generated at a higher rate than genetic ones, especially in charged environmental conditions”—and that includes high stress. [italics mine] (144). It appears that these changes may penetrate into the next generation although it is uncertain at this point whether these genetic changes are truly inherited or can affect subsequent grandchildren but do not pass beyond that generation.

If epigenetic changes can be passed on to the next generation, is it possible that the state of anxious readiness that many genocide survivors had to maintain to survive may have found its way into the genetic code of their children and their children’s children? Or is it possible that these responses may be potentially poised to appear but may not without triggering life events? These areas of genetics require further research. For now, we are left with the unsettling premise that not only the sins of the fathers could be visited upon their children, but their responses from being sinned against as well. If so, this means that the Genocide is still happening—both to the perpetrators and to their victims.

**What Mitigates the Effects of Trauma?**

Three primary tools have been found to be effective in mediating trauma’s effects: 1) establishing healthy relationships, 2) supporting access to appropriate anger and resultant acts of resistance, and 3) speaking and writing of the trauma. Studies suggest that healthy relationships are protective against long-term stress responses and generational perpetuation of stress. Supportive and trusting relationships with intimate partners and high levels of maternal warmth toward children can mediate even intergenerational trauma. (Bowers and Yehuda, 13.) Armenian families and communities are often close and tight-knit, helping to facilitate both survival and emotional resilience in a new land.

Genocide survival also can come with a great deal of anger that can help to mobilize action: “When we get angry, levels of the stress hormone cortisol drop, suggesting that anger helps us calm down and get ready to address a problem, not run from it” (as quoted in Joann Ellison Rodgers’ article Go Forth in Anger” (*Psychology Today*, 75). Anger not only helps us resist oppression; it helps us resist depression and upset well, by motivating us to act. Anger is essential for resistance, and resistance is an antidote to trauma. As Flora A. Keshgegian argues, in *Redeeming Memories* (122), “Remembering resistance enables resilience, the ability of human beings to go on living” (as quoted in “Remember Your Stories,” Rev Paula Owen Parker).

At a workshop on post-traumatic stress disorder offered in 1995 by Harvard Medical School, Bessel van der Kolk began his lecture by talking about a time he was robbed. Yet he had no emotional damage from it. He too resisted his attackers. Is this a way to inoculate ourselves against a trauma response—assuming we survive?
Could resistance or the lack of it produce such wide differences in coping skills? Could resilience be partly a product of the personal agency that is developed by resistance, even if we don’t fend for our attackers?

The men of Nemesis channeled their despair and pain into action on behalf of their community and that gave their lives meaning. Shaikh and Kauppi state, “Resistance in the form of resistance to oppression is specifically evident in studies involving marginalized populations” (167). It is necessary to “refrain from categorical judgments about what is and is not adaptation under adversity and stress,” including fighting back and seeking justice. The authors imply that such activities may be necessary for the individual—and the ethnic group—to maintain health and a sense that life has meaning, especially when the world community does not act to protect the oppressed. Philosopher Judith Shklar states that it is essential for the world community to acknowledge the needs of the victims in deciding how to deal with genocide: “Whatever decision we do make will … be unjust unless we take the victim’s view into full account and give her voice its full weight. Anything less is not only unfair, it is also politically dangerous” (Shklar, 126). Given the total lack of this perspective toward the Armenians, the men of Operation Nemesis articulated a set of values to guide their efforts: seek justice, protect innocents, and go it alone when necessary. Their motives were “pure” in the sense that they did not seek fame or public recognition—indeed just the opposite, as evidenced by the Nemesis letters hidden for nearly 70 years in my childhood bedroom. They had one goal—to bring to justice the men who attempted to annihilate their people. This gave their lives meaning, their wounded psyches agency. As Armen Garo wrote in his letter of March 17, 1921 two days after the assassination of Talaat, “Shahan’s success is the only consoling event” (Sacred Justice, 200). The purpose of the assassination was not only to kill the primary architects of the genocide but to ensure a very public trial such that Talaat’s guilt of the crime that became known as genocide would be clear to every juror and to the world—and it was. As the New York Times wrote of the Tehlirian not guilty verdict, “They simply had to let him go” (NYT, June 6, 1921, see Kloian). After the verdict women were weeping, men were cheering—Germans as well as Armenians. Tehlirian had become a hero.

Narrative can be a powerful tool of resistance as well. Right after 9/11 my college asked me to teach an honors seminar titled Trauma and the Twentieth Century. I invited two Holocaust survivors to the class, a husband and wife who had both been in concentration camps. Neither spoke of their experiences for years, but the husband broke his silence by writing for the local newspaper and speaking at schools. The nightmares that had plagued him for years disappeared. The narrative he offered my students was organized, clear and focused, but his wife had never before spoken of her experience. She began, “You cannot know. You cannot know. It is impossible. I cannot describe. You cannot know. I saw my mother my mother.” Her voice trailed off; she began again. “My mother and I were separated. I was young, blonde, looked German. I never saw her again. I asked a woman, “Where’s my mother, where’s your mother?” The woman pointed to the tall chimney and said, “You stupid, there’s your mother.” Her face was red, tears pooling in her eyes. She pulled up her sleeve revealing her tattooed number and said, “This is who I am.” Clearly these two survivors had strikingly different relationships with their narratives. The husband was able to tell a detailed, structured story, but her story was broken; she jumped from moment to moment and kept saying how impossible it was to describe what happened. Yet she was able to remember specific images that had been imprinted in her mind: her frozen nipples and toes, piles of dead bodies, ashes from the crematorium that she could not bend down to pick up for fear of being shot. These images were disjointed, appeared to be told at random. The husband had over time been able to integrate his traumatic memories into his life, but she was still experiencing hers: “This is who I am.” This couple is a pointed example of the cost of silent trauma and the benefit of finding a voice. As survivor Susan Brison, philosophy professor at Dartmouth, wrote in her book Aftermath: Violence and the Remaking of a Self, “Saying something about a trauma does something to it.”

My maternal grandmother Eliza’s journals had a permanent home on top of her dining room buffet. Whoever came to her house and sat at her dinner table could hear one of the many stories she told—escaping persecution in 1895 by jumping from her roof under her mother’s arm, hiding in saddlebags to escape, or marching around with broom handles at the siege of Dortyol in 1909 to fool the Turks attacking them that even girls had guns. Eliza had created a narrative of resistance, of personal agency, whereas my paternal grandmother, Elizabeth, who died of a stroke at 66, could only echo the screaming of the Turks, their scimitars raised, as they invaded their town of Kharpert. Eliza could and did resist, and this helped her to accept her history and integrate it into the rest of her life; Elizabeth could only run which froze her into a non-verbal fear that she could not
dissipate through language, given the strictures placed upon her that isolated her. At that time who could she tell? Certainly not her son—who had already picked up on her fear—and not her survivor relatives and friends who were struggling in urban Detroit/Highland Park where they did not know the language and had few skills. Her trauma was a kind of eternal present since her continued silence caught her in the past, whereas Eliza’s resistance allowed her to talk, write, and sing her way into the present, dying near the age of 100. We cannot control the trauma, but with help we can control our reactions to it. As Susan Brison writes, “Narrative . . . facilitates the ability to go on by opening up possibilities for the future through retelling the stories of the past. It does this not by reestablishing the illusions of coherence of the past, control over the present, and predictability of the future, but by making it possible to carry on without these illusions” (Brison 104).

The men of Hadag Kordz acted in ways that they deemed were necessary for the future health of their people and perhaps for theirs as well. Most of the members lived relatively long lives as productive members of their communities and died peacefully in their beds of old age. Even Tehlirian, who had severe trauma responses and perhaps other medical conditions as well, married, had children, and lived to the age of sixty-three, and Shahan Natalie became a father and lived to ninety-nine. They broke the rules of our culture, yet their actions may have brought them a kind of peace, knowing they gave their people the only justice they have yet had. It was, as Armen Garo said, “our only consoling event.” Today resistance can be accomplished by telling stories, continuing to research the genocide, and insisting on the truth, no matter how politically inconvenient. Whoever controls the narrative controls history.

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INTRODUCTION

This paper discusses a recent archaeological and electromagnetic survey of the Fort Hill and associated Revolutionary War cantonments at Jockey Hollow near Morristown, New Jersey (Figures 1 and 2). This project, which had an initial focus on testing induced polarization, a form of resistivity, formed the foundation for a more comprehensive survey of the fortifications on Fort Hill and associated camps associated with the Continental Army’s camps from the winters of 1779-1780 and 1780-1781. A comprehensive research methodology was developed which included historical research, remote sensing, hand excavation, photogrammetry, and digital mapping. Fortifications and hut remains were identified and an evocative collection of Revolutionary War artifacts that reflect the privations of the soldiers cantoned at Jockey was recovered. These artifacts included several pieces of grapeshot, which may be associated with the mutiny of the Pennsylvania Line in January 1781.

Morristown National Historical Park in Morris County, New Jersey, was established in 1933 and was the nation’s first National Historical Park (Weig and Craig 1980, 42-43). It consists of three separate sites: Washington’s headquarters/the Ford Mansion, Fort Nonsense, and Jockey Hollow. The latter was the site of the Continental army’s winter camps in 1779-1780, 1780-1781, and 1781-1782. Even before the establishment of the National Park, there was considerable local private interest in commemorating the Revolution, and by 1873 the Washington Association of New Jersey had acquired the Ford Mansion (Weig and Craig 1980, 42), while the camps of the Continental troops were a site of considerable interest for early tourists (Munsell 1882, 122-123). In the summer of 2017, Monmouth University’s Department of History and Anthropology and Rutgers University’s Department of Earth and Environmental Science, working with archaeologist Jim Harmon from the Northeast Region, National Park Service, began a project in the park designed to explore the efficacy of new geophysical techniques, most notably induced polarization, a form of resistivity and near surface magnetometry. Our focus was on Fort Hill, a little-known Revolutionary War fortification built by troops commanded by General Anthony Wayne in December of 1780. In two summers of fieldwork, we tested the effectiveness of remote sensing techniques on both Fort Hill and the nearby camps of Hands Brigade from the Winter of 1780. We also employed a variety of tested and new fieldwork techniques to investigate these sites, including metal detecting, photogrammetry, digital elevation models, photography, LiDAR, GPS based recording of surface features, shovel testing, and both excavation unit and block excavation. Methodologically, we are able to provide recommendations for the future study of the Continental Army’s camps and substantively, we found physical evidence that may corroborate accounts of the 1781 mutiny by the Pennsylvania Line.
Morristown, New Jersey, settled by New Englanders in the early 18th century, protected by the twin ridges of the Watchung Mountains, was the de-facto military capital of the American Revolution (Cunningham 2007). Following the victories at Trenton and Princeton, Washington spent the winter of 1777 at Arnold’s Tavern in Morristown with his soldiers housed in private homes, churches, and perhaps the nearby Loantaka Valley (Sherman Vanderpoel 1959, 164). In 1780, following winter encampments at Valley Forge 1777-1778 and Middlebrook 1778-1779, the Continental army returned to Morristown. Portions of the army would return to the site for the winter of 1780-1781 and again in 1781-1782. During the second encampment, the Ford Mansion, was extensively remodeled to serve as Washington’s headquarters (Pfister 2009, 61). Much of the army was located at Jockey Hollow, about three miles west of Morristown proper, while other brigades, most notably, the New Jersey Brigade were further south (Bartenstein 1967). These winters were brutal, particularly the winter of 1779-1780, which saw a record 27 snows and the collapse of the supply system due to weather and the spirits of the inhabitants. Morristown was selected as the camp base because of the ready availability of timber for hutting, roads, and water, a local population that was largely sympathetic to the aims of the
Continental Army, local manufacturing capability, especially of iron and gunpowder (Bartenstein 1975), and the natural protection provided by the twin ridges of the Watchung Mountains.

