SHIPS IN THE PORT OF BUENOS AIRES IN THE MID-19TH CENTURY: THE POTENTIAL OF THE BRITISH PACKET AND ARGENTINE NEWS. A METHODOLOGICAL ESSAY[1]

Arribos de embarcaciones en el puerto de Buenos Aires a mediados del siglo XIX: el potencial de the British Packet and Argentina News. *Un ensayo metodológico.*

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Abstract

Maritime, and even river and lake navigation, continues to be the most widely used means of world trade. And the ports are the necessary interfaces between the forelands and the hinterlands of the different connected regions. Although this is an age-old activity, in the second half of the nineteenth century it took an exponential boost in what was called the "first globalization". The information became a crucial input for all those involved in the import and export trade, and the press of each port city began to record it day by day in singular detail. This paper is a methodological essay over a short period of time with one of these sources. To do this, we implemented computer tools for data collection and prepared a table with a series of indicators that could be analyzed with this type of source. This similarity is very marked throughout the press of the world. Although we can't offer diachronic results with this cut, its execution does allow us to build the themes and problems, the containers of information, and some instruments that we intend to use in the larger project in which our research is inserted.

Keywords: ports-arrivals-Buenos Aires-19th century

Resumen

La navegación marítima e incluso fluvial y lacustre sigue siendo el medio de mayor utilización por parte del comercio mundial. Y los puertos las interfaces necesarias entre los *forelands* y los *hinterlands* de las diferentes regiones conectadas. Si bien es esta una actividad milenaria, en la segunda mitad del siglo XIX tomó un impulso exponencial en lo que se llamó la "primera globalización". La información se volvió un insumo crucial para todos aquellos vinculados al comercio de importación y exportación, y la prensa de cada ciudad portuaria comenzó a registrarla día por día con singular detalle. El presente trabajo es un ensayo metodológico elaborado sobre un corto período con una de estas fuentes. Para realizarlo pusimos en ejecución instrumentos informáticos para la recolección de datos y elaboramos tabla con una serie de indicadores pasibles de ser analizados con este tipo de fuente. Ésta guarda una similitud muy acentuada en toda la prensa del mundo. Si bien no podemos con este recorte ofrecer resultados diacrónicos de envergadura, su ejecución sí permite construir los temas y los problemas, los contenedores de información, y algunos

instrumentos que pretendemos volcar en el proyecto mayor en el cual se inserta nuestra investigación.

Palabras clave: puertos-arribos-Buenos Aires-siglo XIX

Introduction

As part of the project "PortADa. Port Arrivals Data. Automatic data collection for a large-scale comparative history of 19th century shipping: a Digital Humanities approach to maritime heritage", as its name indicates, the present work seeks to elaborate a database with the information published in newspapers about the arrivals of ships to different ports (Barcelona, Havana, Marseilles and Buenos Aires) between 1850 and 1914. Data collection is carried out using computerized tools in an attempt to minimize manual intervention. Our case corresponds to the port of Buenos Aires, which, unlike the other three ports, does not have a single source for the entire period of time that it was in operation[2]., and there is no digital copy of the whole period. Buenos Aires must be covered by at least four publications and among those chosen there was a gap to be covered of three months (from February to March 1852) between one newspaper, *La Gaceta Mercantil*, covering from January 1850 to January 1852 and *El Nacional*, covering the period from May 1852 to December 1869. We, the historians and computer scientists of the "Nodo Buenos Aires" decided to take this opportunity to measure and evaluate both the potential of the computerized data collection instruments and the information that can be extracted from this source for analysis. In this sense, this work has no more than methodological pretensions since it analyzes only those three months. However, we believe that this test is extremely useful for the purpose of testing the tools that will be used in the near future when the first heuristic stages of the project have been completed.

The problems

While the process that began with the emergence of what a few years later became known as "America," the circumnavigation of the globe and the cultural, commercial, legal and political consequences that this entailed (Gordon & Morales, 2028), is often referred to as "early globalization," it is also a term used by economic historians to describe the period of globalization of trade and finance that took place between 1870 and 1914 (Lang, 2006). In both processes, maritime navigation was the vehicle that provided the *raison d'être* for economic globalization and the port terminals were the interface that generated the nodes of interaction between the regions involved. The port of Buenos Aires was an early "gateway to the land" created by the Crown of Castile in the mid-sixteenth century and functioned as such until the present. However, this port was affected by the political and economic history of its hinterland after the processes that culminated in its political independence, and it was around the middle of the 19th century when the region joined the world market as a net exporter of foodstuffs (cereals and meat in general) and industrial inputs (mainly wool and leather)(Rayes, 2015). It is also a net importer of manufactured goods and some inputs not generated in the region. Port activity began to be increasingly important information for commerce and this was recorded by

[2] Such is the case of the *Diario de Barcelona*, for the city of the same name, the *Diario de la Marina*, for Havana, and the *Semáfore de Mairsellies*.

the press with singular detail, even before 1850. With this information we will analyze, measuring and evaluating different aspects of the arrivals of ships to the port of Buenos Aires in the period February-April 1852. Since, as we have said, it is only a small portion of information collected due to a gap in the sources, this work should be read as a methodological draft, an exercise prior to a study of a longer duration.

Source and methodology of data collection

Our source, was the *British Packet and Argentina News* (Without signature, 1852, hereinafter BP) from February 1 to April 30, 1852. It was a newspaper published in Buenos Aires in English weekly between 1826 and 1858. It usually had four pages. Its information was essentially trade but also included news of interest to the British community in Buenos Aires. The information we have collected from this source refers to boat arrivals. This was: news date; arrival date; flag; vessel type; vessel name; size (presumably in gross log tons); name of the captain or boss; port of departure; date of departure; stopover (if this ship had them); stopover date; owner or consignee of the cargo; charge (goods, passengers or money).

To obtain the press, a computational approach was implemented using web scraping techniques. A script was developed that navigated through the website where the digitized archive of the BP newspaper was located. This script identified and extracted the pdfs of the issues between February 1 and April 30, 1852.

