

Looking at Interethnic Relations in the Southern Border Through Glass Remains: The Nineteenth-Century Pampa Region, Argentina

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Arroyo Nieves 2 is an open-air site located in a ravine of a small stream in the Pampa region. Its stratigraphy and archaeological remains assigned it to an aboriginal occupation dated in the third quarter of the nineteenth century. At the time, some indigenous groups were settled in strategic borderline areas by the government, on the basis of reciprocal rights and duties. Food and other supplies were given to the Indians to avoid cattle and women raids, thereby keeping the peace. The findings at Arroyo Nieves 2 include bones, from both domestic and wild species, lithic instruments and debris, fragments of stoneware bottles, refined earthenware sherds, buttons, small pieces of metal and numerous glass remains from wine, beer, bitter, and gin bottles, flasks, glasses, and food containers. This paper presents a study of the glass remains, data that have proven to provide evidence on a wide range of themes, including chronology, trade networks and activities, consumption behaviors, and discard patterns.

KEY WORDS: aboriginal settlements; glass remains; interethnic relations; Argentina.

INTRODUCTION

The nineteenth century implied the loss of political autonomy and military control of indigenous territories in the Pampa and northern Patagonic regions,

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because of the advance of the Hispanic-Creole population ending in the military campaigns in the 1870s and first half of the 1880s (CGE, 1974; Walter, 1970). This gradual offensive dynamic implied the existence, since the colonial period, of successive borderline areas (Fig. 1), where different ethnic and social groups converged, including Indians, army, tradesmen, landowners, and farmers. Most indigenous societies in the Pampa and northern Patagonic areas shifted from a hunter-gatherer economy to herding cows, horses, and sheep, and developed an intense trade of both livestock products and leather, textile, and silver

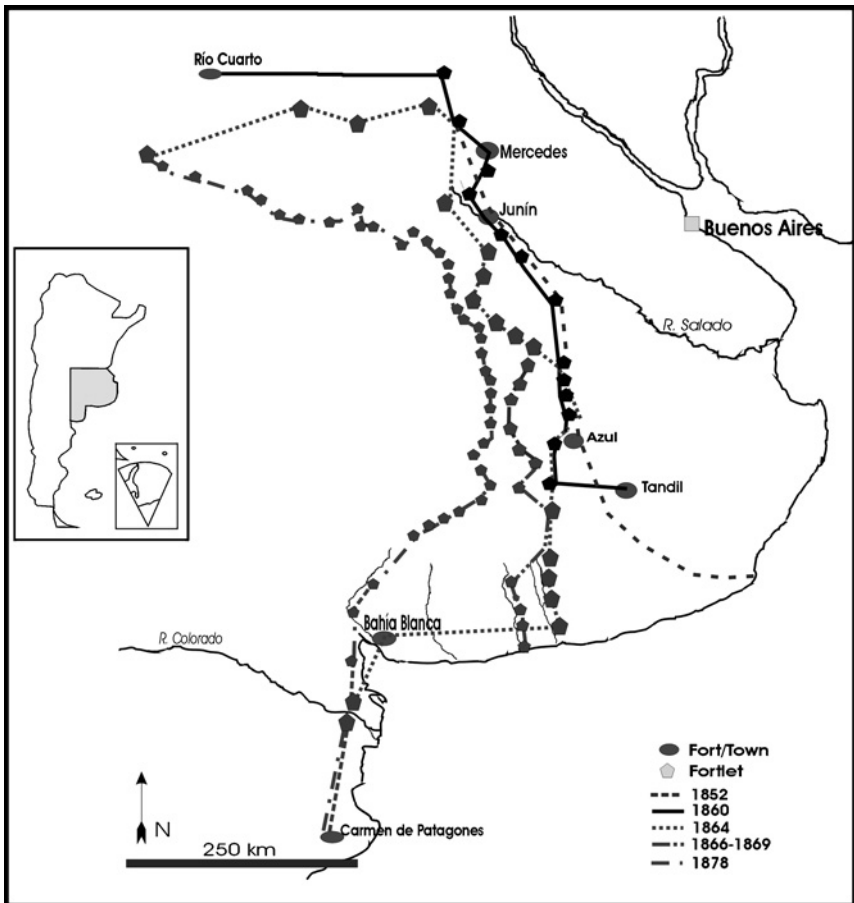


Fig. 1. Southern borderline in Buenos Aires by the third quarter of the nineteenth century (based on Walter, 1970).

manufactures (Mandrini, 1987, 1994; Palermo, 1991). This process was impelled by the incorporation of different domestic species by the Spaniards since the sixteenth century. The adoption of the horse in particular triggered a wide range of behaviors.

During this period, the different aboriginal groups developed complex and heterogeneous interethnic relations with “White” society (see, e.g., Jones, 1999; Palermo, 1991). Some groups maintained a high degree of autonomy, territorial tenancy, and belligerent attitudes toward the “Western” expansion (*sensu* Mayo, 2000) such as the Ranqueles *caciques* (Fernández, 1998). Others established opportunistic alliances with the provincial and national governments, becoming occasional allies, and alternatively attacking certain areas on the border, as in the case of those led by Calfucurá (Bechis, n.d.; Jones, 1991). The “friendly Indians” had peaceful relations with the government based in a system of mutual benefits: they respected the goods, property, and people in the farmer settlements and Creole villages. They also collaborate with the frontier armies and received food rations and different subsistence articles, including clothes, alcoholic beverages, yerba mate, tobacco, flour, sugar, cattle and mares. A condition for this system was the establishment of these groups in defined spots near forts, blockhouses, and other military posts, where they could receive the initial impact of hostile attacks (Ratto, 1994a,b, 2003).

