

Bureaucracy, Instructions, and Paperwork – The Gathering of Data about the Three Kingdoms of Nature in the Americas, 1770-1815

La burocracia, los papeles y las cosas. La recolección de datos y los tres reinos de la naturaleza en la América española, 1770-1815

Bureaucratie, papiers, choses. La collecte de données et les trois règnes de la nature dans l'Amérique espagnole, 1770-1815

Irina Podgorny



Electronic version

URL: <http://journals.openedition.org/nuevomundo/75454>

DOI: 10.4000/nuevomundo.75454

ISSN: 1626-0252

Publisher

Mondes Américains

Electronic reference

Irina Podgorny, « Bureaucracy, Instructions, and Paperwork – The Gathering of Data about the Three Kingdoms of Nature in the Americas, 1770-1815 », *Nuevo Mundo Mundos Nuevos* [Online], Debates, Online since 19 February 2019, connection on 25 February 2019. URL : <http://journals.openedition.org/nuevomundo/75454> ; DOI : 10.4000/nuevomundo.75454

This text was automatically generated on 25 February 2019.



Nuevo mundo mundos nuevos est mis à disposition selon les termes de la licence Creative Commons Attribution - Pas d'Utilisation Commerciale - Pas de Modification 4.0 International.

Bureaucracy, Instructions, and Paperwork – The Gathering of Data about the Three Kingdoms of Nature in the Americas, 1770-1815

La burocracia, los papeles y las cosas. La recolección de datos y los tres reinos de la naturaleza en la América española, 1770-1815

Bureaucratie, papiers, choses. La collecte de données et les trois règnes de la nature dans l'Amérique espagnole, 1770-1815

Irina Podgorny

This paper, presented at the Seminar Savoirs, sciences, techniques et construction étatique en Amérique ibérique, 1790-1870, was finished while on a Fellowship at the Department 3, Max Planck Institute for the History of Science, Berlin. I would like to thank its ILL service as well as the useful comments and suggestions by Annick Lempérière and Staffan Müller-Wille.

Introduction

- 1 Over the past thirty years, Spanish and Mexican historians of science have reversed the idea that the Spanish metropolis had abandoned its former territories to a state of darkness in terms of science, an understanding spread during the Revolution and Independence and adopted by late nineteenth-century historiography. Current research revealed instead the complex dynamics of the expeditions sponsored by the Crown and the enormous quantity of materials about “the three kingdoms of nature” collected during the last third of the eighteenth century in the Royal Cabinet, the Royal Pharmacy of Madrid and in the major cities of the viceroyalties. An analysis of the products from the Indies in medicine, commerce, and mining as well as the envoy of experts to the area reveals a history of knowledge as long and complex as that of the Dutch or British.¹

- 2 Paradoxically, that earlier historiographical notion consolidated thanks to the very nature of the most important innovations implemented by the Spanish Monarchy: bureaucracy, the archive, and the technology of long-distance government, and, within this framework, the secretive nature of the administration of the Indies.² This vision ignored not only the series of dispositions emanated from Madrid to gather data about the nature and commerce of Indies, but also – and more importantly for the argument of this paper – the continuity between the “old” ways of the Spanish Empire and the new dispositions by American revolutionary governments. Indeed, the discourse on the rupture of the colonial order and the history of the new scientific institutions often forgets that the agents in charge of describing the natural and social American world changed flags, but not names or interests. The same priests, physicians, topographers, pilots, and engineers who botanized, made maps, and gathered insects and meteorological data before Independence then swore loyalty to the new Republics and used the same methodology to continue their work, trying with varying degrees of success to find a State who would sponsor them.³ In doing so, intentionally or not, they brought the practices and knowledge learned in the academies, schools, and administrative offices of the late Colonial Ibero-American world to the new political order.
- 3 By observing several episodes during the late Colonial period and the early decades of the nineteenth century, this paper describes that system of production and circulation of knowledge linked to bureaucracy and the Atlantic trade. Based on primary sources from the General Archive of the Indies (AGI), the General Archive of the Nation (Argentina-AGN), the Archive of the Royal College of Surgeons (London-RCS), and on secondary bibliography, in particular the work of Javier I. Sánchez Almazán on Pedro Franco Dávila’s *Instructions for the Royal Cabinet of Madrid*, this article, rather than focus on the objects collected, considers the documents that resulted from the “necessity” of collecting minerals, plants and animals. In this way, it reveals the true protagonists of this story: the pathways of bureaucracy and the flow of paperwork where data about nature and man in the Americas were generated and took shape. There, on official stationery, the instructions and networks established by the offices for remote governance would appear along with yet unknown animals, plants, rivers, ancient cities and islands. What expectations did this world of papers and bureaucracy create so that the agents of the royal service would go out to collect plants, minerals, and animals? This question becomes more significant after the overthrow of the Colonial administration because these people continued with the same activities despite the fact that those expectations could no longer be met.
- 4 To consider these topics, this article will examine the instructions for the collection of specimens from the three kingdoms of nature written before and after the process of Independence. In particular, it will discuss those related to the provision of the Royal Cabinet of Madrid (1776), which illustrate how the history of natural history practices articulates the history of the sovereign’s political curiosity (to know and control “everything”) and the interests of those individuals who, as Arndt Brendecke recalls⁴, appeal to this curiosity to combine the promise of new knowledge with the opportunity to promote their own projects. Perhaps, as Brendecke himself maintains, these data have hardly been used, however the history of these instructions illuminates how the interests and expectations of those individuals were shaped by the practices in which they are immersed and how the instructions become independent of their “author” and continue

to impact other institutions and subjectivities. In this sense, the instructions, as forms of bureaucracy, defy any attempt to assign them to a certain historical period based on the ruptures of political order, and instead demonstrate the continual recombination of knowledge and patterns from different domains and moments in time.

Instructions

- 5 In 1771, after various failed attempts, Pedro Franco Dávila (1711-1786) was able to persuade Carlos III to establish a Royal Cabinet of Natural History in Madrid with the objects that Pedro Vicente Maldonado and himself had collected in the Old and New Worlds.⁵ Dávila, the son of a cacao producer from Guayaquil, had lived with his collections in Paris since 1745. Trained in the rules of Spanish commerce, he had visited ports and regions throughout the Americas. Once established in Europe, he maintained contact with family members overseas, other residents of Nueva Granada, and several European collectors with whom he exchanged data, favors and objects.⁶
- 6 The Royal Cabinet was inaugurated in November 1776, in the context of the so-called Bourbon reforms, which fueled the flow of paper that characterized Spain's administration of their overseas territories. Since the Habsburgs, long-distance government required incorporating written documents and a bureaucratic structure that compensated for king's to be physically present in the new territories. In the sixteenth century, the Council of Indies promoted the description of the New World through instructions and questionnaires and, starting in the 1570s, reports had to follow a series of questions to be answered on site.⁷ After the reforms of Juan de Ovando during Felipe II's reign, every American bureaucrat was duty-bound to permanently describe the overseas Spanish possessions. In this sense, the instructions, charts, and surveys were a means to construct a common space of knowledge.⁸ These procedures aimed at educating the traveler and guiding them in the collection of data and objects or in the use of instruments. When the Bourbons in the eighteenth century reformulated these instructions, they tried to perfect those of Ovando, combining them with new interests and placing the collection of objects in a public or semi-public space (represented by the Royal Cabinet or Royal Pharmacy). By then, in the form of a traveler's survey and questionnaires, the instructions as a genre for compiling information had been adopted in England, where the first of these instructions dates back to the second half of the seventeenth century. In the eighteenth century, they had been adopted by various European institutions and academic circles, such as the Académie des Sciences and the Jardin du Roi in Paris.⁹ Thus, the instructions issued in the second half of the century reflect the changes taking place in the classification systems of the natural world and the reciprocal impact of the instructions issued in the most diverse institutional environments. Far from isolation, the instructions are talking about a porous communication system.
- 7 While in 1768, the instructions referred to a more vague nomenclature,¹⁰ late in the 1770s they adopted – albeit partially – the order and categories created by Linnaeus in 1735, for whom the natural bodies or the "empire of nature" could be divided into three kingdoms: animal, vegetable and mineral.¹¹ Thus, in May 1776, Joseph Gálvez y Gallardo, newly designated Secretary of State of the Universal Office of the Indies, had the "Royal Order notice for the remission of Natural History curiosities to the Royal Cabinet" (1776-7) printed and circulated, accompanied by the following note:

The King has established in Madrid a Cabinet of Natural History in which the Animals, Vegetables, Minerals, rare Stones and whatever Nature produces in his Majesty's vast Domains will be gathered, as well as whatever is possible to acquire from strange lands. To complete and enrich the series and collections of the Royal Museum in each one of its classes, it is necessary that the subjects who govern in the Provinces and Towns of the Spanish Kingdoms, now and in the future take care to gather any curious pieces that they find in their districts and send them to the Cabinet of Natural History.