Once the newspaper edition files were obtained, they were processed using OCR (Optical Character Recognition) technology provided by Google's Document AI®. This process made it possible to convert the images of the newspaper pages into editable text, thus facilitating the extraction of the necessary information.

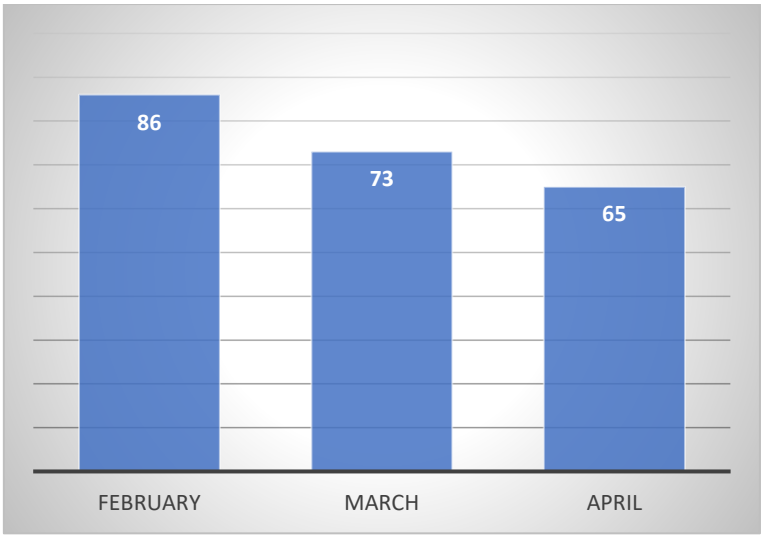
Subsequently, data datification was performed using OpenAI's GPT-3.5 Turbo® capability. A prompt specifying the structure of the desired data (such as news date, arrival date, flag, vessel type, etc.) was designed in JSON format. Then, GPT-3.5 Turbo was used to tabulate the data from the text transcriptions provided by the OCR, thus generating a structured data set in JSON format ready for further analysis and processing.

This integrated approach of web scraping, OCR and GPT-3.5 Turbo made it possible to automate the process of extracting, processing and tabulating data from BP newspaper editions, thus speeding up the collection of valuable information for historical and academic analysis. The entire workflow was managed from the RStudio IDE using the R Project programming language.

Intensity

The first measurement we make is the intensity of arrivals at the port of Buenos Aires. The source records the arrival of 224 vessels in total from different ports of departure. As can be seen in Figure 1, there was a decreasing drop in arrivals from summer to fall of the southern hemisphere.

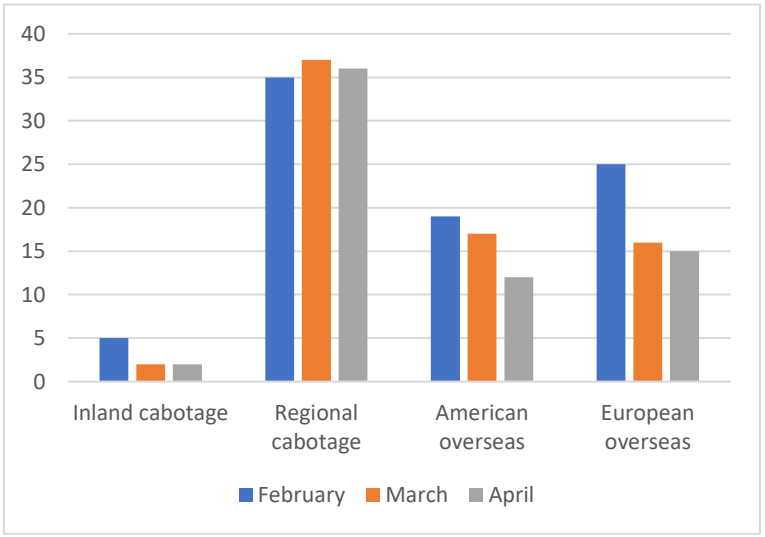
Figure 1 Number of vessels present in the port of Buenos Aires between February and April 1852.



Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

In Figure 2 we have disaggregated these values by type of origin. We call "inland cabotage" to navigation coming from ports within the Argentine customs zone, in this case the inland rivers (Paraná, Río de la Plata and Río Uruguay) and the maritime coast (Buenos Aires and Patagonian); "regional cabotage" to vessels coming from the Oriental Republic of Uruguay; "American overseas" to those vessels that originated in a port of the American continent and "European overseas" to those that departed from a European port terminal.

Figure 2 Number of vessels present in the port of Buenos Aires between February and April 1852 by type of origin



Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

The figure shows in principle the strong intensity of regional cabotage in which practically no changes have taken place. On the other hand, inland cabotage is presented as a residual navigation where there may be an under-recording or non-recording of this information by the port authority and therefore of the publication. Finally, we see that it was the values of both American and European overseas shipping that shaped Figure 1 in its decrease.

In the direction of the unit of analysis (i.e. news of arrivals or registered voyages) taking into consideration the national origins of departure of the vessels we have disaggregated in Table 1.

Table 1 Origins by country and by port of the vessels present in the port of Buenos Aires between February and April 1852

Country of origin	Total	Origin	Quantity
Germany	3	Hamburg	3
Argentina	9	Bahía Blanca	1
		Martin García	3
		Paraná	2
		Patagonia	1
		Punta Indio	1
		"Up the river"	1
Brazil	32	Bahía	1
		Paranaguá	7
		Pernambuco	5
		Rio de Janeiro	15
		Santos	3
		St. Catherine's	1
Chile	2	Chiloé	1
		Valparaíso	1
Cuba	6	Havana	4
		Matanzas	2
Spain	21	Barcelona	9
		Cádiz	11
		Carril	1
France	9	Bayonne	1
		Bordeaux	3
		Cette	1
		Havre	3
		Marseilles	1
Great Britain	13	Dundee	1
		Isle of May	3
		Liverpool	4
		London	3
		New Castle	2
Ireland	1	Tralee	1
Virgin Islands	1	Salt Island	1
Italia	8	Genoa	7
		Savona	1
Sweden	1	Gottemburg	1
Uruguay	108	Colonia	8
		Montevideo	94
		Uruguay	6
USA	7	Baltimore	1
		Boston	2
		New York	1

Country of origin	Total	Origin	Quantity
		Salem	2
		Wilmington	1
No data	3		3
Total			224

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

The most important relationship of the port of Buenos Aires was linked to the Oriental Republic of Uruguay, where 49% (108 cases) of the vessels that recorded this information came from, followed by Europe 25% (56 cases), in third place were American countries other than Uruguay with 19%, and the remaining 7% were made up of 9 cases of domestic cabotage. Three vessels do not have origin information.