Figure 2: Site locator map. Green dots indicate Fort Hill, to the north and east, and Hands Brigade, to the south and west. Figure prepared by Sean McHugh.

HISTORICAL BACKGROUND

December 1780 saw a portion of the Continental Army encamped at Morristown. The troops of the Pennsylvania Line, including Hand’s Brigade, which was composed of two Pennsylvanian and two Canadian regiments were at Jockey Hollow. They were quartered in huts at several different locations. Only one historic
image of the hut camps survives. It shows Stark’s Brigade of New England troops in 1780 (Stelle 1979, 18) (Figure 3). The huts were arrayed in long lines, which appear like chevrons from above. The huts themselves were supposed to measure roughly 16 feet broad by 12 feet deep. Groups of twelve enlisted men lived in a hut. The hills served to reinforce the hierarchical organization of the army, with officer’s huts being larger and erected higher on the hillsides above the enlisted men. A parade ground was likely located in front of the huts. Support structures, such as magazines, a commissary, hospital, and kitchens were also constructed. Ranking officers were quartered in local farmhouses, including the Wick House, the Guerin House, and Peter Kemble’s fine house at Mount Kemble (Van Doren 1943, 41).

Figure 3. The hutting arrangement of Stark’s brigade. It was likely drawn in 1779 or 1780. Reproduced from Winter at Morristown 1779-1780, the Darkest Hour by Samuel Stelle Smith 1979:18). Note the hierarchical arrangement of huts, with the first and second rows from the bottom holding enlisted men, the third ensigns and lieutenants, the fourth captains, and the fifth majors.

The Watchung Mountains provided a first line of defense but were supplemented with formal fortifications, most notably what was called the Citadel on Fort Hill. Constructed by troops under the campaign of Anthony Wayne, The Citadel was designed to protect any approaches to the camp and to provide his soldiers with a place of refuge if the British attacked the camps in force. In December 1780, Wayne described his plans for the site as follows, “I traced out a kind of Citadel consisting of three small redoubts—the whole joined by a stockade” (Olsen nd). Shortly thereafter, construction began, with approximately 100 men assigned to work on the site. Local civilians were also employed hauling logs. A contemporary description noted, “the works go on so briskly that I hope in a few days we shall be able to bid the enemy defiance. Our works on Mount Kemble consist of two small redoubts and a blockhouse that will contain about forty men—the six pieces of artillery are to be stationed there” (Olsen nd).

Below the Citadel, on the slopes of Fort Hill, were the camps of the Hand’s Brigade and the Connecticut Line (Figure 4). These huts, which Revolutionary War diarist Joseph Plumb Martin described, tongue in cheek as a “City for habitation” (Scheer 1962, 161) were initially erected in the winter of 1779-1780 by Hand’s Brigade and the First Connecticut Brigade, and were reoccupied in the winter of 1780-1781 by the Pennsylvania Line (Stewart 1975, 22). According to period documents, the huts erected by Hand’s Brigade and the Pennsylvania line were used by the Pennsylvania troops as the huts of the Pennsylvania Line were in deplorable condition. Washington also allowed the former huts of the Maryland troops to be dismantled and reused to fill in the gaps in the line. Conditions were poor in camp and morale was very low. Many of the soldiers had not been paid in over a year, and most believed that they were entitled to be discharged at the end of three full years. Making matters worse, the Pennsylvania Troops and New Jersey Troops had not received.
the generous enlistment bounties received by New England soldiers (Weig and Craig 1950, 27). Talk of mutiny spread through the ranks, and on January 1, 1781, the Pennsylvania Line, some of the most experienced troops in the Continental Army, finally cracked. When Captain Adam Bettin attempted to stop them, he was killed (Figure 5). The troops soon formed up to march to Philadelphia. General Wayne himself attempted to stop them, and failing, he told them he would march with them. The mutiny threatened to spread to other units but was suppressed. Finally, the troops received their back pay, and those that had been forcibly reenlisted were discharged (Van Doren 1943, 194, 200). This is not your typical heroic story of the American Revolution, but it does reveal the great privations faced by the men of the Continental Army.

Figure 4. Map of the winter encampment of the American Army at Jockey Hollow, c. 1780, commonly known as the Rochefontaine map after the cartographer, Étienne Nicolas Marie Béchet, Sieur de Rochefontaine, later Stephen Rochefontaine, a French-born military engineer who served with the Continental Army.

Figure 5. The Adam Bettin monument commemorates the one officer who lost his life during the mutiny of 1781. Photograph by Richard Veit.
After the Revolution, the huts were sold off and dismantled, trees reclaimed the hillsides which had never been productive agriculturally, and Fort Hill was abandoned and forgotten. By the early 19th century, the campsites and battlefields of the American Revolution were popular sites for visits by tourists (Chambers 2012). Morristown and the camps at Jockey Hollow were high on the list of sites to visit, especially by historians and chroniclers of the American Revolution such as Benson Lossing (1852, 310), William Barber, and Henry Howe (1868, 388). Fort Hill did not escape the notice of early historians, as this woodcut shows the site as it appeared in 1859 (Alden, Allen, Hartman, and Wells 1859) (Figure 6) and was photographed in the early 20th century (Sherman 1916). The Reverend Andrew Sherman, an early 20th-century scholar, wrote at length about Fort Hill and the Connecticut Line (Sherman 1905, 1916).

Figure 6: An 1859 illustration of tourists at Fort Hill. This appeared in Harpers New Monthly Magazine, No. CV, February 1859, volume XVIII.

To the best of our knowledge, our study is the first formal investigation of Fort Hill, however, it follows on nearly 90 years of archaeological fieldwork in the park (Olsen 1964; Rutsch and Peters 1977; Hunter and Burrow 2005). Morristown was the site of Civilian Conservation Corp. archaeological excavations in the 1930s that pioneered some of the techniques that we regularly use today, including the use of mason’s trowels for excavating, and screening soil (Santucci 2017). Other significant excavations occurred in the 1960s, 1970s, 1980s, and the early 2000s (Campbell 1963; National Park Service 1974, 1975, 1996/2004, 1998, 1999/2009, 2000/2004a, 2000/2004b, 2003, 2005).
FIELDWORK METHODOLOGY

The study described here was a collaborative effort between Rutgers University Newark’s Department of Earth and Environmental Sciences, and Monmouth University’s Department of History and Anthropology. The project goals were twofold. We were tasked with investigating a little known and rarely visited site within the park, called Fort Hill, and we wanted to test the usefulness of new geophysical techniques, most notably near surface magnetometry and induced polarization. Previous geophysical testing during URS Corporation’s investigations in the early 2000s of hut sites had not proven to be particularly fruitful (URS 2006). The geophysical work was directed by Lee Slater from Rutgers University, assisted by Pantelis Soupsis from the Technical Institute of Crete, while Richard Veit and Adam Heinrich from Monmouth University, assisted by Sean McHugh, supervised archaeological fieldwork. Our research generated considerable new information about both Fort Hill and the associated camps, and generated further research questions.

Fort Hill was constructed on a 660-foot-high unnamed hill located near the southern border of the Jockey Hollow encampment. It is on a rocky rise that would have overlooked one of the major roads through the area. The fort’s history is not especially well documented. Records indicate that construction began under the direction of General Anthony Wayne in December of 1780. It has been described as “the least known and least visited historic site in Morristown National Historical Park” (Olsen nd).

Early archaeological excavations largely missed this portion of the park, but this changed in 1963, when Colonel J. Duncan Campbell documented a number of huts associated with the Connecticut and Pennsylvania lines and excavated several (Campbell 1963). His excavation techniques were, by modern standards, curious. He focused especially on the hearths of the huts, leaving much of the rest of the structure untouched. So far as we can establish, he excavated four hut sites associated with Hands Brigade.

When we first visited the Fort Hill site, the ruins there were obscured by fallen trees and a luxuriant growth of Japanese Barberry, an invasive species of brambles. A professional arborist was hired to remove the trees, which had fallen during Superstorm Sandy. Some of the tree trunks measured two feet in diameter. Once the roughly two-acre top of the hill had been cleared, a ten-meter grid was established across the site. A variety of remote sensing techniques and excavation methods were employed in order to investigate the site. Near
surface magnetometry and induced polarization was used by Lee Slater and students to identify subsurface anomalies. Features were marked for future hand excavation. In order to better understand the site’s stratigraphy and identify subsurface deposits, shovel tests were excavated on a grid established across the site. Meter-square excavation units were dug well into sterile subsoil or until impassable rock was encountered in areas where anomalies had been noted. The entire gridded area was also systematically metal detected. A colleague, Dr. Jennifer Swerida, also carried out photogrammetry on site.

The results were unexpected. Although numerous anomalies had been identified, to our surprise, ground truthing indicated that none of the anomalies were cultural. Shovel testing was equally unrewarding. Twenty-seven shovel tests were excavated. None yielded any artifacts. A total of four meter-square excavation units were laid out to investigate anomalies noted during the magnetometry survey. Given the extremely rocky nature of the knoll, they too proved unproductive. We suspect that the magnetic signatures identified were in fact, magnetite ore. A nearby mountain is known as mine mountain, and Morris County was once quite famous for its ironworks.

