

ABSTRACT

Title of Thesis: Reforming a Purgatory:
 A Study of Two Bourbon Governors in Huancavelica

Jacqueline Cope, Bachelor of Arts, 2020

Thesis directed by: Dr. Kenneth Mills

Following the War of Spanish Succession (1701-1714), administrative reform in the Indies began in earnest with the dynastic shift from Habsburg to Bourbon on the Spanish throne. Huancavelica, the only relevant source of mercury in the Spanish Americas, was vital to the imperial economy. This thesis measures the economic productivity, working conditions, and administrative authority of two famous Bourbon governors, Jerónimo de Sola y Fuente and Antonio de Ulloa, in the endeavor to evaluate substantive reforms in a period of massive transformation throughout the empire. Reliant on primary documents from both governors, in addition to secondary sources, this thesis argues that the governors confronted similar challenges in reforming a colonial mining town that never surpassed 10,000 citizens. These difficulties included supplying sufficient credit to miners, the colonial understanding of the social and economic role of indigenous laborers, and combating entrenched bureaucratic systems that incentivized corruption and embezzlement. These findings argue for further research into how individual actors engaged in reforms of imperial systems.

Reforming a Purgatory:
A Study of Two Bourbon Governors in Huancavelica

By
Jacqueline Patricia Cope

Thesis submitted to the Faculty of the College of Literature, Science, and the Arts
at the University of Michigan in partial fulfillment
for the requirements for the degree
of Bachelor of Arts
Latin American and Caribbean Studies with Honors
2020

Thesis Committee:

Doctor Kenneth Mills
Doctor Anthony Marcum

Acknowledgements

I would be remiss if I did not thank everyone in my life who, for the last year and a half, have listened patiently to me speak endlessly about this project. To my mother and father, thank you for continuously telling me how smart, strong, and capable I am; without your encouraging speeches, which I made you repeat often, I would not have made it through a single chapter. To my siblings, thank you for listening and commiserating with me about our shared Michigan experience. Go blue! To my grandmother, who taught English literature for decades, I love you and am so proud to be your granddaughter. Thank you for instilling a love of reading in me. To Laurie, thank you, for all you have done for me; Thursdays hold a special place in my heart. To my friends, thank you for laughing at every thesis related joke I made. I know they were a lot of them, some that were not very funny, and most that I repeated too often. To my peers in the honors cohort, thank you for your patience as I thought aloud in class, and for your continuous feedback. I am continuously impressed by your intelligence and ambition. To my professors and graduate student instructors, especially Prof. Northrop, Prof. Goldin, Prof. Mackman, Prof Stanzler, Prof. Fahy, and Hayley Bowman, who taught classes on history, literature, and education, thank you for shaping my academic career. I remember your mentorship and am grateful. Lastly, thank you to my advisors, Dr. Anthony Marcum and Dr. Kenneth Mills. Your time and expertise were so valuable to me. Thank you for never doubting the project I undertook, even when I did. To those I did not list, thank you still. To whoever reads this thesis, I hope you find some new knowledge and joy in reading about the past. It is not distant. The more I study and the more I read, the more convinced I am that history is ongoing, impactful, and a compilation of individual stories. As scholars, we are charged with arranging the narratives to find those strings of meaning, tangled underneath the surface. *Merció la pena.*

Table of Contents

Abstract	i
Title Page	ii
Acknowledgements	iii
Table of Contents	iv
Lists of Figures	vi
Discussion of Translations	vii
Glossary of Terms	vii
Chapter 1: The Empire's Administrators	9
Introduction	9
Research Question	11
In the Literature: Huancavelica	12
A Short Account of Sola's Life	12
A Short Account of Ulloa's Life	14
In the Literature: <i>Noticias</i> , Huancavelica, Louisiana	16
Antonio de Ulloa's Reputability and the <i>Noticias Secretas</i>	17
Antonio de Ulloa in Huancavelica: Efficacy and Frustration	21
Antonio de Ulloa in Louisiana: Political Ineptitude	24
Methods and Scope	25
Chapter 2: Mercury Production and Economic Management of the Mine	28
Introduction	28
Successes and Failures: Paradigms of Jerónimo de Sola and Antonio de Ulloa	29
Brief History of the Huancavelica Mercury Mine and its Economic Significance	30
The Amalgamation Method: Silver and Mercury	31
Economic Crisis of the Early Eighteenth Century, and Prefacing Reform	32
Early Reforms and the Marquis de Casa Concha (1723-26)	38
Heir to Casa Concha: Jerónimo de Sola	40
A New Contract: <i>Asiento</i> under Sola	40
Mercury Production under Sola	41
Mercury Production under Ulloa	42
Ulloa's Aid and Contempt to the <i>Gremio</i>	43
The <i>Minería del Rey</i> Experiment	44
Drawing Meaning: Economic Success, Administrative Limitations	45
Chapter 3: Labor and Working Conditions in Huancavelica	47
Introduction	47
Mit'a: Turn for the Worst	47
Royal and Clerical Debates Surrounding the Mita	50
Mercury Poisoning and Workers' Health	53
Other Hazards of the Mine	55
The Mita and Labor Conditions under Sola	56
Convict Labor as an Alternative	59
The Mita and Labor Conditions under Ulloa	60
Drawing Meaning: the Mita and Health in Huancavelica	64
Chapter 4: Lima, The <i>Gremio</i> , and the Governors	66

Introduction	66
A Guide to Colonial Administration	67
Origins of the Gremio	68
Corruption, Creoles and Peninsulares	68
Jerónimo de Sola's Relationship with the Veedores and Gremio	70
Antonio de Ulloa's Relationship with the Veedores, the Gremio, and the Viceroy	73
Drawing Meaning: Administrative Restraints and Frustration	79
Chapter 5: Measuring Reform in Two Governors	82
What comes next?	82
Some Symbolism: The Sea and The Spanish-American War	84
Implication of Findings	86
Summary of Findings	87
Discussion of Evidence	88
Future Points of Interest	88
Final Remarks	89
Bibliography	91

List of Figures

Fig. 1 Timeline of Kings, Viceroys of Peru, and Governors in Huancavelica	28
Fig. 2 Mercury production in Huancavelica 1675-1720	34
Fig. 3 <i>Pesos de ocho</i> remitted from the <i>Caja</i> (treasury) in Lima 1675-1720	36
Fig. 4: First Map of the Santa Bárbara Mine by Antonio de Ulloa 1758	49
Fig. 5 Statue of Antonio de Ulloa in Madrid 1899	83

Discussion of Translations

All translations of the *Relaciones* are my own, and the original Spanish is always included in the footnotes for verification. I endeavor to keep the semantic structure as similar as possible, as well as the tone; as I am not a native Spanish speaker, the original text is present for the reader's use.

Glossary of Terms

Alquila — free wage worker

Altiplano— high plain or the Andean Plateau

Asiento— contract

Audiencia— administrative court system, with one lead viceroy, overseen by the Council of the Indies

Aviadores—merchants

Azogue— quicksilver or mercury

Caja real— royal treasury

Estribos— pillar of support, which contain rich ores but are structurally vital

Entero en plata— cash payment to commute a mitayo's service

Gremio— the miner's guild

Ichu— native grass that helps fuel the smelting process

Invernada— January to April, the season during which miners cannot process ore, because the *ichu* is too damp

La Leyenda Negra— The Black Legend or historical tradition of unique Spanish cruelty in the Americas

Magistral— A mixture of copper and iron and essential material in the amalgamation process

Minga— free wage laborer, also called *alquila*

Mita— compulsory indigenous labor system, nominally rotational and once every seven years

Mitayo— name for the mita workers

Oidor— a judge of the Royal Audiencias

Peso de ocho— pesos of eight, Spanish silver coin, often debased and poorly minted, equivalent to eight reales

Quintal— unit of measurement, 46 kg or roughly 100 lbs.

Quinto Real— Royal fifth, the Crown's tax levied on all precious metals

Real Caja: Any branch of the royal Treasury, for example in Lima.

Real Cédula— royal order or decree

Reales— smaller denomination of Spanish currency (pesos de ocho are equivalent to eight *reales*)

Socavón— In a mine, an adit for drainage or a horizontal tunnel for access

Umpé— Carbon monoxide that is trapped inside a mine.

Veedores— inspector of the mine. Two existed underneath Sola and Ulloa

War of Spanish Succession — 1701-1714, as a result of the childless Spanish king Carlos II's will declaring French King Louis XIV's grandson Philip, duc d'Anjou, his grandnephew, would inherit the Spanish throne

The horrible tempest of persecutions turned my life into a purgatory of continuous disappointments.¹

Chapter One: The Empire's Administrators

Introduction

Unruly and overstretched, the Spanish Empire was perhaps never truly consolidated, let alone controlled.² Yet, Spanish Latin America was, and is, infamous. Both colonial riches and cruelty rank still as a uniquely Spanish legacy, captivating readers on a global scale. Modern scholars have turned away from easy frameworks of conquest, colonialism, and revolution in studies of the Spanish Americas. Yet, grandiose topics such as these have a place in the macrohistory of colonial Latin America. Extraordinary themes are not necessarily the natural enemies of academic research, but rather uniquely human interests that allow readers to understand the past as equally captivating as modernity. Simultaneously, “microhistory”, which focuses intently on individual actors or events, is also useful, to understand how individuals navigated their unique, and, at times, dramatic circumstances. Microhistory, reaching its apex in the postmodern wave of the 1970s and 1980s, insists on the interconnectedness of events and actors, and is distinguished by “its professed ignorance” and “half-baffled engagement with story

¹ "La horrible tempestad de persecuciones constituyéndose mi vida en un purgatorio de continuos desabrimientos." Ulloa called Huancavelica a purgatory in letters sent both to Julián Arriaga, minister of the Indies, and King Carlos III. citing letters from Ulloa to Julián Arriaga, and to the King, Gobierno, Lima, leg. 777 AGI Alfonso W. Quiroz, *Corrupt Circles : A History of Unbound Graft in Peru*. Book. (Washington, D.C.: Woodrow Wilson Center Press , 2008), 43.

Arthur P Whitaker, "Antonio De Ulloa." *The Hispanic American Historical Review* 15, no. 2 (1935): 155-94. Accessed January 20, 2020. doi:10.2307/2506293, 21.

²Arthur Whitaker refers to Spain as “a third rate sea-power” by the eighteenth century. D.A. Brading likewise asserts that Frederick the Great of Prussia asserted Spain was a “European power of the second rank.” (397). Regardless, of exact position Spain was not first.

Arthur P Whitaker, "Antonio De Ulloa." *The Hispanic American Historical Review* 15, no. 2 (1935): 155-94. Accessed January 20, 2020. doi:10.2307/2506293, 21.

D.A. Brading, “Bourbon Spain and Its American Empire.” Chapter. In *The Cambridge History of Latin America*, edited by Leslie Bethell, 1:389-440. The Cambridge History of Latin America. Cambridge: Cambridge University Press, 1984, 397.

as device and historical fact.”³ Far from professing authority as social scientists measuring empirical truths, microhistorians raise narrative, human agency, and inherent doubt as the foundation of research, considerations equally rigorous to those who practice⁴ history through analyzing regressions, DNA material or data mining.

In an attempt to better understand Spanish colonial administration in one crucial corner of Spain’s overseas empire, Peru, and how it operated, a comparative study in the tradition of microhistory is appropriate. Within the spectrum of governance, measuring individuals offers greater specificity, and an opportunity for greater depth. A comparative study identifies commonalities and larger themes, and some insight in understanding other historians’ evaluation relative to individuals’ actions within their larger historical context. In analyzing individual actors, many substantive goals can be addressed to understand the specific circumstances, and relating that context to reoccurring themes in the historiography.

Measuring efficacy and reform in Spanish colonial administration is a difficult task. However, comparing the administrations of two reformists in one of the most important regions of Spanish Latin America, provides insight in imperial attempts to restructure colonial rule. After the death of the last Habsburg Spanish king in 1700, the Crown undertook a series of policy shifts aimed at centralizing and reorganizing the Americas. The Bourbon Reforms, as they came to be known, were an attempt at Enlightened absolutism, in reconquering the strained and far off Spanish territory across the Atlantic. If efficacy and reform are slippery and contentious terms, perhaps looking at a period of massive administrative transformation, and the transforming actors, offers as close to an answer as one can get to an impossible question: How did Spanish

³Thomas V Cohen, “The Macrohistory of Microhistory.” Abstract. *Journal of Medieval and Early Modern Studies* 47, no. 1 (January 1, 2017): 53–73. <https://doi.org/10.1215/10829636-3716578>.

⁴Here I deliberately write “practice” to denote the active engagement of doubt, characteristic of microhistory.

rule function, and malfunction? Looking to a small town of perhaps 5,000 people⁵ is a surprising place for an answer.

Huancavelica, the only prominent mercury mine in Spanish Americas, is an excellent place to start. Two of Huancavelica's most prominent governors, albeit one considerably more famous, show the major efforts undertaken to transform colonial administration after the dynastic shift from Habsburg to Bourbon, at the close of the War of Spanish Succession. One governor, Jerónimo de Sola y Fuente, remains understudied, yet consistently labeled a successful administrator. The other, Antonio de Ulloa, is the most famous figure in all of Huancavelica, and notoriously condemned as a failure. Ultimately, the two administrations are more similar than not. The tenures of Jerónimo de Sola and Antonio de Ulloa show the importance of available credit, labor, and diplomacy, in attempting Enlightened reform of a mining town with deep-seeded interests, situated some 6,000 miles away from Madrid.

Research Question

Thus I arrive at my research question: In comparing the two “reforming” governorships of Jerónimo de Sola and Antonio de Ulloa, how did colonial administration at Huancavelica function? To structure this thesis, I analyze economic administration, the labor system and working conditions, and political relationships, under both governors. I reach a conclusion that both governors had similar needs and obstacles in their efforts towards effective administration: resources and legitimate authority from Spain, complicated relationships to indigenous population and the reality of acceptable social and working conditions in the eighteenth century, and delicate political ties both to Lima and the local mercury guild. While Antonio de Ulloa might be more famously a “failure”, both governors had much in common, and faced similar

⁵Adrian J. Pearce, “Huancavelica 1563–1824: History and Historiography.” *Colonial Latin American Review* 22, no. 3 (December 1, 2013): 422–40. <https://doi.org/10.1080/10609164.2013.808467>.

difficulties— an overstretched empire tasked with zealous goals of reform. To condemn one a failure and the other a success is ultimately a matter of perspective.

To structure this chapter, I offer brief biographies of both governors as well as a summary of relevant historical research. Because of the more numerous studies on Antonio de Ulloa, I divide his literature review into three sections, based on the different notable periods of his life. I end with a note on the methods and scope of my study.

In the Literature: Huancavelica

In Huancavelican studies, Guillermo Lohmann Villena is the defining, exhaustive source of the Habsburg administration from the sixteenth and seventeenth century. Arthur Whitaker, for most of the twentieth century, would be the parallel authority on the Bourbon dynasty, beginning with Philip V's ascension in 1700, which sparked the War of Spanish Succession (1701-1714). Kendall Brown is also notable for his contemporary contributions to the previously overlooked Bourbon era in Huancavelica. For many years, Huancavelica was poorly researched in comparison to the much more popular Potosí, the famous silver mine in modern-day Bolivia, until a recent boom in studies, starting in the last few decades.

A Short Account of Sola's Life

Little research has been done on Jerónimo de Sola y Fuente. I could find nothing in the literature detailing Sola's life outside Huancavelica, other than a brief entry on the website for the *Real Academia de la Historia*, a Spanish institution created by a *Real Cédula* by Philip V of Spain in 18 April 1738⁶, written by Javier Barrientos, which appears to be an encyclopedia entry. Arthur Whitaker, Kendall Brown, Adrian Pearce, and Isabel María Povea Moreno all mention

⁶Javier Barrientos Grandon wrote the entry, but I found no other works focused on Jerónimo de Sola outside of Huancavelica.

Javier Barrientos Grandon, "Jerónimo de Sola y Fuente | Real Academia de La Historia." Accessed April 3, 2020. <http://dbe.rah.es/biografias/75214/jeronimo-de-sola-y-fuente>.

Sola's life outside of Huancavelica only in passing, mostly noting his appointment on the *Consejo de los Indias*⁷, the premier legislative and advisory body in the Spanish Americas. However, historians do know some circumstances surrounding his appointment as governor to Huancavelica. In 1734, Jose Cornejo y Ibarra, a former governor of the Spanish mercury mine, Almadén, visited Huancavelica. He wrote a report, with a variety of transformative policy recommendations, including eliminating the mining guild in favor of direct exploitation of the mine by the Crown, and making the governorship of Huancavelica entirely independent from the viceregal administration in Lima. Jerónimo de Sola also toured the mines of Almadén prior to his appointment, and was the governor immediately following Cornejo y Ibarra's report. Likely, the Crown charged Sola with implementing these new recommendations, and reforming Huancavelica's mercury to be more similar to Almadén. Sola would probably be best characterized as Spanish elite, who worked closely to official Royal bodies his whole life. He appeared to have no prior connections to Huancavelica, or the Viceroyalty of Lima more generally, prior to his appointment as governor.

Adrian Pearce is Sola's preeminent scholar. Pearce is notable both for his research in the book *The Origins of Bourbon Reform in Spanish South America, 1700-1763*, as well as his article "Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru." Pearce notes that Sola had a unique amount of power, compared to other governors of Huancavelica, due to a shift in Spanish policy during the early Bourbon period. Pearce also makes a strong case for the importance of credit, as well as Sola's ability to acquiesce to other actors in Huancavelica, as the source of his successful tenure. Prior to Pearce, Arthur Whitaker was one of the few scholars writing about Sola. Whitaker might be the first

⁷ Isabel M Povea Moreno, *Retrato de una decadencia. Régimen laboral y sistema de explotación en Huancavelica, 1784-1814*. Diss (Granada: University of Granada, 2012), 30.

scholar to refer to Sola as “El Restaurador de La Mina”⁸, or the restorer of the mine, an anecdote that other historians habitually include in any work mentioning Sola. Kendall Brown in his essay for *Saberes Andinos*⁹ focuses on Sola’s technological innovations. Brown cites Sola's writings as well in the context of his working conditions, as evidence of the improving health outcomes compared to the more deadly conditions of the sixteenth and seventeenth century, when Huancavelica was a “public slaughterhouse.”¹⁰ In summation, Sola is universally characterized as a successful governor, technological innovator, and adept administrator; many sources focus on the same specific attributes: Sola’s claim of discovering a famously long lost vein of mercury, adding a new technique of blasting to the mine, and his tenure marking the first of more administrative power vested in Huancavelican governors. Jerónimo de Sola is thus described as a resounding success.

A Short Account of Ulloa’s Life

Antonio de Ulloa, in contrast, is somewhat of a superstar in the historiography. Half a dozen articles have been written solely about his time in Huancavelica, in addition to a full book on the subject.¹¹ Yet, historians focus even more attention on other periods of his life, perhaps with some reason. Ulloa lived a sensational life. In 1737, he fought with the president of the *audiencia* in Quito, Joseph de Araujo y Río, because Ulloa was referred to as *usted* instead of the

⁸In Whitaker’s work, other contemporaneous miners apparently called Sola “El Restaurador de la Mina”, although it remains unclear which miners.

⁹Marcos Cueto, “Saberes Andinos : Ciencia y Tecnología En Bolivia, Ecuador y Perú.” Book. Lima : Instituto de Estudios Peruanos, 1995.

¹⁰Kendall W. Brown, *A History of Mining in Latin America : From the Colonial Era to the Present*. Diálogos Series. Albuquerque: University of New Mexico Press, 173.

¹¹Miguel Molina Martínez, *Antonio de Ulloa En Huancavelica*. (Granada: Universidad de Granada, 1995).
Adrian J. Pearce, “Huancavelica 1563–1824: History and Historiography.” *Colonial Latin American Review* 22, no. 3 (December 1, 2013): 422–40. <https://doi.org/10.1080/10609164.2013.808467>.

more honorific title *usía*; Ulloa was once captured by English pirates, and during his imprisonment was named a fellow of the Royal Society; as the first Spanish governor in Louisiana, he and his pregnant wife jumped on a boat to escape an uprising of angry French colonists; and he may have discovered platinum. It is no wonder historians are fascinated by his bizarre and adventurous life.

Born in Seville in 1716, Antonio de Ulloa y de la Torre-Giral was a famous scientist, naval officer, and author. His father was Bernardo de Ulloa, an esteemed economist, and in 1733 his son enrolled in the elite Naval Academy in Cadiz. In a 1735 mission sanctioned by Louis XV of France, Ulloa sailed to South America to measure the meridian arc, to settle ongoing scientific debate regarding the shape of the Earth.¹² Along with fellow Spanish naval officer, Jorge Juan y Santacilia, the French astronomers Charles Marie de la Condamine, Pierre Bouger, Louis Godin, the botanist Joseph de Jussieu, and Louis's relative, Jean Godin, he was a member of the first international scientific expedition. Ulloa was 19 years old at the time. His subsequent reports, the five volume published *Relación histórica del viaje á la América Meridional* describing a social and environmental survey of South America, and the secret report *Noticias Secretas* (originally titled *Discurso y Reflexiones Políticos sobre el Estado presente de los Reynos del Perú*) on Spanish colonial abuses in Peru, were widely read. In 1744, he set sail on the aptly titled *Notre Dame de Bonne Déliverance* for Spain, when the fleet of ships was attacked by English privateers. *Bonne Déliverance* escaped to the normally friendly Acadia,¹³ in modern day Nova Scotia, whose French flags were still flying. Unbeknownst to Ulloa, Acadia was already

¹² For a detailed account of the journey, see Ferreiro, Larrie D Ferreiro, *Measure of the Earth: The Enlightenment Expedition That Reshaped Our World*. (New York: Basic Books, 2011).

¹³ During this time, France was allied with Spain, hence the international expedition, after the War of Spanish Succession

occupied by the Brits. He was imprisoned, but “generously treated”¹⁴, shipped swiftly to London, where he became a fellow of the Royal Society. Ulloa even had his notes on the expedition were returned to him. In July 1746, eleven years since he set out for South America, he returned safely to Spain.

In 1752, Ulloa was sent to France, the Netherlands, Denmark and Sweden to strengthen Spanish economic ties and military defenses. Then, in 1757, he was appointed governor of Huancavelica, on the recommendation of both Jorge Juan and Julián de Arriaga, minister of the *Consejo de Indias*. Ulloa sailed in 1758 for Peru. In 1764, at Ulloa’s own request, he was requited. Nearly immediately after his governorship in Huancavelica, in 1765, he was appointed to be the first Spanish governor of Louisiana, then *La Florida Occidental*. After the Seven Years War, France ceded all territory west of the Mississippi River to Spain. Only a few years into his post, Ulloa was ousted by a Creole uprising of French colonists in the Louisiana Rebellion of 1768. Ulloa returned to Spain, and became lieutenant general of the naval forces. He died in 1795 in Cádiz.

