“Sublime Ideas” and the Appeal of Scientific Investigation in Early Authoritarian Chile

Sierra Standish

Rocky Mountain Interdisciplinary History Conference

September, 2019

On October 2, 1830, Chile's government-run newspaper proclaimed a national scientific initiative. Readers may have been caught off guard: the pages of *El Araucano* typically focused upon business reports and the proclamation of policies toward "reestablishing order and public tranquility." Now, Chile's new conservative leadership aimed to promote empirical research and "cast seeds for the future." To this end, the young republic had contracted with one Professor Gay to survey the nation's flora, fauna, geology, and geography over a period of four years.[1]

There seemed to be no limit to the kinds of moral and economic advantages new science offered Chile. According to the newspaper, fresh knowledge would improve Chilean agriculture, medicine, and mining, and generate a body of maps and statistics. Additionally, the editor remarked in excited tones, Gay would return with an inspiring assembly of specimens, and found a museum: Santiago was to be "adorned with a natural history collection" that would elicit a "fondness for science in young Chilean men" and "produce sublime ideas."[2] Furthermore, *El Araucano* presented the scientific survey as a purely Chilean effort—paid for by the Chilean government, supervised by a commission of Santiago's leading intellectuals, and created for public consumption.

Certainly, young Latin American nations frequently sought government-backed scientific projects to boost their well-being. However, the project also situated firmly into a contemporary trend among European traveler-scientists. As such, it constituted yet another contribution to the body of work patterned after the publications of naturalist *par excellence*, Alexander von Humboldt. Humboldt's immensely productive journey occurred a generation earlier, from 1799 to 1804. Until then, the Spanish crown had restricted access to much of the western hemisphere. Humboldt acquired special royal permission, and the Prussian naturalist journeyed thousands of miles across Mexico and the northern and Andean regions of South America equipped with new

instruments, an Enlightenment-bred concern for knowledge and accuracy, and a "culture of curiosity." After returning to Europe, Humboldt took approximately thirty years to completely publish over thirty volumes related to the trip, a celebrated collective "album" that encompassed botany, zoology, comparative anatomy, astronomy, political essays and linguistic analysis, as well as extensive maps and illustrations.[3]

Just a few decades after Humboldt's voyage to the Americas, Claudio Gay, the French naturalist who contracted with the Chilean government, embraced an assignment of comparable proportions—but under significantly different conditions. While Humboldt financed his travel with a personal inheritance, Gay functioned as the employee of the Chilean government. And in 1830, Chilean governance still wobbled in postcolonial uncertainty. After several unruly years under different liberal administrations, the republic came under the stout grip of a conservative coalition led by businessman Diego Portales. Portales famously (or infamously) observed in Chile a nation in which social order should be "maintained by the weight of the night"—a phrase that historians interpret to mean that average Chileans would exhibit a degree of apathetic deference to authority mixed with deep respect for tradition.[4] The charismatic and domineering Portales receives credit for bringing Chile into a period of stability, a remarkable feat given the unsettled politics within new South American nations of the nineteenth century. But his administration quelled the disorder in part by centralizing power in the president and small oligarchy, restricting civil liberties, limiting suffrage, and notoriously censoring the press and the theater.[5]

Within this oppressive political climate, how to understand the Portales administration's unmistakable support for a scientific survey meant to "lift the veil" on new understandings and inspire "sublime ideas" in Chile's youth? Regional developments implied that the regime had

real reason to mistrust a scientific project. In other former Spanish colonies, there appeared to be a correlation between the institutionalization of science and the triumph of liberal regimes in the mid-nineteenth century—suggesting that scientific study might benefit Portales's political enemies. Indeed, several regional scientists were active in nation-building, having participated in recent independence movements and working to incorporate modern European thinking into new legislation.[6] By contrast, the Portales administration was bent upon maintaining the local power structure that dominated the colonial era; certainly, soliciting and broadcasting outside ideas warranted extra care. But the threat was vague. For Portales and his supporters, Gay and his project offered more advantages than existential threats. The composition and character of this incipient authoritarian government disposed it to regard Gay's scientific survey not as fodder for political dissidents but rather a potential source for international prestige and, more importantly, the means with which to more tightly manage the Chilean people and territory.

