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Cartographic Beasts at the Tail-end of the Long Renaissance: Style and Sources for the *Tabula geographica regni Chile* (1646)

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Abstract
This study expands current knowledge of art and cartography by exploring Alonso de Ovalle's *Tabula geographica regni Chile* (1646) as a concluding instance of the pictorial mapping style of the long Renaissance. The project treats the faunal images of the *Tabula geographica* to explore why beasts still wandered the southern cone in an era when they were inclined to congregate at cartographic borders. It concludes that Ovalle's lingering creatures were critical elements of a depiction of Chile that was based upon exploration documents and was designed to update the Spanish Crown on this remote and unfamiliar territory.

Résumé
Cette étude élargit la connaissance actuelle de l'art et de la cartographie en explorant le *Tabula geographica regni Chile* (1646) d'Alonso de Ovalle comme un exemple concluant du style de cartographie picturale de la longue Renaissance. Le projet traite les images fauniques du *Tabula geographica* pour explorer pourquoi les bêtes erraient encore dans le cône sud à une époque où elles avaient tendance à se rassembler aux frontières cartographiques. Il conclut que les créatures persistantes d'Ovalle étaient des éléments critiques d'une représentation du Chili basée sur des documents d'exploration et conçue pour informer la couronne espagnole sur ce territoire éloigné et inconnu.

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Situated at the intersection of art and mapping, faunal images were a hallmark of the golden age of cartography that blossomed during the Renaissance and continued into the baroque era, yet to date we lack a clear conception regarding what these charming iconographies do and what we can learn from them. Although scholars have examined depicted beasts on European maps of South America, few have paid close attention to these animals beyond their roles as evidence of New World contact and as continental emblems, and fewer still have addressed their place as a characteristic of the pictorial mapping style of the so-called long Renaissance that endured until the mid-seventeenth century. In some regard this lack of knowledge is surprising, as pictured zoologies were central to showing ever-expanding cartographic knowledge of South America, and this was particularly true during the sixteenth and early seventeenth centuries. Europeans mapmakers, foremost English, Spanish, Portuguese and Dutch, enhanced their depictions of the coastlines and rivers of Patagonia, Nueva Granada, and Brazil with wild beasts to designate their remote or uninhabited character. Following the arrival of Jesuit missionaries to South America in 1549, they also undertook inland mapping projects that similarly featured factual and imagined wildlife. As key elements of a pictorial style of cartography that endured until the mid-seventeenth century, animals were part of a “forceful” conveyance of South American nature that helped to shape European mental conceptions of this distant land.

After the mid-seventeenth century, a significant portion of the cartography that pictured South America was produced as part of European state-sponsored scientific projects, and Chile was no exception. French engineer Amédée Frézier was dispatched to South America from 1712 to 1714 to carry out a risky assessment of Chilean defenses for the French government, and his resulting maps of critical ports show detailed measurements of distances and water depths. Another celebrated expedition along the Chilean coastline led by Alejandro Malaspina and José de Bustamente y Guerra culminated in a series of hydrographic surveys for the Spanish government by Felipe Bauzá. As the Chilean coastal maps by Frézier and Bauzá illustrate, Enlightenment-era scientific inquiry greatly altered the kinds of information that maps conveyed; from the mid-seventeenth century onwards, European mapping practices for South America were rapidly “refined” to replace images of fauna and inhabitants with data that better elucidated emerging theories and more precisely conveyed the continent’s dimensions.