In the Literature: Noticias, Huancavelica, Louisiana

In the historiography of Antonio de Ulloa, scholars fix much of their attention squarely on the *Noticias Secretas* as a primary document of Spanish colonial abuses. In contrast, Ulloa’s governorship in Huancavelica, despite its economic importance as the only significant source of mercury in Spanish America, has not received as much interest. By historians, Ulloa is simultaneously exalted as an Enlightened intellectual, and condemned as hopelessly ineffective. A cult of personality surrounds Antonio de Ulloa, in which he appears as a hero struggling against a current of corruption, or, in contrast, a stubborn, politically incompetent idealist. In the

¹⁴Arthur P. Whitaker, "Antonio De Ulloa." *The Hispanic American Historical Review* 15, no. 2 (1935): 155-94. Accessed January 20, 2020. doi:10.2307/2506293.

literature, there is a need for a contextualizing force that focuses squarely on Huancavelica and Ulloa's tenure levelled against other governorships. As so much has been written on Ulloa, I have divided the relevant research into three relevant periods: the debate surrounding *Noticias Secretas*, his governorship in Huancavelica, and his governorship in Louisiana. While this paper will analyze only his post in Huancavelica, the literature surrounding his reputability and administrative ability nevertheless are relevant analyses, in order to understand how scholarship about Huancavelica under Ulloa has been shaped in relation to scholarship on Ulloa more generally. On the whole, Ulloa has been characterized as an Enlightened David, continuously fighting a Corrupt Goliath. Unlike David, however, Ulloa supposedly lost.

Antonio de Ulloa's Reputability and the Noticias Secretas

In 1749, Antonio de Ulloa's secret report following the Geodesic Mission, later dubbed *Noticias secretas de América*, was a harrowing condemnation of abuses and corruption by Spanish authorities. The *Noticias* was a confidential report written for King Ferdinand VI and his advisers, urging for reforms. In 1826, David Berry published the *Noticias* in London, making public a previously confidential report on Spanish excesses and abuses.

Noticias Secretas sparked a historiographical debate about Ulloa and his reputability, one that lasted well into the twentieth century, and intertwined with the overarching debates surrounding the *La Leyenda Negra* (the Black legend). *La Leyenda Negra* was the pervasive idea of Spanish cruelty, bigotry and backwardness in its administration of the New World, especially regarding the exploitation and subjugation of indigenous people. The *Noticias* in its condemnation of Spanish administration is thus firmly situated in a debate surrounding the legacy of Spanish colonialism— was Spanish rule uniquely evil or was this representation weaponized by other European powers to distract from their own abusive regimes?

Lesley Byrd Simpson famously dismissed *Noticias Secretas* as being “written by two boys at a time when it was fashionable to write snappy stuff about Spanish blundering in America.”¹⁵ *Noticias* was an *entrevista* in this depiction, entertainment for cosmopolitan Europeans titillated by the trope of Spanish villainy. Father Luis Merino, an Augustine priest and scholar, likewise ascertained that Ulloa was primarily a secondhand witness to any abuses, and thus the *Noticias* was an unreliable source of information. Merino based his argument on the locations of Ulloa’s field work, found in his *Relación histórica del viaje á la América Meridional*. Merino concluded, based on the various time-consuming conflicts Ulloa was involved in, and the amount of terrain he realistically covered while on his expedition¹⁶, that *Noticias* used mostly second-hand evidence. However, learning information through others’ accounts does not necessarily make a source unreliable. Rafael Altamira also doubted the *Noticias*’s honesty. Altamira instead propagated what came to be called the White Legend, a direct counter to *La Leyenda Negra*, in which Spain was an evangelizing and benevolent presence in the New World. Altamira’s work, in his view, rectified the supposedly romantic illusion of absolute equality among races, and referred to colonialism as social tutelage from a superior culture to an inferior.¹⁷ Historians in Altamira’s tradition would justify the *mita*, the compulsory labor forced on indigenous peoples, as a benevolent and healthy tradition.¹⁸ Scholars such as these have clear racial and nativist bias, and their work is dated, emblematic of a nineteenth-century vision of some sense of revived Spanish patriotism. Yet, critics of Antonio de Ulloa continued past the White Legend era. Luis Merino wrote in the middle of the twentieth

¹⁵ Lesley Byrd Simpson. 1993. “Review of *Indian labor in the Spanish colonies* by Ruth Kern Barber.” *Hispanic American Historical Review* 13 (1933); 363.

¹⁶ Luis Merino, L. (1956). “The Relation between the *Noticias Secretas* and the *Viaje a la America Meridional*.” *The Americas*, 13(2), 111–125. <https://doi.org/10.2307/979634>

¹⁷Rafael Altamira, *Psicología del pueblo español*. Barcelona, Editorial Minerva, 1900. <http://archive.org/details/psicologadelpu00altauoft>.

¹⁸José R Carracido, *Estudios Críticos de la ciencia Española*, Madrid, 1897.

century, as did Lesley Simpson.¹⁹ They were both contemporaries with Arthur Whitaker, still considered the defining source on Antonio de Ulloa's life.²⁰ Thus, the *Noticias* debate persisted in some way, entangled with the larger idea of *La Leyenda Negra*. In a historiography with about a dozen articles and a few monoliths, this debate around Ulloa's reputability warrants attention. Is Antonio de Ulloa trustworthy, or a propagandist?

In direct opposition to Altamira, Simpson, and Merino, Arthur Whitaker staunchly believed the *Noticias* was a reputable source. Addressing Merino directly, Whitaker dismissed the argument against *Noticias*'s verifiability by noting Father Merino's choice to focus nearly exclusively on Ulloa's section on religious orders.²¹ While David Berry's publication might have had nefarious intent, Ulloa wrote the report confidentiality, hardly an effective strategy to sabotage Spain's reputation. Whitaker convincingly argued that the *Noticias*'s confidentiality is a testament to its validity. How could the *Noticias* be a source of defamation if it was meant only to be read by royal officials? Frederick Alexander Kirkpatrick likewise noted that Antonio de Ulloa was not a boy by the time the *Noticias* was written, like Simpson criticized, but rather a seasoned naval veteran and over thirty years old. *Noticias* also included the banalities only relevant to government officials, not purely sensationalist content.²² The prologue to the *Noticias*

¹⁹Simpson wrote his review in 1933, however, this is decades after both Altamira and Carracido. The Black Legend was, at this point, taking shape as both a somewhat accurate account of the horrible injustices of colonialism, and simultaneously exaggerated in relation to the very comparable abuses by other European imperial forces.

²⁰Arthur P. Whitaker, "Antonio De Ulloa." *The Hispanic American Historical Review* 15, no. 2 (1935): 155-94. Accessed January 20, 2020. doi:10.2307/2506293.

Arthur P. Whitaker, *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 17.

Arthur P. Whitaker, "Antonio De Ulloa, the Delivrance, and the Royal Society." *The Hispanic American Historical Review* 46, no. 4 (1966): 357-70. Accessed February 15, 2020. doi:10.2307/2510978.

²¹ Arthur P Whitaker, "Review of Estudio crítico sobre las "Noticias secretas de América" y el clero colonial. (1720-1765), by Luis Merino." *The Hispanic American Historical Review* 39, no. 2 (1959): 265-67. <https://doi.org/10.2307/2509873>.

²² F. A Kirkpatrick, "Noticias Secretas." *The Hispanic American Historical Review* 15, no. 4 (1935): 492-93.

even emphasized the focus would be solely on the abuses of the Spanish empire in Peru, rather than the effective aspects of Spanish rule.

In Lewis Hanke's representation, *Dos Palabras on Antonio de Ulloa and the Noticias Secretas*, he compared Ulloa to the famous Bartolomé de las Casas.²³ In the 1750s, Casas's sixteenth-century account of Spanish abuses, *Brevísima relación de la destrucción de las Indias*, was reissued in several new editions in France and especially in Britain, its popularity in part an effort to undercut Spain's reputation.²⁴ Despite its use to discredit Spain, and some points of exaggeration, most scholars agree to *Brevísima's* fundamental accuracy.²⁵ Similarly, Hanke argued *Noticias* was reputable, even when used in part as propaganda against Spain; the way *Noticias* was later used does not affect its integral legitimacy.

Fundamentally, the debate surrounding *Noticias* echoes the debate of Ulloa as a figure. Was he honest? Was he a reformer? Did he exaggerate? Most agree the *Noticias* was based in truth.²⁶ Yet, more interesting perhaps is Kenneth Andrien, who claims not to care whether the *Noticia* was unbiased by the Black Legend's sentiment. That question seemed unimportant to him. Rather, he is interested in its revealing elements on what Spanish ruling ideology was to become in the new era. This view seems most compelling.²⁷ Despite overall analysis finding *Noticias* to be mostly substantiated, it seems more important to look beyond black or white ideas of truth, heroism, or villainy, but rather at the middling picture and what Ulloa's experience has

²³ Lewis Hanke, "Dos Palabras on Antonio de Ulloa and the Noticias Secretas." *The Hispanic American Historical Review* 16, no. 4 (1936): 479–514. <https://doi.org/10.2307/2506989>.

²⁴*Ibid.*

²⁵ Benjamin Keen, "The Black Legend Revisited: Assumptions and Realities." *The Hispanic American Historical Review* 49, no. 4 (1969): 703–19. <https://doi.org/10.2307/2511162>.

²⁶Hanke, Kirkpatrick, Quiroz, TePaske, Whitaker all evaluated *Noticias* as an ultimately reputable account.

²⁷Kenneth J Andrien, "The Noticias Secretas de America and the Construction of a Governing Ideology for the Spanish American Empire." *Colonial Latin American Review* 7, no. 2 (December 1, 1998): 175–92. <https://doi.org/10.1080/10609169884882>.

to say about Spanish rule. What if Ulloa was not a hero, nor inept, but rather someone who was acting with the resources available at the time, in a manner reflective of new wave of imperial ideology?

Antonio de Ulloa in Huancavelica: Efficacy and Frustration

The literature surrounding Ulloa's time in Huancavelica repeatedly refers to the period as understudied, in comparison to the *Noticias*. Pearce, in his 2013 effort to consolidate the existing research on Huancavelica, notes that Ulloa as a figure has received unduly extensive attention. While true Ulloa receives more attention than other governors, I would still contend he is not exhaustively studied. However, the interest is disproportionate compared to other governors. Similarly, Ulloa as a character has been fascinating to those eager to cast him a hero or an idiot, but analyses situating Ulloa in his resources and as part of a larger reforming movement seem limited. This gap is lessened somewhat by my research.

Whitaker remains perhaps the most important scholar on Ulloa. Whitaker published *The Huancavelica Mercury Mine; a contribution to the history of the Bourbon renaissance in the Spanish empire* in 1941, devoting a whole chapter to Ulloa. Whitaker characterizes Ulloa's time as governor in Huancavelica as plagued with issues, especially between Ulloa and the *gremio*, or the powerful miner's guild. Whitaker focuses extensively on legal battles between the corrupt *veedores*, Joseph de Campusano and Juan de Afino, and Antonio de Ulloa. Whitaker also notes Ulloa's quasi-legal creation of the *Minería del Rey*, which attempted to consolidate the guild into one corporate function, supervised by Ulloa, designed to curtail the corruption of individual miners. Whitaker offered a persuasive and nuanced account of Ulloa as overwhelmed by the severity and pervasive corruption in Huancavelica. However, Ulloa's accomplishments remain present in Whitaker's work, such as the fact he ultimately won the legal battle against

Campusano and Afino, and increased production of the mine, and reduced the mine's debt. These facts seem modestly hidden in comparison to a wave of corruption, and Ulloa's impassioned desire to leave the "purgatory" of Huancavelica.²⁸ Whitaker writes briefly about the *mita* issue, noting the mine had changed from a death-sentence for indigenous laborers to being relatively safe. Whitaker justified that because Ulloa wrote *Noticias*, which condemned Spanish abuses against indigenous peoples, he is a trustworthy source; thus, if he says the indigenous population were not abused, they were probably not abused.

Molina Martínez's might be the only full book dedicated solely to Ulloa's tenure in Huancavelica. Molina Martínez's thesis is that to be an effective reformer, merely being just, honest, and Enlightened is not enough.²⁹ Ulloa was a fallen hero, unable to fight against a tangled web of corruption. Kendall Brown, in contrast, seems more inclined to blame Ulloa's personality and political experience: his "reformist zeal, rigid morality, and political inexperience" cast him as a hopeless idealist and ultimately ineffective.³⁰ Brown argues that despite a historiographical tradition of blaming corruption by greedy Creoles (American-born Spaniards), most of Ulloa's antagonists were *peninsulares*; Francisco Ocharán, the abusive merchant, Diego de Holgado, the attorney for the two corrupt *veedores* Campusano and Afino (who were Creole), and the viceroy Amat. Thus, Brown concludes, Bourbon absolutism was mythical. Spain was unable to regain control of its colonies, and Ulloa's attempts placed him at odds with most everyone.³¹ Corruption was inherently embroiled in the political system, in Brown's rendering. Alfonso Quiroz examines the entire history of corruption in Peru, and hints

²⁸Arthur P Whitaker "Antonio De Ulloa." *The Hispanic American Historical Review* 15, no. 2 (1935): 155-94. Accessed January 20, 2020. doi:10.2307/2506293, 178.

²⁹Miguel Molina Martínez, *Antonio de Ulloa En Huancavelica*. (Granada: Universidad de Granada, 1995).

³⁰Kendall W Brown, "The Curious Insanity of Juan de Alasta and Antonio de Ulloa's Governorship of Huancavelica." *Colonial Latin American Review* 13, no. 2 (December 1, 2004): 199-211, 204.

³¹ *Ibid.*

at the cyclical nature of colonial corruption. In the colonial era, Quiroz blames the longstanding connection between powerful positions and vested interests in contraband and the mineral industry. Somewhat paradoxically, Quiroz examines the entrenched nature of embezzlement, but disparages scholars who see corruption as a necessary evil of conducting colonial administration, seeing them as apologists. In Quiroz's account, too, Ulloa is somewhat doomed; the roots of graft were unconquerable.³²

Pearce notes the early Bourbon Reforms as remarkably effective, in comparison to Ulloa's governorship.³³ Jeronimo de Sola won both the cooperation of the Huancavelica gremio (the miners' guild) and the viceregal administration; Molina Martínez and Whitaker likewise confirm Sola's success. Likewise, Pearce notes the unusual stability of 1723-1753, where the Spanish crown could guarantee regular credit to miners, allowing sufficient capital and efficient distribution necessary for a profitable mine. The importance of credit seems understated by other historians in comparison to Pearce's particular focus on the steady flow of ample funds to Huancavelica's miners. María del Carmen Navarro Abrines's study compares Ulloa to his interim successor, Carlos de Beranger. Ulloa is similarly cast as unable to fight against the gremio's deeply engrained system of corruption, but she likewise notes that he "did not have the necessary support from the metropolis at the most critical moments of his government action."³⁴ Carlos de Beranger, in Abrines's view, was better able to compromise with the guild, and was not constantly in conflict like Ulloa. However, Beranger was an interim governor appointed by

³²Alfonso W. Quiroz, *Corrupt Circles : A History of Unbound Graft in Peru*. Book. (Washington, D.C.: Woodrow Wilson Center Press, 2008), 49.

³³Adrian J. Pearce, "Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru." *The Hispanic American Historical Review* 79, no. 4 (1999).

³⁴"Ahora bien, también es cierto que el gobernador no contó con el respaldo necesario por parte de la metrópoli en los momentos más críticos de su acción de gobierno"

María del Carmen Navarro Abrienes, "La Mina De Mercurio De Huancavelica (Peru): Entre Los Intentos De Reforma De Antonio De Ulloa y De Carlos De Beranger." *Revista Electrónica De Geografía y Ciencias Sociales.*, June 1, 1997.

the viceroy Amat, rather than by the Crown. It makes some logical sense that Beranger would have a better relationship with the guild, if their interests were tied up in Lima, even if Beranger himself was a *peninsular* and not a *creole*. Beranger was also depicted as more acquiescent to the interests of the guild.³⁵ If Beranger were more intent on ending deep-seeded corruption in Huancavelica, perhaps his tenure would have been less peaceful. Abrines' study furthers a dialogue about available resources, the influence of Lima in Huancavelica, and the choices individual governors make

Antonio de Ulloa in Louisiana: Political Ineptitude

Frances Kolb found Ulloa's governorship in Louisiana as essentially politically incompetent. The ambiguity of his authority caused unnecessary conflict in her eyes. He refused to raise the Spanish flag, and sign documents that would transfer ownership of Louisiana from France to Spain. Yet, within her work seems to be the answer to why Ulloa would do so.³⁶ He was the first Spanish governor, and had merely 90 soldiers. He repeatedly wrote to Spain for reinforcements, which he never received, a fact Whitaker corroborated.³⁷

Kolb notes that Louisiana was meant as a buffer territory against neighboring British, and not a profitable colony nor the focus of Spanish attention. Nevertheless, Kolb notes that Ulloa loyally followed Spanish instructions, relocating the Acadians and forcing a trade policy that squelched contraband trade. Like Quiroz's depiction of corruption in Peru, smuggling was a way of life in Louisiana, and the local population reacted poorly. In Kolb's portrayal, Ulloa was

³⁵ *Ibid.* "Posiblemente, en el caso de Beranger, su éxito se debiera a su política de concesiones y ayudas al gremio o a su mayor habilidad conducente a restablecer la tranquilidad y acabar con las fuertes tensiones que se habían producido en el gobierno anterior. Sin embargo, no atajó el mal endémico de la corrupción ni logró, por falta de tiempo y medios, modernizar la explotación minera."

³⁶ Frances Kolb, "The New Orleans Revolt of 1768: Uniting against Real and Perceived Threats of Empire." *Louisiana History: The Journal of the Louisiana Historical Association* 59, no. 1 (2018): 5–39.

³⁷ Arthur P. Whitaker, "Antonio de Ulloa." *The Hispanic American Historical Review* 15, no. 2 (1935): 155–94. <https://doi.org/10.2307/2506293>.

simultaneously too stern, unilaterally applying a trade and resettlement policy of the Acadians, and too weak, also not raising the Spanish flag or filing the patents registering his governorship. Yet Ulloa might have acted seemingly passively for a good reason. In Din's account, Ulloa's successor, O'Reilly, arrived with more than 2,000 soldiers, and with a demonstration of massive force, proudly took possession of Louisiana in the name of the Spanish crown³⁸. Another scholar, John Preston Moore, comes to this same conclusion that "had general economic conditions within the colony been more favorable and had crown policy been more realistic the date of effective Spanish occupation would have been 1766 instead of 1769".³⁹ Moore seems to write a striking defense of Ulloa as someone quite literally fighting a battle unarmed.

Louisiana thus in many ways echoes the Ulloa's situation in Huancavelica. He lacked the necessary resources to implement reforms. As a personality, Ulloa is raised or condemned depending on the scholar. More interesting, however, is the context that results in his so-called failure or successes. Attempting to measure Ulloa's success has diverging results, but analyzing his context in relation to Jerónimo de Sola y Fuente might reveal what factors are necessary for success.

Methods and Scope

The remaining chapters are based in primary research from both Jerónimo de Sola y Fuente's and Antonio de Ulloa y de la Torre-Giral's *Relaciones*. The *relación* is a report written at the end of the governorship, for either the succeeding governor or the king. When he wrote his *relación*, Sola actually chose to publish it. These documents thus are somewhat public records of

³⁸Gilbert C. Din, "Protecting the 'Barrera': Spain's Defenses in Louisiana, 1763-1779." *Louisiana History: The Journal of the Louisiana Historical Association* 19, no. 2 (1978): 183–211.

³⁹John Preston Moore, "Antonio de Ulloa: A Profile of the First Spanish Governor of Louisiana." *Louisiana History: The Journal of the Louisiana Historical Association* 8, no. 3 (1967): 189–218.

administrations, meant to be read by peers or the general, educated public. I use secondary research by other historians to supplement their firsthand accounts, and offer analysis comparing the issues each governor faced, as well as their resources. I quote extensively from these reports, as I find using the governor's own words to be the most insightful way of analyzing their tenures. I believe far too many historians cite mere sentences from sources that are fascinating and worthy of longer excerpts, especially when English translations are scarce. I look at three major themes: (1) mercury production and economic policy, (2) labor and relationships to the indigenous population, as well as (3) each governor's relationship to the political hierarchy in Lima and the mercury guild. I offer enough background information for someone who has never studied colonial Peru to understand my research.

Understandably, the extent of my research is limited. While many scholars are able to travel to Archivo General de Indias (AGI) in Seville, I was not. Many sources, including letters cited by other scholars, exist there from Sola and Ulloa, or about their tenure in Huancavelica. Thus, I acknowledge a limitation on my research, and a reliance on secondary sources to fill these gaps. Likewise, as the *relación* are written by Sola and Ulloa as a sort of self-evaluation, with some advice to future governors, they are necessarily problematic sources. It is, in part, in their interest to represent their own administration and abilities as best as possible. Throughout my research, I consider this inevitable bias. I necessarily couple Sola and Ulloa's *relaciones* with other scholars' evaluations of reputability, as I form my own judgement on the reliability of their accounts.

Finally, I note I am deeply in debt to scholars who have come before me, and I cite them generously— especially to Brown, Whitaker, and Pearce. In comparing the two most famous governors of the Bourbon period, I hope to offer some insight on what effective administration

looks like in a colonial mercury mine, and perhaps the limitations of a word such as “effective.” I also hope to reach young historians such as myself, just starting to fall in love with the near distant past.

