

PRIVILEGED NATURE:
ORNITHOLOGISTS, HUNTERS, SPORTSMEN AND THE DAWN OF ENVIRONMENTAL
CONSERVATION IN SPAIN, 1850 TO 1935

by

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DEDICATION

Writing is never as solitary an endeavor as it may seem. This work is dedicated to my wife, Veronica Hanley. Over the decade we have been together, she has been my rock, my ballast, and my soulmate. I cannot overstate the efforts she put into me so that I could have completed this project. She sacrificed nights alone, hours of sleep, weekends, and weeks of companionship during my years as a graduate student. She repeatedly put my wellbeing over hers. Over the course of my weightless regiment, she cooked meals and changed her own lifestyle so that I never felt alone or unsupported. As I traveled to Spain, she took care of home entirely on her own while giving up her time to send me video messages of love and caring and called me at the beginning and end of my days there.

Over the years she prepared meals, did laundry, tended to my two quadrupedal children, paid bills, worked overtime, attended to the maintenance of everyday life, and drove hundreds of miles when we went out of town all to make certain that I completed this project within four years. All that while, she labored as a Masters student and a full-time manager.

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love you with all my heart. May we have a lifetime of joys and journeys together as this chapter of our lives has come to a close and we aspire something more.

This work is also dedicated to the loving memory of my grandmother, Judith Hicks.

TABLE OF CONTENTS

Introduction.....	11
Chapter One	
“I Did Not Know to Give Them a Name”	
The New World, The Habsburg Naturalists, and Proto-empiricism 1492-1700.....	22
Chapter Two	
A Swede, a Frenchmen, and the Bourbon Royal Botanical Expeditions	
Cabinets of Curiosity, Taxonomy, and Spain’s Embrace of Empiricism 1701 -1808.....	53
Chapter Three	
Spanish Birds	
Spanish Ornithology, Bird Enthusiasts, and the Battle to Save Insectivores 1850-1879...	80
Chapter Four	
Greyhounds and Shotguns	
Noble Hunters, Masculinity, and Species Protection 1772-1879.....	104
Chapter Five	
The Toothless Laws	
Hunting Laws, Species Conservation, and Bird Protection Treaties 1879-1903.....	127
Chapter Six	
The Reconquista of Nature	
Pedro José Pidal and the Establishment of Spain’s First National Park 1903 -1918.....	149

Conclusion.....183

Bibliography.....193

ILLUSTRATIONS

Photograph of Alfonso XIII hunting a wild boar on horseback.....122

ABSTRACT

This dissertation argues the foundation of Spain's first national park, the Parque Nacional de la Montaña de Covadonga, was the culmination of a four-century-long historical development in which Spaniards redefined the manner in which they conceived of and interacted with nature. The establishment of the Parque Nacional de la Montaña de Covadonga resulted from two different historical processes, the formation of empirical science in Spain and the pursuit of noble hunting, which converged in the late nineteenth-century in the form of species protection and the environmental conscience it reflected. This environmental conscience permeated discourses on Spanish reinvigoration including those of nobleman, sportsman, and politician Pedro José Pidal y Bernaldo de Quirós whose own articulation of this environmental consciousness materialized in the form of the Parque Nacional de la Montaña de Covadonga which legislatively meshed species and landscape protection for the first time in Spain in 1916.

Introduction

On February 22, 2016, Senator Rosa Dominguez de Posada of the regional Foro Asturias party submitted a motion to the Spanish Senate. The proposal called on Spaniards to celebrate the centennial anniversary of their first national park, now named the Parque Nacional de los Picos de Europa. Dominguez de Posada invoked the words of Pedro José Pidal, who in the very same Senate chamber argued for the establishment of the park nearly a century ago. He pointed out to his fellow senators, “Are there not sanctuaries for art? Must there not be sanctuaries for Nature?”¹ She invoked, as Pidal had done a century earlier, the Picos de Europa’s special place in Spanish history. Not only had it been a residence where the Celts lived two centuries before Christ, it also marked the place where in 711CE King Pelayo routed an Arab army and initiated the Reconquista. The park was founded on the 1200th anniversary of the Battle of Covadonga, she mused, and in the year 2018 the Senate should not only commemorate that victory but also the coronation of Christ’s mother as the Virgin of Covadonga and the establishment of Spain’s first national park.²

The foundation of the Parque Nacional de la Montaña de Covadonga, as the Parque Nacional de los Picos de Europa was originally known, marked the moment in which Spain established shielded spaces for the sake of landscape and species protection. Today Spaniards have an environmental ethos that they share with many in Western Europe and

¹ Pedro Pidal y Bernaldo de Quirós, *Parques Nacionales: Proposición de ley y discursos provincianos en el Senado por los Sres. Marqués de Villaviciosa de Asturias y Covadonga de Romanones el 14 de junio de 1916* (Madrid: Ramona Velasco, 1916), 7 ; Quoted in Senado de España, *XI Legislatura Registro General Entrada 3.820*. 2016.

² Ibid.

the United States. Recycle bins stand in most public places. In the capital, Madrid, workers of La Dirección General de Zonas Verdes, Limpieza y Residuos maintain the city's parks, gardens, and environmental codes. However, the foundation and process of protecting land and species in Spain have only recently become the purview of an environmentally conscious public. A sense of timelessness may pervade Pidal's words as Dominguez de Posada recalled them. A century later, we can empathize with Pidal's argument that natural landscapes merited as much commemoration as those that represented the nation. Yellowstone National Park, founded in 1872, and the Grand Canyon National Park, established in 1919, represent the quintessentially American landscape along with the skyscrapers of Manhattan and Chicago.³ Dominguez de Posada and we enjoy the legacy of the late nineteenth-century and early twentieth-century efforts to set aside land for recreational use and preservation. We should exercise caution when lauding the achievements of our forebears. The dangers of projecting our sentiments on the past can cloud an accurate appraisal of their accomplishments, or we can omit their unsavory features as we appropriate history to meet our contemporary agendas.

This work explores the origins of Spain's modern environmental protection that culminated in the establishment of the Parque Nacional de la Montaña de Covadonga in 1916. Such an enterprise is not a straightforward proposition and as with any history, it follows divergent and seemingly unrelated paths that merge when specific situations or persons arise. In this case, the development of empirical science between the fifteenth -

³ Paul Schullery and Lee Whittlesey, *Myth and History of Yellowstone National Park* (Lincoln and London: University of Nebraska Press, 2003), 6; Mark Neumann, *On the Rim: Looking for the Grand Canyon* (Minneapolis and London: University of Minnesota Press, 1999), 5.

century and nineteenth-century in the Spanish context and the efforts of Spain's nobles to preserve their hunting rights from the eighteenth-century to the twentieth-century formed the two cruxes on which Spanish environmental protection developed. These two phenomena evolved in separate contexts and only came together in the *Ley de Caza de Enero de 1879*.⁴ The Spanish government further refined the law in 1896 with the *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros*⁵ and the *Ley de Caza de 16 de Mayo de 1902*.⁶ These laws established the precedent for environmental legislation in the form of species protection.

Within the laws, one will see two agendas at work. The first was the desire of nobles to restrict access to game to make certain that sufficient stock was available for their ostentatious noble hunts. The concerns of amateur ornithologists about the state of Spain's economy drove the second. In the mid-nineteenth-century, they embraced a methodology of gathering scientific knowledge that the comte de Buffon pioneered in the Royal Botanical Gardens in Paris a century earlier. Originally, they built species catalogs along regional lines, but in the late 1800s, they applied their scientific acumen towards the woeful state of Spain's economy. They claimed that Spaniards needed to protect insectivores from farmers who did not understand their true value as allies in the war against insects who ate away Spain's agriculture. The road to landscape protection then needed one additional element.

⁴ *Ley de Caza decretada en 10 de Enero de 1879* (Madrid: En las principales librerías, 1879).

⁵ *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros* and *Catálogo científico y sinomimico vulgar de las aves cuya caza debe prohibirse en todo tiempo y de las que solo pueden cazarse desde 1º de Septiembre á fin de Enero* from the *Real Orden de 25 de Noviembre de 1896* in *Complementos al Código Civil Española Compilados y Anotados por la Redacción de la Revista de Legislación Universa y Jurisprudencia Española* (Madrid: Librerías de Suárez, San Martín y Fé, 1902).

⁶ *Ley de Caza de 16 de Mayo de 1902* (Madrid: Imprenta de Ricardo Rojas, 1902).

It took the form of Pedro José Pidal Bernaldo de Quirós, a nobleman from Asturias. His intellectual labors and political efforts not only embodied the political discourse of the age, but also bore fruit in the form of his proposition to establish the Parque Nacional de la Montaña de Covadonga in 1916. His friend King Alfonso XIII's declaration that cemented its borders two years later.⁷ Pidal's affinity for nature stemmed from his home in Asturias where he avidly participated in noble hunts and alpinism in the Picos de Europa. As a passionate Catholic, monarchist, Asturian regionalist, and Spanish nationalist, Pidal argued that a national park at the Montaña de Covadonga not only celebrated Spain's past but it provided a remedy for its contemporary maladies. By 1918, the Peninsular War, the American Wars of Independence, and the United States's victory over Spain in 1898 had weakened the country's prestige. Pidal and many others urged Spaniards to overcome their physical decline in the face of modern life and take to nature wherein they would be reinvigorated spiritually and physically.

To put it succinctly, this work argues that the foundation of the Parque Nacional de la Montaña de Covadonga resulted from two different historical processes, the formation of empirical science in Spain and the pursuit of noble hunting, that converged in the late nineteenth-century in the form of species protection and the environmental conscience it reflected. This environmental consciousness permeated discourses on Spanish reinvigoration including Pidal's, whose own articulation materialized in the shape of the Parque Nacional de la Montaña de Covadonga that legislatively meshed species and landscape protection for the first time in Spain.

⁷ Alfonso XIII, "Real Decreto," *Gaceta de Madrid* 3 no. 250 (August 18, 1918): 493-494.

This history is an incredibly complex tale whose actors and events span from roughly the year 1341 to the year 1935. To cogently organize the historical complexities and weave together two disparate narratives I have organized the work into four chapters that flow in chronological order. Chapter One will chart how Spanish naturalists tried to reconcile their Biblical topological worldview with the novelties of the New World.⁶ During Habsburg rule, state support redirected the creation of naturalistic knowledge away from simply cataloging novelties to exploring their economic utility and building imperial prestige. To accomplish those ends, Spanish naturalists embraced proto-empirical methods that started to overshadow Biblical topological beliefs. The proto-empirical worldview existed in the medieval period as one of the several ways that Europeans understood the world. It was based on quantitative data, observation, and a belief in mechanical natural laws. The discovery of the New World and Spain's commercial concerns privileged empiricism as a means of comprehending and commodifying the material world. Direct contact with the New World pushed the transition to empiricism from the Biblical topological. Naturalists who traveled to the Americas had to use empirical methodology to comprehend what they saw. Spaniards who wrote about nature, but remained in the mother country, easily fit the testimony of eyewitnesses into their own writings within the framework of Biblical typology. This precondition provided the bedrock from which Spaniards in later centuries interpreted the natural world and how they ultimately articulated their arguments for its preservation or exploitation. For example, apprehensions about the spiritual effects of chocolate and tobacco in Aztec religious

ceremonies failed to dissuade the Spanish Crown from capitalizing on their harvest and export.

Chapter Two examines the role that New World flora and fauna had in European cabinets of curiosity and how in turn Linnaeus (1707-1778) and the Comte de Buffon (1707-1788) developed empirical methodologies from such cabinets from 1735 to 1788. The former developed a taxonomic nomenclature that other naturalists used and provided the basis for classification that biologists build on to this day. The latter developed a methodology based on observation that created an understanding of the natural world procured from an understanding of the physical processes and connections in nature.⁸ Throughout this work, beginning in the first chapter, the terms naturalism, natural history, and naturalistic knowledge will be used. Naturalism and natural history are interchangeable terms. Here they are defined as an understanding that the environment, the physical and immaterial world, acted according to predictable laws that one could discern through observation and reason.⁹ Naturalistic knowledge was the expertise derived from the empirical method as applied to nature.¹⁰

⁸ J. Haffer "The Development of Ornithology in Central Europe," *Journal of Ornithology* 148 no. 1 (December 2007): S137.

⁹ This definition takes inspiration from Iris H.W. Engstrand's definition of naturalism. Iris H.W. Engstrand, "Spain's Role in Pacific Exploration during the Age of Enlightenment," in *Enlightenment and Exploration in the North Pacific, 1741-1805* edited by Stephan Haycox, et al. (Seattle and London: University of Washington Press, 1997), 25.

¹⁰ Edward Grant uses the term natural philosophy in regards to the processes I have explained above. More importantly, Grant expounds on the artificial differentiation between applying the terms science and natural philosophy. I have opted to avoid the term science in the first two chapters not due to any disagreement with Grant's position, but rather to preserve the way in which Spanish naturalists in the sixteenth and seventeenth centuries thought of themselves. Edward Grant, *A History of Natural Philosophy: From the*

Chapter Two also looks at how Spaniards embraced the empirical methodology as Linnaeus and Buffon developed them in their explorations of the Spanish empire. This phenomenon had some roots in the proto-empiricism of the Habsburg-era naturalists but did not reach what the modern reader would recognize as empiricism until the reign of the Bourbons. Carlos III (1716-1788) and Carlos IV (1748-1819) initiated Royal Botanical Expeditions, from 1777 to 1816, as part of their reforms to overhaul the economic and political life of the Spanish empire. Carlos III established the supremacy of empiricism over preternatural interpretations of the world through his political machinations and the establishment several institutions of science. Moreover, he commissioned the Royal Botanical Expeditions to search the New World for specimens that could be brought back to his new scientific establishments in addition to collecting data that would garner Spain prestige in Europe. His successor, Carlos IV, continued to send expeditions for the same reasons.

Of those expeditions, particular emphasis is given to Sessé-Mociño and the Malaspina Expeditions which took place from 1787 to 1803. Sessé and Mociño focused their efforts in New Spain, while Malaspina's crew labored throughout Spanish America, the Philippines, and British territories around the Pacific Ocean.¹¹ The former demonstrated how the works of Linnaeus and Buffon penetrated the manner in which Spanish naturalists gathered and interpreted their data. The latter's global scale and duration demonstrated the seriousness with which Spain and its subjects approached the

Ancient World to the Nineteenth Century (New York: Cambridge University Press, 2007), 319.

¹¹ Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment* (Chicago: University of Chicago, 2012).

business of empirical study. Under the guidance of such naturalists as the American-born Angel Pineda, the Malaspina Expedition collected ethnographic, ornithological, ichthyological, geographic, and astrological information. The Royal Botanical Expeditions demonstrated how empiricism became integral to the way in which Spaniards viewed the natural world. This development set the tone for the ornithological studies in the nineteenth-century, which in turn fueled concern about the well-being of avian life in Spain.

Chapter Three chronicles the rise of regional, ornithological studies in Spain as they coincided with the end of ambitious colonial expeditions. Napoleonic France's invasion of Spain in 1807 and the American Wars of Independence in its aftermath left Spain bereft of its American continental empire. The need or rather the opportunity to use it for economic gain evaporated. The proliferation of published scientific works combined with a tradition of bird keeping encouraged Spanish amateur ornithologists to create records of bird species based on observation of their habitats like Buffon advocated. Aside from collecting empirical information, authors of such works betrayed their views of Spanish society. As nobles and elites, Spanish ornithologists imbued their texts with nationalism and critical views of the lower-classes. They argued that birds provided models for Spanish society and that the laboring classes should heed their example. Ornithologists in the late nineteenth-century shifted from writing catalogs to polemical works that demanded protections for insectivore species who, they argued, protected Spain's agricultural sector and by extension its economy from harm. The need to keep farmers and peasants from hunting became of the utmost concern. Elite Spaniards loaded their presuppositions about society on the natural world and dictated how its resources had to be used or protected. As one

historian observed, “Every environmental story is a story of power.”¹² The tale of Spain’s environmental protection was no exception. It was at this point that the creation of empirical naturalistic knowledge and its application to Spain’s economic problems married in the minds of bird enthusiasts species protection with national welfare. It also conveyed the belief that the lower-classes did not properly utilize Spain’s natural resources and requiring legislation and education to push them into better economic decisions.

In Chapter Four, the history of noble hunting is introduced. It is the second historical process I have mentioned above. Contributing to Spain’s tradition of nature protection examining noble hunting as a performative activity that displayed the nobility’s masculine, martial, and economic status, the chapter will demonstrate how nobles sought to preserve hunting as a domain of leisure. This consequently marginalized other, humbler Spaniards from taking advantage of Spain’s environmental resources in the form of game. Under the reigns of Carlos III, 1759-1788, and Carlos IV, 1788-1808, hunting laws ensured sufficient game for the nobility to hunt, all the while inhibiting non-nobles from access to powerful firearms and game.¹³ Such measures continued in the legislation of the nineteenth-century, but added protections for insectivore species. Two disparate strains of environmental practice, the empirical sciences and noble hunting, thus merged to preserve domains of leisure and Spain’s economic production. Those concerns may seem at odds. However, they

¹² Douglas R. Weiner, “A Death-Defying Attempt to Articulate a Coherent Definition of Environmental History,” *Environmental History* 10 (July 2005): 409.

¹³ José Cepeda Gómez, “Carlos III (1759-1788) in *Historia de España en la Edad Moderna* edited by Alfredo Floristán (Barcelona: Ariel, 2011), 611; Enrique Giménez López, “La crisis del Antiguo Régimen: Carlos IV (1788-1808) in *Ibid*, 637.

had the goals of making certain that the upper-classes controlled Spain's natural resources to assuage their own cultural and economic interests.

The strands of bird protectionism that arose from empirical naturalistic knowledge and the tradition of noble hunting converge in Chapter Five. The chapter examines the *Ley de Caza de 10 de Enero de 1879*, the *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros*, the *Real Orden de 25 de Noviembre de 1896*, the *Ley de Caza de 16 de Mayo de 1902*, and the *Real Orden de 1 de Julio de 1902*. This corpus of laws set out to exclude structurally the majority of Spaniards from exploiting game. However, in doing so it sought not only to instill a protectionist environmentalist consciousness in the *campesinos*, farmers, it also became that consciousness incarnate. National prosperity and species protection conjoined and set a legal and intellectual precedent for Pidal's rationale for establishing a national park. Their importance rested more in that aspect than in the safeguards for animals that it offered. The laws' imprecise language, however, and inability to endow Spaniards with the ethos the regulations represented rendered them impotent.

Chapter Six delves into the establishment of the Parque Nacional de la Montaña de Covadonga as the culmination of Spain's process of implementing modern environmental protections. As a hunter and sportsman, Pedro José Pidal worked within the context of already established environmental protections. Exploring Pidal's intellectual evolution from the 1890s to 1935 we gain a sense of how Pidal's decision to call for the establishment of a national park stemmed from concerns about regenerating the Spanish people from the forces of foreign knowledge and foreign capital coupled with advocating industrial life

needed to make Spain competitive. Asturian regionalism, Spanish nationalism, and his life as a sportsman and hunter influenced the way in which Pidal articulated the need for Spain to have national parks. His personal efforts in the Congreso de los Diputados and his friendship with Alfonso XIII made national parks in Spain a reality.

The work closes in 1935. It scrutinizes Pidal's career and thought from his apogee in 1918 until his fall from grace under the Second Republic in 1935, and the initiation of a new environmental ethos embodied in Eduardo Hernández-Pacheco. In addition to abandoning Pidal's regenerationist environmentalism, Pacheco steered Spain's environmental protections away from the national parks model towards the preservation of smaller spaces.

Ultimately this is a story shows how Spain pioneered a shift in how Europeans experienced the natural world and how in the twilight of its empire its upper-classes through a combination of self-interest and good intentions gained an environmental awareness. Spaniards crafted protectionist legislation that guarded species and later landscapes. The tale of Spain's environmental protection, unlike environmental debates of today, reveals those who had the power to dictate the uses of nature and towards what ends.

Chapter One

“I Did Not Know To Give Them a Name”¹⁴

The New World, The Habsburg Naturalists, and Proto-empiricism 1492-1700

The year 1492 stands as a pivotal year in the history of the world and Spain especially. United into one political body as a result of the marriage between Isabella of Castile and Ferdinand of Aragon in 1469, Spain defeated the Emirate of Granada, expelled its Jewish community, and sponsored the expedition of a Genoese mariner who claimed he could find a westward route to Asia all in the year 1492. The year also marked the point at which Europeans could no longer comfortably impose their Biblically derived view of nature on the world. From 1492 to roughly 1790, the Spanish naturalists pioneered proto-empirical methods in investigating the New World. In turn, the publication of works relating to the New World and the collection of its specimens prompted the reification of the empirical method under Swedish botanist Carl Linnaeus and Georges-Louis Leclerc the French Count de Buffon from 1735 to 1788.

This roughly 300-year process set the foundations for empirical, scientific investigation that Spaniards utilized under the Bourbon monarchy. During the Royal Botanical Expeditions under Carlos III, Spanish naturalists deployed the empirical methodology that Spanish naturalists pioneered under the Habsburgs and that Linnaeus and Buffon further consolidated. The empirical methodology allowed amateur

¹⁴ Gonzalo Fernandez de Oviedo, *Sumario de la natural historia de las Indias edición de Manuel Ballestros* (Madrid, Historia 16, 1986), 108.

ornithologists to engage in the creation of naturalistic knowledge in the nineteenth-century and thus the creation of public space in which Spaniards could debate how to manage nature.

To fully appreciate the complexities that characterized the transition from the Biblical typological worldview to the proto-empirical and later the empirical, we must begin with the expansion of Europe's mental frontiers in the late medieval period. Proto-empiricism did not exist as a complete worldview nor as a methodology of inquiry. However, it worked within the Biblical typological worldview as a way to explain the preternatural phenomena that dominated European life. The Biblical topological worldview operated according to Aristotelian knowledge imposed on a geography derived from the Bible. In other words, the cosmos operated according to the ancient Hellenic system that explained natural phenomena according to the balance or predominance of the melancholic, phlegmatic, choleric, or sanguine manifested in the humors of black bile, phlegm, yellow bile, and blood. These processes operated in a Biblically derived geography of which Jerusalem was the center of the world, and nothing existed beyond Europe, Africa, and Asia other than an expanse of ocean. Europe's nobility consumed spices from Asia, but without the first-hand knowledge of its people or geography, the European imagination busied itself projecting monsters, mythological beasts, and the presence of the Christian king Prester John onto the blank spaces of an already formed map. They believed in a world wherein Jerusalem claimed the center and one-footed peoples, dog-headed peoples,

sea monsters, and viper-infested pepper forests characterized the wider world.¹⁵ Also, the Divine Will operated in a space wherein witchcraft and demons affected everyday life. Contemporary events always portended the fulfillment of Biblical prophecy.¹⁶

The divine never disappeared from the writings and conceptions of Spanish naturalists. To understand the transformation from the sixteenth-century to the eighteenth-century as a purely physical change would be incorrect. Rather, the preternatural became subject to predictable, rational laws. The natural world's botanical bounties had anticipated effects on the human body. This empirical transition never ousted the divine presence in the world: it simply made the laws of creation mechanical. Empiricism thus developed in the New World under the observations of Spaniards who collected local knowledge and observed phenomena for themselves. Writers who lacked personal experience with the Americas did not have to confront the realities that prompted the use of empirical methods. Such authors, rather, gathered testimony from those who had visited the New World and incorporated that into a topological world view. Naturalists, therefore, were both avid scientists and devout Catholics. Though, before all that, the motivation to destroy Islam and the avaricious want of spices motivated Europeans to leave their peninsula to find the world they already knew. They discovered something else entirely.

¹⁵ Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven and London: Yale University Press, 2008).

¹⁶ Jorge Cañizares-Esguerra, "Typology in the Atlantic World: Early Modern Readings of Colonization," in *Soundings in Atlantic History: Latent Structures in Atlantic History* edited by Bernard Bailyn and Patricia L. Denault (Harvard and Cambridge: Harvard University Press, 2009), 237.

For the past decade, historians of Early Modern Spain have been prodigious in their reevaluation of Spain's contributions to the Enlightenment and the development of modern science. One scholar of the early modern period demonstrated Spain's originality in pioneering new technologies, the creation of institutions that arbitrated the sheer volume of new scientific concepts and technologies, and the influence Spanish authors, inventors, and naturalists had on their English rivals.¹⁷ Moreover, he observed that English and Spanish views of their New World empires and their subjects bore more similarities than differences as they both believed in the divine sanction of their actions and their role as combatants against Satan's influence in the New World.¹⁸ Another expert on early modern Spanish American science argued that Spanish America's contribution to science rested with the institutionalization of the collection and cataloging of botanical specimens and mechanisms through which subjects of Spain's empire analyzed those samples. Through the adaptation of standardized investigations, they developed empirical observation.¹⁹ In a work that examined the production of visual epistemology in the Spanish Empire, in the form of sketches and paintings, another historian pointed out and the dual role of images as

¹⁷ Jorge Cañizares-Esguerra, *Nature, Empire, and Nation: Exploration of the History of Science in the Iberian World* (Stanford, California: Stanford University Press, 2006); Jorge Cañizares-Esguerra, "Spanish America from Baroque to Modern Colonial Science" in *The Cambridge History of Science Volume 4* edited by Roy Porter (New York: Cambridge University Press, 2003), 718-738.

¹⁸ Jorge Cañizares-Esguerra, *Puritan Conquistadors: Iberianizing the Atlantic, 1550-1700* (Stanford, California: Stanford University Press, 2006). One of Cañizares-Esguerra's main historiographical revisions has been to debunk the notion that England and France's roads to science rested solely on their own efforts in contrast to the notion of a scientifically bereft Spain.

¹⁹ Antonio Barrera-Osorio, *Experiencing Nature: The Spanish American Empire and the Early Scientific Revolution* (Austin: University of Texas Press, 2006), 1-2.

contributions to natural history and imperial administration.²⁰ These authors and others have made an invaluable impact on the historiography of Spain and its role in the Enlightenment.

The academic literature on the origins of Iberian science focuses exclusively on the early modern period. This chapter demonstrates the shift towards empiricism from the Biblical topological understanding of the world under the reigns of Ferdinand and Isabella and then the Hapsburg dynasty, 1492 to 1700, had an instrumental role in the long-term development of the Spanish environmental consciousness of the late nineteenth-century and the early twentieth-century. This chapter, therefore, takes this literature into two new directions. First, it contextualizes the scholarship of Spanish science in a longer term perspective than any existing work on the subject. Second, as a result of this deeper historical viewpoint, the chapter approaches early modern Spanish science as a precursor to modern Spanish environmental protection. These deep origins are missing from the sole contemporary monograph on Spanish environmental history.²¹ To accomplish these two directions, this chapter examines the work of Spanish naturalists including Pedro Martir de Angleria (1457-1526), Gonzalo Fernandez de Oviedo (1478-1557), Francisco Hernandez (1514-1578), Juan de Cardenas (1613-1684), and Juan Eusebio Nieremberg (1595-1658). Through an analysis of their works of natural history one understands how encounters with New World species forced Spanish naturalists to use empiricism as a means of

²⁰ Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment* (Chicago and London: The University of Chicago Press, 2012), 9.

²¹ Santos Casado de Otaola, *Naturaleza patria: ciencia y sentimiento de la naturaleza en la España del regeneracionismo* (Madrid: Marcial Pons, 2010).

comprehending the natural world. In doing so, they inadvertently eroded the utility of the Biblical typological worldview.

The Medieval Roots of Empiricism, the Search for Spices, and Contesting Topology

At the end of the twelfth century Otto of Freising, bishop from 1137 to 1158, applauded the victory of an East Asian Christian power over the Persians.²² He believed that victory came from the hands of Prester John. He recalled a conversation he had with a Syrian bishop and wrote, “He said, indeed, that not many years since, one John, a king and priest living in the Far East, beyond Persia and Armenia, and who, with his people, is a Christian, but a Nestorian, had warred upon the so called Samiards,”²³ Freising’s story represented the dominant strains of thought that permeated the Medieval European perspective. The conviction that Prester John awaited his Western counterparts betrayed the fact that Medieval Europeans projected expectations on to the world and the course of history based on their understanding of the Bible. Unlike the Early Modern Spanish Naturalists, Europeans in the Pre-Columbian era viewed reality as multi-dimensional and lacking in uniformity.²⁴ In other words, God’s whims rather than mechanistic interactions

²² Charles Christopher Mierow, “Bishop Otto of Freising: Historian and Man,” *Transactions and Proceedings of the American Philological Association* 80 (1949): 393.

²³ Otto of Freising, *Chronicon*, ed. G.H. Pertz, *MGH SSRG* (Hanover: Hahn, 1867), VII, 33, (pp. 334-35), translated by James Brundage, *The Crusades: A Documentary History*, (Milwaukee, WI: Marquette University Press, 1962) on the *Medieval Sourcebook* <http://legacy.fordham.edu/halsall/source/otto-prester.asp> accessed on August 28, 2015.

²⁴ Alfred W. Crosby, *The Measure of Reality: Quantification and Western Society, 1250-1600* (New York: Cambridge University Press, 1997), 23.

governed reality. Through a centuries long process, Europe underwent a mental unification in the form of Latin Christianity.