Hereby including you in His Majesty's order for your intelligence and completion in the part that involves you, persuading you that the King will look at your performance of this order as singular proof of the zeal of your service and love of the public good and so that you personally understand what curiosities are desired and the manner of their conservation, I include copies of the Instruction so that this effort that the King has ordered is extended, leaving it to you to distribute them to the subjects that are concerned with this effort, without having to limit this only to Justices of the Towns, it could also include Priests and other individual people that you choose and will be able to accurately carry this out.

Finally, I express to you that the King wants those who follow you in this position to continue to take care to collect and send the rare pieces that are discovered so that in this way, the different series of the Cabinet in *the three Kingdoms of Nature* will be completed and renovated, avoiding that such an important and useful establishment will fall apart.¹²

- 8 As Susan Socolow signaled several years ago, the “love of Royal Service” spread throughout the channels and networks created by the post and the body of civil servants, and included a series of characters whose biographies can barely be traced beyond the papers that they once signed or sent.¹³ An instruction, like the one meant to enrich the Royal Cabinet, arrived for the viceroys or governors who were then supposed to retransmit it throughout their geographical space via judiciary officials, priests, and anyone else necessary to meet the order's objective, in a network already defined by Ovando's instructions. Moreover, the instruction was supposed to be maintained through time, left in place so subsequent groups of civil servants would also comply with it. As long as the instruction was not cancelled, it continued to act and model practices, subjectivities, customs, objects, and papers. This explains why Governor of Buenos Aires Juan José de Vértiz responded from Montevideo on September 28, 1776, “offering to collect and direct when appropriate”: the five copies of the instruction were in his power “with the care to proceed with the mere correspondence of complying with his Majesty's orders in all its parts,” that is, to procure the animals, plants and minerals whose presence was required in Madrid and pack and prepare them in such a way that they arrive at their destination.¹⁴
- 9 The instructions that Gálvez circulated were not based as much on the King's personal desire as they were on a draft elaborated by Pedro Franco Dávila, who had been named in 1771 as lifetime director of the Royal Cabinet of Madrid.¹⁵ In February 1776, with the cabinet already open to the public, Dávila wrote a “List (Nómina) so that the Viceroys, Governors, Chief Magistrates, Mayors and Provincial Superintendents in all of His Majesty's Domains can make, collect, prepare and send to Madrid all of Nature's productions that they find in the lands and towns of their districts.” There, he detailed the minerals, plants, and animals of the Indies with which he was familiar through his own experience, literary references and/or observation of the collections held in Parisian cabinets, indicating the places where they should be sought and their equivalents in the

Old World. Although Davila made it clear that he would not use any method or nomenclature, he adopted the three Linnaean kingdoms, including the mineral, but devoid of the *Petrificata* class and of the *Artificiales*. The definitive instructions received by the viceroys added and omitted species and included, however, the request for “petrified objects” and “curiosities of art” (dresses, weapons, instruments, furniture, machines, and idols), both excluded from the natural kingdoms. In this way, the instructions show two other things: on the one hand, the adaptations and partial incorporation of the Linnaean vocabulary; on the other, the transfer of terminology from one system into another. Thus, petrifications, as a term that designated minerals in the form of a plant or animal, existed before Linnaeus. The instructions, on taking them out of the mineral kingdom, put them in one of those frontier-classes, conceived for placing the ambiguous kinds. Shortly afterwards, with the methods of comparative anatomy and the definition of fossil animals by Georges Cuvier, petrifications would disappear as such to integrate the world of animals and plants.

- 10 Dávila is also a good example of how an individual collector was able to move into the royal domain with that collection; later, as director of the cabinet, he utilized the Crown’s communication and governmental structure to expand a collection that was linked to his own identity, an identity shaped by the practices of both bureaucracy and commerce. Dávila combined these practices with the catalogues that described the natural history cabinets proliferating in Paris and with the lists of merchandise transported by ships.¹⁶ Thus, the instructions that he wrote are similar to others produced in eighteenth-century Spain that were still valid at the time, such as those written in Aranjuez on June 6, 1752, and sent to the viceroys of Mexico, Lima, and the Kingdom of New Granada for the collection of all types of natural products and the building of a “*Royal Cabinet of Natural History of the Mines that were found in the domains of His Majesty in America.*”
- 11 In this way, the instructions and the formalisms of commerce and traffic across the Atlantic produce a flow of objects while also reinforcing each other, thereby generating new forms and subjectivities that incorporated State bureaucracy and commercial registers into how the world and nature were ordered. As Swiss historian Jakob Tanner has underscored, this is about the “performing power” of the bureaucracy and its “archive.” Thanks to these protocols, “unknown” things could be seen, such as the ancient houses of Palenque or the “rare and corpulent animal” of the Luján River.¹⁷ Moreover, they created a way for some priests, military engineers, governors, intendentes, and viceroys in the overseas territories to take advantage of them so that through a skeleton, mineral or plant, they could draw attention to the ordinary and extraordinary productions of their lands as well as to their own loyalty and devotion to the Crown.¹⁸

An Animal in Seven Boxes

- 12 The instructions, as previously mentioned, indicated that every viceroy should send things revealed or discovered in the territories they governed back to Madrid. Thus, in 1788, the Viceroy of Buenos Aires, the Marquis of Loreto, accompanied a shipment of objects with two documents for Minister Porlier: one, dated in March, attached the design “in parts and according to how it should look after the skeleton is put together” of a very corpulent and unknown animal, and announced that the bones would follow in a future shipment. The other, from May, ratified the first and was a guide to the shipment of

seven boxes on board the mail Frigate, la Cantabria. In those letters, the Marquis reported:

Don Manuel Warnes First Alcalde of this city informs us that Brother Manuel de Torres of the Order of Predicadores has discovered the skeleton of a corpulent animal chiefly unknown in this part of America, where no species is to be found that it could be compared to, adding besides that the friar intended to acquaint me of it. I immediately decided to hear him, upon which, by his mere narrative I found the discovery to be a valuable one and that it might also help to prove erroneous the belief some had entertained in previous occasions when some loose bones happened to have been found that they belonged to the human species notwithstanding the enormous stature they were supposed and I determined therefore that this skeleton should be dug up from the place in which it was found and should be brought to my abode in the fort with the least possible damage, because the dampness of the soil caused some the parts to be very apt to moulder of, especially the head and ribs.

All this was carefully entrusted to the said Friar, and after having obtained through the exposure to the air to consolidate that which was not found already mouldered, I have determined all to be packed up in seven cases, that as they must necessarily be large on account of the size of some of the bones and the great amount of the Straw necessary for their preservation if they were to be reduced to a smaller number would make it more difficult to be transported.

In each of the cases the contents are labeled in conformity with what is expressed and numbered in the first leaf of the annexed memorandum. The second leaf shews the figure that it is supposed to have if joined together and in this leaf notations are made on the place in which the discovery took place and the inferences made to consider it as a novelty compared with other known animals.