In 1830, Chileans in Santiago understood very little about the far-flung regions of the new nation. The state desired more information, to make the landscape, in the words of James Scott, "legible": to eventually manipulate people and territory by defining, mapping and describing the country in ways that made sense to government administrators. Scott focuses upon the character of knowledge-generating projects of twentieth-century autocratic regimes; the pre-modern state, by contrast, had far less to work with, being "in many crucial respects, partially blind; it knew precious little about its subjects, their wealth, their landholdings and yields, their location, their very identity."[7] Certainly, the Portales administration could never achieve control equivalent to that wielded a century later within Russia, China, or Brazil. Nonetheless, the authoritarian Chilean government followed a comparable impulse, seeking to eliminate blind spots in the effort to closely manage Chile and Chileans. In September of 1830, Gay signed the

government contract, committing to "the object of researching the natural history of Chile, its geography, geology, statistics and all that contributes to understanding the natural products of the country, its industry, commerce and administration."[8] In the language of Scott, Gay would render Chile legible to the Portales government.

Prior to Gay's arrival, the government made earlier efforts to build up knowledge about Chile. In the chaotic 1820s—a period characterized by rapid power shifts and the struggle over competing visions for the new nation—Chilean leadership took steps to sponsor a comprehensive study of its territory. According to one historian, "adventurers" offered their services, but none proved ideal; certainly, no one seemed capable of rendering a Humboldtian-grade account of the nation, both in terms of quantity and quality. Particularly frustrating was the absence of good cartographers able to accurately render roads, settlements and geologic features, and to spatially and textually depict the nation's capacity for agricultural and mineral production.[9] Against this backdrop, Claudio Gay was the right person, in the right place, at the right time to conduct a survey of Chile. He was the right person: he possessed years of natural history training and mentorship with leading naturalists in Europe, but was young enough—and hungry enough—to willingly take various kinds of work that would advance his career. He was in the right place: Gay arrived in Santiago two years before and had handled local nature, applied his trained eye to the landscape, and initiated a collection of Chilean plants, rocks, and other specimens. And perhaps most importantly, the young naturalist's timing seemed spot-on. He submitted his survey proposal just as the Portales government was finding its footing; indeed, *El Araucano*, the government's official mouthpiece, was barely a few months old when it announced his project. The past two years would have been enough time for an enterprising scholar to assess the political scene and judge how to best appeal to a young autocratic government that was

beginning to flex its muscles. While Claudio Gay's extensive contract with the Chilean government represented a pretty piece of luck for a young professional, it also denoted some strategic vision on the part of the Frenchman.[10]

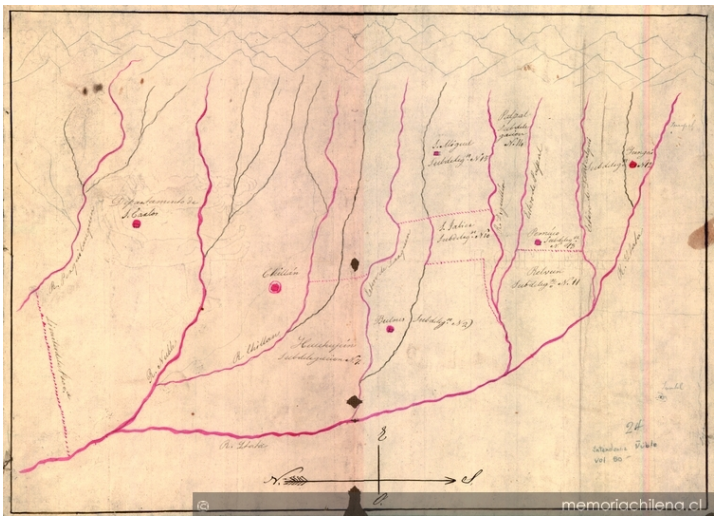

Fig. 1. Author unknown. *Zona Entre Los Ríos Perquilauquén e Itata, Con Límites de Subdelagaciones, 1835*. Map. From Biblioteca Nacional de Chile http://www.Memoriachilena.gob.cl (Accessed 13 May 2019).

Example of careful but amateur map-making created during time of Claudio Gay's scientific study, probably meant to show irrigation network.