This paper is part of a larger research effort that deals with a group of “friendly Indians” under the lead of the *cacique* Catriel and his allied lineages, generically known as “*Catrieleros*.” They lived in the southern Buenos Aires borderline between the Tapalqué and Azul streams from 1830 until 1875 (CGE, 1974; Hux, 1993; Sarramone, 1993) (Fig. 2). This research aims at the understanding of the aboriginal economic, social, and political reorganization processes initiated in their interaction with the Hispanic-Creole society. It is reflected in changes evident in the technological and subsistence spheres and in consumption patterns (Pedrotta, 2004). In this context, we analyze two topics: one, concerning the consumption of European items, particularly a wide range of glass-bottled products that entered ordinary indigenous life as basic elements, and two, interethnic relations and interaction networks that allowed the acquisition of such imported products, conditioning their provision.

The theoretical–methodological framework we propose builds the empirical data from the integration of two basic information sources: material and written. Material data are the result of field seasons and the study of glass remains in the archaeological record of Arroyo Nieves 2, an indigenous settlement of the third quarter of the nineteenth century (Pedrotta, 2002). Written data include the administrative records of the rations periodically given to the “friendly Indians,” unpublished commercial documentation of inventories, and goods lists of stores in Azul (the nearest village) during the 1850s and 1860s. They also consider travelers’, army soldiers’, and missionaries’ diaries with *de visu* knowledge of

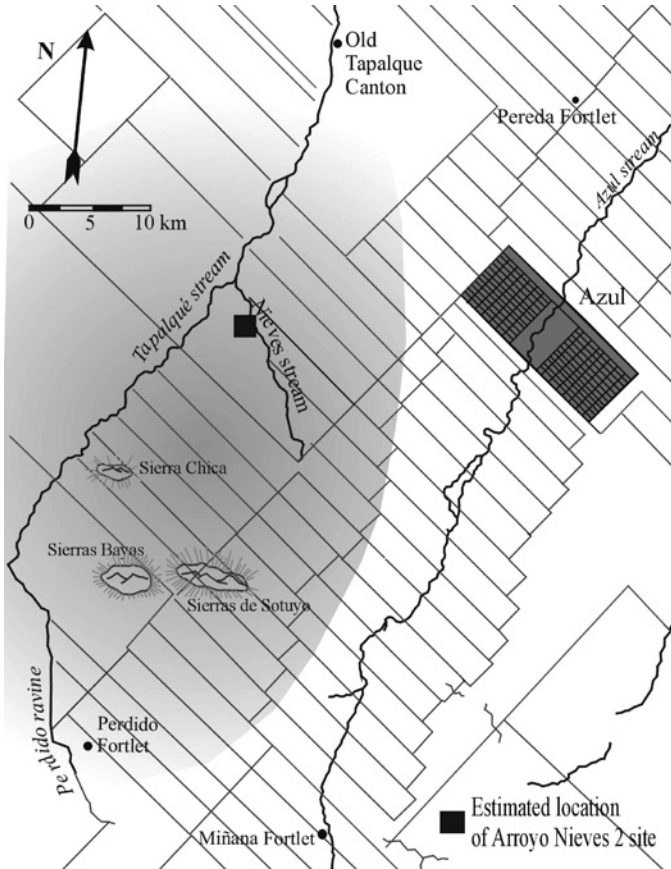


Fig. 2. Azul region rural properties by 1874, area inhabited by Catriel's tribes and estimated location of the Arroyo Nieves 2 site (north and scale are approximated).

those settlements (i.e., Armaigac, 1976; Barros, 1975; Ebelot, 1930), as well as the literature on the products imported to the Río de la Plata during the nineteenth century (i.e., Moreno, 1997; Schávelzon, 1991).

ARROYO NIEVES 2 SITE

The Arroyo Nieves 2 site is located in $36^{\circ}50'52.8''$ South and $60^{\circ}04'50.7''$ West, on the left fluvial terrace of the Nieves stream. It is a first-order permanent watercourse whose origin is in Sierras Bayas, extending in the south–north direction toward the Tapalqué stream (see Fig. 2). The archaeological site was located by intensive surveys in an area of the homonymous stream in the intersection

of the old path linking Azul and Olavarría with the current 226 highway, a spot where 1860s' aboriginal settlements were clustered, according to written sources' analysis (Pedrotta, 2002). This area is a part of the Buenos Aires interhill area (Politis, 1986) and is a plain and hillside environment, where the Tapalqué and Azul streams are the main permanent watercourses. To the south, the Sierras Bayas (in the Tandilia System). The anthropic forestation and the intense agricultural activity in the last 150 years have caused the destruction of the grass pasture, the original vegetation.

The Arroyo Nieves 2 site is a concentration of archaeological remains reburied by erosion and fluvial transport in the foot of a small ravine, from one or many *loci* of nearby refuse mounds, either discrete or dispersed, on the surface or underground (Favier Dubois and Pedrotta, 2005). The materials recovered ($n = 1738$) contain 1544 findings recorded with Cartesian coordinate locations and 194 from profiles. A predominance of archaeological remains (66.9%) is evident, comprising both allochthonous domestic species and wild fauna. Second in abundance are glass materials, constituting about a fourth of the findings (24.1%). Lithic instruments and debris, brick fragments occur with less abundance (both amounting to about 3% of the total). Metal objects are difficult to identify because of their high corrosion, as are many fragments of crockery and stoneware due to its small size (which account for 1.4 and 1.3%, respectively). In the screens, the finds were almost exclusively tiny fragments of bone and glass flints.