Lately some of the Caciques or chiefs of the infidels of the pampa and the Sierra have happened to come to this city. I took care they should see these bones in the manner they had been placed in order to complete the shape of this animal, and they seemed to be astonished asserting afterwards they could not be of this country as they had no knowledge of them and they had always been under the belief that some bones that had been found belonged to their forefathers. But it is very natural to infer that the latter if the animal were mischievous and not numerous should have destroyed them when they were the sole possessors of this land.¹⁹

- 13 Friar Manuel Torres – one of the many agents who responded to the instructions – made his discovery of enormous bones on the Luján River, one and a half leagues (about five miles) from the town of the same name and about thirty leagues or sixty kilometers from Buenos Aires. Prior to removing the bones, the friar requested that the viceroy send a draughtsman to “extract them to paper,” for all the work might be otherwise ruined. The Marquis of Loreto granted the request and further ordered that the articulations and parts in the picture also be numbered in order to identify the corresponding bone. The dimensions were to be taken and the skeleton described in detail, giving the name and distance from the nearest town and to the Río de la Plata. The skeleton was so immense that speculation began as to what the animal’s body mass might have been with flesh and hide. Until that time, there had been no other reports in the Americas of a creature with similar characteristics, and it was not known whether this was an amphibious or aquatic animal, although it was assumed to be terrestrial based on the size of its nails. It bore no resemblance to the elephant, except in terms of size, nor to the rhinoceros or the anta –

also known as “great beast”-, namely the South American tapir. However, animal bones had been found in the vicinity from smaller specimens of the same species. The gigantic bones were packed in hides and sent to Buenos Aires, where several experts re-assembled them as a mounted skeleton. Finally, they were shipped off to Madrid in seven boxes, where the Royal Cabinet preparators submitted the skeleton of the very corpulent and rare quadruped for exhibition in the Petrifications’ Hall. (Fig. 1a)²⁰

Numero, Peso, Dimensiones, y Contenido en cada uno de los siete Caixones que se remiten

| NUMEROS. | PESO. | BULTO. | CONTENIDO |
|----------|----------------------|---|---|
| 1. | 12 arrobas 10 libras | Largo..... 1 vara 8 pulg. ² ancho..... 1/2 vara 6 pulg. ² alto..... 3/4 ydem 4 pulg. | Cabeza, Vertebras, y huesos del Espinazo. |
| 2. | 9 arrobas | Largo..... 1 vara 6 pulg. ² ancho..... 1/2 ydem 6 pulg. ² alto..... 1/2 ydem 6 1/2 pulg. | Dorsales y Lombares. |
| 3. | 14 arrobas 3 libras | Largo..... 1 vara 4 pulg. ² ancho..... 3/4 ydem 3 1/2 pulg. ² alto..... 1 vara 1 pulg. | Flusso Suero. |
| 4. | 7 arrobas 7 libras. | Largo..... 1 vara 7 pulg. ² ancho..... 1/2 vara 4 1/2 pulg. ² alto..... 1/2 vara 3 pulg. ² | Brazo derecho. |
| 5. | 7 arrobas 7 libras. | Largo..... 1 vara 7 1/2 pulg. ² ancho..... 1/2 vara 4 1/2 pulg. ² alto..... 1/2 vara 3 pulg. ² | Brazo izquierdo. |
| 6. | 8 arrobas 23 libras. | Largo..... 1 vara 8 pulg. ² ancho..... 1/2 vara 4 1/2 pulg. ² alto..... 1/2 vara 4 pulg. ² | Pierna derecha. |
| 7. | 9 arrobas 9 libras. | Largo..... 1 vara 7 1/2 pulg. ² ancho..... 1/2 vara 4 1/2 pulg. ² alto..... 1/2 vara 4 1/2 pulg. ² | Pierna izquierda. |

Figura 1a – An animal in seven boxes: list of bones dispatched to Madrid (in Trelles, El Padre Torres)

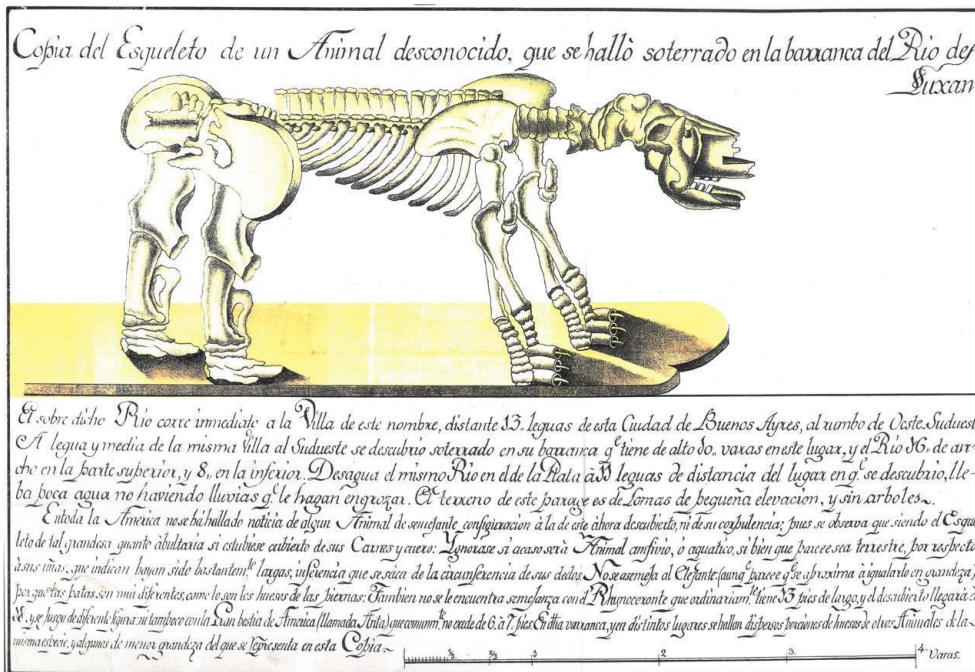


Figura 1b – Unknown Animal from Luján: copy of the sketch of the skeleton made in Buenos Aires (in Trelles, El padre Torres)

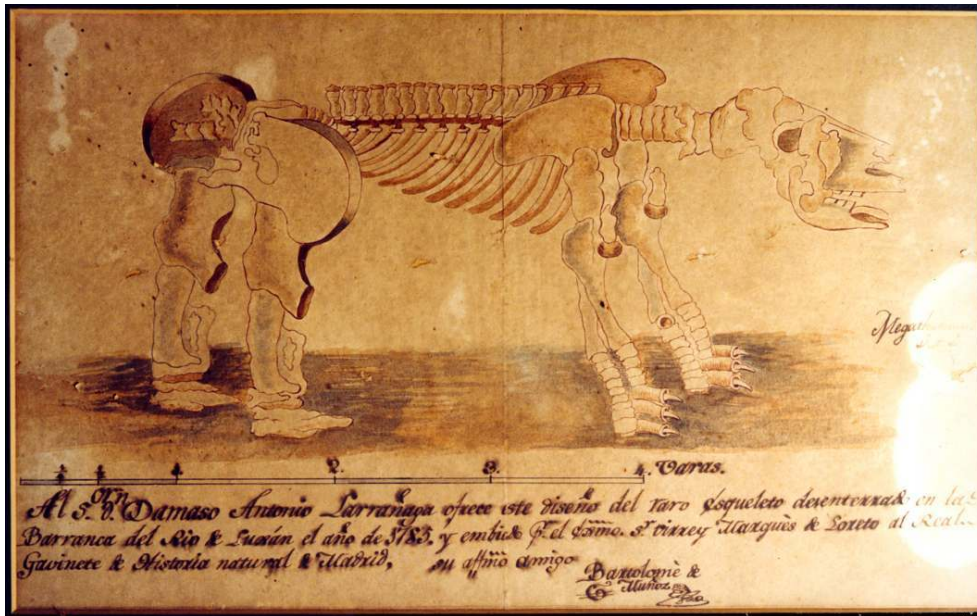


Figura 1c – Copy of the sketch, kept in Buenos Aires Archives, made by Muñoz and sent to Larrañaga, including the name *Megatherium*