Metal detecting proved to be somewhat more successful. At the Fort, five artifacts were recovered from metal detecting. These included U.S. coins dating from the 1960s and 1970s. They may, in the most tangential of ways be related to the American Revolution. Given their dates, the latest is from 1776, it is quite possible that they were lost by hikers or picnickers during the Bicentennial. We also found a single broken chain link. It is not particularly temporally diagnostic.

Despite the paucity of artifacts and a group of field school students who were rapidly drifting towards mutiny, it was quite clear that there was a Revolutionary War era site on top of Fort Hill, as represented by two rough stone platforms, at the east and west ends of the knoll. A third, possible, and more irregular platform was noted on the north side of the knoll. The two better preserved platforms were split by cleared areas or paths running through them. We documented the platforms with photography, mapping, and photogrammetry (Figures 8 and 9).

Figure 8. Dry-laid stone features, the remains of the fortifications on Fort Hill. Map prepared by Jennifer Swerida.
At this point, four weeks into the fieldwork, we decided to retreat from Fort Hill and explore what appeared to be hut sites associated with Hands Brigade on the slopes of the hill. Clusters of stones, generally representative of fallen chimneys, alerted us to the presence of the huts. We selected an area of 50 meters by 20 meters aligned east to west to investigate, established a new ten-meter grid, cleared the area and foregoing to magnetometry work, began a metal detector survey. We also elected to excavate a small number of excavation units on one of the more visible huts. The metal detector survey employed a variety of personally owned metal detectors, including a White’s MX Sport, a White’s PRL 1 and Minelab X-Terra 70. Metal detecting proved fruitful, and 68 artifacts were recovered. They included a musket balls, a piece of grape shot—typically employed in an anti-personnel capacity, numerous nails—some clenched and some floor, and a blacksmith-made fork that may have been produced from the bale handle of a kettle, unidentified pieces of hardware, and horseshoes. Although modest, the collection was far superior to that noted at Fort Hill. The artifacts were also noteworthy for where they were found: outside of and downslope from the huts or cabins. We suspect their placement may relate to the dismantling and salvaging of the huts.

The single hut selected for excavation was also light in terms of artifacts and it was quickly clear that the two excavation units we had laid out would be rapidly finished, so we laid out an additional six units and trenches, resulting in almost the entire structure being uncovered. The hearth was located in the northwest corner of the structure. The walls were laid up on stone sills, varying in height depending on the lay of the land. The structure measured approximately 12 by 16 feet. Evidence for logs having sat directly on the ground was noted. The hut is believed to be associated with Hand’s Brigade which consisted of two Pennsylvania Regiments and two Canadian Regiments.
In the summer of 2018 with a better understanding of the site’s characteristics, we returned to the huts associated with Hand’s Brigade and resumed our fieldwork (Figure 10).Collapsed piles of stones indicating the locations of former chimneys—though at times these are very hard to distinguish from tree throws, indicate the sites of the huts. An area of approximately 1.6 acres/.64 hectares, was delineated, cleared of brambles, and thoroughly metal detected on a grid pattern. Near-surface magnetometry was also performed in this area. We also selected a single hut (Designated Hut 7 by Duncan Campbell and Hut 4 by Monmouth University) for excavation; however, rather than excavating individual meter-square units, we overlaid the hut with a series of three-meter square boxes. Soils on the site are quite thin and previous excavation had shown that subsoil is present within ten centimeters of the current ground surface. Nine excavation blocks were dug, revealing the fire-box of the hut’s hearth, the configuration of the structure, and recovering a small but evocative collection of artifacts. We documented our excavations with traditional drawings, as well as photography, and created a digital elevation map.
Figure 11: A near surface magnetometry map showing the 2018 excavation block, in blue, and select metal detector finds. Magnetic anomalies appear deeply shaded. Map prepared by Sean McHugh based on data provided by Rutgers University, Department of Earth and Environmental Studies.

Magnetometry proved more effective on the huts than on the fort and the hearths provided strong magnetic signatures (Figure 11). However, the single most effective technique for investigating the sites proved to be metal detecting. The students took some time to become proficient with the metal detectors, and generally did better with simpler rather than more complicated models. They succeeded in recovering 613 artifacts. Of these, the vast majority are nails; however we also recovered a USA button, a side plate of a musket and bayonet socket from a Charleville Musket, seven pieces of grapeshot, a flint fragment and a gunflint, a flattened musket ball, a heavily worn coin—large cent size, and a redware mug. Large quantities of nails were also recovered. All of the finds were piece plotted using a sub-meter accuracy Trimble GPS unit and entered into our site GIS. Curiously, the metal detecting revealed more artifacts outside the hut sites than within. It is not clear if this is an indication that soldiers were engaged in a wide range of activities outside the huts, generally in front of them, or if they relate to the deconstruction of the huts after the war. The area between the camps of the Connecticut Line and Hand’s Brigade are especially rich in artifacts, and the usual linear arrangement of the camp appears to break down in this area, possibly indicating that this was a work area, perhaps associated with camp followers.

Metal detecting has a long history of use in military sites archaeology, and its value has been seen at sites dating from many conflicts, including the Pequot War, American Revolution (Sivilich 1996, 2009; Stone, Sivilich, and Wheeler 1996), Mexican War (Haecker and Mauck 1997), Civil War (Lees 1994), and Indians Wars (Fox 1993; Scott, Fox, Connor, and Harmon 2000; Scott 2014; Green and Scott 2004). It has been used on camps from the American Revolution, most notably by Dan Sivilich and colleagues tracing the evacuation of the British troops from Monmouth County, New Jersey after the Battle of Monmouth (Sivilich 1996) and by Richard Veit and colleagues at British tent camps at Raritan Landing (Veit and Wiencek 2009). Here we want to strongly argue for the importance of metal detecting as a primary tool for investigating Revolutionary War era campsites. The hut sites at Jockey Hollow, occupied repeatedly by poorly-supplied troops have high visibility due to the collapsed hut chimneys, but are stratigraphically shallow and poor in artifacts. Traditional fieldwork, most notably shovel tests and excavation units, are ineffective for studying these sites. However, metal detecting is highly effective, especially when combined with block excavations (Figure 12).
Figure 12. A Lidar map showing select metal detector finds and the hut locations. The presence of artifacts to the south of the huts in what was likely a parade ground is noteworthy. Map prepared by Sean McHugh.

INTERPRETATIONS AND CONCLUSIONS

Despite the paucity of artifacts, Fort Hill and the associated huts have quite a bit to reveal about the winters of 1779-1780 and 1780-1781 at Morristown. First for Fort Hill, here, we argue that the reason there are so few artifacts on Fort Hill is because the fort itself was never finished, perhaps because of the mutiny. Construction clearly began and two gun platforms were partially constructed but there are no artifacts present to indicate that the area was heavily occupied or that any number of soldiers were present for long periods of time on the hill. We think the fort fell victim to the mutiny and was left incomplete.

The huts are a somewhat different story. Here some artifacts were present, though in very small quantities. The artifacts were found both within, and more importantly, in front of the huts. We suspect this relates to the removal of the huts after the encampment. The huts we excavated yielded very few artifacts, which again may speak to the generally poor conditions faced by the soldiers at Morristown, or, alternatively, may reflect a successful attempt to maintain scrupulously clean camps.

Figure 13. Select artifacts recovered from the 2018 excavations including an iron fork with partial bone plate, brass shoe buckle, pewter USA button, an iron buckle, and a piece of grapeshot.

Perhaps most interesting, and most speculative, is the presence of grape shot in the camp (Figure 13). A careful review of records relating to the camps shows no indication that artillery was present in the camps in
1780, as they were quartered on the outskirts of Morristown. The grapeshot may have been used for non-military activities, such as playing games like Long Bullets, something akin to colonial bocce, or perhaps the college favorite, beer pong. Alternatively, the grapeshot may relate directly to the mutiny. Records indicate that when the troops mutinied, other loyal troops were dispatched to bring artillery to the camps in an attempt to scare the mutineers into submission. The cannons are reported to have fired grapeshot at the troops, but happily there were no casualties, and the troops marched off under the command of their Sergeants (Miers 1971, 232-233; Thayer 1975, 264). It is possible that the mysterious grapeshot relates to this brief episode.

Our recent fieldwork at Morristown National Historical Park provided a unique opportunity to revisit some old sites using an arsenal of current archaeological technologies. Thanks to modern technology, GIS, metal detecting, magnetometry, GPS, LiDar, and Photogrammetry we can gather considerable new information from a site that was already partially excavated. In the 1930s, Morristown was on the cutting edge of archaeological research, with new techniques like troweling and screening, while technology will never replace hand excavation, thanks to new technology we can gain a much richer understanding of the archaeological sites at Jockey Hollow and the lives of the soldiers who built the huts and called the site home. We hope to continue documenting the camps of Hands Brigade and the Connecticut Line using magnetometry, LiDAR, and metal detecting. Fieldwork here could continue for years.

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Fortifications

Frontier Warfare in the Argentine Pampas From An Archaeological Perspective: Late XIXth Century Military Sites in Carlos Casares County, Buenos Aires Province, Argentina.

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1. INTRODUCTION

Throughout the XIXth century, a process of territorial expansion developed in what is now Argentina. Initiated under the Spanish rule, it deepened after independence in 1816. It sought to incorporate extensive tracts of land in the region known as the Pampas, vast treeless plains with a temperate climate. These lands were favorable for cattle raising and agriculture and thus indispensable for an economy oriented toward the export of primary commodities. This expansion, however, was an uneven process, heavily dependent on the political and economic consolidation of the Argentine society, and especially on the building of a modern nation-state, which only began after 1861. Thus, the final accomplishment of this territorial goal could only be completed after a massive military campaign in 1879.

The diverse indigenous societies which controlled these lands, collectively referred to at the time as Pampa Indians, fiercely contested this territorial expansion, raiding frontier settlements and fighting military expeditions. However, open conflict was only a side of a complex interethnic dynamic, in which trading, political alliances and other peaceful interactions also figured prominently, in a situation that resembled a “porous frontier” (Parker 2006) more than a rigid separation between two antagonistic cultural worlds.