As they confronted the world beyond Europe, Europeans projected that perception and refracted reality through Biblical topology, giving it an incongruous character as both malleable and steadfast. Medieval Europeans lived in a world that constantly rested on the precipice of the Last Judgment. Heretics, devils, and witches inhabited a globe whose people were divided based on their mythological ancestry to Ham, Shem, and Japheth, Noah's sons. Jerusalem rested at the center of the universe. Prester John ruled faraway, waging perpetual war on Christianity's enemies. History itself unveiled God's purpose, and human actions bore little importance in the face of the Christ's impending return.²⁵ This paradox of expectation combined with the flexibility of the Latin Christian worldview endowed the Spaniards who traveled to the New World with a repertoire of beliefs that infused their interpretations of the plants, animals, and peoples who inhabited it. However, the inherent elasticity of Latin Christianity also imparted them with the plasticity to reimagine the world so as to understand reality not simply as the unfolding of Providence, but also as a set of natural processes. Medieval Europeans embarked on a "discovery of nature," in which they explored biological concepts such as inheritability.²⁶ The proto-empirical worldview gained greater importance through exploration and encounters beyond Europe. The Spanish naturalists who arrived in the New World already had a

²⁵ Thomas Brown, "The Transformation of the Roman Mediterranean 400-900," in *The Oxford History of Medieval Europe* edited by George Holmes (New York: Oxford University Press, 2001), Kindle Location 593-596.

²⁶ Steven A. Epstein, *The Medieval Discovery of Nature* (New York: Cambridge University Press, 2012), 6.

proto-empirical view in their repertoire. The novelties of the Western Hemisphere encouraged them to prioritize it.

The prestige, flavor, and medicinal uses of spices drove the European desire to traverse the oceans in search of them. Rice, almonds, saffron, citrus fruits, and sugar made their way into the European diet across the borders of the Crusader states and Iberian kingdoms.²⁷ The influx of new spices such as cloves and nutmeg only augmented a taste profile the Romans enjoyed. Additionally, spices also held a pharmaceutical role in Medieval European society as substances that could balance the body's humors. Disease represented an imbalance in the humoral qualities of the sufferer. Blood, yellow bile, black bile, and phlegm rested in a precarious balance and external influences such as food and climate adversely and positively affected the relationship between them.²⁸ Spices exhibited flavors that Europeans associated with their humoral qualities. Therefore, if the patient needed to be warmed or cooled an apothecary assigned a spice regimen to establish humoral equilibrium. Spices' rarity made them expensive, and only the wealthiest Europeans enjoyed their use.²⁹ Avariciously, the kingdoms of the Iberian Peninsula observed the excessive profits the Genoese, Venetians, and Muslim traders. The opportunity for riches and the continued strength of the Crusader spirit drove the Portuguese to leave the Mediterranean Sea for the Atlantic Ocean in the fifteenth-century. The Portuguese forays set an Iberian precedent for Spanish exploration, which ultimately

²⁷ Freedman, 25.

²⁸ Freedman, 52.

²⁹ Melitta Weiss Adamson, *Food in Medieval Times* (Westport, CT and London: Greenwood Press, 2004), 168.

culminated in Spanish suzerainty over most of the Americas and its confrontation with a different natural world.

Portuguese exploration sparked the colonization of the Azores and the Canary Islands as ports. These mid-Atlantic islands provided a place of resupply as the Portuguese sailed down the African coast hunting for a path to the Spice Islands. The new Portuguese ship, the caravel, combined the Chinese compass, European gunpowder weapons, the astrolabe, and the Arab lateen sail into a formidable ship that turned with agility and accuracy, and most importantly could circumnavigate opposing winds.³⁰ The Portuguese commenced navigating the African coast in 1434. Seven years later they established a permanent base at Arguim as they battled Castilian, Genoese, Flemish, Aragonese, and French rivals for control of the Atlantic islands.³¹ Portuguese settlers established residence in Madeira in 1419, in the Azores between 1427 and 1450, the Cape Verde islands the following decade, and São Tomé and Príncipe in the 1490s.³² With already established financial relations with Italian and Flemish merchants, Portugal had the credit necessary to establish the slave and sugar economies of their new possessions.³³ The unified kingdoms of Castile and Aragon took notice of Portugal's fortunes.³⁴

³⁰ Alfred W, Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (New York, Cambridge University Press, 1986), 104-131; Eric Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia Third Edition* (New York: Cambridge University Press, 2003), 57.

³¹ David Abulafia, *The Discovery of Mankind: Atlantic Encounters in the Age of Columbus* (New Haven and London: Yale University Press, 2008), 90.

³² Robin Blackburn, *The Making of New World Slavery: From the Baroque to the Modern, 1492-1800* (London and New York: Verso, 1997), 100-111.

³³ *Ibid*, 98.

³⁴ At this point referring to Spain is shorthand for the union between Castile and Aragon.

In the aftermath of a succession crisis from 1474 to 1479, Castile gained sovereignty over the Canary Islands.³⁵ The war against Granada captured the Crown's attention. The pacification of the Canaries fell to self-financed conquistadors. The Spanish made little headway in their attempts to subdue the islands until May 1493, when Juan Rejon commanded a force of 1000 soldiers and moved them from Grand Canary to Tenerife. Hostilities ended in 1496. The enslavement of the native Guanches provided an economic boost to the Castilian economy. Genoese merchants in Seville made substantial profits moving the captured slaves from the Canaries to the sugar plantations the Portuguese created on the other Atlantic islands.³⁶ Portuguese success and the profits from the Canaries prompted the Spanish monarchy into examining the possibility of finding its routes to the Spice Islands. Christopher Columbus' voyage initially signified a continuation of the Iberian desire to circumvent rivals and tap directly into the spice market bereft of Islamic and Italian intermediaries. However, the expedition almost never took place as a result of the Genoese sailor's unique view of the world's geography.

When Columbus had to argue the merits of sailing west and south³⁷ towards the East he had to contend with medieval biblical geography in addition to new geopolitical and economic realities wrought through Iberian expansion and Italo-Flemish finance. Most educated Europeans subscribed to the belief that the world possessed three continents in a TO formation that reflected the inheritances of Noah's three sons: Shem had Asia, Europe

³⁵ Abulafia, 95.

³⁶ Ibid, 98-101.

³⁷ Nicolás Wey Gómez, *The Tropics of Empire: Why Columbus Sailed South to the Indies* (Cambridge: The MIT Press, 2008).

descended from Japhet, while Ham's ancestors, the cursed son, inhabited Africa.³⁸ The Mediterranean and Red Seas intersected the continents in the shape of a T while the continents rested within an O formation. The world's dimensions and the distance from Europe to Asia persisted as a point of debate, even if its terrestrial geography remained decided.

Columbus originally divulged his plans to a special junta that the Catholic monarchs assembled for the occasion. In 1486 they met at least twice to little avail, and then again six years later in 1492 wherein they declared the Genoese sailor's proposition preposterous.³⁹ Columbus's opponents argued that only a watery abyss surrounded Earth's landmasses. Furthermore, life, they argued, could not survive at the hot latitudes to which he proposed travelling. Columbus, a devotee of Aristotle's cosmology, reckoned that landmasses manifested concentric imperfections in the Earth's crust. Whether the Earth was an open or closed geographical system remained the heart of the debate, not the issue of flat versus round.⁴⁰ Columbus argued that the Portuguese had already established settlements and bases along the torrid zone, which conventional wisdom dictated remained too hot to be inhabited. Bartholomeu Dias's voyage around the Cape of Good Hope in 1488 failed to persuade the junta as to the feasibility of Columbus' plan. In spite of the fact that Africa's torrid zone could be navigated and displayed high population densities, they argued, the Genoese sailor's circumstantial and anecdotal evidence based on unorthodox theories and hearsay in no way validated his claim that one could sail westward and southward towards

³⁸ Valerie I.J. Flint, *The Imaginative Landscape of Christopher Columbus* (Princeton: Princeton University Press, 1992) 9.

³⁹ Gómez, 109.

⁴⁰ *Ibid*, 110-111.

the East.⁴¹ Even Columbus' earlier claims that he could find a new continent or more Atlantic islands evinced little support. Even discounting his egregious demands for titles of nobility and riches, few believed the venture to be a worthwhile investment. Even if he could find new Atlantic islands suitable for sugar cultivation, the profits from such an endeavor offered little to no return.⁴² Columbus and his brothers' penchant for abandoning crew members on Caribbean islands each time before he returned to the Iberian Peninsula failed to endear them to their admiral. Furthermore, the inept governance and lack of clear duties rendered Columbus's administration of his New World territories extremely chaotic. The Crown abnegated Columbus's rights and privileges in Castile.⁴³ He died in the city of Valladolid on May 20, 1506, believing that the opulent kingdoms of Asia rested just over the horizon.⁴⁴ Columbus' voyages, nevertheless, left three lasting impacts on the shift toward an empirical worldview.

First, Columbus' geography represented a more empirical outlook than those who argued that humans could not inhabit the Torrid Zone. Second, the encounter with an entirely novel biota system in the Western Hemisphere forced a reevaluation of the Medieval topology despite the best efforts of later Spaniards to try and account for them within the Biblically-inspired model of geography. Last, Columbus' four expeditions

⁴¹ Ibid, 134-135.

⁴² Felipe Fernández Armesto, *Pathfinders: A Global History of Exploration* (New York and London: W.W. Norton & Company, 2006), 162.

⁴³ Abulafia, 223-230.

⁴⁴ Laurence Bergreen, *Columbus: The Four Voyages* (New York: Penguin 2011), Amazon Kindle Edition, Chapter 13.

denoted the state's expanding role and sponsorship of endeavors that simultaneously had spiritual and commercial concerns.⁴⁵

Although Columbus conceived of his geography in topology, he nonetheless cited the example of Portuguese expeditions in order to substantiate his point. Moreover, he based his argument on the merits of his quantitative calculations rather than on preconceived notions garnered from the Bible. In other words, Columbus's case for sailing west depended on measurable data that took into account observation; albeit, his calculations grossly missed the mark. Furthermore, Columbus's confrontation with peoples who could not be easily integrated into a pre-existing category engendered debates that called into question the Medieval identification of people as Christian, Muslim, heretic, or pagan. Columbus could not neatly incorporate the New World's inhabitants into the extant worldview. This confrontation between reality and expectation prompted later Spaniards to rely on empirical reasoning to comprehend what they had found on the other side of the Atlantic Ocean.⁴⁶ Lastly, the sponsorship Columbus received combined with the fact that he uncovered a potentially, in the European view, untapped bounty of natural resources encouraged the state to expand its participation in scientific enterprises.

Columbus's beliefs, though unorthodox, were entirely grounded in the topological worldview. His financial sponsors hoped to compete financially against the Portuguese, whose initial maritime forays constituted a continuation of the Reconquista: the Genoese sailor thought himself an instrument of the divine will. Columbus' journal revealed his

⁴⁵ D.A. Brading, *The First America: The Spanish Monarchy, Creole Patriots, and the Liberal State 1492-1867* (New York: Cambridge University Press, 1991), 11.

⁴⁶ Abulafia, 309.

intention to convert the Great Khan to Christianity so as to hasten the Reconquista of Jerusalem.⁴⁷ His expectations and his mission were unusual in the late fifteenth-century. When Vasco da Gama arrived in Calicut in May 1498, he and his fellow Portuguese believed that they had entered a Christian land for they misidentified a temple as a Church. Upon entering, they prayed towards a statue they believed represented the Virgin Mary and apparently had little issue with praying to their saints, despite their giant teeth and many arms.⁴⁸ He also carried with him a letter addressed to the mythic Christian king of the East in the tradition of expecting to meet Prester John on the far side of the *Dar al-Islam*.⁴⁹ Material concerns and topology galvanized and motivated European expansion beyond the Iberian Peninsula. Columbus' voyages represented the desire for economic gain refracted through the ethos of the *Reconquista*.⁵⁰

The state expanded its support for scientific innovation and discovery for two reasons. Primarily, from the fourteenth-century to the fifteenth-century European rivalries expanded to global dimensions as new mercantile opportunities opened through maritime exploration. Indeed, Portugal did not retain its exploratory monopoly in the face of rivals. Subsequently, the curiosities of the New World impelled the Spanish state to finance and support scientific works and expeditions in the hopes that scientific discovery would also yield economic benefits either in the discovery of new botanical resources or the

⁴⁷ Brading, 13.

⁴⁸ Abulafia, 222.

⁴⁹ Peter Denley, "The Mediterranean in the Age of the Renaissance 1200-1500," in *Oxford History of Medieval Europe*, location: 3062-3064.

⁵⁰ Elliot argued that the Fall of Granada and the authorization of Columbus' first expedition in the same year denoted the Castilian monarchy's resumption and expansion of war against the "infidel." J.H. Elliot, *Imperial Spain 1469-1716* (New York: St. Martin's Press, 1963), 49.

cultivation of those they had already found.⁵¹ The acquisition of scientific knowledge became a means that Spaniards used to commercialize the New World. Over the course of three centuries, it evolved into a legitimate way to claim prestige against Spain's other European competitors.⁵² Spaniards with state support embarked on botanical expeditions and wrote compendiums of their findings.

The Nature of the New World

Botanical expeditions and the works Spanish subjects compiled from the data weakened the Biblical topological view's preeminence and privileged empiricism, the method through which Spaniards developed a view of the earth in which the material ecosphere acted according to predictable biological processes rather than through the mercurial will of otherworldly beings. From Columbus's first voyage in 1492 to the Malaspina Expedition of 1789, the shift to empiricism took place gradually as Spanish naturalists argued the merits of their observations. Their attempts to incorporate the marvels of the New World into the topological perspective slowly yielded in the face of empirical investigation; the transformation occurred piecemeal and reflected Spaniards' conviction and dedication to Catholicism and the ethos of the Reconquista. Humors, devils, and demons inhabited the New World as Spanish naturalists began to draft works with a focus on the material world. That development commenced almost immediately upon contact in 1492.

⁵¹ Paula de Vos, "The Science of Spices: Empiricism and Economic Botany in the Early Spanish Empire," *Journal of World History* 17 no. 4 (December 2006): 413.

⁵² Paula de Vos, "An Herbal El Dorado: The Quest for Botanical Wealth in the Spanish Empire," *Endeavor* 27 no. 3 (September 2003): 119.

Beginning within two years of Columbus's first voyage, Pedro Martir de Angleria, a friend of the Genoese explorer, began publishing material related to the New World. Between 1494 and 1526, he obtained materials and news about the animals, plants, and minerals that populated Spain's new empire.⁵³ Martir de Angleria's descriptions and entries were succinct and contradictory owing, no doubt, to the fact that he compiled others' testimonies in a way that referred to medieval geography and points of reference. For example, he mentioned the Fountain of Youth and when describing one species of fish reported that it made a call like the mythological siren.⁵⁴ Martir's works also painted a picture of the New World as a place with a contradictory character. Its inhabitants represented a society that lacked the monetary and property concerns of European contemporaries.⁵⁵ However, they indulged in disagreeable practices such as cannibalism.⁵⁶ Martir applauded Spanish fortitude, but in later years he criticized the behavior of the conquerors and their disastrous treatment of the native peoples.⁵⁷ Like Amerigo Vespucci, who also lamented inter-tribal violence, Martir tried to make analogies based on his familiarity with Europe. Simultaneously he also used the New World as a mirror in which to censure Europe's preoccupations with power and money.

The Florentine explorer moved to Seville where he embarked on business ventures and exploration of the New World for the Castilian Crown.⁵⁸ Unlike his predecessor,

⁵³ José María López Piñero, *Ciencia y Técnica en la sociedad española de los siglos XVI y XVII* (Barcelona: Labor Universitaria, 1979), 280.

⁵⁴ Ibid.

⁵⁵ Brading, 16.

⁵⁶ Ibid.

⁵⁷ Ibid, 17.

⁵⁸ Armesto, 184.

Columbus, Vespucci argued that the New World was not Asia.⁵⁹ The New World sparked a reevaluation of prior beliefs. The discovery of the New World, as one historian has argued, could not be pinned on one particular date.⁶⁰ Rather, the uncovering of the New World took place over many centuries as explorers and naturalists cataloged its botanical richness, sent samples of plants and animals back to Europe, understood its indigenous inhabitants, and refined the methods through which it accomplished those tasks. Gonzalo Fernandez de Oviedo initiated a new style of scholarship. Oviedo moved away from projecting expectations onto natural phenomena in favor of comparing them to physical observations.

The precocious and erudite Spaniard was born in Madrid in 1478 to a family of Asturian ancestry.⁶¹ Oviedo's family stalked the royal court and as a child, he came under the aegis of a friar named Diego de Deza. Oviedo spent his formative years near and in the Spanish Court wherein his interest for the New World peaked. In 1493, Oviedo witnessed Columbus's arrival in Barcelona. The young courtier spent time in Italy and returned to Spain where his former sponsor Diego De Deza, head of the newly formed Inquisition, appointed him the Public Notary and Secretary to the Council of the Holy Inquisition.⁶² In 1514 Oviedo made the first of six journeys to the New World before his death in Valladolid in 1557. In that time he held a variety of posts, including commanding the Fortress in Santo Domingo.⁶³ During his eclectic career, Oviedo found the time to write about his observations of the peoples, plants, flora, and fauna of the New World. In 1526, Fernandez

⁵⁹ Abulafia, 307.

⁶⁰ Ibid, 307-308.

⁶¹ Piñero, 281.

⁶² Manuel Ballestros, "Introduction" in *Sumario de la natural historia de las Indias edición de Manuel Ballestros* (Madrid, Historia 16, 1986), 15-19.

⁶³ Ibid, 20-32.

de Oviedo published his *Sumario de la natural historia de Las Indias* at the behest of Charles V. Oviedo inadvertently left his notes in Santo Domingo in Hispaniola and had to write the work solely from memory.⁶⁴

A conquistador turned naturalist, Oviedo's works attempted to explain the character of New World peoples, flora, and fauna while also arguing that Spaniards could not save the indigenous peoples from their barbarism.⁶⁵ Oviedo represented the tradition of knowledge building in which topology enveloped American wonders. However, his methods betrayed a proto-empiricism in which comparisons took place in terms of physical realities.

Oviedo portrayed nature in the Indies not as a set of commodities, but rather as a collection of wonders.⁶⁶ In the *Sumario* Oviedo made observations in succinct chapters based on specific topic, much like an encyclopedic entry. Oviedo dedicated much ink to entries and recollections about mammals, natives, and food. Birds also take up a disproportionate amount of space. He dedicated sixteen of sixty-one chapters to birds. Unlike medieval thinkers who made comparisons to perceived and imagined species and geographies, Oviedo compared New World plants and animals to familiar ones in Spain. In Chapter Twenty-Eight, Oviedo wrote, "In the Indies there are regal black and blonde eagles. There are hawks and *alcotanes*, sparrow-hawks and peregrine falcons, except they are blacker than those here. There are some kites that eat chicken, and resemble the white

⁶⁴ Barrera-Osorio, 85.

⁶⁵ Marcy Norton, *Sacred Gifts, Profane Pleasures: A History of Tobacco and Chocolate in the Atlantic World* (Ithaca and London: Cornell University Press, 2008), 56.

⁶⁶ *Ibid.*

eagle.”⁶⁷ He then observed, “I did not know to give them a name, nor that few Spaniards had seen them.”⁶⁸

In contrast to Columbus, Oviedo used a form of investigation in which he furnished reports based on his deductions and descriptions based solely on the experienced physical world rather than on an imagined geography infused with expectations. For example, when he described birds that had no European counterparts he still relied solely on physical description. When he recorded his recollections of a species of parrot he wrote, “Those parrots, although they seem torpid, are very powerful fliers, and always wander around in two pairs of two, male and female, and are very harmful to the staples and crops the Indians tend.”⁶⁹

Oviedo viewed the New World as a collection of wonders. However, he revealed that sense of awe with a proto-empirical method of observation. The world of humors and demons did not suddenly vanish. Instead, a mechanistic understanding of how the natural and supernatural interacted with each other took precedence in Spanish naturalistic knowledge.

During the Hapsburg period, 1516 to 1700, Spanish naturalists strained to comprehend the New World’s botany in terms of preceding forms of knowledge such as Aristotelian humors. Topological geography eroded in the face of reality. Contact with everything from chocolate to native adornments as well as architecture, native food, and local fauna instilled a sense of awe in the Europeans who traveled to the Americas,

⁶⁷ Gonzalo Fernandez de Oviedo, *Sumario*, 108.

⁶⁸ *Ibid*, 109.

⁶⁹ *Ibid*, 109-110.

including the conquistadors.⁷⁰ Oviedo's successors used Aristotelian humors to explain the comportment and character of species and peoples, while other Spaniards debated the moral consequences of imbibing indigenous foods and medicines such as tobacco.⁷¹ The line between the natural and spiritual world developed in a way that favored empirical observation. This transition presaged the views of nineteenth-century naturalists.

Nineteenth-century Spanish conservationists still adhered avidly to their Catholic faith and perpetuated a worldview that contained metaphysical elements such as the awe of mountainous landscapes. The material became an avenue to the spiritual. This brand of thought developed among sixteenth-century Spaniards who formed a naturalistic consciousness in which the physically grounded properties of the environment directly affected the body.⁷² Furthermore, Oviedo's inchoate empiricism existed in the context of perpetual struggle. Spaniards believed that Satan governed the New World: indigenous belief systems constituted a form of devil worship. The liberal use of native plants such as tobacco and chocolate in indigenous spiritual life posed moral questions as to whether Europeans could consume them safely and in turn if they could commercialize them.⁷³

In the fifteenth-century, Europeans believed that Satan did not personally, physically intervene in the material world. As early as around the year 900 the Church

⁷⁰ Bernal Diaz del Castillo, *The History of the Conquest of New Spain*, edited by David Carrasco (Albuquerque, NM: University of New Mexico Press, 2008), 157.

⁷¹ Norton, 92-93.

⁷² As will be argued in Chapter 4, Pedro Pidal believed Spanish physical and spiritual renewal could be pursued through mountain climbing, which simultaneously strengthened the body and invigorated Spaniards with a sense of the sublime based on their material nature.

⁷³ Rebecca Earle, *Body of the Conquistador: Food, Race and the Colonial Experience in Spanish America, 1491-1700* (New York: Cambridge University Press, 2012), 2-11; Norton, 9-10.

issued a canon, the *Episcopi*, which declared phenomena such as night flying and metamorphoses into animals illusory. The devil and his minions projected these sensibilities into peoples' minds. They had no physical reality.⁷⁴ Despite the lack of physical intervention, Spanish authorities and clergy still believed that they had to combat demonic influences in the Americas. One historian observed that Spanish Catholics justified colonial expansion and conquest through religious discourses that sanctioned violence against satanic enemies.⁷⁵ In the eyes of Spaniards such as Oviedo, who labeled Charles V ruler of the universe, Castilian man stood in a position to dominate the globe. Providential thinking reinforced that pride and sense of legitimacy in Spanish rule.⁷⁶ In fact, Castile's messianic pretensions did undergird its colonial enterprise.⁷⁷

Working in the same millenarian context as Columbus, agents of the Holy Inquisition, who combatted Islam and Crypto-Jews in Spain, crusaded against Satan's control of the indigenous peoples. In 1621 the Jesuit Pablo Jose de Arriaga wrote that he and his team in Peru had identified 750 wizards and burned in *auto-da-fés* 603 sacred objects and idols, 3140 household deities, and over a thousand mummified ancestors.⁷⁸ They also feared that the botanical bounty in Spain's New World domains induced demonic temptation and moral degeneration; the question of morality versus utility characterized debates about the use of chocolate and tobacco as some believed the substances blurred

⁷⁴ Robert Bartlett, *The Natural and Supernatural in the Middle Ages* (New York: Cambridge University Press, 2008), 79-81.

⁷⁵ Jorge Cañizares-Esguerra, *Puritan Conquistadors: Iberianizing the Atlantic, 1550-1700* (Stanford, California: Stanford University Press, 2006), 9.

⁷⁶ J.H. Elliot, *Spain, Europe, and the Wider World 1500-1800* (New Haven and London: Yale University Press, 2009), 134-139.

⁷⁷ *Ibid*, 138.

⁷⁸ *Ibid*, 3.

the division between Christianity and idolatry.⁷⁹ Such spiritual concerns represented only one strain of dispute about the effects of New World foodstuffs.

Spanish naturalists, clergy among them, tried to discern the humoral effects of New World climate and biota on any peoples or animals that consumed them. Spaniards worried about the humoral and spiritual effects of indigenous food and environment. They considered maize, cassava, and other New World foods as deleterious to the European body.⁸⁰ The reverse also held true. The Franciscan friar Bernardino de Sahagun argued, in 1563, that a Castilian diet would physically transform the indigenous peoples of the Americas into a more civilized state.⁸¹ Intellectuals and Catholic authorities debated the merits of the New World's natural bounty through the sixteenth-century and seventeenth-century. In spite of their concerns, the Spanish Crown continued to support the work of naturalists. In 1569, Philip II expanded the dimensions of his quest for medicinal and naturalistic knowledge. He sanctioned his chief health official, Francisco Hernandez, to travel to Spanish America and collect data about its medicinal plants.⁸² Hernandez, like Oviedo, initiated a revolution in gathering naturalistic knowledge. Unlike his predecessor, he displayed his reliance on local, Amerindian knowledge.

Francisco Hernandez was born in Toledo around the year 1517. In 1536 he earned a medical degree from Alcala de Henares and practiced medicine in several cities until Philip recruited him as his personal physician in 1567. Upon his arrival in Veracruz in 1571, he

⁷⁹ Norton, 129; Cañizares-Esguerra, *Puritan Conquistadors*, 176.

⁸⁰ Rebecca Earle, *Body of the Conquistador: Food, Race and the Colonial Experience in Spanish America, 1491-1700* (New York: Cambridge University Press, 2012), 54.

⁸¹ Earle, 165.

⁸² *Ibid.*, 110; Norton, 121.

and an eclectic crew of botanists, artists, and local doctors scavenged for medicinal knowledge and samples throughout central Mexico. While compiling his data he continued his profession as a physician and regularly sent samples and a total of thirty-eight volumes of drawing and text to his king.⁸³ Hernandez organized his findings into four books.

Fernandez took his four books and organized them into a compendium called the *Quatro Libros de la Naturaleza*. The first three volumes examined the plants, trees, and flowers of the New World in addition to some indigenous foodstuffs. In the fourth book, Hernandez recorded his observations on fauna. His first entry betrayed the fact the Europeans still understood the Americas' wildlife in terms of comparisons to Eurasian animals, but also included indigenous knowledge in his comparisons. He recorded the indigenous names of his entries alongside Spanish ones. Fernandez chose to describe the armadillo in his first entry. He logged the aboriginal name, Ayotochtli, and described it as a rabbit with the shell of a turtle and approximately the size of small dog.⁸⁴ Hernandez continued to implement the trend of empirical observation. His *Quatro Libros* made conclusions based on observation, artistic renditions that aimed to provide a realistic portrayal of the subject, and most importantly he never hesitated to garner knowledge about the utility of Mexico's bounty from its Amerindian population. Simultaneously, Hernandez's expedition represented the increasingly important role the state would play in the achievement of scientific knowledge.

⁸³ Norton, 121-122.

⁸⁴ Francisco Hernandez, *Quatro libros de la Naturaleza y virtudes de las plantas y animales de uso medicinal en la Nueva España* Volume II, translated from Latin by Fr. Francisco Ximenez (Mexico: 1615), 178 front and back.

Philip II's insatiable curiosity no doubt played a significant role in this development. Indeed in 1585, Philip began constructing several rooms at El Escorial, the royal residence northwest of Madrid, which served as laboratories.⁸⁵ Furthermore, the Spanish monarch's sponsorship allowed Hernandez to fold indigenous collaborators into the expedition as informants and interviewers.⁸⁶ Hernandez, in contrast to many of his contemporaries, formed an ambivalent rather than an outright negative impression of Amerindian knowledge and medicines. In a letter to his royal sponsor, the naturalist explained that he could not separate natural knowledge acquired during the expedition from the culture that helped furnish it.⁸⁷ He developed an empirical attitude towards indigenous peoples. The Spanish Crown believed Hernandez's works so important, that when they were lost in a fire nearly two centuries after his death, Carlos III ordered one of his Royal Botanical Expeditions to the Americas to locate any of his writings and bring them to Madrid. Three years after Hernandez's death in 1587, work of Juan de Cardenas' *Primera Parte de los Problemas y Secretos Maravillosos de las Indias*, written in 1590, demonstrated that the humoral tradition remained alive and well in the increasingly empirical methodology of Spanish naturalists.⁸⁸ Regardless, he pushed Spanish naturalism further towards empiricism.

⁸⁵ Parker, 110.

⁸⁶ Norton, 125.

⁸⁷ Ibid.

⁸⁸ Juan de Cardenas, *Primera Parte de los problemas y secretos maravillosos de las Indias* (Mexico: Academia Nacional de Medicina, 1980).

Cardenas attended the Royal and Pontifical University of Mexico, founded in 1521, and taught at the College of St. Peter and St. Paul in Mexico City from 1577 to 1590.⁸⁹ One scholar penned that sixteenth-century Mediterranean Europeans may have lacked an interest in the observation of landscapes and nature and that this may have been the result of literary conventions.⁹⁰ Cardenas' *Primera Parte de los Problemas y Secretos Maravillosos de las Indias* demonstrated that at least by the end of the sixteenth-century Spaniards might not have been interested in physical descriptions of landscapes, though they remained preoccupied with their physical effects. Cardenas' encyclopedic tome applauded Spaniards for putting themselves in a unique position to explore nature, infused nature with a sense of wonder and awe, and prognosticated as to how life functioned in the New World.

Cardenas subtitled the first chapter of the first book, "That Which Is Given to Natural History."⁹¹ In the opening pages, he prognosticated how the philosophers of antiquity could not help but be unaware of the unique species of New Spain and then he wasted little time in observing how the inhabitants of Spain's new realm could not possibly have conceived of the rhinoceros in their minds.⁹² At the heart of Cardenas' tome rested his infectious sense of awe and wonder about his unique position to bridge the gap between the natures of two hemispheres. Beneath the veneer of childlike wonder, Cardenas displayed an erudite mind that grappled with the technical workings of the natural world. He showed such cognizance

⁸⁹ Edgar Llinás, "The Issue of Autonomy in the Royal and Pontifical University of Mexico," *Revista de Historia de América* no.112 (July-December 1991):110; Xavier Lozoya, "Juan de Cardenas: Medico y cientifico del siglo XVI Novohispano," in *Primera Parte de los problemas y secretos maravillosos de las Indias*, 21-23.