Chapter Two: Mercury Production and Economic Management of the Mine

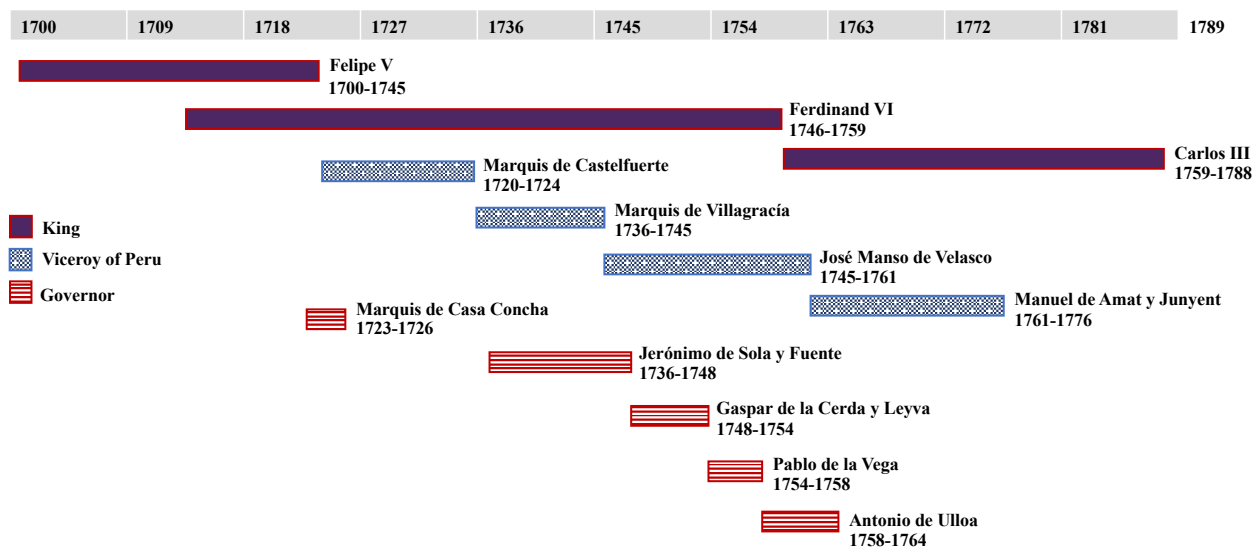


Fig. 1: Timeline of Kings, Viceroys of Peru, and Governors in Huancavelica

I have not written all this, apparently, pardon the expression, for vanity or arrogance; I believe it has been recorded during my entire residence, compared to others, I have been able to so easily removed many more quintales of mercury, that I have stopped executing it, for there is not enough [comparable] silver [to amalgamate with mercury].⁴⁰

Introduction

In order to substantively evaluate Antonio de Ulloa and Jerónimo de Sola as agents of reform in Huancavelica, it is necessary to explore the economic administration of Huancavelica, its most essential value to the Spanish Crown. Levels of mercury production, lines of credit to

⁴⁰ No he dilatado toda esta, al parecer, menuda expression, por arrogancia vana; pues créo, se ha hecho constar sobradamente en toda mi residencia, la ageno, que he vivido de ella: y que pudiendo con tanta facilidad haver sacado muchos mas Quintales de Azogue, lo he dejado de executar, por no haver suficiente Plata para satisfacerlos. Sola y Fuente, Jerónimo de., Francisco Guerra, and Imprenta de la Plazuela de San Cristóbal (Lima). *Relacion, e Informe, Que Haze El Doc. D. Geronymo de Sola y Fuente, Del C. de S.M. En El ... de Las Indias, Governador, Que Acaba de Ser de La Villa, y Mina de Guancavelica, y Superintendente General Del Ramo de Azogues En Todo El Reyno Del Perú ... al Señor D. Gaspar de La Cerda y Leyva ... Su Successor En Estos Empleos, En Que Se Da Cuenta Del Estado, Que Tenía La Real Mina al Tiempo, Que La Recibió En El Año Passado de Mil Setecientos Treynta y Seis, Los Adelantamientos, Con Que Queda, y Todo Lo Demàs, Que Se Necesita Para La Comprension de Este Vasto, é Importante Manejo, de Que Se Origina La Subsistencia de Los Reynos Perúanos, Por La Habilitación de Sus Minerales de Plata.* [8], 105 [i.e. 102], [6] p., [1] h. pleg. En Lima: en la imprenta de la Plazuela de San Christoval, 1748. [//catalog.hathitrust.org/Record/009348762](http://catalog.hathitrust.org/Record/009348762), 59. Hereafter Jerónimo de Sola, *Relación e Informe*.

miners, and the financial management of the mine are all vital measures of effective administration in Huancavelica. At the core of both governors' administrations, however, was the Crown's principal aim to extract as much mercury as possible from Huancavelica.

Successes and Failures: Paradigms of Jerónimo de Sola and Antonio de Ulloa

Adrian J. Pearce called Jerónimo de Sola “the most significant of all the Bourbon officials” in Huancavelica.⁴¹ Sola is repeatedly referred to by the epithet *El Restaurador de La Mina*, or the Restorer of the Mine. Yet, while Sola is consistently mentioned, few scholars focus on his governorship, outside of Pearce's 1999 article. Antonio de Ulloa, in contrast, is by far the most studied governor in Huancavelica, with more than half a dozen articles and books on his tenure from 1758 to 1763. Pearce condemned the academic interest on Ulloa as “unhelpful, or even inappropriate,” speculating that the attention stems from intrigue on Ulloa's character, rather than any substantive successes, or even relative significance in Huancavelica's history.⁴² In Pearce's characterization, historians focusing on Ulloa erroneously paint him as a martyr, a protagonist who eventually was defeated by “deeply entrenched corrupt interests.”⁴³

Perhaps historians are fascinated by Ulloa solely because of his cult of personality, an esteemed scientist and Enlightened reformist embroiled in personal dramas throughout his life. Regardless, one must look to the mercury production and economic administration of Huancavelica in order to reach any conclusions about the reformative aims and achievements of any governor. The administrative and economic significance of Huancavelica, as well as the historical context in which Jerónimo de Sola and Antonio de Ulloa operated, are necessary in

⁴¹Adrian J. Pearce, “Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru.” *The Hispanic American Historical Review* 79, no. 4 (1999): 429.

⁴²Adrian J. Pearce, “Huancavelica 1563–1824: History and Historiography.” *Colonial Latin American Review* 22, no. 3 (December 1, 2013): 422–40. <https://doi.org/10.1080/10609164.2013.808467>.

⁴³Alfonso W. Quiroz, *Corrupt Circles: A History of Unbound Graft in Peru*. Book. (Washington, D.C.: Woodrow Wilson Center Press, 2008), 49.

evaluating how one governor restored the mine and even generated a surplus of mercury, while another is repeatedly disparaged as an ultimately *un fracaso*— a failure.⁴⁴ This chapter aims to contextualize the economic significance of Huancavelica’s mercury, as well as the administrative shifts that affected mercury production under previous governorships. Both Jerónimo de Sola and Antonio de Ulloa are evaluated in terms of accessible credit and mercury production.

Brief History of the Huancavelica Mercury Mine and its Economic Significance

Situated at an elevation of 12,530 feet, Huancavelica was the only significant mercury mine in Spanish America, from its discovery in 1563 to its abandonment in 1813. The mine itself is called Santa Bárbara, but is more generally referred to as Huancavelica.⁴⁵ The only comparable levels of mercury could be found in the Almadén mine in Spain, and Idrija, located in modern-day Slovenia.⁴⁶ Mercury was an essential part of the Spanish, and indeed, global economy; mercury was a vital ingredient in processing silver.⁴⁷ John TePaske estimated that between 1492 and 1810 in the Iberian new world, nearly 190 million pounds (86 million kilograms) of fine silver was produced.⁴⁸ In total, Huancavelica produced 55,000 tons of mercury between 1565-1813, not including contraband.⁴⁹ Some scholars speculate the actual figure is

⁴⁴ Miguel Molina Martínez, *Antonio de Ulloa En Huancavelica*. (Granada: Universidad de Granada, 1995).

⁴⁵This thesis will refer to the mine as Huancavelica.

⁴⁶ Arthur P Whitaker, *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 5.

⁴⁷ Silver production today rarely uses the mercury amalgamation method. Instead, the cyanide (also called heap leach) process is more common.

“How Silver Is Made - Material, Making, History, Used, Processing, Industry.” Accessed January 4, 2020.

<http://www.madehow.com/Volume-3/Silver.html>.

⁴⁸John TePaske, *A New World of Gold and Silver*. (Leiden: Brill, 2010).

⁴⁹ Nicholas A. Robins, and Nicole A. Hagan. “Mercury Production and Use in Colonial Andean Silver Production: Emissions and Health Implications.” Article. *Environmental Health Perspectives* 120, no. 5 (1/5/2012): 627–31. doi:10.1289/ehp.1104192.

more than double that, when accounting for smuggling and misreporting.⁵⁰ Likely, the figure is closer to an extra third, or roughly 73,000 tons of mercury.⁵¹

The Amalgamation Method: Silver and Mercury

Potosí, the most famous of all Spanish silver mines, was reliant on Huancavelica's mercury. One sixteenth-century chronicler called Huancavelica and Potosí "the most important marriage in the world."⁵² Prior to the sixteenth century, gold and silver were refined through smelting, which does not require mercury, but did necessitate large amounts of firewood. Huancavelica is located on the *altiplano*: treeless, with a very high altitude, and little vegetation. Wood was rare, and expensive. In 1555, Bartolomé de Medina learned of the amalgamation method, commonly known as the patio method, which was more efficient, and popularized the practice in New Spain. Pliny the Elder wrote of the method in the Middle Ages, and in the fifteenth century, German metallurgists re-discovered the process.⁵³ Medina then brought it to the silver mines in Pachuca in New Spain, and the practice spread throughout the Spanish Americas. Ore (any deposit in which a precious mineral could be extracted) would be ground up, mixed with salt, lime, water, and a copper-iron mix called *magistral*. Mercury was added, and workers would tread the mixture over several days. This mixture would be washed, heated, and the mercury would evaporate, which would separate the precious metal—silver— from the ore. Through the amalgamation process, lesser grade ores could be used, and far less firewood was needed. More silver and gold could be extracted from the same mines for less money and time. All of Potosí's readily available, almost-pure silver was already extracted by 1555: from then on,

⁵⁰ Helmut Waszkis. *Mining in the Americas Stories and History*, (Cambridge, Eng.: Woodhead, 1993.)

⁵¹ Kendall W. Brown, *A History of Mining in Latin America : From the Colonial Era to the Present*. Diálogos Series. Albuquerque: University of New Mexico Press

⁵² Arthur P Whitaker. *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 10.

⁵³ Helmut Waszkis. *Mining in the Americas Stories and History*, (Cambridge, Eng.: Woodhead, 1993.)

Potosí needed the amalgamation process to keep producing silver.⁵⁴ In 1570, before the amalgamation method was widespread, the treasury office (*Caja*) recorded 11,000 pesos on the *quinto real*, or royal fifth tax. Nine years later, after processing silver with mercury, the *quinto real* increased to over 1,000,000 pesos, a 900% increase in tax revenue.⁵⁵ Huancavelica was indispensable in supplying the necessary mercury to maintain silver production, economically vital to Spain.

The ambitious late sixteenth-century viceroy of Peru, Francisco de Toledo quickly expropriated the Huancavelica mine to royal ownership, given mercury's economic importance. Interestingly, however, Toledo leased operations of the mine at Huancavelica to the *gremio de mineros*, or miners' guild, rather than a system of direct royal extraction.⁵⁶ The *gremio* would operate as a delegated system of mercury production. The Crown was located far across the Atlantic, so the *gremio* system would ideally lower operation costs. The miners would exploit and smelt the ore at their own expense. By law, the miners then would be required to sell all the mercury produced to the Crown at a price previously fixed through an *asiento*, or contract. The *Quinto Real*, or royal fifth, would be withheld as taxation. The mercury would then be resold to the Potosí miners at a higher price. In exchange, the Crown would provide Huancavelica's miners with indigenous labor, through a drafting system called the *mita*, as well as sending advanced funds to cover the operational cost and upkeep of the mine.

Economic Crisis of the Early Eighteenth Century, and Prefacing Reform

During the early eighteenth century, the Spanish empire underwent massive socio-political transformations. After the War of Spanish Succession, lasting from 1702 to 1715, the

⁵⁴ *Ibid.*

⁵⁵ Robins, Nicholas A. 2017. Santa Bárbara's Legacy, 7.

⁵⁶ Arthur P Whitaker, *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941) , 5.

Spanish Habsburg monarchy transitioned to the Bourbon dynasty. Weakened from war, Spain “could spare neither attention nor resources” in its American colonies.⁵⁷ The financial crisis was so dire that Spain’s principal colonial administrators, the ministers of the *Consejo de Indias*, had not been paid since 1698.⁵⁸ Yet, the war that imposed “great strain”, also resulted in a new dynasty with a “new zeal for reform.”⁵⁹ This zeal was in part a reaction to the chaos following the war. The initial royal response to the financial crisis of the War of Spanish Succession was disastrous, and laid the groundwork for years of entrenched corruption. The sale of offices, including the governorship in Huancavelica, dramatically increased, in an effort to regain funds and curtail ballooning royal debt. King Felipe V even went so far as to sell 2,000 *quintals* of Almadén’s mercury to France, under the stipulation the mercury would only be used within France. As mercury is necessary to process silver, and contraband and piracy was rising in the Americas in the early eighteenth century, Felipe’s stipulation was dubious at best. Without doubt, the mercury was used to illicitly smuggle Spanish American silver.⁶⁰ The first truly global war, the War of Spanish Succession involved “enormous expenses in support of professional armies equipped with the latest, and most expensive, means of killing each other”, with armies traveling large distances and requiring extensive logistical support. Spain’s financial restructuring after the war involved “essentially by turning control of the continued silver

⁵⁷Adrian J. Pearce, “Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru.” *The Hispanic American Historical Review* 79, no. 4 (1999): 671.

⁵⁸Kendall W. Brown, "La Crisis Financiera Peruana Al Comienzo Del Siglo XVIII, La Minería De Plata y La Mina De Azogues De Huancavélica." *Revista De Indias* 48, (1988).

⁵⁹Arthur P. Whitaker *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 17.

⁶⁰ Kendall W. Brown, "La Crisis Financiera Peruana Al Comienzo Del Siglo XVIII, La Minería De Plata y La Mina De Azogues De Huancavélica." *Revista De Indias* 48, (1988). 350.

imports from Spanish America to court favorites.”⁶¹ These short-term financial solutions led to lasting consequences across the Atlantic.

Selling administrative posts did not yield the most honest or effective leaders in Spanish Americas. Widespread contraband and fraud ensued among the new officeholders, boiling down to an illicit cash grab. Combined, selling administrative posts and insecure transatlantic trade escalated the pre-existing economic crisis, decreasing Spain’s revenue from New World tax revenue, as administrators who purchased their posts were more likely to abuse them.⁶²



Fig. 2: Mercury production in Huancavelica 1675-1720

Source: Kendall Brown, "La Crisis Financiera Peruana Al Comienzo Del Siglo XVIII, La Minería De Plata y La Mina De Azogues De Huancavélica." *Revista De Indias* 48, (1988): 361.

Brown cites to John J TePaske and Herbert S Klein, *Treasuries of the Spanish Empire in America*, 3 volumes (Durham, N.C., 1982), I, 335-350, and "Relación del azogue que se ha sacado de esta Real Minda de Guancavelica, desde el año de 1571 hasta el de 1724" *Relación hecha por el Marqués de Casa Concha a su successor, el Doctor Alvaro Cavero, gobernadora de Huancavelica*, AGI, Lima, 469.

⁶¹ Ann M. Carlos, Erin K. Fletcher, Larry Neal, and Kirsten Wandschneider. 2013. "Financing and Refinancing the War of the Spanish Succession, and Then Refinancing the South Sea Company." Chapter. In *Questioning Credible Commitment: Perspectives on the Rise of Financial Capitalism*, edited by D'Maris Coffman, Adrian Leonard, and Larry Neal, 147–68. Macroeconomic Policy Making. Cambridge: Cambridge University Press,

⁶² Jenny Guardado "Office-selling, corruption, and long-term development in Peru." *The American Political Science Review* 112, no.4, 2019, 971-995. doi:http://dx.doi.org.proxy.lib.umich.edu/10.1017/S000305541800045X Guardado successfully analyzes data of administrators who bought their posts and finds provinces with greater extractable resources are priced higher, and attract worse governors.

To compound the economic crisis, mercury production in Huancavelica fell drastically during this period. From 1660-1679, mercury production averaged 5,200 *quintals*. This number fell to 4,110 from 1679-1689, and then recovered a bit with the *asiento* underneath the viceroy Duque de Palata, but plummeted again to 3,059 *quintals* in 1701, where production remained for the next two decades.⁶³ This is a 42 percent drop in production in a generation. The new *asiento* by the Duque de Palata lasted some 70 years, contracting the Crown to advance 125,000 pesos to the *gremio*. The reform was an effort to support mercury miners, who without credit were unable to finance their operation; the money fronted by the Crown should be recouped once the mercury was produced and sold to the Crown. The credit was earmarked from taxes on maritime trade, then considered the most reliable income. Yet, by the end of the 1680s, maritime trade was less reliable than expected, and thus the Crown owed the *gremio* more than one million pesos in promised credit.

⁶³Arthur P Whitaker *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 18.

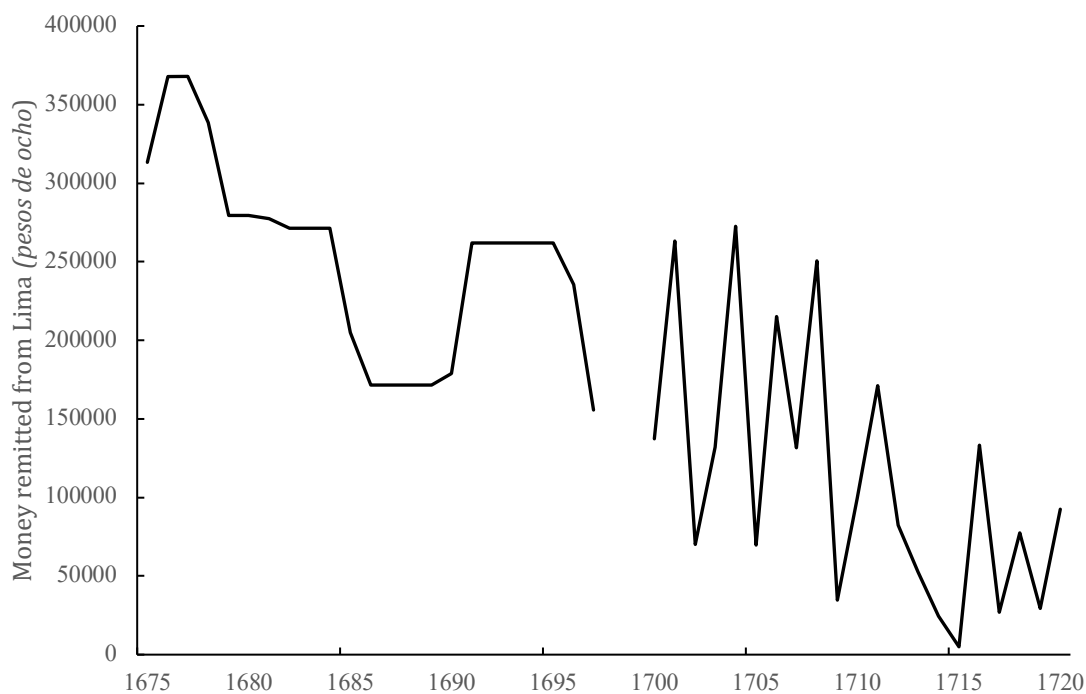


Fig. 3: *Pesos de ocho* remitted from the *Caja* (treasury) in Lima 1675-1720

Source: Kendall Brown, "La Crisis Financiera Peruana Al Comienzo Del Siglo XVIII, La Minería De Plata y La Mina De Azogues De Huancavélica." *Revista De Indias* 48, (1988): 361.

Brown cites to John J TePaske and Herbert S Klein, *Treasuries of the Spanish Empire in America*, 3 volumes (Durham, N.C., 1982), I, 335-350, and "Relación del azogue que se ha sacado de esta Real Minda de Guancavelica, desde el año de 1571 hasta el de 1724" *Relación hecha por el Marqués de Casa Concha a su successor, el Doctor Alvaro Cavero, gobernadora de Huancavelica*, AGI, Lima, 469.

Without credit, most miners could not finance their own operations. The *gremio* were surprisingly economically diverse, with some wealthy descendants of the original miners, but others of more modest means. Operational accounts, such as paying workers, purchasing necessary equipment, and providing repairs required sufficient funding, yet, consistently the guild was underfunded. Especially during the *invernada*, or wet season from January to April, miners could not process mercury and therefore were more financially insecure.

Various strategies were used to secure operational funds to continue mining, with each short-term solution as destructive as the last, jeopardizing the long-term stability of Huancavelica and the financial income of the Crown. The *gremio* members were forced to rely on private merchants, called *aviadores*, who would lend enough money for the miners to survive the

season, especially during the *invernada* from January to April, when ore could be extracted but not processed. In return, the *aviadores* would receive the produced mercury at a going rate below the negotiated contract with the Crown. In the 1720s, *aviadores* were sold mercury at 40 pesos per quintal, which they could sell back to the Crown at 58 pesos per quintal⁶⁴, netting an 18 peso profit. However, many *aviadores* chose not to sell to the official royal treasury, or *Real Caja*. The institution was unreliable and not particularly timely in payment; these were the same issues that forced the *gremio* to find alternative funding without the promised royal lines of credit. Instead, the *aviadores* would sell the mercury illegally to Potosí miners. All mercury was the Crown's to distribute; thus, *aviadores* should have had no role in mercury sales. Yet, because the *Quinto Real* was taxed based on the sale of mercury, and not silver, the use of *aviadores* proved extremely valuable in smuggling not only mercury, but silver as well.

Worse yet, the system of debt reversed itself in the 1680s; the *gremio* owed money to the Crown, and Huancavelica's governors only exacerbated the problem. Private credit continued to supplement royal payments under the *asiento*, with the result being decreased profits for the guild. When royal supplements eventually arrived, the guild had insufficient funds to repay the debt. *Aviadores* would illegally purchase the mercury at the discounted price, but so would governors. Many governors even lied about the amount of funds in the *Caja Real*, claiming not to have official funds to advance, and instead offering to purchase the mercury personally, at a discount, under the guise of a personal favor to the miners. These governors would then resell the mercury at a profit, for the full price negotiated by the *asiento*, if the funds were available in the *Caja Real*. If the funds were not immediately available, their post as governor allowed them to

⁶⁴ Adrian J Pearce "Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru." *The Hispanic American Historical Review* 79, no. 4 (1999).

privilege their payment first once the *pesos* arrived. Higher authorities in Lima, including the Viceroy, would sometimes split the profit with the governors. Thus, in the late seventeenth and early eighteenth centuries, Huancavelica's economic crisis had multiple faces, each as problematic as the last: the increased sale of offices, the falling production rate, decreased stability in royal credit, and growing corruption among miners, merchants, and governors alike. The early eighteenth century was thus a chaotic and unregulated system, unable to provide sufficient, consistent mercury to process silver to finance the Spanish empire.

Early Reforms and the Marquis de Casa Concha (1723-26)

During the late seventeenth and early eighteenth century, as a result of the financial policies following the War of Spanish Succession, Huancavelica was rife with contraband, corrupt officials, and struggling with decreased mercury production. Dramatic administrative reforms attempted to curb the financial crisis. In 1719, Felipe V appointed the Marquis de Casa Concha, José de Santiago Concha y Salvatierra⁶⁵, as the first to operate as the General Superintendent Judge of Azogues, with private jurisdiction from the viceroy and *audiencia* in Lima. Authorities in Lima disliked the new system, which redistributed power to the governor that was traditionally theirs. The viceroy Diego Morcillo was particularly irate⁶⁶. Ideally, the new Superintendency would have exclusive control over all revenue created by the mine (*el ramo de azogues*), as well as collection of the *Quinto Real*. Other reforms included abolishing the *mita* in favor of a combination of free-wage labor and prison laborers. Casa Concha would be the first in a system of rotational *oidor* (a judge in the *audiencia* de Lima) appointments, in comparison to

⁶⁵ Most documents refer to him as simply Casa Concha; I follow suit.

⁶⁶On Casa Concha's control of silver revenue, the Viceroy Morcillo said, it was a system "that leaves the high office of viceroy without the power or rights to use these funds in whatever may be of service to the crown." Adrian Pearce, "Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru." *The Hispanic American Historical Review* 79, no. 4 (1999): 429.

the previous system where the viceroy directly appointed governors. These short-term appointments were supposed to lend greater independency from the corruption of the viceroys.