Below Uruguay, Brazil is the overseas American origin with the highest number of visits, followed by Spain as the European origin with the highest intensity of trips to Buenos Aires. Great Britain ranked third with 13 registrations.

In the same table we present the ports of departure of the different vessels within the different national origins. The preponderant origin from the Oriental Republic of Uruguay was Montevideo. It was followed by Rio de Janeiro in Brazil, and Cadiz and Barcelona in the Spanish Atlantic and Mediterranean respectively. We found another 5 Brazilian ports (Santa Caterina can be added to Paranaguá), another 5 American ports, all of them on the Atlantic Ocean, 2 Chilean. Another 2 Cuban and one in the Virgin Islands complete the American origins. For Europe we have 5 British ports both on the English Channel and on the Atlantic Ocean, 5 French ports on the Atlantic and on the Mediterranean, 2 Italian ports and Carril in Pontevedra adds to the Spanish ones.

Flags

From the flags of the ships (Table 2) - where we have considered the current dependence on the states prior to the unifications of Germany and Italy - the Sardinian flag stands out, followed by the British, then the Brazilian, then the Spanish, then the American, and only from the sixth place onwards the national flag and the Uruguayan flag appear.

Flags were not always directly associated with ports of origin. For example, of the 34 Sardinian vessels, 19 were engaged in regional cabotage, 9 in European overseas and the remaining 6 in American overseas. On the other hand, of the 30 British vessels, 14 were engaged in European overseas, 11 in regional cabotage, 4 in American overseas and 1 in domestic cabotage. The Brazilian flagged vessels mostly did American overseas (14), 6 regional cabotage and 3 inland cabotage. Spanish vessels mostly did European overseas (11), the rest being distributed in American overseas and regional cabotage.

The American and national fleets specialized in regional cabotage as did the Eastern fleet, with a similar number of registrations. Finishing with the most numerous cases, the French flag vessels dealt with overseas navigation from Europe and a few with regional cabotage, while the Danish fleet mainly dealt with American cabotage.

Table 2 present in the port of Buenos Aires between February and April 1852

Flag	Total	Inland Cabotage	Regional cabotage	American Overseas	European overseas
Sardinian[3]	34		19	9	6
British	30	1	11	4	14
Brazilian	26	3	6	14	
Spanish	25		7	7	11
USA ("American")	23		16	7	
National	22	5	15	2	
Oriental (Uruguay)	20		19	1	
French	12				8
Danish	8			7	1
Hamburg[4]	6		1	1	4
Dutch	3		2	1	
Russian	3				3
Austrian	2				2
Prussian[5]	2			1	1
Tuscan[6]	2			2	
Belgian	1				1
Bremen[7]	1				1
Lubeck[8]	1			1	
Portuguese	1			1	
Roman	1			1	
Swedish	1				1
Total	224	9	108	48	56

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

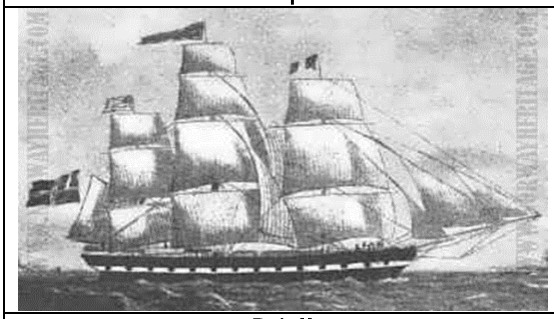
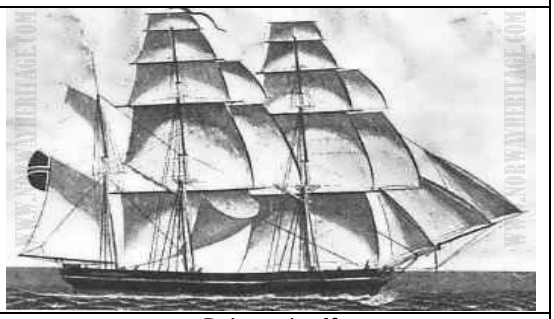
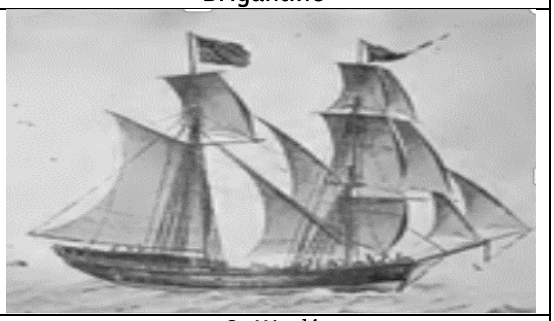
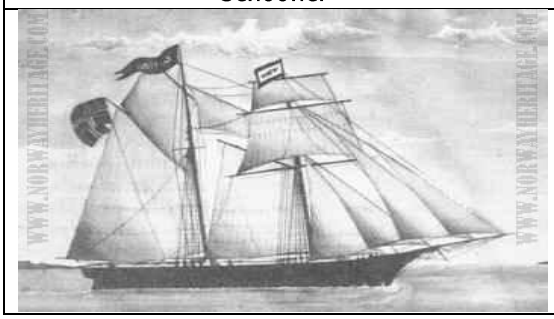
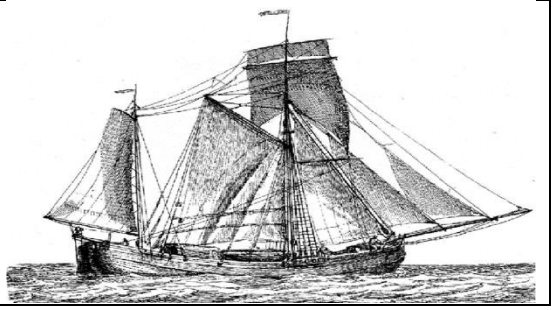
Evidently many of these vessels acted as independent transporters of the states to which they belonged, transiting commercial routes that took them through destinations conditioned by the supply and demand of their services, where the origin and destination in Buenos Aires was perhaps a fraction of a triangular or more extensive trip.