⁹⁰ J.H. Elliot, *The Old World and the New World 1492-1650* (New York: Cambridge University Press, 1970), 20.

⁹¹ Juan de Cardenas, *Ibid*, 67. All translations, unless otherwise stated, are my own.

⁹² *Ibid*, 68-69.

when he explained why rabies was less virulent in the New World. He argued that the, “proximate cause of this malady rest with the choleric humor, encompassed and poisoned with the malice and fire of this rabid venom...”.⁹³

Cardenas resorted to the already familiar analytical paradigm of humors as an explanation for why animals and people in the New World lacked the virility of those in the Old World. Physical location in the Tropical Zone combined with the effects of the New World botany to render species rabid. Due to the constraints of his time, Cardenas could have no idea that a virus induced rabies. In his assessment as to why the people and animals of the New World, even the dangerous ones, were less dangerous than their Eurasian counterparts he surmised, “all the animals of the Indies are lazy, weak and effeminate.”⁹⁴

Cardenas concluded that differences in the disposition of species could be accounted for in light of the dissimilarities in climate between Europe and the Americas, specifically the hotter climate of the latter. Despite Cardenas’s reference point in the medicinal knowledge of medieval Europe and Antiquity, the fact he relied on observation validated empirical methodology as a means to discuss the workings of the natural world. Through observation, he hypothesized the combined effects of hot climate, and hot diet accounted for differences more than any inherent qualities. Those like Cardenas who had the first-hand experience of the New World resorted to empirical methods of observation to make sense of what they had witnessed. Those who stayed in Spain, such as Pedro de Martir de

⁹³ Cardenas, 299.

⁹⁴ Ibid, 304.

Angeleria and Juan Eusebio Nieremberg, fit the evidence from eyewitnesses into their already held Biblical typological worldview.

Juan Eusebio Nieremberg, the son of German parents, had the fortune of spending his childhood near the royal court.⁹⁵ Nieremberg subscribed to St. Augustine's belief that observation of the natural world revealed God and confirmed the truths found in Christian Scripture. He never left Spain to conduct his research, but rather perused works such as the *Sumario de la natural historia de las Indias* and the *Quatro libros de la Naturaleza*. Ultimately, Nieremberg reconciled the New World with biblical cosmology through the notion that God's creation remained immutable. He considered mutability akin to imperfection, and therefore the discovery of the New World and its botanical plenty harkened a revelation of Christ's return.⁹⁶ Nieremberg argued that the divine lurked in the New World in his two works of natural history the *Historia naturae, maxime peregrinae* published in 1635 and *Curiosa y oculta filosofia* in 1649. He believed that nature merely represented a set of symbols and representations that with enough study could be deciphered so as to understand the Creator and his creation better.⁹⁷ Aristotelian thought pervaded his work just as it had framed the worldview in which his predecessors conducted their investigations. The major difference between he and they, however, was that Nieremberg never left Spain on his intellectual quest; in fact, he synthesized the work

⁹⁵ Juan Pimental, Baroque Nature: Juan E. Nieremberg, American Wonders, and Pre-imperial Natural History," in *Science in the Spanish and Portuguese Empires, 1500-1800* edited by Daniela Bleichmar, Paula de Vos, Kristin Huffine, and Kevin Sheehan (Stanford, California: Stanford University Press, 2009), 94.

⁹⁶ Ibid, 99-102.

⁹⁷ Ibid, 101.

of Martir, Oviedo, and Hernandez into his writings.⁹⁸ Having never witnessed the New World for himself, the possibility of imposing Biblical typological worldview remained easy for Nieremberg. He pondered that the original Edenic Paradise may have been located in America and that the Andean condor in fact was the mythical griffin.⁹⁹ Despite the Great Flood, one could offer a preternatural explanation for the existence of animals unknown in the Old World. Guardian angels carried the species from the New World and back again.¹⁰⁰

Nieremberg's thought demonstrated that even in ecclesiastical writings the trenchant attitude about the nature of the world that Columbus contended against in the fifteenth-century were reshaped as repeated evidence from the New World eroded the old cosmology. Nieremberg's thought shared the millenarianism that Columbus carried with him, and it also demonstrated that Christianity remained a strong force in Spanish intellectual life. Supernatural explanations for nature's operations dominated Nieremberg's thoughts. Empirical methodology, however, crept into his explanations as he consulted and reproduced the works of Spanish naturalists who had toured the New World. By the end of the sixteenth-century, nature in the minds of Spaniards developed under the aegis of the divine, but one could uncover the mechanistic workings of creation, understand its functions and behaviors through observation. Nevertheless, Spaniards remained embroiled in a battle with Satanic forces in the New World and desired to build God's spiritual

⁹⁸ Ibid, 105.

⁹⁹ Ibid, 107.

¹⁰⁰ Ibid, 109.

kingdom on American soil, a feature shared in common with other Europeans such as the English, who also settled the New World with millenarian concerns.¹⁰¹

From 1492 to 1649, Spaniards came into contact with a new continent that forced reevaluation of the Biblical topology. Columbus believed he stood on the threshold of finding the Asian kingdoms he had set out for while simultaneously believing that his voyage embodied a portent of Christ's return. Pedro Martir de Angleria immediately set out to record testimonies about the New World, which he framed in terms of Biblical geography and the anticipations Europeans harbored for the world beyond Europe. Amerigo Vespucci claimed that Europeans had found a new continent, not Asia. Gonzalo Fernandez de Oviedo collected data about its peoples, species, and botany within the first half decade of Spanish settlement in the Americas. Francisco Hernandez expanded the corpus of naturalistic knowledge about the New World. He compiled his *Quatro Libros* with the aid of indigenous partners and relayed that information in the form of encyclopedic entries and sketches. Phillip II, moreover, commissioned Oviedo's expedition, which represented increased state participation in the acquisition of naturalistic knowledge. Juan de Cardenas continued the new style of empirical investigation. His *Primera Parte de los Problemas y Secretos Maravillosos de las Indias* revealed that the empirical method had dialectically merged with earlier forms of knowledge, in this case, humoral medicine, to understand the mechanical workings of the natural world. Lastly, Nieremberg's incorporation of the New World into his topological-based perceptions denoted that even

¹⁰¹ J.H. Elliot, *Empires of the Atlantic World: Britain and Spain in America 1492-1830* (New Haven and London: Yale University Press, 2006), Amazon Kindle Edition, location 3325.

topology itself had to alter in the face of the material realities the New World offered. God did not make creation immutable. It constantly changed.

A recognizably inchoate form of empiricism existed in medieval European thought. Regardless, preternatural explanations for the world predominated. Europeans easily projected their Biblical geography farther out each time they encountered a novelty in Afro-Eurasia. Spaniards and those working for the Spanish Crown brought Biblical typology to the New World, and initially, they applied it there as they had elsewhere. The encounter with radically new plants and animals prompted Spanish naturalists to utilize the already extant proto-empirical worldview, but through their application of it, the naturalists developed a methodology of investigation that started to push empirical understandings in place of preternatural ones. This shift did not mean empiricism would inevitably overtake Biblical typology, as witnessed most explicitly in Nieremberg's books. Rather, it provided a latent methodology available to actors and circumstances that could actualize it into the empiricism that is more recognizable to the modern scientist. The importance of Spanish expeditions under the Ferdinand and Isabella and then the Habsburgs for the establishment of modern Spanish environmental protections rested on one fact; the absence of an empirical methodology would have precluded the creation of an understanding of nature as a set of predictable, or rather seemingly anticipated, connections that operated according to a logic in which man could intercede. God and the Divine Will prevailed in the minds of many Spaniards. Albeit, humanity could now serve God through its own schemes in nature. Such sentiments would evolve in the form of protectionist legislation that preserved certain species due mostly to their economic utility.

The notion that nature could be deciphered, pulled apart, and reconstituted towards other purposes became a cornerstone of Spanish environmental thinking in the centuries ahead. Before the advent of nineteenth-century protections, eighteenth-century crisis provided the impetus to drive Spain towards empiricism and away from its sixteenth and seventeenth-century inchoate form. Before empiricism became the predominant method Spaniards used to define nature it first had to undergo a foreign birth.

Chapter Two

A Swede, A Frenchman, and The Bourbon Royal Botanical Expeditions

Cabinets of Curiosity, Taxonomy, and Spain's Embrace of Empiricism 1701-1808

In the eighteenth-century, the penchant for naturalistic science in Spain and the taxonomic and methodological pursuits of Carl Linnaeus and Georges-Louis Leclerc, the French Count de Buffon, came together in the Royal Botanical Expeditions. The belief in humoral effects combined with apprehensions about their original, native uses during the Habsburg years made them a source of both wonder and apprehension. Under the Bourbon monarchs of the seventeenth-century, anxieties about humoral effects and preternatural explanations evaporated as the Crown invested heavily in the acquisition and formulation of naturalistic knowledge to be put to use for the state. This motive concomitantly mutated the views and methodologies of Spanish naturalists from the Biblical typological proto-empiricist ones toward the recognizably modern empirical approach. In other words, during the progression of the seventeenth-century, the Bourbons enacted economic reforms that privileged the attainment of naturalistic knowledge through empirical methods so as to garner specimens for economic exploitation to bolster Spain's diminished status in Europe.

Through the Royal Botanical Expeditions, the state could profit from the systematic procurement of naturalistic knowledge, or so the Bourbons believed. This union between naturalism and state wellbeing evolved in the nineteenth-century to encompass Spaniards who produced naturalistic or scientific knowledge beyond the aegis of the state. The shift is

demonstrated by those individuals who argued for the economic uses of nature through species protections. Historians have studied the Bourbon Reforms in depth and have delved into how Spanish authorities tried to cope with maintaining their empire through fiscal, administrative, and commercial reforms.¹⁰² One scholar has even demonstrated how the Spanish reinterpreted and redefined their relationship with indigenous peoples in the Americas as a part of the reforms.¹⁰³

None, however, have contextualized the Bourbon Reforms within a larger context of Spanish environmental history much less looked at the ramifications of those transformations in the following century. Such an oversight is no doubt due to the abrupt end of Spain's imperial presence in the Americas following the Napoleonic Invasion and Wars of American Independence. Nevertheless, the dissolution of the empire brought about a turn inwards. Amateur naturalists continued the work of their seventeenth-century predecessors. Under the Bourbon dynasty, specifically during the reigns of Carlos III and Carlos IV from 1759 to 1808, the New World took on a more important role in the life of the state than it had during Habsburg rule from 1516 to 1700.

This chapter demonstrates how in the eighteenth-century Spanish naturalists and the state embraced an empirical approach towards science. This development cemented empirical methodology as the manner in which Spaniards approached the environment from the eighteenth-century onward. The Bourbon Reforms initiated the final transition

¹⁰² John Lynch, *The Spanish American Revolutions, 1808-1826* (London: Weidenfeld and Nicholson, 1973), 1-31.

¹⁰³ David J. Weber, *Bárbaros: Spaniards and Their Savages in the Age of Enlightenment* (New Haven and London: Yale University Press, 2005).

from the Biblical topological worldview to the more recognizably modern view of the environment. The Royal Botanical Expeditions demonstrated that the state legitimized its scientific inquiry through empirical methodology and observation, instead of the authority of texts from Antiquity. The academic scholarship on the Bourbon Reforms, however, neglects the reforms' importance towards the creation of Spain's modern environmental consciousness that took its fullest form in environmental protections in the late nineteenth-century and early twentieth-century. Instead, scholars have focused their efforts on how the Bourbon Reforms temporarily reorganized the Spanish state so that it gained prestige and economic power in the eighteenth-century, alienated the American creole elites, and how, ultimately, the reforms failed to resuscitate Spain into a first-rate European power.¹⁰⁴ This chapter will not focus on the Bourbon Reforms as simply a political and economic phenomenon. Instead, it treats the Bourbon Reforms and their Royal Botanical Expeditions as an intellectual and methodological milestone that set the empirical tone for Spanish environmental consciousness. Future Spaniards used knowledge garnered from empirical science to argue that environmental protections equaled economic growth. This chapter also serves as the bridge from the deep history of the Spanish environmental consciousness to the modern nineteenth-century and twentieth-century one. It can be viewed as a direct continuation of Chapter One.

¹⁰⁴ Jacques Barbier, "The Culmination of the Bourbon Reforms, 1787-1792," *Hispanic American Historical Review* 57 (February: 1977): 51-68; Lynch, *The Spanish American Revolutions*; Stanley J. and Barbara H. Stein, *Apogee of Empire: Spain and New Spain in the Age of Charles III, 1759-1789* (Baltimore: Johns Hopkins University Press, 2003); Stanley J. and Barbara H. Stein, *Edge of Crisis: War and Trade in the Spanish Atlantic, 1789-1808* (Baltimore: Johns Hopkins University Press, 2009).

To achieve that goal, this chapter synthesizes the scholarship on Linnaeus and Buffon with the academic works about early modern Iberian science and works about cabinets of curiosity. Many academic writings on cabinets of curiosity have focused on them as places of theatrical display and mainly as precursors to modern museums.¹⁰⁵ The chapter examines the three volume journals of Alejandro Malaspina to demonstrate the incorporation of Linnaeus's and Buffon's respective taxonomies into Spanish naturalism and the preeminence of empiricism in Spanish science.

Habsburgs, Bourbons, and the New World

Notwithstanding the seemingly endless possibilities of the New World, in actuality, it held a secondary role in the designs of the Hapsburg regime for the first half of the sixteenth-century. Charles V's empire remained oriented towards Europe.¹⁰⁶ Europe overshadowed the Americas even in specie production from 1521 to 1544.¹⁰⁷ Ten years later, American remittances provided only eleven percent of the Crown's total revenues.¹⁰⁸ Regardless, Spain existed in a geopolitical context of perpetual rivalry among European powers. The incorporation of the Americas into that already extant conflict simply extended those tensions beyond the Strait of Gibraltar. Indeed, Spanish expansion itself

¹⁰⁵ Patrick Mauriès, *Cabinets of Curiosity* (New York: Thames and Hudson, 2002); Maria Zytaruk, "Cabinets of Curiosities and the Organization of Knowledge," *University of Toronto Quarterly* 80 no. 1 (Winter 2011): 1-23; Hugh H. Genoways and Mary Anne Andrei eds., *Museum Origins: Readings in Early Museum History and Philosophy* (Walnut Creek, CA: Left Coast Press, 2008).

¹⁰⁶ J.H. Elliot, *The Old World and the New 1492-1650* (Oxford: University of Oxford Press, 1992), 85.

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*

was a response to Portuguese achievements in the fourteenth-century.¹⁰⁹ Agrarian and economic troubles on the Iberian Peninsula, geopolitical contestation, and lack of political uniformity within Spain itself enervated its dominance during the seventeenth-century.

Trade between Spain and the New World increased. The annual galleon fleet brought 10 million *pesos* worth of goods in 1666. A decade later that figure rose to 42 million *pesos*.¹¹⁰ To the Crown's detriment, most of that wealth ended up in the hands of foreign rivals based in Andalucía. From 1660 to 1675 the French, Genoese, Dutch, and English held the bulk of the profits from American trade. The king controlled a steady ten percent of those profits between 1660 and 1680.¹¹¹ During the following decade the Spanish monarchy's share fell to between two and three percent.¹¹² The Hapsburgs became a dynasty in crisis. The War of Spanish Succession resulted in Spain ceding its European possessions, but maintaining its American ones. Phillip V, the new Bourbon king of Spain, renounced any pretensions to the French throne.¹¹³ Spain became the purview of the Bourbon dynasty in 1714. Under the new regime the acquirement of naturalistic knowledge took on new dimensions and cemented empiricism as the method of observation through which Spaniards and their European competitors interacted with nature.

¹⁰⁹ J.H. Elliot, *Spain, Europe, and the Wider World 1500-1800* (New Haven and London: Yale University Press, 2009), 115-116.

¹¹⁰ Lynch, 18.

¹¹¹ *Ibid*, 21.

¹¹² *Ibid*.

¹¹³ Agustín González Enciso, "Los Reinados de Felipe V y Fernando VI (1700-1759)," in *Historia de España en la edad moderna*, 586-587.

Despite the political upheavals that convulsed Europe during the opening decades of the century, naturalists resumed their work. Cabinets of curiosity and state institutions, filled with species from the New World and places as of yet understudied by Europeans, allowed men from all over Europe access to the specimens that they could only read about in the fifteenth-century. Swedish naturalist Carl Linnaeus and French naturalist Leclerc, or Buffon, advanced methods of observation and taxonomic classification that had reverberations on the mode naturalists used to grapple with creation.

Cabinets of Curiosity, Linnaeus, and Buffon

The cabinet of curiosity had its origins in the early modern period as the place where monarchs and other aristocrats could organize their novelties. As most naturalists could not travel in trans-Atlantic expeditions, such as those of Oviedo, Fernandez, and Cardenas, the cabinet of curiosity gave them a European locale in which to assess samples from other parts of the world. This opportunity opened up scientific investigation to a broader group and offered possibilities for others under state support.¹¹⁴

Felipe II, who reigned from 1556 to 1598, accrued one of the most impressive collections in all of Europe and he commissioned naturalists from all over his empire to engage in scientific work. Felipe II possessed 7,422 relics, 137 watches and astrolabes, jewels, trinkets, works of art, musical instruments, precious stones, and by his death he accumulated over 5,000 coins and metals.¹¹⁵ He extended his inquisitiveness to include the

¹¹⁴ Zytaruk, 2.

¹¹⁵ Geoffrey Parker, *Imprudent King: A New Life of Philip II* (New Haven and London: Yale University Press, 2014), 109.

natural world. He appointed a Flemish scientist to establish a botanical garden for medicinal uses and sent him on a collections expedition through Andalusia. He also encouraged the publication of scientific works. Felipe II's insatiable curiosity no doubt played a significant role in this development. Felipe also set a precedent for naturalistic work to have an economic implication. In 1585, Philip began construction of several rooms at El Escorial, the Royal residence northwest of Madrid, which served as laboratories.¹¹⁶ Felipe's naturalism embodied the Biblical typological view of its day. Felipe invited Italian alchemists to his court to fashion compounds for drugs and to create precious metals so that he could drag his empire out of its budgetary calamity.¹¹⁷ Nevertheless, his sponsorship helped to prioritize proto-empiricism, as witnessed in the last chapter.

During the seventeenth-century, three transformations reoriented the way in which Europeans embarked on scientific inquiry. First, a mathematizing, that is a breaking down into quantifiable measures, of nature occurred beginning with Galileo and Kepler. Second, the organization of the world into Aristotelean humors deflated in the face of a new atomist theory that drew on elements of the mathematical shift. Third, the rise of an empirical method of investigation for the natural world, under the influence of Francis Bacon, who derived much of his thought from Iberian precursors, prioritized analysis over pure reason.¹¹⁸ The last transformation had the greatest effect on the future of Spanish

¹¹⁶ Parker, 110.

¹¹⁷ William C. Eamon, "Master of Fire" Italian Alchemists in the Court of Philip II," in *Chymia: Science and Nature in Medieval and Early Modern Europe* edited by Miguel López-Perez, et. al. (Newcastle upon Tyne: Cambridge Scholars Publishing, 2010), 139-141.

¹¹⁸ H. Flores Cohen, "The Onset of the Scientific Revolution: Three Near-Simultaneous Transformations," in *The Science of Nature in the Seventeenth Century: Patterns of Change in*

environmental consciousness due to the Bourbon monarchy's desire to find utilitarian purposes for many New World plant species and to inventory its fauna and bring back specimens for storage and display in the institutions Carlos III erected to that effect. Carl Linnaeus and George Leclerc forged the two styles in which Spanish naturalists in the eighteenth and later the nineteenth-century scrutinized the natural world.

Their work would not have existed but for the private and state collections throughout Europe in the forms of cabinets of curiosities and botanical gardens, which often contained a cabinet of curiosity within them. The cabinet of curiosity functioned as a visual space that offered naturalists a place to peruse taxonomy and participate in the production of naturalistic knowledge. Stuffed specimens and collections of inanimate objects accompanied paintings and drawings depending on the tastes and wishes of the cabinet's owner or curator. One of the most notable collections belonged to Cassiano dal Pozzo, born in 1588 and died in 1657.¹¹⁹ A member of Europe's first scientific society, the *Accademia Dei Lincei* that functioned from 1603 to 1630, Pozzo assembled a "Paper Museum."¹²⁰ Pozzo and his colleagues compiled paintings and drawings based on empirical observation declaring that they engaged in "painting for knowledge."¹²¹ Little uniformity existed in such collections leaving open the opportunity to create various readings of

Early Modern Natural Philosophy edited by Peter R. Anstey and John A. Schuster (Dordrecht: The Netherlands, 2005), 9.

¹¹⁹ Comitato Nazionale per il IV centenario della Fondazione della Accademia dei Lincei, "Cassiano dal Pozzo," <http://www.lincci-celebrazioni.it/idal-pozzo.html> accessed July 31, 2016.

¹²⁰ Zytaruk: 7.

¹²¹ Ibid.

nature and therefore different taxonomies. Linnaeus and Buffon each created their systems almost contemporaneously.

From 1735 to 1788, Linnaeus and Leclerc, from here on out referred to as Buffon, formed the two poles of naturalistic study. Linnaeus' meteoric career began in 1735 with his arrival from Sweden to the Harderwijk University in the Netherlands. Linnaeus had a background in medicine, although his interest in the natural world took precedence. Linnaeus's encounters with the natural world included an expedition to Lapland in 1732 under a grant from the Swedish Royal Society for Science, and his tenure as a house physician for George Clifford in the Netherlands.¹²² In his post as director of the Dutch East India Company, Clifford amassed a private zoo and a garden that contained species from Eurasia, Africa, and the New World. He appointed his Swedish doctor as its caretaker.¹²³ The same year Linnaeus arrived in the Netherlands he published the book that redefined the way in which naturalists organized life.

In *Systema naturae* he proposed a means of classifying plant and animal species based on their sexual reproduction. *Systema naturea* created an artificial system of classification that focused more on a single trait such as a physical similarities between flower petals or the shape of birds' beaks.¹²⁴ This system stood in contrast to Buffon's natural system in which he organized species according to interbreeding communities of individuals who went through degenerative changes as they spread over a larger

¹²² Paul Lawrence Farber, *Finding Order in Nature: The Naturalist Tradition from Linnaeus to E.O. Wilson* (Baltimore and London: The Johns Hopkins University Press, 2000), 8.

¹²³ Ibid.

¹²⁴ Ibid, 10-11.

geographic range.¹²⁵ In other words, classification needed to be based on breeding communities and their reproductive proximity to each other. At only twelve pages long, Linnaeus's *Systema naturae* provided naturalists with a sound and well-ordered method in which to organize their findings. Before its publication, naturalists had no simple uniform system of classification; instead, they had to either fashion their own or choose from a myriad of complex systems that included hundreds to thousands of different taxonomies.¹²⁶ Like Nieremberg, Linnaeus concluded that the study of nature could unravel his Creator's conundra, and indeed he went so far as to think that the study of nature was akin to worshipping God, a sentiment nineteenth-century Spanish naturalists held as well. In subsequent editions, as one had in the first, private collection proved invaluable to the Swede's work. He avidly consulted state and university repositories as well as those of individuals. Furthermore, he wrote correspondences to other naturalists throughout Europe.¹²⁷ The New World provided many of the specimens, but the cabinet of curiosity provided the physical space in which naturalists viewed many diverse and unrelated species simultaneously. Buffon offered alternative interpretations to Linnaeus' taxonomy.

Buffon forged his technique of natural history at the Jardin du Roi, the Royal Garden, in Paris. In 1739, King Louis XV, who ruled from 1715 to 1774, appointed Buffon the garden's director and set him to labor on a catalog of its collections.¹²⁸ Buffon's efforts proved more ambitious. The French naturalist resolved to write a natural history of all

¹²⁵ J. Haffer, "The Development of Ornithology in Central Europe," *Journal für Ornithologie* 148 no. 1 (December 1, 2007), S137.

¹²⁶ Farber, 9.

¹²⁷ *Ibid.*

¹²⁸ Farber, 13-14.

living things and minerals. For the next half century, Buffon labored in the Royal Garden's collections and published thirty-six volumes that covered topics ranging from birds to humans.¹²⁹ As seen above, Buffon differed from Linnaeus in that the former organized his information according to the natural system, or more accurately put a more seemingly related arrangement, based on Pliny's natural history work. Buffon, hypercritical of his predecessors though tolerant of ancient Hellenic knowledge, refashioned Pliny's system to make his work more scientific and, in his eyes, less literary. His 1735 *Histoire naturelle* included general essays on the logic behind his classifications, engravings, and detailed entries arranged according to his natural system.¹³⁰

Linnaeus and Buffon disliked each other's work, yet together their systems of classification redefined the ways in which European naturalists conducted their task concerning classification and organization of information. By 1750, thanks in part to the efforts of these two naturalists, Aristotelian topological reason deferred its principal place to the experimental model of empiricism. Naturalists organized their findings according to Linnaeus's artificial system and Buffon's natural system. Throughout the seventeenth-century, a mechanical perception of nature took hold. Naturalists believed they could organize, measure, and quantify the world; new inventions such as the microscope, the telescope, and the barometer were invented to help naturalists or at this point scientists in

¹²⁹ Ibid 14.

¹³⁰ George Louis Leclerc, comte de Buffon, *Histoire naturelle* volume 1 (Paris:1801) <https://archive.org/details/histoirenatur01buff> accessed July 14, 2016. George-Louis Leclerc, *Histoire Naturelle des Oiseaux: Tome Premier* (Paris: L'imprimerie Royale, 1749). Accessed March 31, 2016. <https://ia601408.us.archive.org/23/items/histoirenaturell001buff/histoirenaturell001buff.pdf>, Farber, 16-17.

their pursuits.¹³¹ Naturalistic knowledge from the New World and the sheer immensity of its species forced Iberians and their fellow Europeans to reevaluate how they imposed Aristotelian, Biblical typology. When the evidence kept increasing, and a vaster number of naturalists entered the discourse, Linnaeus and Buffon privileged empirical observation as a means to understand their Creator's mechanistic cosmos. Spanish scientists almost immediately adopted the system for which their forbearers had laid the groundwork and that their French and Swedish brethren developed further. The Bourbons sent scientific troops to the New World and armed them with new instruments and new mentalities.

The Bourbon Expeditions

Throughout the eighteenth-century, the Bourbon dynasty implemented reforms that attempted to overcome the hindrances of Hapsburg governance. Factionalism failed to disappear; nonetheless, Spanish bureaucrats believed in the employment of reason to expedite the realization of a better society regardless of their political agenda. They held the conviction that the rational testing of political, economic, and social institutions would actualize progress.¹³² Put another way, they administered the methods of science to society. Arguably, no Spanish monarch engaged in more reforms more urgently than Carlos III, who ascended to the throne in 1759.

During the eighteenth-century Carlos III and his successor Carlos IV officially bifurcated theology and natural philosophy, established new scientific institutions,

¹³¹ Edward Grant, *A History of Natural Philosophy: From the Ancient World to the Nineteenth Century* (New York: Cambridge University Press, 2007), 284.

¹³² David J. Weber, *Bárbaros: Spaniards and Their Savages in the Age of Enlightenment* (New Haven and London: Yale University Press, 2005), 3.

authorized botanical expeditions, and commissioned naturalists to apply empirical knowledge to strengthen Spain's prestige and legitimize territorial claims. These actions confirmed Spain's commitment to an empirical worldview that superseded topology. From the Bourbon Reforms onward, empirical methodology became an indispensable component of Spain's struggles to combat its secondary status in Europe. The Bourbon Reforms cleared the way for an environmental consciousness based on empiricism.

Carlos III inaugurated the reforms with the intention of fortifying political control over Spain's overseas territories and making the governance of the Spanish colonies more efficient and profitable for the Peninsula.¹³³ The Bourbon Reforms were not revolutionary changes, but rather a program through which to resuscitate the empire. Reformers oriented their Enlightenment thoughts towards improving already existing social structures, not creating new ones.¹³⁴ The Bourbon Reforms eroded entrenched privileges and legal inequality in favor of an intellectual elite who functioned in a meritocracy. Albeit, Spanish governance stayed an elite affair.¹³⁵ Nevertheless, Carlos III achieved many of the improvements he desired. The Bourbon Reforms established new tax policies, overhauled the bureaucracy, rebuilt the armed forces, bolstered military defenses, transformed education, and established institutions with the goal of maximizing the bounty from the empire's botanical bounty.¹³⁶ Scientific progress provided avenues towards economic enrichment. Empirical investigation overthrew the dominance of the Aristotelian Biblical topology in naturalists' lives. Although, in Spain, the pursuit of natural history towards

¹³³ Ibid, 5.

¹³⁴ Lynch, 255.

¹³⁵ Ibid.

¹³⁶ Bleichmar, 29

scientific ends still had to contest the ever watchful Catholic Church. Carlos III and Carlos IV, 1759 to 1808, enacted theological and state reforms that sidelined strict morality in favor of economic growth and consumption.