THE GLASS REMAINS

The body of glass materials under study included recorded remains and from profiles ($n = 417$), and those found in the screen ($n = 341$), a total of 758 objects. The research was designed to specify their composition, identify the kind of containers and/or objects—with reference to their origin, function, and chronology—as well as indicators about depositional and postdepositional processes (Pedrotta and Bagaloni, 2003). Finally, we tried to integrate the information in terms of consumption, use, and discard patterns for glass containers, exploring their social, economic, and technological implications. Thus, each piece was macroscopically studied, specifying eight variables: dimensions, part of the container, kind of container, presence and distribution of patina, manufacture marks, postdepositional elements, color, and associations (Pedrotta and Bagaloni, 2003). These variables were defined using the work of other analysts, with a focus on the elements that allowed the identification of technological processes and chronological indicators (Baugher-Perlin, 1982; Fike, 1987; Jones, 1971; McKearin and Wilson, 1978; Moreno, 1997; Rock, 1981). For identifying the containers, we used catalogues Noël Hume (1969), Fike (1987), Kovel (1992), Sellari (1989), Soetens (2001), and van den Bossche (2001), as well as Internet information on antique glass bottles and flasks.

General Aspects

Thirty-four percent of the pieces was identified as to the kind of container, most of which were different varieties of bottles. Among the identified types, cylindrical bottles predominate (49.4%), and contained wines and liquors (Fletcher, 1976; McKearin and Wilson, 1978; Schávelzon, 1991). Square or troncopiramidal bottles for gin were next most abundant (44.4%) (Fletcher, 1976; McKearin and Wilson, 1978; Moreno, 1997; Schávelzon, 1991; van den Bossche, 2001). When considering the cylindrical, square, and bottle fragments without further differentiation, we can say that 95.5% were originally alcoholic beverage containers. Four pieces were identified as flasks, being containers for medicines, either pharmaceutical or perfumery (Fike, 1987; Fletcher, 1976; McKearin and Wilson, 1978). One fragment with embossed letters was identified as part of a food jar (McKearin and Wilson, 1978; Schávelzon, 1991; Sellari, 1989). Three tiny fragments are window glass. Only one table-vessel was definitely identified, however, a wall fragment may also correspond to another vessel. The "other" category includes a small glass ball.

Thirty-three percent of the sample was identified as parts of container, 5% are pieces of unintentionally chipped glass, and the rest (62%) are unidentified fragments of small size. The average size of the glass fragments, the shortage of complete pieces, and the postdepositional damage observed (mainly knapped), suggests a high degree of fragmentation in the glass assemblage. Repairs, however, were seen in 14% of the remains (if only tridimensional elements, of larger size, are considered, this figure rises to 25%), increasing the possibility of general identification as well as giving information about discard and taphonomic processes (see Pedrotta and Bagaloni, 2003). It must be noted that all the parts of containers are present, most being wall fragments (61.5%). This proportion is concomitant with the morphology of cylindrical and square bottles, which constitute the majority of the assemblage. Walls, too, are the less diagnostic part in a container because they usually lack manufacturing marks and other technological indicators (Jones, 1971; Lorrain, 1968; Rock, 1981). Bases appear next most frequently (17.8%), followed by angular fragments from square or troncopiramidal bottles (12.3%). The representation of other parts is markedly reduced. The distributional study of the parts of the containers, considering the effects of recycling and reuse is discussed elsewhere (Pedrotta and Bagaloni, 2004).

A wide range of colors is present in glass materials, including aquamarine, amber, black, sheen, translucent, bluish green, light green, and olive green. Fragments of light and olive green glass predominate, composing 42.1 and 34.3%, respectively. This feature is concomitant with the higher proportion of two kinds of containers: cylindrical and gin bottles. Most square and troncopiramidal bottles are olive green, a color almost exclusive in their manufacture (Fletcher, 1976; McKearin and Wilson, 1978). Among the cylindrical bottles, light green is predominant, followed by olive green, aquamarine, and black in similar

proportions. Black glass (actually very dark green) fragments most probably correspond to medium-sized bottles, also known as black bottles (Fletcher, 1976; Rock, 1981). Nonspecified cylindrical types, flat glass, and table-vessel glass only correspond to translucent fragments, whereas the aquamarine color is predominant in the flask remains, an amber fragment being highlighted. Dark wall containers (i.e., blue, amber, or dark red) were widely used for substances sold in drugstores, to protect them from chemical changes caused by the sun (Fike, 1987; Fletcher, 1976). During the nineteenth century, aquamarine and light green were the most frequently used colors in food containers, such as for oils, tinned food, and marmalades, as well as medical substances, generally bottled in cylindrical or rectangular flasks (Baughner-Perlin, 1982, p. 273; Fletcher, 1976, p. 57). Most of the unidentifiable fragments are light green, aquamarine, and olive green. The first two colors may correspond to containers for food and medicinal and pharmaceutical products.

A minimum of 23 glass containers was identified, composed of two complete specimens (a bottle and a flask), 17 bases and base fragments of different kinds and size of bottles, a cylindrical bottle neck of distinctive morphology, a wall fragment of a translucent container, two table-vessels, represented by a base, and a possible wall fragment with grooved decorations on its external surface, similar to the ones described in other archaeological contexts in Buenos Aires city by Schávelzon (1991, pp. 135–136). This minimal number corresponds to the following types of containers: a jar, two flasks, six square bottles, 12 cylindrical bottles, and two table-vessels. It must be remembered, however, that there are other types of small containers (whose shape cannot be determined) that surely contained perfumery and pharmaceutical products because of their light, aquamarine, or translucent glass, thin walls, and small capacity, many with inscriptions in relief. In some cases, they may have been used for perfumes which were kept in small and elaborately decorated containers.

Technological, Functional, and Chronological Aspects

Cylindrical bottles include one complete piece, a neck, and 10 bases of different capacity, manufactured in a deep mold or in variants of three-piece molds. Glassmakers used deep molds for blowing bottles from the end of the seventeenth century until the middle of the nineteenth, with a peak in the eighteenth (Baughner-Perlin, 1982; Jones, 1991; McKearin and Wilson, 1978; van den Bossche, 2001). Three-piece molds were developed at the beginning of the nineteenth century, and were manufactured in large scale until 1870–1880, when its production significantly declined (Baughner-Perlin, 1982; Rock, 1981). Two cylindrical bases show traces of having been held by a sandy pontil (Jones, 1991, p. 94), a third one is too distorted for a determination, and the rest show no traces of pontil. In the last case, it is possible that several varieties of *snap cases* were used, since these gradually replaced pontils beginning in the late 1840s and 1850s (Baughner-Perlin,

1982; Jones, 1991; McKearin and Wilson, 1978). As such, traces of *snap cases* correspond only to the bottles produced since the second half of the nineteenth century, while earlier items may show traces of pontil or mold marks. However, since the pontil was never wholly abandoned, some objects manufactured with this technique may be found after 1850.