[3] Sardinia was incorporated into Italy in 1861.
[4] Hamburg was an independent state of the German Confederation (1815–1866), of the North German Federation (1866–1871)), of the German Empire (1871-1918) and the Weimar Republic (1919-1933).
[5] Prussia was a member of the German Confederation (1849-1866), of the North German Confederation (1866-1871), and the German Empire (1871-1918).
[6] In the Italian wars of independence of the 1850s, Tuscany was transferred from Austria to the unified nation of Italy. A plebiscite, promoted on March 15, 1860 by the Tuscan Provisional Government, decreed the annexation to the Kingdom of Sardinia ruled by Victor Emmanuel II and, from there, to the nascent Kingdom of Italy.
[7] In 1866 the city became a member of the North German Confederation. In 1871, with the beginning of the German Empire, Bremen was incorporated with the constitutional title of "Free Hanseatic City", as well as a seat in the Bundesrat. In 1888 Bremen joined the German Customs Union and the inauguration of the first German free port.
[8] In 1866 the city became a member of the North German Confederation, in 1868 it became a member of the Germany Customs Union and in 1871 in part of the German Empire.

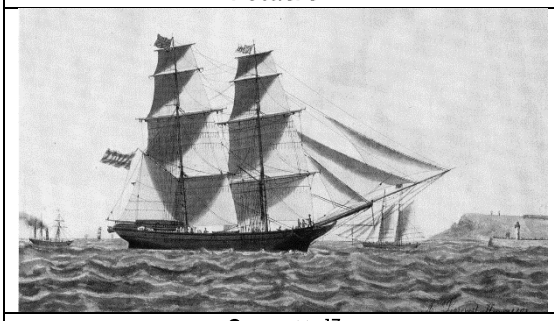
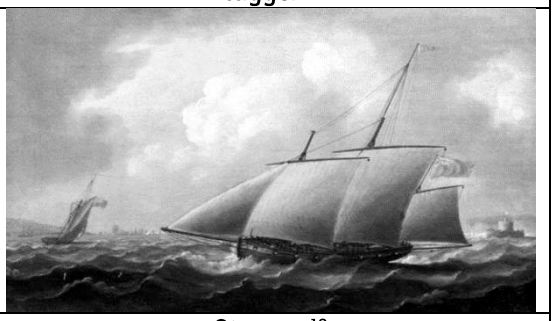
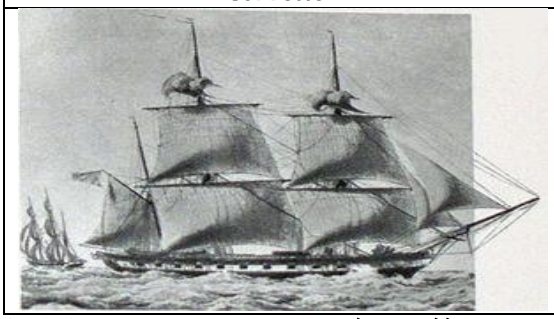
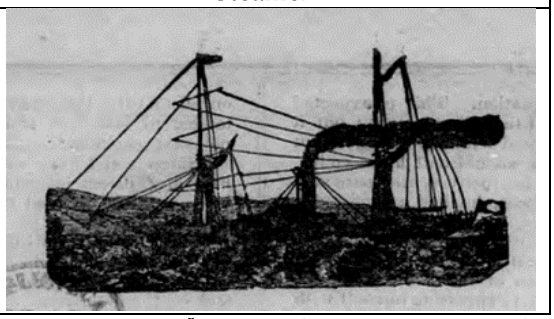
Vessels

We will focus this section on naval architecture, whose designs were approximately those shown in Figure 3.

Figure 3 Examples of the types of vessels present in the port of Buenos Aires between February and April 1852.

Ship[9]	Bark[10]
	
Brig[11]	**Brigantine[12]**
	
Schooner[13]	**Galliot[14]**
	

[9] Ship (generic) is any floating body symmetrically with respect to a vertical longitudinal plane, called a bay plane, provided with means of propulsion and steering. It must meet the following conditions: buoyancy, stiffness, watertightness, Load capacity, stability, governance and mobility.
[10] Barque, barc, o bark It is a type of sailboat with three or more masts and mainmasts rigged to square and only the mizzen (mast more aft) rigged at bow and stern. Sometimes the mizzen is only partially rigged forward and backward, with a square-rigged sail on top.
[11] Brig. It is a type of sailboat defined by its rigging: two masts, both square-rigged.
[12] Brigantine It is a two-masted sailboat with a fully square bow mast and at least two sails on the main mast: A square top sail and a crab sail mainsail (behind the mast). The main mast is the second and taller of the two masts.
[13] Schooner. It is a sailing ship with two or more masts (there have been up to seven masts), the largest being the mizzen sail, with the rigging formed by auric sails (crabs and scandalous) and knife sails (headsails and stay sails); that is, sails arranged on the mast following the line of the bay, bow to stern, instead of mounted on transverse yards, like square sails.
[14] Galliot is a small, flat-bottomed vessel used primarily for fishing and coastal trade.

Polacre[15]	lugger[16]
	
Corvette[17]	Steamer[18]
	

Source: for sailboats Norway Heritage (https://www.norwayheritage.com/). For the Steamer, the logo of the BP de 1852.

The source mentions 12 types of vessels present in the port of Buenos Aires in the period studied (bark; brig; brigantine; corvette; lugger; packet; polacre; schooner; ship; steam frigate; steamer; war steamer and galliot).