Fig. 2. Claudio Gay. Upper half of *Provincia de Concepción.* Map. From *Atlas de la Historia Física y Política de Chile*, *Según Documentos Adqueridos en Esta República Durante Doce Años de Residencia en Ella y Publicada Bajo los Auspicios del Supremo Gobierno* (Paris, 1854), 1:15.

This image reproduces the same region as the Fig. 1 and demonstrates the capabilities of leading cartographic technology in the mid-nineteenth century.

It is worthwhile to elaborate upon how particularly suitable Claudio Gay probably appeared to the Portales regime. His person offered both the prospect of delivering the cachet of European science and the unlikelihood of introducing dangerous ideas about democracy and individual liberties. To start with, he hailed from an elite professional scientific milieu in France. Born on March 18, 1800, into a comfortable, landowning farm family in Provence, a youthful Gay moved to Paris to study medicine and pharmacology. Lectures by professors at Paris's natural history museum rapidly proved more absorbing than his intended studies. For most of his twenties, he toured Parisian natural history circles, establishing important connections with colleagues and conducting research for senior scholars. The skill set of a nineteenth century naturalist was diverse: Gay learned to paint, draw, draft, identify and collect specimens, and operate cutting-edge scientific instruments. He became versed in botany, zoology, geology and geography by working in locations as diverse as the French Alps, Northern Italy, Greece, islands in the Mediterranean Sea, and Turkey. Although he may not have known it at the time, his acquaintance with mountainous and Mediterranean-type landscapes in Europe equipped him with some context with which to study analogous environments in Chile. Furthermore, the exposure to foreign locales could only have enhanced his worldliness and readiness to embrace self-directed fieldwork in a distant setting—like Chile. As his correspondence and later publications would more than demonstrate, Gay arrived in the Americas well-versed in his discipline and tightly connected to his European colleagues. Many Chilean politicians wished to modernize, and associated modernization with scientific study; Gay and his European network represented a direct link to European innovation.[11]

It must have been evident to the Chilean government that Gay arrived eager for work. In 1828 he accepted a science teaching position at the newly established Colegio de Santiago, a secondary school. Although not trained to teach, he likely did not want to forgo an opportunity to live in Chile, a New World nation largely unstudied by European naturalists—in other words, a place where an ambitious young naturalist could make his mark. The Colegio de Santiago, not the first institution of its kind, opened as an alternative school for sons of the *Pelucones*, conservative Chilean elites aligned with the Portales administration. The founders recruited several European specialists, like Gay, to teach there.[12] Whether or not Gay's personal politics aligned with that of the Chilean conservatives is unclear, and may be beside the point; as an outsider, Gay would probably not have possessed a deep personal stake in Chilean matters. Regardless, he must have observed that the *Pelucones* emerged triumphant from their skirmishes with the liberals in the civil war of 1829-1830. Gay had hitched his wagon to the ascendant power in the new nation.[13]

In July of 1830, Gay submitted a pitch to the new national government, proposing to write a natural history of Chile. Apparently, his soft voice and poor Spanish did not disqualify him from this important task. According to one biographer, "his discretion and modesty seemed like the habits of true scientist."[14] Perhaps, Gay sensed, an unchallenging demeanor best appealed to the personality-driven Portales regime. Even if he did hold dangerous opinions, a diffident, awkward scientist-type did not seem like a man who would effectively incite Chileans to resist illiberal authorities. Furthermore, Gay did not need eloquence to demonstrate his fitness for the job: his credentials spoke for themselves. He already possessed more than two thousand Chilean natural history specimens, derived from locations ranging from the Pacific coast to the

Cordillera. As if to reinforce his political harmlessness, Gay voluntarily forfeit this hard-won collection for the duration of his contract—a guarantee that he would fulfill his obligation.[15]

Indeed, Diego Portales appeared to have been impressed by the single-minded scientific bent of Claudio Gay. In the summer of 1832, Portales resided in the port city of Valparaíso, where Gay awaited travel to study the Juan Fernández Archipelago. In a letter to a confidante, Portales observed Gay utilizing his wait time by soliciting seashore specimens from locals. Fish, notoriously, could not be effectively preserved for science. Gay needed to draw and describe them in life, or as close to life as possible. Portales wrote that Gay had already spent more than 150 pesos, "paying by weight for every new specimen presented." His landlord was