Archaeological investigation of frontier military emplacements in Argentina started in the 1990s and is now a well-established field of research (Gómez Romero and Spota 2006). While a significant number of sites have been investigated and specific military aspects, such as the study of firearms, ammunitions and uniforms, have been addressed (Landa et al. 2010; Leoni 2009, 2014; Tapia et al. 2009), the focus of most of the works is not necessarily placed on the military aspects but rather on the lifeways of their occupants, in a manner which differs little from the study of civilian sites. In this paper we focus specifically on the military characteristics of two military emplacements that were part of an integrated defensive system operating between 1869 and 1876 in the western part of Buenos Aires Province, in what is nowadays Carlos Casares County. This was a period of high hostility between the indigenous groups and the Argentine national society as a result of a renewed advance of the frontier line into indigenous lands. And it was crucial for the Argentine army as well, as it was then when it started the modernization and standardization of its armament by acquiring Remington Rolling Block single-shot breech-loading rifles and carbines to replace a vast array of obsolete muzzle-loading weapons.
In the following pages we provide a historical overview of the frontier, concentrating on the section known as “Buenos Aires Western Frontier.” We then focus on the two archaeological sites investigated, Fort General Paz and Fortín Algarrobos, discussing historical and archaeological information, and presenting their architectural characteristics and artifact assemblages. We point out the low degree of standardization shown by the heterogeneous military materials and settlement layouts. We also discuss logistical and supply issues through the analysis of glass containers, ceramic wares, and faunal remains, especially highlighting how the archaeological record shows discordances with the written sources.

2. HISTORICAL BACKGROUND: BUENOS AIRES WESTERN FRONTIER, 1869-1876

The dynamics of the territorial expansion consisted in the establishment of successive lines of military emplacements on the borderlands, known at the time as Frontier Lines. They protected towns and rural settlements from indigenous raids, serving also as bases for offensive operations. The general Frontier Line was in turn subdivided into smaller sections (typically 200-250 km long). In Buenos Aires Province (the richest and most powerful of the Argentine provinces) these sections were respectively designated as the Northern Frontier, the Western Frontier, the Southern Frontier and the Southern Coast Frontier (Figure 1) (Raone 1969; Thill and Puigdomenech 2003).

![Figure 1: Map of the 1869 and 1876 Frontier Lines, with inset detailing Buenos Aires Western Frontier (redrawn from Raone 1969).](image)

The Frontier Line was planned as an integrated defensive system in which a string of small forward outposts, known as fortines, sounded the alarm on detecting incoming raids by indigenous groups. This would allow the civilian population to take refuge while the larger military garrisons situated in forts behind the fortines confronted the raiders, either before they reached their targets or, more commonly, when they were retreating after plundering settlements and towns. Budgetary and personnel restrictions, though, significantly limited the efficacy of this defensive system through time (Perry 1972; Raone 1969; Thill and Puigdomenech 2003; Walther 1964).

The general Frontier Line shifted southwestwardly during the second half of the XIXth century, placing more lands under the effective control of the Argentine state. By 1863, the section known as “Buenos Aires Western Frontier” had its command post in the town of 9 de Julio (Figure 1), but in 1869 an ambitious
general advance of the Frontier Line was initiated and a new line was constructed. The sector corresponding to “Buenos Aires Western Frontier” extended approximately 200 km in a northwest-southeast direction, with an advanced line of fortines at 10-15 km intervals. The command post and main garrison was located in Fort General Paz, about 10 km behind the center of the line (Figure 1) (Ministerio de Guerra y Marina [MGM] 1870).

In 1870 the Western Frontier commander, Colonel Juan C. Boer, described in a report how the system was supposed to work. The Western Frontier was divided into two parts. One consisted of the outposts situated to the right of Fort General Paz, extending northward until reaching the southern extreme of the Northern Frontier section. The other one included the outposts to the left, extending to the south and meeting the northern extreme of the Southern Frontier section (Figure 1). Both parts had their respective command posts and were responsible for patrolling the terrain between the fortines daily. On detecting incoming raids, the outposts had to fire artillery pieces (four times if the raid was on the right part, three if it was coming through the left part) to alert the fort and the other fortines. An outpost emplaced in the center of the line would retransmit the signal to the headquarters in Fort General Paz. The Western Frontier commander would then organize the military response according to the magnitude of the raid and to the troops available (MGM 1870).

In March 1876, a new advance of the Frontier Line was ordered, which took the headquarters of the Buenos Aires Western Frontier to the place known as Guaminí, well inside former indigenous territory (Figure 1). Fort General Paz and its associated fortines continued to serve for a brief time as a so-called Interior Line or Second Line, with a small garrison consisting mainly of provincial militiamen, as the main regular army units departed for the new Frontier Line (MGM 1877, 1878).

Finally, a great corpus of literature produced mainly by former military officers who served on the frontier is available, which constitutes a very helpful and resorted to source to illustrate what life in the frontier was like (e.g., Daza 1978[1908]; Fotheringham 1970[1909]; Gutiérrez 2001[1886]; Pechmann 1980[1938]; Prado 2005[1935]). They generally describe the experience of serving at frontier sites, especially in the isolated fortines, as both highly heroic and extremely physically and mentally demanding. According to this narrative, military personnel on the frontier endured unthinkable hardships resulting from enemy action, a rigorous environment, and poor logistics, which often caused delayed payment for the troops, as well as a lack of food, uniforms, and weaponry. As a result of these works, the experience of living and fighting on the frontier has tended to be perceived as mostly similar in all periods and places of the long process of territorial conquest by the Argentine state. This view was later reproduced in the work of classical military historians (e.g., Raone 1969; Walther 1964). Modern historiography has critically approached these literary sources, historically and contextually situating them, and identifying biases that pervade them. However, the image of frontier life they describe continues to permeate popular views of the frontier warfare, and can be found widespread both in academic and non-academic contexts. As we shall see, the archaeological record is not necessarily completely congruent with this frontier narrative.

### 2.1. The architecture of forts and fortines

In terms of architectural design, the forts and fortines that formed the Frontier Line in the 1869-1876 time period were extremely heterogeneous, showing an absence of centralized and standardized planning. Since the army lacked a professional corps of engineers, the design of these structures seems to have been responsibility of field commanders and/or officers with some knowledge of military fortifications. Thus, they varied accordingly.

The fortines were the most numerous structures in the frontier defensive system but none has survived. While contemporary military maps marked their locations and local toponymy sometimes denotes their former existence, archaeological research is one of the best ways to locate them with precision and to determine their specific structure and construction aspects. Reconstructions meant as commemorative monuments are a common feature in Buenos Aires Province’s countryside but they tend to reflect a popular conception of these outposts, emphasizing the rustic watch towers and the palisades that surrounded them as main features. On the contrary, written and graphic records document that these outposts were mostly earthen
fortifications, with a ditch and a rampart as main defensive features surrounding small and simple habitation structures. Corrals and agricultural plots, built also with ditches and ramparts, were located around the central redoubt.

Fortines were small, housing detachments ranging between 5 and 15 men. They were built at regular intervals or close to strategic points in the landscape (e.g., roads, water sources, towns). Sometimes, existing civilian structures were incorporated into the design. Round-shaped outposts were the most common, but square, rectangular, and even triangular shapes were not unusual.

In terms of preservation, both their earthen construction and their ephemeral occupation render difficult their archaeological investigation. Specific architectural features are hard to identify in the humic loessic sediment that forms most of the Pampaean soils and subsoils, and limited artifactual evidence usually resulted from their brief use lapse (Maximiano Castillejo et al. 2018). Compounding these conditions, most of the outposts are located in lands currently subject to intensive agricultural work and consequently many of them have been razed by continuous plowing.

The forts were much larger facilities, built to house sizable garrisons consisting of a couple of regular infantry battalions or cavalry regiments, complemented by militias and allied indigenous auxiliaries (known as “indios amigos” or friendly Indians). The forts nucleated a considerable civilian population as well, including soldiers’ families, merchants, settlers, army civilian workers and employees, and indigenous groups, thus functioning as central places in the frontier landscapes.

The forts were also earthen structures, generally showing a main square compound surrounded by ditch and rampart, which contained command posts, hospitals, ammunition depots, and housing structures for the troops and their families. While, as in the smaller outposts, most of the structures were made of perishable materials (wattle and daub), the main buildings were sometimes made of bricks or adobe. Corrals and agricultural plots, civilian houses and stores, and sometimes indigenous camps were located around the main compound. The same preservation issues pointed out for the fortines apply as well. However, their larger size and population directly resulted in more evident archaeological remains in the form of topographical features such as mounds and depressions, and of significant surface artifact scatters.

3. ARCHAEOLOGY OF THE WESTERN FRONTIER: FORT GENERAL PAZ AND FORTÍN ALGARROBOS

Our archaeological research has focused on two sites: Fort General Paz, seat of the section’s headquarters and main garrison; and Fortín Algarrobo, a forward outpost on the right part of the line. We have also identified the location of three other outposts, Fortines Comisario, Rifles and Cortaderas, but we have not been able to carry out specific research in them.

Fort General Paz is situated in a private property about 24 km southeast of the modern town of Carlos Casares, head of the county with the same name, in Buenos Aires Province. The fort was erected in 1869 as part of the westward movement of the Frontier Line. According to historical reports (MGM 1870), the fort consisted of a square, 150 m on a side, with earthen walls and a surrounding ditch, with several brick and adobe buildings as well as tents and huts for the troops and their families inside (Figure 2). A star-shaped earthen redoubt, fitted with artillery pieces and a watch tower, was situated in the center of the square. Corrals for cattle and horses, vegetable gardens, and civilian houses surrounded the military compound. Its garrison normally consisted of a cavalry regiment and an infantry battalion, with the usual complement of provincial militia and indigenous auxiliaries from allied tribes, as well as a considerable civilian population (MGM 1870-1876). The fort’s garrison fought several actions against indigenous incursions, and was mobilized to suppress a military uprising in 1874. According to documentary sources, indigenous warriors raided the fort to take horses and cattle on at least two occasions, but it was never formally attacked or besieged.
Archaeological research at the site has included mapping, excavations, systematic surface collections, and a geophysical survey. While a substantial artifactual assemblage has been recovered, excavations have failed to reveal significant architectural features except for badly preserved remains of brick floors and middens (Leoni et al. 2007, 2008).

Fortín Algarrobos, on the other hand, was emplaced by the Algarrobos Lagoon, from which it took its name, about 35 km northwest of Fort General Paz. Contemporary sources describe it as a circular structure, 20 m in diameter, surrounded by a 1-m high earthen rampart and by a 3-m deep ditch. It had a small hut for the garrison of one officer and from five to eight soldiers, and an eight-pounder gun, which was used to sound the alarm upon detection of enemy incursions. A circular corral was situated close to the outpost (MGM 1873) (Figure 3). Little is known about the outpost’s history, except that it was burnt in 1876, apparently with no casualties, during a raid (MGM 1877).
Archaeological investigations at Fortín Algarrobos have included excavations both in the interior of the redoubt and in a dump area outside it. The interior has been deeply disturbed by later human activities (e.g., construction of a Jewish cemetery). However, a few remains of the outpost’s use, including artifacts and an architectural feature have been identified.