Table 3 shows that of the 221 vessels that declared their propulsion, 55 (24.9%) were steam-powered and of these, the majority (5 were warships) were used almost exclusively to link Buenos Aires with Montevideo and only two to make the crossing from Rio de Janeiro to what would become the Argentine capital. The rest were wind-powered vessels. For the Atlantic crossing, the bark and the brig were mainly used, followed far behind by the polacre.

Table 3 Types of vessels present in the port of Buenos Aires between February and April 1852

Tipo	Inland Cabotage	Regional cabotage	American Overseas	European overseas	Total
bark		2	5	20	27
brig		9	23	20	52
brigantine	2	9	5	3	19

[15] Polacre. This is the name given to a cross boat. It has a helmet similar to the xebec with two tiple sticks, without mastheads or crossheads and with the same sails as brigs, although with the advantage over the latter that by lowering the upper sails they are under the protection of the lower ones and cling on easily.
[16] Lugger. It is a sailboat defined by its rigging, which uses the trapezoidal sail or "spritsail" on all of its one or more masts. They varied widely in size and design. Many were open, undecked ships, some of which operated from landings on the beach. Others were fully covered vessels.
[17] Corvette is a small warship. Traditionally it is the smallest class of ship considered to be a suitable (or "classified") warship. The class of warship above the corvette is that of the frigate, while the lower class was historically that of the sloop of war.
[18] Steamer, often referred to as a steamboat, is a type of steamboat, usually ocean-going and seaworthy, that is propelled by one or more steam engines that typically move (turn) propellers or paddle wheels.

Tipo	Inland Cabotage	Regional cabotage	American Overseas	European overseas	Total
corvette	1	3			4
galliot		1			1
lugger		7			7
packet			1		1
polacre		5	7	8	20
schooner	3	22	4	3	32
ship			1	2	3
steam frigate	1				1
steamer	1	47	2		50
war steamer	1	3			4
Total general	9	108	48	56	221

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

In spite of the short time span, several vessels repeated their arrival at the port of Buenos Aires. 3 Uruguayan and 4 Sardinian with 19 arrivals each, two North American with 16 arrivals, 4 nationals with 12 arrivals, 3 Brazilian with 11 arrivals, 3 British with 11 arrivals and 1 Spanish with 2 arrivals. Table 4 summarizes the names of these vessels, the type of navigation they made, the number of repetitions and their flag.

Table 4 Ships that repeated their arrival at Buenos Aires between February and April 1852

Ship	Tipe	Navigation	Arrivals	Flag
Julio	bark	Regional cabotage	2	Uruguayan
Palos	brig	American Overseas and national cabotage	2	American
Rama Negra	brigantine	Regional cabotage	2	National
Maipú	brigantine	Regional cabotage	4	National
Doña Francisca	corvette	Regional and national cabotage	2	Brazilian
Mazarredo	corvette	Regional cabotage	2	Spaniard
Fama	lugger	Regional cabotage	7	Sardinian
Victoria	schooner	Regional cabotage	5	British
Luisa	schooner	Regional cabotage	5	Sardinian
Ninfa	schooner	Regional cabotage	3	Sardinian
Chacabuco	schooner	Regional cabotage	3	National
Santa Clara	schooner	Regional cabotage	3	National
Manuelita Rosas	steamer	Regional cabotage	14	American
Don Pedro	war steamer	Regional and national cabotage	6	Brazilian
Río de Janeiro	steamer	Regional cabotage	3	Brazilian
Río de Janeiro	steamer	Regional cabotage	4	Sardinian
Locus	steamer	Regional cabotage	2	British
Prince	steamer	American Overseas and regional cabotage	4	British
Paraná	steamer	Regional cabotage	9	Uruguayan
Río Uruguay	steamer	Regional cabotage	8	Uruguayan

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

Evidently, the new naval technology was not yet sufficient for long overseas voyages, being mostly wooden-hulled vessels, without propellers, and with paddle wheels on the port and starboard sides or even at the stern. Nevertheless, steam propulsion was already present in the

Río de la Plata, although with small ships to cross the estuary of the Río de la Plata, provided by American, British, Brazilian, Sardinian and even Uruguayan shipping companies and two steamers, "Correo" and "Merced" under the national flag).

As for the average sizes (Table 5) of the vessels, we can establish, with those that registered their size, from the largest to the smallest, the "ship", the "barque", the "brig", the "brigantine", the "galliot", the "polacre", the "schooner" and finally the "steamer" as the smallest.

Table 5 Average size in GRT of the vessels that registered their arrival at Buenos Aires between February and April 1852

Tipe	Mid GRT	Banderas
Ship	481,3	American; Austrian and Spanish
Bark	250,9	American, British, French, hamburger, lübecker, national, Prussian, Sardinian and Spanish
Brig	210,2	American, Austrian, Belgian, Brazilian, Bremen, British, Danish, French, National, Portuguese, Roman, Russian, Sardinian, Spanish and Swedish.
brigantine	134,3	Brazilian, Danish, Dutch, hamburger, national, Spanish and Tuscany.
galliot	172	Dutch
polacre	168,6	French, Sardinian, Spanish and Tuscany.
schooner	124,4	British, Danish, hamburger, national, Uruguayan, Sardinian and Spanish.
steamer	90	American, Brazilian, national, Oriental and Sardinian.

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

However, we did not find a direct relationship between type and size. The 650 GRT Austrian "Ida Kiss" was the largest of all the ships we have recorded, but there were two others of 548 and 246 GRT respectively. The "barks" ranged between 180 and 336 GRT, the "brig" between 123 and 360 GRT, the "brigantines" between 122 and 149 GRT, the only "galliot" was 172 GRT, the "polacres" ranged from 115 to 308 GRT, the "schooner" between 90 and 183 GRT and the steamer all registered at 90 GRT. Evidently it was the rigging, sails and propulsion that differentiated the different types beyond their size.

The voyages

In this section we will refer to the voyages of the ships that arrived at the port of Buenos Aires in the period under study. We will deal only with the overseas voyages (American and European). For this measurement we have taken the average time in days of navigation of all those who made the voyage point to point without stopovers (at least declared or registered). We have not considered regional cabotage, which generally had Montevideo as its port of origin and in almost all cases the voyage was made in hours or at most in one day at sea. This was determined - and this is valid for all cases - by the inclemency of the weather, obviously. The results, we will not tire of repeating, are only illustrative, as the number of cases does not allow us to go any further, but they do allow us to approach with a certain precision the time required to complete the different voyages. For this reason, the tables that we will analyze below should be read with this care.