Six cylindrical bottles are light green, mold-blown, show an evident push-up, and correspond to the types known as *Bordeaux* and *Champagne* bottles of French tradition. These bottles were used mainly to contain different kinds of wine, and were widely produced and used between 1850 and 1890 (Baugher-Perlin, 1982; Noël Hume, 1969; Rock, 1981; Schávelzon, 1991). According to Rock (1981, p. 14), “Champagne style bottles are usually made of dark olive green glass. These heavy bottles usually were about 13 or 26 ounces in capacity. The push-up is high [...] and most often they have a lipping tool applied finish. The Bordeaux style bottle is of thinner glass [...], and consequently of lighter color olive green. This bottle is straight sided with high shoulders that are well defined. These bottles usually held about 23 ounces of wine. The finish usually has a hand applied ring, and the push-up is high.” Since the morphological differences between them are related to the shape of shoulder and neck (Baugher-Perlin, 1982; Rock, 1981; van den Bossche, 2001)—portions absent in most of the analyzed items—both features are considered as only one type.

Three cylindrical bottles belong to the black glass type, largely used for wine, beer, and mineral water (Fike, 1987; Fletcher, 1976; Rock, 1981). The analyzed specimens correspond to medium-sized containers, produced in molds. Two bases show rings with a concentric circle design and the third one contains the printed letters ALLON (Fig. 3). Two similar complete items were found in the Arroyo Nieves 1 site (Pedrotta, 2002), facilitating their classification into the black bottle group for beer, imported in large numbers from United Kingdom into the Rio de la Plata during the nineteenth century (Schávelzon, 1991; van den Bossche, 2001).

Figure 4 shows one of the complete objects. It is an olive green cylindrical bottle, blown in a mold, that has a high push-up, and a finish made with a lipping tool, a tool commonly used between 1830 and 1900 (Baugher-Perlin, 1892; Fletcher, 1976; McKearin and Wilson, 1978; Rock, 1981). The bottle has an oval seal on the shoulder with the BITTER SECRESTAT inscription in relief. This beverage, made from herbs, medicine roots, and different alcoholic compounds, was first made in Germany during the seventeenth century, and its consumption spread in the beginning of the eighteenth century, when a recipe was first patented in the United Kingdom. Several high taxes on gin passed during these years multiplied its production, because bitters were regarded as medicinal (though they contained a high proportion of gin) and so were excluded for such taxes (Kovel, 1992; McKearin and Wilson, 1978; Sellari, 1989). Bitters were prescribed for cases of “weakness of the stomach, loss of appetite, indigestion and like disorders proceeding of laxity of the solids, or cold indisposition of the juices” (McKearin and Wilson, 1978, p. 300). In the nineteenth century bitters were made in several

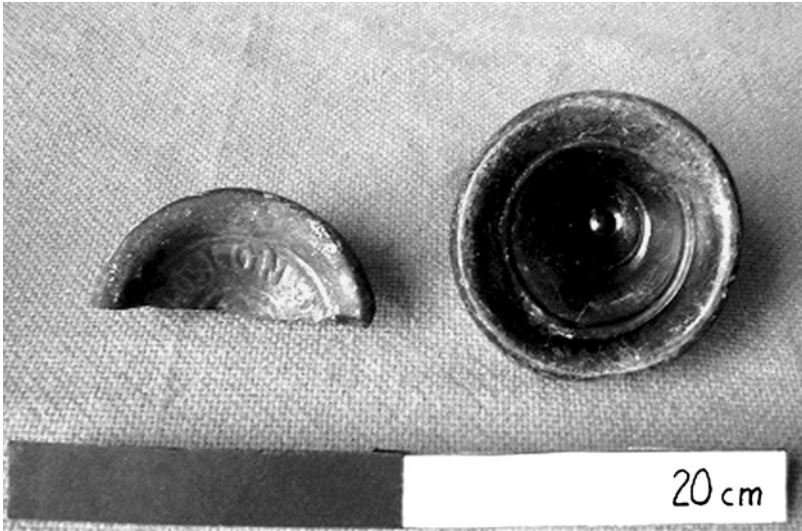


Fig. 3. Left: Base of a black glass cylindrical bottle with letters ALLON embossed; right: base of a black glass cylindrical bottle where the concentric circles are evident.

European countries and in the United States, becoming a worldwide export product that was bottled in a number of containers (Kovel, 1992; McKearin and Wilson, 1978; Sellari, 1989). The “Secrestat” brand was produced by “Maison H. H. Secrestat,” a French distillery in Bordeaux, founded in 1851. Such bottles can also date to the early 1860s (Kovel, 1992, p. 40; Sellari, 1989, p. 15).



Fig. 4. Complete specimen of an olive green cylindrical bottle, molded, with marked push-up, and finish made with a lipping tool. The shoulder exhibits an oval seal with the inscription BITTER SECRESTAT.