The Crown was only partially successful in restructuring Huancavelica to be more independent from Lima. The attempted reforms were just that: attempted. Casa Concha did not abolish the *mita*. Instead, he claimed an epidemic caused a labor shortage, and the proposed policy was withdrawn by 1725. Likewise, the viceroy Morcillo refused to allow the Superintendent direct control of the *quinto real*, condemning the reform as a direct assault to the authority of the viceroy. The reforms of Casa Concha show a distinctly Bourbon theme of attempting to realign a more direct line of control from the Americas to the Crown. Some of these reforms, such as the abolishment of the *mita* and direct taxation efforts, could not or would not be implemented, due to resistance by both the *audiencia* and *gremio*.

Yet, there was also middling success. Casa Concha created a new system of credit to the *gremio* which both historians and future governors called the premier success of his administration. His *Relación*, or report to the Crown, was widely read and served as a sort of manual of good administration in Huancavelica. The new credit system retained the 125,000 pesos and 620 *mitayos* prescribed from the 1681 *asiento* crafted by the Duque de Palata. The cash advance paid for *mitayo* salaries, and *ratas y desmontes*, the repairs to the mine. Casa Concha introduced a further supplement to be paid during the *invernada* season, when credit was most needed; this measure combated the power of the *aviadores*, who preyed upon miners during the vulnerable season. Additionally, Casa Concha created a new policy in which all remaining mercury, after repayment of royal credit, be purchased at a lower rate of 40 pesos a quintal. The net 18 pesos would be credited towards the miners' ballooning debt to the Crown because of the

in stable, cyclical problem of credit. This new policy generated 55,000 pesos during Casa Concha's administration alone.

Heir to Casa Concha: Jerónimo de Sola

In a natural continuation from the reforms of Casa Concha, Jerónimo de Sola marked another pivotal transition in the governorship of Huancavelica. Instead of a rotational system based on seniority in the *oidores* from Lima, the king would appoint the new governor directly. This appointment system was the first complete separation from the *audiencia* and viceroy. No doubt this was in part because of the complicity of the viceroy in various credit schemes by governors in the seventeenth century. In addition, the new governor was given exclusive control over the *ramo de azogue*, or the funds generated by mercury, and ordered to guarantee an annual production of 5,000 quintals of mercury. Sola had experience working in the mines at Almadén, was also a member of the *Consejo de Hacienda*, the Finance Council, and later was appointed to the *Consejo de Indias* itself. His governorship marked the beginning of high ranking *peninsular*, or Spanish born elite, officials being named governor, a pattern that continued until the 1760s.⁶⁷

A New Contract: Asiento under Sola

Jerónimo de Sola extended the credit system created under Casa Concha, writing that the credit system was “without a doubt the most noteworthy accomplishment during his time.”⁶⁸ The credit system would now be applied to the poorer members of the Guild. Sola wrote,

As I am commonly informed, he [Casa Concha] did not practice what he says in his *Relación*, and did not include those who were Poor in this relief; Well, everyone was certainly given the corresponding reflection on their work, and with the same necessary credit, and so I have continued and applied Silver to their debt, mediating for this alone

⁶⁷Pearce, Adrian J. “Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru.” *The Hispanic American Historical Review* 79, no. 4 (1999): 429.

⁶⁸Sola wrote “sin duda se debe al mayor reconocimiento a su memoria.” Jerónimo de Sola, *Relación e Informe*, 79.

the prudent general rule of good governance, because no other parties have been harmed.⁶⁹

Socorro, or aid, was not applied to poorer members of the guild under Casa Concha, Sola wrote, based off the previous governor's *Relación*. In addition, Jerónimo de Sola added another 96,000 pesos of revenue to the crown, compared to Casa Concha's 55,000, through the aforementioned system of remaining mercury being purchased at 40 pesos a quintal.

This new, extended system of credit to poorer miners is vital in measuring Sola's efficacy as a reformer. Adrian Pearce notes the direct correlation between scarcity of credit and drops in mercury production and increase in contraband production.⁷⁰ Thus, the new credit lines available to members of the guild, especially poorer ones, was exceptionally important under Sola. In part, this credit contributed to the lucrative production levels during his governorship.

Mercury Production under Sola

Jerónimo de Sola's tenure had various measurable successes. In his twelve years as governor, there was a 20 percent increase in the total mercury output of the mine.⁷¹ Sola also oversaw substantial enlargement of the mine's tunnels and chambers. His charge by the King was to produce 5,000 quintals of mercury, and the annual average remained quite close to that number. In an illuminating example, most of the mercury supplied to modern-day Mexico (then the viceroyalty of New Spain) came from the Almadén mine in Spain, which was shipped across the Atlantic. Huancavelica supplied the silver mines in Perú. In 1741, when the War of Jenkins' Ear destabilized maritime trade, Sola could supply New Spain with 4,000 quintals. Kendall

⁶⁹“Aunque segun se me informa comunmente, no practicó, lo que asegura en su Relacion, de no incluir en este socorro, a los que eran Pobres; pues a todo se dió desde luego con la correspondiente reflexion a su trabajo, y con igual pension se ha continuado, estando siempre a la mira, de que se aplique la Plata a su destino, mediando para esto sola la prudente general regla de buen Gobierno, porque no se han perjudicado los demás compañeros” Jerónimo de Sola, *Relación e Informe*, 78.

⁷⁰ Adrian J. Pearce, “Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru.” *The Hispanic American Historical Review* 79, no. 4 (1999): 429.

⁷¹ *Ibid.*

Brown estimates that from 1700 to 1750, Mexican silver mines produced three times as much silver as their Peruvian counterparts, and to have enough mercury to process that load is no small feat.⁷² Sola even offered an additional 2,000 *quintals*.

Mercury Production under Ulloa

The reforming tide under the Bourbon dynasty went in fits and bursts. That is to say, not every governor had the integrity or Enlightened spirit of Casa Concha or Jerónimo de Sola. The governor immediately preceding Ulloa was Pablo de la Vega, an interim governor from 1755-1758. Ulloa condemned Vega as a complete disaster and disgrace. Vega supposedly went so far as to sell bootleg mercury in the town square.⁷³ Profits, according to the miners, declined significantly since the governorship of Gaspar Cerda y Leyda, from 1748 to 1754. Yet, Ulloa's tenure marked an upswing in mercury production. In the 2017 application to become a world heritage site, the Permanent Delegation of Peru notes that while the mine collapsed and was virtually abandoned by the early nineteenth century, there was a "with a brief upturn in mid-XVIII century (1758-1764 approximately)."⁷⁴ During those six years, Antonio de Ulloa was governor.

It would be misleading to call Ulloa an absolute success in Huancavelica. Yet, in terms of actual mercury production, there is little else to call him. During Antonio de Ulloa's six years as governor, the Huancavelica mine produced 389,810 quintals of mercury.⁷⁵ The royal accountant Tomás Ortiz de Landázuri recognized this production was an extraordinary amount. It was the

⁷² Kendall W. Brown, *A History of Mining in Latin America : From the Colonial Era to the Present*. Diálogos Series. Albuquerque: University of New Mexico Press

⁷³ Miguel Molina Martínez, *Antonio de Ulloa En Huancavelica*. (Granada: Universidad de Granada, 1995), 37-38, 47-49.

⁷⁴ "Santa Bárbara Mining Complex - UNESCO World Heritage Centre." Accessed January 9, 2020. <https://whc.unesco.org/en/tentativelists/6263/>.

⁷⁵ Navarro Abrines, María del Carmen. "La Mina de Mercurio de Huancavelica." Accessed November 1, 2019. <http://www.ub.edu/geocrit/sn-4.htm>.

highest production of mercury in the six years preceding his term, as well as the six years after.

In subsequent accounts of Ulloa's tenure, little emphasis seems to be placed on an empirical truth: during his tenure, Huancavelica produced substantially more mercury.

Ulloa's Aid and Contempt to the Gremio

Antonio de Ulloa, like Casa Concha and Jerónimo de Sola before him, was well aware of the need to keep members of the Gremio supplied with enough credit. In his *Relación*, he wrote,

I consulted first with my predecessor, and one of the royal officers... finding no other way, I consulted the viceroy. He did not understand the decaying state of the mine, and matters would only worsen if he did not take steps against the inaccurate reports Vega made to him... I again ordered royal officers to administer this aid to the Gremio with the proportion of what I said.⁷⁶

Simultaneously, however, Ulloa notes the confrontations he often had with members of the guild, saying "if I were to say the ingratitude with which this and other benefits have been reciprocated with that I have attempted to give the miners, procuring to you how many disagreements we have had, it would never end."⁷⁷ Perhaps these conflicts overshadow Ulloa as someone who was repeatedly in conflict with the guild. Yet, he advocated for them, as well; he continuously sought out sufficient aid, even after facing obstacles from royal officials. Ulloa was not consistently combative towards the *gremio*, although other historians note his There exists a

⁷⁶Lo consulté primero con el antecesor y con el uno de los oficiales reales; el primero lo repugnó acérrimamente, porque esto no combenía a sus intentos; el oficial real fue de opinión que no había medio más adecuado para auxiliarlos y darles estímulo al trabajo; y no hallando yo otro camino, hize consulta sobre ello al virrey conde de Superunda. Éste, que no comprendía bien el estado decadente en que estaban y que era impocible que siguiese la avilitación de azoguez si no se tomaba algún medio por estar imprecionado en los informes siniestros que el antecesor Vega le había hecho, ni aprobó ni reprobo la providencia, sólo dixo en su repuesta ser necesario manejar con mucho tiento los caudales del herario para con los mineros, pero viendo que los clamores crecían y que las entradas de azogue disminuían sensiblemente, me resolví a ello, y cumplidos los primeros 6 meses de correr los hornos, en decreto de 17 de enero de 1759, ordené a los oficiales reales que subministrasen al Gremio este auxilio con la proporción que dejo dicho.

Kendall W Brown and Hernández Palomo, José Jesús. "Relación de Gobierno Del Real de Minas de Huancavelica (1758-1763)." Book. Lima, Perú: Banco Central de Reserva del Perú : Instituto de Estudios Peruanos, 2016, 137. Hereafter Antonio de Ulloa, *Relación de Gobierno*.

⁷⁷Si hubiese de decir la ingratitude con que an sido correspondidos éste y otros beneficios con que he atendido a los mineros, procurándoles quantos desaogos han estado de mi parte, sería nunca acabar. Antonio de Ulloa, *Relación de Gobierno*, 138.

complexity to Ulloa that warrants explanation. He did consistently battle with some members of the *gremio*, yet simultaneously had many members who supported him, such as the exorbitantly wealthy Gaspar Alejo de Mendiolaza. Yet, his position as governor was to extract as much mercury as possible, and curtail corruption. Without credit, miners had to turn to *aviadores*, which created a higher likelihood for missing or undertaxed mercury. Even if Ulloa hated the guild in its entirety, as he himself continuously insults them throughout the *relación*, he fought for their interests as they aligned with his, in reforming the integrity of mining operations to extract more mercury for Spain.

Ulloa understood the necessity of credit to miners and making sure there was enough funds available to keep mercury production profitable. In fact, he abolished the *quinto real* at the pleading of the miners, who were unable to afford production cost with such low quality, extinguished ore left in the mine. Abolishing the *quinto* seems a calculated move by Ulloa to discourage contraband sales, to remove the levy placed by the Crown, and one that is not without historic precedent; the *quinto real* was previously sliced in half to a *decimizo*, or ten percent rather than twenty, in order to encourage mineral production. It should also be noted that the *quinto* was temporarily suspended by Ulloa; its abolition was eventually approved formally by the *Audiencia* in Lima.

The Minería del Rey Experiment

In the same reforming spirit, Ulloa attempted to restructure the *gremio* under his direct supervision. Called *la Minería del Rey*, Ulloa established the company in 1759. Rather than individual miners operating their own veins, the *Minería* would act as a whole. More direct supervision by the governor would hopefully stimulate mercury production. However, Whitaker notes that Ulloa was not given the authority to do so; the courts ostensibly said yes, but his actual

legal standing was flimsy. *Gremio* members saw the Minería as royal expropriation. The governor was merely a supervisor to the guild, while the entire production process was handled by the miners themselves. The *veedores*, or inspectors, were also paid by the guild themselves, thereby creating a very real conflict of interest.

Ulloa wrote in his *Relación* to Charles III,

The Mining Guild was in the greatest disorder; the misery made them not cease in their clamor and for that reason they did not allow me to improve the output of mercury, nor was there anyone who wanted to mine the lowest grade ore, which was the most common; the scourge that was mined was little compared to what was needed, and I found no way to increase it. This difficulty caused me to start mining by *quenta* of the commonwealth, to which I gave the name of King's Mining in attention that all the expenses that were caused by it, were supplied by the Royal Caja under the sworn relations they presented the stewards of mine and the receipts, received and examined by me, and the scourge that was produced was taken to the Royal Warehouses every week, as is done with that of the miners, serving in payment of the amounts that were advanced, but the losses and gains were borne by the total of the Guild.⁷⁸

The Guild was refusing to operate the areas of the mine with perceived poor stores of mercury, and in an effort to increase output, the aforementioned Minería del Rey was created. Ulloa, rather than individual miners and *veedores*, could directly supervise the expenses, the production, and the work done in areas of the mine that were more hidden.

Drawing Meaning: Economic Success, Administrative Limitations

Both Jerónimo de Sola and Antonio de Ulloa had tangible successes. The *gremio*'s debt to the Crown remained similar under both, but production of mercury increased. However, there were also substantive differences in the post's capabilities under Sola as compared to Ulloa.

⁷⁸El Gremio de Mineros estaba en la mayor inopia; la miseria les hacía no cesar en sus clamores y por esto no conseguían que mexorase la piedra del azogue, ni había quien quiciere trabajar en las labores de baxa ley, que era el mayor número; el azogue que se conseguía era poco respecto del que se necesitaba, y yo no descubría camino para acrecentarlo. Esta dificultad me hizo entablar una minería por *quenta* de la mancomunidad, a la qual le di el nombre de Minería de Rey en atención a que todos los gastos que se causaban en ella, se suplían por la Caja Real en virtud de las relaciones juradas que presentaban los mayordomos de mina y del asiento de hornos, recibidas y examinadas por mí, y el azogue que producía se llevaba a los Almacenes Reales todas las semanas, como se hace con el de los mineros, sirviendo en pago de las cantidades que se tenían adelantadas, pero las pérdidas y ganancias eran de *quenta* de la mancomunidad del Gremio.

Antonio de Ulloa, *Relación de Gobierno*, 46.

Sola's position was vastly more powerful than Ulloa's, as he had almost entirely autonomous control over a branch of the viceregal exchequer. He controlled the *ramo de azogues*, and could use those funds to do much needed repairs to the mine. In 1751, a royal decree returned control of the *ramo de azogues* to the *audiencia*; thus, when Ulloa abolished the *quinto*, it was only temporarily until the *audiencia* agreed. From 1722 to 1748, Lima's *audiencia* always advanced sufficient funds in order to provide the *gremio* money for laborers, repairs, and the *invernada* season. With the *ramo de azogues* no longer being legally under the governor of Huancavelica's control, there was no such binding authority⁷⁹ Similarly, the construction of the *Minería del Rey* was based on Ulloa's own strategic efforts, yet was not without precedent. Gaspar de Cerda (1748-1754), who nominally had the same powers as his predecessor Sola, wanted to create a quite similar system, named the *Compañía de Azogues*. The viceroy at the time, Manso de Velasco, refused the idea. Even with the legal authority, Cerda could not enact the direct supervisory role that Ulloa later would with the *Minería del Rey*. More direct control was vital to managing Huancavelica, as was managing lines of credit to disparage corruption and fraud in the mine. The previous decentralized system of the late seventeenth and early eighteenth-century resulted in chaos. The administrative authority each governor had in performing these acts is thus vital in understanding the levels of mercury production, as well as the conflicts Sola and Ulloa had with members of the *gremio*, and how they are cast as effective or ineffective, forgotten or remembered.

⁷⁹Adrian J. Pearce, "Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru." *The Hispanic American Historical Review* 79, no. 4 (1999): 685.

*So many honors have been conferred to my merit, it would make me blush to repeat them here... The utilities, which I have expressed, of the new methods of work have resulted in the security of the mine, are difficult to describe in their entirety, as I desire to maintain the brevity of this report.*⁸⁰

Chapter Three: Labor and Working Conditions in Huancavelica *Introduction*

In chapter three, I will discuss the labor conditions in Huancavelica, focusing especially on the *mita* or draft labor system, and workers' health conditions. I attempt to analyze each governor's relationship to the local indigenous population (*indios*). As both Ulloa and Sola are repeatedly and contradictorily praised and chastised by historians, I aim to paint a more balanced portrait, of two governors who had more in common than not, and were faced with similar challenges in administering a mercury mine. I also push against a more forgiving narrative that in later years, the *mita* and more generally working conditions were humane in Huancavelica. To start, I will introduce the history of the *mita* in Peru. I also summarize the scholarship on colonial mercury mining and workers' health. I end the chapter with a description of labor conditions and attitudes during first Sola's, and then Ulloa's, governorships of Huancavelica. Ultimately, I conclude that Sola and Ulloa's descriptions of improved workers' health should be understood in the context of earlier conditions, and reaffirm the inhumanity of the mining conditions under both governors. I do not think the existence of *alquilas* necessarily equates to fair working conditions in the eighteenth century. While free-wage labor replaced much of the *mita* in the eighteenth century, more research must be done to explain why this shift occurred.

Mit'a: Turn for the Worst

⁸⁰“con unas tan honoras expresiones a la cortedad de mi merito, que me causara bastante rubor repetirlas aqui.... Las utilidades, que del expressado, nuevo methodo de trabajo han resultado, supuesta la seguridad, con que se ha establecido, son dificiles de exponerse todas, deséando la posible brevedad del Informe.”
Jerónimo de Sola y Fuente, *Relación e Informe*, 35.

To start, a basic framework of the *mita* system is necessary. Thus far, the *mita* is mentioned only in second chapter of this thesis, discussing the governor Casa Concha's refusal to abolish the system under Felipe V. In itself, there is some flexibility and autonomy given to a Huancavelican governorship, given that Casa Concha's was able to refuse such a reform. Much autonomy was given to each governor, if direct royal requests were able to be ignored by a governor.

The word *mit'a* (or the Hispanized *mita*) comes from Quechua, one of the many of indigenous languages of Peru and spoken by the Inca. *Mit'a* translates roughly to "turn." Under the Inca, whose empire lasted nearly four hundred years, the *mit'a* was an obligatory rotational work system. Like a *corvée*, the *mit'a* maintained a complex system of Incan highways, including the upkeep of *tampus*, or rest stops along the highway system. The *mit'a* was also predated by a smaller scale communal labor system, within individual villages, that exists still, and is called *minka* or *faena* in Spanish. After the Spanish conquest, which lasted from 1532 until the early 1570s, the *mit'a* system was adapted to fit Spanish preferences: namely, the extraction of precious metals.

The famous viceroy of Peru, Francisco de Toledo, constructed the Spanish adaptation of the *mita*. One seventh of eligible indigenous men were obliged to work, with special emphasis in agricultural and mining sectors. The first Spanish *mita* was in 1573, and worked in the silver mines in Potosí, from regions surrounding the mine. In Huancavelica, the *mita* provinces were from the central mountains, and included Tarma, Jauja, and Yauyos in the north, Castrovirreina, Lucanas, Vilcashuamain, Andahuaylas, Chumbivilcas, Cotabambas, and Aymaraes to the South, and Angaraes and Huanta to the east.

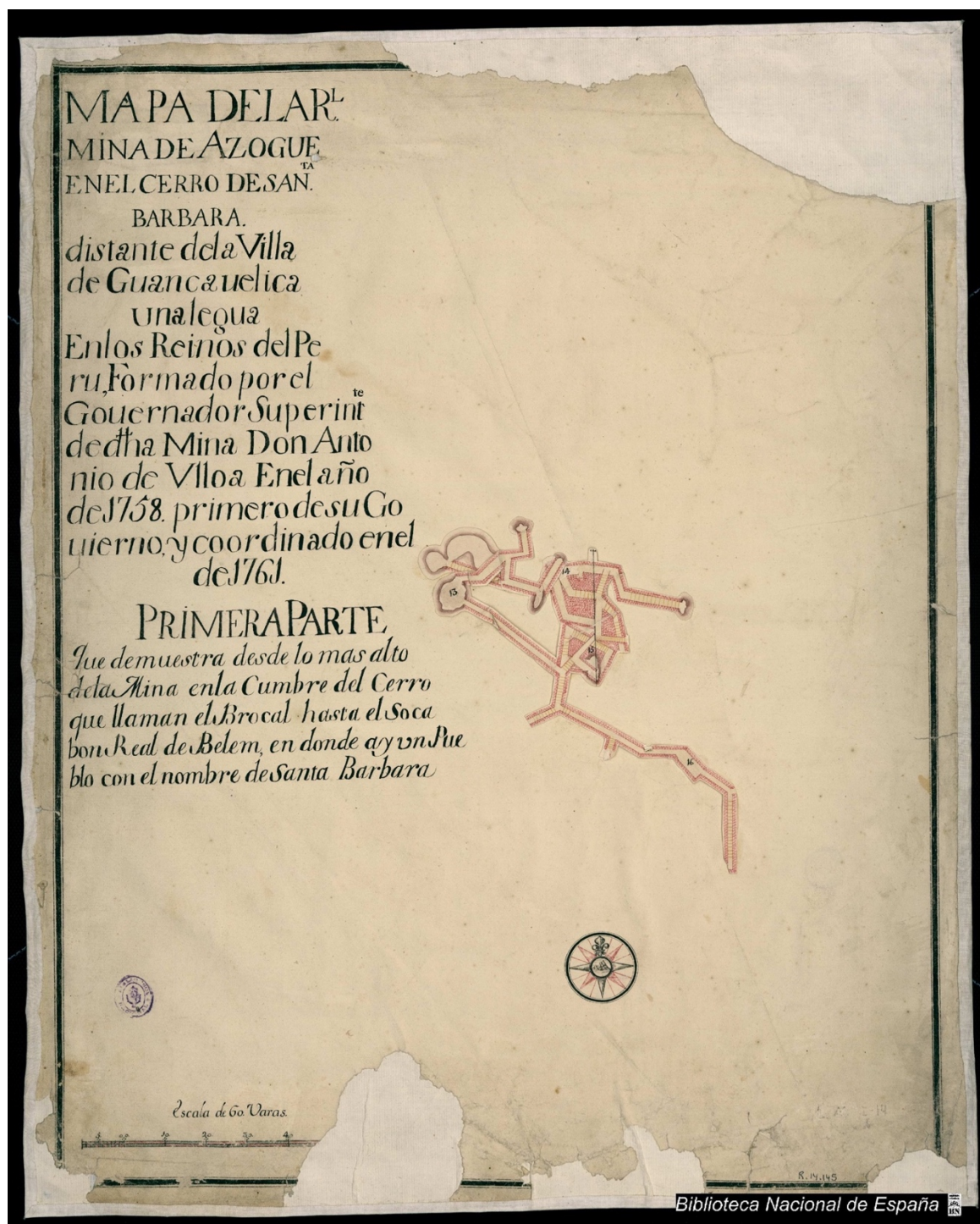


Fig. 4: First Map of the Santa Bárbara Mine by Antonio de Ulloa 1758

⁸¹ Antonio de Ulloa, de la RI. Mina de Azogue en el Cerro de Santa Barbara distante de la Villa de Guancavelica una legua, en los Reinos del Perú [Material cartográfico] : Primera Parte que demuestra desde lo mas alto de la Mina en la Cumbre del Cerro que llaman el Brocal hasta el Socabon Real de Belem, en donde ay un Pueblo con el nombre de Santa Bárbara / Formado por el Governador Superintente. de dha. Mina Don Antonio de Ulloa En el año 1758, primero de su Gobierno, y coordinado en el de 1761. MR-43-145, Sala Goya, Biblioteca Nacional de España, Madrid, Spain.