- 14 The drawings, signed by the lieutenant Francisco Pizarro, draftsman of the Royal Body of Artillerymen, combined the discoverer's desires with the viceroy's instructions (Fig.1b). The vicerealty's bureaucracy, as seen in the official letters, sent off the bones and the drawings, leaving copies in the Buenos Aires archive. All of the people involved were instilled with the importance of the instruction and with their devotion to the Royal Service, which in addition to producing papers, also created and made visible new objects, giving potential to new searches. The Marquis sent the boxes to Galicia and then Madrid, where the Royal Cabinet preparers mounted it for exhibition. When the King was apprised of this, he reportedly requested a "live or stuffed" specimen of the rare, corpulent animal, a sketch of which eventually ended up in the hands of Georges Cuvier. Based on this, in the comparative anatomy laboratories of Paris, the great beast of Luján would be classified as belonging to a new genus: *Megatherium*. The name was invented specifically to describe its grandeur and to substantiate the idea of "lost species," which was fundamental to the sciences in the coming century.
- 15 The papers that were produced were not only used in the metropolis, but also studied in the Río de la Plata. They were examined by other priests who were interested in the region's natural history (Fig. 1c), being published for the first time in Buenos Aires in 1835 by the topographer Juan María Gutiérrez (1809-1878) to illustrate an article in *Museo Americano*, a periodical directed by César Hipólito Bacle (1794-1838). Gutiérrez gave several individuals credit for putting together the skeleton, including the collector, politician and journalist, Joaquín José de Araujo (1762-1835), whose papers included a copy of the drawing attributed to Brigadier José Custodio de Sá y Faría († 1792), a Portuguese engineer who was very active in marking the borders of the Río de la Plata.
- 16 Not much is known about the discoverer, the artist, the Indians, and those in charge of mounting the skeleton in Buenos Aires; their names were barely registered in the administration's records. However, these few indicators reveal the type of agents and actions involved in such a discovery: After Dávila's death, the Royal Cabinet continued to gather petrified objects and other items from the three kingdoms of nature sent by

individuals who were willing to respond to the requirements of the 1776 instructions. Not only that, as we will see below, the papers created by that bureaucracy would lead a parallel life and would end up appearing in the comparative anatomy debates of the 1830s.²¹

- 17 After the fall and dissolution of the Spanish Empire, several Colonial bureaucrats and public servants whose work involved producing and safeguarding papers and files, stayed in Buenos Aires and Montevideo, transformed into “civil servants in search of a State,” according to the expression coined by Jorge Gelman.²² The survival and use of Colonial bureaucratic archives and the adaptation of the former technical bodies to the new political order and new scientific disciplines of the nineteenth century remains an issue deserving of further research. Thus, the instructions from 1812 together with the attempt to establish a museum in Buenos Aires and the circulation of the drawings and papers related to *Megatherium* are excellent opportunities to examine both their use and the type of understanding that was being established around the knowledge they generated in the final years of the Colonial era. The following section studies a circle of erudite priests, such as Dámaso Larrañaga and Bartolomé Muñoz, involved with the founding of museums and libraries in the Río de la Plata region, and their interaction with French and English travelers and the new publicists who arrived on their shores. Moreover, it studies how, through these priests and their access to old archives, colonial knowledge was introduced into the comparative anatomy debates of the Old World.

The Museum of Buenos Aires and the Collector-Priests

- 18 On June 27, 1812, the Buenos Aires Revolutionary government gave instructions to compile information on the flora and fauna of the various jurisdictions of the former viceroyalty. The common defense went hand in hand with the promotion of “establishments whose influence, together with the help of all Citizens with a love of good taste, will, when the moment of our sweet emancipation soon comes, also provide the means to attain the level of the Learned Peoples, which the destructive hand of the Peninsular Government had thus far deprived us of.”²³ The aim was to encourage people to observe the continent’s mineral, plant, and animal realms, “which today is without a doubt one of the most worthy occupations of Scholars all around the world, who, enjoying their knowledge and acquisition of the precious talents that are not easily found in our Mother Country, would surely be shocked to find that this, too, we have neglected.” These instructions, sent to commanders of the various outposts, sought to establish a museum that would gather together all of the region’s rare and unique products that were “worthy of being placed in such a repository, by encouraging all citizens who have them to give them as a gift.” They also asked people to send in their ideas of how to best acquire products from far-off territories, with free shipping or with postage billed to the state. For example, in August 1812, an inventory was sent from Concepción in the Misiones province detailing the region’s flora and fauna, and promising to send a list of medicinal herbs, “although not all are known.” In his response, the commander at Concepción, Celedonio José del Castillo, wrote: “Upon receiving Your Excellency’s High Order of 27 June last, I passed it on to the towns in this Department to let everyone know about it, offering the inhabitants to compensate anyone who brought us an animal or some other strange or peculiar thing.”²⁴ This old Colonial practice of

hierarchically distributing instructions, from the center of collection to the people who collected the objects, would live on informally in the traffic, consolidated over the course of the nineteenth century, of fossils, animals, and artifacts, and formally in museums' instructions to their providers and traveling naturalists. Celedonio del Castillo's response, in remarks concerning the initiatives of the previous administration, contradicted the wording of the instructions. Referring to the mineral deposits in Misiones Province, he clarified that:

The general opinion, which the Jesuit Fathers used to say, is that the only ones around are imperfect. There are just some white crystalline stones without any known value....

Likewise, it is my understanding that near the town of Santa María, in the Department of Santiago, which is held by Paraguay and belongs to this Province, there is a Quicksilver mine. Mr. Manuel Belgrano took some stones from it, and some quicksilver was extracted in the town of Candelaria by Mr. Santiago de Liniers to send a sample to Spain.

- 19 The instructions of 1812, in addition to seeking to establish a local center to highlight regional products, set out a collective and integrating enterprise. The museum was to be created with the help of citizens sharing a love of good taste, while at the same time encouraging private individuals to donate whatever oddities they held in their own estates. Thus, in 1813, as a matter of personal pride and patriotic honor, citizen Bartolomé de Muñoz (?–1831), a native of Spain, priest, and vicar general of the army of Montevideo, donated a variety of objects and acquisitions that he had procured for his own private use over a period of twenty years. Muñoz's gift included a number of maps, dictionaries, Lavoisier's *Treatise on Chemistry*, "Wiedemann's *Treatise on Oryctognosy*," as well as natural history objects (a shell collection, zoophytes, mineral samples, and prints) and instruments (a microscope, prisms, and a thermometer).²⁵
- 20 Muñoz's donations reflect the central role that priests, initially inspired by the Colonial instructions, played in collecting culture from all over Spanish America. As Roberto Di Stéfano pointed out, the expulsion of the Jesuits and the creation of the Río de la Plata viceroyalty coincide with the reformist ideas that led to the creation of the Royal Studios and the Royal College of San Carlos. From there emerged the last generation of colonial secular priests, many of whom completed their training at the universities of Cordoba, Chile or Charcas. From the different projects of economic societies and from the physiocratic ideas, new ways of thinking the rural world appear, reappraising the agricultural and natural world, possible source of common welfare.²⁶ Within this framework, the priests, armed with brushes and apparatuses, began to measure temperature and rainfall, to draw plants and animals and to collect specimens in their homes. (Fig. 2 and 3)

Drawings sent by Muñoz to Larrañaga (Larrañaga's papers, Archivo General de la Nación-Montevideo)



Figura 2 – De las márgenes del Miguelete, 1812

Drawings sent by Muñoz to Larrañaga (Larrañaga's papers, Archivo General de la Nación-Montevideo)



Figura 3 – Anteater (*Myrmecophaga jubata*), observed in Montevideo in April 1810 (Larrañaga's papers, AGN- Montevideo)