As for the American overseas, the first thing we observed is that, regardless of the type of vessel, a voyage from the Atlantic coast of the United States would take an average of 63 days; from a

Brazilian port 22 and from a Chilean port 30. Also, and despite the scarce data, we observed that a voyage from Massachusetts Bay (Salem, Boston, etc.) was longer than one from New York, how a voyage from Bahia or Pernambuco in Brazil took more days of navigation than from Rio de Janeiro or Paranaguá, or how from Chile, Valparaíso, it took longer for a ship to reach Buenos Aires than from the island of Chiloé. Tables 6 and 7 summarize this information.

Table 6 Non-stop voyages of American overseas vessels in the port of Buenos Aires between February and April 1852

Country of origin	Port of departure	Type of vessel	Nonstop cases	Average voyage
United States	Boston	brig	2	62,5
	New York	ship	1	42
	Salem	bark	2	54
	Wilmington	brig	1	101
Brazil	Bahía	brig	1	27
	Paranaguá	bark	1	15
		brig	4	24
	Pernambuco	brig	2	33,5
		brigantine	2	27
		polacre	1	26
	Rio de Janeiro	bark	1	16
		brig	5	16,6
		schooner	2	16,5
Chile	Chiloé	brig	1	24
	Valparaíso	brigantine	1	35

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

Turning to European overseas (Table 7), an Atlantic crossing took about 60 days on average. In this case we see that, from the Mediterranean, ships from Genoa exceeded the average journey time by a few days, but not those from Barcelona, so that distance does not appear here as a constant defining the length of the voyage. We find some surprisingly fast cases, such as one from Cadiz to Buenos Aires in just 24 days or another from London in 39, which may be due to errors in recording the corresponding dates.

Table 7 Duration of voyages of European overseas vessels present in the port of Buenos Aires between February and April 1852

Country of origin	Port of departure	Type of vessel	Nonstop cases	Average voyage
Great Britain	Dundee	brig	1	67
	Isle of May	bark	1	49
		brig	2	34
	Liverpool	bark	1	66
		brig	1	61
	London	brig	1	39

		schooner	1	66
		ship	1	51
	New Castle	bark	1	70
		brig	1	83
Italy	Genoa	brig	2	69
		polacre	1	67
Spain	Barcelona	brig	1	50
		polacre	1	56
	Cádiz	bark	3	58,4
		brig	4	61,3
		brigantine	1	24
		ship	1	50
	Carril	brig	1	62
France	Bayonne	bark	1	101
	Bordeaux	bark	2	66
	Havre	bark	2	58,5

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

In the same tables we have differentiated by ship type. What is remarkable is that 3 ships made the non-stop voyages with 10 days of sailing less than the average each. But beyond that we did not find a rule linking ship type and voyage times. Nor is there a relationship with size, as we know that a smaller vessel tends to be faster, but at the same time allows for less hold capacity. For example, departing from Rio de Janeiro, a bark, a brig and a schooner took almost exactly the same time. Something similar happens with the voyages departing from Cadiz, where 3 made by barks and 4 by brigs took almost the same average time. A general look allows us to conjecture that a schooner is slower than a brig or a brigantine, and the barks a little slower than the ships. But this requires a larger number of cases to draw more precise conclusions.

Turning to the routes and stopovers, we have 181 non-stop voyages, 9 of which were domestic cabotage; 107 regional cabotage (93 from Montevideo alone); 30 from overseas America and 35 from overseas Europe. There is no data for 3 voyages. 37 were made with 1 stopover and 3 made 2 (2 departing from Barcelona and 1 making a stopover in Malaga and then in Rio de Janeiro and another making a stopover also in Malaga and then in Montevideo. The third departed from Genoa and made stopovers in Marseilles and then Montevideo). Table 8 details all this information.

Table 8 Summary of stopovers made by vessels in the port of Buenos Aires between February and April 1852

Origin	Río de Janeiro	Málaga	Montevideo	Cádiz	Marseilles	Cuxhaven	Plymouth	Colonia	Santos
Baltimore	1								
Barcelona	1	3	5						
Bordeaux			1						
Cádiz	2								
Cette			1						
Genoa			3	1	1				
Hamburg						1			
Havana	1		1						
Havre							1		
Liverpool			2						
Marseilles			1						
Matanzas			2						

Montevideo								1	
Paranaguá			2						
Río de Janeiro			6						1
Santos			3						
Savona			1						
St. Catherine's			1						
	5	3	29	1	1	1	1	1	1

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

Montevideo was the most common stopover for most of the voyages (29 cases), with 15 coming from overseas America and 14 from overseas Europe. In the first case, 3 came from Cuba and 12 from Brazil, with no stopovers in Montevideo for those departing from the United States or Chile. Of the 14 European overseas vessels that called at Montevideo before arriving in Buenos Aires, 3 came from France and another 4 from Italy, and 5 came from Spain (all had departed from Barcelona) and another 2 from Great Britain.

The second stopover port was Rio de Janeiro, with only 5 arrivals, 2 from American overseas (Baltimore and Havana) and three from European overseas (2 from Cadiz and 1 from Barcelona).

Other stopovers were the ports of Cadiz and Marseille for ships leaving Genoa, Cuxhaven in Germany for the one from Hamburg, Plymouth in Great Britain for the one from Le Havre, Colonia in Uruguay for the one from Montevideo, and Santos for the one from Rio de Janeiro.

Consignees and goods

52 were the consignees of the cargoes that were declared, which shows a strong dispersion of demand. All of them consigned the entire cargo of each vessel. 32 were family companies or firms and 20 were individuals. The most frequent repeaters were the Uruguayan trader Felix Buxareo, the Brazilian José Cohelo de Meyrelles, and the German firm Zimmermann, Frazier & Co.