In both cases, the material recovered by the archaeological investigations have been considerably augmented by artifacts collected over the years by amateur researchers and collectors, a further and significant factor of site disturbance. Some of these materials have been donated to the Municipal Museum of Carlos Casares, which has made them available for analysis.

4. WEAPONS IN THE WESTERN FRONTIER, 1869-1876

The troops that served on the Western Frontier between 1869 and 1877 employed a wide variety of weaponry. This period is crucial, as it saw the introduction of the modern Remington Rolling Block rifles and carbines in 1873, in an effort to modernize and standardize the army’s arsenal. However, these lethal weapons were first used in a campaign to suppress a political uprising in Entre Ríos Province that same year. They only started to reach frontier areas in the following years and did not become the army’s standard weapon until the late 1870s. In the meantime, frontier garrisons had to make do with a wide variety of older firearms.

According to historical sources, the Western Frontier troops fought several indigenous incursions armed with percussion muzzle-loading muskets and carbines, as well as with lances and sabers. Such was the case at the battle of San Carlos (March 8, 1872), in which the army defeated the powerful chief Calfucurá in a rare pitched battle (Ramírez Juárez 1968), or in the annihilation of Lieutenant Colonel Estanislao Heredia’s detachment on June 27, 1872 in a well-planned indigenous ambush (Gutiérrez [1886]2001; MGM 1873). However, larger engagements like these tended to be rare events in frontier warfare, which was more characterized by hit-and-run tactics and by small clashes. The formidable indigenous warriors took advantage of the muzzle-loaders’ low rate of fire, charging with their lances and bola stones before the soldiers could reload. Clashes were then largely decided in hand-to-hand fighting with lances, sabers and knives (Perry 1972). The arrival of the Remington guns would decisively change this situation, bestowing on the army an uncontestable firepower.

4.1. Firearms in the archaeological record

Archaeological research has shown that firearms dominate the weapons assemblage, in contrast to narratives emerging from personal memories that almost always emphasize the use of sabers in combat with the indigenous warrior. A wide variety of firearms is represented in the archaeological record, reflecting both the disorderly manner in which the modernization program was implemented, as well as the heterogeneous character of the troops that garrisoned the Western Frontier, which included not only regular units directly supplied by the national government, but also provincial militia and auxiliary Indians, who made use of whatever weapons they could acquire.

The firearms assemblage from Fort General Paz and Fortín Algarrobos is summarized in Table 1. It shows the presence of both muzzle-loading and breech-loading weapons. The former are represented by musket balls (most of them seemingly unfired), conical bullets, percussion caps (both fired and unfired), and a few parts of guns (two lock plates, a percussion hammer, a gun barrel fragment with a welded chimney, a spring) (Figure 4). A number of percussion weapons (perhaps even flintlocks), both smoothbore and rifled, are represented in this assemblage, including a wide variety of weapons of different calibers and provenience. They possibly include various models of French, Spanish, Belgian, German, Austro-Hungarian, Italian, and British smoothbore muskets and carbines, German and French infantry rifles, and various types of American (Merrill, Smith, Sharps) and French (locally denominated “Vincennes”) cavalry carbines, as well as unidentified models of revolvers and pistols (Leoni 2009, 2014).

Table 1: Firearms assemblages from Fuerte General Paz and Fortín Algarrobos

<p>| Artifact | Surface | Municipal Total Excavation Private Municipal Total General | Tota l | Genera l |</p>
<table>
<thead>
<tr>
<th>Collection</th>
<th>Midden</th>
<th>Museum</th>
<th>FGP</th>
<th>2012-17 Collectio</th>
<th>Museum</th>
<th>FA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musket balls</td>
<td>6</td>
<td>-</td>
<td>55</td>
<td>61</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Conical bullets</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>14</td>
<td>6</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Remington casings</td>
<td>8</td>
<td>7</td>
<td>-</td>
<td>15</td>
<td>3</td>
<td>53</td>
<td>2</td>
</tr>
<tr>
<td>Lefaucheux casings</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Vetterli casings</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Shotgun cartridge base</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>.22 casings</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Percussion cups</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Remington rifle</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Percussion hammer</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lock plate</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gun barrel fragment</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Muzzle loader spring</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>24</td>
<td>11</td>
<td>62</td>
<td>97</td>
<td>23</td>
<td>58</td>
<td>13</td>
</tr>
<tr>
<td><strong>%</strong></td>
<td>24.7</td>
<td>11.3</td>
<td>64</td>
<td>100</td>
<td>24.5</td>
<td>61.7</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Figure 4: Ammunitions and firearms' parts from Fort General Paz (top left and right) and Fortín Algarrobos (bottom left and right).

Breech-loading guns, on the other hand, are amply represented by Remington casings (both fired and unfired) and bullets, and by a largely complete Remington Rolling Block rifle, which was found in the Algarrobos Lagoon, lacking only the blocking system and most of the wooden parts (Acedo 1991) (Figure 4). A small number of pinfire casings, probably belonging to Lefaucheux M1854 and M1858 revolvers (used by army officers), as well as a few casings and bullets from yet unidentified guns complete this assemblage. A
Vetterli rimfire casing, a shotgun cartridge base and several .22 caliber caliber casings (both centerfire and rimfire) most probably result from hunting in the area after the military sites were abandoned.

### 4.2 Edged weapons

Cavalry sabers, complemented by lances and knives, seemingly were the most employed weapons in frontier warfare, at least before the arrival of the Remington. They are always mentioned in the frontier literature based on military personnel’s memories as the weapons of choice in the hand-to-hand fighting with the indigenous warriors. Different models of foreign (French, British and Prussian) and national manufacture were used. However, their archaeological correlate is scarce, represented mostly by a few fragments of blades and scabbards. Exceptions to this are an almost complete saber curved blade of unidentified model found by a local inhabitant in the Algarrobos Lagoon and later donated to the Carlos Casares Municipal Museum (Figure 5), and a guard piece found at Fort General Paz.

![Figure 5: Evidence of edged weapons: parts of bayonet and sabre scabbards (left top and center); cavalry lance points and bottom piece (right top); saber blade (bottom)](image)

Army cavalry lances are represented by two iron points and one bottom piece found by local people in Fortín Algarrobos and Fort General Paz surroundings (Figure 5). The army lances had a wooden staff and were totally outclassed by indigenous ones, made of flexible and resistant colihue cane from the Andes mountains foothills.

Finally, references to the use of bayonets are almost completely absent in contemporary narratives. However, two brass scabbard gorges for socket bayonets with triangular-section blades have been found at Fort General Paz, indicating that their use was more common than generally acknowledged (Figure 5).

### 4.3 Artillery

Artillery had a limited use in the highly mobile, small-scale, type of warfare practiced on the frontier. Fort General Paz had at least two artillery pieces of undetermined caliber, while Fortín Algarrobos had an eight-pounder gun. The former were placed in the central star-shaped redoubt and had a defensive role; the latter’s primary function was to serve as a sound alarm device. Government records, on the other hand, report the periodical delivery of artillery pieces and ammunitions to the Western Frontier garrison. Archaeologically speaking, artillery is little-represented, related materials including just a 3-pounder cannonball and one iron shot for canister ammunition, both from Fort General Paz.

### 5. Uniforms

The uniforms used by the Argentine army showed a distinct French influence, although a great deal of variability existed (Luqui-Lagleyze 1995). In order to standardize the aspect and composition of the military uniforms, Uniform Rules, openly inspired in France’s 1854 regulations, were passed in 1871-1872 (Ejército
Argentino 1871-1872). They stipulated daily and parade uniforms, with summer and winter versions, to be renewed on a yearly basis.

Uniforms and footwear were both imported (mainly from France and Britain) and locally produced, being the former unanimously preferred for their better quality. However, their higher cost hampered their acquisition so imported fabrics would be bought and the uniforms locally manufactured by the army’s Quartermaster or by private tailors (MGM 1870).

Frontier troops showed a greater flexibility in their appearance. Uniforms worn-out by the intensive use, combined with a lack of periodical resupply would have forced the frontier garrisons to resort to civilian garments, with kepis and jackets as the only military pieces of attire. Officers’ memories (Gutiérrez (2001[1886]:259) always stress the lack of proper uniforms as one of the main hardships endured while in frontier service. Somehow contradicting this narrative, official military records for the Western Frontier show a constant supply of winter and summer uniforms to the units serving there (Leoni 2009; MGM 1870-1876).

The most common archaeological correlate of military uniforms is represented by metal buttons (Figure 6). About 50 of them have been found by our investigations at Fort General Paz and Fortín Algarrobos. All of them have the national badge on the front, a few of them also having the legend “República Argentina.” Some have manufacturer names (such as “SW Silver & Co/London/Clothiers,” “SW Silver & Co London,” “Smith & Wright Birmingham,” “Superieur France”) on the back. Buttons made of two separate pieces prevail, but single-piece concave examples are not uncommon. At least two size categories can be differentiated, the larger ones corresponding to jackets and dolmans, and the smaller ones to sleeves and kepis. Their ubiquity and relative abundance suggest that they were easily lost during daily activities. It is interesting to point out that these buttons do not adjust to the official regulations. According to them, buttons had to show the unit number and/or branch symbols on the front; the stipulated sizes were not respected either. Seemingly, the national badge buttons represented a more cost-effective and easy to procure option than the unit individualized ones.

Belt buckles are also represented in the archaeological record, also departing from the army official regulations. They are two types: rectangular ones (3 examples) with the national badge on the front; and two-piece British style ones, with a sun or a unit number in the central round piece (4 examples) (Figure 6). Both types have the inscription “República Argentina.” Belt buckles were imported, official records indicating they were bought to the same merchants who provided the military buttons.

Footwear is represented by leather fragments from boots and shoes, sometimes conserving the metal eyelets. Horseshoe-shaped heel plates, presumably used in cavalry boots are also common (6 examples). This type of artifact is mentioned neither in official records, nor in personal accounts; the archaeological examples are the only evidence of their use by the Argentine troops.
Finally, ordinary civilian garments are represented by a wide variety of buttons. They are made of ceramic, glass, bone, and wood, and correspond to pieces of clothing as diverse as shirts, trousers, and underwear.