With these trends in mind, in this study I focus upon cartographic fauna to explore why one map produced in 1646, the Tabula geographica regni Chile (hereafter, Tabula geographica), held tightly to a pictorial style that was on the brink of becoming passé. Keeping in mind the gradual shift in mapping by the mid–seventeenth century away from so-called “decorative” images, I inquire as to why cartographic beasts, together with native peoples and plants, still wandered the Southern

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\(^3\) For more on the “forceful” image of American nature, see Jesús Carrillo Castillo, “The World is Only One and Not Many: Representation of the Natural World in Imperial Spain,” in Spain in the Age of Exploration, 1492–1819, ed. Chrys Ishikawa (Seattle: Seattle Art Museum; Lincoln: University of Nebraska Press, 2004), 139–58, esp. 140.  
Cone at this late date. In considering these lingering faunal iconographies, it is worth remembering that the Tabula geographica was deployed by Chile’s first Jesuit procurator general in Rome and Spain, Alonso de Ovalle (1603–1651), to show an initial image of the confines and natural characteristics of his homeland for Europeans and to promote this territory before the Spanish government. Produced and published in Rome and dedicated to Philip IV and Pope Innocent X, this pictorial map supported Ovalle’s primary objectives in Europe: to petition funds from the Crown for additional Jesuit missionaries to Chile, to recruit these missionaries, and to ultimately accompany them to the Chilean capital, Santiago. In what follows, David Buisseret’s observation that the Chilean province was among the last in South America to be mapped is a central facet of my argument. I propose that the outmoded pictorial style of the Tabula geographica reflected and responded to Spain’s delayed acquisition of information regarding Chile. In other words, this heavily illustrated work met a demand for an “antiquated” map of this region that would update European viewers by filling in the geographic and natural data already available from other South American regions. Incursions into northern Chile from Cusco beginning in 1535 and the resulting foundation of Santiago in 1541 provided Spain with a vague sense of Chile’s northern region at an early date. In the southern extremes, Spanish interest in the Strait of Magellan during the 1580s was shortly followed by the Dutch passage around Cape Horn in 1615. Yet the larger Chilean province seemingly remained unmapped in any detail until at least the mid-1620s, when a Franciscan missionary in Chile produced a now-lost rendering (presumably a manuscript) that minimally described its southern region. In Spain, although royal cosmographer Juan López de Velasco had drawn up an ink-and-watercolor survey of Chilean borders and rivers for the Crown during the 1570s, and Antonio de Herrera y Tordesillas produced a copperplate version of this cursory map in 1601, the Tabula geographica stands as the first comprehensive extant map of the Chilean region. For this reason, it makes sense that this east-up chorography was carried out in an outmoded pictorial style that included unfashionable iconographies of native wildlife. Furthermore, we shall see that a particular strength of Ovalle’s faunal imagery is the veracity and authority of their well-known prototypes, particularly those print sources derived from famed explorations to the coasts of Chile and Peru and through the Strait of Magellan. In this study I also give weight to Matthew H. Edney’s observation that maps, and particularly imperial examples, function best when they establish contact and facilitate attachment between an audience and a depicted territory; the faunal images of the Tabula geographica were part of a wider pictorial and textual campaign on the part of Chilean native Alonso de Ovalle to create just such a connection between a European viewership and his homeland. Taken altogether, not only did exotic South American creatures engage viewers in the minutiae of the Tabula geographica, but by way of their illustrious prototypes they also bolstered Ovalle’s conveyance of Chile before his most critical audience, Philip IV of Spain, to assure him that “the
The remains conveyed under 1646 most critters had been rounded up and herded off of them altogether. Yet it must be remembered that knowledge of South American terrain arrived to Europe unevenly, and not all territories were equally well-known by their colonizers; a case in point is Chile. For the late arrival of information to Europe regarding the arrangement and natural characteristics of this ribbon of land, the Tabula geographica leaned upon unfashionable pictorial mapping for filling these knowledge gaps.

The Tabula geographica and its Beasts

The Tabula geographica and its renderings of southern Andean animals, plants, and peoples served as a companion to Ovalle’s extensive textual report, the Histórica relación del reyno de Chile of 1646, which treats Chilean nature, geography and history in eight sections. In its initial chapters, Ovalle laid forth a detailed natural history of his homeland for a European audience, and on the Tabula geographica he illustrated noteworthy examples of described wildlife. In addition to filling in vacant Argentina, these natural features were distributed across three defined regions: Chile “proper” from its then northern boundary with Peru in Antofagasta to its southern limit at the Bio-Bio River, unconquered Patagonia to the south, and the Cuyo territory located east of the cordillera.