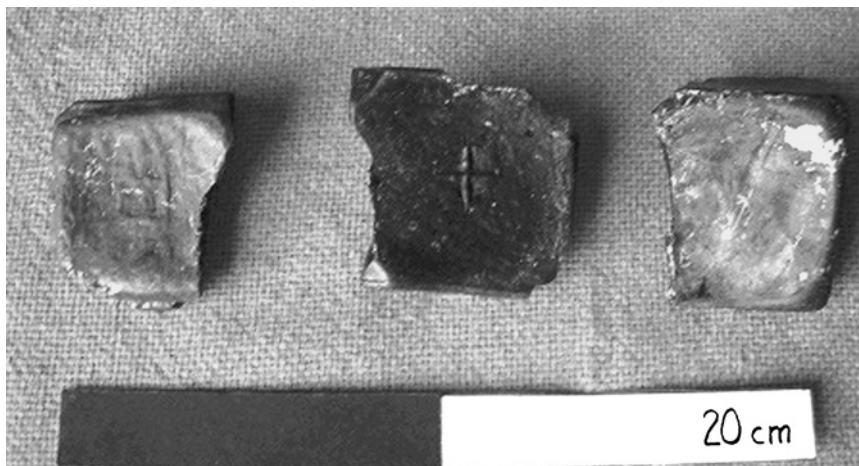


Fig. 5. Squared gin bottles. Embossed designs on the bases: square, cross, and asterisk.

The six square bottles are represented by their bases, olive green in color (either light or dark), and mold-blown. The dimensions of the bases, along with the designs on them—square, cross, asterisk, and square with a cross in the center (Fig. 5)—correspond to square bottles of gin locally known as *limetas*, frequently found in urban and rural archaeological contexts (Gómez Romero and Bogazzi, 1998; Moreno, 1997; Schávelzon, 1991, p. 128). The square or troncopiramidal shape of these bottles helps reduce their space and promotes safer transport in baskets or wooden boxes. Gin *limetas* started being imported into the Río de la Plata at the end of the eighteenth century, becoming a large-scale import since 1820, particularly from Holland and the United Kingdom (Moreno, 1997; Schávelzon, 1991), but also from Germany, Denmark, and Belgium (McKearin and Wilson, 1978; Noël Hume, 1969; Soetens, 2001; van den Bossche, 2001). Two fragments with the letters A & C written in relief show a variant of the brand HOYTEMA & C, belonging to the producer A. I. van Hoytema from Culemborg, Holland, a distillery that produced its own glass bottles from 1861 until 1928. According to Schávelzon (1991, p. 129), this brand was imported to Argentina by the middle of the nineteenth century. One of these fragments corresponds to a bottle manufactured between 1840 and 1861 (Soetens, 2001). Similar archaeological specimens were identified in Fortín Miñana, inhabited between 1860 and 1863. It was also regarded as a border territory, and was located 25 km from Arroyo Nieves 2 site (Gómez Romero, 1999).

The glass remains include several containers for medical and perfumery products, generically called flasks. One of them is an aquamarine rectangular specimen found virtually complete (Fig. 6), made by a multiple-piece mold, and showing in one panel the embossed word PARIS. These kinds of containers are frequently translucent or light in color, and, properly patented, present the name



Fig. 6. Rectangular aquamarine flask, made in a multiple-piece mold. One of the lateral panels reads PARIS.

of the producer and the product on their sides, printed in relief or using glued labels (Fike, 1987; Fletcher, 1976; McKearin and Wilson, 1978; Noël Hume, 1969). According to Fike's classification (1987, pp. 8–10) the archaeological flask corresponds to medical containers and is similar to others that appeared in the large-trade, drugstore catalogs in the United Kingdom in the middle nineteenth century (Fletcher, 1976, p. 39). The literature reports the existence of a medical product bottled in flasks of similar characteristics. It is an imported product from France, used to heal genital diseases, published by the name "Injection" and "Injection Brou" in the 1840s. This usage is supported by the presence of seven "*frascos*" (jars) of "*Inyeccion Broun*" (AHA, 1866) in a drugstore in Azul in the second half of the 1860s. Considering it a perfumery product is another option, such as the "*frasquitos de aceite de olor*" (scented oil little flasks), the "*agua de colonia*" (Eau de Cologne) or the "*frasquitos de perfumería surtidos*" (assorted perfumery little flasks) that seemed to be common wares in the stores of Azul (AHA, 1859, 1862) and in the border *pulperías* (general stores) (Virgili, 2000, p. 230).

Finally, a container originally for mustard was identified from a wall fragment with the letters MOUTA in relief on top and LOUI underneath. The complete word may have been MOUTARDE, in the upper line and, probably LOUIT FRERES & CO in the lower one. It refers to the French company "*Louit Freres*" founded by Paul Louis, that produced mustard and chocolate in the Gironde Department of Bordeaux region. One specimen of the same brand, with a different shape and the words "LOUIT FRERES & CO-MOUTARDE GIRONDINE" is shown by Schávelzon (1991, p. 141) and classified as an imported good from France, common during the nineteenth century. Several mustard containers of the company LOUIT FRERES & CO. BORDEAUX appeared in Sellari's catalog (1989, p. 133) and in some websites. Their morphology resembles the archaeological specimen:

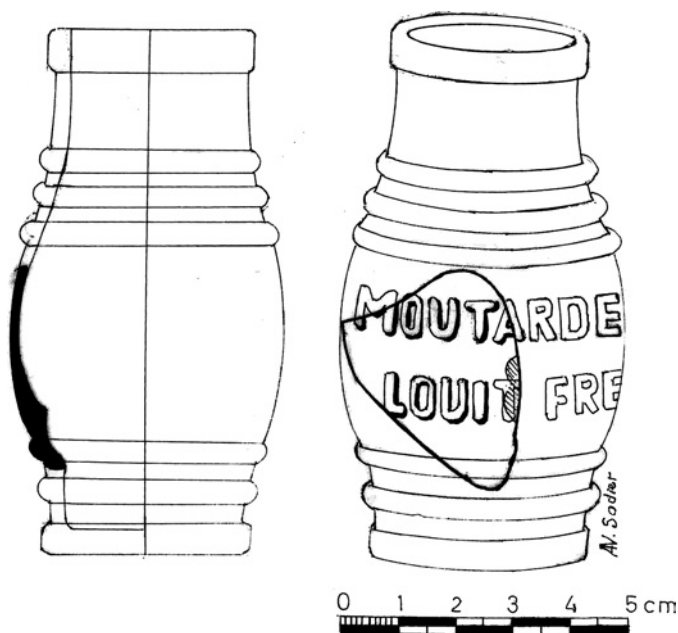


Fig. 7. Superimposed drawing of a complete container and the archaeological fragment. Mustard jar barrel-shaped, with three rings around the base and three on the shoulder, with the relief inscription MOUTA and LOUI.

barrel shape with three rings in the base and three at the shoulder (Fig. 7). Although no references to this particular brand were found in the written records, the presence of mustard among the wares traded in the Buenos Aires *pulperías* in the middle of the nineteenth century was noted (Correa and Wibaux, 2000, p. 220).