In sum, we find certain discordances between the personal accounts of former military officers (always emphasizing lack of proper uniforms), the official government reports (showing a continuous and seemingly appropriate supply), the official stipulations in force at the time (whose directions are not reflected in the archaeological materials), and the archaeological record (that shows a variety of elements that includes pieces of uniforms not mentioned in any contemporary written records). This shows that the standardization sought by the government was far from achieved, and also points to the fact that the archaeological record cannot be accounted for solely by referring to written sources.

6. Food and Other Supplies

The military diet consisted basically of beef. A daily ration of 3 pounds, supplemented by 3 ounces of rice and 8 ounces of crackers, with 1.5 pounds of salt every 50 rations, was stipulated in the provisioning contracts signed by the army with private providers. One ounce of coffee and one ounce of sugar were provided as extraordinary rations as well (MGM 1870-1879). The commander of the Western Frontier reported that vegetables were cultivated and added to the daily diet (MGM 1871). The personal accounts and memories, on the other hand, regularly point out delays in supply that forced the soldiers to hunt wild animals for food.

The archaeological record differs markedly from both pictures. Curiously, it shows a significant proportion of sheep bones in the archaeofaunal assemblages, indicating that the supply contracts were at least flexible, as sheep meat is never mentioned, neither by official records nor in the personal accounts. Zooarchaeological analyses also show that wild animal resources amount only to a negligible proportion of the faunal assemblages, further contradicting the personal accounts and widespread popular images of the frontier service (Hernández et al. 2018; Tamburini and Merlo 2018).

Glass and ceramic fragments are very abundant at both archaeological sites. They represent a wide variety of bottles, flasks, jars, and other containers of various shapes, sizes and functions. By far, the most common type of bottle corresponds to square-sectioned dark glass imported Dutch gin bottles (commonly “Van Hoytema & Co” from Culemborg, and “The Olive Tree” from Schiedam) (Figure 7). Other alcoholic beverages, such as wines and beer, are also represented by glass (light green and transparent) and stoneware (brown and cream) bottles. This is intriguing, as alcohol was prohibited by army regulations. The finding of these materials in the military compounds indicates that this prohibition was rarely followed. Private merchants, who established their stores close to the military facilities or visited the far outposts with their articles-laden wagons, would amply take advantage of this situation. Non-alcoholic beverages, such as Hesperidin (created in 1864 by M.S. Bagley, an American citizen living in Argentina) and Sarsaparilla (of the brand “Genuine Sarsaparilla Bristol’s New York”) are also represented, but are a minority when compared to alcoholic ones.

Smaller bottles for personal hygiene products have also been found, such as “Huile Hygiénique,” “Le Eau Dentifrice de Botot,” and “Eau de Cologne Farina,” from France; “Keisserliche Privilegirt Altonatische W Kronessents,” a “miraculous potion” from Germany; and “Florida Water” by Murray & Lanman’s, from New York. Needless to say, none of these exotic products are ever mentioned in the personal accounts of frontier life by former military officers.
Figure 7: Glass and ceramic artifacts from Fort General Paz. Top left, glass gin bottles; top right, stoneware beer bottles; bottom, varieties of ceramic wares.

Ceramic fragments found include a variety of industrially-produced imported wares (mostly British), both white plainware and decorated examples (Figure 7). Their presence at a frontier facility indicates that formal table manners were increasingly implemented, probably by the officers, replacing the more informal ways of eating common in rural contexts so far (Brittez 2000).

Other archaeological finds reflect leisure time and recreational activities. While smoking tobacco in the form of cigars was commonly mentioned in the personal accounts and official records, fragments of imported kaolin pipes (from both French and British manufacturers) indicate that this kind of smoking was also widespread. Glass marbles and wooden domino pieces show that other games apart from the popular card ones were played as well. Finally, small porcelain toy figurines (two from Fort General Paz, one from Fortín Algarrobos) remind us of the presence of soldiers’ families at the frontier emplacements.

As a whole, these artifacts present a picture that departs from the widespread notion of the frontier garrisons as remote and isolated places, lacking even the most basic elements. Archaeological finds indicate that government supply contracts and regulations were flexible at the least and that Western Frontier troops had access to a surprisingly wide range of locally-made and imported goods, which complemented the austere government-issued rations and supplies.

7. Final Consideration

The territorial expansion of XIXth century Argentine society and state resulted in a protracted conflict with indigenous societies. Frontier warfare can be archaeologically approached through the study of the forts and outposts that integrated the defensive systems designed to protect towns and rural settlements from indigenous raids. In this paper, we have focused on a localized part of that process, Buenos Aires Western Frontier between 1869 and 1876. The historical archaeological research carried out at Fort General Paz and Fortín Algarrobos shows that the army lacked standardization in its armament, uniforms, and design of fortifications at the time, a fact that produced logistics problems and surely conditioned its combat effectiveness. Modern weapons, represented by the Remington guns, were slowly introduced and coexisted with older weapons for many years in the frontier settings. Other archaeological materials -glass and ceramic fragments, faunal remains, etc-, on the other hand, indicate that government supply was supplemented by private purchase of a wide range of locally-made and imported products. This clearly departs from the widespread images of frontier life that originate mainly in the testimonial narratives by former military officers, that were later reproduced by some military historians, and that persist in popular culture. Thus, archaeological research holds value as a way to produce a more nuanced narrative of the complex dynamics of frontier life and warfare.

REFERENCES


Fort Nya Göteborg and the Printzhof (36DE3): Archaeology and Ethnohistory of the first Two European Structures Built in Present Pennsylvania

Marshall Joseph Becker

Background: Palisaded Enclosures

The term "palisade" in the New World as used by Europeans for their own constructions generally refers to a fence or an enclosure formed through the use of vertically set pales. Pales could be round posts (tree trunks), split trees, or planks that were riven or sawed (cf. Becker 1979). Distinguishing the specific type of pales used for any particular fence or fortification is impossible without direct archaeological evidence. Even the archaeological evidence is subject to differing interpretations, often depending on the skills of the excavators and recorders (cf. Nöel Hume 1982: 70). The documentary record regarding palisades of any type, where it exists, generally was so vague as to provide little help in answering basic questions, but recent archaeological efforts have become increasingly detailed, revealing a wide variety of architectural variability.

Aside from the small, garden-protecting slot fences, two very different types of large palisades used in fortifications are known from the historical record, and I believe that they had two very different functions. The post-and-rail palisade, with widely spaced posts and rails hung in some fashion between the posts, appears to have been used primarily to enclose large areas and to span the considerable distances needed in the control of domestic animals, as indicated by the writings of Ralph Hamor (1615). John Metz independently reached the same conclusion (personal communication, 2000). A version of such fences, with the lower ends of the pales or planks set into slots in the ground, was used for Fort Wolstenholme in Virginia, built in 1619 (Figure 1). Fort Nya Göteborg employed a more elaborate type of palisade, using close-set and vertically placed pales set into a carefully dug trench. This became the common type used by Swedish as well as Dutch and English colonists (cf. DeCorse and Beier 2018) for defensive enclosures. The 1659 Dutch fort on Godin’s (Delaware) Bay used this type of enclosure (Figure 2).

The distinction is quite important. Nöel Hume (1982: 220), for example, indicates that the instructions for the construction of Berkeley Plantation, upriver from Martin's Hundred, called for enclosing 400 acres within a palisade of seven feet, six inches. While one might assume that this is the height above ground, it more likely reflects the interval between the upright posts between which rails were set. This type of post-and-rail palisade was the system retained in the standard post-and-rail fence known today, but the former using close-set pales fastened to the horizontal rails. This is quite different from a defensive palisade, except for the use of the term “palisade,” as suggested by a rare document noting an example from far to the north of the Virginias. Regarding activities at Ferryland on the Newfoundland coast, Captain Edward Wynne wrote in 1622 that they should erect a "palizado" around four acres of land to defend against "man & beast, with post and rayle seven foot high, sharpened in the topple, with the trees being pitched upright and fastened with spikes and nayles" (Prowse 1895: 129, in Nöel Hume 1982: 221). The reference to both “spikes and nayles” is not redundant but rather indicates that metal spikes and wooden tree nails would be used in this construction.

Archaeological examples of agricultural fencing can be confused with defensive works. The findings presented here suggest that some if not most of these fence forms were primarily for the control of domestic animals (see Type 4, below).

Defensive Palisades

Our attention is now directed to variations in what are believed to be defensive palisade types, and the terms generally associated with them. Throughout the New World colonies, three very different types of defensive construction can be identified: stockades (palisades of various types), blockhouses, and earthworks. No national types reflecting specific European origins can be detected within these categories, with one
possible exception. Jope (1960) believed that the early Dutch bastion form was distinguishable from others, but this inference has neither been confirmed nor negated by any direct evidence. Palisaded forts as temporary field defenses evolved in the English areas of the New World only after A.D. 1600, and their origins can be traced back through Spanish examples in the 1500s to Native antecedents as early as 1200 if not before. European antecedents predate even these early Native American forms (see Christie and Herold 2016). In general the European types are set in regular and linear ditches with close-set pales, while Native types utilize irregular ditches, or low earthworks, on or into which wide set pales are placed, interwoven with brush, called wicker-style (Hasenstab 2018; also see Gerard-Little et al. 2012).

Four major types of palisades may be distinguished, with some minor variations within these types.

1. **Full-Post Palisade**

   A full-post palisade involves the side-by-side, close setting of unsplit logs into a trench dug in the shape of the area to be enclosed, or the outline of a fort. Normally a ditch is dug into which the pales are set; the pales are then placed or thrust into an upright position, and earth is rammed into the ditch to fix the pales in an upright position. The term “palisade” also may be used to describe a barrier of pales that are fixed in an X pattern around a central axle. This unit can be placed on the ground to slow or block the advance of foot soldiers as well as mounted troops. Often either type of palisade is placed on the defenders’ side of a deep ditch. Either type could be what Purchas meant when he noted the placement of “A deepe Ditch, and a Pallizado of young Firre-trees” (1625 Pilgrims II: 1369, from OED 1989, XI: 97). The use of the term “young” is a significant indicator of the relatively small diameter of the pales.