As demonstrated in the last chapter, many in Spain harbored apprehensions about consuming New World medicines, beverages, and crops. Their use in indigenous pre-Christian ceremonies and their humoral consequences posed problems of morality and salubriousness. Carlos III marginalized these views in a process that required supporting Jansenism, a pseudo-Calvinist doctrine that the papacy declared a heresy, as a means of augmenting state power over the Catholic Church and political forces of the Bishop of Rome.¹³⁷ The Jansenists never attained the acceptance they desired in Spain. Instead, they found themselves partisan pawns in Carlos III's intrigue against Rome, which climaxed with his expulsion of the Jesuits, along with their belief in papal supremacy and counter-productive morality, in April 1767.¹³⁸ Carlos III's reforms cemented the supremacy of empirical science in his realm. A Spanish naturalist could veer away from the Aristotelian tradition and remain Catholic without having to fret about the repercussions of his work on spiritual matters or vice versa.¹³⁹

Botany had commanded the attention of the Bourbons from the beginning. Felipe V, the first reigning Spanish Bourbon king, ordered officials in the New World to collect

¹³⁷ Adrea J. Smidt, "Luces por la fe: The Cause of Catholic Enlightenment in 18th-Century Spain," in *A Companion to the Catholic Enlightenment in Europe* edited by Ulrich L. Lehner and Michael Printy (Leiden and Boston: Brill, 2010), 403.

¹³⁸ *Ibid*, 413-431.

¹³⁹ *Ibid*, 419.

animals, plants, and minerals and send them to Madrid.¹⁴⁰ In 1735 he granted permission to a French expedition to travel to South America. He ordered two Spanish naturalists to accompany it.¹⁴¹ In 1755 the royal doctors influenced Fernando VI, Felipe's son, to establish the Royal Botanical Gardens in Madrid to use it as a reservation for economic development.¹⁴² However, Spanish naturalism under the Bourbons reached its apogee under Fernando's successors, the aforementioned Carlos III and his son Carlos IV.

Carlos III established the Astronomical Observatory, the Royal Cabinet of Natural History, and the Royal Academy of Medicine.¹⁴³ A year after he banished the Society of Christ, the king commissioned another Franco-Spanish expedition in 1768 to travel to Mexico and establish an observatory so that he could fill his new institutions with specimens and information.¹⁴⁴ In 1777, he then sent a botanical expedition under the leadership of Hipólito Ruiz with explicit instruction to engage in, "the methodological examination and identification of the products of nature of my American dominions...in order to enrich my Museum of Natural History and the Botanical Garden of the Court."¹⁴⁵

Carlos III's promulgation denoted how empirical methodology, in this case testing medical knowledge and collecting visual images, was used to dispel inaccuracies in scientific knowledge. Moreover, the king demanded the collection of such information also

¹⁴⁰ Iris H.W. Engstrand, *Spanish Scientists in the New World: The Eighteenth Century Expeditions* (Seattle and London: University of Washington Press, 1981), 6.

¹⁴¹ *Ibid.*

¹⁴² José Luis Peset, "La Bótanica en las expediciones científicas españolas," *Asclepio* 47 no. 2 (1995): 11.

¹⁴³ *Ibid.*

¹⁴⁴ *Ibid.*, 7.

¹⁴⁵ Arthur Robert Steele, *Flowers for the King* (Durham: Duke University Press, 1964), 57-58, quoted in *Ibid.*

to provide a resource for his new scientific institutions. Economic reinvigoration along with the desire to advance Spain's renown in Europe drove Carlos III towards the acquisition of naturalistic knowledge.

Pedro Rodríguez de Campomanes, statesman and economist in Carlos III's administration, greatly influenced Spain's commercial politics and its drive for empirical information. Campomanes argued that Spain should follow the trading patterns of other European empires who allowed trading from any of their colonial ports in place of Spain's concentration of American commerce solely in Seville and later in Cadiz.¹⁴⁶ The exploitation of Spain's natural resources underpinned many of Campomanes' proposals for reform. He supported a shift away from a colonial economy based on specie procurement towards a paradigm based on developing and exploiting the Americas' natural resources for profit. He argued that Spain, citing other European scientific expeditions such those of James Cook, needed to embark on its excursions to identify potentially valuable specimens and if feasible to transpose them to Spain.¹⁴⁷ Towards that end the Spanish empire hosted sixty expeditions, including the Royal Botanical Expeditions, during the reigns of Carlos III and Carlos IV.¹⁴⁸

In the seventeenth-century the attainment of naturalistic knowledge through empirical methods became a Pan-European approach and scientists in different nations shared and read each other's work. British, French, Dutch, Russian, Swedish, and

¹⁴⁶ Bleichmar, 29.

¹⁴⁷ Ibid, 30-31.

¹⁴⁸ Ibid, 18.

Americans from the newborn United States participated.¹⁴⁹ James Cook's voyages from 1768 to 1780 set the European standard. Cook circumnavigated the world looking for new islands, botanical specimens, and potential colonies.¹⁵⁰ Others followed in his wake including the Frenchmen Jean-François de Galup de La Pérouse, who set off to confirm Cook's findings in 1785.¹⁵¹ Spain's most notable explorations took the form of the Royal Botanical Expeditions that Carlos IV commissioned between 1777 and 1816. These included the aforementioned Ruiz excursion to Chile and Peru from 1777 to 1788, Jose Celestino Mutis' mission to New Granada from 1783 to 1816, Martin de Sessé and José Marian Mociño's enterprise between 1787 and 1802 in New Spain, and most importantly Alejandro Malaspina and José Bustamante y Guerra's voyages from 1789 to 1794.¹⁵² The Sessé-Mociño excursion and the Malaspina endeavor demonstrated the degree to which Linnaeus's and Buffon's works had on the compilation of naturalistic knowledge in the Spanish Empire. The Malaspina expedition, in particular, represented Spain's response to global botanical voyages, such as those under British Captain James Cook in 1768.¹⁵³ Furthermore, it signified the most vivid illustration of Spain's devotion to procuring naturalistic knowledge in its scope and the rapacious intellectual appetites of its

¹⁴⁹ Engstrand, *Spanish Scientists in the New World*, 5.

¹⁵⁰ Armesto, 302-303.

¹⁵¹ Ibid, 303.

¹⁵² Alejandro Malaspina, *The Malaspina Expedition 1789-1794: Journal of the Voyage by Alejandro Malaspina Volume I Cadiz to Panama* edited by Andrew David, et. al, translated by Carlos Novi, (London: The Hakluyt Society in Association with the Museo Naval, Madrid, 2001); Engstrand, *Spanish Scientists in the New World*, 13-43; Bleichmar. Many scholars have written about these expeditions in great detail. Consult the sources from this chapter for a more detailed narrative.

¹⁵³ Frank McLynn, *Captain Cook: Master of the Seas* (New Haven and London: Yale University Press, 2011), 86.

commander and its accompanying naturalists. Its importance for the Spanish environmental consciousness rested on the fact that its naturalists engaged in thoroughly empirical investigation within a context of geopolitical rivalry, wherein the Spanish government yearned to reinvigorate the country's economic prosperity through the empire's biological bounty.

Sessé and Mociño's Botanical Expedition to New Spain from 1787 to 1802, consisted of establishing institutions of botany and science in New Spain, contemporary Mexico. Indeed, Sessé had the idea to create a botanical garden in the Viceroyalty's capital city, though that took form when Carlos III issued a Royal Order establishing the Botanical Gardens in Mexico City on October 27, 1786, and inaugurated on May 1, 1788.¹⁵⁴ Part of Sessé's mission was to recover any works by Francisco Hernandez, many of which perished in a fire. Sessé never found any of the lost writings, but he did create his own corpus of naturalistic knowledge with his colleague, Mociño.¹⁵⁵ The naturalists collected plants from all over Mexico and replanted them in the Botanical Gardens before sending samples to Spain.¹⁵⁶ Within Sessé's reference works in the garden one could find no less than three works that Linnaeus authored.¹⁵⁷ A companion of the expedition, José Longinos also counted Linnaeus among the books he brought for consultation.¹⁵⁸ The majority of the Royal Botanical expeditions lasted decades, including Sessé and Mociño's which lasted for sixteen years. Despite the brevity of it compared to its counterparts in continental America,

¹⁵⁴ J. Luis Maldonado Polo, "La Expedición Botánica a Nueva España, 1786-1803; El Jardín Botánico y la Cátedra de Botánico," *Historia Mexicana* 50 no. 1 (September 2000): 11, 42.

¹⁵⁵ *Ibid*, 9.

¹⁵⁶ *Ibid*, 34.

¹⁵⁷ *Ibid*, 27.

¹⁵⁸ Bleichmar, 61.

the Malaspina Expedition had no equal regarding geographic breadth among the Royal Botanical Expeditions. Whereas the Sessé-Mociño and Ruiz missions took place solely in specific Viceroyalties and regions such as New Spain and Chile, Malaspina and his co-captain traveled from Spain to the New World and from the Philippines to Australia. The works of Linnaeus and Buffon accompanied its naturalists across two oceans and five continents.

On September 10, 1788, Alejandro Malaspina and José Bustamante submitted a proposal to Antonio Valdés, the Spanish naval minister in which they proposed a mission that would circumnavigate the globe.¹⁵⁹ Malaspina proposed that his voyage followed in the tradition of James Cook La Pérouse whose voyages, he argued, had expanded knowledge about geography and navigation and consequently progressed human development.¹⁶⁰ Such assertions indicated Malaspina's devotion to the Enlightenment's belief in rationality and progress. The naval commander outlined two goals for his voyage. First, he aimed to chart America's remote regions in order to prepare navigational directions for future sailors. Second, he proposed to study the commerce of the Americas, its natural resources, and its ability to fend off foreign attacks. Above all he emphasized that it would not be an expedition of exploration.¹⁶¹ Malaspina may not have been concerned with discovering new lands, but his mission had all the hallmarks of a scientific mission.

¹⁵⁹ John Kendrick, *Alejandro Malaspina: Portrait of a Visionary* (Montreal, et.al: McGill-Queen's University Press, 1999), 33.

¹⁶⁰ Ibid, 34.

¹⁶¹ Ibid.

On July 30, 1789 the expedition's two ships, the *Descubierta* and the *Atrevida*, set sail from the port of Cádiz. Malaspina and Bustamante y Guerra shared equal command on the expedition. The former captained the *Descubierta* while the latter directed the *Atrevida*.¹⁶² For a voyage that Malaspina claimed harbored no exploratory aspirations, the ship carried a plethora of equipment and specialists for the purpose of studying nature. Onboard the ships, the crew stored astronomical quadrants, telescopes, pendulums for gravity experiments, watches, dipping needles, compasses, barometers, pocket chronometers, thermometers, measuring chains, a water level, a microscope, Gunter scales, a box of magnets, and paints.¹⁶³ Additionally, the ships stored a library of scientific works that contained over forty-four books including the journals of James Cook.¹⁶⁴ Originally the captains intended to circumnavigate the world. However, the expedition never sailed across the Indian Ocean, instead preferring to sail around the Pacific Rim and returning to Spain by way of South America and the Atlantic Ocean. Along their journey, they visited contemporary Argentina, Chile, Mexico, Oregon, Washington, the Philippines, Australia, New Zealand, and Fiji.¹⁶⁵ Malaspina had planned the original expedition not only to visit all of Spain's territories, but also demonstrate Spain's maritime presence in areas that the British, Dutch, and Portuguese dominated. When the *Atrevida* anchored in New South Wales he gathered intelligence on the British colony writing that, "To gain a more complete impression of the present condition and future destiny of these Colonies there remained

¹⁶² José Ignacio Gonzalez-Aller Hierro, "The Corvettes *Descubierta* and *Atrevida*," translated by Carlos Novi in Malaspina Vol. III, 359-360.

¹⁶³ Andrew David, "Surveying and Navigational Instruments and related Books supplied to the *Descubierta* and *Atrevida*," in Malaspina Vol. III, 364-365.

¹⁶⁴ Ibid, 368-370.

¹⁶⁵ Engstrand, *Spanish Scientists in the New World*, 105.

the most interesting task of all..."¹⁶⁶ Despite the revision, the new route offered more opportunities for botanical research. It allowed some of the expedition's botanists to cut across the Andes towards the Atlantic and collect samples on the last legs of the enterprise.¹⁶⁷

The Malaspina Expedition had many purposes, including garnering information about indigenous peoples, making charts and realistic drawings of the communities encountered, criticizing the commercial practices in the colonies, gathering samples for scientific investigation, and cataloging and sketching botanical and zoological specimens both for scientific fame and economic utility. One historian observed that the commanders and naturalists questioned the veracity of ancient texts and, in the spirit of the Enlightenment, constructed knowledge from observable evidence.¹⁶⁸ Malaspina and Bustamante entrusted these two latter tasks to Antonio Pineda, Luis Neé, and Thaddeus Haenke, a Spaniard, a Frenchman, and a Czech respectively.¹⁶⁹ Such an eclectic crew demonstrated that, in spite of political rivalry between European nations, that movement between borders retained some fluidity.¹⁷⁰ A qualified naturalist could gain employ outside of his homeland.

¹⁶⁶ Alejandro Malaspina, *The Malaspina Expedition 1789-1794: Journal of the Voyage by Alejandro Malaspina Volume III Manila to Cadiz* edited by Andrew David, et. al, translated by Sylvia Jamieson (London: The Hakluyt Society in Association with the Museo Naval, Madrid, 2001), 79.

¹⁶⁷ Engstrand, *Spanish Scientists in the New World*, 105.

¹⁶⁸ Weber, 20.

¹⁶⁹ Armesto, 306.

¹⁷⁰ In the late medieval and early modern periods heterogeneity in crews was the norm. When discussing a Spanish expedition, I mean an expedition under the direction of the Spanish government. Malaspina himself was born in Italy. Kendrick, 6.

The crews barely restrained their fervor for scientific inquiry. A journal entry from August 15, 1789, made the point clearly. A week after their departure the captain opened the bread rooms on each ship, and found to his dismay grubs infested the bread. The expedition's head naturalist, Don Antonio Pineda, crafted a detailed study of the insects. He noted everything from the conical anus to the coiled tongue and color. He wrote, "Apparently this moth belongs to the Linnaeus's genus *Tecnes* Geoffroi *Tennia*, and the species tends towards Geoffroi's 19..."¹⁷¹ In contrast to earlier natural historians and botanists, Pineda enjoyed the capacity to incorporate his findings into a growing European body of botanical identification. Pineda, as Sessé had done, consulted Linnaeus's work to help him categorize his findings. He expressed his admiration for the "Great Carl Linnaeus" and applauded his Swedish and German contemporaries for their efforts toward natural history.¹⁷² He, nonetheless, found their observations on birds insufficient compared to the trove of data they collected on plants.¹⁷³ He also admired Buffon. Yet he outright dismissed the French naturalist's entries about American birds, surmising that the only reliable ornithological information he provided concerned species in the Antilles and French Cayenne.¹⁷⁴ His own fieldwork would rectify the oversights. He and the other naturalists labored to produce an almost unfathomable amount of data.

The expedition carried out what we would consider botanical, ethnographic, ornithological, entomological, ichthyological, mammalogical, astronomical, hydrological,

¹⁷¹ Pineda in Malaspina Vol. 1, 16.

¹⁷² Virginia González Claverán, *La Expedición Científica de Malaspina en Nueva España 1789-1794* (México, D.F.: El Colegio de México, 1988), 207.

¹⁷³ *Ibid.*.

¹⁷⁴ Bleichmar, 59.

and geographical surveys and studies. The crewmen passed by no opportunity to collect scientific data. On the way from Realejo to Acapulco, Malaspina recorded that, “Don Antonio Pineda was very successful in his favorite study of mollusks, having found many of these which displayed a new and delightful aspect of nature in their variety, movements, and habits.”¹⁷⁵ While in Acapulco, the expedition also took the chance to visit a cabinet of curiosity to obtain the equipment it needed to preserve animal and plant specimens.¹⁷⁶ When possible, the expedition sent samples and updates to Madrid. In a shipment sent in April 1791 Malaspina and Bustamante y Guerra dispatched two Mercator charts, draft plans for ports, seventy-four botanical paintings, fifty-eight zoological paintings, journal entries, continuations of Pineda’s zoological study, an astronomical journal, and notebooks with sketches of the coastlines encountered.¹⁷⁷ The expedition did not limit their application of empirical methods solely to zoological and botanical pursuits. In contrast to their predecessor, they applied it to the indigenous peoples they encountered as well.

Malaspina divided indigenous people into two groups: those who submitted to Spanish authority and those who did not.¹⁷⁸ The latter especially interested him. He sought to compile records about their physical characteristics, customs, and language.¹⁷⁹

Malaspina’s conquests rested more on diplomacy, maps, and lexicons than on gunpowder and swords. He opted to concentrate on communicating and establishing friendly relations with indigenous groups. In a journal entry from December 2, 1789, written off the coast of

¹⁷⁵ Malaspina Vol. II, 39-40.

¹⁷⁶ Claverán, 205.

¹⁷⁷ Ibid, 74.

¹⁷⁸ Weber, 20.

¹⁷⁹ Ibid, 25.

Patagonia, Malaspina recorded how he and Pineda made contact with a local tribe and recorded bits of their language. He recounted, “Finally, with Peña’s help, we managed to gain some idea of their religion which led us, little by little, to talk about their present quarters, about three leagues distant from the beach.”¹⁸⁰

Throughout their journey they chronicled meetings with natives and their attempts to establish peaceful relations, even indulging indigenous curiosity towards them.

Malaspina reflected on their journey to Port Mulgrave. In a journal entry dated June 30, 1791, he described how a group of aboriginal people surveyed and questioned in detail a Filipino servant who accompanied the crew. They asked him how he came to be among the Europeans, wondering if he had been captured or sold.¹⁸¹ The rest of the expedition remained concerned with gathering empirical data. In the Philippines the expedition lost Antonio Pineda to illness.¹⁸² Afterwards they made their way to Australia, New Zealand, Fiji, and then back to Spanish America. The tempo of the voyage shifted upon the return home. Under military escort, due to renewed hostilities with Britain, the *Descubierta* and the *Atrevida* sailed for Cadiz in 1794.¹⁸³ Unfortunately, the expedition’s logs were never published. Regardless, the incorporation of Linnaeus’s and Buffon’s paradigms into Spanish naturalism continued unabated. On the Sessé-Mociño and Malaspina Expeditions, naturalists deployed Linnaeus’s and Buffon’s classification taxonomies, consulted their

¹⁸⁰ Malaspina, Vol. 1, 89.

¹⁸¹ Alejandro Malaspina, *The Malaspina Expedition 1789-1794: Journal of the Voyage by Alejandro Malaspina Volume II Panama to the Philippines* edited by Andrew David, et. al, translated by Carlos Novi (London: The Hakluyt Society in Association with the Museo Naval, Madrid, 2001), 79.

¹⁸² Ibid, 410-413.

¹⁸³ Malaspina Vol. III, 257.

works, and in even disagreed with the observations of other naturalists within this Linnaen-Buffon scientific parlance.

Conclusion

The New World offered access to labor, natural resources, and wonders that whetted European appetites, both commercial and mental. Carl Linnaeus and Buffon used cabinets of curiosity, which brimmed with New World species. They developed artificial and natural systems of taxonomy that Spaniards subsequently employed during the Royal Botanical Expeditions. Over the course of the sixteenth-century, Spain's political realities shifted as specie flowed out of Spain's empires, and rivals wrestled hegemony away from the Iberian Peninsula. The Bourbon reforms cemented the primacy of botany and zoology over specie in the hopes that the latter could boost Spain's economic state. Moreover, Carlos III expelled the Jesuits and cemented state power over the Church. As a consequence, New World commodities could be collected without trepidation of their moral ramifications. Also, Spanish naturalists no longer had to be embroiled in theological concerns, and could maintain their Catholic identity without compromise. The spiritual and the material became divided in a way not imaginable during the previous century. The Royal Botanical Expeditions, culminating in the Malaspina Expedition, exhibited this new reality. Malaspina and his crew used empirical methods and revealed the fact that observation and the production of naturalistic knowledge rather than the authority of Classical texts legitimized state endeavors. Simultaneously, the desire to use botanical specimens towards economic growth privileged the propagation of empiricism. This

transition between the fourteenth and eighteenth-century inspired an environmental consciousness based on the natural world rather than the preternatural one.

Spaniards could have taken leadership in the development of scientific knowledge. However, in the context of European rivalry, Spaniards concluded that knowledge about the New World needed to be a state secret. In the early sixteenth-century Spanish knowledge of trans-Atlantic navigation had to be defended so as to shield Spain's bullion reserves. That same logic held true once Spain shifted its gaze to the Americas' biological and botanical bounty. Malaspina's suggestions that Spain should release monopoly controls of the American colonies to maintain a political relationship while embracing free trade landed him in prison. Fears about the French Revolution made talk about autonomy for the colonies taboo. Malaspina's knowledge was labeled treasonable and revolutionary, and his works were banned from publication. Sessé and Mociño returned to Spain, but the two never compiled their findings. Sessé died in 1808 as Napoleon's army infiltrated Spain. Mociño continued his work, but after the French regime had lost power, his cozy relationship with them became a problem. He fled over the Pyrenees into Southern France with 2,800 illustrations. The majority of them found a home in the work of a Swiss naturalist, Augustin Pyramus de Candolle. Other Spanish works failed to be printed as well for a multitude of reasons. A lack of qualified engravers, a lack of funds necessary to publish works, the deaths of naturalists, the French invasion of 1808, and the American Wars for Independence doomed many compositions and sketches into obscurity not to be discovered again until the late nineteenth-century and twentieth-century. Regardless, Spaniards themselves had participated and pioneered the birth of empiricism, and an

environmental consciousness that viewed nature as a means to renewed wealth had been born. Spanish naturalists took the occasion to look inward and incorporate local species into the growing scientific corpus.

Chapter Three

Spanish Birds

Spanish Ornithology, Bird Enthusiasts, and the Battle to Save Insectivores 1850-1879

If the eighteenth-century witnessed the rise of natural history and empirical observation in scientific endeavors, then the nineteenth-century took that development a step further with the specialization of natural history into sub-disciplines such as ornithology. In the aftermath of the American Wars of Independence, Spain's colonial holdings and its opportunities to exploit them for economic gain dissipated. Spaniards turned inward to take stock of their own nature and natural resources. Spanish ornithologists concentrated on regional studies of avifauna and created an awareness of bird life in a privileged public sphere where they argued for the merits of their preservation as an aid to Spain's economic development. Ultimately, the state heeded these concerns through the preservation of avian species in the *Ley de Caza de Enero de 1879*, creating a precedent for the expansion of legal environmental protections in Spain.

No scholar has written a broad history of Spanish ornithology, and this chapter does not attempt to do so. One historian of ornithology made no mention of Spain or its ornithologists in his work.¹⁸⁴ Another scholar also failed to devote any attention to Spain, despite the fact that many of the ornithologists he examined relied on specimens from Spanish America.¹⁸⁵ A more contemporary author acknowledged the ornithological contributions of Francisco Hernandez, who was examined in the Chapter One. He, however,

¹⁸⁴ Erwin Stresemann, *Ornithology: From Aristotle to the Present* (Cambridge and London: Harvard University Press, 1975).

¹⁸⁵ Paul Lawrence Farber, *The Emergence of Ornithology as a Scientific Discipline: 1760-1850* (Dordrecht, Holland, et. al: D. Reidel Publishing Company, 1982).

was the only Spaniard discussed in the book.¹⁸⁶ The complete lack of scholarship on Spanish ornithology simply reflects the understudied state of Spanish environmental history as a whole. This chapter contextualizes the place of ornithological study in the development of Spain's modern environmental protection. Nevertheless, the discussion of Spanish ornithologists in this chapter provides a point from which future scholars may contribute to the historiography of ornithology and Spanish environmental history. To initiate this widening of the field, this chapter will examine the ornithological catalogs of Don Ramon de la Sagra (1798-1871), Juan Lembeye (1816-1889), Don Francisco de los Ríos, Don Antonio Machado (1812-1896), Don Victor Lopez Seonae y Pardo Montenegro (1832-1900), Juan Gundlach (1810-1896), Jaoquin María de Casellarnu (1848-1943), and Don Ventura del Reyes y Prosper (1863-1922). These works reveal that Spanish ornithologists worked in the taxonomic tradition of Linnaeus and Buffon. They, moreover, embedded their views of the Spanish lower-classes and their nationalistic pride into their works. Nineteenth-century Spanish ornithologists created the belief that the lower-classes lacked the ability to use Spain's natural resources properly. That notion became an fundamental pillar of species protection laws later in the nineteenth-century.

In Spain, ornithology developed out of an international context that depended on observing New World species in collections as well as regional studies through fieldwork within Europe itself. Bird keeping, moreover, had a less immediate but no less important role in the origins of ornithology. Bird keepers applied empirical observation to their pets and dispensed their research to their cohorts through print. For better or worse, Spaniards

¹⁸⁶ Valérie Chansiguard, *All About Birds: A Short Illustrated History of Ornithology* (Princeton and Oxford: Princeton University Press, 2010), 40.

did not have as vast an impact on the foundations of ornithology as might otherwise have been the case. As explained in the last chapter political events condemned the ornithological work of the Royal Botanical Expeditions to obscurity.¹⁸⁷ For example, the ornithological work that José Mariano Mociño carried out between 1790 and 1803, during Martín de Sessé's Royal Expedition to New Spain, suffered such a fate.¹⁸⁸ Mociño's work occurred early on in the development of the Linnaean nomenclature, but despite the lack of solid taxonomy he understood that he had identified new species previously unknown to European science.¹⁸⁹ Mociño's paintings were not rediscovered until 1979 and only now can we appreciate his merits as a naturalist. His judgments never had the opportunity to influence the founding years of ornithology. Nevertheless, Spaniards avidly took part in ornithology.

Nineteenth-century Spanish ornithologists concentrated on collecting species' information and creating compendiums for references that simultaneously cataloged taxonomical data, lauded their aesthetic beauty, and prognosticated on the lessons birds held for society. This approach had its genesis in the rivalry between Linnaeus and Buffon. Those who prioritized the former became systemists, while those who preferred the latter's approach gravitated toward field research.¹⁹⁰ Systemists prioritized the gathering of information in the cabinets of curiosity. They devoted their efforts towards analyzing

¹⁸⁷ Bleichmar, 191.

¹⁸⁸ Adolfo G. Navarro-Sigüenza, A. Townshend Peterson, Miguel Ángel, et. al., "The Ornithology of the *Real Expedición Botánica A Nueva España* (1787-1802): An Analysis of the Manuscripts of José Mariano Mociño," *The Condor* 109 no. 4 (November 2007): 808.

¹⁸⁹ *Ibid*: 819.

¹⁹⁰ Haffer, S131-S132.

species based on physical features such as beaks or feet.¹⁹¹ The field naturalists preferred to interpret bird behaviors through observation in the wild and record those behaviors in encyclopedic catalogues.¹⁹² This distinction between systemists and field naturalists reflected the increased amount of specialization within science as a whole. Scientific publications proliferated due to affordable printing in the nineteenth-century opening up spaces for broader participation in the science. Specialization also promoted more accurate studies as naturalists gained more knowledge and argued with one another over taxonomic nomenclature and species identification.¹⁹³ Bereft of an empire, Spanish naturalists, of a noble and well-educated pedigree, embraced Buffon's model of investigation. Indeed, meandering through one's province did not require access to cabinets of curiosity nor the costs associated with preserving specimens. Regional in nature and therefore regional in subject, Spanish ornithologists created an available and well-documented body of literature on Iberia's avian life.

The Spanish ornithologists, mentioned above, contributed to the collection of regional ornithology in Spain between 1842 and 1886. Their works reflected their Spanish context. Romanticism in the form of Krausismo, a Spanish Romanticism based on the work of Friedrich Krause, blurred the division between the material and spiritual. It permeated these authors' texts and an appreciation for the aesthetics of nature and its spirituality imbued Spanish environmental thinking with an ethos that appreciated nature's spiritual value while demanding materialist action. That spirituality was largely bereft of Catholic

¹⁹¹ Ibid.

¹⁹² Ibid.

¹⁹³ Farber, *Finding Order in Nature*, 33.

doctrine and instead appealed to a metaphysical nationalism. It also embodied the upper-class's point of view; the *vulgo*, or the country folk, needed to heed birds' social life lessons. In doing so they would not only become better themselves, but also they would ensure the propagation of their winged allies in the field. One could acknowledge the lessons of a bird and its role in helping Spain's economy, but humans had to descend into nature to move it along for those purposes.

Birds became workers, allies, friends, and role models who defended Spanish crops from the insects that tried to chew away Spain's wealth. Spain, therefore, introduced laws that protected these winged workers from harm. Spiritual and utilitarian arguments for bird protection characterized the rationales and arguments for environmental protection from the *Ley de Caza decretada en 10 de Enero de 1879* to the *Ley de Parques Nacionales* promulgated in 1916.

Bird Keeping and Early Spanish Ornithology

Bird-keeping allowed Europeans to garner knowledge about birds in a way that ornithologists, and contemporary scholars, failed to appreciate. Birkhead and Van Balen argued that ornithology benefitted from bird-keeping, but that corpus of knowledge failed to receive recognition due to ornithology's shifting boundaries in the eighteenth-century.¹⁹⁴ Bird-keepers, they observed, contributed to understanding of avian anatomy, territory, breeding biology, migration, song acquisition, and instinct.¹⁹⁵ Europeans indulged in

¹⁹⁴ T.R. Birkhead and S. Van Balen, "Bird-keeping and the Development of Ornithological Science," *Archives of Natural History* 35 no. 2 (2008): 281.

¹⁹⁵ *Ibid.*

taking care of caged birds from as far back as the medieval period. The household accounts for Pope Urban V, who reigned as pontiff from 1362 to 1370, reveal that the court apothecary purchased birdseed for one of the pope's parrots.¹⁹⁶ In the Spanish case, hunters and bird-keepers furnished the first published works about birds.