As we have said, the port of Buenos Aires was characterized by a limited number of export items (livestock and agricultural products in general) and an extensive list of import goods. In addition to packages of indeterminate content, we have money and passengers, as well as a large number of goods (Table 9). We will not dwell here on the volumes, although we do have this information, but this would require special work.[19], on this occasion, we are interested in focusing on the products and their origins.

Of the 224 arrival records, 93 reported cargo, 21 reported arriving "in ballast" - one of them carrying only money - and 59 with only passengers. The rest (52 cases) reported no cargo at all.

Those who manifested cargo (Table 9) combined in most cases different items within them, reaching 147 different items, arriving in 607 shipments. Grouped according to the categories in the table, European overseas shipping accounted for 69% of the shipments, 28% from American overseas and the remaining 3% from regional cabotage, i.e. from the Oriental Republic of Uruguay. From Uruguay, the port with the greatest number of contacts with Buenos Aires, flour

[19] The goods are denominated in different measured units of capacity, which makes it necessary to draw up equivalences, which is beyond the scope of this paper.

was imported, as well as wine, coal, matches, a piano and medicines. We assume that the latter were re-exports.

Table 1 Categories, items, shipments and origins of goods unloaded in the port of Buenos Aires between February and April 1852

Categories	Items	Shipments	Regional cabotage	American Overseas	European Overseas
Agricultural inputs	4	10	0,0	0,0	100,0
Food	41	170	0,6	30,6	68,8
Alcohol	8	81	2,5	4,9	92,6
Charcoal	1	14	21,4	0,0	78,6
Cosmetics	4	14	0,0	0,0	100,0
Books	1	7	0,0	28,6	71,4
Office supplies	3	19	0,0	10,5	89,5
Household Items	22	43	2,3	27,9	69,8
Clothing	10	20	0,0	25,0	75,0
Supplies and tools for industry	39	144	2,8	44,4	52,8
Medicinal products	3	4	25,0	0,0	75,0
Tobacco and cigars	2	17	0,0	94,1	5,9
Complex Manufacturing	5	7	14,3	28,6	57,1
Undetermined	4	57	7,0	22,8	70,2
	147	607			

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

To summarize, the most important origins by country are that in the "Household goods" and "Clothing" categories, these came mainly from Italy. In the "Alcoholic beverages" category, Spain was twice as important as Italy and France in shipments of all types of wines. Beer also came mainly from Great Britain and various spirits (rum, gin - all from Germany - and brandy). Coal came almost entirely from Great Britain, there is one shipment from Uruguay, but we infer as we have said that it was a re-export. Cosmetics came mainly from Spain. Agricultural inputs mostly from Italy except for barbed wire from Great Britain. Paper came mostly from Spain and ink from both the United States and Britain. Building materials came from Italy and Spain, chemicals from the United States and Britain, metals entirely from Britain as well as machinery, complex manufactures. Faucets and cork stoppers from Spain. Books mostly from Spain, but also from Italy, Great Britain and the United States. Medicinal products from Italy and tobacco from Brazil and Cuba, in that order. Finally, foodstuffs - the item with the highest number of shipments - came from Spain, with condiments, canned foodstuffs and canned fish, sweets, dried fruit and nuts, and fresh fruit and vegetables. From Italy came oil, dried pasta and cheese, flour from the United States and coffee from Brazil. Salt came mainly from Spain, sugar from Brazil and Cuba, and flour from Brazil and the United States.

Table 10 Detail of passenger arrivals in Buenos Aires between February and April 1852.

Port of origin	Total	Ship	Passengers
Bayonne	95	Marie Pauline	95
Bordeaux	3	Aigle	3
Cadiz	3	Amalia	3
Hamburg	3	America	3
Isle of May	1	Argo	1

Liverpool	16	Crusader	15
		Isabella	1
Montevideo	2280	Fama	193
		Felicite	1
		Luisa	63
		Maipú	118
		Manuelita Rosas	458
		Ninfa	71
		Paraná	185
		Prince	25
		Rama Negra	40
		Rio de Janeiro	150
		Rio Uruguay	691
		Santa Clara	46
		Victoria	175
		Victory	64
New York	9	Margaret Eliza	9
Paranaguá	2	Gluckauf	2
		Centaur	0
Rio de Janeiro	62	Dos Amigos	6
		Prince	56
Savona	37	Arturo	37

Source: BP http://publicaciones.bn.gob.ar/?collection=britishpacket

The second element of cargo was passengers (Table 10), who arrived in numbers of 2,511 during the period. Of these, 2,280 arrived from Uruguay, 98 from France, 64 from Brazil, 37 from Italy, 17 from Great Britain, 9 from New York, 3 from Germany and 3 from Spain. The ships that carried the greatest number of passengers were the Uruguayan-flagged steamers "Río Uruguay" and the American-flagged "Manuelita Rosas".

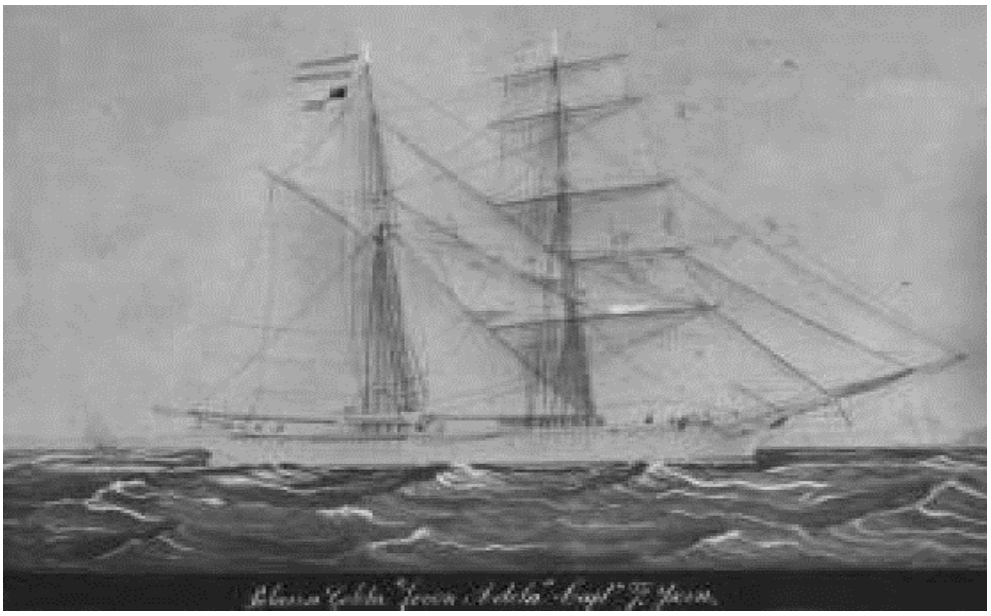
Finally, the third product transported was money. Doubloons (4,882 units) of gold in 16 shipments from Brazil, Cuba, Spain, France, Italy, Uruguay and the United States. Two shipments of dollars came from Italy (no amount specified) and another from the United States (55,000 u$d). And a single one with *patacones*, a local currency, (1,500) from Brazil. One trip from Brazil claims to be in cash, but the form was not determined. These shipments were probably in payment for exports.