For the Crown, the profusion of data condensed within Ovalle’s map was long overdue; Chile’s long ribbon of land between the Andes and the Pacific stood as Spain’s non plus ultra in the Americas as well as its most impoverished colony there. Heightening imperial frustration, indigenous

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14 “…la Reyna del Cielo ha favorecido en particular el Reyno de Chile.” Alonso de Ovalle, Histórica relación del reyno de Chile, y de las missiones, y ministerios que exercitá en la Compañía de Jesús (Rome: Francesco Cavalli, 1646), Prologo al lector.
20 Ovalle, Histórica relación. A reduction of Ovalle’s large’ map was inserted as a two-page fold-out and bound into the back of each text.
turbulence along the southern border had not only restricted European knowledge-gathering there but had also forced the costly installation of Spain’s only standing army in the Americas.\(^{22}\) As a result, in Ovalle’s day the mandated questionnaires of the Relaciones geográficas had yet to be administrated and the instruments of Enlightenment science would not truly arrive here until the eighteenth century.\(^{23}\) Seen within this context, the Tabula geographica was a key illustrative component of the most comprehensive and accurate data set to have ever been provided to Spain on Chile, and might be best categorized as an unsolicited imperial map.

In pictorial cartographies of the New World such as Ovalle’s conveyance of Chile, rendered animals served a variety of functions by activating and bolstering arguments regarding terrain. As Wilma George has noted, maps often provided initial images of American animals as well as the most accurate record of their locations.\(^{24}\) Such zoologies engaged and oriented viewers; armadillos and rhinos differentiated South America from Africa in an era when geographic forms often fluctuated from map to map.\(^{25}\) As Ovalle certainly understood, pictured zoologies stirred the imagination, thereby shaping the ways that empire builders assessed wealth and risk in their American colonies.\(^{26}\) For instance, such recognizable depictions supported claims that the region boasted food supplies for sustaining settlements and lucrative resources for export. In rare instances, particularly when rendered by locals such as Ovalle or by outsiders with exceptional access to information, faunal images reflected ethnographic discourse and indigenous knowledge.\(^{27}\) For Ovalle, a santiaguino (a native of Chile’s capital) whose map of Chile reflected his criollo pride and Jesuit zeal, zoological images were also critical to a particular conception of nature in which “the abundance and fertility of this Kingdom...in its lands, valleys, and all of its coast,” were held forth as proof of divine favor.\(^{28}\)

Yet cartographic beasts were also tethered to notions of conquest and colonization, as the elitist penchant for securing exotic game was a symbolic act of power that doubled as a thinly-veiled metaphor for empire building.\(^{29}\) As Philip IV was an avid huntsman, miniature coursing scenes in the Tabula geographica together with detailed penned accounts of falconry and native methods for procuring guanacos and local partridges were attractive strategies for engaging this critical viewer in prospecting the depicted region.\(^{30}\) By extension, cartographies that expressed domination over native game and naturalized the acclimation of European animals that, as Ovalle clarifies, “we in no way had” adhered to recognizable conventions for building and upholding empires.\(^{31}\)

**Persistent Beasts**

The depicted beasts of the Tabula geographica generally correspond to a selection of the known creatures of Chile which Ovalle described in the first book of his text: the marine life on the coast, the birds of the country and indigenous techniques for hunting them, endemic four-footed animals and new varieties introduced from Europe.\(^{32}\) This pictured inventory of local nature (of course, with errors in its details) is based upon various prototypes in print, most which were recorded in the wake of well-known explorations to Chile, Peru, and through the Strait of Magellan during the sixteenth and early seventeenth centuries. The stylistic variation found across Ovalle’s faunal images, ranging from miniature hunting tableaus to detailed renderings of single specimens, reflects the

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\(^{22}\) In fact, one facet of the map was its conveyance of a recent peace treaty between Spanish and indigenous troops, together with assurances that this agreement was durable. For another cartographic conveyance of the conflict in southern Chile, see Ricardo Padrón, *The Spaces of War: Geography, Literature, and Empire in Early Modern Spain* (Chicago and London: University of Chicago Press, 2004), 79–81.