> going crazy, because all day there is a flood of boys and men coming to look for Mr. Gay: whenever he goes in the street, the boys run shouting, showing something: "Señor, this is new, never seen; you don't know it" and he [Gay] is happier with his new acquisitions than you could be with $100 and the platonic love of all of the señoritas in Santiago.[16]

This passage, often repeated in the biographical literature surrounding Gay, can be interpreted in multiple directions. For the purposes of illuminating the position of the government—which, in 1832, was effectively synonymous with the personal position of Portales—the commentary suggests two things: first, that Gay, either consciously or unconsciously, cultivated the reputation of a fervent naturalist, which probably helped satisfy Portales to his suitability to survey the nation; second, Gay's curious passion seemed to exclude him from common temptations—that is, the man was immune from contentious politics.

That is not to say that Gay stayed firmly neutral. At times, he voiced support for the status quo. In one example, he promoted the oligarchic social structure. Chile was long-dominated by a small number of hacienda-owning families, and tenant workers increasingly garnered attention as an exploited class. However, Gay observed nothing "contrary to justice" in

the rural arrangement in which the "inquilinos" paid their rent in labor. Charles Darwin, who visited Chile in some of the years that Gay was there, commented on the injustice of the tenant farming system. However, Gay insisted that many families in France "would subscribe with pleasure" to a comparable arrangement.

Fig. 4. Claudio Gay. *Carretero y Capataz.* Image. From *Atlas de la Historia Física y Política de Chile*, *Según Documentos Adquiridos en Esta República Durante Doce Años de Residencia en Ella y Publicada Bajo los Auspicios del Supremo Gobierno* (Paris, 1854), 1:15.

This image conveys Claudio Gay's representation of an *Inquilino* (left) discoursing with a hacienda foreman. *Inquilinos* raised crops on hacienda property, often on marginal pieces of land, and developed relationships of indebtedness with the landowner.

Although Portales generally approved of the style of Gay's work, he may have chafed at the pace of work. Gay exceeded by far the four-year term of his contract: the research, composition and publication of his material on Chile developed into his magnum opus and

consumed three decades, the final volume published in 1871. But arguably, the wait was worth it: in breadth and scope, Gay's work eclipsed the collective production of his predecessors working on Chile. He generated eight volumes of human history, eight volumes of botany, and eight volumes of zoology. Additionally, he published two volumes on Chilean agriculture, two more containing documents about history, geography, and national statistics, and a final two containing image, including maps, paintings of Chilean landscapes and cultural events, and drawings and paintings of botanical and zoological specimens. While it was common for nineteenth century Latin American nations to seek scientific ventures, the "independence generation" often struggled to actualize their projects. In Chile, Gay helped buck this trend and bring credit to Portales's reputation as a nation-builder.[17]

Murdered in 1837, Portales never lived to see the fruits of the scientific project. Nor does the legacy of Claudio Gay plainly tie him to the Portales administration. Contemporary remembrances cast him as the first in a distinguished line of naturalists who studied Chile during its postcolonial period: he founded the National Museum of Natural History, contributed to nineteenth century Chilean historiography, and generated a robust body of descriptions and illustrations of the nation's flora, fauna, landscape, and people. Claudio Gay commands a kind of celebrity status among a self-selected group of naturalists, historians, and museum-goers; Chileans today might visit the dissicated hills of the *Cordillera Claudio Gay* in the Atacama Region, peruse the botanical journal *Gayana Botanica*, or observe his bust in the natural history museum. No one typically associates his work with the fortunes of one of the most prominent autocratic regimes in Chilean history.