Works that concentrated on caring for pets dominated Spanish bird literature through the eighteenth-century and continued to be as important as the works of formal ornithology that began to appear in the nineteenth-century. Towards the end of the nineteenth-century emphasis on birds shifted from debates about how they should best be cared for or classified to arguing for their protection. Ultimately, ornithological literature in Spain provided a bridge between the naturalism of the fifteenth-century and the conservation aims of the nineteenth-century through the efforts of locals who hunted and kept birds as pets and reintroduction of empirical, scientific methodology by way of European ornithology. The Spanish case confirmed that indeed bird-keeping and bird-hunting engendered taxonomical questions before the Spanish participation in scientific ornithology. The tradition of Spanish ornithology originated in the works of Juan Carcans.

Between 1500 and 1580 Juan Carcans penned *Tres Libros de las aves*. A work that he claimed would teach hunters the ways to recognize, learn about, and manage birds of prey.¹⁹⁷ Unlike the early modern works of Oviedo and Hernandez as well as other ornithological works, Carcans organized his entries into a general form. In a style more

¹⁹⁶ Kathleen Walker-Meikle, *Medieval Pets* (Rochester, NY and Woodbridge, UK: The Boydell Press, 2012), 42-43. Bird-keeping was a pan-Eurasian pastime as well. Refer to S. Koyama, "History of Bird-Keeping and the Teaching of Tricks using *Cyanistes varius* (varied tit) in Japan," *Archives of Natural History* 42 no. 2 (2015): 211-225.

¹⁹⁷ Juan Carcans, *Tres Libros de las aves* (Madrid: circa 1500-1580), inside cover.

associated with nineteenth-century ornithology, the author discussed the difficulty assigning classification and identification to a species that spread over a vast territory. On one species of migratory bird, he mused, “Many times I have considered calling them pilgrims because they come from many lands...truly these migrants are Italians, but they are not all born in Italy. There a few of them who for the most part are from different countries.”¹⁹⁸ Carcans recognized the problem of classification because some species spent different portions of their lives in various places, making it hard to distinguish the same animal in numerous locations. Whereas Carcans concerned himself with identifying birds for hunters, others focused more on identifying and curing ailments that affected their beloved songbirds. In the course of the seventeenth and eighteenth-century, authors diagnosed bird illnesses and started to recognize the practical utility of birds.

In 1604, Juan Bautista Xamarrô’s *De las diez aves: menores de juala, fu canto, enfermedad, cura y cria* became available to guide bird owners through procedures and remedies to maintain their feathered pets at optimum health.¹⁹⁹ Xamarrô focused on linnets, goldfinches, canaries, calandrias, squabs, serins, luganos, buntings, solitary birds, and nightingales. On the nightingale he wrote, “their ordinary song is an imitation of all the other birds’; and seeing as how its main call is ungraceful, before the rest of the birds, it quickly takes up their song.”²⁰⁰ Despite some of Xamarrô’s suppositions, such as the belief that nightingales understood the cacophonous nature of their song, he nevertheless compiled a cornucopia of information that in addition to basic medical care focused on the

¹⁹⁸ Ibid, 3.

¹⁹⁹ Juan Bautista Xamarrô, *De Las Diez Aves: Menores de juala, fu canto, enfermedad, cura y cria* (1604).

²⁰⁰ Xamarrô, *De Diez Aves*, 3.

species' appearance, diet, range, and of course, calls. Xamarrô's work resided within a Pan-European literature about bird care. An Italian author named Manzini published a piece on the care for nightingales in his *Ammaestramento per allevare, pascere, e curare gli ucceli* in 1575.²⁰¹ A French work lifted Mazini's section and incorporated it into a larger work about bird care called, *Instruction pour elever, nourrir, dresser, instruire et penser toutes sortes de petits oyseux de voliere, que l'on tient en cage pour entendre chanter: avec un petir traite pour les maladies des chiens*, published in 1707.²⁰² At this point it is hard to ascertain the size and composition of the works' readership. Nevertheless, we do know that the readership was sufficiently large enough to warrant the publication of an expanded second edition called *Conocimiento de las catorce aves menores de jaula* in 1775.²⁰³ In the interim between the two editions, Luis de Salazar y Castro published his own work on birds called *La residencia de las aves, y causa del cuervo* published between 1700 and 1734.²⁰⁴

Salazar y Castro argued for the utility of bird species while also praising their usefulness and grace. At one point in his text, Salazar y Castro applauds the canary for its wisdom: "My friend the canary, is a professor of talents of many tongues, talking to each in his own without dispute."²⁰⁵ He then spoke for the canary in series of pleas in which the bird asked humans to, "not interrupt my studies, do not impede my trills, do not hinder my

²⁰¹ Birkhead and Van Balen: 283.

²⁰² Ibid.

²⁰³ Juan Bautista Xamarrô, *Conocimiento de las catorce aves menores de jaula: su canto, cria y naturaleza: tiempo y modo de cogerlos, de havcer las Pajareras, y el de alimentarlos en ellas: enfermedades que padecen, y remedio para su curacion* (Madrid: Imprenta de Josef Doblado, 1775).

²⁰⁴ Luis de Salazar y Castro, *La residencia de las aves, y causa del Cuervo*. (1700-34); date approximated by the Biblioteca Nacional de España.

²⁰⁵ Ibid, 10.

harmonies, and finally leave me to dress fashionably, profess my music, heal my ailments, cure my debilities, correct the ignorant, ask all to improve my fortune..."²⁰⁶ Salazar y Castro went on to applaud birds for their sacrifice, meaning their deaths for meat.²⁰⁷

Salazar y Castro wrote for a small, elite audience. Very few Spaniards were capable of reading *La residencia de las aves, y causa del Cuervo*. The man himself came from an elite segment of society. Over the course of his life Salazar y Castro commanded several positions of power including Lead Sheriff of the Inquisition of Toledo, Honorary Advisor to the Military Orders, and Superintendent of the Military Orders' Archive.²⁰⁸ His affirmation that birds stood in contrast to human society rested in his imposition of human intelligence on birds. This assumption was not uncommon among bird watchers and keepers in the eighteenth-century; they did not apply the term "instinct" to bird behavior until the late nineteenth-century. For example, bird keepers often confused a trick that goldfinches performed involving pulling a string as a sign of intelligence rather than instinct.²⁰⁹ Salazar y Castro's concern and personification of birds hinted at desires for their well-being and the benefits they rained on humankind.

In the tradition of Xamarrô, Francisco Suria penned his own guide for caging birds titled *Instrucción y modo muy facil é inteligible para coger y conservar el Rey de las Aves de cántico, llamdo el Ruiseñor, con sus comidas mas propias, y otras varias del caso para su*

²⁰⁶ Ibid, 11. The authors meaning becomes lost after this. The last part of the sentence reads, "por fin llega el caso de que fea un Cuervo dichoso." More research is needed to ascertain the if the crow, or raven, had any specific cultural meanings in eighteenth century Spain.

²⁰⁷ Ibid, 12.

²⁰⁸ Don Marcelino Gutierrez del Caño, *El Principe de los Genealogistas Españoles Don Luis de Salazar y Castro* (Madrid: Imprenta de la Revista Archivos, 1909), 7-8.

²⁰⁹ Birkhead and Van Balen, 292.

duracion en las Jualas (1796).²¹⁰ Published a year after Xamarrô's expanded edition, Suria's work focused exclusively on the nightingale. Suria offered a wide range of advice from "the way to hunt this delicious bird," to "what foods this bird eats and their methods of preparation."²¹¹ Suria ultimately wanted to educate the reader, yet he betrayed his assumptions about them early in the introduction when he blithely assumed that his treatise would correct their "involuntary ignorance."²¹² In 1827, Spanish ornithology entered the scientific sphere.

That year, Simon de Rojas penned a written work of ornithology. *Nomenclador ornitológico o sea nombres españoles y latinos sistemáticos de aves*. As the librarian for the Royal Botanical Garden in Madrid, Simon de Roja's had access to the collections and samples from the Royal Botanical Expeditions of the preceding two centuries. Instead of compiling his ornithological analysis, he instead opted to focus on previous works of ornithology, especially from French sources. Buffon's *Histoire naturelle* along with translated works from French such as the *Enciclopedia metodica historia natural de las aves*, released the same year as Buffon's in 1788, figured prominently as source material in Simon de Rojas' text. Rojas cataloged species but offered no analysis or observations as his Spanish predecessors and other European contemporaries had done. Instead, the writer compiled a list of species from several sources, cited the source material according to the author, and offered the Latin name, Spanish name, and a province of origin for the Spanish

²¹⁰ Francisco Suria, *Instruccion y modo muy facil é inteligible para coger y conservar el Rey de las Aves de cántico, llamdo el Ruiseñor, con sus comidas mas propias, y otras varias del caso para su duracion en las Jualas*. (Madrid: Imprenta de Aznar, 1796).

²¹¹ Ibid, 4;37.

²¹² Ibid, 4.

name. Regardless of the fact that he offered no new insights, Rojas' work had a different significance. His translations of Latin names into Spanish ones demonstrated his desire to craft a nationalistic nature. Rojas' work attempted to apply a unitary system of identification to bird species in which he privileged one name over others, even if he did identify all the regional names for a species. Moreover, Rojas emulated the methods of other ornithologists. Like Buffon, who used the collections of the Royal Botanical Garden in Paris, he used specimens from Spain's own Royal Botanical Garden. Indeed, this displayed that Spain's botanical institutions provided Spaniards, who had access, with the means to create works of naturalistic knowledge.²¹³ Rojas then used the methods of early ornithology to construct a specifically Spanish lexicon for bird species.

Historians have observed that the nineteenth-century was a period in which Europeans built national identities based on the creation of "imagined communities" that shared a common language, culture, and geographic space.²¹⁴ One environmental scholar argued the establishment of an imagined nature formed an integral component in the reification of the imagined community.²¹⁵ Europeans and Americans sculpted nationalistic natures in the nineteenth-century to forge unity among themselves and differentiation with their neighbors. For example, upon independence in 1814, Norwegians differentiated

²¹³ That same year, 1827, Don Salvador Duchén y Poyo presented Fernando VII with a collection of drawings named *Cartilla de Aves del Real Gabinete de Historia Natural* that inventoried his majesty's bird collection. Don Salvador Duchén y Poyo, *Cartilla de Aves del Real Gabinete de Historia Natural* (Madrid, 1827).

²¹⁴ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 2006); Eric Hobsbawm, *The Age of Capital 1848-1875* (New York: Vintage Books, 1975), 82-97.

²¹⁵ Joachim Radkau, *Nature and Power: A Global History of the Environment* translated by Thomas Dunlap (New York: Cambridge University Press, 2008).

themselves from Danes. The former claimed they had descended from Nordic peoples who inhabited the mountains whereas their southern counterparts found their ancestry in Nordic peoples who inhabited flat plains.²¹⁶ The distinction implied that though related the Danes and Norwegians had evolved separately as a result of dissimilar environments. One historian claimed that nature provided nineteenth-century Spaniards with an innocent and blank template that provided a place from which they could transform the collective life of the nation.²¹⁷ Indeed, Spaniards used birds as means to craft a specifically Spanish nature and to use that nature to dictate how Spaniards behaved.

Ornithology and the Making of Spanish Nature

By the mid-nineteenth-century, Spain's American possessions consisted solely of Cuba and Puerto Rico. The Bourbon Reforms of the eighteenth-century created resentment among most of Spanish America's Creole elites who then rebelled against Spanish rule, taking advantage of Napoleon's invasion of Spain in 1808.²¹⁸ Therefore, Spain could no longer depend on access to Spanish-speaking America for its commercial revitalization, pushing Spaniards to look inward and evaluate the state of their Peninsular economy. With ninety percent of Spaniards involved in agriculture, it made sense to look at ways to improve agricultural production. Spain managed to do so during the reforms of the

²¹⁶ Ibid. 227.

²¹⁷ Otaola, 19.

²¹⁸ J.H. Elliot, *Empires of the Atlantic World: Britain and Spain 1492-1830* (New Haven and London: Yale University Press, 2006) Amazon Kindle Edition, location 6608.

1830s.²¹⁹ The emphasis on agricultural output shaped the articulation of bird protection in the late nineteenth-century. During the middle of the century, however, Spanish ornithological work emphasized birds' nationalistic contributions to the science.

Spain made certain that Cuba did not follow the examples its colonial brethren on the American mainland. Notwithstanding rising nationalism and antislavery revolts, the Spanish military managed to stifle attempts at Cuban independence from 1868 to 1898.²²⁰ In an enterprise reminiscent of the early modern naturalists, Oviedo, Cardenas, and Hernandez, Don Ramon de La Sagra traveled to Cuba to garner knowledge about this imperial possession, though in the context of modern ornithology. *Album de Aves Cubana* appeared in 1842.²²¹ De la Sagra published the work for both Spanish and French audiences. The entirety of his text appears in both languages in the book. Like, Simon de Rojas, De la Sagra offered each species' Latin and Spanish name. French took the place of Spanish in that particular section. The majority of the work offered the reader realistic, color renditions of each species including owls, falcons, songbirds, and insectivores. In his introduction, De la Sagra mused about the aesthetic and visual delight birds offered, much like Salazar y Castro. Reflecting on seeing a mating couple he wrote, "This pair of beings, whose scenes of friendship and of love, of grace and energy, of tenderness and ferocity, form the lively picture of nature in that virtuous region, the birds seem to have preferred to

²¹⁹ David Ringrose, *Spain, Europe, and the "Spanish Miracle" 1700-1900* (Cambridge: Cambridge University Press, 1996), 181.

²²⁰ Clifford L. Staten, *The History of Cuba* (New York: Palgrave MacMillan, 2005), 32.

²²¹ Ramon de La Sagra, *Album de Aves de Cuba* (Paris: Imprenta y Litografia de Maulde y Renou, 1842).

brighten up the countryside and to liven up the solitude of the woods.”²²² De la Sagra’s expedition was reminiscent of his eighteenth-century forerunners who collected scientific data as a means of imperialism. His successor also had used scientific investigation for a nationalist cause.

Eight years later Juan Lembeye added his contribution to the corpus of Spanish ornithology with his *Aves de la isla de Cuba*.²²³ Lembeye viewed his work as a contribution to the natural sciences as well as to ornithology.²²⁴ Lembeye divulged his methodology and pointed out that he tried to mitigate the imperfections of his analyses through a combination of actual observation and to supplement his information with Audubon’s work on North American species. Furthermore, Lembeye voiced his view that works rendered a scientific service to Cuba. He never explicitly mentioned Spain. Rather, he wanted to supplement the voids his intellectual predecessors left, and he hoped that others would, through their ornithological work, add to the entries he presented in *Aves de la isla de Cuba*.²²⁵ Lembeye and De la Sagra worked in a context in which ornithology presented a means to craft a national nature.

Album de Aves Cubana and *Aves de la isla de Cuba* exhibited the dialectical relationship between ornithology and nationalism. De la Sagra’s work exemplified the trend of European empires establishing control over a territory through the acquisition of scientific knowledge, a development that characterized scientific exploration in the eighteenth-century and carried on through the nineteenth. One only need to look back on

²²² Ibid, 5.

²²³ Juan Lembeye, *Aves de la isla de Cuba* (Havana: Imprenta del Tiempo), 1850.

²²⁴ Ibid, 5; 7.

²²⁵ Ibid, 7.

the Malaspina expedition along the North American west coast for an example of legitimizing territorial claims through the possession of natural science. *Album de Aves Cubanas* could also be seen as work that further refined ornithological knowledge while also aspiring to the creation of nationalist nature through the institution of regional science. *Album de Aves Cubanas* crafted a nationalistic nature. *Aves de la Isla de Cuba* abjured Spanish colonialism for Cuban nationalism.

Also of great importance was the fact that De la Sagra and Lembeye both observed that birds operated within a natural system in which species relied on each other. Sagra noted that birds consisted of migratory and sedentary species. The former stopped in Cuba so as to take advantage of the island's bounty, "chasing the numerous insects, reptiles, and fish who were fleeing at dawn to hide in their dens..."²²⁶ Lembeye remarked at length about the environment. He meshed together Romantic imagery of bird cadences with comments about the physical attributes of the space, such as the "grandiose ground vegetation of Cuba."²²⁷ Interestingly, the appreciation for birds' songs and aesthetic beauty predated the apogee of Romanticism in Spain, specifically its Hispanic articulation in the form of Krausismo, which amalgamated the spiritual and corporeal world. One scholar of Krausismo posited the idea that Spaniards embraced Krausismo because, despite its German origin, it appealed to a Spanish instinct making it a genuinely Spanish form of thought.²²⁸ Perhaps Spaniards incorporated Krausismo into their worldview because it coordinated well with already existing theories about nature. Regardless, Spanish

²²⁶ De la Sagra, 10.

²²⁷ Lembeye, 24.

²²⁸ Adolfo Posada, *Breve Historia del Krausismo Español* (Oviedo: Universidad de Oviedo Servicio de Publicaciones, 1981), 25.

ornithologists continued to fuse the appreciation of birds with creation of scientific knowledge over the course of the nineteenth-century, and within a few decades began to conceive of the well-being of species and the success of the nation as mutually reinforcing.

Between 1850 and 1886 Spanish ornithologists fashioned works that concentrated on regional avifauna. Such works represented a greater European trend of internal colonization of the agrarian periphery, a development that took place simultaneously with the scientific colonization of colonial possessions, for instance, De la Sagra on Cuba.²²⁹ A Spanish environmental historian showed that interior colonization attempted to de-radicalize the populace while seeking to improve agricultural production.²³⁰ The quest of natural scientists to produce knowledge about areas supplements his argument. Bird protection groups claimed that farmers needed to erect alliances with nature, thus building a wholly nationalistic nature in which Spaniards and birds participated in the nation's common good.

In 1850, Don Francisco de los Ríos Naceyro published *Catalogo de las Aves observadas en las cercanías de Santiago y otros puntos de Galicia*. Four years later, Don Antonio Machado, a professor of medicine and natural sciences at the University of Seville released his work, *Catalogo de las aves: observadas en algunas provincias de Andalucia*.²³¹ The catalogue of avian species resembled the formulaic organization of prior ornithological books. Machado, however, fused his observations about the material benefits of birds garnished with critiques of human society.

²²⁹ Ibid, 57.

²³⁰ Otaola, 55-58.

²³¹ Antonio Machado, *Catalogo de las Aves: observadas en algunas provincias de Andalucia*. (Seville: Imprenta Juan Moyano, 1854).

Machado celebrated Andalucía's unique climate, reminiscent of Africa's, that hosted a wide array of reptiles and insects.²³² Birds, nevertheless, received the majority of Machado's focus. He claimed that in addition to the material benefits of feather and food birds also represented models for human comportment. He wrote, "Admire the way that they care for their young, they feed them and teach them make use of their wings and they don't abandon them until they can do the same."²³³ He then states, " It never ceases to amaze, the way in which they weak employ their cunning and collective strength so as to mock and defend against the strong, because among the birds the abuse of power takes place too often." ²³⁴

Catalogo de las Aves portrayed birds paradoxically. Machado's amalgamation of the spiritual and the material represented his Spanish and European setting. One scholar observed that nature, in response to the rise of industrial capitalism, took on the bipolar characteristics of existing apart from human society while it also incorporated humans into a physical universe.²³⁵ Machado recognized that humans benefited from the birds' meat, feathers, and eggs. Contrariwise, live birds embodied a spiritual quality that appealed to humanity's aesthetics whether they entertained through their songs or inspired awe with their plumage. Especially the "common people" needed to admire the birds' parenting skills and instinctive industrial ethic.

²³² Ibid, 6.

²³³ Ibid.

²³⁴ Ibid, 6-7.

²³⁵ Neil Smith, *Uneven Development: Nature, Capital, and the Production of Space Third Edition* (Athens and London: The University of Georgia Press, 2008), 11 -12.

During the rest of the nineteenth-century Spanish ornithologists never stopped generating regional studies. In 1861 Don Victor Lopez Seoane y Pardo Montenegro released *Catalogo de las aves observadas en Andalucía*, an encyclopedia in which he listed species according to class and genus and offered a brief description.²³⁶ Francisco Barcelo y Combis's *Aves observadas en las Islas Baleares*, published five years later, differed little from Lopez Seoane's work in organization though it had a different geographic focus.²³⁷ Ornithologists did not abandon Cuba. In 1876 Juan Gundlach's *Contribución a la ornitología cubana* critiqued a German ornithologist's catalogue published in 1847 and sought to rectify his errors through another list of birds based on Gundlach's own observations.²³⁸ Joaquin María de Casellarnu released a work that differed from his predecessors' catalogues. *Estudio ornitológico del Real Sitio de San Ildefonso y de sus alrededores* examined more than just bird species.²³⁹ The majority of the work differed little in format from older Spanish ornithological studies. María de Casellarnu, however, also paid attention to climate, terrain, reptile and plant species, barometric pressures and temperature variation at San Ildefonso.²⁴⁰ In other words, the book looked more like a contemporary work of science that concentrated in depth on environmental variables, rather than simply describing them as had previous works. Indicative of this inchoate environmental consciousness, he noted,

²³⁶ Victor Lopez Seoane y Pardo Montenegro, *Catalogo de las aves observadas en Andalucía* (Madrid: Imprenta y Librería de Don Eusebio Aguado, 1861).

²³⁷ Francisco Barcelo y Combis, *Aves observadas en las Islas Baleares* (Madrid: Imprenta y Librería de Eusebio Aguado-Pontejos, 1866).

²³⁸ Juan Gundlach, *Contribución a la ornitología cubana* (Habana: Imp. "La Antillas," de N. Cacho-Negrete, 1876), 3.

²³⁹ Joaquin María de Casellarnu, *Estudio ornitológico del Real Sitio de San Ildefonso y de sus alrededores* (Madrid: Imprenta de T. Fortanet, 1877).

²⁴⁰ *Ibid*, 7-15.

“The species that live on cultivated lands are not numerous, but instead they develop a large number of individuals.”²⁴¹ María de Casellarnu noticed that certain terrains proved beneficial for particular species. Though he did not analyze this in any greater detail, it indicated that the author recognized that a connection between humans and the species that inhabited their anthropogenic environments existed.

The creation of a nationalistic nature did not subside in Spanish ornithology. Instead, the process increased in scope, and in the case of Don Ventura del Reyes y Prosper became more explicit. *Catálogo de las aves de España, Portugal é Islas Baleares* inventoried avifaunal life indigenous to the entire Iberian Peninsula. In the same vein of thought as Machado, Reyes y Prosper noted that Spain rested on a migratory route between Europe and Africa. Furthermore, Spain shared climatic and geographical similarities with North Africa.²⁴² Despite the similitude between the two regions separated only by the Strait of Gibraltar, Reyes y Prosper argued that he could distinguish African birds from Spanish ones. “The species that are named below,” he claimed, “typical of North Africa have been accidentally found in Spain.”²⁴³ He then proceeded to list twenty-six species that fell under that grouping. The perception that birds could be aware of national border seems absurd to the contemporary reader. Nevertheless, Reyes y Prosper’s doctrine that Spanish birds existed in contradistinction to African birds reflected the process in which Spaniards developed a sense of Spanish nature. Spanish species lived in Spain, despite the fact they migrated elsewhere. Birds that followed climate and terrain instead of sovereign political

²⁴¹ Ibid, 13.

²⁴² Ventura de los Reyes y Prosper, *Catálogo de las Aves de España, Portugal é Islas Baleares* (Madrid: Imprenta de T. Fortanet, 1886), 5.

²⁴³ Ibid, 6.

boundaries became classified as African. They did not belong to the *patria*. Such a view did not constitute the norm, but it did represent just how regionalist a study could be.

Spain participated in the evolution and propagation of ornithological knowledge, but in contrast to ornithology elsewhere in Europe and the United States, it focused exclusively on local species and regional fauna. This emphasis on the local may have affected Spain's prestige on the international stage with its lack of works that contested internationally agreed upon standards for ornithological science. Nevertheless, the stress on Peninsular species created a regional awareness of the Spanish environment and the interconnectedness of birds and their human neighbors. Consequently, Spaniards established environmental advocacy groups over fifteen years before their British and American contemporaries.

During the 1870s concern for and knowledge about birds shifted exclusively from the purview of ornithology. Ornithologists continued to publish the results of their craft; however, the notion that birds rendered material benefits for Spanish society and the spiritualism that imbued such arguments became powerful propaganda for protection groups. In 1872, Don Antonio Grimaldi established the protection group in Cadiz. Two years later on December 8, 1874, the *Sociedad Madrileña de los animales y de las plantas* was born. Their goals included: "the reform of municipal ordinances in all of Spain; celebration of special or translated works as propaganda for our protectionist ideas; creation of affiliated junior centers affiliated with the *Sociedad Madrileña*; the organization of public lectures that deal with the aims of the institute and various others more directly

related to the inner life of the *Sociedad*.”²⁴⁴ Concern over the international feather trade prompted the creation of bird protection groups in Great Britain during the 1890s.²⁴⁵ Nearly fifteen years after the foundation the establishment of the *Sociedad Madrileña*.

During the early decades of the nineteenth-century a budding trade in decorative feathers exploded into a giant international market.²⁴⁶ The European and American appetite for ornamental ostentation decimated bird populations in India, New Guinea, Africa, and the Americas. Debates raged about the morality of the feather trade. As a result, concerned citizens formed activist groups including the Royal Society for the Protection of Birds in the United Kingdom in 1891 and the Audubon Society in the United States in 1905.²⁴⁷ On both sides of the Atlantic, distress for the natural world took hold. In Great Britain alone, the British Ornithologist Union and the British Ornithologist Club were founded in 1858 and 1892 respectively. The Selborne Society for the Protection of Birds, Plants and Pleasant Places formed in 1885 and a year later merged with the Plumage League.²⁴⁸ In Spain the trend towards environmental protections for birds began in the 1870s.

²⁴⁴ Sociedad Madrileña Protectora de los animales y de las plantas, *Breve historia del la Sociedad Madrileña Protectora de los animales y de las plantas* (Madrid: Sociedad Madrileña Protectora de los animales y de las plantas, 1879), 4. Publication date courtesy of the Biblioteca Nacional de España.

²⁴⁵ David Evans, *A History of Nature Conservation in Britain* (London and New York: Routledge, 1992), 38.

²⁴⁶ Robin W. Doughty, *Feather Fashions and Bird Preservation: A Study in Nature Protection* (Berkeley, Los Angeles, and London: University of California Press, 1975)

²⁴⁷ Evans, 41.

²⁴⁸ *Ibid*, 38.

Conclusion

In the eighteenth-century European scientists worked in state institutions and cabinets of curiosity. To make sense of the sheer disorganization of the raw data and specimens they gained during scientific expeditions, men such as Linnaeus and Buffon created taxonomical nomenclatures to better categorize and identify species. Birds played a crucial part in that process, and the attention naturalists gave them set the foundations for modern ornithology. Spaniards could not participate in that phase of ornithology due to stringent state policies. Nevertheless, elite Spaniards still produced knowledge about birds within the context of hunting and bird keeping.

Once the tumult of the early nineteenth-century subsided, Spaniards focused on their regional avifauna due to the fact Spain no longer had an American empire, except Cuba and Puerto Rico.²⁴⁹ Authors lauded the material benefits gained through birds' death as they simultaneously praised their visual and spiritual value from their plumage, calls, and behaviors. In Cuba and throughout Spain, regional avifauna studies reflected the proliferation of a nationalist interpretation of nature, which came to its most explicit peak in the works of Antonio Machado and Reyes y Prosper. The former admired birds for their industrial ethic and parenting skills. He also believed they provided an invaluable role model for the common people. Reyes y Prosper differentiated birds based on their nationality and not their environment, although he did acknowledge the climatic and geographical similarities between Southern Spain and North Africa. The expansion of

²⁴⁹ More research needs to be done to see if Spaniards embarked on ornithological missions to the Philippines, Equatorial Guinea, Spanish Sahara, and Spanish Morocco. It seems, however, that they did not which makes Spanish ornithology peculiar in the European context of colonialism.

ornithological knowledge exemplified and generated an atmosphere in which naturalists could easily collect information about birds.

Spanish ornithology was not only rich, it was local. That emphasis on local fauna made Spaniards aware of the need to protect their bird species much sooner than Britons or Americans whose avian protection groups spawned in reaction to the international feather trade. The *Sociedad Madrileña Protectora de los animales y de las plantas* and its junior partners moved beyond the confines of specialized works and wanted to disseminate protectionist views to a wider audience. After the sovereign had pronounced the Ley de Caza in January 1879, the Sociedad held a public lecture in the Jardines del Buen Retiro in Madrid to celebrate its bird and flowers exposition.²⁵⁰ For the remainder of the century, environmental protection found its champions in members of such societies who advocated the protection of distinct species based on their utility for Spanish agriculture.

Spanish ornithology represented a process in which Spain pioneered and refined empirical methodology in its American empire from the sixteenth to the eighteenth-century, the refinement and specialization of that knowledge in other European metropolises, and the re-articulation of that trend in local, regional avifauna studies that followed the field naturalist path. The expansion of naturalistic knowledge in Spain shifted to local concerns. Misgivings about Spain's economic future amalgamated with protectionist views. Spain was an agricultural nation, and the birds could help protect its crops and vineyards. Protectionist opinions were not all powerful, however, and advocates of bird protection gained allies in Spain's aristocratic hunters. Noble hunting and its

²⁵⁰ Manuel Prieto y Prieto, *Utilidad de las aves y de las plantas* (Madrid: Imprenta de Gregorio Juste, 1879).

already existing regulations provided the bedrock on which bird enthusiasts could latch on their aims. The merger of hunting legislation with animal protection set a criterion for landscape protection in the twentieth-century that shielded a wider environment that covered animals and landscapes.