Royal and Clerical Debates Surrounding the Mita

From the outset, the *mita* was a source of contention. The question of the *indios* and their place in Spanish rule was never fully answered. The Spanish court and the clergy⁸² had an ongoing, and often contradictory debate about the status of indigenous in the Americas. In 1500, King Ferdinand II prohibited native slavery under any circumstances, but in 1503 allowed for “coerced labor” “for limited periods of time.”⁸³ In 1534, Carlos I allowed indigenous peoples to be enslaved after a “just” war⁸⁴, but under the 1543 New Laws, Carlos I reversed his position, prohibiting the enslavement of indigenous peoples. In the wake of the New Laws, various *encomenderos* rebelled in Peru, culminating in the death of Gonzalo Pizarro, half-brother of conquistador Francisco Pizarro. In 1570, the Viceroy Toledo recognized the controversy, and called a tribunal of clergy, jurists, and other officials to debate the *mita*; the council unanimously ratified the system. Despite this, the issue was not placed at rest. In fact, soon after, many clergy members who ruled in favor of the *mita* later recanted this decision.

Simultaneously, religious justifications were common in Catholic Spain. Various friars would justify the *mita* system as morally different than slavery. Some went as far as to justify the labor as a fair price, in exchange for religious salvation. Ecclesiastical colonial figures would acknowledge the abysmal mortality rate of the *mita*, but simultaneously defend its existence as necessary, and even good. José de Acosta (1540-1600), the famous Jesuit missionary, wrote “It is a fact that the silver mines were a cemetery of Indians. Many thousands have died from this type of work... And what are we going to say about the mining of mercury? By only breathing, even

⁸²Religion and the monarchy were fundamentally intertwined during this period, thus framing royal and ecclesiastical debates are not so much separate categories but different emphases.

⁸³Nicholas Robins, *Mercury, Mining, and Empire : The Human and Ecological Cost of Colonial Silver Mining in the Andes* (Bloomington: Indiana University Press, 2011), 67.

⁸⁴This included the 1513 *Requerimiento*, a document read to indigenous people requiring them to accept Spanish rule and convert to Catholicism. In 1500, indigenous people were granted the title of free vassals, except under just war. Not accepting Spanish legitimate authority, or refusing Catholic conversion, constituted a just war.

lightly, the vapors produced by the refining... [it is] instant death.” Yet, as historian Nicholas Robins notes, “Despite this, like the vast majority of [Acosta’s] peers, he argued that if the laws were only followed then ‘there is nothing bad about the mita.’” The *mita* itself was not the problem, but rather the administration. According to Acosta, if there were proper leadership and execution, the *mitayos* could be treated fairly, even in a system of forced labor.

A contemporary of Acosta, Juan de Solózano Pereira, an *oidor* of Lima⁸⁵ and governor of Huancavelica, was a prolific writer on colonial law in the Spanish Americas. Similar to Acosta, he acknowledged the danger of the *mita*, but justified it as necessary, inevitable, and religiously sanctioned: "The Indies, so Solóranzo opinionated, were like the fourth empire of the prophet David, its feet and foundations built on clay, and the Indians best compared to the children of Israel labouring for Pharaoh in Egypt." Many friars argued that indigenous peoples’ labor was ultimately the price of conversion and eternal salvation. God had commissioned Spain to create a gilded empire, and provided the workers and the gold to boot.

Ultimately, the *mita* was ratified in 1589 by King Philip II, sixteen years after the first drafted laborers arrived in Potosí. One-seventh of the eligible tributary population— able bodied males, aged eighteen to fifty— were required to work⁸⁶ by Spanish law. Since mining work was traditionally reserved only for criminals and slaves, the justification of the *mita* as morally and legally sound has resounding consequences for how labor would be constructed in Huancavelica.

The legal question was put to rest. Yet, the *mita* was not universally accepted; many indigenous workers and their representatives fought what amounted to a death sentence. Steve Stern notes the various ways in which *curaca* (indigenous leaders) would appeal or fight against

⁸⁵All governors of Lima were *oidores* at this time. For more on Huancavelican political and economic administration, see chapter 2.

⁸⁶Nicholas Robins, *Mercury, Mining, and Empire : The Human and Ecological Cost of Colonial Silver Mining in the Andes* (Bloomington: Indiana University Press, 2011). 67.

the *mita* system. In his book, *Peru's Indian peoples and the Challenge of Spanish Conquest*, Stern wrote, "By petitioning for revistas (reinspections) of their populations, native peoples lowered their legal tribute and mita quotas in accordance with real and pretended demographic decline."⁸⁷ Stern estimates that at least ten, but probably more, of the twenty core repartimientos (relocated towns of indigenous peoples) had their *mita* quotas lowered. He described in some detail *curaca* who sued for three years to avoid one *mitayo* de plaza in Huancavelica in the early 1600s. A mita de plaza would serve a lord in the household or in agricultural work, rather than in the mine. Indigenous leaders left an impressive historical record of petitions to lower the *mita* requirement, and sometimes were quite successful in lowering their obligation in persuasive procedural claims.⁸⁸

In the historiographical record, historians have debated that the *mita* system became an obstacle in developing the mining industry, because labor was so much cheaper with a *mita* instead of actual market price. The Duque de Palata claimed the only two components necessary to govern Huancavelica were credit and the 620 *mitayos*.⁸⁹ Perhaps the state-paid labor kept the true cost of mining hidden, and thus led to later difficulties in administration. However, other scholars argue that the costs of mining in Potosí and Huancavelica continued to promote the *mita* as necessary, as free wage labor was too expensive on a large scale, as was convict labor.

Almadén, the preeminent mercury mine in peninsular Spain, used convict labor starting in 1566; indeed, historian Ning Ma speculates *Don Quixote's* image of galley slaves were

⁸⁷Steve J Stern, *Peru's Indian Peoples and the Challenge of Spanish Conquest : Huamanga to 1640*. (Madison: University of Wisconsin Press, 1982), 123.

⁸⁸For more on indigenous elites use of the court system in colonial Peru, see Garrett, David T. "His Majesty's Most Loyal Vassals': The Indian Nobility and Tupac Amaru." *Hispanic American Historical Review* 84, no. 4 (2004): 575–617.

⁸⁹ Arthur P, Whitaker *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 15.

destined to work in the mercury mine.⁹⁰ Without the *mita* system, mines might not be profitable; the *quinto* tax on silver was cut into a *diecimo* for precisely this concern. If Huancavelica struggled to make a profit with the subsidized labor force, so the argument goes, imagine the cost if it had to pay a fair price.⁹¹

Originally, in 1571, Toledo set the *mita* quota for Huancavelica at 900 workers. In 1577, the quota increased to 3,280, as the silver mines at Potosí needed more and more mercury. Even at its outset, *mitayos* were paid a wage, but it was below subsistence levels, and below what their free-wage counterparts (*alquilas*) earned. Ultimately, more *alquilas* were used than *mitayos* in Huancavelica in the eighteenth-century. Whether the shift to free-wage labor is because health conditions were better, or the *mita* was widely avoided, is unclear.

Mercury Poisoning and Workers' Health

In addition to the ethical implications of the *mita*, which declined in use throughout the eighteenth century, there were also numerous hazards in mining mercury. Mercury, after all, is toxic. Mercury poisoning can occur in its water-soluble forms, by inhaling of mercury vapor or ingesting any mercury, which includes the toxic effects of water run-off. At the same time, even before Spanish conquest, Huancavelican mercury was consistently extracted for human use.

Long before Pizarro or Toledo, Huancavelica's mercury deposits were used by native Andeans. The *llimpi* or cinnabar, made of mercuric sulfide, was extracted and used in ceremonies, painting warriors' bodies, or as cosmetic; cinnabar has an exceptionally potent red pigment. The Inca did not have a writing system.⁹² Thus, written records of pre-Hispanic

⁹⁰Ning Ma, *The Age of Silver: The Rise of the Novel East and West*. (New York: Oxford University Press, 2017), 93.

⁹¹ D.A. Brading, *The First America: The Spanish Monarchy, Creole Patriots and the Liberal State 1492-1866*. Cambridge University Press, 1991.

⁹² Historians speculate on the knotted series of cords called a *quipu*— was it a system of accounting or language use? The hierarchized idea of more developed civilization needing a writing system has also been debunked in recent years.

cinnabar processing are not available. Archaeological evidence shows, however, analyzed sediment cores from two lakes near Huancavelica. Mercury pollution can be dated back to 1400 BC, the earliest mining evidence in the Andes. Colin Cooke, an environmental geologist at the University of Alberta, concluded that prior to Inca, mostly *llimpi* was used ceremoniously; in later years, the ore would be heated, and release toxic gaseous vapors, which are more hazardous to human health. The ovens were one of the most dangerous working sites, as the inhalation of mercury vapor is especially toxic. At the distillation ovens, the mercury was heated, and workers inhaled the noxious vapors. When ingested, most mercury passes through the human body without being absorbed, and maybe a small part is penetrated through one's skin. The Spanish system of mercury extraction had an entirely different level of danger for its workers than the prehispanic system. Even setting aside the ethical question of an obligatory mining workforce, the Spanish system led to an increase in mercury vapor, the element's most toxic form. Mercury is an exceptionally toxic mineral. Symptoms of mercury poisoning include muscle weakness, rashes, difficulty speaking, hearing, seeing, numbness in the hands and feet, and difficulty balancing.

Between 1564 and 1810, the colonial period, 17,000 metric tons of mercury vapor were emitted from cinnabar smelting in Huancavelica. Alone, two mines, Huancavelica and Potosí, contributed more than 25% of the 196,000 metric tons of vapor emissions in all of Latin America⁹³. In the early 1600s, as many as two-thirds of Huancavelica's laborers died. In modern

⁹³ Nicholas A. Robins, and Nicole A. Hagan. "Mercury Production and Use in Colonial Andean Silver Production: Emissions and Health Implications." Historical Article. *Environmental Health Perspectives* 120, no. 5 (1/5/2012): 627–31. doi:10.1289/ehp.1104192.

Huancavelica, the province has one of the country's highest infant mortality rates. Over 80% of homes in Huancavelica are constructed with bricks contaminated with mercury.⁹⁴

Other Hazards of the Mine

Mercury poisoning was only one of many hazards. Originally, the *gremio* only worked the surface ores, in an open pit; but as the years passed, the workers dug deeper. The sides of the pits would cave in, especially during the *invernada* or rainy season, and workers could be maimed or crushed to death. Water would often flood the pit, and miners would suffer in icy water, "frigid temperatures and high winds found at 13,000 feet above sea level."⁹⁵ The dry season offered no reprieve, as the sun beats down through the thin atmosphere. Pneumonia was common, and deadly. The subterranean tunnels were lit with candles and torches, and filled with what officials called *umpé*, or carbon monoxide, as smoke settled to the bottom of the tunnel.

Arthur Whitaker described the health risks as "the evils of the *mita* at its worst", consisting of mercury poisoning, carbon monoxide poisoning, pneumonia, and cave-ins; ultimately, "a horrific working environment."⁹⁶ Spanish administrators attempt to reform the mine on behalf of workers. Viceroy Luis de Velasco attempted to ban underground mining, where carbon monoxide poisoning was wont to occur. In 1604, after Velasco's continuous pleading, miners were confined only to work on whatever ores were in the open pit, which, of course, had its own aforementioned health hazards of extreme temperatures and landslides. Yet, per Velasco's reasoning, at least the miners would not suffocate to death. Velasco's successor,

⁹⁴ Nicole Hagan, Nicholas Robins, Heileen Hsu-Kim, Susan Halabi, Ruben Dario Espinoza Gonzales, Daniel deB. Richter, and John Vandenberg. "Residential Mercury Contamination in Adobe Brick Homes in Huancavelica, Peru." *PLoS ONE* 8, no. 9 (September 10, 2013): e75179. <https://doi.org/10.1371/journal.pone.0075179>.

⁹⁵Kendall W. Brown, "Workers' Health and Colonial Mercury Mining at Huancavelica, Peru." *The Americas* 57, no. 4 (2001): 467-96. Accessed January 5, 2020. www.jstor.org/stable/1007830, 471.

⁹⁶Arthur P. Whitaker *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 77.

the Count of Monterrey, “studied the economic realities” and decreed underground mining to be necessary. One step forward, two steps back, a common theme in reforming Huancavelica.

The Mita and Labor Conditions under Sola

Jerónimo de Sola y Fuente wrote that the mita was “a labyrinth very difficult to escape”, a problem impossible to solve.⁹⁷ He mused, as well, that “I wish it were not so notorious the inhumanity, in general in which they [mitayos] are treated.”⁹⁸ Sola wished Spanish cruelty was not so infamous, rather than wishing working conditions were healthier. While perhaps that is nitpicking the language of a devoted Regalist, the point remains true the quotation seems most concerned with Spanish reputation. Regardless, Sola generally presents working conditions at Huancavelica as relatively successful. In particular, Sola discusses the difficulty of fulfilling the *mita* contract, the impossibility of switching to convict labor, and the *gremio*’s desire for the commutation fee at the expense of the long term health of the mine. In terms workers’ health, Sola’s major contribution was a new ventilation shaft, and the innovation to switch to blasting instead of pick and shove when extracting ore. However, I argue Sola paints too rosy a picture in his presentation of healthy working conditions; while Huancavelica was markedly improved from the 1600s, by no means was it safe.

As previously discussed, rarely were the *asientos* followed. Of the 620 mitayos promised to Huancavelica, 446 actually arrived under the governorship of Casa Concha. For Sola, that number was even less, at 376 *mitayos*.⁹⁹ Like previous scholarship supports, Sola noted that it

⁹⁷“es un laberinto muy difícil de salir de él”

Jerónimo de Sola, Relación e Informe, 83.

⁹⁸“ojalá, no fuera tan notoria la inhumanidad, con que por lo general los tartan”

Jerónimo de Sola, Relación e Informe, 83.

⁹⁹Adrian J. Pearce, “Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru.” *Hispanic American Historical Review* 79, no. 4 (November 1, 1999): 669–702.

<https://doi.org/10.1215/00182168-79.4.669..>

was very difficult to have *mitayos* work in person, rather than *mitayo en plata* where corregidores would pay the fee.

In Sola's *Relación*, he wrote, "There is no talk of fears, which before they had to scourge, and lose their lives or health: I cannot deny, that before it was quite common, that a miner, in general, could not endure without shedding blood, or becoming ill from mercury, within three to four years at work; and now, they are seen entering the mines and leaving as robust and healthy at the end of their work, as they arrived on the first day."¹⁰⁰ In other words, workers leave as healthy on their last day as they enter on their first; mercury poisoning was a thing of the past. Arthur Whitaker refers to this specific quotation as evidence that Sola "had already called attention to the virtual disappearance of mercury poisoning in the Huancavelica mine."¹⁰¹ I posit that while the mining conditions might have improved, this should not be taken to mean the "virtual disappearance." According to Sola, other miners attribute the action of blasting in purifying the "males vapores de la Mina" (likely the quicksilver in dust, that a miner would often inhale when using a pick axe). In Sola's opinion, improved conditions were due to the enlargement of the tunnels and improved ventilation. Thus, improved health might have more to do with carbon monoxide poisoning than of mercury poisoning. Regardless, the effects of mercury poisoning can cause health complications long after initial exposure, and even so, the *mita* had its own difficulties.

¹⁰⁰ "No se habla ya de los miedos, que antes tenían de azogarse, y perder la vida ó la salud: no siendo capaz de negar ningun desapasionado, era aquí dictamente corriente, no haver piquero por lo general, que aguantasse sin arrojar sangre, y azogarse, de tres a quatro años en el trabajo; y ahora se les vé entrar, y salir tan robsutos al fin de este tiempo, como el primer día."

Jerónimo de Sola, *Relación e Informe*, 37.

¹⁰¹ Arthur P. Whitaker *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 111.

Sola wrote that the *mita* was rarely fulfilled, but whether “this fault falls to the relief of the miserable Indians, or of those who govern them in their Provinces”¹⁰², he would not speculate. The only certainty is that the *mitayos* were not arriving. However, Sola noted the necessity to have the *mita* in person, despite what the Gremio wanted:

It is extremely necessary the *mita* comes as people, because the Indians are dedicated to repairing and cleaning the Mine, and the smelting of metals, in everything that the continuation of this practice has made them skillfully practical. Of the others, the Miners fancy better, the *mita* come in Silver, to help themselves by force of their diligence with other *Alquilas*; not because if they were achieved effectively, and fell in due conformity, it was no more appreciable; but what is recognized, is, that starts with the poor disposition of the Corregidores, that for the said reasons, or for other guilty causes they do not embed, to those who rigorously affects [the *mitayos*]; and for the most part, that the Indians take to leave their sad houses, they hardly stop travelling for usually two, or three days; and many in it, who take the first help, when they become; and although it is the obligation of the Provinces to reimburse them, this is an eternal account, which [even] if it is rarely liquidated, complete payment is never achieved.

For which reason, although at the beginning I was somewhat influential, in that all had to come effectively, I did not produce another outcome, than to tire in vain, for not missing the matter more, than enough shelter to the Corregidores, capital enemies, not from *Mita*; but that this is precisely personal, having their well-known interests. And I think, it will be in vain any work, and it is not without risk to write this down.¹⁰³

Sola ultimately felt as though he were working in vain to gather the needed *mita*, because the *corregidores* had their own interest; however, the *mita* was necessary, because they knew how to repair and clean the mercury mine better than any others, in Sola’s view. However, the

¹⁰² “si esta falta recae en alivio de los miserables Indios, o de los que gobiernan en sus Pueblos”

Jerónimo de Sola, *Relación e Informe*, 85.

¹⁰³ En que son summamente necessarias las Mitas en personas, por estar dedicados sus Indios a los reparos, y limpia de la Mina, y la fundicion de los metales, en todo lo qual la continuacion los ha hecho diestramente practicos. De las demás, apeteçen mejor los Minereros, vengan en Plata, para socorrerse a fuerza de su diligencia con otros Alquilas; no porque si se logran efectivamente, y bajaraon en la debida conformidad, no fuera mas apreciable; pero lo que se reconoze, es, que parte por la malo disposicion de los Corregidores, que por los dichos motivos, o por otras culpables causas no embían, a los que rigorosamente les toca; y parte, por lo ma, que llevan los Indios el dejar sus tristes Casas, apenas se detinen por lo general dos, ó tres días; y muchos en el mismo, que cogen el primero socorro, quando se vuelven; y aunque es de la obligacion de las Provincias su reintegro, esta es una cuenta eterna, que si rar véz se liquida, nunca se logra la satisfacción completa.

Por cuyo motivo, aunque al principio infifti, en que todos habían de venir efectivamente, no faqué otro fruto, que el de conocer, era cansarse en valde, por no faltar en la materia el más, que suficiente abrigo a los Corregidores, enemigos capitales, no de la *Mita*; sino de que esta sea precisamente personal, teniendo ellos sus notoriamente sabidos intereses. Y assi creo, será en vano qualquiera trabajo, que en el assumpto se quiera impender por razones, que no sin algun riesgo le pueden trasladar al papel.

Jerónimo de Sola, *Relación e Informe*, 84.

gremio did not mind that the majority of the *mita* became essentially a cash payment from *corregidores* who paid to commute the workers' sentence.

Convict Labor as an Alternative

Not all Spanish mines used mitayos and free-laborers as their work force. The job was also done by prisoners, a system especially predominant in Almadén. Sola declared the switch impossible in Huancavelica. Prior to his governorship, Sola toured the Spanish mercury mine, and took recommendations from a successful governor of Almadén to better administer Huancavelica. Indeed, in 1734, the former governor of Almadén, José Cornejo y Ibarra, made a report with recommendations for Huancavelica, including eliminating the guild for a system of direct crown exploitation, and making the governorship entirely independent from the viceroy. Sola was the governor appointed immediately following this report, charged with its enforcement. Thus, the transition to convict labor was a natural progression to consider, as Huancavelica was constantly measured in comparison to Almadén. On this topic, Sola writes, “merecieren esta pena”— this deserves the effort:

And that this work [of prison labor] would be executed at such a great cost, that even today, when we talk about this idea, many sighs are heard, from those who already spend plenty, but it is equally so, that never could such an idealistic be fulfilled, for to do it, and it is notorious, that although the Prison was built, it was written to the Provinces, so that their respective Judges imposed this penalty [of laboring in the mines], and some condemned misdoers came, not one prisoner, to spend their detention here for fifteen days, or plus one month, because the entire situation of this mine is different from that of Almaden.¹⁰⁴

¹⁰⁴ Y que se executó esta obra a tanta costa, que aun hoy, quando se habla de este punto, se oyen bastantes suspiros, de los que ayudaron a su gasto, pero igualmente lo es, que nunca pudo tener efecto cumplido tan elevado pensamiento, por ser publico, y notorio, que aunque se edifico la Carzel, se escribió a las Provincias, para que sus respectivos Juezes impusiesen esta pena, y vinieron algunos Malhechores condenados, no hubo uno, que passasse su detencion aquí de quinze dias, ó á lo más un mes, por ser distinta toda la situacion de esta Mina de la del Almaden

Jerónimo de Sola, *Relación e Informe*, 86.

Whenever Sola mentions the idea, everyone around him sighs. Switching to convict labor is an exhausting, pointless, conversation. The transition would be far too expensive, and although a prison was built, and some judges sentenced convicts to labor in Huancavelica, the “entire situation of this Mine is different than that of Almadén.”¹⁰⁵ Sola then lists many practicalities of why the convict labor system could never work, in part because the responsibility to prevent the prisoners’ escape would be thrust onto “some unfortunate *Indio Alcalde* [indigenous laborers in a supervisory role, below the *veedores* and *sobrestantes*]”. Sola, poignantly, wrote that “they would either make fun of him, or agree with them, and help them escape.”¹⁰⁶ He also writes that “not even the *veedores* could know everyone”¹⁰⁷ Other laborers might help the prisoners escape, because they would be sympathetic to the prisoners. The Spanish *veedores* do not know everyone in the mine, to be able to recognize they are prisoners. The *veedores* cannot be trusted besides. Prison labor is too expensive to enforce. While a small parcel of evidence, the impossibility of convict labor reinforces that the mine still had horrible working conditions. Even convicted criminals might have mercy taken upon them.