DISCUSSION

The documents on the rations given to the “friendly Indians” allow a preliminary way to approach the topics of their subsistence and consumption. It must be noted, however, that the lists of products intended for indigenous use have biases and need a critical review because not all the items were necessarily used or consumed by the indigenous groups in their *tolderías*. Barros (1975) and Ebelot (1930), for instance, witnessed the modern irregularities that accompanied the distribution of rations.

Table I presents the available information about alcoholic beverages that should have been sent to the *Catrieleros*. The comparison between the original

Table I. Alcoholic Beverages for the “Friendly Indians” in Azul and Tapalqué, 1832–1867

Goods	1832	1832 ^a	1845	1856	1867
Aguardiente	2 barrels	1 barrel	28 bottles ^a	200 flasks	
Gin			12 jars ^a	72 bottles	116 bottles
Wine			36 bottles ^b	80 flasks	
Bordeaux wine				72 bottles	78 bottles
Catalan wine					216 flasks
Frequency	Monthly	Monthly	Not specified	Trimestral	Trimestral

^aGiven only to *caciques*.

^bCarlón wine, of lower quality.

rations and the goods distributed two or three decades later reveals some trends on the composition and amount of these wares. An increase in the quantity and variety of alcoholic beverages is evident, shifting from barrels of *aguardiente* to different European wines (i.e., French, Catalan), gin, and *aguardiente* in other kinds of containers, such as bottles, jars, and flasks. This trend reflects a genuine population growth in the indigenous cultures settled in the region (Pedrotta, 2004), and an increase in the traffic of imported wares and trade in the local market. Special gifts given to indigenous *caciques* and hierarchies must be added to the products mentioned in the table. Such gifts represented important symbolic, and material mechanisms for establishing the *caciques*' positions as redistributors amongst their group (Bechis, 1999). Liquor and perfume, beyond the above-mentioned alcoholic beverages, were gifts given as a permanent practice in developing the interethnic relations with the Indians from Azul and Tapalqué (Pedrotta and Gómez Romero, 2002; Ratto, 1994a,b, 2003).

The archaeological collection from the Arroyo Nieves 2 site includes kitchen articles and dishes (plates, refined earthenware bowls and cups, and glass tablewares). The presence of jars and other glass containers for food constitute additional evidence of the activities related to the production and consumption of edibles. Likewise, elements associated with clothing (such as shirt buttons), and personal articles, (such as smoking-pipes and necklace beads) were also identified. Personal articles also included objects related to health and personal hygiene that have been generically identified as pharmacy and perfumery flask fragments. Although the specific determination of the flask with the word PARIS, remains dubious, it certainly belongs to this last group. All of the above-mentioned specimens were included in the gifts category, as objects occasionally given to the Indians. Such items were also stocked in the stores of Azul, and probably were also offered in the *tolderías* (Indian camps) by camp-followers and informal traders, whose written reports are almost nonexistent.

The consumption of alcoholic beverages would be reflected both in the lists of products intended for indigenous use and in the composition of glass containers. Consequently, most glass remains correspond to bottles, and of this type, a

predominance occurs for originally alcoholic beverage containers. This finding is supported by the morphology of the identified types and the general distribution of glass colors. Thus, the square gin bottles and the black and green cylindrical bottles for wine and beer are prominent. It is worth noting the possibility that these bottles were refilled several times with different contents, some of which may not have been alcoholic (Pedrotta and Bagaloni, 2004). Refilling, however, did not imply a significant reduction in the consumption of alcoholic beverages.

The variety of alcoholic beverage bottles is outstanding, especially when compared to archaeological contexts in the southern borders of Buenos Aires during the 1860s and 1870s, such as the blockhouses Fortín Miñana and Fortín Recompensa. These sites yielded few glass bottle types, with gin *limetas* being predominant. In the case of Fortín Miñana (1860–1863), 97% of the glass remains were classified as gin bottles, with a minimum number of 15 (Gómez Romero and Bogazzi, 1998, p. 113). Regarding *limetas* in Fortín Recompensa (1876–1879), it was reported that “summing up the different brands there is a total of 31 maximum and 22 minimum” (Roa and Saghessi, 1998, p. 92). To explain this distribution, it is crucial to compare potential access to alcoholic beverages. People could obtain alcohol in one of two ways: either as part of governmental provisions, or in trade or barter by other products. Although the rations distributed by the government were frequent to the “friendly Indians,” as well as to the army garrisons, alcoholic beverages were exclusive for the former group and virtually nonexistent for the latter. The potential to buy or trade alcoholic beverages was controlled in the blockhouses in the following way. The capture of trade goods (such as furs or feathers) was circumscribed to the neighborhood of each blockhouse, besides the distance to population centers and the lack of transport reduced the movement of people and goods. The small and sporadic salary of the blockhouses did not constitute an important consumption locale. In the case of the *Catrieleros*, the opposite situation obtained: they had a wide knowledge and a high mobility range in the area; their settlements were near Azul city, with its frequent traffic of wares (Armaigac, 1976; Ebelot, 1930). They also received a wide variety of alcoholic beverages in their rations and, since the Act of 1856, those who joined the army were paid a remuneration for their service (Levaggi, 2000). These elements determined that the “friendly Indians” usually had plenty access to bottled alcoholic beverages.