\(^{25}\) Ibid., 195.

\(^{26}\) Welu, “Strange New Worlds,” 105.

\(^{27}\) Adam Warren, “From Natural History to Popular Remedy: Animals and Their Medicinal Applications among the Kallawaya in Colonial Peru,” in *Centering Animals*, 123–48.

\(^{28}\) Ovalle, *Histórica relación*, 41.


\(^{30}\) Ovalle, *Histórica relación*, 47–49.

\(^{31}\) Ibid., 45.

\(^{32}\) Ibid., 41–55.
variety and diversity of these prototypes. For their origins in well-known European engravings, Ovalle’s faunal images conclude a long parade of what William Ashworth, Jr. has termed “persistent beasts,” or the engaging creatures that migrated through the celebrated works of early modern print culture.33 Ovalle’s awareness of the centrality of animal images in pictorial cartography is indicated in a passage from his Histórica relación. In describing Chile’s avian wildlife, he enhanced his textual description of one flightless bird by pointing his readers to his sources of knowledge; in conveying the penguin’s appearance and habits, Ovalle not only drew from his own observations of these birds “in the sea,” but also noted that they are “frequently mentioned by those who travel the Strait of Magellan, and are painted in common maps....”34

Here, we note that this Jesuit neatly summarized the usual trajectory of information flow from lived encounter to navigation account and pictorial map. Of particular interest, a textual inset at the far–right side of the Tabula geographica lists four of the critical authors whose cartographies and prints informed this map. Two of these previously–noted contributors are Spaniards: Franciscan missionary Gregorio de León authored a now–lost pictorial map of Chile which he dedicated to Chilean governor Luis Fernández de Córdoba y Arce (in office 1625–1629), and Antonio de Herrera y Tordesillas republished in his Décadas a map of Chilean borders and rivers by royal cosmographer Juan López de Velasco.35 Two additional authors credited by Ovalle were northern reformers: Johan de Laet (1581–1649) completed an early map of the southern Chilean coastline, and Theodor de Bry and his sons Johan Theodore and Johan Israel published between 1590 and 1634 an illustrated navigation account and pictorial map.36 Ovalle’s acknowledged pictorial and cartographic sources for the Tabula geographica, although certainly incomplete, evidence the centrality of well–known engraved prototypes for his map. Furthermore, they provide a solid framework upon which to interpret its zoology as part of a broader pictorial mapping style that leaned heavily upon exploration documents and the celebrated voyagers who penned them.

Ovalle’s Cartographic Beasts and their Sources

The Tabula geographica is enhanced by images of nearly twenty distinct loping, crawling, flying, and swimming creatures adapted from illustrations and cartographies in print. Some of these animals were derived from sources that did not appear on Ovalle’s shortlist; for instance, his parrot and ñandú were adapted from engravings of an African grey parrot and an ostrich signed by Adriaen Collaert in an illustrated text on the birds of the known world, Avium Vivae Icones (Antwerp?, 1580, with several later editions). While it is not possible to address each of Ovalle’s depicted beasts here, the present study focuses upon a selection of pictured Andean animals that represent each of the mapped regions of Chile, that is, Cuyo, Patagonia, and Chile proper. In what follows, renderings of the armadillo, the penguin, and the llama will be examined as faunal representatives of each Chilean region and their prototypes identified. As we will see, Ovalle’s zoology relied heavily upon the accounts of sea voyagers who penned them.

33 Ashworth, Jr., “The Persistent Beast.”
34 Ovalle, Histórica relación, 47.
Figure 1. Armadillo. Detail from Alonso de Ovvalle, *Tabula geographica regni Chilæ*, fold-out engraved map at end of *Histórica relación* (Rome: Francesco Cavalli, 1646), map dimensions 57.4 x 116.3 cm. Image in the public domain, photo courtesy of The John Carter Brown Library at Brown University.