- 21 Thus priests, doctors, and military engineers responded to the government requests; however, motivated by personal interest, love of God or Royal Service, they invested their time and their own resources in purchasing books, scientific instruments, and anything else they needed to carry out the work and keep up to date with advances in the field of natural history. The instructions from 1812 are striking in terms of the clear confidence placed in the institution, and in its utilitarian conception. The museum, far from emerging as an institution governed by a council of the wise, issued the instructions to gather the objects. The same people taking part in the national government – people trained in the army or in law and colonial administration – would decide how to archive and classify the information coming in from the various jurisdictions and command headquarters of the districts of the River Plate region. This initiative did not prosper, and the private collections continued to exist, albeit disconnected from both the viceroy's instructions and the failed revolutionary ones. A bibliography that favors the notion of Spanish isolation and darkness has treated these collections as mere personal initiatives, forgetting that they also grew out of the attempts to coordinate them by first the metropolitan and, then, the revolutionary government.
- 22 In this context, the priests Dámaso A. Larrañaga (1771-1848) and again Bartolomé D. Muñoz stand out as avid readers and consumers of the books that, through different agents, arrived from Europe and from Rio de Janeiro, headquarters of the Portuguese court and a natural history cabinet.²⁷ The interest in the books was such that European travelers and expatriates filled their suitcases, sure to be able to sell them at a good profit.²⁸ Collectors of manuscripts, devices and instruments, meteorological observations, plants, petrified objects and animals, the clerics exchanged data, papers, and drawings. After 1810 and the break with Spain, many of these religious men would divide their time between their commitment to revolution and their endeavours as naturalists. They were put in charge of the public libraries in Buenos Aires and Montevideo (1816) and/or museums or the initiatives to create them. While Muñoz, with patriotic zeal, donated his collections to establish a museum that never opened its doors, Larrañaga's private collections would attract all those interested in the past and future of these regions. They both compiled, read, translated and copied drawings and manuscripts, accumulating and organizing a vast corpus of documentary materials. They also extracted articles from the many books they purchased and extracted, such as the *Encyclopaedia Britannica*, the *Dictionnaire d'Histoire Naturelle*, the *Flora Peruviana y Chilense* by the Spanish botanists Hipólito Ruiz and José Pavón (resulting from the *Expedición Botánica al Virreinato del Perú*, 1777-1788, also lead by French botanist Joseph Dombey), the zoological work of Spanish military engineer Felix de Azara, Buffon, Lamarck, Cuvier, and the thirteenth edition of Linnaeus's *Systema Naturae*, published between 1788 and 1793 by Johann Friedrich Gmelin (1748-1803): this list of books shows not only how scientific traditions mixed and combined but also the impact of Spanish scientific missions from the second half of the eighteenth century on local scholarly activity.
- 23 Larrañaga, in particular, had a special predilection for plants: the world of the Bourbons had heightened awareness among clerics and pharmacists as to the benefits of studying texts on the medicinal properties of indigenous plants in the Americas and the potential for boosting the economy by capitalizing on the country's fruits and vegetables.²⁹ The *Flora Peruana*, or the plant collections of the botanists from the expedition of Alejandro Malaspina, arrived in Buenos Aires, not necessarily in book form, but rather through the accounts and papers that were gathered and transcribed from the collections of the

region's curates. This copyist culture, forming as it did part of the clergy's education, shaped the study of natural history, in which the new methods of observation were combined with the practices of reading and extracting notes from manuscripts and printed materials. These priests drafted various treatises on natural history in dictionary form, bringing together different points of view organized in alphabetical order in booklets, embracing the many innovations that they added with each new reading. They also prepared *tableaux*, classification tables for the zoology, botany and mineralogy of the country, which were amended with the inclusion of new specimens. Furthermore, they illustrated and colored their observations. Flowers, insects and birds sprang back to life through the clergy's ink.

- 24 One such drawing that they copied from the Colonial archives, was the aforementioned colossal skeletal figure, which Larrañaga recorded in his journal in 1814 as the discovery "new bones of *Megatherium*." He subsequently translated a description published in the *Encyclopaedia Britannica* in 1810 that emphasised the paradoxical nature of this beast and an English article from 1806 that discussed the similarities of the animal to sloths and elephants. Muñoz, in copying the drawing from the Buenos Aires archive, omitted the description of the colonial officer to instead note that the beast was now known as "megatherium." Hence, through the Colonial archives and publications, they became aware of the debates about the controversial zoological affinity of this entity.
- 25 The armadillos were one of the mammals to which the instructions had paid particular attention.³⁰ Thus, in 1768, the Royal Order, among all the quadrupeds, requested their shipping to Madrid using all the present in the Americas: tatú, quirquincho, clacuache.³¹ From 1808 on, these priests were invested in studying comparative anatomy and the classification of mammals to develop a local picture of armadillos, combining various systems with their observations and those of Spanish military engineers. (Fig. 4 and 5)

This led Larrañaga to think, in the early 1820s, that the animal from Luján could have had a shell similar to that of the armadillo.



Figura 4a – A quirquincho's head (Larrañaga's papers, AGN- Montevideo)

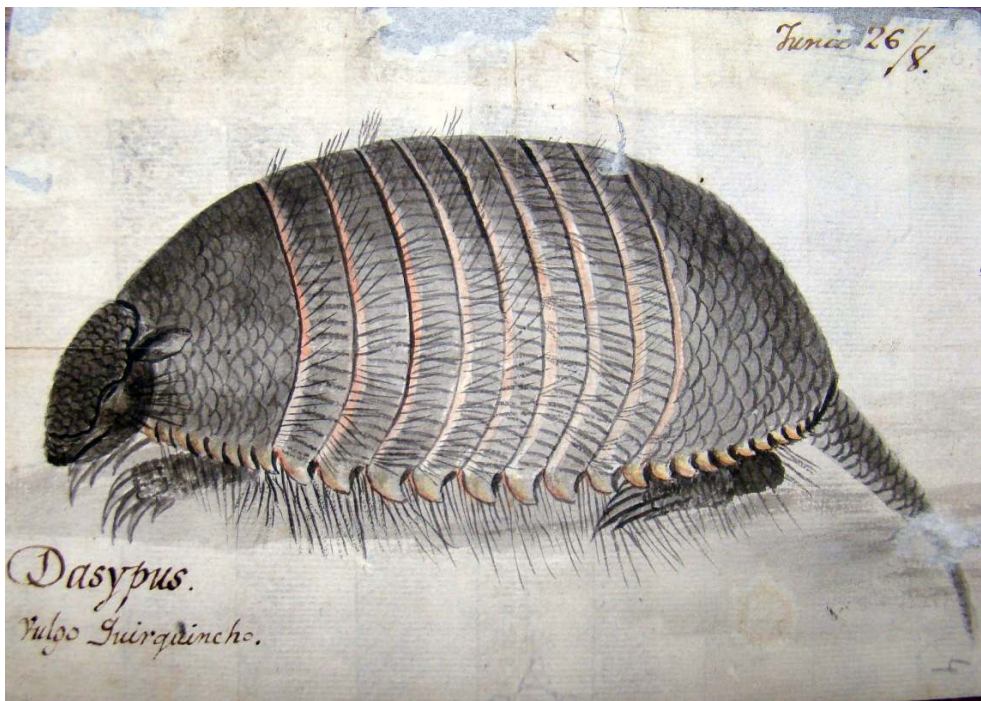


Figura 4b – Dasypus, vulgo quirquincho, June 1808 (Larrañaga's papers, AGN-Montevideo)



Figura 5 – Classification of the Mammals (mamíferos) of the Río de la Plata, based on Cuvier's system. Detail showing the classification of armadillos and *Megatherium cataphractum* (Larrañaga's Paper, AGN-Montevideo)

- 26 Larrañaga, the future Vicar of Montevideo, displayed his collections in the house-museum on his family's property, where he received several traveling captains and naturalists, to whom he would show his most precious objects and engage in debate. (Fig. 6) These visitors -who included Bonpland, the French botanist Auguste Saint-Hilaire (1779-1853), and Friedrich Sellow (1789-1831), commissioned by the Portuguese and Prussian courts to collect samples from the provinces of Rio Grande do Sul and the Cisplatine province- were responsible for disseminating Larrañaga's views in ever widening circles. In Larrañaga's museum, Sellow and Saint-Hilaire saw fragments of a bony coat of mail or tessellated armour, belonging to the back and tail of a very large animal. Seizing upon the clergyman's ideas, they reported to Berlin and Paris that these pieces likely belonged to *Megatherium*. Thus began a disagreement about the anatomy of this burly animal that lasted almost twenty years and reveals the impact of oral tradition on the culture of natural history. The conversations and readings went back and forth continuously to and from Montevideo, Buenos Aires or Asunción, by way of different

ports and cities, where other meanings were ascribed to them before they continued on their way.