   The origins of European post-in-ground structures, or what Americans call earthfast constructions, can be traced back to well before the medieval period. Iron Age houses throughout continental Europe and down through the Italian peninsula all were built by setting their major structural posts into holes dug into the ground. This technique was still being used in rural areas of Europe throughout the 19th century and may have survived in some places into the 20th century. Earthfast construction, therefore, is not simply a frontier technique used only in the New World. The form of the pales and the pattern in which they were set do appear to have evolved during the 19th century as suggested by this quote from 1828: “Palisades are 9 [sic] feet long, and 6 or 7 inches square. When fixed they are generally planted 3 feet in the ground and about 3 inches asunder” (Spearman 1828: 317 as cited in the OED 1989, XI, 97). By 1828 the power of a musket ball could pierce these flimsy defenses. Fewer than 20 years later Spearman (1844) notes under “Field Fortifications” that “Palisades and Fraises are likewise formed out of trees and their branches” but that their use had become minor.

   Earthworks often were augmented by post or plank retaining walls (Hodges 1993: 155-156, Figure. 4; see also South 1977: 325-327). The Swedish Fortress Christina, built in 1638, employed this construction technique (Figure 3). In these examples, the wooden wall used to retain the earth often is called a palisade since it is set into trenches, but it also serves as an outer coating to an earthworks “wall” (Figure 4).

   An example of a squared ditch set with un-split, thin pales has been found surrounding all of the 1756 town of Bethabara, North Carolina (South 1977: 317). A variation of this type of construction was used at the Printzhof, where the stone foundation for the nearby house was laid in a squared trench and the palisade line also was set into a flat bottomed ditch. The full-post palisade at the Printzhof includes a few larger logs, over 20cm diam., that had been split in half for use.

2. **Split-Post Palisade**

   When larger trees abound, efficiency in palisade construction may dictate that logs be split before use. This would produce half-round pales that could be set into the ground in a dug trench, in a fashion similar to that used to construct full-post palisades, with the flat surface facing out. A palisade nearly contemporary with that at the Printzhof (pre-1660), but almost certainly Dutch built, was erected in present Newcastle, DE. This example also had been set in a squared trench but most if not all of the pales were split and placed with their flat sides facing out (see Catts and Tobias 2006). Split-post palisades commonly are augmented with some un-
split, smaller-diameter trees.

3. Post-and-Rail Palisade

Although many close-set palisades are placed in trenches and thus have the bottom ends of all the pales buried in the ground, in Virginia and other southern regions many palisades were of the post-and-rail variety. Patrick (1983: 24-25, as cited in Metz et al. 1998: 35) believes that the typical post-and-rail fence in Virginia stood about five feet high and used five rails to span the eight-foot interval between posts. The archaeological remains of the posts used in a post-and-rail type of palisade are often difficult to distinguish from some types of building construction where the framing members of the building do not rest or sit on a stone foundation but instead sit directly on the ground or are set into holes dug into the ground. Earthfast or post-in-ground structures date back to the European Neolithic. Some excellent examples are known from the French Neolithic period (e.g., Hachem 2000).

Large logs may be split or sawn into a series of thick boards, thicker than the clapboards generally used for housing, and mounted on posts in one of two patterns. In both cases, the pales, whether split or sawn, commonly are attached to the horizontal rails by wooden pins (tree nails). The intervals between the posts vary widely, but six to nine feet is the general range for distances between posts. One example identified in the archaeological record may have had an interval of 9.5 feet (metric equivalent) between posts (Metz et al. 1998: 35).

Further, there are two means by which the spaces between the posts may be filled. Boards can be hung vertically or fastened horizontally between posts, as in a post-and-rail system. The posts may also be connected by rails at the top and perhaps also at the bottom, and the planks attached to the rails vertically. Either technique forms a board fence or a board wall, but this construction differs in many ways from a close-set palisade. The vertical posts are widely spaced, often as much as eight feet apart. Flat boards are hung from rails that are strung between the spaced posts to provide protection. The second fence style described uses the same style of construction that is found in modern picket fences although these early versions may have had thicker pales. The white picket fence of the classic American suburban house is, in fact, a direct descendant of this type of construction.

What we do not know archaeologically about post-and-rail fencing is what spaces, if any, were left between the boards, and if the bottoms of the boards were buried in a shallow slit trench. Setting the bottoms of the pales into a shallow and narrow trench provides stability and prevents shallow burrowing underneath. Archaeology may allow us to determine post intervals for post-and-rail fences but generally has little to offer regarding the actual above-ground construction details.

There is little archaeological evidence for the types of trees used in such constructions as well. We do know that since pales, posts, earthfast building frames, and other construction elements were placed in direct contact with the earth, if not actually buried into the soil, there was considerable concern for selecting the trees best suited for these tasks. Carson et al. (1981: 156) provide the best discussion of rot-resistant woods and the durability of various species of trees. The wood for fences was carefully selected, even for those that were palisade-set with the bases of the pales placed into the ground (1981: 156, 187). Cedar was in some places a commodity valued for its ability to withstand decay and rot. Scot (1685: 222) noted that in late-17th-century New Jersey, some houses were covered with cedar, perhaps referring to roofing shingles but possibly to “palisade” walls as well. Tracts of swampland in southern New Jersey were valued for the cedar logs that had fallen long ago but were preserved in the water where more recent trees were growing. These cedar swamps were timbered, and even mined for their fallen cedars under the surface of the water, very early in the colonial period.

Patrick notes that in Virginia the best rot-resistant woods for posts were locust, chestnut, cedar, and cypress. Rails commonly were fashioned from oak, poplar, and pine, although Patrick also includes chestnut. In 1686 William Fitzhugh noted that his property had “A Yeard wherein is most of the aforesaid necessary
houses, pallizado’d in with locust Puncheons, which is as good as if it were walled in & more lasting than any of our bricks…” (Patrick 1983: 10). In this context, the meaning of “puncheon” is probably that of a pole with a sharp point such as “a puncheon pole, spear, [or] staff” (OED 1989, XII: 837). This usage dates from 1548. After 1804, however, this term may have been used to indicate a piece of timber with one face roughly dressed or possibly a split trunk in the context of flooring and rough building, as suggested in Fitzhugh’s 1686 description (in Patrick 1983).

Constructions using a post-and-rail system are often identified as palisades, but whether defense or enclosure was the goal has only recently been considered. Wooden defensive walls of post-and-rail construction with vertical planks (Type 3B) were very common in Virginia. Dutch colonists also used this same type of construction in the New World from at least 1659. In 1687 Governor Dongan of New York suggested that a "Pale" [plank] fence was more durable than "Pallisades." Dongan noted further that "the three inch Planks I have for the Batteries cost mee fifteen shillings the hundred foot" (Brodhead 1853a, III: 391, 398). One may presume that the cost of the planks was largely incurred during the sawing process because the wood and the timbering would have been a minimal expense. Although the term "pale" is generally used for an individual stake in a palisade, Dongan in this instance used "pale" to indicate a sawn plank, much as it would now be used for each vertical in a wooden picket fence.

Originally I had believed that the post-and-rail palisade was a defensive type and that it was related to the use of a blockhouse, but generally being set at a distance from the structure as with any palisaded fortification. This is not necessarily true in all cases, however. A French variant of the post-and-rail type of fencing involved setting into the ground a horizontal log “sleeper” into which mortise holes were cut. Tenoned vertical pales were then set into these holes. In theory, an entire palisade line could be set this way, but more likely the tenoned posts would be set at intervals. Boards were then hung horizontally from the posts.

An interesting clue to the production of rails for post-and-rail palisades in early colonial Virginia appears in a document written by John Smith in the early 17th century (1910: 608). In assembling "A particular of such necessaries as either private families, or single person” would need to establish a colonial homestead, Smith noted the need for "2 frowes to cleave [cleave] pale 18d. each. 3s." This notation suggests that a distinction was made between the type of frow needed to split shingles (see Becker 1975) and a type needed to split the much longer pales. No other frow type was noted on Smith’s list, possibly indicating that shingles were not commonly used in early colonial Virginia. These colonists probably used thatch rather than shingles for roofing.

4. The Slot Fence

A fourth type of fencing, in which a shallow ditch is dug and short planks are set into it like a palisade, is often called a “slot fence.” The construction technique is called “ditch-set” and is commonly associated with residences and small farmsteads. The posts and the fence height are, of course, much shorter than with defensive works. Nöel Hume (1982: 70-74) has reported on slot fences as well as a variety of palisade types that he has investigated archaeologically in Virginia. A slot fence has only short pales and is used as an enclosure for animals. One example described by Nöel Hume employed pales that he feels were split in the same mode as fence rails, with each log split into three or four sections rather than long boards. Nöel Hume believes these to be re-used rails, but I suggest that they simply originated with logs of intermediate diameter of about five to ten inches (12 to 25 cm). An example related to board palings, called “split-log palings,” was found to have planks that measured about 4 x 18 in (10 x 46 cm) in section. Obviously trees that were at least 18 in (46 cm) in diameter were needed to produce the logs that then were split into planks in this latter example.

Palisades, or wooden barriers of a wide variety of forms, were employed extensively in North America for a number of reasons. The abundance of trees available and the simplicity with which they could be converted to military as well as domestic uses led to their presence in contexts that formed part of the expected landscape. Because palisades were so common, they were rarely mentioned even by keen observers. Their presence as part of military fortifications was ubiquitous, but the details of their construction largely
faded as the wood with which they were formed rotted away. This review of some basic details and variations in the known types may answer some of the questions that occur to people reading old documents or excavating sites in which these features, perhaps with several variations, may be found. The following chapters focus on the history and use of palisading in European fortifications, and how these came into the Americas.

**When Wood Grew on Trees: Continental European Fortification**

City walls are often assumed to have been an integral part of urban development throughout the world (Tracy 2000a). This study of defensive boundaries, and palisades in particular, leads us to consider those European nations with the most active colonizing processes. An examination of Old World prototypes is useful for placing New World palisades of European origin into proper context. By examining how logs or wood were used in various forms of construction in the Old World, we may be able to see continuities in New World constructions and possibly recognize national differences in construction techniques. It should be noted, however, that Old World fortification systems had long outgrown the simple palisade as a defensive unit by the 17th century, though some exceptions may yet be identified in remote areas. In addition, the introduction of gunpowder and the evolution of fortifications rapidly led to an international style that evolved simultaneously throughout Europe. Thus palisades and log structures in the American colonies are, at best, only tenuously linked with any specific part of the Old World.