Qualitative and cultural aspects

Apart from the quantitative issues of the series, some cultural or at least qualitative issues can be inferred. In principle, the surnames of the captains, especially in the large shipping companies such as the American, British, French, German, Sardinian and Spanish flags, coincide in the nationality of the flags. An exception are the national and Uruguayan flag vessels whose captains have Italian or British surnames.

Due to the short period of time, we cannot observe continuities either in the captaincy relationship (breaks and continuities) or in generations or life cycles of the captains, but a longer or more complete list of these records could allow this analysis to be carried out.

Figure 3 Spanish Polacre "Joven Adela"



Source: https://www.niceartgallery.com/Jose-Pineda-Guerra/Polacra-Goleta-Joven-Adela-Capitan-F-Ysern-oil-painting.html

Some boats were recorded in images by plastic artists or photographers and turned into works of art or illustrations for publications. These images are very important for maritime history as they provide clarifications that the definitions do not complete. For example, Figure 3 shows a painting of the Spanish polacre "Joven Adela" who arrived at the port of Buenos Aires on February 15, 1852, in which we can see exactly its masts line and sail.

The names of ships is another element to consider. There is a tradition of repeating them once an earlier version of the same has become obsolete and they replaced it, which marks the importance of choosing a name for the boats. Making a preliminary analysis of those who landed in Buenos Aires in the period analyzed we have that of the ships found most were nominated with a quality (such as "luck", "persevering", "intrepidness", etc.). very closely followed by geographical locations (such as "Paraná"; "Sutton", "Thames", etc.). Third, first names, usually of women ("Amalia", "Henrietta", "Isabella", etc.). In fourth place by characters ("Moliere", "Manuelita Rosas", "Copernicus", etc.) or people we have not been able to determine. And in fifth mythological deities (such as "Aeolus", "Odin", "Nymph", etc.). Obviously and since we also find no relationship between flags and typologies of names, these have been the main sources for baptizing ships.

After the analysis of at least these components of the source, we now draw some conclusions.

Conclusions

Obviously, the conclusions we can draw from this trial are very limited to the few data we have worked with in relation to the larger volume that exists. The long duration will allow us to put flow to this photograph, with the advance of naval architecture and the evolution of commercial relations. However, this does not prevent us from approaching some methodological inferences.

In principle, we see a regularity in the information that is generally repeated in both Argentine and other publications and that with few gaps allows us to address a number of aspects such as those discussed here and others. The extraction of the source by script, its reading from the powerful optical character recognition (OCR) provided by Google Document AI and the adaptation of these to a spreadsheet with GPT-3.5 Turbo from OpenAI in JSON format, all of them managed with the RStudio IDE using the R Project programming language, it was effective despite working with a source obtained online and without human intervention beyond computer professionals and those who digitized the source at the time. The historian's work with this task, which was laborious in the past and which implied that it would be used for manual loading of records most of the time, was reduced to the curation of the few errors and the analysis of the data.

The data allowed an analysis of the intensity of arrivals per month and by type of journey (this can be further broken down, for example, by flag, vessel -name, type and port-, cargo, etc.). With regard to vessels, their type, size, flags, regularity, name and captain's name. And on travel ports and countries of origin, the routes, stopovers and duration of trips, consignees and goods. More data will allow more combinations than in this test.

As for intensity, the data may indicate a seasonality of travel, about especially grocery. There was showed also intense contact between Buenos Aires and Montevideo and a parity between origin ports of European and American overseas. Rio de Janeiro and Cadiz (summing up as single origin or as stopovers) were the ports of departure that followed to the Montevideo docks.

Another finding was that stopovers were largely avoided because of their costs or the need to carry out intermediate embarkation or disembarkation. Of the 51 ships that made trips from American ports, only 21 made stops. Of the 53 ships that sailed from European docks, 35 made direct voyages. Recalling that the first voyage of Columbus, did 1 stop in Canary Islands, lasted 70 days (Rickey, 1992), we see that 4 centuries later the sailors still were obliged to stay on board a similar number of days. Curiously none of the stopovers were the Canary Islands, something that will be common when steam propulsion is imposed.

The most used vessel in overseas navigation was the brig, while for regional cabotage the steamer. We can also infer that some types of ships as the polacre, were giving way to new naval structures. Their flags were not always directly associated with the ports of origin, so many of these vessels acted as independent carriers from their states, such as the Sardinian.

Steam propulsion was already present in the Río de la Plata, but the naval technology of ships of this type was not yet sufficient for long overseas voyages, dealing mostly with boats with wooden hulls, without propeller, and with paddle wheels to port and starboard or even aft. However, this technology was strongly adapted for the Río de la Plata crossings.

Finally, the goods imported did not show much elaboration beyond pianos, safes, mills or a few complex manufactures. Mostly were food and industrial inputs. Passengers show that the alluvial immigration to Argentina had not yet begun and the money shipments were probably for the payment of exports or cash from the central houses for their partners or representatives in Argentina.

Of course, we say again and again, these conclusions are just a guide for the analysis in this methodological essay.

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