Chapter Four Greyhounds and Shotguns

Noble Hunters, Masculinity, and Species Protection 1772-1879

Spaniards, like other Europeans, had a tradition of noble hunting whose lineage could be traced to at least the fourteenth-century. Hunting provided people, noble or not, with precious calories and much-needed nutrients. Noble courts pursued game to embellish their supper tables, but they did so in a manner that displayed their status in society. Noble hunting was a social act whose costs, ostentations, and performances provided Europe's nobility the opportunity to demonstrate their economic well-being as well as their masculine, martial prowess. This parody of warfare depended on sufficient game to hunt. Legal proclamations and later laws tried to defend certain species at specific times of the year to ensure their propagation. Moreover, it set restrictions upon who could hunt and what they could use to do so. Noble hunting and the laws used to protect its status and stocks officially marginalized the vast majority of Spaniards from partaking in Spain's natural resources, yet it also provided the foundation on which insectivore protection was added in the nineteenth-century to create Spain's first modern environmental legislation.

Surprisingly, no scholar has examined Spain's hunting noble hunting tradition and hunting laws in any detail. This scholar found only one work, published in 1916, that discussed the history of Spain's hunting laws.²⁵¹ The historiography of Spain's

²⁵¹ *Manual del derechos de caza y del uso de armas: comprende una reseña histórica acerca de las vicisitudes por que en España han atrevesado estos derechos, la ley de caza de 16 de mayo de 1902, su reglamento de 3 de junio de 1908 y todas las demás disposiciones vigentes sobre caza y uso de armas, seguidas de los correspondientes formularios* (Madrid: 1916).

environmental history has focused mainly on the creation of naturalistic knowledge, as examined in the first two chapters, or on the application of Romanticism and Regenerationism on Spanish concepts of nature which will be examined in the last chapter. In the preeminent work on modern Spanish environmental history the author never mentioned hunting laws or bird protection.²⁵²

Due to the lack of scholarship about Spanish hunting, one historian's observations about the relationship between leisure and environmental protection in addition to another academic's work on the connections between royal hunting with class and gender have been invaluable. The former scholar observed that recreation in nature often parodied work. The play mimicked bodily labor.²⁵³ Hunting in Europe, and wider Eurasia, had been an important component of courtly life, and restrictions made certain that the nobility always had ample game to pursue. The latter academic observed that humans hunted for three main pursuits, namely, the pursuit of protein, the pursuit of profit, and the pursuit of power during the early modern period.²⁵⁴ Nobles hunted to display power and their noble rights in Europe during the modern age. As their power eroded in the face of parliamentarianism, liberalism, and industrialization, hunting provided a vestige of exclusivity and prominence. The first researcher argued the play that brings humans the

²⁵² Otaola, *Naturaleza Patria*.

²⁵³ Richard White, "Are You an Environmentalist or Do You Work for a Living?": Work and Nature" in *Uncommon Ground: Rethinking the Human Place in Nature* edited by William Cronon (New York and London: W.W. Norton & Company, 1996) Amazon Kindle Edition, location 2950.

²⁵⁴ Thomas T. Allsen, *The Royal Hunt in Eurasian History* (Philadelphia, PA: University of Pennsylvania Press, 2006), 2-10.

closest to nature is that which imitates work.²⁵⁵ Spanish nobles in the nineteenth century indulged hunting as leisure, but, in line with his analysis, it parodied labor. Nobles had no need to hunt for protein and never directly for profit. Instead hunting cemented and preserved a domain of aristocratic privilege, which had existed throughout Eurasia in the Middle Ages. Leisure hunting imitated martial manoeuver and conveyed little regard for the concerns of those who worked on the land out of need. This chapter proves that noble hunting fulfilled the functions of leisure as parodied work. Noble hunting in Spain, moreover, hardly deviated from the Eurasian tradition of the royal hunt. This chapter demonstrates that this elite culture continued into the modern period in Spain for the same purposes of displaying masculinity and social status. Spanish monarchs and later parliamentarians codified hunting as an exclusively noble space of leisure in the hunting laws of the eighteenth-century. More importantly, from the eighteenth-century onward, hunting laws in Spain contained specific species protections for birds, a model that later laws built upon. To demonstrate this fact, this chapter examines the hunting laws of Carlos III and Carlos IV, sources that historians have not used until now. An analysis of these laws' text displays how the Spanish monarchy made hunting an exclusively noble pastime, while also creating species protections.

European Hunting

In the fourteenth-century, Alfonso XI of Castile and his son Peter kept a large retinue of dogs and hawks for hunting, both for their own amusement as well as the entertainment

²⁵⁵ White, locations 2934-2925.

of foreign dignitaries.²⁵⁶ The traditions of falconry and dog-hunting, indeed, characterized the life of most European courts.²⁵⁷ Iberian monarchs were no exception. Alfonso XI and his heirs lived in a context in which royals and nobles throughout Eurasia understood the need to maintain regulations to preserve sufficient game for future hunts.²⁵⁸ Nobles respected breeding seasons and restricted the number of hunters to assure the propagation of their potential trophies.²⁵⁹ The nobility was few. In Spain between the eighteenth-century and the nineteenth-century, they became even fewer. In 1723 and 1768 one in twelve Spanish heads of household were considered nobility; the number dropped to one in thirty-four by 1826.²⁶⁰ Despite the decrease in number of nobles the Spanish monarchy labored to keep hunting a noble pursuit.

Castilian monarchs used hunting laws to limit the weapons a hunter could use. Such a strategy made the hunt more challenging, but it meant to test the virility of the hunter while also limiting his effectiveness. In 1527, Carlos I made hunting more difficult when he forbade the use of crossbows.²⁶¹ On March 11, 1552, Carlos I prohibited hunting with bows entirely. Felipe III finally allowed hunting with harquebuses, a type of firearm, on November 7, 1617.²⁶² Noble Spaniards held more hunting rights than their contemporaries

²⁵⁶ John Cummins, *The Hound and the Hawk: The Art of Medieval Hunting* (London: Weidenfeld and Nicolson, 1988), 1.

²⁵⁷ Malcolm Vale, *The Princely Court: Medieval Courts and Culture in North-West Europe* (New York and Oxford: Oxford University Press, 2001) 179-184.

²⁵⁸ Allsen, 97.

²⁵⁹ *Ibid*, 97-99.

²⁶⁰ Germán Rueda Hernanz, "Demografía y Sociedad (1797-1877)," in *Historia de España contemporánea* edited by Javier Paredes (Barcelona: Ariel, 2010), 471.

²⁶¹ *Manual del derechos de caza y del uso de armas*, 28.

²⁶² *Ibid*, 29.

in other European states who had to abide by local pressures and traditions, despite their best efforts to circumvent them.

In May 1723 Britain enacted the *Waltham Black Act*, which imposed harsh penalties on anyone who hunted in the king's forest without consent.²⁶³ It was no accident that English lawmakers imposed the *Black Act* the same time as deer populations declined on the island, leaving nobles without sufficient game. The ever-adaptable elite found a new quarry in the foxhunt.²⁶⁴ In 1737 the Duke of Richmond founded a hunting club exclusively for the enjoyment of his wealthy peers and fellow nobleman.²⁶⁵ Foxhunters, a group that consisted almost entirely of noble land-owning aristocracy, often frustrated their lower-class neighbors. They habitually ignored property boundaries in pursuit of their bounty. By the early nineteenth-century radical politicians launched attacks against foxhunting, accusing the sport of being the domain of an exclusionist and parasitic class. Regardless, British nobles pursued the sport as a noble right.²⁶⁶ Noble hunting existed elsewhere in Europe as well, though in culturally specific milieus. For example, hunting reserves proliferated in France. However, French communal land rights prevented noble hunting on them.²⁶⁷

Throughout Europe, the nobility either institutionalized the exclusion of the lower-classes or ignored their property rights. In the United Kingdom, Article Nine of the Game

²⁶³ E.P. Thompson, *Whigs and Hunters: The Origin of the Black Act* (London and New York: Penguin, 1977), 21-22.

²⁶⁴ Raymond Carr, *English Fox Hunting: A History* (London: Weidenfeld and Nicolson, 1976), 24-27.

²⁶⁵ *Ibid*, 52.

²⁶⁶ Carr, 127-132.

²⁶⁷ *Ibid*, 49.

Law of 1831 specifically pronounced that the legislation would not affect the noble hunting rights of the king.²⁶⁸ Noble Spanish hunters rested comfortably in this tradition of European noble hunting, and unlike their English and French counterparts, they did not need to concern themselves with grievances. Carlos III and Carlos IV installed draconian hunting laws that drastically limited the availability of game to most, but also pronounced many restrictions that protected animals during their breeding seasons, limited the manner in which birds could be hunted, and minimized property damage so as not to affect Spain's economy adversely. Spaniards in the nineteenth-century fused those elements into their own hunting legislation.

The Hunting Laws of Carlos III and Carlos IV

In 1772, Carlos III issued a *Real Cédula* that contained, “the manner of hunting and fishing that one ought to observe in these kingdoms with assignation of hunting seasons of one species and another.”²⁶⁹ The royal promulgation dictated what species could be hunted at any time, what types of weapons people could use, and restrictions on when one could hunt with *galgos*, or Spanish greyhounds in addition to identifying hunting season in general.

The hunting seasons that Carlos III established survived in subsequent hunting laws.

Section One prohibited hunting in New Castile, Castile La Mancha, Andalusia, Murcia,

²⁶⁸ *Game Act of 1831*, accessed April 3, 2016 <http://www.legislation.gov.uk/ukpga/Will4/1-2/32/enacted>

²⁶⁹ *Real Cédula de su Magestad y Señores del Consejo en que contiene la ordenanza que generalmente deberá observarse para el modo de Cazar y Pescar en estos Reynos, con señalamiento de los tiempos de Veda de una y otra especie* (Mallorca: La Oficina de Ignacio Sarrá, y Frau Impresor del Rey nuestro Señor, y su Real Audiencia, 1772).

Aragon, Valencia, Catalonia, and Mallorca from the first of March to the first day in August each year.²⁷⁰ The deadline extended until the first of September in coastal provinces. It also banned hunting on snow days and religious feast days. Put succinctly, it outlawed hunting during the mating and rearing season for most animals and set the hunt during the autumn and winter. The royal declaration also concerned set limits to who could hunt with shotguns and dogs, but made very important allowances.

Section Three outlawed the use of shotguns during the hunting season for any reason and in any location. However, the law made two exceptions. First, one could use a shotgun to kill sparrows. Second, a person could fire one in self-defense.²⁷¹ The first exclusion aimed at farmers, who perceived songbirds as food and pests. A shotgun differed from other firearms in that its cartridge dispersed small pellets into a wider area than a simple rifle. That dispersion made it easier to kill smaller prey without harming the meat, but also offered a more efficient means of bagging a higher number of birds, especially in flight. Within a century, bird enthusiasts challenged the prevailing notion that such songbirds acted as pests. Nevertheless, the hunting law of 1772 cemented sparrows as fair game in the late eighteenth-century.

The second exemption from the law focused exclusively on matters of class. The shotgun was an extremely powerful and destructive weapon. Its prohibition during the hunting season limited the number of prizes a hunter could bag. The law stipulated that outside of the hunting season only nobles, ecclesiastics, and “honored persons of the town”

²⁷⁰ Ibid, 5-6.

²⁷¹ Ibid, 6.

could hunt with shotguns.²⁷² This provision restricted who could use such a potent weapon, stemming the ability of the lower-classes to offer any effective resistance to the state. It also delineated the divisions in society. Implicitly, the law allowed those three groups to hunt outside of the designated season. Legally this empowered them to hunt for food and leisure, hunting with dogs, while restraining the prospects of other Spaniards to benefit from nutrition from meat that they did not have to raise themselves.

Carlos III's hunting ordinance limited the hunting season. Such a move was designed to ensure game stocks remained sufficient through a prohibition on the number of hunters at any one time in addition to restrictions on the effectiveness of firearms during the season. It allowed most Spaniards to hunt. However, it limited their efficacy as nobles could hunt in all seasons while commoners could only hunt in the designated seasons. Thus, Carlos limited the efficacy of non-noble hunters, while noble hunters, whom Carlos allowed to hunt outside of the season with their dogs and shotguns, were privileged. His son implemented his hunting code that incorporated most of the law of 1772. It also expanded limitations on the Spanish majority, but it did add in more comprehensive protections for bird species whom he feared suffered from population decline.

Carlos IV issued his royal proclamation in 1804, just a few short years before Napoleon ousted the monarch in favor of his brother, Joseph.²⁷³ Carlos IV's hunting law acknowledged his apprehension about game numbers in Spain. These concerns no doubt arose from the fact that Carlos IV enjoyed hunting more than any other pastime, earning for

²⁷² Ibid.

²⁷³ *Real Cédula de S.M. y Señores del Consejo en que contiene la nueva ordenanza que generalmente deberá observarse para el modo de cazar y pescar en estos Reynos, con señalamiento de los tiempos de veda, de una y otra especie* (Madrid: La Imprenta Real, 1804).

himself the moniker, “El Cazador,” or “The Hunter.”²⁷⁴ In fact, he banned hunting within ten leagues, approximately thirty-five miles, from any Royal Site.²⁷⁵ His determinations expanded beyond the Royal Sites. Article Twelve stated that “general hunting” was prohibited “not only as a result of the general destruction of game, but also damages to plantations and crops, and other minor damages.”²⁷⁶ Economic concerns began to take shape in Spain’s hunting laws. The monarch also forbade hunting with dogs in vineyards, a problem that, as we have seen before, plagued fox hunting in Britain.²⁷⁷ Carlos IV’s hunting code also granted precise species protection.

As demonstrated in the next chapter, the bird protection law implemented in the late nineteenth-century took their precedent from Carlos IV’s limitations in the manner which certain birds could be hunted. Article Nine stipulated that one could not hunt partridges with nets, lances, perches, and “other instruments and illicit mediums that destroy game, and injure its abundance...”²⁷⁸ The law did allow hunters to collect quail and other birds with nets, but only during the hunting season. The open attitude towards sparrows remained in place.²⁷⁹ Carlos IV also prohibited any form of disruption to birds’ nests in Article Fourteen.²⁸⁰ The law specifically targeted pastoralists, laborers, servants, reapers, and young men. In other words, the law had the lower-classes in mind when it

²⁷⁴ Teófanos Egido, *Carlos IV* (Madrid: Arlanza Ediciones, 2001), 34-35.

²⁷⁵ *Real Cédula* (1804), 7.

²⁷⁶ *Ibid*, 10.

²⁷⁷ *Ibid*, 6.

²⁷⁸ *Ibid*, 9.

²⁷⁹ *Ibid*, 6.

²⁸⁰ *Ibid*, 11.

implemented the injunction.²⁸¹ Penalties included thirty days in jail for the first offense, sixty days incarceration for the second infraction, and four years in prison for a third violation. Meanwhile, the law reiterated the stipulation from its predecessor that only nobles, honored people of the *pueblos*, and ecclesiastics could hunt without dogs and shotguns, notwithstanding the hunting season, which was also identical to the law of 1772.²⁸²

The hunting laws, or royal promulgations, of 1772 and 1804 codified the exploitation of game in Spain based in the form of law. The law did establish a regular hunting season for Spaniards in all parts of the country, yet it did so with a prevalent and blatant class bias. The laws restricted the laboring classes to hunting during allotted times of the year without the ability to use hunting dogs and shotguns, limiting their food choices. The law of 1804 added restrictions that concurrently protected certain bird species and bird nests through a combination of outright ban and constraints on hunting instruments such as nets and lances. Carlos IV's trepidations about game stocks were so great that Section Six banned hunting within thirty-five miles of the Court and any Royal Sites.²⁸³ The two laws set a precedent for species protection.

Unlike its successors, these laws did so with the intent to maximize animal populations solely for the purpose of noble leisure. The economic protections they implemented such as the injunction on hunting in vineyards lacked the rationale that animal protection and commercial security went in tandem. That thinking did not become

²⁸¹ Ibid.

²⁸² Ibid, 5-6.

²⁸³ Ibid, 7.

apparent until the law of 1879. Despite features unsavory to contemporary eyes, such as the pursuit of hunting as a rich man's leisurely bloodsport, the hunting regulations of Carlos III and Carlos IV installed legal antecedents complete with bird protections. The language and many of the prohibitions found new life in the nineteenth-century laws. Protections for hunting make no sense unless it is understood why hunting appealed to the nobility so much. The answer to that rests in the experience of the hunt as a stage on which a nobleman could project his masculinity and display his martial prowess. These same sensibilities later delineated how Pidal interacted with nature through both hunting and alpinism, which guided him to choose Covadonga as the location for the first national park.

The Experience of the Hunt

In both the Coto de Doñana in the province of Huelva and the Picos de Europa in Asturias, noble hunters stalked their game with martial intrepidity, always certain to complain about the comportment of the common people. These two vastly different environments provided Spanish hunters and their cohorts with chances to hunt game from lynx to bear, and the more mundane fare such as birds, rabbit, and wild boar. In the swamps of Andalucía to the snowcapped peaks of the Asturian mountains, noble hunters tracked their prizes with an eye towards parading their skills and macho virility. In Spain's far south in the province of Huelva, the swampy Coto de Doñana also provided hunting grounds

The Coto de Doñana straddled the estuary on the Guadalquivir River and the Gulf of Cadiz. The site of a future national park, the Coto de Doñana's topography varied with

riverine environments, such as marshes, and sand dunes.²⁸⁴ The diverse geography offered a refuge for a myriad of species including wild boar, red deer, the Spanish lynx, waterfowl, and badgers.²⁸⁵ The abundance and variety of game made the Coto de Doñana a popular hunting reserve. Several Spanish nobles owned the land, and it even served as a hunting ground of several monarchs including Felipe IV, Felipe V, and Alfonso XIII.²⁸⁶ The presence of sand dunes even encouraged Spanish aristocrats to import camels and later generations to preserve them as a curiosity.

In 1893 and in 1910, Abel Chapman (1851-1929) and Walter J. Buck published two works that recounted their hunting adventures in Spain.²⁸⁷ Part hunting guidebook and part travelogue, *Wild Spain* and *Unexplored Spain* catalogued Spanish game, recalled hunting stories, and periodically recounted the history of hunting in Spain. Chapman and Buck made some very close friends in Spain including Alfonso XIII and his wife, to whom they dedicated their second work.²⁸⁸ In *Unexplored Spain* they reproduced the recollections of Chapman's brother who wrote about his encounter with the camels. "Bufalo (his horse) reared, twisted, splashed about in sheer horror, and then—thank goodness—the corps, with a parting roar, or rather a chorus of vicious gurgling grunts, in clear resentment at my

²⁸⁴ Ruth Way, *A Geography of Spain and Portugal* (London: Methuen & Co Ltd., 1962), 251-252.

²⁸⁵ Chapman and Buck, *Wild Spain*, 773-794.

²⁸⁶ UNESCO World Heritage Center. "Doñana National Park." . <http://whc.unesco.org/en/list/685> (accessed April 29, 2014); Juan Francisco Ojeda Rivera, *Organización del territorio en Doñana y su entorno proximo (Almonte). Siglos XVIII-XX* (ICONA, 1987), 432-434.

²⁸⁷ Abel Chapman and Walter J. Buck, *Wild Spain: Records of Sport with Rifle, Rod, and Gun, Natural History and Exploration* (London: Gurney and Jackson, 1893); Abel Chapman and Walter J. Buck, *Unexplored Spain* (New York: Longmans, Green & Co., 1910).

²⁸⁸ Buck and Chapman, *Unexplored Spain*, v.

presence on the face of the water at all, turned and bolted out west at full speed. I was left alone, and much relieved.”²⁸⁹ Spanish nobles lamented the loss of the imported camel population in the face of the ecological onslaught from cattle and herdsmen.²⁹⁰ In the Coto de Doñana, nobles hunted with little regard for those who depended on the swamp for their livelihood, going so far as to be more concerned with the health of the marshes' camel population than for the souls who depended on the Coto's bounty for food and fuel.

Their lack of empathy stemmed from the fact that they wanted to preserve sufficient animal stocks. Unlike the enclosed, very carefully monitored parks in the rest of Europe, Spanish nobles could not ensure that state lands or even their properties could be patrolled well enough to deter poachers and others, who simply depended on the marshes. Paradoxically, hunters legitimized many of the hunts through the belief that they exterminated vermin. These justifications also accompanied a literary style that turned the hunt into a martial effort.

In 1840, Rafael Sánchez published an account of his hunt through the Coto de Doñana. His account bristled with warlike language and even conveyed how naturalism had become a hobby among noble hunters. He reminisced on the members of the hunting party, “five Spaniards, experienced hunters...a young Italian artist, not only irritable but volcanic, with a huge Arab rifle and a collection of good brushes, so that he may hunt and portray those hunts on canvas in this great space of Oñana.”²⁹¹

²⁸⁹ Chapman and Buck, *Unexplored Spain*, 281-282.

²⁹⁰ *Ibid*, 392-393.

²⁹¹ Rafael Sánchez, *Una Cacería en El Coto de Oñana Segunda Edición* (Sevilla: Padilla Libros Editores y Libreros, 1994), 9-10.

Sanchez's small hunting party encapsulated the spirit of the nineteenth-century noble hunt as a masculine pursuit. The men contrasted their "quotidian pants" and "trekking" with their beautiful and bucolic surroundings.²⁹² Their hunt was an adventure and by invitation only. The presence of the Englishmen during this hunt combined with the fact that Chapman and Buck shared their hunting journeys with Spanish hosts, denoted that noble hunting took on a diplomatic function. It provided a forum through which nobles, or at least those wealthy enough to gain an invitation from them, could relate to one another. The noble hunt as means of international relations had roots as far away and as far back as China during the second century BCE.²⁹³

The company of the Italian painter indicated that this was both a hunting and a scientific expedition. The hunt not only offered masculine displays, diplomatic forums, and leisure, the nineteenth-century hunt, at least in Spain, took on a scientific, romantic quality as could be observed in the works of ornithologists. Sánchez recorded, "Ornithology is not any less rich nor varied; besides the partridge, woodcock, and little bustards, the lakes shelter a prodigious number of ducks, geese, zarzetas, and other water fowl."²⁹⁴

Aristocratic hunting incorporated elements of scientific investigation. To catalog species, observe them, and render illustrations also served as a form of leisure, though purportedly to scientific ends. Buck and Chapman included various illustrations and entries that delved deep into the environment and the anatomy of the different species. This data no doubt added invaluable knowledge to the zoological corpus, but also provided a guide

²⁹² Ibid.

²⁹³ Allsen, 224.

²⁹⁴ Sánchez, 16.

for hunters. On the Sánchez expedition, the Italian artist's presence represented how deeply embedded the acquisition of scientific knowledge became in the consciousness of European elites. Even noble hunters took the opportunity to add their findings to the scientific corpus. One could look at such scientific work as a parody of earlier Spanish expeditions. Sanchez and his cadre first and foremost hunted for leisure and constantly maintained a martial image in their mind.

Reminiscing about an encounter with the camels of Doñana, Sánchez wrote, "We have ignored how camels have been incorporated into the army as an element of successful modern tactics; but, if we judge the invincible resistance that opposes our horses in their vicinity, we can deduce that a squadron numbering fifty of the former will instantaneously disband an immense column of the latter."²⁹⁵ Sánchez not only parodied military tactics, but he also used his observations from hunting to verify the keen wisdom of those who decided to integrate camels into the Spanish military.

Six decades later, Buck and Chapman imbued their writings with the same martial spirit, though they admitted to doing so and playing off the difference between big game and dangerous game. They mused, "Thus a lady, inspecting our trophies, exclaimed, 'Oh, Mr.—, aren't these beasts very treacherous?' which almost provoked the reply, 'You see, we are even more treacherous!'"²⁹⁶ In spite of the attempt to exercise humility, the English sportsmen failed to resist the temptation of romanticizing their boar. The scene quickly devolved into a succinct account of man versus nature, with the women as passive

²⁹⁵ Sanchez, 14-15.

²⁹⁶ Chapman and Buck, *Unexplored Spain*, 112.

observers in awe of the “treacherous” bounty. Pedro José Pidal himself evoked martial imagery when he explained the workings of a bear hunt.

In a letter to Buck and Chapman, Pidal described an Asturian bear hunt in the language of tactics and military stratagem, also making certain that he informed the reader that bears harmed the local livestock. Pidal recounted, “The locality at which the animal had laid up being this ascertained, a *montería* (mountain-drive) is organized—the beaters being provided with crackers, empty tins, hunting-horns and every sort of ear-splitting engine—even the services of the bagpiper are requisitioned!”²⁹⁷ Pidal described the hunt as a military procession. It is doubtful that the bagpiper’s playing proved more effective than the beaters at flushing out the bear. Regardless, the bagpiper’s presence combined with the need for maneuvers made the hunt reminiscent of a military parade. Noble hunts had incorporated an element of pageantry to display their bravery and wealth.

Sánchez, Buck and Chapman, and Pidal portrayed their hunting experiences as militaristic enterprises replete with adventure, valor, and military displays against the terrain and the animals they hunted. Noble hunters used their pastime to exhibit their martial talents and masculine virility, while concurrently marginalizing the lower-classes from participating, demonstrating their privilege and wealth. The noble hunt also provided a stage on which the noble could display his ability to command men and marshal resources so as to accomplish the kill.²⁹⁸ One historian of hunting observed that the medieval hunt imitated military maneuver, which allowed hunters to exhibit tactical

²⁹⁷ Chapman and Buck, *Unexplored Spain*, 296-297. It is unclear if Pidal wrote the letter in English or if Buck and Chapman translated it.

²⁹⁸ *Ibid*, 8.

acumen while simultaneously making clear their social status and gender through pomp and circumstance, setting the royal above others.²⁹⁹ Such a scene took place in the context of recreation, but it also parodied military maneuvers and no one needed to display his military mind and masculine virility more than the king.

The Picos de Europa could not have stood in greater contrast to the Coto de Doñana. The high rising limestone peaks reach altitudes of up to 8,167 feet above sea level.³⁰⁰ The peaks themselves provided a natural refuge from the Moorish invasion of the Iberian Peninsula, a fact that became important in the establishment of Spain's first national park among its mountains. Rivers fell from high elevations, and over eons the combination of gravity and high altitude carved mountain valleys known as *focos*. The rugged terrain relegated settlement to the valleys, leaving wildlife to inhabit and proliferate in the rises above, which in turn made the Picos de Europa an appealing hunting destination.³⁰¹ In 1882, Ildefonso Llorente Fernandez, one of the sovereign's courtiers, captured Alfonso XII's exploits in the Picos de Europa.³⁰²

In August 1881, King Alfonso XII trekked to the region of Liébana in the Picos de Europa. Courtier Ildefonso Llorente Fernandez kept a detailed journal of the venture, which he published under the title *Las Cacerías de Rey* the following year. Fernandez dedicated most of the work to the political pursuits of his sovereign who spent much time visiting with his subjects and inspecting mines. Nonetheless, Alfonso XII demonstrated his

²⁹⁹ Cummins, 4-5.

³⁰⁰ Ruth Way, *A Geography of Spain and Portugal* (London: Methuen & Co Ltd., 1962), 198.

³⁰¹ *Ibid*, 198-201.

³⁰² Ildefonso Llorente Fernandez, *Las cacerías del rey: descripción del viaje que en el verano de 1882, hizo el rey Don Alfonso XIII á Los Picos de Europa y á Liebana* (Madrid: Jose Gil y Navarro, 1882).

perspicacity against chamois and bears. On August 19, Fernandez recorded, "The king reached, with a magnificent shot, at great range, two of the wild animals, which fell dead on to the rocks below...we had the satisfaction of witnessing the slaughtering of two of the most agile chamois." ³⁰³

Fernandez used the same martial language that Sánchez and Pidal had used in their accounts, going so far as to regard the whole scene as a "battle." Moreover, Fernandez emphasized the difficulty of their feat when he underscored that the hunting party had shot the most agile animals. When the king and his retinue failed to take the game they sought, however, Fernandez made certain that his king remained inculpable. Two days after the chamois hunt the king set his sights on four large brown bears. Unfortunately for the king, the locals cost him his prize when the bears broke through their line. His courtier wrote, "If I had been mayor of that district... I would have not been calm until I took those three mentioned youths and given them a regular lesson about what should have properly been done during this open and precise hunt."³⁰⁴

In the case of the chamois hunt, the king's sharp eyes and fine shooting prevailed over his nimble adversary. In the event of the failed bear hunt, the expedition's organizers quickly assigned blame to the scouts whom Fernandez had identified as locals, through his hypothetical supposition that things would have been different if he had been their mayor. At no point did the reader get the sense that the native bears simply outwitted their pursuers. Alfonso XII's son Alfonso XIII also enjoyed the noble hunt. Abel and Chapman encapsulated his skill not in narrative but a photograph.

³⁰³ Ibid, 125-126.

³⁰⁴ Fernandez, 150-151. The "osos rojos," were most likely Cantabrian brown bears.



305

King Alfonso XIII hunted as avidly as his father. In the photograph above the king paraded his masculinity and military virtue. Rather than hunting the boar with a firearm, the king instead chose to confront the animal head on with a lance. That choice allowed him to display his acuity both with a weapon and his horsemanship. The boar hunt itself carried special connotations for the hunter. Dangerous game such as the boar with its tusks provided the royal with the opportunity to display his talents. Animals had better senses

³⁰⁵ Chapman and Buck, *Unexplored Spain*, ii. Book from public domain.

than humans. To confront them and emerge victoriously bestowed prestige on the hunter.³⁰⁶ Such an exhibition, however, depended on the supply of game.