During the nineteenth century, an outstanding improvement in the technical and industrial production processes in the European countries occurred, as well as a worldwide trade integration that was characterized by the growth of international labor divisions (Hobsbawn, 1998; Wolf, 1993). This trend was reflected in the increase of the general amount of imported objects into the Río de la Plata, as well as in the diversification of their varieties and qualities—mainly beverages, food, and private use items—that appeared in the records of *pulperías* and rural stores in the second half of the nineteenth century (Correa and Wibaux, 2000;

Mayo, 2000). The glass remains at the Arroyo Nieves 2 site certainly reflect this access to beverages, edibles, and perfumery items from France, England, and Holland, all imported during the nineteenth century (Fletcher, 1976; Schávelzon, 1991). Thus, they reveal the integration of the *Catrieleros* into the regional and international trade networks. Such integration may be materially facilitated by: (1) the sale or the exchange of goods acquired or produced by the *tolderías*, such as feather, leather, hides, and textiles; (2) the access to money, obtained by the salaries and by the sales of the staff; and (3) the role of mediators played by the “friendly Indians,” strategically settled on the border between the Hispanic-Creole tradesmen and other indigenous groups settled in more distant territories.

ACKNOWLEDGMENTS

To Lic. F. Gómez Romero who participated in the first steps of the research into the glass material in the Arroyo Nieves 1 and 2 sites, made valuable comments, and critically read a preliminary of this paper. To Dr. D. Schávelzon, for his generous offer of bibliography and comparative glass material. To Lic. V. Pineau, whose useful managing helped us to determine one of the “Hoytema” *limetas*. To Lic. L. Magnin for the bibliography. To the staff of the Museo y Archivo Histórico “E. Squirru” in Azul because of their attention in the search of written documents. The pictures of the remains were taken by V. Pedrotta and Salvador “Lole” García. This research is part of a project carried out by the INCUAPA (Investigaciones Arqueológicas y Paleontológicas del Cuaternario Pampeano) in the Departamento de Arqueología de la Facultad de Ciencias Sociales, Universidad Nacional del Centro.

REFERENCES CITED

- AHA [Archivo Histórico de Azul] (1859). *Balance tomado de los efectos existentes en la casa de negocio del Sr. Don Florencio García a cargo del Sr. Don Juan Alberto Roman con fecha 18 de febrero de 1859*, Document 30.
- AHA [Archivo Histórico de Azul] (1862). *Inventario general de todas las existencias y útiles de servicio que hay en la casa de negocio de Don Marciano Martínez en [...] Azul [...]*, Documento 7.
- AHA [Archivo Histórico de Azul] (1866). *Inventario y tasación tomados por orden judicial de los bienes pertenecientes al finado Don Juan Baladia*, Documento 1.
- Armaigac, H. (1976 [1869]). *Viaje por las pampas argentinas*, Eudeba, Buenos Aires.
- Barros, A. (1975 [1872]). *Fronteras y territorios federales de las pampas del sur*, Hachette, Buenos Aires.
- Baughner-Perlin, S. (1982). Analyzing glass bottles for chronology, function, and trade networks. In Dickens, R. S. Jr. (ed.), *Archaeology of Urban America. The Search of Pattern and Process*, Academic, New York, pp. 259–290.
- Bechis, M. (n.d.). *La vida social de las biografías: el caso de la biografía de Juan Calficurá “líder total” de una sociedad sin estado*, Unpublished manuscript.
- Bechis, M. (1999). *Los lideratos políticos en el área araucano-pampeana en el siglo XIX poder o autoridad?* Etnohistoria, Revista NAYA, CD-Rom.