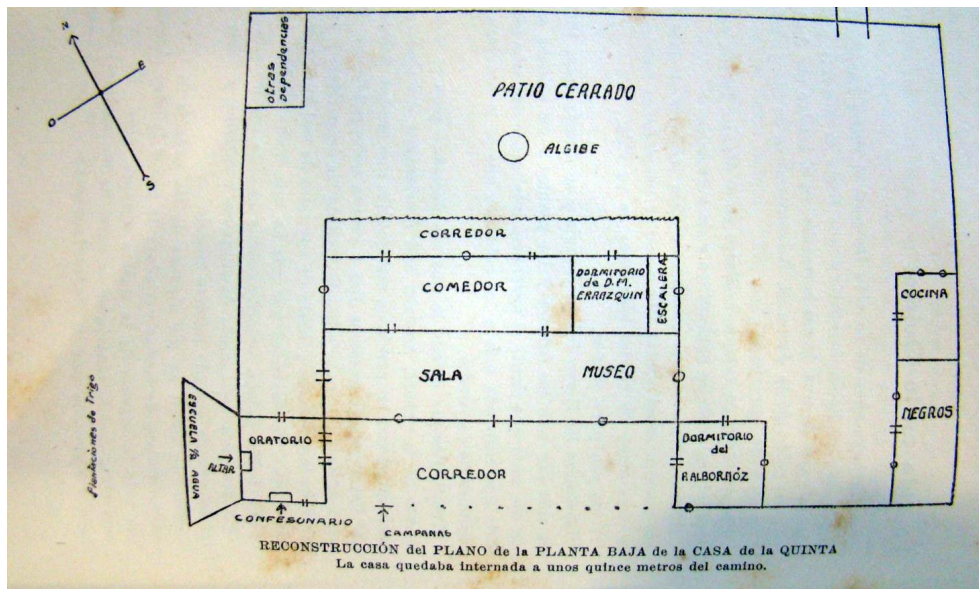


Figura 6 – Larrañaga’s House, showing the distribution of the rooms and of his museum (in Algorta Camusso, *El Padre D. Larrañaga*, cit.)

Some Final Considerations

- 27 The history of instructions as a form of long-distance governance, as a mechanism to educate and oversee the gestures and observation of the traveler, or to assure “immutable mobiles” is not a new story.³² It is not an innovation of the Bourbons or the Enlightenment, much less of the nineteenth century or the new American republics. Instructions, on the contrary, reveal a long history that transcended administrative reforms, revolutions, and breaks in the political order. Once the Spanish Empire had fallen, its former subjects continued behaving in the same way. Perhaps because of that, the history of the papers related to the *Megatherium* is repeated with other names and objects throughout the Americas. Its population of former civil servants, illustrious clergy, and topographers from Peru, New Grenada, New Spain and the River Plate had access to the Colonial archives, worked with the data they found there, and began to write about the history and natural history of their regions. In addition, they had contact with agents who made copies or simply purchased their documents to have them translated and published in France and England, rediscovering that which, as the very papers testify, had been described decades before.
- 28 This process of dispersal of data – which some call accumulation – happened at the same time as the establishment throughout America of institutions either as replacements for Colonial ones or as brand new ones. With a difference of very few years, the various governments or collectors with the resources to do so began to establish public museums. The dates indicate trends or waves that cannot be explained by the metropolitan dispositions such as those promoted in the context of the late eighteenth-century expeditions and the catholic and secular culture that, according to José Carlos Chiaramonte, characterized the Enlightenment in the late Colonial American world.³³ Many of these collections, such as those of Franco Dávila grew out of the mix between

commercial culture, the worldly passion of the Enlightenment for science and nature, and the trade expectations of the new republics. Wherever there was an important port or nexus of communication or commerce, an initiative appeared to compile and gather the products that, in some way or another, passed through it, to exhibit and inventory them as in a storefront.

- 29 Historiography has treated the years around 1810 and the growth of new independent republics as the point of origin from which each Latin American nation began to construct its own identity and destiny. A less hasty examination reveals a political, social, and economic panorama filled with ambiguity, contradictions, confusions, and of course ruptures, but also continuities. The breaks are evident: for example, the key issue of how to rebuild finances, the foundation of any political and administrative structure.³⁴ However, in the majority of cases, continuity predominates: individuals continued doing what they had learned how to do; for a long time, offices continued using the same stationary, barely covering the official stamp of Fernando the 7th.
- 30 The establishment of museums and cabinets in the new nations is linked to these historical events and to the expansion of the new scientific disciplines that occurred almost in parallel. The fall of Spain, the French Revolution, and the North Atlantic War of 1812 provoked the mobilization of an enormous quantity of data that flooded the most diverse spaces. The materials gathered in the cabinets of Spanish America, Madrid, or Portugal through confiscation and the traffic of drawings and documents, would shape the new disciplines of herpetology, malacology, comparative anatomy, paleontology, and archaeology. This dispersion, combined with the access and circulation of the reports, maps, and drawings of expeditions and of Colonial military engineers, implies various things: on the one hand, the rupture of an administrative order based on both the copious production of papers and documents and limited access to its archives, and on the other, the admittance of those data into the new disciplines of the nineteenth century. Thus, the materials produced in the eighteenth century, that had until that point remained in the circuit of the Colonial American administration or accumulated in the office of the general Cosmographer of the Indies, are taken out of that order to enter into the so-called “spirit of the system” of nature and history, characterized by its dynamism, the reformulation of its categories, and permanent debate.

NOTES

1. In Spain, for instance, Juan Pimentel, Leoncio López Ocón, Antonio Lafuente, and Nuria Valverde, and the research team initiated by José Ma. López Piñero, studied the work of Francisco Hernández, protomédico to Felipe II, the business of Nicolás Monardes in Seville, and the royal expeditions of the eighteenth and early-nineteenth centuries. These topics have recently been rediscovered by the US academy. For a diagnostic from the early 1990s, López Piñero, José M., “La tradición de la historiografía de la ciencia y su coyuntura actual: los condicionantes de un congreso”, en Lafuente, Antonio et al. (dir.), *Mundialización de la ciencia y cultura nacional*, Madrid, UAM/Doce Calles, 1993, p. 23-49.