**Old World Log Constructions**

By 1500 AD an impressive portion of Europe had been cut over to provide fuel to an expanding population and materials to the industrializing economies. The vast fleets built by the rapidly forming nation-states required entire forests of specific wood types. Stone construction required lime for mortar; lime generated by burning of limestone. Bricks required fuel to fire them as well as lime to lay them. Control of forested lands became a major concern on every social and political level. Log constructions, and particularly the small versions that include the log cabin, fascinate modern Americans. Our interest in the European origins of this structure, a famous feature of American colonial and post-colonial architecture, has long focused on Scandinavian connections. The broad Germanic term *Blockhäuser* as well as the Slavic equivalents of this term reflect the long and widespread history that includes the Scandinavian examples to which we generally allude. Examples that date back to the early Neolithic have been identified in central Europe. These log houses and the defensive works so commonly associated with them are functions of the densely forested environments of Europe that were home to the earliest agriculturalists in the region, perhaps eight or nine thousand years ago. Our interest here is in the early use of these once abundant trees to provide defensive constructions for European settlements, presumably beginning with the first Neolithic farmers who entered what was then a primeval forest.

Examination of the archaeological record for Central European hamlets from the Neolithic period onwards suggests that simple palisades commonly surrounded residential areas, but whether they were intended to keep livestock in or raiders out, or both, remains subject to interpretation. By the early medieval period in Europe, the evidence for hill forts suggests that they included defensive fences. But at small settlements, such as the tiny hamlet at Pohansko near Breslaw (Czech Republic), the evidence for defensive works remains difficult to interpret. Excavations at the Neolithic site at Pohansko revealed a square palisade surrounding the few small groups of structures that make up the known settlement. However, the reconstruction of this hamlet also revealed what seem to be pale fences dividing sections of the interior. These interior palisades appeared in both early and later phases of the hamlet’s development. This suggests that the interior dividing walls were not originally exterior (defensive) walls that later were incorporated into the community as it developed. Precise dating of these individual fence-like features now appears to be impossible. Macháček’s reconstruction of the hamlet reflects his own interpretation of these events (2000: Figs. 238, 239). Various reconstructions of similar defensive works, like Macháček’s, lack critical information regarding the diameters of the original pales and the depths to which they were set into the ground (e.g., Ruttkay 2000). Voss (2000: 252-256) indicates the presence of a palisade-like barrier, but whether this was a defensive work or simply used for directing animal movement is not evident. The particular details of construction and location are of importance in understanding function and in linking these early European examples of “fence” features to their later descendants in the New World.
Bronze Age and Iron Age fortifications in Europe reveal slight regional variations, but the limited sample size remains a problem for analysts. Regional differences may reflect highly localized geographical conditions. By the time of the early Christian era, the Roman Empire had established rules for the size and shape of field fortifications, but with clear recognition of the need for flexibility under specialized conditions (Quilici and Quilici Gigli 2001). The decline of Roman imperial activities throughout Europe led to interesting cultural transformations as the tribal societies along the frontiers developed into the early states that are now the several continental nations. Defensive works surrounding small villages evolved into the larger fortifications needed to protect growing cities. The evolution of palisade and ditch fortifications into city walls requires a history of its own to explain, but one well-documented example provides insight into this process.

The Czech Republic offers a view of the development of fortification techniques as used in the middle of the European continent from the Neolithic to modern times. This area also has a long history of high quality archaeology that provides us with excellent data from the period of state formation in that region as well as from earlier time periods. The hill forts of Bohemia, at the center of the modern Czech Republic, evolved slowly from the earliest Neolithic villages. A major shift is evident, however, during the final stages of Roman withdrawal, A.D. 600-700. Tomková (2001: 39) dates the construction of the earliest complex hill forts in Bohemia to ca. A.D. 700, and she discusses the complexities of their rapid architectural development into the 12th century. Her summary of the specific developments that took place during these first centuries is important for understanding the evolving technology as well as the social changes that spurred these technological innovations. These social changes involved increased urbanization, emerging social class stratification, and increased political complexity centered on a king controlling the power of a state. Protecting urban centers required an expansion of the fortification types that were used to surround agricultural villages.

Kempke’s (2000) summary of early city walls in the region between the Elbe and Oder rivers suggests that complex examples were being erected in the eighth century, between the Late Antique and early medieval periods. This is an era of early urbanization, when regional chiefdoms were developing into prototypic kingdoms, or low-level states. The relationship of these developments to the collapse of Roman power around the Mediterranean can be suggested. Tomková (2001: 40-41) discusses the centralization of power in Bohemia during the ninth and tenth centuries, a period of political aggregation marked by the development of a network of hill forts. Within this system, Prague Castle came to serve as the central “residence of the Premyslide princes” and thus became the principal hill fort for the military power of the emerging Czech state.

Examination of the history of village fortifications in central Europe suggests that earthworks may not have been the most common defensive constructions prior to the development of hill forts. Reconstruction (Müller and Müller-Muci 1989, 1999, see also Müller 2000) of the early wall around ancient Berlin (Spandau) suggests that it was made using wooden pales to amplify a ditch and mound defensive work (see also Tomková 2001: 40; Durdik 2001). The earliest progression from a simple ditch and mound was the construction of a wall such as that identified at the Bohemian hill fort of Stará Kourim. This wall was six meters wide and estimated to have been three meters tall, set up as fill between two parallel palisade walls. The pales of the outer unit presumably extended well above the top of the wall, while the pales on the interior need not have been higher than the surface of the fill. Angled struts were used to brace both interior and exterior palisade lines at one-meter intervals (Tomková 2001: 40-41, Figs. 4-6). Tomková’s plans and section drawings, and her explication of the archaeological evidence, help to clarify details of these constructions. Where larger earthworks or earth-filled walls later developed, they most likely retained some form of palisade at their crests. The tops of these early medieval walls are the locations most subject to erosion, however, and the evidence for these features is commonly lost from the archaeological record. In addition, as in the archaeology of the New World, any evidence recovered for palisades, or traits related to palisade construction, is rarely published (but see Ciháková 2001).

Defensive Palisades in North America

The pre-Contact fortifications used by various tribal groups in North America are well documented in Milner’s comprehensive studies (1999, 2000). The earliest fortifications in colonial Virginia, as elsewhere in
the American northeast, employed some variation of palisaded construction as part of their defenses. By 1620 a small fort had been erected at Wolstenholme Towne in Virginia to provide a safe haven for the immigrant colonists. This simple 3-bastioned construction appears to have been based on posts set at roughly 2 meter intervals between which were rails onto which boards were nailed. The “feet” of these boards were set into a shallow ditch, dug along the interior of the post line. In 1629 the Dutch West India Company purchased a tract of land from the Seconese, somewhere in the area of present Lewes, DE on what was then called Godins Bay (now Delaware Bay). The Fort and all traces of the whaling station built there were soon after destroyed by the Seconese or a raiding party from another tribal group in the general region. While a settlement seems to have been rebuilt in the area, the only fortification known dates from 1659. This later defensive work was a Dutch diamond shape, two-bastion construction typical of the period.

During this early period a Swedish colonial outpost was established in 1638 along the Delaware River at present Wilmington, DE. Fortress Christina, built on a peninsula where the Christina River enters the Delaware, appears to have been partially an earthwork entity with a board facing or retaining system. The lack of success of this trading post in capturing the pelt trade led the colonists to shift to the highly rewarding drug trade (tobacco), although they continued to struggle to compete with the Dutch for the pelt trade. Johan Printz, the third colonial governor of New Sweden, erected his log house further upstream on Great Tinicum Island in what now is Pennsylvania (map). This structure also served as a trading post. The name “New Gothenburg” also appears in the documents, but whether the term “Printzhof” referred only to the house as part of a fortified “gore” or to a separate structure was not determined until recent excavations revealed a fortification separate from the house.

Excavations revealed the two main periods of early foundation construction for the house (1643, 1645) but details of architectural work above the foundation were largely conjectural. A drawing of a Swedish colonial farmstead of the same period (1647), but within Estonia when it was part of the Swedish European empire (Magnusson 2003: 223-227, Figure 2), offers important clues as to how the Printzhof may have looked. Of special note are the tall chimneys in the drawing; important clues to the functions of the many yellow Swedish bricks found during excavations (Becker 1977). The dating of the Printzhof complex is confirmed by numbers of kaolin smoking pipes of the middle 1600s found during excavations. Finds of glass prunts, ornaments from elaborate and expensive drinking vessels, also provide evidence for the early date of this house. Equally important in dating the fortification is the absence of colonial materials in the ditch within which the pales of this initial construction were placed.

The elaborate ditch for the palisade of Fort Ny Göteborg, dug with military precision, was set with pales of small diameter harvested from this island setting (Figure 5). This excavation of a corner of the fortification reveals a possible entryway. As with known gates or other constructions providing entry to fortifications, the entry to Fort Ny Göteborg is at the corner opposite the water. A series of other post molds were identified in that area, but how they related to a gate or entryway is not evident. Nearby were two grave sites apparently located by an excavator in the 1930s. He believed them to be Indians graves, but failed to record their contents or save and label any artifacts that may have been recovered (Figure 6). The several archaeological sections cut through this important palisade trench (Figures 7 and 8) provide only an indication of the depth below ground that was customarily used for erecting a pole palisade. Surface erosion and re-contouring of this area may have removed 30 cm (12 inches) or more of topsoil.

The archaeological record indicates that pales of 8 to 9 cm diameter were preferred. Each was sharpened at the base before being driven into one edge of the square palisade trench. A very few trees of 12 or more cm diameter were employed in the palisade line; each being split into halves for use. A single brass button, perhaps for a pants leg or possibly for a shirt, was found within this trench, and no stone tools or debitage such as would indicate activity of Natives at this specific location. Two Native burial pits suggest Indian activity somewhere in this area, but not directly where the Swedish fort was built. Not far from this location evidence was recovered for a Native wickiup (two phases of use: Becker 1993), reflecting periodic occupation of this island for a warm weather fishing station for the local band of Lenape. Such periodically
established encampments enabled the Lenape to take advantage of the annual fish runs coming up (and down) the Delaware River (Becker 2006).

The Swedish colony was absorbed into the Dutch West India Company in 1655 (cf. Becker 2001), but members of the Printz family continued to occupy Tinicum island. Early in the 1700s the house and land was sold to an English colonial family, who altered the structure to conform to English tastes (cf. Becker 1978). The chain of title has been traced to the present, with the Corinthian Yacht Club becoming one of the more recent owners. By 1938 the overseers of the Corinthian Yacht Club graciously deeded a large portion of their property, that on which the actual Printzhof had stood, to the Commonwealth of Pennsylvania. This relatively small tract became a tiny but well-used state park. For reasons known only to politicians, the “Commonwealth” divested itself of this treasure, turning it over to Tinicum Township. It remains an enormously popular and much appreciated park, and arguably one of the most important archaeological sites in the region.

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