

Fields of Conflict

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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).

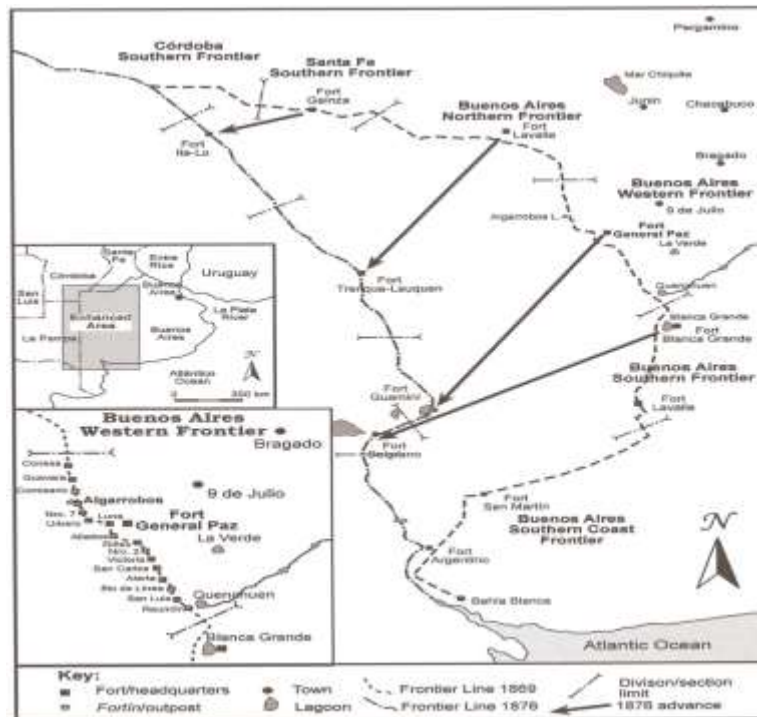


Figure 1: Map of the 1869 and 1876 Frontier Lines, with inset detailing Buenos Aires Western Frontier (redrawn from Raone 1969).

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 humid 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 Algarrobos, 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.

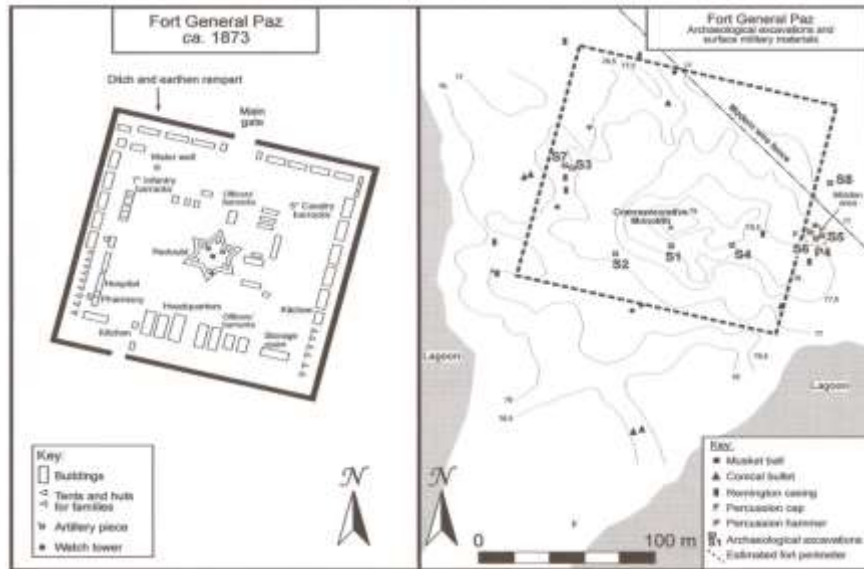


Figure 2: Left, layout of Fort General Paz (redrawn from map by Federico Melchert [MGM 1873]); right, the archaeological site.

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).

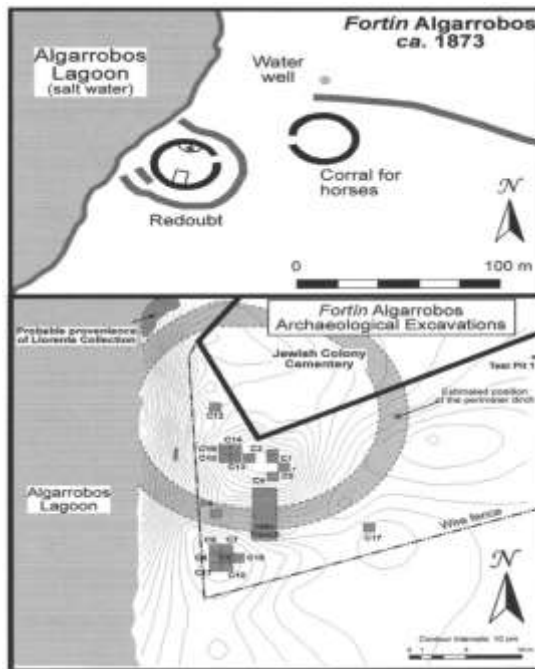


Figure 3: Top, layout of Fortín Algarrobos (redrawn from map by Federico Melchert [MGM 1873]); bottom, the archaeological site.

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 uncontested 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

Artifact	Surface		Municipal	Total	Excavation	Private	Municipal	Total	General
			l	l	n		l	l	l

	Collection	Midden	Museum	FGP	2012-17	Collection	Museum	FA	Total
Musket balls	6	-	55	61	2	1	4	7	68
Conical bullets	6	3	5	14	6	-	4	10	24
Remington casings	8	7	-	15	3	53	2	58	73
Lefauchaux casings	-	1	-	1	-	2	-	2	3
Vetterli casings	-	-	-	-	-	-	1	1	1
Shotgun cartridge base	-	-	-	-	1	-	-	1	1
.22 casings	-	-	-	-	5	-	-	5	5
Percussion cups	2	-	-	2	6	2	-	8	10
Remington rifle	-	-	-	-	-	-	1	1	1
Percussion hammer	1	-	-	1	-	-	-	-	1
Lock plate	-	-	2	2	-	-	-	-	2
Gun barrel fragment	1	-	-	1	-	-	-	-	1
Muzzle loader spring	-	-	-	-	-	-	1	1	1
Total:	24	11	62	97	23	58	13	94	191
%	24.7	11.3	64	100	24.5	61.7	13.8	100	-



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 Lefauchaux 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 saber scabbards (left top and center); cavalry lance points and bottom piece (right top); saber blade (bottom)

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.



Figure 6: Top and center, military belt buckles; bottom, military uniform buttons

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 being 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 local 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.

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