Noble hunting had the function of creating a precedent for modern environmental protections. Both the Coto de Doñana and the Picos de Europa became protected national parks. The former was declared in 1969 in recognition of its importance as seasonal wetlands for many of Europe's bird species. For reasons explored in the next chapter, the site at Covadonga in the Picos de Europa became the site of Spain's first national park in 1918, under the direction of Pedro José Pidal. However, his protection efforts began in Picos de Europa in 1905. In that year, the freeholders of Asturias offered their king exclusive hunting rights to the chamois. Alfonso XIII then appointed Pidal as caretaker whose duty was to assign guards to defend the chamois. Hunting rules entrenched protections for animal species so that noble hunters had enough supply to enjoy their leisurely chase. This framework provided a base on which bird advocates could tack on their protections in the hope that the preservation of insectivore birds would benefit Spain's agricultural production. Both noble hunters and protectionists, in the body of Pidal were one and the same, found common ground in their conviction that they had to restrict the common people from killing game animals. Consequently, the hunting laws passed between 1879 and 1903 implemented fines, exorbitant license fees, and prohibited the hunting of certain bird species. Together the two interests manifested together in the form of regulations setting the groundwork for the maintenance of landscapes.

Conclusion

³⁰⁶ Allsen, 132.

These events in and of themselves did not directly lead to the institution of a national park. Rather it is more accurate to view these events as precedents that relied on individuals to actualize them into the shapes that they eventually took. The development of empiricism in the fifteenth and sixteenth-century intersected with Spain's need to revitalize its influence and economic fortunes under the Bourbons. Botanical and other natural specimens from the New World were organized into private and state collections. These places offered European naturalists the chance to encounter American species without the expense or danger of travel. From such collections, Linnaeus and Buffon produced their respective artificial and natural systems of taxonomy. These taxonomic schemes gave European naturalists a common naturalistic discourse in which to interact and offered more opportunities for individuals to contribute to European science. Naturalists on the Sessé-Mociño and the Malaspina Royal Botanical Expeditions implemented Linnaeus's and Buffon's practices to contextualize their conclusions while at times contradicting data from naturalists.

Spain lost most of its imperial possessions in the face of Napoleonic occupation and American independence movements. Combined with the proliferation of affordable printing and the segmentation of natural history into specific disciplines the environment was ripe for Spaniards to turn their naturalistic gaze inward. Spanish ornithologists organized regional catalogs based on information they collected through fieldwork. In those compendia, Spaniards did not simply organize lists of empirical data. They also pitched their class biases and their hopes for economic invigoration. Insectivore species required protections from the laboring classes. The birds, they explained, were

indispensable allies in Spain's agricultural production and embodied model behaviors. In one instance they were Spaniards. Insectivore birds in the minds of these ornithologists became an essential part of the nation and its future.

This series of events emerged apart from noble hunting, a way in which Spain's uppermost classes enjoyed Spain's natural resources. Hunting provided the monarchy and its nobles chances to flaunt their martial talent, masculinity, and class through orchestrated public demonstrations, which still kept a character of uncertainty and thus the possibility of success or failure. Carlos III established hunting seasons and limitations but did so to guarantee a regular stock of game animals. His promulgation also made certain that hunting remained a noble pursuit. His *Real Cédula* of 1772 made allowances for the upper-classes to hunt year-round with the aid of hunting dogs and shotguns outside of the designated season. His son, Carlos IV, reiterated many sections of his code and added economic protections when he forbade hunting with dogs in vineyards. He also extended protections for distinct species when he narrowed the manner and methods the common people could use to hunt birds. He also outright outlawed disturbing nests. As shown in the next chapter, these legal precedents provided a foundation on which bird enthusiasts could legally broaden bird protections, but for their utility. Carlos IV did so to safeguard game supplies, and to that end added more restrictions on opportunities for lower-class Spaniards to hunt for their well-being.

The upper-classes continued to dictate the fashion in which environmental protections would be implemented. However, with the *Ley de Caza de 1879* and its

successor for the protection of birds in 1896, those higher classes explained that environmental protection benefitted the nation, rather than just one class. Albeit, those policies and vision continued to prioritize the wishes, desires, and beliefs of that upper-class. Nevertheless, the conclusion that environmental protections profited the entire nation influenced Pedro José Pidal's case for the establishment of a national park. The species protection laws of 1879, 1896, and 1902 would set the legal precedent for those ideas and bind together the fate of nation and nature.

Chapter Five

The Toothless Laws

Hunting Laws, Species Conservation, and Bird Protection Treatises 1879-1903

In the late nineteenth-century the laws that protected noble hunting merged with concerns about insectivore populations. These two disparate strands of Spain's environmental consciousness came together over concerns about the lower-classes. They also provided the legal precursors and context for Pidal's crusade to establish a national park in the Picos de Europa. Noble hunters, most notably the monarch, maintained economic restrictions on hunting, even if the laws themselves provided more access if one could pay the exorbitant fees. The architecture for bird protection existed in the *Real Cédulas* of Carlos III and Carlos IV. The latter from 1804 explicitly outlined restrictions on disturbing nests. It prescribed, moreover, what tools a hunter could use against specific species. Bird enthusiasts relied on the law to afford protection to insectivore species. Noble hunting and bird protection united in the *Ley de Caza de 10 de Enero de 1879* and the *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros*. The laws perpetuated the views embodied in their antecedents. The government had to restrain the lower-classes from hunting too much. Despite the logic of exclusion, the two laws coupled together protections for species about concerns about national economic growth, which included benefitting the lower-classes. One could no longer consider environmental protection legislation without contemplating the benefits for the nation, an

argument that Pidal would muster in support of his national park proposition in 1916.

As a result of the inchoate state of Spanish environmental history, an academic scholarship about Spain's bird protection legislation and its hunting laws is nonexistent. This chapter, therefore, engages directly with the *Ley de Caza de 10 de Enero de 1879*, the *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros*, the *Real Orden de 25 de Noviembre de 1896*, and the *Ley de Caza de 16 de Mayo de 1902*. Analyzed together these laws show that upper-class Spaniards combined the exclusivity of noble hunting with bird protections for the sake of agricultural production. This chapter also demonstrates that Spain played an active role in species protection in Europe. Spain initiated its bird protection laws through its own initiatives, rather than in imitation of its European neighbors. Spain passed its bird protection legislation a year before the *Wild Birds Protection Act* came into effect in Britain in 1880.³⁰⁷ It is hoped that the information and analysis presented below will be a foundation on which future scholars may examine the history of Spanish environmental protections and hunting laws in other time periods.

Spanish Hunting Laws and Bird Protection

In 1873 the *Administracion y Cobranza del Impuesto* issued a regulation for weapons and hunting licenses. The *Reglamento Provisional para La Administracion y Cobranza del Impuesto sobre cédulas de empadronamiento licencias de armas y de*

³⁰⁷ J.R.V. Marchant and Watkin Watkins, *Wild Bird Protection Act, 1880-1896* (London: R.H. Porter, 1897), 37.

caza published on January 23, 1873, focused more on the dispensation of hunting licenses than on the protection of any particular wildlife.³⁰⁸ The regulation of firearms in 1873 should prove no mystery. In 1872, Don Carlos de Borbón y Austria-Este, Carlos VII to his supporters, crossed the border from France into Spain to unleash what most historians have dubbed the Third Carlist War.³⁰⁹ This event followed in the wake of the Revolution of 1868. The army that finally achieved victory over the Carlists on February 27, 1876, had served at the behest of King Amadeo I, the Spanish First Republic, General Francisco Serrano, and King Alfonso XII.³¹⁰

With so much political upheaval, Spanish politicians had, to them, more pertinent concerns than game laws. The law, therefore, pragmatically issued firearms licenses on a sliding scale of one to five *pesetas* while excluding the majority of Spaniards from hunting with a fee of twenty *pesetas*.³¹¹ The state, furthermore, made it mandatory in the same law for Spaniards to acquire *cédulas de empadronamiento*, certificates of registration. In towns with a population more than 50,000 the registration amounted to four *pesetas*, three *pesetas* in towns with a population between 50,000 and 20,000, two in villages less than

³⁰⁸ *Reglamento Provisional para La Adminstracion y Cobranza del Impuesto sobre cédulas de empadronamiento licencias de armas y de caza* (Madrid: Imprenta Nacional, 1843).

³⁰⁹ Wayne H. Bowen and José E. Álvarez, *A Military History of Modern Spain: From the Napoleonic Era to the International War on Terror* (Westport, CT and London: Praeger Security International, 2007), 29. Some historians consider this the Second Carlist War referring to the war of 1846-49 as the “War of the ‘Early Risers’.”

³¹⁰ *Ibid.*

³¹¹ *Reglamento Provisional para La Adminstracion y Cobranza del Impuesto sobre cédulas de empadronamiento licencias de armas y de caza* (Madrid: Imprenta Nacional, 1843), 15.

20,000 but more than 5,000, and lastly one *peseta* elsewhere.³¹² The registration fees reflected the Spanish government's easing of financial burdens on agricultural laborers and manual workers. Heads of families who did not need to resort to manual labor, women and those older than fourteen years old who owned businesses, servants, and foreigners who had lived in Spain for more than a year were required to purchase a *cédula*. Nonetheless, the total cost for the firearm and the hunting license for a year stood at 25 *pesetas*. As late as 1895 carpenters, artisans, and masons earned two to four *pesetas* daily.³¹³ The government exempted members of the armed forces, inhabitants of agricultural colonies, those who operated public infrastructure, and tax collectors from acquiring firearms licenses, but maintained the hunting fee.³¹⁴ The five *peseta* per year fee made possession of a firearm affordable in a country that remained mostly agrarian at the end of the nineteenth-century. In 1877, 59.6 percent of all Spaniards worked in the agrarian sector.³¹⁵ The *Adminstration y Cobranza del Impuesto* sought to keep financial burdens on the poor at a minimum, but made certain that taking advantage of Spain's natural bounty in the form of game required an exorbitant license. The regulation did not remain in place for long.

On December 29, 1874, Martinez Campos, a general who seized power in the wake of the First Republic's collapse, pronounced the restoration of the monarchy in the person of Alfonso XII, who returned to Spain on January 9, 1875.³¹⁶ Under the machinations of

³¹² Ibid, 3.

³¹³ A. Barthe, *Le Salaire des ouvriers en Espagne* quoted in Raymond Carr, *Spain 1808-1975* (New York: Oxford University Press, 1982), 438 footnote 2.

³¹⁴ Ibid.

³¹⁵ Germán Rueda Hernanz, "Demografía y Sociedad," in *Historia de España Contemporánea* edited by Javier Paredes (Barcelona: Ariel, 2010), 471.

³¹⁶ Juan José Fernández Sanz, "La Restauración: El Reinado de Alfonso XII," in Ibid, 412 -413.

politicians such as Antonio Cánovas del Castillo, the Constitution of 1876 embodied the desire to maintain political stability embodied in the balance between the Conservatives and Liberals and amongst the monarchy and the Cortes. The Constitution of 1876 remained in place until the coup of Miguel Antonio Primo de Rivera in 1923.³¹⁷ With Spain's political equilibrium assured, the state turned to other matters such as the regulation of hunting. On January 10, 1879, Alfonso XII declared the *Ley de Caza de 10 de Enero de 1879*.³¹⁸ The Crown played an essential role in its promulgation as it would in the establishment of the national parks. Members of the Congreso de los Diputados authored the law, but they never debated it because the Alfonso XII made it legal through decree.³¹⁹ The law itself sought to achieve the preservation of species to maintain sufficient game populations. It also protected noble hunting rights through the imposition of steep fees and bird hunting restrictions. Penned by a commission that included Pedro José Pidal's father, Alejandro Pidal y Mon, the law coupled together Spain's tradition of noble hunting with aspirations to use species protection as a means to revitalize the country's financial success.³²⁰

The *Ley de Caza de 10 de Enero de 1879* contained eight sections including the "Classification of Animals," "The Right to Hunt," "Exercising the Right to Hunt," "On Hunting Doves," "On Hunting with Greyhounds," "On Hunting Big Game," "On Hunting Dangerous Animals," and "Penalties and Procedures." Article 17 was the most pertinent to animal

³¹⁷ Raymond Carr, *Spain 1808-1975* (New York: Oxford University Press, 1986) epub edition, 743.

³¹⁸ *Ley de Caza decretada en 10 de enero de 1879* (Madrid: En las principales librerías, 1879).

³¹⁹ The same is true for the *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros*.

³²⁰ Original draft of the *Ley de Caza decretada en 10 de Enero de 1879* (Archivo de los Congreso de los Diputados, May 26, 1877).

protection. It forbade hunting of any kind between March 1 and September 1 in the provinces of Álava, Avila, Burgos, Coruña, Guipuzcoa, Huesca, Leon, Logroño, Lugo, Madrid, Navarra, Orense, Oviedo, Palencia, Pontevedra, Salamanca, Santander, Segovia, Soria, Valladolid, Vizcaya, and Zamora. In addition, the state prohibited hunting in the rest of Spain, including the Canary Islands, from February 15 to August 15. The article also stated that geese and ducks could be hunted near lakes and wetlands until March 31. One could pursue pigeons, doves, and quail from August 1.³²¹ Through such regulations the state officially opened up hunting during the rutting season, but banned it while mothers cared for newborns. For example the Iberian Ibex did not rut until between November and December.³²²

The *Ley de Caza* of 1879 ensured that the aristocracy could continue to enjoy one of their favorite medieval institutions—the dog hunt, an activity that Carlos III and Carlos IV ensured remain a noble pastime a century earlier. Europeans enjoyed dog hunting as an expression of nobility. *Tuberville's Booke of Hunting*, released in 1576, established rules for Britons who wished to hunt with their canine companions; it observed that English hunters used dogs to take deer, foxes, hares, “or other vermin.”³²³ Whereas contemporary Britons in the nineteenth-century and twentieth-century enjoyed fox-hunting with their hounds, Spaniards preferred their *galgos*, a variety of Spanish greyhound. The law prohibited hunting with greyhounds between March 1 and October 15 in arable lands and vineyards,

³²¹ *Ibid*, 6.

³²² Sarasa M. Serrano, et. al, “Effects of season, age, and body condition on allocation to testes mass in Iberian Ibex.” *Journal of Zoology* 281 no. 2 (June, 2010): 125-131.

³²³ George Turberville, *Turberville's Booke of Hunting 1576* (London, et al: Henry Frowde Publisher to the University of Oxford, 1908), 246.

from sprouting until the grape harvest; indicating that the hunters could presumably hunt freely on farmers' land. The accompanying article stated that in addition to the initial 25 *peseta* hunting license, those who wished to hunt with their greyhounds had to obtain a special license from the provincial governor. The license allowed the holder to hunt with five other people and ten dogs and was valid for one year.³²⁴ As mentioned before the license fee itself proved expensive. Combined with the need to obtain permission from a high-ranking government official, the cost of maintaining a retinue of hunting dogs meant that hunting with greyhounds disenfranchised all but the wealthy and noble. Albeit, many nobles did not want to retain a retinue of greyhounds in the offseason. To the present day, hunters continue to hang and starve greyhounds once they are no longer useful or if they cannot hunt as well as expected.³²⁵ Spain's first modern conservation legislation buttressed the social and economic divide between Spain's classes. Not only did the nobility not have to toil in occupations that demanded manual labor, they made certain that the *vulgo*, common people, could not impinge on their parody of work.

The *Ley de Caza* of 1879 did not simply ostracize the *vulgo*; it made a genuine attempt to preserve and conserve bird species, albeit for Spain's economic prosperity. Articles Seventeen, Nineteen, Twenty, and Twenty-five of Section Three pertained directly to avian life. Section Seventeen limited hunting pigeons, turtledoves, and quail from August 1 on land during the harvest season.³²⁶ Those three species had a reputation for eating

³²⁴ *Ley de Caza 1879*, 9-10.

³²⁵ Janna Dotschkal, "Restoring Dignity to Spain's Mistreated Hunting Dogs," accessed April 3, 2016, <http://proof.nationalgeographic.com/2015/08/21/restoring-dignity-to-spains-mistreated-hunting-dogs/>

³²⁶ *Ley de Caza 1879*, 6.

crops and seeds. They could be hunted, therefore, when they posed a direct threat to crops. Otherwise, the law prohibited killing them. Article Seventeen also declared that “Insectivore birds, who will be determined in a special proclamation, cannot be hunted at any time due to the benefits they produce for agriculture.”³²⁷ Article Nineteen forbade hunting partridges with calls. The following article prohibited the use of ferrets, bows, perches, nets, and birdlime when hunting. Article Seventeen set the precedent for outright banning the exploitation of species. The *Ley de Caza* without a doubt marginalized the masses from hunting due to its high license fees and the concomitant cost associated with greyhound hunting. Regardless, the law still conserved species by allowing them time to breed through the establishment of an off-season. The two most glaring oversights in the law itself were issues of opacity. The regulation allowed for the unrestricted hunting of “harmful” species in Section Seven, but never explicitly listed which animals this category included. Conceivably a farmer’s harmful species could differ significantly from what a noble regarded as a dangerous species.

In 1887, the naturalist, doctor, and battalion artillery medic, Manuel Baraja, lambasted farmers for their ignorance regarding the benefits of birds. In *Aves insectivores y sus beneficios a la agricultura*, he wrote, “in general man is resigned to view only immediate dangers, hoping to receive indirect benefits in the long-term.”³²⁸ He continued, “the farmer, especially, is doubtful, sometimes ignorant, and is suspicious and mistrustful.”³²⁹ With these observations in mind, Baraja explained that farmers could not distinguish the

³²⁷ Ibid, 6-7.

³²⁸ Manuel Baraja, *Aves insectivores y sus beneficios a la agricultura* (Imprenta de El Eco de Orense, 1887), 86.

³²⁹ Ibid.

benefits of insectivore birds since they hunted insects among fruits and seeds, which they also consumed. His argument rested on the fact that the effects of the former outweighed the latter.³³⁰ Baraja struck at the discordant chord between agriculturalists and bird protectionists. The former viewed birds as pests. The latter used scientific data to argue that birds' utility outweighed their deleterious collateral damage. Baraja himself cited the devastation that bumblebees wrought on Prussian crops after the Prussians wiped out birds whom they believed damaged crops.³³¹ Article Seventeen did not help matters. It never stated which species the government considered insectivores. Seventeen years later the state rectified the oversight.

In 1896 two laws clarified exactly which species should have been protected since 1879, the *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros* and the *Catálogo científico y sinomimico vulgar de las aves cuya caza debe prohibirse en todo tiempo y de las que solo pueden cazarse desde 1° de Septiembre á fin de Enero* from the *Real Orden de 25 de Noviembre de 1896*.³³² The *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros* outlined the species that could be hunted with impunity, the comportment that one should have towards birds, restrictions on the movement of live and dead birds, and punishments for breaking the regulation. The *Real Orden de 25 de Noviembre de 1896* supplemented the *Ley de 19 de Septiembre* with a detailed catalog of specific species.

³³⁰ Ibid.

³³¹ Ibid, 88.

³³² *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros* and *Catálogo científico y sinomimico vulgar de las aves cuya caza debe prohibirse en todo tiempo y de las que solo pueden cazarse desde 1° de Septiembre á fin de Enero* from the *Real Orden de 25 de Noviembre de 1896* in *Complementos al Código Civil Española Compilados y Anotados por la Redacción de la Revista de Legislación Universa y Jurisprudencia Española* (Madrid: Librerías de Suárez, San Martín y Fé, 1902).

The *Ley de 19 de Septiembre de 1896* demonstrated that the Spanish government evaluated insectivore species purely in terms of economic value. Article One allowed people to hunt diurnal birds of prey without the limitations dictated in Article Seventeen of the *Ley de Caza de 10 de Enero de 1879*.³³³ The paragraph specified that people could hunt kites, falcons, eagles, and bearded vultures. The logic behind such exemptions can be seen in the other exceptions, namely magpies and cuckoos. Birds that posed a direct threat to the well-being of insectivore birds could be hunted without prohibition even if they did not injure them as food. The cuckoo became fair game. The cuckoo survived at the expense of other species through its survival habit of allowing other species to rear its young, to the detriment of other species' babies. The law imposed the restrictions set in Article Seventeen of the *Ley de Caza de 1879* on nocturnal birds of prey, thrushes, and smaller birds deemed insectivores. As the majority of insectivore species were diurnal, no need existed to wipe out nocturnal birds of prey that feasted on rodents who threatened agriculture. The code also undertook to advance public education about the birds.

Article Two stipulated that city councils and schools must hang up signs that promoted the awareness of the law and the merits of birds. The article stated that in city councils the sign must to read, "Good-hearted men ought to protect the lives of birds and favor their propagation. Protecting them, workers will observe how bad plants and insects diminish on their lands. The law prohibits the hunting of birds and sets punishments for infractions."³³⁴ In school entrances a banner targeted the young. "Children," it commanded, "don't deprive the birds of freedom; don't torment them and don't destroy their nests. God

³³³ Ibid, 65.

³³⁴ Ibid.

rewards children who protect birds, and the law forbids hunting them, destroying their nests, and undermining their breeding.”³³⁵ Article Two demanded that Spaniards obey the law. Nonetheless, it attempted to appeal to their sense of morality and good character first, before reminding them that the government punished those who broke it.

For those who did act against the *Ley de Septiembre de 1896*, punishment ranged from small fines to court hearings. A first infraction drew a penalty fine between two and five pesetas; the second between five and ten; the third between ten and twenty; upon a fourth infraction the accused would stand before a court or mayor of the town.³³⁶ The state held parents accountable for minors under the age of eighteen if they acted contrary to the law and the state held a thirty-day statute of limitations.³³⁷

Article Seventeen of the *Ley de Caza de 1879* stated that insectivore birds would be listed in a forthcoming regulation. It finally arrived in the form of the *Real Orden de 25 de Noviembre de 1896*, almost eighteen years after the initial proclamation. The *Real Orden de 25 de Noviembre* classified insectivores that could never be hunted and those that could be hunted from September 1 until the end of January. The first category listed nearly fifty species ranging from nightingales to blackbirds and even included a species of falcon and eagle.³³⁸ The second list consisted of six categories with many fewer species than the first.³³⁹ In order to avoid any confusion, the *Real Orden* listed each species with its Latin

³³⁵ Ibid.

³³⁶ *Ley de 19 de Septiembre de 1896*, 66.

³³⁷ Ibid, 67.

³³⁸ *Catálogo científico y sinomimico vulgar de las aves cuya caza debe prohibirse en todo tiempo y de las que solo pueden cazarse desde 1º de Septiembre á fin de Enero* from the *Real Orden de 25 de Noviembre de 1896* in *Complementos al Código Civil Española*, 67-70.

³³⁹ Ibid, 70-71.

name in addition to its regional vulgar ones. In this manner, Spain had pioneered bird protection in Europe. In comparison, Great Britain had passed the *Wild Birds Protection Act* in 1880.³⁴⁰ Like Spain's *Ley de Caza de 1879*, it offered bird protection without naming species. The British rectified the oversight the same year as Spain with the *Wild Birds Protection Act* of 1896.³⁴¹ The British act named eighty-six species, many of which were simply the same birds under different names.³⁴² The Spanish law avoided this confusion when it cited the Latin name and the vulgar names for a species all under one entry.³⁴³ Moreover the *Real Orden de 25 de Noviembre de 1896* named nearly 120 individual species.³⁴⁴

The list itself, thanks to the painstaking research of one historian, can be attributed primarily to Mariano de la Paz Graells, one of Spain's foremost nineteenth-century naturalists.³⁴⁵ Graells helped establish the Spanish Society of Natural History in 1871.³⁴⁶ Born in 1809, he authored directories of plants and mollusks, and avidly encouraged regional studies and publication of species catalogs in the Society's publication, the *Anales de la Sociedad Española de Historia Natural*.³⁴⁷ His contributions to the *Real Orden* proved

³⁴⁰ Marchant and Watkins, 37.

³⁴¹ Ibid, 55-56.

³⁴² Marchant and Walkins, 56.

³⁴³ *Catálogo científico y sinomimico vulgar de las aves cuya caza debe prohibirse en todo tiempo y de las que solo pueden cazarse desde 1º de Septiembre á fin de Enero* from the *Real Orden de 25 de Noviembre de 1896* in *Complementos al Código Civil Española*, 67-70.

³⁴⁴ Ibid, 67-71.

³⁴⁵ J.J. Ferrero-García, "El primer catálogo español de especies protegidas (1896): análisis de su contenido y autoría de Graells," *Graelsia* 67 no.1 (January-June 2011): 103.

³⁴⁶ Santos Casado de Otaola, *Naturaleza patria: Ciencia y sentimiento de la naturaleza en la España del regeneracionismo* (Madrid, Marcial Pons, 2010). 77

³⁴⁷ Ibid, 73-78.

among his last. He died within three years of its pronouncement.³⁴⁸ As examined in a previous chapter, Spain had a rich, local ornithological tradition. The proliferation of local knowledge allowed Spaniards to identify individual species clearly.

The Spanish government had not sent any officials to the First Ornithological Congress in Vienna in 1884.³⁴⁹ At the Second International Ornithological Congress in 1891, according to Otto Herman, one Englishman's report deemed that Spain offered little protection to birds.³⁵⁰ In a single breath, he deemed protections in Italy, Spain, and France insufficient, citing the fact that in the last nation's case "every bird could be treated as game."³⁵¹ It seemed as though the speaker condemned any protections that were not total or perhaps he was simply ignorant. The Third International Ornithological Conference held in Paris in 1900 proposed an international treaty to be drafted by 1902. It sought to implement protections for insectivore birds. Nations, however, found the *International Treaty on Bird Protection* much too invasive, as they nearly always do, and it never materialized into an international framework for bird protection.³⁵² Spain did not attend the first conference and had been berated at the second. Spain, nonetheless, ratified the *International Treaty on Bird Protection* on November 10, 1902. The ratification did not signal Spain's ascension into bird protection. The *Ley de Caza de 10 de Enero de 1879*, the *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros*, and the *Real Orden de 25 de*

³⁴⁸ Ibid, 73.

³⁴⁹ Otto Herman, *The International Convention for the Protection of Birds Concluded in 1902; and Hungary* (Budapest: Victor Hornyánszky, Court Printer, 1907), 60.

³⁵⁰ Ibid, 78.

³⁵¹ Ibid.

³⁵² Robert Boardman, *The International Politics of Bird Conservation: Biodiversity, Regionalism and Global Convergence* (Northampton, MA: Edward Elgar Publishing Limited, 2006), 39.

Noviembre de 1896 had set the tone and laws in place. The *International Convention for the Protection of Birds* added very little to Spain's already existent bird protection laws. Spain, indeed, had already passed a new hunting law on May 16, 1902 that again addressed bird protection.³⁵³

Spain tackled concerns about the security of insectivore avifauna much before the international community resolved to draft an international treaty to the same effect. Nevertheless, the efficacy of laws and Royal Orders in and of themselves proved lackluster at best. After the turn of the twentieth-century, Spanish bird advocates looked for more enforcement of the regulations and continued to instruct their countrymen about the commercial advantages of bird protection.

The *Ley de Caza de 16 de Mayo de 1902* coincided with the ascension of Alfonso XIII the following day.³⁵⁴ For the most part, the new law built on the then prevailing *Ley de Caza de 1879* and made revisions to its content. For example, lawmakers rewrote Article Eight so that it debarred minors less than fifteen years of age from hunting.³⁵⁵ Article Seventeen reflected the changes made to Spain's protection laws from 1879 and specifically cited the *Ley de 19 de Septiembre* and the *Real Orden de 25 de Noviembre*.³⁵⁶ The most significant changes to the *Ley de Caza* reflected questions of enforcement. Unlike the 1879 law, the edict of 1902 specifically charged the Guardia Civil with the task of executing its

³⁵³ *Ley de Caza de 16 de Mayo de 1902* (Madrid: Imprenta de Ricardo Rojas, 1902).

³⁵⁴ *Ibid*, 440.

³⁵⁵ *Ley de Caza de 16 de Mayo de 1902*, 9.

³⁵⁶ *Ibid*, 18.

implementation and a special edition with commentary focused specifically on training members of the Guardia Civil.³⁵⁷

The preamble recognized the need to instruct the Guardia's ranks about the law's content so as to enforce it; ostensibly, previous protection and conservation legislation could not be implemented adequately due to its nebulousness and the "general predisposition (of the people) to get around the law."³⁵⁸ In response to the masses' penchant to evade the *Ley de Caza*, the new statute imposed stiffer penalties. Article Nineteen still prohibited partridge hunting with a call with the exceptions outlined in the law. However, the law itself imposed greater fines and instructed how the Guardia Civil had to handle a violation. The law instructed officers to confiscate the call and impose a fine of twenty-five *pesetas* for first infractions, fifty for the second, and seventy-five for subsequent ones.³⁵⁹ Section Five, "On Hunting with Greyhounds," also underwent modification. Whereas the old law stipulated a twenty-five *peseta* license for six people and ten greyhounds, the updated version stated that the license "will be used to take one dog or hound and will cost ten *pesetas*."³⁶⁰

The revised *Ley de Caza* made more explicit the species protected from hunting. However, it also pragmatically reflected on the issues facing Spaniards who wanted species conservation and protection. *The Ley de Caza de 16 de Mayo de 1902* echoed the fact that conservation and protection failed in the face of the practical needs of the masses who needed to hunt for their livelihoods. Therefore, the new law attempted to protect more

³⁵⁷ This is the edition cited here.

³⁵⁸ *Ibid*, 5.

³⁵⁹ *Ley de Caza de 16 de Mayo de 1902*, 18-19.