The Mita and Labor Conditions under Ulloa

Some scholars have cited Antonio de Ulloa as irrefutable proof of the better status of the mine. Ulloa was a renowned critic of Spain’s treatment towards indigenous populations. In *Noticias Secretas*, the secret report Antonio de Ulloa and his fellow naval officer Jorge Juan wrote, he advocated to ban *repartos*, the forced sale of worthless goods at inflated prices to indigenous peoples. He also advocated paying *mitayos* the same market value as free workers,

¹⁰⁵“por ser distinta toda la situacion de esta Mina de la del Almaden”
Jerónimo de Sola, *Relación e Informe*, 86.

¹⁰⁶ “que, o hazen bura de él, o se conviene con ellos, y los acompaña en la suga.”
Jerónimo de Sola, *Relación e Informe*, 86.

¹⁰⁷ “que ni aun los *veedores* pueden conozer a todos.”
Jerónimo de Sola, *Relación e Informe*, 86.

but conceded “Everyone in Peru would rail against a measure of this type.”¹⁰⁸ In fact, Ulloa was so outspoken in *Noticias Secretas*, future historians have debated whether he was simple a proponent of the Black Legend. Criticizing Spanish treatment of indigenous Americans was fashionable, as the Black Legend developed in part to defend Protestants’ colonialism by casting Catholics as uniquely evil.

Because in part of Ulloa’s reputation as a sympathetic, Enlightened scientist, scholars argued his testimony was irrefutable proof that Huancavelica’s working conditions were no longer appalling. Arthur Whitaker wrote,

By fully corroborating earlier testimony to the fact that *mitayos* no longer suffered the mercury poisoning and other injuries that had once made this mine a hell on earth for their race. Since his desire to ameliorate the lot of the Indians was well known at Madrid, his testimony on this point especially established it beyond a reasonable doubt.¹⁰⁹

Both Sola and Ulloa are cited as proof by Whitaker the *mita* and the mine was no longer as deadly as it used to be. However, I would argue that Whitaker is overly apologetic, and that Sola and Ulloa have varying motivations, and understandings, of the working conditions. While both are trained scientists (Sola having experience at Almadén), neither can be called humanitarian.

It is fundamentally true that Ulloa described the mine as not nearly as dangerous or unhealthy as before, and claimed it deserved less “compassion”.¹¹⁰ Yet, Antonio de Ulloa was a white man living in the eighteenth century,¹¹¹ and while a reformist and gifted scientists, I think

¹⁰⁸ Quiroz, Alfonso W. “Corrupt Circles : A History of Unbound Graft in Peru.” Book. Washington, D.C. : Baltimore : Woodrow Wilson Center Press ; Johns Hopkins University Press, 2008, 31.

¹⁰⁹ Arthur P. Whitaker, *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 49.

¹¹⁰ Kendall W. Brown, *A History of Mining in Latin America : From the Colonial Era to the Present*. Diálogos Series. Albuquerque: University of New Mexico Press, 68.

¹¹¹ He also married a 15 year old girl at the age of 42.

the historiography deserves an explicit reckoning of his relationship with race as nuanced, and problematic. Of course, Ulloa operated and existed within his own cultural context, but to merely take his word as emphatic proof of the improved conditions of the mine is reckless. Ulloa had his own views, which oscillate between a fierce defense of indigenous people's humanity, and reiterating racist stereotypes about their character and work ethic. Ulloa's *Relación*, as Whitaker himself notes, was written as a scourge against corruption of the *gremio*, during a period in which he was trying to resign.

Ulloa wrote in his *Relación*,

This [tunnel] had a varanda of poles that were very bad, which surrounded themselves and many misfortunes happened, happening that the Indians, sometimes careless and sometimes because of drunkenness, fell down, and making occasion in my time when a mule loaded with metals knocked off by him [on the side: Providence] I arranged for the masonry parapet to be done, which it has been done, and I ordered it to be paved, as it is, to avoid the much mud that was done in that little path, which also corresponds to the tunnels of the mine.¹¹²

The pillars meant to support the tunnel were often very weak, and many indigenous workers would fall and injure themselves. Ulloa claims this was sometimes due to the carelessness of indigenous workers, or their drunkenness. Yet, Ulloa first stated the poles were weak; how, then, does he conclude the injuries lie with indigenous people's carelessness or drunkenness. Ulloa also has described the mine as "like a sieve"¹¹³, as it was so prone to flooding, making it slippery, and dangerous. His characterizations of *drunkenness* and *carelessness* are questionable. Ulloa sometimes blames the safety conditions of the mine on

¹¹² Este brocal tenía una varanda de palos muy mala, que se rodeaban y sucedía bastantes desgracias, aconteciendo que los yndios, unas vezes por descuido y otras con la embriaguez, se despeñaban, y habiendo ocación en mi tiempo en que una mula cargada de metales se despeñase por él [al margen: Providencia] yo dispuse que se hiciese el pretil de mampostería, que oy tiene, y mandé que se empedrase, como está, para evitar el mucho lodo que se hacía en aquel tránsito, el qual corresponde también sobre los oquedades de la mina.

Antonio de Ulloa, *Relación de Gobierno*, 38

¹¹³ "La mina estaba como una criba"

Antonio de Ulloa, *Relación de Gobierno*, 35.

previous governors, or members of the guild who illicitly mine into the pillars for mercury. This might be true (and many scholars believe so), however, when discussing the deaths of Indians, it is their carelessness and drunkenness. Ulloa's priority was always increasing mercury production, rather than protecting indigenous workers. His oscillation between racism and humanitarian rhetoric is proof of an inconsistent vision of *los indios*. In shockingly overt language from a figure once compared to Las Casas¹¹⁴, Ulloa condemns "the natural laziness, which reigns in such a race, it is not easy to have them work if they were not forced to do these services."¹¹⁵ However, Kendall Brown also notes that *alquilas* (free-wage laborers) rather than *mitayos* comprised most of the labor force; the argument goes, if voluntary labor exists, then it surely must not be so bad. Yet, Ulloa does repeat racist tropes of indigenous Americans as lazy drunkards, careless, and the *mita* as a source of necessary discipline or tribute to a sort of parental Spain.

However, indigenous miners' the use of alcohol in Huancavelica might have had a surprising basis in human anatomy, rather than the racist reasons Ulloa posited. Kendall Brown noted poisoned workers or *azogados* "turned to alcoholic stimulates to give temporary relief to their physical depression and restlessness", and they suffered "powerful tremors of their heads and limbs which made walking, eating, and drinking difficult."¹¹⁶ Turning to alcohol as a self-medication to treat one's mercury poisoning might explain the drunkenness Ulloa saw. He went so far as to claim brandy killed more than twice as many workers as mercury poisoning; could it be the case they were one and the same, or at least related? I posit it warrants consideration.

¹¹⁴Lewis Hanke, "Dos Palabras on Antonio de Ulloa and the Noticias Secretas." *The Hispanic American Historical Review* 16, no. 4 (1936): 479–514. <https://doi.org/10.2307/2506989>.

¹¹⁵ "assí la circunstancia de contribuirlos las provincias se reduce a tener gente segura, porque en la pereza natural, que reina en semejante gente, no sería fácil conseguirlos si no se les obligase a hacer estos servicios." Antonio de Ulloa, *Relación de Gobierno*, 153.

¹¹⁶ Brown, Kendall W. "Workers' Health and Colonial Mercury Mining at Huancavelica, Peru." *The Americas* 57, no. 4 (2001): 467-96. Accessed January 5, 2020. www.jstor.org/stable/1007830, 480.

When mercury poisoning symptoms include difficulty walking, and the mine is flooded, carelessness might not be the cause of workers' falling, nor their drinking habits.

Antonio de Ulloa, though repeatedly deemed “honest”, had his own motivations. In *Noticias Secretas*, Ulloa described “the sulphurous smoke that they continually breathe, coming from the ovens in which they extract the mercury, which are in such abundance, that in summer time with the freezes, form a dense cloud, that covers the area of the town”¹¹⁷, citing mercury as one cause of childhood respiratory illness. Yet, as governor, he asserted that mercury poisoning was no longer a threat to workers.¹¹⁸ While Antonio de Ulloa and Jorge Juan y Santacilia travelled to the Spanish Indies in 1735-1744, their report was written in 1749; Ulloa became governor of Huancavelica in 1758. In my view, the confidentiality of the *Noticias Secretas* speaks in part to its honesty, while a *relación* has its own bias and motivation to self-report in a more flattering light, especially given the other problems of his administration. Glossing over working conditions might make sense, as the *relación* focused intently on the *gremio* and corruption. To point out the many dead and ill workers might not be in Ulloa's best interest, as his report already contains many difficulties he experienced in his self-described purgatory. In reporting on one's own tenure, to a superior officer, Ulloa's honesty cannot be. The intellectual reckoning given to the *Noticias*'s reputability in the nineteenth and mid-twentieth century must also occur with his *Relación*; its honesty cannot be assumed.

Drawing Meaning: the Mita and Health in Huancavelica

¹¹⁷Nicholas Robins, *Mercury, Mining, and Empire: The Human and Ecological Cost of Colonial Silver Mining in the Andes* (Bloomington: Indiana University Press, 2011), 136

¹¹⁸Nicholas A. Robins, and Nicole A. Hagan. “Mercury Production and Use in Colonial Andean Silver Production: Emissions and Health Implications.” *Historical Article. Environmental Health Perspectives* 120, no. 5 (1/5/2012): 627–31. doi:10.1289/ehp.1104192.

Both Sola and Ulloa were operating in a system where the *mita* existed, although to a lesser scale than the seventeenth century. Ultimately, the *mita* was an obligatory work program. While many indigenous peoples commuted their sentences, via the *corregidores* paying their commutation fee, or indigenous leaders appealing to reduce the quota required, the *mita* still existed. Neither advocated for the *mita* to end. Likewise, while Ulloa adamantly defends the safety of the mine, Sola felt that the *gremio* was largely obstructive towards any real labor changes, preferring the *mita en plata* as a quick cash flow. In examining Sola's relationship to the *gremio* in the next chapter, Sola's description of "merecieren esta pena"¹¹⁹, what is worth the effort and pain, is particularly apt. Sola framed labor in terms of economic output, describing the impossibility of prison labor, and the need for skilled laborers. Ultimately, both Sola and Ulloa should be looked to with more skepticism, regarding their descriptions of healthy and safe working conditions. Scholars consistently cite them as honest, upright, and Enlightened. It is worth remembering they were colonial officials in the eighteenth century, and what they claimed to be healthy labor conditions *merecieren esta pena* of contesting clearly and adamantly.

¹¹⁹ Jerónimo de Sola, *Relación e Informe*, 86.

*If there are monstrosities in the government of men, nowhere is worse than the miners of Huancavelica; if there is any punishment under the guise of an apparent title of honor, it is to govern this guild.*¹²⁰

Chapter Four: Lima, The *Gremio*, and the Governors

Introduction

To govern Huancavelica was a tenuous balancing act: between conflicting and conflating interests from *limeños* (elites in Lima), the *gremio*, and the Crown. Especially in Antonio de Ulloa's *Relación*, the dominant theme was a contentious battle between him and the *gremio* and the corruption embroiled in Huancavelican administration. Ultimately, while Jerónimo de Sola and Antonio de Ulloa had relatively comparable tenures as governors, in terms of increasing mercury production, their similar perspective on the *mita* and working conditions, the two governors varied dramatically in their interactions with the miners' guild and *audiencia* in Lima. Jerónimo de Sola appeared much more inclined to acquiesce to the guild's interest, while Ulloa was much more combative, despite Sola's, at least nominally, greater administrative power.

To structure this chapter, I introduce a brief guide to Spanish colonial administration, as well as historiographical discussion on *creoles* and *peninsulares*. I then discuss various aspects of the guild and its relationship to the governor, with continuing discussion on the varying levels of administrative power Sola and Ulloa had. In analyzing Jerónimo de Sola's tenure, I discuss how the *audiencia* challenged his powers of the *ramo de azogue*, the role of his trusted deputy of the mine, Manuel Saldana, and how the *gremio* influenced Sola in lobbying for certain preferred labor practices. In discussing Ulloa's administration, I focus especially on the legal battle he was ensnared in between two *veedores* and the Viceroy of Peru himself, Manuel de Amat y Junyent. I

¹²⁰Si ay monstruocidades en el gobierno de los hombres, está verificado más que en ninguna otra sociedad en la de los mineros de Huancavelica; y si hai pena simulada que imponerle a un hombre baxo del título aparante de ocupación onorífica, lo es el gobernar este Gremio
Antonio de Ulloa, *Relación de Gobierno*, 132.

finish with some tentative conclusions about two different governorships: Sola might have been more willing to acquiesce, but he had more legitimate power in his post, whereas Ulloa was more combative, with less substantive backing. I conclude there are a variety of reasons Sola might have behaved as he did, in comparison to Ulloa, including the fact that he had more legitimate authority to fall back upon if necessary. Sola was also appointed after a wave of reforming governors, like the Marquis de Casa Concha. In contrast, Ulloa, lacked some of the powers Sola had, especially control of the *ramo de azogue*. Antonio de Ulloa also inherited the post from a notoriously corrupt administration and years of consistent depleting mercury outputs.

A Guide to Colonial Administration

To evaluate Sola and Ulloa's relationship with the various sectors of colonial administration, we must first introduce the actors and institutions of administration: the monarch, the *Consejo de Indias*, the viceroys and viceroyalties, the *audiencia*, the *alcaldes mayores* or *corregidores*, and, of course, the *gobernadores*. I have listed these roles in roughly descending order of power. The monarch, of course, held the most power. The Council of the Indies, or *Consejo de Indias*, established in 1524, was an advisory committee to the King with administrative and legislative functions, on all matters in the Spanish Americas and Philippines. The viceroyalties were the larger provinces in Spanish America, and until the eighteenth century, included only New Spain (roughly, modern-day Mexico) and Peru (Spanish South America). In 1739, the viceroyalty of New Granada was recognized, centered in Santa Fe de Bogota. The viceroys were essentially executive officers, with control of the colonial treasury. Various *audiencias*, for example in Lima and Quito, served as regional courts of appeals, with *oidor* or judges who also had some legislative power. The *audiencias* were key oversight institutions, who would generally assess both *corregidores* and *alcades mayores*, as well as governors. The

oidores appointments were also lifelong posts, contributing significant power to the *audiencia*. At the local level, *alcades mayores* or *corregidores* governed over provinces. These individuals had strong, localized power, including the ability to collect the *repartimiento*, or the system of forced sale of goods at inflated prices to the indigenous population. In a similar vein, *gobernadores* or governors were essentially provincial executives, but particularly militaristic actors, if placed on the frontier.

Origins of the Gremio

After the expropriation of the mine in 1563, rather than have direct extraction by the Crown, the mercury mine was leased to *gremio*, who would operate and extract the mine on their own private accounts. In exchange, the *gremio* was contractually obliged to sell the extracted mercury back to the crown. Under this system, Spain was a sort of landlord, leasing out the use of the mine, while maintaining its ultimate ownership. Initially, Huancavelica's miners' guild was composed of the original six discoverers of the mine. In succeeding years, descendants were given priority as applicants for admission to the guild. In the eighteenth century, the guild grew to about thirty people. Because each miner had his own crew of workers, his own excavation, and his own furnaces to distill the mercury, the guild members demonstrated some socioeconomic diversities. Some members were wealthy, due to operating in areas with rich mercury veins, while others relied on a weak, seasonal, and inconsistent income.

Corruption, Creoles and Peninsulares

The historical conception of *creoles* and *penisulares* politics is relevant to the discussion on Sola and Ulloa. *Creoles* were Spaniards born in the Americas, while *penisulares* were Spaniards born in Spain; traditionally in the historiography of Spanish colonialism, the antagonism and competition for power between these two groups are highlighted, to the point of

attributing various colonies' independence from Spain as an inherently creole movement. In fact, Leon G. Campbell proclaimed "Jorge Juan and Antonio de Ulloa, for example, in 1741 described Lima as 'a theatre of discord and perpetual wrangling' between creoles and peninsulares, which surpassed in intensity the hostility between two nations at war. That this antipathy existed is irrefutable."¹²¹ During the eighteenth century, *peninsulares*, and especially military officers, were viewed by the reforming Bourbon Crown as more effective administrators. Spanish *peninsulares* faced greater social and reputation costs from disloyalty to the Crown, and so the military and nobles were seen as closely entwined with the Crown's interests, more loyal and morally upright.

To call the enmity between *creole* and *peninsular* irrefutable is, in part, because the differing status of the two groups very much so existed. Yet, as both Campbell and Kendall Brown have successfully argued, whittling Spanish colonial history down to the paradigm of creole vs. peninsular is reductionist. For example, by the beginning of the eighteenth century, *creoles* held the majority of seats in the *Audiencia* in Lima.¹²² Yet, simultaneously, between 1673 and 1751, office-selling was a common colonial practice. Selling colonial positions was a quick way to alleviate fiscal crises, especially during costly European wars (like the Seven Years War). In fact, during wartime, office posts sold for much higher prices, because extraction via illicit means from the provinces was an easier endeavor under the chaos of military conflict. The price of the post increased by 30% in wartime during peace.¹²³

¹²¹ Leon G. Campbell, "A Colonial Establishment: Creole Domination of the Audiencia of Lima during the Late Eighteenth Century." *The Hispanic American Historical Review* 52, no. 1 (1972): 1-25. Accessed January 27, 2020. doi:10.2307/2512140.

¹²² *Ibid.*

¹²³ Jenny Guardado "Office-selling, corruption, and long-term development in Peru." *The American Political Science Review* 112, no.4, 2019, 971-995. doi:http://dx.doi.org.proxy.lib.umich.edu/10.1017/S000305541800045X

Jerónimo de Sola's Relationship with the Veedores and Gremio

In contrast to Ulloa, Sola had a much less inflammatory relationship with the guild. Sola and Ulloa had somewhat strengthened administrative powers under the Bourbon Reforms—both, at least theoretically, could operate semi-autonomously outside of Lima and its *audiencia*. Ultimately, however, Sola had a less contentious relationship with the guild, at least in part because he had considerably more power. Sola's nominal authority does not mean he was uncontested. He faced considerable animosity from the elite in Lima. With Sola's appointment, the entirety of mercury funds transferred from the *audiencia's* control. Yet, from the outset of the War of Jenkins' Ear, "the viceroys insisted that all funds in Huancavelica surplus to the mine's operating requirements be remitted to Lima; in this way, they frustrated the clause of Sola's commission that ordered that all such surplus be sent directly to Spain." Indeed, historian Pearce notes that "While these authorities [in Lima] always advanced sufficient funds to the Huancavelica treasury, they also found a variety of pretext to requisition sums from the income from mercury sales. This was in open violation of Sola's authority, but the governor found it prudent to acquiesce to these affronts."¹²⁴ Rather than openly combat these charges, Sola simply sent the money as requested.

The *veedores* or inspectors of the mine, while appointed by the governor, were paid by the *gremio*. As previously discussed, the miners had their own operating sites, with richer or poorer ores available. Naturally, this system incentivized bribing a *veedor* to look the other way as workers mine the rich *estribos*, critical to the foundation of the mine, but rich in ore. Sola noted the easily corrupted *veedores* in his *Relación*: "therefore I have had ample experience, that

¹²⁴ Adrian J. Pearce, *The Origins of Bourbon Reform in Spanish South America, 1700-1763*. (New York: Palgrave Macmillan, 2014).

in this Places, very few are content with their assigned salary, even if it were raised.”¹²⁵

Regardless of their pay, few *veedores* felt it was sufficient. After all, in addition to their base salary, there were always miners willing to pay more for the *veedores* to look the other way as workers mined forbidden sites. Additionally, the *gremio* was the one charged with paying their salary, despite the fact the *veedores* reported to the governor, creating a deep conflict of interest. Rarely is it a good idea for accountability officers to be paid by those meant to be held accountable. Their salary was paid by the very members who would bribe them; nominal accountability to the governor meant little, even if the governor selected them. Sola writes of the fraud in a section titled *It is not safe to trust blindly what the veedores report*¹²⁶:

There is no doubt in saying, that if a Miner, or by Compadre del Veedor, or because the pillar is so profitable, it seems to him that the metal of a *Estribo*, or of the Pillar is the richest, and as such they feel like it, as it happens often, they will mine the *estribo*, and it is not difficult for the *Veedor* to excuse with some veil of legitimacy, to affirm the *estribo* was over there, that the metal was right to be mined, and cover it up with a repair of Lime, and stone is assembled artfully around them, so that the same strength seems to be maintained in the immediate vicinity.¹²⁷

The *veedor* would lie, and cover up the mining of the *estribos*. This is not a novel occurrence, unique to the governorship of Jerónimo de Sola. The Huancavelica mercury mine had cave-ins in 1608, 1616, 1639, and 1640 due to the continuous, illicit mining the *estribos*. The problem was pervasive, and, in part, inherent due to the nature of the mining operation. The organization of the *gremio* charged different areas to be mined by different members, some

¹²⁵ “pues me hallo con sobrada experiencia, de que en este Paíz pocos se contentan con el salario assinado, aunque sea crecido”

Jerónimo de Sola, *Relación e Informe*, 56.

¹²⁶ “No es tampoco lo mas seguro estar ciegamente a lo que informan los Veedores”

Jerónimo de Sola, *Relación e Informe*, 44.

¹²⁷ No quedandome eserupulo alguno en assegurar, que sí a un Minero, ó por Compadre del Veedor, o porque se lo paga muy bien, se le antoja que el metal de un Estribo, o de un Puente es el mas rico, y como tal le apetece, pues sucede assi en la mayor parte, se le comerá, y no le faltará al Veedor escusa con visos de legitima, para afirmar estaba allí de más, que el metal se debe desfrutar, que con un reparo de Cal, y piedra queda igualmente asegurado, además, de que en los inmediatos tiene el parage la misma fortaleza.

Jerónimo de Sola, *Relación e Informe*, 44.

richer or poorer. The pillars that supported the mine had the richest ore. The inspectors or *veedores* charged with preventing misconduct were paid by those they were meant to hold accountable.

In order to combat illicit mining, Sola appointed a trusted official, Don Manuel Saldana, after he fell too ill to inspect the mine himself. Manuel Saldana came with Sola from Spain, as he was the marquis of San Antonio. Sola sang his praises in his *Relación*:

Having known him for many years, I am fully assured of his honesty, and of the love, with which he looked at everything, which seemed conducive to my good impression: he who would have dedicated himself to inspecting the Mine every week, the same practice I would do. And by this efficient means, the aforementioned; and I am glad with the news above, which gave me, we applied so much to effort to this substantial point, and punish the slightest contravention, which can be enshrined with reality, which everyone will say, be notorious, that no Miner, *mayordomo*, nor *ayudante*, as bold as they may be, it is hard for them to imagine touching, even slightly, any Stirrup, nor Pillar, because the Ministers of the Mine were not arbitrary or lax in permitting them to do so.¹²⁸

Sola was completely convinced of Manuel Saldana's honesty and integrity, that no one would dare touch the *estribos*, rich as they are with mercury. Sola's trust in his deputy in the mine, Manuel Saldana, coupled with his acquisition to the *audiencia*'s challenge, might suggest Sola was an administrator willing to delegate or compromise his own authority. Perhaps it is not surprising his tenure lasted twelve years, longer than fourteen of the previous governors, as he was someone willing to compromise. Yet, Sola was also aware of how the issue of *estribos* would not go away after his administration ends.