Meanwhile, Diego Portales casts a long shadow across succeeding generations of Chileans. In 1982, under the neoliberal order of the Pinochet dictatorship, a private university

was founded, assuming the name of Diego Portales University. The nomenclature fit: in efforts to legitimate power in a new era of violence and tumult, the Pinochet dictatorship (1973-1990) publicly likened itself to the Portales administration. Twentieth-century school children had been conditioned to admire the "heroic nineteenth-century republic" of Diego Portales—a Chile that upheld order, authority, and institution-building. Recent Chilean politics, therefore, have perpetuated and shaped the memory of Portales by linking him to the most controversial—and for many, personally traumatic—period in national history. A connection between Chilean authoritarianism and the seemingly gentle history of nature study sounds counter-intuitive. Nonetheless, the architects of Portales's "heroic" nineteenth century authoritarianism regarded Claudio Gay's science as a contributive piece of their strategy.[18]

[1] *El Araucano*, No. 3, October 2, 1830, 4.
[2] *El Araucano*, 4.
[3] Juan José Saldaña, Introduction, in *Science in Latin America: A History*, edited by Juan José Saldaña and Bernabé Madrigal, trans. Bernabé Madrigal (Austin: University of Texas Press, 2006), 3; Katie Whitaker, "The Culture of Curiosity," *Cultures of Natural History*, edited by N. Jardine, J.A. Secord and E.C. Spary (Cambridge: Cambridge University Press, 1996), 75; Andrew Wulf, *The Invention of Nature: Alexander von Humboldt's New World* (New York: Vintage Books, 2016), 199; Dawn Ades, *Art in Latin America: The Modern Era, 1820-1980* (New Haven and London: Yale University Press, 1989), 66-68.
[4] Letter of July 16, 1832, to Joaquín Tocornal, *Epistolario de don Diego Portales,* edited by Ernesto de la Cruz and Guillermos Feliú Cruz. Vol. 2 (Santiago, 1937), 228; Simon Collier and William F. Sater, *A History of Chile, 1808-2002*, 2nd ed. (Cambridge: Cambridge University Press, 2004), 54.
[5] Collier and Sater, *A History of Chile,* 103; Arnold J. Bauer, *Chilean Rural Society from the Spanish Conquest to 1830* (Cambridge: Cambridge University Press, 1975), 45.
[6] Juan José Saldaña, "Science and Freedom: Science and Technology as a Policy of the New American States," in Saldaña and Madrigal, eds., *Science in Latin America,*153-154.
[7] James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University, 1998), 2.
[8] The text of the contract is quoted in Carlos Stuardo Ortiz, *Vida de Claudio Gay: Escritos y Documentos*, Vol. 2 (Santiago de Chile, 1973), 91-93.
[9] Villalobos, "Claudio Gay y la Renovación de la Agricultura Chilena," 10; Diego Barros Arana, *Don Claudio Gay, Su Vida i Sus Obras, Estudio Biográfico i Crítico* (Santiago de Chile: La Universidad de Chile, 1876), 2.
[10] Barros Arana, 22-34; Patience A. Schell, *The Sociable Sciences: Darwin and His Contemporaries in Chile* (London: Palgrave MacMillan, 2013), 40-41.
[11] Schell, 34-40; Villalobos, "Gay y su Obra," *Imagen de Chile Historico*, 9-10; Jorge Larrain, "Chilean Identity and the Bicentennial," *Estudios Públicos*, 120 (2010): 20.
[12] Villalobos, "Gay y su Obra," 10.
[13] Collier and Sater, *A History of Chile,* 49-50.
[14] Villalobos, "Gay y su Obra," 10.
[15] Claudio Gay to Adolphe Brongniart, December 9, 1829, in *Correspondencia de Claudio Gay*, edited by Guillermo Feliú Cruz and Carlos Stuardo Ortiz, trans. Luis Villablanca (Santiago: Ediciones de la Biblioteca Nacional, 1962), 1-2.
[16] Diego Portales to Antonio Garfias, January 19, 1832, quoted in Guillermo Feliú Cruz and Carlos Stuardo Ortiz, Introduction, *Correspondencia de Claudio Gay*, x-xi.
[17] Barros Arana, 139-184; "Claudio Gay, 1800-1873," Memoriachilena, Biblioteca Nacional de Chile, retrieved 15 May 2019, http://www.memoriachilena.gob.cl/602/w3-article-571.html#cronologia; José Saldaña, Introduction, *Science in Latin America,* 3.
[18] Steve J. Stern, *Battling for Hearts and Minds: Memory Struggles in Pinochet's Chile, 1973-1988* (Durham and London: Duke University Press, 2006), 68-69.