As we will see, their inclusion in Spain’s most complete map of Chile was part of a “forceful image” constructed primarily from authoritative exploration accounts that was intended to frame the mental construction of Philip IV’s most remote American territory.

**Armadillo, Ad Instar Suis**

Best known for its protective carapace, the armadillo was a frequent stand-in for the South American continent that evoked early inland explorations. This quadruped originated in South America, and a diminutive breed now termed *Cabassous unicinctus* is particular to the arid region of Cuyo (currently includes the province of Mendoza, Argentina) on the eastern side of the Andes. Yet Ovalle’s mapped depiction of the armadillo in Cuyo (Fig. 1) is inconsistent with this local species, and instead conforms to an image that was widely reproduced in European illustrations and maps. This well-traveled armadillo debuted in print as a woodcut in Nicolas Monardes’ *De simplicibus medicamentis ex occidentali India delatis* (Antwerp, 1574), and was re-issued three decades later in Charles de l’Écluse’s (*Carolus Clusius*) *Exoticorum libri decem* (Leiden, 1605). Monardes’ armadillo also wandered through several cartographies before appearing in the *Tabula geographica*, most notably in the engraved map of Guiana by Jodocus Hondius of ca. 1590 compiled from accounts of the expeditions to the backlands of north-eastern South America by Thomas Cavendish, Sir Francis Drake, and Sir Walter Raleigh. Notably, the Hondius map of Guiana appeared in Theodore de Bry’s *America* Part VIII (Cologne, 1599), an author cited on the *Tabula geographica*, and may have influenced Ovalle’s faunal iconographies. Yet there are other possibilities, as Ovalle also listed as a source Johan de Laet, who included the very same armadillo “depicted from the *Exotica* of the famed Charles de l’Ecluse” in his *Nieuwe wereldt, ofte, Beschrijvinghe van West Indien* (Leiden, 1625) (Fig. 2). Ovalle’s acknowledgement of both the De Bry volume and Laet suggests that he was well aware of the long life in print of the armadillo that designates Chile’s inland territory on the eastern slopes of the cordillera on the *Tabula geographica*.

As in life, early modern armadillos in print were often distinguished by vertical bands on their midsections, and Monardes’ woodcut and many of its progeny feature nine such markings. However, in an artistic reduction of the factual nine–banded variety, Ovalle’s “little armored one” bears only seven bands, rendering it an imagined rather than factual species. Yet Ovalle’s rendition does maintain other details which closely link it to its prototype, particularly the schematized textural pattern that covers its surface to convey its rough carapace; its vertical bands or plates are comprised of rows of alternating triangles, while minute circles indicate the texture of non–banded armor. This patterning resonates not only with aforementioned examples in books and maps, but also with Dutch artist Lambert Lombard’s pen and ink illustration of ca. 1560, perhaps pointing to an Ur-image for the parade of armadillos that marched through the engravings of the Renaissance world.

In comparing Ovalle’s armadillo to its prototype(s), some alterations extend meaningfully beyond questions of imprecise copying. One significant addition that firmly connects this creature with Andean terrain is the gloss beneath it that reads, “*Quiriquincho ad instar suis,*” to first provide this animal’s local name in Quechua (*quiriquincho*) and then to assure viewers in Latin that this image is indeed a true likeness. The inclusion of indigenous terminology is one of many ethnographic details that enhances Ovalle’s map and text, setting them...
apart from their sources. There is also an omission from Ovalle’s rendition, as its curved tail is concealed by a text block. This detail, a complication caused by overlapping mapped elements, brings to mind the pharmaceutical application of armadillo tail as recorded by Monardes that would have further engaged a European audience; lopped off, toasted, and ground into fine powder, it is said to relieve maladies of the ear.43