- CGE [Comando General del Ejército] (1974). *Política seguida con el aborigen*, 5 vols., Círculo Militar, Buenos Aires.
- Correa, C., and Wibaux, M. (2000). Sabores de la pampa. Dieta y hábitos de consumo en la frontera bonaerense. In Mayo, C. (comp.), *Vivir en la frontera. La casa, la dieta, la pulpería, la escuela (1770–1870)*, Biblos, Buenos Aires, pp. 77–86.
- Ebelot, A. (1930 [1876]). Una invasión de Catriel. *Azul* 1(3): 171–206.
- Favier Dubois, C., and Pedrotta, V. (2005). Inundaciones recientes y procesos de formación del registro arqueológico en la localidad Arroyo Nieves (Area Interserrana Bonaerense). Presented at the IV Congreso de Arqueología de la Región Pampeana Argentina, Bahía Blanca.
- Fernández, J. (1998). *Historia de los indios ranqueles. Orígenes, elevación y caída del cacicazgo ranquelino en la Pampa Central (Siglos XVIII y XIX)*, Instituto Nacional de Antropología y Pensamiento Latinoamericano, Buenos Aires.
- Fike, R. (1987). *The Bottle Book. A Comprehensive Guide to Historic, Embossed Medicine Bottles*, Peregrine Smith, Salt Lake City, UT.
- Fletcher, E. (1976). *Antique Bottles in Color*, Blandford, Dorset, UK.
- Gómez Romero, F. (1999). *Sobre lo arado: el pasado. Arqueología histórica en los alrededores del Fortín Miñana (1860–1869)*, Biblos, Azul.
- Gómez Romero, F., and Bogazzi, M. (1998). Mensajes dentro de la botella: análisis de los materiales vítreos del sitio Fortín Miñana (1860–1869). *I Jornadas Regionales de Historia y Arqueología del Siglo XIX*: 111–123.
- Hobsbawn, E. J. (1998). *La era del capital*, Crítica, Buenos Aires.
- Hux, P. M. (1993). *Caciques puelches, pampas y serranos*, Marymar, Buenos Aires.
- Jones, K. L. (1991). Calfucurá and Namuncurá: Nation builders of the Pampas. In Enrell, J., and Buzley, W. (eds.), *The Human Tradition in Latin America. The Nineteenth Century*, Scholarly Resources Imprint, Wilmington, DE, pp. 175–186.
- Jones, K. L. (1999). Warfare, reorganization, and readaptation at the margins of Spanish rule: The Southern Margin (1573–1882). In Salomon, F., and Schwartz, S. (eds.), *The Cambridge History of the Native Peoples of the Americas*, Vol. 3, Cambridge University Press, Cambridge, New York, pp. 138–183.
- Jones, O. (1971). Glass bottles, push ups, and pontil marks. *Historical Archaeology* 5: 62–73.
- Kovel, R. (1992). *Kovels Bottles Price List*, Crown, New York.
- Levaggi, A. (2000). *Paz en la Frontera*, Universidad del Museo Social Argentino, Buenos Aires.
- Lorrain, D. (1968). An archaeologist's guide to nineteenth century American glass. *Historical Archaeology* 2: 35–44.
- Mandrini, R. J. (1987). Desarrollo de una sociedad indígena pastoril en el area interserrana bonaerense. *Anuario del IEHS* 2: 71–98.
- Mandrini, R. J. (1994). Sólo de caza y robos vivían los indios? Los cacicatos pampeanos del siglo XIX. *Siglo XIX – Nueva Epoca* 15: 5–24.
- Mayo, C. (2000). *Vivir en la frontera. La casa, la dieta, la pulpería, la escuela (1770–1870)*, Biblos, Buenos Aires.
- McKearin, H., and Wilson, K. (1978). *American Bottles, Flasks, and their Ancestry*, Crown, New York.
- Moreno, P. (ed.) (1997). *Botellas Cuadradas de Ginebra*, Buenos Aires.
- Nöel Hume, I. (1969). *A Guide to Artifacts of Colonial America*, Alfred A. Knopf, New York.
- Palermo, M. A. (1991). La compleja interacción hispano-indígena en el sur argentino y chileno durante el Período Colonial. *América Indígena* 1: 153–192.
- Pedrotta, V. (2002). Arqueología histórica en el Arroyo Nieves (Pdo. Olavarría). Resultados preliminares de los primeros trabajos de campo. *Intersecciones en Antropología* 3: 125–130.
- Pedrotta, V. (2004). *Explorando la dieta de los “indios amigos” de la frontera sur bonaerense a través del registro arqueofaunístico del sitio Arroyo Nieves 2*. Presented at the XV Congreso Nacional de Arqueología Argentina, Río Cuarto.
- Pedrotta, V., and Bagaloni, V. (2003). *Resultados preliminares del análisis de los materiales vítreos del sitio Arroyo Nieves 2*. Presented at the II Congreso Nacional de Arqueología Histórica Argentina, Río Grande.
- Pedrotta, V., and Bagaloni, V. (2004). *Bebidas, comidas, remedios y “vicios”: Las prácticas de consumo y descarte de recipientes de vidrio por los “indios amigos” de la frontera sur (siglo*

- XIX). Presented at the IX Encuentro Regional de Historia y Arqueología post-conquista de los pueblos al Sur del río Salado, Olavarría.
- Pedrotta, V., and Gómez Romero, F. (2002). Juan Catriel visita Buenos Aires. *Todo es Historia* **416**: 54–66.
- Politis, G. (1986). Investigaciones arqueológicas en el Area Interserrana Bonaerense. *Etnia* **32**: 7–52.
- Ratto, S. (1994a). Indios amigos e indios aliados, orígenes del “Negocio Pacífico” en la Provincia de Buenos Aires (1829–1832). In *Cuadernos del Instituto Ravignani*, Vol. 5, Facultad de Filosofía y Letras, Universidad de Buenos Aires.
- Ratto, S. (1994b). El “negocio pacífico de los indios”: la frontera bonaerense durante el gobierno de Rosas. *Siglo XIX – Nueva Epoca* **15**: 25–47.
- Ratto, S. (2003). Una experiencia fronteriza exitosa: el negocio pacífico de indios en la provincia de Buenos Aires (1829–1852). *Revista de Indias* **63**(227): 191–222.
- Roa, M., and Saghessi, M. (1998). Investigaciones arqueológicas en el Fortín Recompensa, partido de Guaminí, provincia de Buenos Aires. *I Jornadas Regionales de Historia y Arqueología del Siglo XIX*: 89–93.
- Rock, J. (1981). *Glass Bottles: Basic Identification*, Klamath National Forest, Yreka, CA.
- Sarramone, A. (1993). *Catriel y los indios pampas de Buenos Aires*, Biblos, Azul.
- Schávelzon, D. (1991). *Arqueología histórica de Buenos Aires: la cultura material porteña de los siglos XVIII y XIX*, Corregidor, Buenos Aires.
- Sellari, D. (1989). *The Standard Old Bottle Price Guide*, Collector Books, Paducah, KY, USA.
- Soetens, J. (2001). In *Glas Verpakt. Packaged in glass. European Bottles, their History and Production*, De Bataafsche Leeuw, Amsterdam.
- van den Bossche, W. (2001). *Antique Glass Bottles. Their History and Evolution (1500–1850)*, Antique Collector's Club, Italy.
- Virgili, D. (2000). Las esquinas de la pampa. Pulperos y pulperías en la frontera bonaerense (1788–1865). In Mayo, C. (comp.), *Vivir en la frontera. La casa, la dieta, la pulpería, la escuela (1770–1870)*, Biblos, Buenos Aires, pp. 99–122.
- Walter, J. C. (1970). *La conquista del desierto*, Eudeba, Buenos Aires.
- Wolf, E. R. (1993). *Europa y la gente sin historia*, Fondo de Cultura Económica, Buenos Aires.