But I cannot fail to warn, that whenever they recognize a break in this surveillance, they [the miners] will not fail to lose all respect again, because of the incentive, always, their

¹²⁸Por haber mantenidose en mi compañía muchas años, tenía cumplida satisfacción de su honradéz, y del amor, con que miraba todo, lo que suee conducente a mi buen ayre: el que habiendole dedicado a reconocer todas las semanas la Mina, se ha hecho tan practico de ella, como el que más. Y por este eficaz medio, el arriba; y yo abajo con las noticias, que me daba, nos aplicamos tanto a zelar este tan substancial punto, y castigar la más minima contravencion, que se puede assegurar con la realidad, que dirán todos, ser notoria, que ya a ningun Minero, Mayordomo, ni Ayudante, por atrevidos que sean, les passa por la imaginacion tocar, ni aun levemente, en Estribo, ni Puente, por saber no tenían arbitrario en su permission los Ministros de la Mina. Jerónimo de Sola, *Relación e Informe*, 45.

reigning greed. And this precise threat, the one who must be responsible, of what will happen, must be a trustworthy person worthy of such confidence, that by imposing himself, in what is happening in the mine, he can prevent with his attention and contain the disorder.¹²⁹

Sola claimed to have someone he can trust in his administration, a capable, honest delegate who could curb the illegal and dangerous practice of mining the *estribos*. However, he recognized the problem transcended his own administration; he must warn against the “disorder” that is bound to continue. The inertia of corruption is something Sola foresaw as an ongoing, inevitable issue, a looming threat against Huancavelica’s good governance. However, Ulloa cast some doubt cast on Sola’s representation of his faultless experience curtailing illegal mining. The *relación* as a final report evaluating one’s own governorship might have encouraged Sola’s embellishment of the trustworthy nature of his delegates, as it would reflect well on his own leadership.

Antonio de Ulloa’s Relationship with the Veedores, the Gremio, and the Viceroy

Sola’s premonition was correct. Ulloa’s *veedores* were not men like Manuel Saldana, who Sola knew for years from Spain. However, Ulloa even challenged the honesty of Sola’s *veedores*, writing,

Jerónimo de Solo appointed two men no less rustic than those from Huancavelica, although they came from Almadén; the miners bribed them more than forty thousand pesos each; from such exorbitant sums it is understood how much disorder these contributions were meant to cover.¹³⁰

Ulloa estimated the miners bribed Sola’s *veedores* a total of 40,000 pesos, though how he arrived at that sum is unclear. To clarify, Saldana was not a *veedor*, but sort of Sola’s second in

¹²⁹Pero no puedo dejar de advertir, que siempre que se reconozca alguna intermision en otra igual vigilancia, con facilidad se les volverá a perder el respecto, por el incentivo, en todo ocasion, reynanre de la codicia. Y assi discurso preciso, el que háde ser responsable, de lo que sucedire, valerse de Persona de semeiante confianza, paraque imponiendose, en lo que es la Mina, pueda con sus cierros avisos contener los desordenes. Jerónimo de Sola, *Relación e Informe*, 46.

¹³⁰D Gerónimo de Solo colocó en estos empleos dos hombres no menos rústicos de los de Guancavelica, aunque venidos de Almadén; los sobornos que los mineros les hacían les dieron más de quarenta mill pessos a cada uno; de tan exorbitantes sumas se dexa comprehender cuánto lo serían los desórdenes que eran motibo de estas contribuciones Antonio de Ulloa, *Relación de Gobierno*, 71-72.

command, a position that did not exist in Ulloa's governorship. Ulloa's charges are against Sola's *veedores*, but nevertheless paint a more complicated picture of Sola than the traditional "Restorador" de la mina.

While Sola less than modestly praised his own ability to curb corruption, Ulloa railed in his report against the indiscretion and corruption embroiled in the *veedores* especially. He wrote, "From the day the governor appoints the *veedores*, they have more authority and command in the mine than the governor himself, although they work underneath him...If there is ruin or landslides that occur, they are attributed to the governor's misconduct... the miners, and the entire Guild, the *veedores*, all conspire against him."¹³¹ Ulloa then proceeds to call them evil. His strategy, ultimately, was an attempt at zero tolerance: he would bleach the forbidden *estribo* with lime, and claimed that anyone caught mining an *estribo* would be exiled. Yet, swift justice was a fiction in Huancavelica. Indeed, Ulloa himself constantly bemoaned the lack of accountability.

Perhaps most relevant to Ulloa's relationship to the *gremio* and *audiencia* in Lima was the contentious legal battle between Ulloa and his *veedores*, Joseph de Campusano and Juan de Afino, as well as the contractors Julian Pardo and Joseph Gordino. The governor chose the *veedores* and *sobrestantes*, the inspectors and contractors, but the guild paid their salaries. As Ulloa wrote in his relación, "each one [*veedor*] was paid thirty pesos in salary a week, or 1,560 pesos a year, a very sufficient salary if they knew how to be content with what is legal and not aspire to the massive indiscretion and mischief they commit."¹³² Yet mischief they did commit.

¹³¹Desde el día en que el gobernador nombra veedores adquieren en la mina más autoridad y mando que el mismo gobernador, y le tienen debajo. Si las labores se reparten o se asignan con dictamen de ellos no son más que absurdos los que se cometen, y las ruinas o derrumbos que sobrevienen se atribuyen a mala conducta del gobernador, porque los mineros que las ocasionan, y quiza todo el Gremio, los sobrestantes, veedores y mayordomos, todos se conspiran contra él, si no las destina con parecer de estos hombres malignos. Antonio de Ulloa, *Relación de Gobierno*, 71-72.

¹³² "Cada uno tiene treinta pesos de salario en la semana, que son el año 1,560 pesos, cosa muy competente si ellos supieran contentarse con lo lícito y no aspirasen a tener mayores ingresos con las picardías que cometen."

The dominant theme of Ulloa's *Relación* is ultimately a condemnation of the *gremio* and its entrenched corruption.

Juan de Alasta, a prominent member of the *gremio* and its *procurador* or attorney, alerted Ulloa that the mine's conditions were deteriorating. A *veedor* is charged with enforcing regular maintenance, thus ensuring workers safety and a productive mineral output, but the mine's upkeep was so poorly maintained, some pits were entirely inaccessible. In response to what appeared to be neglect, Campusano and Afino claimed that forty maintenance workers were simply not sufficient to improve conditions; Ulloa approved hiring twenty more, and eventually there were 120 maintenance workers. However, the mine's conditions did not improve, despite tripling the number of workers. Campusano and Afino were fired on charges of embezzlement. For more than a year, the *veedor* Joseph de Campusano paid Julian Pardo, the contractor (*sobrestante*) who supplied stone for more stone than was actually supplied. Pardo would then split the profit with Campusano. Pardo later testified that Juan de Afino, the other *veedor*, and Joseph Gordillo, the contractor who supplied candles for the mine, also knew about and consented to the arrangement.

Both Kendall Brown and Arthur Whitaker noted that Ulloa had little legal training¹³³; Ulloa convicted and punished Campusano, Afino, and Gordillo quite quickly. Brown notes that he gave the *veedores*' defense team only three days to look over the papers and create a defense. In response, Gregorio Guido, a *limeño*, accused Ulloa of violating the accused's procedural rights. From there, the battle only escalated. Ulloa was accused of the very thing he condemned the *veedores* and *sobrestantes* of: corruption. They accused Ulloa of removing a total of

¹³³Arthur P. Whitaker *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941).

seventeen *estribos*. The serious accusation launched a lengthy investigation in Lima, one that would last until Ulloa left his position as governor.¹³⁴

To complicate matters, the viceroy Manuel de Amat y Junyent has his own legacy of corruption, of which various historians have corroborated. Ulloa accused Amat of resenting him for not paying the customary bribe of 10,000-12,000 pesos to the viceroy.¹³⁵ For scale, Ulloa's salary as governor was 8,000 pesos. Historians have corroborated Ulloa's allegation. At the end of Amat's viceregal term, he had one of the largest lawsuits against him in the colonial archives. According to historian Alfonso Quiroz,

Despite the customary acquittal of this type of trial, the contemporary documents by Amat solidifies the tremendous transgressions and abuses in which the viceroy was immersed during his government. Many of his subjects presented complaints and denunciations against Amat, which shows that Ulloa's criticism was clearly based on the reality of the administrative corruption inherited from the Habsburgs viceroyalty.¹³⁶ Quiroz compares the *peninsular* Amat to a Habsburg-era viceroy, notoriously corrupt.

Yet, the *peninsular* Amat who apparently “despised the creole nobility”¹³⁷, simultaneously also allied with them during the Seven Years War, because their financial aid was necessary to create a sufficient militia.

Ulloa was ultimately exonerated by the viceroy and *audiencia*. On February 21, 1764, both *vedores* were found guilty, and permanently exiled from Huancavelica. However, as

¹³⁴ Brown, Kendall W. “The Curious Insanity of Juan de Alasta and Antonio de Ulloa’s Governorship of Huancavelica.” *Colonial Latin American Review* 13, no. 2 (December 1, 2004): 199–211. <https://doi.org/10.1080/1060916042000301502>.

¹³⁵ Arthur P. Whitaker *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941).

¹³⁶ A pesar del acostumbrado resultado absolutorio de dicho tipo de juicio, la residencia a Amat aclara las tremendas transgresiones y abusos en cuales se vio inmerso el virrey durante su gobierno. Muchos súbditos presentaron quejas y denuncias contra Amat, lo cual demuestra la críticas de Ulloa tenían claro sustenta en la realidad de la corrupción administrativa heredada del orden virreinal hasburgo.

Alfonso W Quiroz, “Redes de Alta Corrupción En El Perú: Poder y Venalidad Desde El Virrey Amat a Montesinos.” *Revista de Indias* 66, no. 236 (January 4, 2006): 237–48, 241.

¹³⁷ Leon G. Campbell, "A Colonial Establishment: Creole Domination of the Audiencia of Lima during the Late Eighteenth Century." *The Hispanic American Historical Review* 52, no. 1 (1972): 1-25. Accessed January 7, 2020. doi:10.2307/2512140

historian Kendall Brown notes, “Even so, Amat wrote to Julián de Arriaga, the Minister of the Indies, that ‘the evil, in my opinion, and in that of everyone (including those most disposed toward the Governor) has sent out very deep roots.’”¹³⁸ Amat went on to say that Ulloa ought to be replaced by someone less controversial. Ulloa, for his part, agree. He had offered to resign as early as May 1762.

The conflict between Ulloa and the *audiencia* and viceroy in Lima must be situated in comparison to previous reforms, which aimed to make the Huancavelica governorship much more independent. Ulloa himself attributed many of his difficulties to a lack of administrative power, even directly comparing himself to the Marquis de Casa Concha and Jerónimo de Sola. He wrote in his *Relación*,

Many years ago he realized, in the governance of Spain, and his Majesty came to the understanding that the imbalance of his Royal Treasury in Peru, and particularly in the field of mercury, was massive, in consequence, he provided in the employment of general superintendent of the branch of azogues to the Marques de Casa Concha, and at the same time, entrusting him with the superintendency of the *el quinto royal* of all the silver and gold in the mines of Peru, with total independence of the viceroys, and of all the courts and with amplitudes and privileges as they corresponded to the gravity of the coarse handling that was entrusted to him...¹³⁹

Ulloa described the creation of the Superintendency of Azogues, and the complete control over the *ramo de azogues*, the revenue produced by the mercury industry. Ulloa highlights considerable independence this entailed from the viceroy, but, because at the time of Casa Concha the appointments were from a rotational 3 year terms by *oidores*, Ulloa criticized

¹³⁸ Kendall W. Brown, “The Curious Insanity of Juan de Alastá and Antonio de Ulloa’s Governorship of Huancavelica.” *Colonial Latin American Review* 13, no. 2 (December 1, 2004): 199–211. <https://doi.org/10.1080/1060916042000301502>.

¹³⁹ Muchos años hace que se Sintió, en el Ministerio de España, y llegó a la intelixencia de su Majestad, el desbarato con que se majeaba su Real Hacienda en el Perú, y particularmente en el ramo de azoguez, en su concequencia se proveyó en el empleo de superintendente general del ramo de azogues al Marques de Casa Concha, encargeandole, al mismo tiempo, la superintendencia de los reales quintos de toda la plata y del oro que se beneficiarse en las minas del Perú, con total inniviación de los virreyes, y de todos los tribunales y con unas amplitudes y privilegios como correspondían a la gravedad del manejo basto que se le encargaba; Antonio de Ulloa, *Relación de Gobierno*, 190.

the lack of accountability these short terms had. Power only grew with the appointment of Jerónimo de Sola y Fuente.

Jerónimo de Sola [was later appointed], with the same powers, powers, and prerogatives that had been granted to the Marquis of Casa Concha by the certificates of December 6, 1719 and February 13, 1722, and some more; but the viceroys who could not bear a government in the Indies that was not dependent on their faculties, nor a ministry that is not subordinate to them, reverted back to the way that the old method operated, and the king did not rule the Count of Superunda and Huancavelica, the same gift Jerónimo represented the one who pretended to have absolute power, who on such an urgent occasion as those of the wars he then had with England, by the year of [17]45, they denied him the monetary flows he had requested, lacking the obedience to the requests he had made for its release; and this was the reason why the General Superintendency was ordered to be in the viceroys, thus endeavoring to fall back into the disorder that they had tried to avoid.¹⁴⁰

Ulloa's excerpts reveal his understanding of his own political power as paled in comparison to Jerónimo de Sola, and Casa Concha. In 1722, Sola was given the power to requisition funds required by the mine from any treasury in the viceroyalty. Yet, as Ulloa described, Sola was denied funds he requested, and succumbed. Ulloa in part blames Sola for the subsequent rolling back of the governorship's authority. The court case dealt with more than just the corruption in the *veedores*, but also the corruption in Lima. The role of the governor's authority was at stake, and whether the position should have direct executive control of the financial lines necessary to keep mercury production afloat honestly and without embezzlement. Instead, Ulloa had hired three times the number of the previous maintenance workers, only for the *estribos* to still be whittled away, compromising the structural integrity of the mine.

¹⁴⁰ Jerónimo de Sola, con las mimsas facultades inniviciones y prerrogativas que se le havían concedido al Marqués de Casa Concha por las cédulas de 6 de diciembre de 1719 y 13 de febero de 1722, y algunas más; pero lso virreyes que no pueden sobrellevar que aiga ramo en Yndias que no se diga ser dependiente de sus facultades, ni ministerio que no les esté subordinado, adbitrió el modo de que se bolviere a establecer el método antiguo, y gobernando el reyno el Conde de Superunda y Guancavelica el mismo don GERónimo representó aquél que pretendía ser absoluto este otro, que en una ocaión tan urgente como las de las guerras que entonce havía con la Ynglaterra, por los años de 45, le negaba los caudales que tenía atesorados, faltándole el obedecimento de las inthimaciones que le havía hecho para que se los franquease; y esto fue causa de que se mandase que la Superintendencia General estubiese en lso virreyes, bolviéndo, por esto medio, a caer en el incobeniente que se havía procurado evitar. Antonio de Ulloa, *Relación de Gobierno*, 191.

The facts of the case warrant a re-evaluation . Ulloa consented to the *veedores* ' request for more workers. His choice was despite the extensive amount of debt the *gremio* was in, but reasonably a good faith effort to maintain the mine, a priority Ulloa consistently refers to in his *Relación*. Upon discovering the embezzlement, his lack of procedural legal knowledge expediated procedural processes that did violate the norms Huancavelica's judiciary system. Yet, he was ultimately exonerated. Characterizing Ulloa as entirely antagonistic towards the *gremio* ignores much context of the various attempts he made on behalf of the miners' interests, as well as the authority of his position as fundamentally different than that of Sola.

Drawing Meaning: Administrative Restraints and Frustration

I would argue much of the historical fixation on Ulloa, that some scholars contend is unhelpful or misplaced, is understandable when reading his *Relación*, in his own words, describing his experience. Ulloa's passion and "reformist zeal" might be best understood by looking to his own dramatic, impassioned account.

To describe all of the frauds in Lima and Huancavelica is to report on how they denied credulity to everything that was truthful, and put the highest faith in what the inmates said from their prison, I would need to write a report completely separate from this report, but I will say, nevertheless, to serve as a guide to the successor of my post and advise how matters should be handled in the future, that the original crime was never punished in Lima against the inmates, because the prosecutor, the *oidores* and the dependents of the Palace were protected, and removed the proceedings entirely from the trial, horrible slander against me so excessive was encouraged that there was no part where my honor was not hurt, because they were outraged at not finding a loophole on the administration of mine and others of the government where to vent their revenge, they used those means, vile that people snub me for the corrupting the traditions and customs, attributing to me that insults that even among the most despicable and abandoned people could not listen to without being shocked; in short, the ruins of the mine mentioned above, committed by the miner Gómez, by Cañas and by Campusano are attributed to me; the ore *estribos* destroyed by them, in the same way; the tunnels and ruined streets, the plazas and intractable work, the same; and the inmates were looked upon with compassion, recording in the fiscal hearings and in the records that they were suffering innocently because they remained in prison, so that in the entire course of the case, neither the prosecutor nor the Agreement, Nor did the viceroy try the inmates more than to excuse them and save them from the crime, to strain him from those who had committed him and

to attribute it to me because I corrected him and tried to punish himself, nor the cause if it was not to fill her with confusion and How many liberties they wanted to utter against me without any limitation.¹⁴¹

He goes on for a time like this, enraged at his treatment. At one point, Ulloa accuses the *veedores* of buying influence in the *audiencia*. Ultimately, the ending of the trial is a mixed story. Was Ulloa exonerated? Sort of. Yet, the court battles also reveal that political tensions in Huancavelica were not along *creole* and *peninsular* lines.

Ultimately, there is no clear story. The history does not map neatly onto *peninsular* and *creole* lines, and many of the issues Sola faced, Ulloa also had to contend with. While Sola and his most trusted deputies were *peninsulares*, Ulloa had contentious relationship with the viceroy Amat, who was also born in Spain. Sola likewise had corrupt *veedores*, who Ulloa accused of accepting tens of thousands of *pesos* in bribes.-Ulloa, despite lowering the *quinto* real, as discussed in the previous chapter, still had enemies and friends within the guild. Both Sola and Ulloa directly noted that the possibility to make so much money as a *veedor* render the salary irrelevant. Yet, Ulloa's *Relación* is three times the length of Sola's, and far more dramatic.

Historians' fascination with Ulloa might be because of his *Relación*'s length and spirited writing.

¹⁴¹ Hacer relación de los embrollos que en Lima y en Guancavelica se fraguaron para negar la credulidad a todo lo que se iba justificando, y poner en el más alto aprecio quanto los reos deponían desde su prisión, necesitaba una obra cepearada y no es de este lugar, pero diré, no obstante, para que sirva de luz al sucesor y vea el tiempo con que se debe manejar, que la causa nunca se siguió en Lima contra los reos, siendo el fiscal, los oydores y los dependientes del Palacio los protectores de ellos, y para apartarla enteramente del juicio, se fomentaron calumnias atrosez contra mí tan desmedidas que no hubo parte por donde no se tirase a lastimar mi honor, porque indignado el odio de no hallar resquicio sobre los asuntos de mina y demás del gobierno por donde desaogar su vengansa, se valía de aquellos medios [tachado: libres] viles que desairan las personas por la corrupción de constumbres, atribuyéndome las que entre las jentes más despreciable y abandonada no se puede oyr sin escandecerse; en fin, las ruinas de la mina de que queda hecha mención, ocasionada por el minero Gómez, por Cañas y por Campusano se me atribuyan a mí; los estrivos del mineral destruidos por éstos, del mismo modo; las calles ciegas y arruinadas, las plasas y labores intratables, igualmente; y a los reos se les miraba con compación, diciéndose en las vista fiscales y en los autos de Acuerdo que los hacía padecer inocentemente porque los mantenía en prisión, de suerte que en todo el curzo de la causa, ni el fiscal, ni el Acuerdo, ni el virrey trataron de los reos más que para disculparlos y sacarlos salvos del delito, para cepeararlo de los que lo havían cometido y atribuírmelo a mí porque lo corregí y intenté que se castigarse, ni de la causa si no fue para llenarla de confución y de quantas libertades se les antojaban a aquéllos proferir contra mí sin ninguna limitación.
Antonio de Ulloa, *Relación de Gobierno*, 97-98.

I would conclude that Ulloa, as a figure, is much more openly combative and exceptionally well-documented. Both have instances in which their reputability is not unquestionable, and should be looked too with a middling gaze: the honesty of Sola's *veedores*, for example, and Ulloa's swift departure without completing the necessary bureaucratic steps. In curtailing corruption during the Bourbon Reforms, often the narrative of honest, loyal *peninsulares* and greedy, corrupt *creoles*. Sola and Ulloa both prove a narrative that is more complicated than that, as two figures who could both be called *fracasos* or *restauradores*, depending on the measurement.

Chapter Five: Measuring Reform in Two Governors

What comes next?

Jerónimo de Sola y Fuente left for Spain, in 1749, to his position on the *Consejo de Indias*. In 1763, he was appointed to *the Cámara de Indias*, the supreme body within the *Consejo*. Sola retained the post until his death, four years later, at 76 years old. Today, he has an avenue named after him in Madrid.

Antonio de Ulloa called Huancavelica his personal “purgatory”, in a letter to Julián de Arriaga, Minister of the Indies. He escaped his torturous post in January of 1764, only to be appointed to the first governorship of Louisiana, recently ceded from French to Spanish control in the Seven Years’ War. After begging the Crown to send reinforcements to consolidate Spanish control, he was ousted in a Creole uprising. His successor, Alejandro O’Reilly, and his troops, quelled the rebellion in 1769. In 1779, he was appointed lieutenant governor of the naval forces. One year later, Antonio de Ulloa commanded a Spanish squadron in the American War of Independence. He died, in 1795, in Cadiz, in retirement at the age of 79. A statue made of marble in likeness is on the façade of the Ministry of Agriculture, in Madrid.



Fig. 5 Statue of Antonio de Ulloa in Madrid 1899

¹⁴²José Alcoverro, *Statue of Antonio de Ulloa*, marble, 1899, Madrid. In *Wikimedia Commons*. Photograph by Luis García. 2015, Wikimedia Commons, GNU Free Documentation License).