The first European to record the Magellanic penguin was, appropriately enough, Magellan’s chronicler Antonio Pigafetta, who in 1520 witnessed countless fat (Lat. *pinguis*) and flightless “goslings” along the 350–mile Strait of Magellan.46 Another early depiction of this bird is found in an engraved Dutch penguin hunt in the Strait. This disturbing scene from an account of 1600 relayed the failed voyage to the Moluccas of Jacques Mahu and Simon de Cordes. A few years later in 1605, Clusius adapted a penguin from this scene for publication in his *Exoticorum*.47 However, despite the fame of Magellan’s passage and Clusius’ compendium, the source image for Ovalle’s penguin can be traced to later Dutch endeavors.

In fact, the *Tabula geographica* penguin is tied to the Dutch search for spice routes to Asia that followed the independence of the Netherlands from Spain in 1581. Under the United Dutch East India company (or VOC, founded in 1602), the Strait of Magellan was repeatedly sailed, resulting in numerous Dutch accounts and depictions of the region. Ovalle’s penguin, for its corpulent figure, long wings held to its sides, and all-over feather patterning—an unusual trait to emphasize on a flightless bird—was certainly derived from the *Tijpus Freti Magellanici* (Fig. 4), a map of the Strait which featured a similar penguin in its foreground. This cartographic landscape shows the Dutch passage as it was recorded in 1614 by an anonymous map-maker under Joris van Spilbergen, who was enlisted by the VOC to sail a fleet to the Moluccas via South America.48

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Although Ovalle neglected to list Spilbergen as a source for his map of Chile, he did cite the officer in the *Histórica relación*, noting that in the course of Spilbergen’s passage through the Strait, his crew discovered numerous harbors and “buen refresco” (“good supplies”). Tijpus Freti Magallanic was first published in Spilbergen’s voyage report *Speculum orientalis* (Leiden, 1619), and was immediately republished in 1619 as a highlight of Spilbergen’s circumnavigation in Theodore De Bry’s *America* Volume XI, and this author was, of course, cited on the *Tabula geographica*.

Ovalle’s descriptions of the penguin in his text and on his map further demonstrate his knowledge of this unusual bird’s prominent place in voyage records, while simultaneously leaning upon his personal observations of their habits “at sea” (perhaps at the Isla Pingüinos at Algarrobo near Valparaiso). He indulged his audiences in the observations of navigators, recounting the often-recorded news that penguins are edible as well as abundant in Chile’s deep south. On his map, below the penguin’s image, a Latin gloss first relays that this sort of bird hails from the Chilean region. The gloss’s tone then shifts to indulge viewers in a novel religious reading; Ovalle relays that as it walks, the penguin inclines its head toward the heavens in homage. This gloss is not the only detail which differentiates the *Tabula geographica* penguin from its predecessor. While the pictured Chilean penguin coincides with Spilbergen’s version in its form and figure, the details of its head, particularly its unsettling human eye and disproportionately large upper bill, break from both the Dutch prototype and from living examples.

**Llamas, or “Indian Sheep”**

While the armadillo signals arid Cuyo and the penguin is linked with Patagonia, various chroniclers and map makers associated the domesticated llama and alpaca, as well as the untamable guanaco and vicuña, with the Andean cordillera that runs through Chile along its eastern border with Argentina. An early image of Andean camelids appeared in print in 1553 when Spanish chronicler Pedro de Cieza de León published an initial description in his *Crónica del Perú*. Written in Lima and published in Seville, his characterizations of “Peruvian sheep,” would shape future European

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50 A pen-and-ink rendering on Japanese paper titled *View of the Straits of Magalhaen* (1615) served as the source for *Tijpus Freti Magallanici*. It was drawn during Spilbergen’s voyage and was subsequently obtained by Dutch East India Company official Artus Gijsels. Badische Landesbibliothek, Karlsruhe, K499b fol 3.
51 Ovalle, *Histórica relación*, 47.
conceptions of the llama by aligning it with certain wealth.\textsuperscript{53}

The llama’s close association with Andean prosperity has everything to do with the arrangement of Cieza de León’s textual account of these camelids, which immediately followed his report of mining activities at Potosí (in modern Bolivia). Critically, this account can be indirectly connected to Ovalle’s mapped depiction of a seated llama with bars of metal fastened to its back (Fig. 5).