2. Siegart, Bernhard, *Passagiere und Papiere: Schreibakte auf der Schwelle zwischen Spanien und Amerika*, München, Fink, 2006.
3. Gelman, Jorge, *Un funcionario en busca del Estado - Pedro Andrés García y la cuestión agraria bonaerense, 1810- 1822*, Buenos Aires: Universidad. Nacional de Quilmes, 1997.
4. Brendecke, Arndt, *Imperium und Empirie. Funktionen des Wissens in der Spanischen Kolonialherrschaft*, Köln, Böhlau, 2009; Spanish version, *Imperio e información. Funciones del saber en el dominio colonial español*, Madrid/Francfort, Iberoamericana/Vervuet Verlag, 2012; English version: *The Empirical Empire. Spanish Colonial Rule and the Politics of Knowledge*, De Gruyter, 2016.
5. Pimentel, Juan, *Testigos del Mundo. Ciencia, literatura y viajes en la ilustración*, Madrid, Marcial Pons, 2003; Almazán, J. S., *Pedro Franco Dávila (1711-1786). De Guayaquil a la Royal Society. La época y la obra de un ilustrado criollo*, Madrid, CSIC, 2012; Villena, M. et al., *El gabinete perdido. Pedro Franco Dávila y la Historia Natural del Siglo de las Luces*, Madrid, CSIC, 2009; Calatayud Arinero, M^a Ángeles, *Catálogo crítico de los documentos del Real Gabinete de Historia Natural. (1787-1815)*, Madrid, CSIC, 2000, Barreiro, Agustín J., *El Museo Nacional de Ciencias Naturales (1771-1935)*, Madrid, Doce Calles, 1992 [1944]. On the contingencies by which Maldonado's collections became part of Dávila's cabinet, see Safier, Neil, *Measuring the New World: Enlightenment Science and South America*, Chicago, The Chicago University Press, 2008, p. 167-168.
6. In Europe, in 1780, there were 695 natural history cabinets; 285 located in France (of which 134, in Paris). Most of them were owned by men of different professions, such as physicians and apothecaries. While in France the collectors were aristocrats, civil servants, or officers, in Holland the collections belonged mostly to merchants and, in the German states, to university professors. Less than one-tenth were situated in institutional settings (one was the Royal Cabinet in Madrid), and, more rarely, in religious institutions (in France, about 15 were situated in abbeys, convents, seminaries, colleges). See Lacour, Pierre-Yves, "Histoire naturelle", in Lafont, Anne (dir.), *1740. Un Abrégé du monde, Savoirs et collections autour de Dezallier d'Argenville*, Paris, Fage, 2012, p. 116-118. This panorama contrast to the Spanish world, where the late eighteenth-century cabinets were mostly public or private-owned by priests (see below).
7. López Piñero, José Ma., *El arte de navegar en la España del Renacimiento*, Madrid, Labor, 1979, p. 83-97.
8. Schäffner, Wolfgang, "Die Verwaltung der Endlichkeit. Zur Geburt des neuzeitlichen Romans in Spanien," in Goebel E. and Koppenfels, Martin (dir.), *Die Endlichkeit der Literatur*, Berlin, Akademie, 2002, p. 1-12, Brendecke, cit., p. 23-4; also Gaudin, Guillaume, *Penser et gouverner le nouveau monde au XVII^e siècle. L'empire de papier de Juan Díez de la Calle, commis du Conseil des Indes*, Paris, L'Harmattan, 2013. At the same time, the famous *Methodus apodemica* listed the rules for travel and its transformation into systematized knowledge, see Podgorny, I. and Schäffner, W., "La intención de observer abre los ojos", *Prismas*, 2000, vol. 4, p. 217-227, Stagl, Justin. *Apodemiken: eine räsionierte Bibliographie der reisetheoretischen Literatur des 16., 17. und 18. Jahrhunderts*, Paderborn, Schöningh, 1983. See Bourguet, Marie-Noëlle, "La collecte du monde: voyage et histoire naturelle (fin XVII^e siècle-début XIX^e siècle)," in Blanckaert, Claude et al. (dir.). *Le Muséum au premier siècle de son histoire*, Paris, Muséum National d'Histoire Naturelle, 1997, p. 163-196. Also Collini, Silvia and Vannoni, Antonella, *Les Instructions scientifiques pour les voyageurs, XVII-XIX^e siècle*, Paris, L'Harmattan, 2005.
9. Bourguet, "La collecte du monde".
10. Thus, the Linnean vocabulary is absent from the *Real Orden* sent in 1768 to La Habana, Lima, Cartagena de Indias and Buenos Aires, which used more figurative expressions such as: "producciones de mar y tierra", "piezas de la naturaleza", "conchas y caracoles de colores varios y diversas configuraciones", "arbolitos o plantas, nacidas debajo del agua en piedras", "piezas al modo de redcillas con muchos abugeritos y dobleces", "piedras de diversas labores y al modo de Estrellas." (Indiferente General 1549, AGI)

11. Linné, Carl von, *The animal kingdom, or zoological system, of the celebrated Sir Charles Linnæus, containing a complete systematic description, arrangement, and nomenclature, of all the known species and varieties of the mammalia, or animals which give suck to their young* (Gmelin's version, translation by Robert Kerr), Edinburgh, Strahan, 1792, p. 19. Minerals (*Regnum Lapideum*) included petrifications (*petrificata*, which show the imprinted image of an animal or vegetable) such as *phylolitus*, *zoolithus* and artefacts (*artificiales*), namely *ceraunia* or thunderstones, currently defined as stone implements. See, Rheinberger, Hans-Jörg, "Aspekte des Bedeutungswandels im Begriff organischer Ähnlichkeit Vom 18. Zum 19. Jahrhundert", *History and Philosophy of the Life Sciences*, 1986, vol. 8, p. 237-50; Müller-Wille, Staffan. *Botanik und Weltweiter Handel. Zur Begründung eines Natürlichen Systems der Pflanzen durch Carl von Linné (1707-1778)*, Berlin, Verlag für Wissenschaft und Bildung, Studien zur Theorie der Biologie 3, 1999, Barsanti, Giulio, *La Scala, La Mappa, l'albero. Immagini e Classificazioni della Natura fra Sei e Ottocento*, Firenze, Sansoni, 1992; Rieppel, Olivier, "The Series, the Network, and the Tree: Changing Metaphors of Order in Nature", *Biology and Philosophy*, 2010, vol. 25, n° 4, p. 475-496.
12. "Real Orden circular para la remisión de curiosidades de Historia Natural para el Real Gabinete, ejemplares de la instrucción (1776-7)", Indiferente General, folio 669 (AGI). My translation. See Lemoine Villicaña, Ernesto, "Instrucciones para aumentar las colecciones del gabinete de historia natural de Madrid", *Boletín del Archivo General de la Nación*, 1961, vol. 2, 2, p. 189-230.
13. Socolow, Susan, *The Bureaucrats of Buenos Aires, 1769-1810: Amor Al Real Servicio*, Durham and London, Duke University Press, 1987.
14. Bourguet cit.; Constantino, Ma. Eugenia & Lafuente, A., "The hidden logistics of Longinos's Novohispanic Cabinet", *Nunciatus*, 2012, vol. 27, 2 p. 348-370; Figueroa, Marcelo "Packing Techniques and political obedience as scientific issues: 18th-century medicinal balsams, gums and resins from the Indies to Madrid", *HOST*, 2012, vol. 5, p. 49-67.
15. "Los tres mundos de Pedro Franco Dávila, primer director del Real Gabinete de Historia Natural. Viaje a lo largo de un siglo", en Almazán, *Pedro Franco Dávila*, cit. p. 23-145. This whole section is based on that work and on Lemoine Villicaña, "Instrucciones." My translation.
16. Podgorny, I., "Las Instrucciones y las cosas", *Revista Hispánica Moderna*, 2018, Vol. 71, 1, p. 23-38; "Hacia una historia burocrática de las ciencias", en Carlos Sanhueza (dir), *La movilidad del saber científico en América Latina. Objetos, prácticas e instituciones*, Santiago de Chile, Universitaria, 2018, p. 19-54; for the introduction of the catalogues into the business of collecting, see Glorieux, Guillaume, *À l'enseigne de Gersaint. Edme-François Gersaint, marchand d'art sur le pont Notre-Dame (1694-1750)*, Seyssel, Champ Vallon, 2002.
17. Podgorny, I., "The reliability of the ruins", *Journal of Spanish Cultural Studies* 2007, vol. 8, 2, p. 213- 233.
18. Until now, no one has studied whether these shipments received any type of compensation that responded to the expectations of the person who sent them. However, I understand it to be within the same system as the gifts, donations, and favors recently analyzed by Grieco, Viviana, *The Politics of Giving in the Viceroyalty of Rio de la Plata: Donors, Lenders, Subjects, and Citizens*, Albuquerque, The University of New Mexico Press, 2014; also Figueroa, cit.
19. This is a translation of papers purchased in Seville ca. 1833, when the remaining furniture from the Marquis of Loreto's house was sold after a fire on July 17, 1827, which had destroyed most of the property's valuable items. The translation was sent by Manuel Williams, son of Julian Benjamin Williams, British Vice Consul in Seville and an active dealer in Spanish works of art, to the RCS Archives where it was kept in their file on Megatherium. See Lleó Cañal, Vicente, "Julian Benjamin Williams y el comercio de arte en la Sevilla del XIX", *Boletín de la Real academia Sevillana de Buenas Letras: Minervae Baeticae*, 2008, vol. 36, p. 187-204. The original document in Spanish is found in AGI, Indiferente General, Buenos Aires, 76, Folio 31, Buenos Ayres, 2 de marzo de 1788, "Remesa de osamentas de un animal mui corpulento".