Some Symbolism: The Sea and The Spanish-American War

Antonio de Ulloa was a renowned naval scientist and loyal devoted royal subject his whole life; perhaps it is unsurprising a ship was named after him, nearly one hundred years after his death. On May 1, 1898, the naval ship *Don Antonio de Ulloa* sunk outside of Manila, one month after the beginning of the Spanish American war. The Treaty of Paris, signed December 10, 1898, conceded Spain's last remaining overseas colonies— Cuba, Puerto Rico, the Philippines, Guam. The war's end is often heralded as a watershed historical moment, signaling the United States rising role as a world superpower, and perhaps the most brutal and humiliating demonstration of Spain as an empire thoroughly in decline. An Atlantic article published mere months after *Don Antonio de Ulloa* sank wrote, without a hint of irony, "In many respects the Spaniard is still living in the sixteenth century, unable to assimilate the ideas of the nineteenth, or to realize that his country is no longer the mistress of the sea and the dominating power of the land."¹⁴³

The rise and fall of the Spanish empire is one almost inextricably laced with ideas of "decadence", "pride", and "indolence." Spanish excess caused Spanish defeat, a natural product of moral failing. The *Don Antonio de Ulloa*, the naval ship named after the famed Enlightened reformer, sank in 1898; soon along with her, the Spanish colonies of Cuba, Guam, Puerto Rico and the Philippines.

History has its tropes. Spanish (and more broadly, Catholic) greed and incompetence is one. Like most tropes, such evaluations do not hold up under closer scrutiny. Internal reformist movements in the eighteenth century, in the decades before the vast majority of Spanish

¹⁴³ Lea, Henry Charles. "The Decadence of Spain." *The Atlantic*, July 1, 1898. <https://www.theatlantic.com/magazine/archive/1898/07/the-decadence-of-spain/515535/>.

American revolution and independence movements, do not match this stereotypical and reductionist version of Spanish imperial history; rather, their principal aim was to decrease Spanish decadence and increase the Crown's authority over its overseas colonies.

Yet, in evaluating the governorships of Jerónimo de Sola y Fuente and the more famous Antonio de Ulloa, their resounding efficacy was not a primary finding. Rather, in good faith and based off their own ideologies and other scholars' evaluations, two "honest" "upright" and "moral" men were unable or unwilling to stop the *mita*, to curb corruption of *corregidores*, the *gremio*, or wrangle more authority the Viceroy and *audiencia* in Lima. And, when Voltaire once called Ulloa an "'object of veneration", and a philosophe of the Enlightenment, Ulloa still endorsed and justified the forced indigenous labor system, with one biographer calling Ulloa the *mita*'s most "vehement" defender.¹⁴⁴

Despite the ten year space between their governorships, Sola and Ulloa faced similar issues. Both were charged with one preeminent goal: increasing mercury production. Both had complicated relationships with the *mita* and indigenous workers. Both grappled with corruption, although in different ways.

Jerónimo de Sola y Fuente was charged by the King to produce 5,000 *quintals* of mercury, and he did so. Antonio de Ulloa's tenure also significantly increased the total production of mercury from Huancavelica. Both governors likely had labor conditions that were improved from the sixteenth century, although the system remained inhumane by any modern measurement. Even at the time, both governors defended the *mita* as necessary and morally upright, despite contemporary criticisms and attempts to stop the practice. In negotiating power from relevant stakeholders, Jerónimo de Sola y Fuente likely had more political capital, due to

¹⁴⁴Miguel Molina Martínez, *Antonio de Ulloa En Huancavelica*. (Granada: Universidad de Granada, 1995).

his status as the first governor directly appointed by the King, and his license to control all of the *ramo de azogue*. In contrast, Ulloa came on the heels of Gaspar de Cerda y Leyba and Pablo de Vega, the former a governor notoriously ill and physically weak, and the latter a man who unabashedly sold bootleg mercury in the town plaza. Ulloa also lacked some of the substantive powers Sola had enshrined in writing. Their different political style, with Ulloa being more combative, could be partly attribute to personality, or also due to the relevant authorities the King vested in them. With less *de jure* authority vested in Ulloa, perhaps he attempted *de facto* authority. He would not be the first governor to do so; his *Minería del Rey*, for example, was also attempted by Gaspar de Cerda y Leyba. In contrast, Sola apparently acquiesced more to the *gremio* and *audiencia* in Lima, as evidenced by sending the stores to Lima when he was entitled by law to send them to Spain. Yet, perhaps because he had this authority, Sola reasoned that should he ever need to invoke those powers, he could. Ulloa did not have that same luxury. I also argued Ulloa's characterization as combative may be reflective of the drama of his well-recorded conflicts, and ignores the various efforts he made in cooperation with the *gremio*: eliminating the *quinto*, increasing aid, and hiring more maintenance workers, for example.

Implication of Findings

Evaluating these two governorships in terms of economic administration and production, management and reform of the indigenous labor system, and their relevant scandals and power dynamics between the various stakeholders in the Viceroyalty in Peru, is a worthwhile endeavor. Internal reformist movements such as the Bourbon Reforms should be studied in part through the lens of the microhistorian, who focuses on specific individuals and particular events. The Bourbon Reforms are a broad topic, generally cast in the lens of top-down attempts to regain control of a Spanish Empire already in decline, dismissed as a last-ditch effort by the Crown to

preserve power in the Americas already well on their way to independence. This generalized interpretation holds some value, as does the framework of *peninsular* vs *creole* interests. Macro studies of the long eighteenth century allow for such larger conclusions. Simultaneously, studying individual actors, and speculating and reaching conclusions on their limitations, their reasoning, and their substantive outcomes in realigning particular provinces allows specificity. Looking at historical agents humanizes historical movements, and creates a history of living people, making choices, and grappling with their own circumstances.

Summary of Findings

How does one reform an Empire? At least in part, through administrators. How does one measure efficacy in administrators? I find that success is a mostly useless term, and instead chose to look at the governors' goals, substantive outcomes such as production levels, previous actors' abilities in pursuing similar goals, and speculating on the limitations of their power and the reasoning behind their choices. I came to tentative conclusion that both Jerónimo de Sola y Fuente and Antonio de Ulloa had marked similarities in producing more mercury, their views on the role of indigenous labor in the mind, and frustrations with the *gremio* and Lima more broadly. My small contribution adds to a conversation fascinated with Antonio de Ulloa, in which Jerónimo de Sola often appears only as a footnote or point of comparison of "success." The reason one governor is labeled a success, and the other a failure, seems to be, at least in part, because of Ulloa's legal battles and perhaps even colored by his later governorship in Louisiana. Ulloa, in contrast to Jerónimo de Sola y Fuente, left an impressive cache of documents detailing his disputes with various *veedores*, the Viceroy Amat, and indeed his experience in Quito as a young man on a scientific expedition. His reputation as an inflamed and controversial man is deserved; documents and letters detail the various legal trouble and conflicts Ulloa experienced

(and instigated). Yet, this alone should not color historians' entirely from noting the positive aspects of his tenure. Perhaps his combative nature extends naturally out of frustration with stilted power compared to previous governors such as Jerónimo de Sola y Fuente.

Discussion of Evidence

The primary sources used in this thesis were the *Relaciones* of both governors. Secondary sources included prominent scholars on the Bourbon Reforms and experts in the mining industry in the Spanish Americas. Necessarily, primary sources contain their own biases, and I have explicitly discussed and questioned why each governor would write as they did about their tenure. I believe these self-reports to be useful starting points to discuss governors' motivations and goals, because their own words offers insight to their own motivations and visions of their tenure as reformers in Huancavelica. Necessarily, however, the evidence is problematic and limited. I did not evaluate other primary documents, such as Ulloa's letters to Julián Arriaga, minister of the Indies, for example, or Sola's letters to King Ferdinand VI, in no small part because I lacked access to those documents. Indeed, in most historical studies on Sola, the sources used include his *Relación* and viceregal reports, but little personal letters. Future studies should use more documentary texts, as well as investigate Sola's presence or lack thereof in archival records.

Future Points of Interest

Here I outline some possible points of further research in the hopes a dedicated scholar rises to the challenge. Many historians have noted the gap of interest in the Bourbon Reforms, where most studies have focused on later efforts after the ascension of Charles III. Significant strides have already lessened this discrepancy. I, however, would ask about women in Huancavelica. Little research has been done on women miners more broadly, and the same is

true in Huancavelica. A *New York Times* article published in 2019 showcased the startling statistic that .5% of recorded history is devoted to women's study, according to classical historian Dr. Bettany Hughes. Antonio de Ulloa's wife, Francisca Ramírez de Laredo, was 15 years old at the time he was forty-eight, and most biographers ignore her, or mention her only as they are escaping Louisiana during the Creole Uprising that ended his governorship. Some speculate on her wealth, briefly, and mention her father as the conde of San Javier. In addition, even less research has been done on nonelite women. This is due to the scarcity of written sources, which precluded me from the topic as well. However, there has been some success in metallurgical, oral, and archeological histories. A study of women miners, who are alluded to by Sola, would benefit the field. In addition, histories outside the mine and its administration would benefit students interested in colonial Huancavelica, especially in regard to village life. Much of Antonio de Ulloa's *relación* discussed at some length both prostitution and extramarital affairs, for example. The public health field might benefit from a study concerning the hospital in colonial Huancavelica, St. John of God, and its doctors and patients. I would posit at least some written sources can be found surrounding the *mita* in hospital records, as well.

Final Remarks

For the nearly three centuries of Spanish rule in the Americas, starting in earnest in the 1540s in New Spain, silver, gold, and mercury was laboriously mined and set on carts or mules or llamas, and set onto royal galleons or the pockets of smugglers. A town that never exceeded 10,000 people in the colonial period was the jewel of the Crown, one that equaled Potosí in importance. With pick axes and shovels, or gunpowder, inside toxic tunnels filled with carbon monoxide, or outside in open pits in the freezing air, miners in colonial Huancavelica produced 82 million *pesos* worth of mercury.

In my study, I have endeavored to cast doubt on the failures, successes, and intentions of two reforming governors of the only significant mercury mine in the Americas, during a particularly turbulent transitional period in the Spanish empire. I have based this study in the firm belief that colonial administrators warrant study as individual actors, and by focusing attention squarely on one person, a student can learn the contradictions and restrictions of reforming an empire. I believe it is too easy to think of an empire as swarths of land and sums of economic production, and too easy to forget the men and women that exist— whether with power or not— within the imperial system, as human actors worthy of analyses.

Bibliography

Alcoverro, José *Statue of Antonio de Ulloa*, marble, 1899, Madrid. In *Wikimedia Commons*. Photograph by Luis García. 2015, Wikimedia Commons, GNU Free Documentation License).

Altamira, Rafael *Psicología del pueblo español*. Barcelona, Editorial Minerva, 1900.
<http://archive.org/details/psicologadelpu00altauoft>.

Andrien, Kenneth J “The Noticias Secretas de America and the Construction of a Governing Ideology for the Spanish American Empire.” *Colonial Latin American Review* 7, no. 2 (December 1, 1998): 175–92. <https://doi.org/10.1080/10609169884882>.

Brading, D.A. “Bourbon Spain and Its American Empire.” Chapter. In *The Cambridge History of Latin America*, edited by Leslie Bethell, 1:389-440. The Cambridge History of Latin America. Cambridge: Cambridge University Press, 1984.

Brading, D. A. *The First America: The Spanish Monarchy, Creole Patriots and the Liberal State 1492-1866*. Cambridge University Press, 1991.
<https://books.google.com/books?id=vQdyHIKrqJYC>.

Brown, Kendall W, and Hernández Palomo, José Jesús. *Relación de Gobierno Del Real de Minas de Huancavelica (1758-1763)* (Lima, Perú: Banco Central de Reserva del Perú: Instituto de Estudios Peruanos, 2016).

Brown, Kendall, *A History of Mining in Latin America : From the Colonial Era to the Present*. Diálogos Series. Albuquerque: University of New Mexico Press.

Brown, Kendall W. "La Crisis Financiera Peruana Al Comienzo Del Siglo XVIII, La Minería De Plata y La Mina De Azogues De Huancavélica." *Revista De Indias* 48, (1988): 182.

Brown, Kendall W “The Curious Insanity of Juan de Alasta and Antonio de Ulloa’s Governorship of Huancavelica.” *Colonial Latin American Review* 13, no. 2 (December 1, 2004): 199–211.

Brown, Kendall W. "Workers' Health and Colonial Mercury Mining at Huancavelica, Peru." *The Americas* 57, no. 4 (2001): 467-96. Accessed January 5, 2020. www.jstor.org/stable/1007830,

Campbell, Leon G. “A Colonial Establishment: Creole Domination of the Audiencia of Lima during the Late Eighteenth Century.” *The Hispanic American Historical Review* 52, no. 1 (1972): 1-25. Accessed January 27, 2020. Doi:10.2307/2512140.

Carlos, Ann M., Erin K. Fletcher, Larry Neal, and Kirsten Wandschneider. 2013. “Financing and Refinancing the War of the Spanish Succession, and Then Refinancing the South Sea Company.” Chapter. In *Questioning Credible Commitment: Perspectives on the Rise of Financial*

Capitalism, edited by D'Maris Coffman, Adrian Leonard, and Larry Neal, 147–68. Macroeconomic Policy Making. Cambridge: Cambridge University Press.

Carracido, José R *Estudios Críticos de la ciencia Española*, Madrid, 1897.

Chandler, R. E. “Ulloa and the Acadians.” *Louisiana History: The Journal of the Louisiana Historical Association* 21, no. 1 (1980): 87–91.

Cohen, Thomas V, “The Macrohistory of Microhistory.” *Journal of Medieval and Early Modern Studies* 47, no. 1 (January 1, 2017): 53–73. <https://doi.org/10.1215/10829636-3716578>.

Cueto, Marcos “Saber es Andinos : Ciencia y Tecnología En Bolivia, Ecuador y Perú.” Book. Lima : Instituto de Estudios Peruanos, 1995.

Din, Gilbert C. “Protecting the ‘Barrera’: Spain’s Defenses in Louisiana, 1763-1779.” *Louisiana History: The Journal of the Louisiana Historical Association* 19, no. 2 (1978): 183–211.

Ferreiro, Larrie D. *Measure of the Earth : The Enlightenment Expedition That Reshaped Our World* /. xix, 353 p. : vols. xix, 353 p. : New York : Basic Books, 2011.

Garrett, David T. “‘His Majesty’s Most Loyal Vassals’: The Indian Nobility and Tupac Amaru.” *Hispanic American Historical Review* 84, no. 4 (2004): 575–617.

Grandon, Javier Barrientos “Jerónimo de Sola y Fuente | Real Academia de La Historia.” Accessed April 3, 2020. <http://dbe.rah.es/biografias/75214/jeronimo-de-sola-y-fuente>.

Guardado, Jenny “Office-selling, corruption, and long-term development in Peru.” *The American Political Science Review* 112, no.4, 2019, 971-995.
doi:<http://dx.doi.org.proxy.lib.umich.edu/10.1017/S000305541800045X>

Hanke, Lewis “Dos Palabras on Antonio de Ulloa and the Noticias Secretas.” *The Hispanic American Historical Review* 16, no. 4 (1936): 479–514. <https://doi.org/10.2307/2506989>.

“How Silver Is Made - Material, Making, History, Used, Processing, Industry.” Accessed January 4, 2020. <http://www.madehow.com/Volume-3/Silver.html>.

Keen, Benjamin “The Black Legend Revisited: Assumptions and Realities.” *The Hispanic American Historical Review* 49, no. 4 (1969): 703–19. <https://doi.org/10.2307/2511162>.

Kirkpatrick, F. A. “Noticias Secretas.” *The Hispanic American Historical Review* 15, no. 4 (1935): 492–93.

Kolb, Frances “The New Orleans Revolt of 1768: Uniting against Real and Perceived Threats of Empire.” *Louisiana History: The Journal of the Louisiana Historical Association* 59, no. 1 (2018): 5–39.

Lea, Henry Charles. "The Decadence of Spain." *The Atlantic*, July 1, 1898.
<https://www.theatlantic.com/magazine/archive/1898/07/the-decadence-of-spain/515535/>.

Ma, Ning *The Age of Silver : The Rise of the Novel East and West*. (New York: Oxford University Press, 2017).

Mapa de la Rl. Mina de Azogue en el Cerro de Santa Barbara distante de la Villa de Guancavelica una legua, en los Reinos del Perú [Material cartográfico] : Primera Parte que demuestra desde lo mas alto de la Mina en la Cumbre del Cerro que llaman el Brocal hasta el Socabon Real de Belem, en donde ay un Pueblo con el nombre de Santa Bárbara / Formado por el Governador Superintte. de dha. Mina Don Antonio de Ulloa Enel año 1758, primero de su Gobierno, y coordinado enel de 1761. MR-43-145, Sala Goya, Biblioteca Nacional de España, Madrid, Spain.

Marquez, María Victoria *Mules, Quicksilver, and a 'Glorious Death': Bourbon Perú from the Experience of Tucumán's (Ad)venture Merchants*. Diss (Columbus: The Ohio State University, 2013).

Mensaque Urbano, Julia, editor., Eduardo Peñalver Gómez editor., and host institution. Biblioteca de la Universidad de Sevilla. *Antonio de Ulloa : la biblioteca de un ilustrado*. Edited by Julia Mensaque Urbano. *Antonio de Ulloa : la biblioteca de un ilustrado*. 143 pages : vols. 143 pages : Sevilla : Universidad de Sevilla, Secretariado de Publicaciones, 2015, 2015.

Merino, Luis (1956). "The Relation between the Noticias Secretas and the Viaje a la America Meridional." *The Americas*, 13(2), 111–125. <https://doi.org/10.2307/979634>

Molina Martínez, Miguel *Antonio de Ulloa En Huancavelica*. (Granada: Universidad de Granada, 1995).

Moore, John Preston "Antonio de Ulloa: A Profile of the First Spanish Governor of Louisiana." *Louisiana History: The Journal of the Louisiana Historical Association* 8, no. 3 (1967): 189–218.

Moreno, Isabel M Povea *Retrato de una decadencia. Régimen laboral y sistema de explotación en Huancavelica, 1784-1814*. Diss. (Granada: University of Granda, 2012).

Navarro Abrines, María del Carmen. "La Mina de Mercurio de Huancavelica." Accessed November 1, 2019. <http://www.ub.edu/geocrit/sn-4.htm>.

Nelson, John Richard. "Antonio de Ulloa and the Louisiana Uprising, 1765-1770." A.M., University of Southern California, 1957.
<https://search.proquest.com/docview/1641128243/abstract/6ACB550AD7B34435PQ/1>.

Pearce, Adrian J. "Huancavelica 1563–1824: History and Historiography." *Colonial Latin American Review* 22, no. 3 (December 1, 2013): 422–40.
<https://doi.org/10.1080/10609164.2013.808467>.

Pearce, Adrian J. “Huancavelica 1700-1759: Administrative Reform of the Mercury Industry in Early Bourbon Peru.” *The Hispanic American Historical Review* 79, no. 4 (1999).

Pearce, Adrian J. *The Origins of Bourbon Reform in Spanish South America, 1700-1763*. (New York: Palgrave Macmillan, 2014).

Quiroz, Alfonso W. *Corrupt Circles : A History of Unbound Graft in Peru*. Book. (Washington, D.C.: Woodrow Wilson Center Press , 2008).

Quiroz, Alfonso W. “Redes de Alta Corrupción En El Perú: Poder y Venalidad Desde El Virrey Amat a Montesinos.” *Revista de Indias* 66, no. 236 (1/4/2006): 237–48.

Robins, Nicholas A., and Nicole A. Hagan. “Mercury Production and Use in Colonial Andean Silver Production: Emissions and Health Implications.” *Environmental Health Perspectives* 120, no. 5 (May 2012): 627–31. <https://doi.org/10.1289/ehp.1104192>.

Robins, Nicholas A. *Santa Bárbara’s Legacy: An Environmental History of Huancavelica, Peru*. (Netherlands: Brill, 2017).

Robins, Nicholas, *Mercury, Mining, and Empire : The Human and Ecological Cost of Colonial Silver Mining in the Andes* (Bloomington: Indiana University Press, 2011).

“Santa Bárbara Mining Complex – UNESCO World Heritage Centre.” Accessed January 9, 2020. <https://whc.unesco.org/en/tentativelists/6263/>.

Simpson, Lesley Byrd 1993. “Review of *Indian labor in the Spanish colonies* by Ruth Kern Barber.” *Hispanic American Historical Review* 13 (1933); 363.

Sola y Fuente, Jerónimo de., Francisco Guerra, and Imprenta de la Plazuela de San Cristóbal (Lima). *Relacion, e Informe, Que Haze El Doc. D. Geronymo de Sola y Fuente, Del C. de S.M. En El ... de Las Indias, Gobernador, Que Acaba de Sèr de La Villa, y Mina de Guancavelica, y Superintendente General Del Ramo de Azogues En Todo El Reyno Del Perù ... al Señor D. Gaspar de La Cerda y Leyva ..., Su Successor En Estos Empleos, En Que Se Dá Cuenta Del Estado, Que Tenía La Real Mina al Tiempo, Que La Recibió En El Año Passado de Mil Setecientos Treynta y Seis, Los Adelantamientos, Con Que Queda, y Todo Lo Demàs, Que Se Necesita Para La Comprension de Este Vasto, é Importante Manejo, de Que Se Origina La Subsistencia de Los Reynos Perúanos, Por La Habilidad de Sus Minerales de Plata*. [8], 105 [i.e. 102], [6] p., [1] h. pleg. En Lima: en la imprenta de la Plazuela de San Christoval, 1748. [//catalog.hathitrust.org/Record/009348762](https://catalog.hathitrust.org/Record/009348762).

Solano, Francisco de. *La pasión de reformar : Antonio de Ulloa, marino y científico, 1716-1795. La pasión de reformar : Antonio de Ulloa, marino y científico, 1716-1795*. xi, 458 p. : vols. xi, 458 p. : [Cádiz] : Sevilla : Universidad de Cádiz ;, 1999.

Stern, Steve J, *Peru’s Indian Peoples and the Challenge of Spanish Conquest : Huamanga to 1640*. (Madison: University of Wisconsin Press, 1982)

TePaske, John, *A New World of Gold and Silver*. (Leiden: Brill, 2010).

Waszkis. Helmut. *Mining in the Americas Stories and History*, (Cambridge, Eng.: Woodhead, 1993.)

Whitaker, Arthur P "Antonio De Ulloa." *The Hispanic American Historical Review* 15, no. 2 (1935): 155-94. Accessed January 20, 2020. doi:10.2307/2506293, 21.

Whitaker, Arthur P "Antonio De Ulloa, the Delivrance, and the Royal Society." *The Hispanic American Historical Review* 46, no. 4 (1966): 357-70. Accessed February 15, 2020. doi:10.2307/2510978.

Whitaker, Arthur P, *The Huancavelica Mercury Mine: a Contribution to the History of the Bourbon Renaissance in the Spanish Empire*, (Cambridge: Harvard University Press, 1941), 17.

Whitaker, Arthur P "Review of Estudio crítico sobre las "Noticias secretas de América" y el clero colonial. (1720-1765), by Luis Merino." *The Hispanic American Historical Review* 39, no. 2 (1959): 265–67. <https://doi.org/10.2307/2509873>.