This is because Cieza de León bridged the aforementioned disparate sections of his text by informing his readers that “the greatest part (of the mined silver) was carried overland to Cusco, or given to the city of Arequipa...(by llamas).”\textsuperscript{54} His characterization of llamas as beasts of burden and purveyors of precious metal underscored for Spanish viewers the role of these animals in porting the king’s royal fifth to the coast for transatlantic shipment.\textsuperscript{55}

\textsuperscript{53} Mason, Before Disenchantment, 177–78.
\textsuperscript{54} Pedro de Cieza de León, Primer parte de la Crónica del Perú (Sevilla: Casa de Martín de Montesdoca, 1553), 204r.
Similarly, Jesuit naturalist José de Acosta would align the llama with Spanish mining endeavors by informing his readers that after silver was extracted from Cerro Rico at Potosí, it was carried out to refineries upon the backs of “Indian sheep.”

Much like Cieza de León and Acosta, Ovalle’s camel-like conveyance of a llama gives weight to its role as a pack animal for porting ingot, thereby suggesting that Chile boasts mineral wealth to rival Potosí.

Ovalle’s mapped llama, characterized by an exaggerated serpentine neck, is derived from an illustration (Fig. 6) published in Book IX of De Bry’s Americas of llamas as Acosta reported them in his Historia natural y moral de las Indias (1590). This illustrative plate, titled “About the Indian Sheep that Carry Metals from the Mountains,” shows a caravan of porting llamas setting off from Cerro Rico; one of them lingers in the seated pose that likely informed Ovalle’s llama. This uncooperative beast illustrates the commentary by Acosta that

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57 Because Acosta lived in Peru from 1571 to 1587, his textual descriptions arguably set forth one of the most coherent and authoritative conveyances of the southern Andes in the sixteenth century. Carrillo Castillo, “The World,” 156.
58 For commentary on the ironic depiction within this plate of nearly-naked indigenous persons together with wool-producing llamas, see Van Groesen, “The De Bry Collection,” 21.
their herders took great care to not offend them, for if the overburdened llama lies down, “neither threats nor blows will make them rise and continue on.”

It is no wonder that this llama appears reluctant to rise and join the caravan; De Bry’s German-language rendition of Acosta’s text conveys that these animals carried silver across the altiplano in massive trains of three to four hundred, completing an exhausting seventy-mile trek from Potosí to the port town of Arica.

An important distinction between De Bry’s stubborn llama at Potosí and the seated llama of the Tabula geographica is their comparative demeanor, a point which is further elaborated in textual description. Beneath Ovalle’s cartographic llama, a Latin gloss reframes the kneeling pose to suggest patience and willingness; it relays that “sheep of this kind” will indeed carry burdens, and they wait on their knees as they are loaded with ingot (see Figure 5). In a related passage from his Histórica relación Ovalle shares a childhood memory of llamas porting water from the Mapocho River for the homes of Santiago, and the details of his anecdote convey their agreeable nature and dutiful spirit: “Their ears are pierced with a needle, and a cord is passed through the hole so that its owner can guide it, it kneels to receive cargo, and when it is received and adjusted they rise and continue at a leisurely pace.”

Chile’s compliant llama doubles as imperial discourse, bolstering Ovalle’s argument before the Spanish Crown that “the mines of Chile…give abundantly all that is necessary…” and suggesting the facility of extracting the gold, copper, and lapis lazuli indicated on the Tabula geographica.