20. Trelles, Manuel R., "El Padre Manuel Torres," *Revista de la Biblioteca Pública de Buenos Aires*, 1882, vol. 4, 1882. See also Garriga, Joseph, *Descripción del esqueleto de un cuadrúpedo muy corpulento y raro que se conserva eb el Real Gabinete de Historia Natural de Madrid*, Madrid, Viuda de Ibarra, 1796, p. I.
21. Podgorny, I. "El camino de los fósiles: las colecciones de mamíferos pampeanos en los museos franceses e ingleses", *Asclepio* 2001, vol. 53, 2, p. 97-116, "De ángeles, gigantes y megaterios. Saber, dinero y honor en el intercambio de fósiles en las provincias del Plata en la primera mitad del Siglo XIX", in Salvatore, Ricardo (dir.), *Los lugares del saber. Contextos locales y redes transnacionales en la formación del conocimiento moderno*, Rosario, Beatriz Viterbo, 2007, p. 125-157; Ramírez Rozzi, Fernando and I. Podgorny, "La metamorfosis del megaterio", *Ciencia Hoy*, 2001, vol. 11, 61, p. 12-19.
22. Gelman, cit.
23. To the Military Commander of Patagones, Buenos Aires, 27 June 1812, AGN. My translation.
24. Del Castillo sent along a list of the "peculiarities" that he himself had come across in his thirty years of living in the area. This included birds (the white crow, the tataupa tinamou, the toucan, the sonia), mammals (the tapir or "great beast", the "black tiger", the anteater, the porcupine, the coati, the guinea pig), minerals, plants, medicinal herbs ("there is no single expert who knows them all"), yerba mate plantations ("the mines of this province"), and Araucaria trees.
25. Linnaeus created the order "Zoophytes" -those vegetating plants with beast-like animated flowers- in the 10th edition of his *Systema Naturae* (1759). Muñoz sent his donation in September 1813 and in October it was transferred to the library, where Larrañaga noted that some items were missing. The donation was officially accepted in 1814. See Podgorny 2012.
26. Di Stéfano, Roberto, "Pastores de rústicos rebaños, cura de almas y mundo rural en la cultura ilustrada rioplatense", *Boletín del Instituto de Historia Argentina y Americana, 'Dr. Emilio Ravignani'*", 2000, vol. 22, in particular, p. 12-13, "Colegas clérigos del joven Darwin", *Anuario-IEHS*, 2010, vol. 25, p. 259-280,
27. Di Stéfano, Roberto, *El púlpito y la plaza: clero, sociedad y política de la monarquía católica a la república rosista*, Buenos Aires, Siglo XXI, 2004; Lopes, M. Margaret, *O Brasil descobre a pesquisa científica. Os Museus e as ciências naturais no século XIX*, São Paulo: Hucitec, 1997, Podgorny I. and M.M. Lopes, *El desierto en una vitrina. Museos e historia Natural en la Argentina, 1810-1890*, Mexico, Limusa, 2008. This paper does not consider the Jesuit collections, which were also guided by instructions and included a network as big as or larger than that of the Crown.
28. So, when Aimé Bonpland (1773-1858) arrived to Buenos Aires in 1816, in addition to various commercial endeavors that he had in mind, he brought an enormous collection of books on natural history that he offered to collectors and to libraries in Buenos Aires, Santiago de Chile, and Montevideo. See Bell, Stephen, *A Life in Shadow: Aimé Bonpland in Southern South America, 1817-1858*, Palo Alto, Stanford University Press, 2010.
29. Algorta Camusso, Rafael, *El Padre Dámaso Antonio Larrañaga. Apuntes para su Biografía*, Montevideo, Barreira y Ramos, 1922; Mañé Garzón, Fernando, *El Glorioso montevidiano. Vida y obra del Doctor José Manuel Pérez Castellano (1742-1815)*, Montevideo, Archivo General de la Nación, 1998-2003.
30. Since the 16th century, the armadillo shell has been marketed as an effective remedy for syphilis and earache, see Podgorny, I., "Los conejos de calabaza", 2010/*El Mundo Atlántico y la modernidad iberoamericana*, 2012, 1, p. 222-237.
31. Real Orden, 1768. Indiferente General, AGI. In the Instrucciones from 1776, Armadillos were first on the list.
32. Latour, Bruno, "Visualisation and Cognition: Drawing Things Together", *Knowledge and Society: Studies in the Sociology of Culture and Present*, 1986, vol. 6, p. 1-40.

33. Chiaramonte, José C. *La Ilustración en el Río de la Plata. Cultura eclesiástica y cultura laica durante el Virreinato*, Buenos Aires, Puntosur, 1989. See, Di Stéfano, Roberto, “En torno a la herencia dieciochesca: religión, Ilustración, derecho natural”, *Boletín del Instituto de Historia Argentina y Americana “Dr. Emilio Ravignani”*, 2016, tercera serie, n° 45, p. 26-33.

34. Halperin Donghi, Tulio, *Guerra y finanzas en los orígenes del Estado argentino, 1791-1850*, Buenos Aires, Universidad de Belgrano, 1982.

ABSTRACTS

This paper examines the system of production and circulation of knowledge linked to Spanish bureaucracy and the Atlantic trade. Based on primary sources from the General Archive of the Indies (AGI), the General Archive of the Nation (Argentina-AGN), the Archive of the Royal College of Surgeons (London-RCS), and on secondary bibliography, this article, rather than focus on the objects collected, considers the documents that resulted from the “necessity” of collecting minerals, plants and animals, revealing the true protagonists of this story: the pathways of bureaucracy and the flow of paperwork where data about nature and man in the Americas were generated and took shape. At the same time, it reflects on the adoption of the “three kingdoms of nature” defined by Linnaeus and adopted in the instructions to complete the Royal Cabinet of Natural History of Madrid.

Este trabajo estudia el sistema de producción y circulación de conocimiento vinculado a la burocracia española y al comercio atlántico. A partir de fuentes primarias procedentes del Archivo General de Indias (AGI), el Archivo General de la Nación (Argentina-AGN- y Uruguay), el Archivo del Royal College of Surgeons (Londres-RCS), y de la bibliografía secundaria producida sobre estos temas, este trabajo, más que centrarse en los objetos recogidos, considera los documentos resultantes de la “necesidad” de coleccionar minerales, plantas y animales, revelando a los verdaderos protagonistas de esta historia: las vías de la burocracia y el flujo de papeleo en el que se generaron y plasmaron los datos sobre la naturaleza y el hombre en las Américas. Al mismo tiempo, reflexiona sobre la adopción de los “tres reinos de la naturaleza” definidos por Linneo y adoptados en las instrucciones para completar el Real Gabinete de Historia natural de Madrid.

L'article aborde le système de production et de circulation de connaissance en lien avec la bureaucratie espagnole et les échanges atlantiques. A partir de sources primaires situées aux Archives Générales des Indes (AGI), aux Archives Générales de la Nation (Argentine-AGN- et Uruguay), aux Archives du Collège Royal de Chirurgie (Londres-RCS), et de la bibliographie sur ces questions, cette étude, plutôt que se centrer sur les objets recueillis, prend en compte les documents résultant de la “nécessité” de collectionner des minéraux, des plantes et des animaux, et met en évidence les véritables protagonistes de cette histoire: les voies de la bureaucratie et le flux de paperasses dans lesquelles se sont créées et concrétisées les données sur la nature et l'homme dans les Amériques. Dans le même temps, l'article porte la réflexion sur l'adoption des “trois règnes de la nature” définis par Linné et adoptés dans les instructions destinées à parachever le Cabinet Royal d'Histoire naturelle de Madrid.

INDEX

Mots-clés: musées, collections, instructions, histoire naturelle, classifications, Megatherium

Keywords: museums, collections, Spanish America, classifications, natural history, Megatherium

Palabras claves: museos, colecciones, instrucciones, historia natural, clasificaciones,
Megatherium

AUTHOR

IRINA PODGORNY

Museo de La Plata/CONICET