Ovalle also digressed from the llama to describe their close cousins, and in doing so he conveyed that some Andean camelids manifest an unusual form of wealth within their bodies called a bezoar. Writing on animals, Miguel de Asúa and Roger French note that seventeenth-century Jesuits in Europe and the Americas were highly concerned with hidden properties and occult powers, and the wonderous lumps found within Andean camelids certainly fell within this category. The Tabula geographica includes a promising key for locating such treasure, as a mapped herd and its accompanying Latin caption divulge enticing news: “They are called guanacos and they make bezoars.” These mineral accretions formed in the stomachs of camelids were not only a source of wonder and wealth in the early modern world but were also believed in Ovalle’s day to bear medicinal and antidotal properties. Our disbelief of such a claim dissipates, to some degree, under Ovalle’s explanation that bezoars are comprised of the excess materials that accumulate from the healthful Chilean herbs upon which guanacos graze.

This Jesuit further enriched his explanation of the bezoar stone by offering instructions for its use; their medicinal properties can be accessed by soaking an entire stone or its gratings in water or wine, which is then imbibed.

Conclusions

This study has explored a selection of Chilean faunal images from the three geographic regions that comprise the Tabula geographica map— the armadillo of the Cuyo plains, the Magellanic penguin, and the llama of the Andean cordillera— as archaisms that mark the end of the pictorial era of cartography. Despite their late appearance in 1646, these pictured beasts were useful in supporting Alonso de Ovalle’s claim of a wealthy, yet peripheral Spanish territory. Ovalle’s retention of an outdated cartographic mode which leaned upon images is attributed here in large part to the languid flow of early modern information from Chile to Spain. In other words, challenges to collecting knowledge regarding Chilean nature and peoples paved the way for Ovalle’s belated pictorial map, bringing Spanish knowledge of this region up to date with that of its other South American territories via...
cartographic images. Furthermore, in adapting pictured fauna from well-known sources in print, and particularly from documents based upon celebrated voyages to South America, the Tabula geographica derived veracity and authority from first-hand encounters and reliable experts. Perhaps we might view these cartographic beasts as part of a larger iconographic gesture, on the part of Ovalle, that expresses a longing for reconciliation between his own world in the Chilean capital, and an imperial force that laid claim to Chile, yet knew little of it and tended to it even less.

Ovalle’s images, or rather his descriptions which round them out, filled the epistemological gap that existed for his second or third-hand prototypes. While the source materials available to an artist dictate the degree of accuracy in her or his images, this notion can be extended to include the textual descriptions that accompany them. First-hand information emerges in mapped glosses and within the natural history chapters of Ovalle’s text, where we learn that he found the flavor of armadillo to approximate that of pork, that he had witnessed the penguin in its natural habitat, and that in his youth he observed the llama at work. For these details drawn from life experience there is a sense in which the Tabula geographica not only closes a gap, but also completes a circuit by merging European iconography of South American fauna with truly local data.

To be treated in a future study is the role of materiality in cartography, or more specifically, the physical specimens which were brought back to Europe from South America at an early date. It is accepted that a penguin was shipped to Europe in 1619 by the Spanish Nodal expedition, and armadillos and llamas were also early arrivals to early modern courts, cabinets and bestiaries. Ovalle himself clearly understood the compelling power of physical specimens, as when he disembarked in Cádiz in 1642 he carried with him numerous specimens from Chile to back his claims, including a bezoar stone weighing thirty-two ounces.

Samples of American nature in European collections, including living and stuffed animals, are understood to have served as exemplars for many engravings and pictorial maps, yet little is known about the details of this artistic process. It stands, then, that actual animals together with their parts and biproducts were silent sources, unrecognized in comparison with the voyages under which they were procured, yet important all the same, and future research should attempt to bring them to light.

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64 The theme of early modern European collections of Chilean materials will be treated in a subsequent project to be presented at the conference XI Jornadas de Historia Colonial to be held 16-19 October, 2018 in Santiago, Chile.

65 Ovalle, Histórica relación, 54; Pedro Lira Urquieta, El Padre Alonso de Ovalle: El Hombre, La Obra (Santiago: Editorial Difusión Chilena, 1944), 45.