³⁶⁰ *Ibid*, 29.

species, stiffen penalties, and marginalize more people from hunting. Section five lowered the price for a license to hunt with a greyhound, while also limiting the efficacy of hunting with one through the reduction of hunting parties' sizes. However, hunting licenses themselves became even more expensive. *The Ley de Caza de 1902* introduced into the hunting law the content of the *Ley de Timbre de 26 de Marzo de 1900*, which created several classes of hunting licenses based on the size of the game.³⁶¹ A permit for first class game cost forty *pesetas*, second and third for thirty *pesetas*, fourth and fifth twenty *pesetas* and anything smaller than class five had a fee of fifteen *pesetas*.³⁶² Despite the implementation of the new codes and efforts towards greater enforcement, it fell short. Less than two months after the law's promulgation *the Real Orden circulate de 1.º Julio de 1902, para la ejecución de la precedente Ley de Caza* closed loopholes in the *Ley de Caza de 1902* and reiterated strict punishments for violators.³⁶³ The Royal Order's fourth point banned the circulation and sale of game during the hunting season and prohibited the export of live and dead game from Spain for six years.³⁶⁴ Despite the amount of ink and vigor that went into creating the hunting laws the Spanish judiciary had trouble administering it and others decried the state's lackluster enforcement.

Enforcement Woes

Application of the laws proved ineffective due to low literacy rates and the laws' inability to be applied to reality. It is hard to envision successful attempts at educating

³⁶¹ *Ibid*, 11.

³⁶² *Ibid*.

³⁶³ *Legislación de caza, pesca fluvial, y uso de armas por la redacción de la revista de los tribulanes* (Madrid: Centro Editorial de Góngora, 1907), 101.

³⁶⁴ *Ibid*, 102.

Spaniards as to the merits of birds through signage at city halls could be effective if as late as 1877 over seventy-five percent of Spaniards could not write.³⁶⁵ Some at least simply ignored the laws as witnessed in Abel and Chapman, who upon encountering a peasant in the Coto de Doñana, described him as “half peasant, half poacher.”³⁶⁶ Alternatively, most Spaniards simply did not understand the laws.

In the work *Sentencias dictadas por el Tribunal Supremo de Justicia* the unknown author wrote that a “lack of clarity on occasion and the contradiction of some of the articles with others in the hunting law... it must be said, produce confusion.”³⁶⁷ In the subsequent pages, the author recounted case after case, between 1902 and 1913, wherein judicial officials absolved those accused of breaking the law based on either confusion stemming from the law or the inability to determine the law’s applicability. In a case from Trujillo on April 17, 1903, a judge cleared a group of hunters of breaking Articles Forty-seven, Forty-eight, and Forty-nine because the land on which they hunted had nothing posted to indicate who owned the property.³⁶⁸ In another case from June 30, 1903 the court pardoned a landowner for hunting on his own property. The man was unaware that he needed a license to hunt quail on his land, despite the fact that the law also claimed that estate holders could hunt at will on their own properties.³⁶⁹ Moreover, the court pardoned the

³⁶⁵ Hernanz in *Historia Contemporánea*, 467.

³⁶⁶ Abel and Chapman, *Wild Spain*, 174.

³⁶⁷ Asociación General de Cazadores y Pescadores de España, *Sentencias dictadas por el Tribunal Supremo de Justicia en material de caza* (Madrid : Imprenta de Jaime Ratés, 1913), 5.

³⁶⁸ *Ibid*, 8-9.

³⁶⁹ *Ibid*, 12-13.

accused due to the fact that he did not employ a firearm, notwithstanding the fact he killed insectivore species.³⁷⁰

Judges did not have as much trouble when the law was clear. In a case sentenced on February 28, 1903, a judge charged an entourage of hunters for hunting with greyhounds outside of the law's appointed timeframe.³⁷¹ However, when a shadow of doubt existed the court veered on the side of caution. In 1907, authorities apprehended a man named Simón García when a Lorenzo García denounced him for trying to clear away fifty rabbit carcasses from a train station the day before the hunting season began.³⁷² Originally, a judge sentenced the defendant to pay a 1,250 *peseta* fine. However, the Tribunal Supremo absolved him of wrongdoing stating that he had no illicit or profit driven motives for his crime; plus, he had little recourse but to act the way he did due to factors outside of his control.³⁷³

The laws demonstrated and established legal precedents for environmental protections and cemented the causes of noble hunters and bird enthusiasts. In reality, Spaniards continued to exploit Spain's natural bounty in a way that coincided with their understandings of nature. They hunted and sold animals for their incomes or simply for the calories. Still, the nobility tried to halt what they believed to be a poor use of Spain's natural assets.

Conclusion

³⁷⁰ Ibid, 13.

³⁷¹ Ibid, 5.

³⁷² Ibid, 123-127.

³⁷³ Ibid, 126.

The *Ley de Caza de 10 de Enero de 1879*, the *Ley de 19 de Septiembre de 1896 sobre Protección a los pájaros*, the *Real Orden de 25 de Noviembre de 1896*, the *Ley de Caza de 16 de Mayo de 1902*, and the *Real Orden de 1 de Julio de 1902* demonstrated that several Spanish governments dedicated themselves to the conservation and protection of species deemed useful. The hunting laws conserved game species through the imposition of a hunting season in addition to fees that marginalized the majority of Spaniards from exploiting Spain's wild animal resources. The laws and royal orders served a seemingly contradictory but interrelated purpose—to preserve vestiges of the nobility's love affair with noble hunting as a leisurely pageant for martial and masculine strength, while securing the nation's future, hoping that the protection of insectivore species would bolster Spain's agrarian fortunes in an economy in which most Spaniards worked in the fields. The hunting and preservation laws married these two causes together. Both camps united in the attempt to make certain that the *vulgo* could not harm or overexploit their species of choice.

The reality proved more opaque. Regardless of the legislation and attempts to strengthen it, as was the case in the proclamation from 1902, Abel and Chapman's "half poacher" remained alive and well. For the next eighteen years, Spanish ornithologists attempted to continue their educational efforts about the need to protect insectivore species as they decried what they perceived to be the perennial problem of insufficient enforcement of the protection laws. In 1911, Antonio Garcia Maceria reiterated that birds

were allies against insects.³⁷⁴ The same year Carlos S. Reed presented his *Las Aves Silvestres*, wherein he reminded his audience that Spain's economy relied on agriculture and no entity except birds could stop insect destruction.³⁷⁵ Two years later, the Instituto Agrícola Catalán de San Isidro (IACSI) released *La Protección a los Pájaros útiles a la Agricultura*.³⁷⁶

Founded in 1851, as another scholar relates, economists and scientists made up the membership of the IACSI. They believed that expanding agriculture and protecting the rights of agriculturalists would mitigate social tension.³⁷⁷ In *La Protección a los Pájaros útiles a la Agricultura* they lauded the benefits of species such as buzzards and their help maintaining hygiene by consuming carrion.³⁷⁸ They also called for greater implementation of the *International Convention for the Protection of Birds* and the *Ley de 19 de Septiembre*.³⁷⁹ They encouraged more private initiative noting that no schools or town councils had put up signs as per Article Two of the *Ley de 19 de Septiembre*.³⁸⁰ As they called for the complete prohibition on hunting insectivore birds, they also lamented the damage done to agriculture as a result of the Guardia Civil's incompetence in preventing

³⁷⁴ Antonio Garcia Maceria, *Utilidad de las Aves Insectívoras* (Madrid: Imprenta de Ricardo Rojas, 1911), 6.

³⁷⁵ Carlos S. Reed, *Las Aves Silvestres* (Mendoza: Establecimiento Grafico de la Escuela Alberdi, 1911), 5-9.

³⁷⁶ Instituto Agrícola Catalán de San Isidro, *La Protección a los Pájaros útiles a la Agricultura* (Barcelona: Imprenta F. Altes, 1913).

³⁷⁷ Jordi Planas, "El Instituto Agrícola Catalán de San Isidro y la organización de los intereses agrarios (1880-1936)," *Revista Española de Estudios Agrosociales y Pesqueros* no. 217 (2008): 13-15.

³⁷⁸ *Ibid*, 4-5.

³⁷⁹ *Ibid*, 18-19.

³⁸⁰ *Ibid*, 19.

the use of nets, bows, and perches.³⁸¹ In 1920, two years after the establishment of Spain's first national park, Ricardo Cordornía y Stárigo continued the fight for bird protection in his work *Charlas Sobre Aves*.³⁸² He called upon the "good citizen" to intervene and reestablish "the rule of law."³⁸³

This chapter shows that the state had passed the laws, but their implementation and enforcement proved problematic. Nevertheless, the laws and royal orders demonstrated that an ethos of conservation and protection existed in Spain, and not simply as a result of aping the Great Powers, but rather as a response to Spain's own woes. In the face of political revolutions, *pronunciamentos*, liberalism, republicanism, regional nationalisms, and anarchism, the pursuit of game, especially in the greyhound hunt, represented a link to Spain's medieval past. As some well-to-do Spaniards looked to Spain's past, others worried about its future. Those who called for bird protection tried to realize Spain's economic regeneration through agriculture; simultaneously, their Catholic heritage bled through as the law sought to remind children that God wanted them to protect birds. Hunting and bird protectionists did not engender the initial impetus to create national parks. Nevertheless, they created a precedent in which species needed security for utilitarian and spiritual reasons. The state favored the former. Armed with an empirical awareness of nature and the manufactured knowledge to believe that man could intercede in it, bird enthusiasts made common cause with noble hunters in their opinion that the common people failed to use animals in the best way possible.

³⁸¹ Ibid, 21, 24.

³⁸² Ricardo Cordornía y Stárigo, *Charlas Sobre Aves* (Murcia: Sucesores de Nogues, 1920).

³⁸³ Ibid, 24.

At the end of the nineteenth-century Spaniards panicked in the face of their overwhelming defeat in the Spanish-American War. This environmental consciousness that amalgamated the noble leisure with both the spiritual and the utilitarian found a new articulation in the mind and works of Pedro José Pidal. The man who enjoyed the bear hunt and protected the king's chamois responded to his country's ills. Son of the man who helped formulate the *Ley de Caza de 10 de Enero 1879*, he argued that Spaniards must connect with their history and their spirit by testing themselves in the Picos de Europa. The two strands of Spain's environmental consciousness took a new form in Pidal. He built on the legacy of Spain's environmental protections and expanded them to include landscapes. It was in Pidal and the creation of the Parque Nacional de la Montaña de Covadonga that economic utility finally yielded to protecting nature for the people's sake.

Chapter Six The Reconquista of Nature

Pedro José Pidal and the Establishment of Spain's First National Park 1903-1918

On February 10, 1915, Pedro José Pidal introduced a proposition to the Council of Ministers demanding that Covadonga and the surrounding mountains in the Picos de Europa be protected as a national park.³⁸⁴ On December 8, 1916, King Alfonso XIII proclaimed, "National Parks will be created in Spain."³⁸⁵ Two years later, Spain celebrated the inauguration of its first national park, the Parque Nacional de la Montaña de Covadonga. The park's establishment in 1918 represented a culmination Spanish environmental consciousness over the course of five centuries. Manifested in the person of Pidal, the park embodied the long-term development of Spain's environmental protections by way of the naturalistic knowledge produced from the fifteenth-century through the eighteenth-century mobilized by the economic and political anxieties of the nineteenth-century and twentieth-century. The Parque Nacional de la Montaña de Covadonga, therefore, developed as Pidal's response to Spain's perceived degeneration in the late nineteenth-century, especially in the wake of the Spanish-American War. Pidal chose the site due to his love of alpinism and his belief that the Picos de Europa physically symbolized the Spanish nation, for it was there, he argued, that the Spanish initiated the Reconquista against the Moors, or Muslims, among the perilous peaks of Covadonga.

³⁸⁴ Joaquín Fernández, *Pedro Pidal, Marqués de Villaviciosa en el reino de los rebechos* (Oviedo: Ediciones Nobel, S.A., 2004), 226.

³⁸⁵ King Alfonso XIII, "La Ley de parques nacionales," *Gaceta de Madrid* 848 (Décembre 8, 1916): 575.

Scholars have studied the role of Covadonga in Spain's collective memory, and the role regionalism, Regenerationism, and Romanticism played in establishing Spain's environmental protection. They have proven extremely useful in understanding various facets of the relationship between these currents mentioned above and the establishment of the park itself. One scholar outlined how Covadonga embodied Asturian regionalism and the desire to make it a place of national symbology composed of sacred sites in the late nineteenth-century under the aegis of King Alfonso XII and Alejandro Pidal y Mon, Pedro Pidal's father.³⁸⁶ Asturians projected their regional identity on Covadonga as the "Cradle of the Reconquista." Unlike twentieth-century Catalan or Basque Nationalism, Asturian regionalists did not seek self-determination.³⁸⁷ Asturian regionalism helps challenge the preponderant scholarly belief that regionalism in Spain automatically blossomed into separatism.³⁸⁸ Instead, Asturian, Extremaduran, and Aragonese regionalists claimed that they could regenerate the Spanish nation as a whole. In other words, Asturian regionalists viewed their movement as an "affirmation of the Spanish nation, rather than an alternative to it."³⁸⁹ Regionalism became integral to Asturians' and Pidal's desires to commemorate Covadonga and its adjacent mountains as a *lieu de mémoire*, or a place of memory.³⁹⁰

³⁸⁶ Carolyn Boyd, "The Second Battle of Covadonga: The Politics of Commemoration in Modern Spain" *History and Memory* 14. no. 1-2 (Spring-Winter 2002): 46-48.

³⁸⁷ Benedict Anderson, *Imagined Communities: Reflection on the Origin and Spread of Nationalism Revised Edition* (London and New York: Verso, 2006); Carolyn Boyd, "Covadonga y el regionalismo asturiano," *Ayer* no. 64 (2006): 152.

³⁸⁸ Xosé-Manoel Núñez, "The Region as *Essence* of the Fatherland: Regionalist Variants of Spanish Nationalism (1840-1936), *European History Quarterly* 31 no.4 (2001):

³⁸⁹ *Ibid*: 494.

³⁹⁰ Pierre Nora, "Between Memory and History: Les Lieux de Mémoire," *Representations* no. 26 (Spring 1989): 7-24.

Romanticism played a fundamental role in the choice to preserve the picturesque landscape at the Picos de Europa, in which Covadonga resided.

Romanticism fundamentally informed Spaniards', specifically Pidal's and his alpinist cohorts', preference for mountain landscapes over swamps and other types of terrain.³⁹¹ The proliferation of Romanticism in Western Europe and the United States shaped the ways modern conservationists have conceived of the landscape. Aesthetics galvanized feelings of awe, reverence, and admiration, while simultaneously engendering in the observer a sense of belonging manifested in the form of nationalism, transcendence, and religious communion projected onto nature.³⁹² Krausist thinkers, such as Francisco Giner de los Ríos, conveyed an aesthetic interpretation of nature through their admiration of landscape paintings from Spanish artists, particularly El Greco and Diego Velázquez.³⁹³ Spanish artists and authors projected Romantic aesthetics on the Spanish landscape. The same sentiments permeated Spain's environmental consciousness, and consequently its legislation.³⁹⁴ The prominence of Romanticism in Spanish environmental thinking was not lost on other scholars.

³⁹¹ The Castilian *llano*, or plains, also held their esteem.

³⁹² Santos Casado y Otaola, "The Reenchantment of Nature: Spiritual Values and the History of Protected Areas: The Spanish Experience," in *Protected Areas and Spirituality* edited by Josep-Maria Mallarach and Thymio Papayannis (World Conservation Union, 2007), 60.

³⁹³ Santos Casado y Otaola, *Naturaleza Patria: Ciencia y sentimiento de la naturaleza en la España del regeneracionismo* (Madrid: Marcial Pons Historia, 2010), 135-143.

³⁹⁴ Pedro Pidal y Bernaldo de Quirós, *Parques Nacionales: Proposición de ley y discursos provincianos en el Senado por los Sres. Marqués de Villaviciosa de Asturias y Covadonga de Romanones el 14 de junio de 1916* (Madrid: Ramona Velasco, 1916).

Romantic ideas fundamentally informed Spain's modern environmental policies as both a rejection of a mechanistic conception of nature and an "affirmation of life."³⁹⁵ Moreover, Romantics conceived of nature as an organic living totality to which humans belonged.³⁹⁶ Keeping in mind the contributions authors such as Goethe and Humboldt made in idealizing mountain landscapes, the influence of Romantics as varied as travelers and scientists directly influenced Pidal's arguments to establish Spain's first national parks in the hills.³⁹⁷ Historians have examined how The Battle of Covadonga and the cathedral built to commemorate the victory against the Moors provided a physical point on which to project a *lieu de mémoire*. They have articulated how European Romanticism shaped the cultural background in which Spaniards glorified the mountains. Lastly, scholars have also asserted that Spanish Regenerationism, a movement that originated in the late nineteenth-century, provided motivation for attempts at physically and spiritually strengthening Spaniards.³⁹⁸

In the wake of the Disaster of 1898, in which Spain lost all of its colonies outside of Africa, Spanish politicians, scientists, and military leaders demanded that the Spanish race

³⁹⁵ Josefina Gómez Mendoza, "The Persistence of Romantic Ideas and the Origins of Natural Park Policy in Spain," *Finisterra* 33 no.65 (1998): 54.

³⁹⁶ *Ibid.*

³⁹⁷ *Ibid.*, 23.

³⁹⁸ Casado de Otaola, 319-329; Santos Juliá, *Historia de las dos Españas* (Madrid: Taurus Historia, 2004); José Álvarez Junco, *Mater Dolorosa: La idea de España en el siglo XIX* (Madrid: Taurus Historia, 2001), 284-296; Joshua Goode, *Impurity of Blood: Defining Race in Spain, 1870-1930* (Baton Rouge: Louisiana State University Press, 2009), 76-96; Jesús Villanueva, *Leyenda negra: una polémica nacionalista en la España del Siglo XX* (Madrid: Los Libros de La Catarata, 2011); Juan Esteve de Sagrera, "La crisis de los modelos de ejercicio profesional farmacéutico en la España de cambio siglo," in *1898: Sanidad y ciencia en España y Latinoamérica durante el cambio de siglo*, edited by Francisco Javier Puerto Sarmiento, María Esther Alegre Pérez y Mar Rey Bueno (Madrid: Doce Calles, 1999).

undergo regeneration. They concluded that defeat at the hands of the Americans emerged from physical weakness rather than more obvious explanations such as poor military planning, punitive colonial policies, and antiquated technologies.³⁹⁹ Two different strains arose. One concerned itself with biological purity in the race and scientific investigations to diagnose its ills. The other advocated physical sport to develop individual fortitude. Spanish eugenicists and military leaders tried to concoct a better racial mix and prevent Spanish racial degeneration.⁴⁰⁰ Regenerationism developed in the context of Spain's colonial experience and the creation of racial discourse during the occupation of Morocco.⁴⁰¹ Political and military leaders also explored how they could reinvigorate Spaniards through physical activity.⁴⁰² Sports associations proliferated in the 1880s. Spanish leaders viewed sports not only as a means to instill nationalist and patriotic sentiments in the population but also as a way to temper class tensions and keep workers in line.⁴⁰³ All of these approaches illuminated the origins of Spain's environmental policies in the early twentieth-century, yet they also complicated the task of finding a concise definition for Regenerationism.

³⁹⁹ Sebastian Balfour, *The End of the Spanish Empire 1898-1923* (Oxford: Clarendon Press, Oxford University Press, 1997).

⁴⁰⁰ Joshua Goode, "Corrupting the Good Mix: Race and Crime in Late Nineteenth- and Early Twentieth-century Spain," *European History Quarterly* 35 no.2 (2005): 241-265; Joshua Goode, *Impurity of Blood: Defining Race in Spain, 1870-1930* (Baton Rouge: Louisiana State University, 2009).

⁴⁰¹ Francisco Javier Martínez Antonio, "Regeneracionismo, sanidad y discurso racial: Felipe Ovilo Canales y la confluencia entre España y Marruecos a finales del siglo XIX," *Dynamis* 29 (2009): 73-96.

⁴⁰² Xavier Torredadella Flix, "Regeneracionismo e impacto de la crisis de 1898 en la educación física y el deporte español," *Arbor* 190 no. 769 (2014).

⁴⁰³ *Ibid.*, 10-11.

Precisely defining Regenerationism remains a point of scholarly debate. The main point of contention rested in the categorization of writers as polemicists who appealed to spiritual or cultural rebirth of Spain, while others presented positivist arguments for the improvement of their nation's politics, economy, and society. Some historians considered men like Joaquin Costa and Lucas Mallada Regenerationists because they approached Spain's ills with a positivist ethos demanding economic, political, and social reforms that would put Spain on par with other Western European powers.⁴⁰⁴ Other scholars also considered the Generation of '98 a cultural movement because they had little interest in physical sport or sports education.⁴⁰⁵ They viewed the Generation of '98 an intellectual movement characterized by their literary, artistic, and subjective nature in contradistinction to Regenerationists who expressed their pessimism in an objective, documentary manner. Pidal was also a Regenerationist, but he pinpointed a historical genesis for Spain at the site of Covadonga during the initiation of the Reconquista. Pidal did not neatly fall into any of the above criteria for a Regenerationist. It is more accurate to understand Regenerationism as a broad term to denote a continuation of Spanish intellectual fears about Spanish decadence expressed in a variety of political, social, and economic forms in the late nineteenth-century and early twentieth-century, more immediately and urgently after 1898.

The importance of Pedro José Pidal is understated in scholarly literature. What does exist on him ignored the historical formation of Spanish environmental consciousness

⁴⁰⁴ Steven L. Driever, "'And since heaven has filled Spain with good and gifts': Lucas Mallada, the Regenerationist movement, and the Spanish environment, 1881-90," *Journal of Historical Geography* 24 no. 1 (1998): 37.

⁴⁰⁵ Torrebadella-Flix: 2.

before the foundation of the National Park at Covadonga. The leading scholar of Spanish environmental history mentions him only twice, despite the fact that he pushed for and accomplished the formation of Spain's national park system.⁴⁰⁶ Another historian paid more attention to Eduardo Hernández-Pacheco than Pidal. She attributed primary responsibility for Spain's conservation efforts in the first third of the twentieth-century to Pacheco.⁴⁰⁷ Hernández-Pacheco did play an integral and extremely important role in the articulation of Spanish environmental policies, especially during his tenure at the head of the *Junta de Parques Nacionales* and creation of the *Sitios Nacionales*, or National Sites.⁴⁰⁸ But he inherited the parks system from Pidal. On a piece about the Junta Central de Parques Nacionales, yet another academic dedicated more space to Pacheco than Pidal.⁴⁰⁹ The reason for this oversight rested in the fact that these scholars began their study of Spain's environmental policy after the establishment of the Parque Nacional de la Montaña de Covadonga. As a *fait accompli*, the national park carried little relevance to their narratives that concentrated on the proliferation of the *Sitios Nacionales*. Hernández-Pacheco fell more neatly into contemporary expectations for an environmental conservationist—he was a scientist.

⁴⁰⁶ Otaola, *Naturaleza Patria*, 240, 252.

⁴⁰⁷ Mendoza, 53. Pacheco will be dealt with in the epilogue.

⁴⁰⁸ Jacobo García Álvarez, "Paisaje, memoria histórica e identidad nacional en los inicios de la política de conservación de la naturaleza en España: de Covadonga a San Juan de la Peña," *Hispania* 73 no. 244 (2013): 434.

⁴⁰⁹ Manuel Mollá Ruiz-Gómez, "La Junta Central de Parques Nacionales y la Sierra de Guadarrama," *Ería* 73-74 (2007): 161-177.

Hernández-Pacheco's publication career commenced with works on mycological data and geology.⁴¹⁰ It is logical to conclude then that scholars have chosen to gloss over Pidal because Hernández-Pacheco used scientific rationale to advocate for the protection of sites throughout Spain. Such an analysis is more contemporary and fits well within the extant historiography on environmental history that has emphasized the importance of ecology, geology, and other natural sciences.⁴¹¹ Perhaps, Spanish scholars have paid so little attention to Pidal due his unrepentant support of the monarchy and his disdain for the Second Republic.⁴¹² Regardless, the intention of this chapter is not to displace Hernández-Pacheco's place in Spanish environmental history, but rather to demonstrate that Pidal was just as important due to the fact that he established the parks themselves and thus set the foundation on which Spain protected other sites throughout the twentieth-century. Without Pidal's efforts, Hernández-Pacheco would not have had a Junta de Parques Nacionales from which to accomplish his work. However, works that idolized Pidal also impeded a proper understanding of the man and his intellectual context.

Biographies emphasized Pidal's role in the protection of Covadonga but accomplished it in such a way that the lionized Pidal overshadowed the centuries of

⁴¹⁰ Eduardo Hernández-Pacheco, "Datos para la flora micológica de los alrededores de Córdoba," *Boletín de la Real Sociedad Española de Historia Natural* 1 (1901): 131-133; Eduardo Hernández-Pacheco, "Estudio geológica de Lanzarote y de las isletas Canarias," *Memoria de la Real Sociedad Española de Historia Natural* 6 no. 4 (1909): 167-342.

⁴¹¹ For examples of this kind of literature see David Worster, *Nature's Economy: A History of Ecological Ideas* (Cambridge: Cambridge University Press, 1977); Peder Anker, *Imperial Ecology: Environmental Order in the British Empire, 1895-1945* (Cambridge and London: Harvard University Press, 2001); Richard H. Grove, *Ecology, Climate and Empire: Colonialism and Global Environmental History, 1400-1940* (Cambridge: The White Horse Press, 1997).

⁴¹² Pedro Pidal, *Monarquía de "Filioque": Republicana, Nacional o de Alfonso XIII* (Madrid: Ramona Velasco, Vuida de Prudencio Pérez, 1931).

Spanish environmental thinking that shaped his context.⁴¹³ Subsections with titles such as “Naturalist, before traditionalist,” oversimplified Pidal’s reality; Pidal did not perceive any difference between these categories, for he remained an ardent Catholic, monarchist, and naturalist who argued that alpine sports could physically regenerate urbanites who could leave the modern and insalubrious cities. The Picos de Europa provided such a haven. So much the better that was where the Spanish nation sprang to life at the beginning of the Reconquista.

A focus on Pidal also means that the historian is obliged to look at the history of alpinism in Spain. Just as empirical naturalism and noble hunting shaped the form Spanish environmental consciousness in the late nineteenth-century, in addition to hunting, mountain climbing forged Pidal’s perception of nature. Finally, though historians have devoted attention to the role of sports in Regenerationism, they ignored alpinism, instead favoring analyses of gymnastics and physical education courses. Admittedly, alpinism was simply one sport in a wide range of recreational activities available to Spaniards who could afford outdoor recreation. However, Pidal used alpinism as a bridge between the belief in physical regeneration and the spiritual regeneration of Spaniards. Put another way, alpinism tied together Regenerationism, Asturian Regionalism, the creation of a place of memory, and environmental protection.

The following pages will rectify the oversights in the historiography, but more importantly, they will yield a complete view of Spain’s journey to modern environmental

⁴¹³ Joaquín Fernández, *Pedro Pidal, Marqués de Villaviciosa en el reino de los rebecos* (Oviedo: Ediciones Nobel, 2004). It is not my intention to entertain a full biography of Pidal. Indeed, one can consult Fernández for a basic outline of his life story with this work a minor corrective that embeds him more fully in his historical context.

conservation. Within Pidal's writings, one gains an understanding of the importance that regionalism, Regenerationism, and Romanticism played in Pidal's mind, in addition to how he mobilized them in order to expand Spain's environmental legislation to include landscape protection in addition to species protection. Pidal's efforts are not the only ones exhibited below. The publications of Spain's first alpinist club, the Club Alpino Español, revealed that alpinism had an appeal in Spain beyond Pidal. Like hunting, alpinism was a leisurely upper-class pursuit in which climbers exhibited their masculinity. Moreover, as shown below, mountain climbing had nationalist overtones that Pidal wielded. Ultimately, this is the story of the foundation of Spain's national parks and as such, the study will cease with the foundation of the Parque Nacional de la Montaña de Covadonga in 1918.

Ordinarily, emphasis on one person can be an impediment to a proper analysis of a historical period. A scholar may become enamored with their subject, as alluded to above, and create a one-dimensional, triumphalist narrative. Still, Pidal's influence on the creation of Spain's National Park system must not be underemphasized. Historians usually avoid the appeal of counterfactuals in their work, as they can never substantiate them. Spain may have established a National Parks system at some point in time simply owing to their proliferation in the contemporary world. Pidal, nonetheless, personally shaped the location and rationale for establishing Spain's first park. His works give us an intimate portrait of the man and his motivations. They also induced a better understanding of Spain's efforts to regenerate and the currents of thought that shaped them, namely Romanticism and nationalism. Pidal's written and senatorial support for Spain's environmental protection added to wider debates about what it meant to be a Spaniard.

Romanticism, the Origins of Alpinism, and Pidal's Regenerationism

Born in 1869, Pedro José Pidal was poised to enjoy the mountain life and hunting that Asturias offered.⁴¹⁴ During the month of August in 1904, Pidal led a mountain climbing expedition into the Picos de Europa. In 1918, Pidal published the recollections of his journey through the press of the then ten-year-old Club Alpino Español. In *Picos de Europa: contribución al estudio de las montañas españolas*,⁴¹⁵ he and co-author José F. Zabala observed, “Alpinism is nothing more than another facet of the many things that consume human energy. We would like you to reach an understanding that mountaineers are neither more prudent nor crazier than the rest of mankind.” In contrast to the exclusivist mentality that ruled noble hunting, Pidal and Zabala tried to make an appeal to the quotidian nature of their enterprise when they claimed verisimilitude with everyone else. Furthermore, the authors appealed to a spirit of self-improvement. They wrote, “those who are anxiously waiting for us with love... knew that the mountain returned to them a son, a husband, a brother, a friend, healthier, more loving, and stronger...”⁴¹⁶ Pidal and Zabala’s journey through the mountains exemplified more than a leisurely excursion through Northern Spain. It represented a test of one’s manhood in which one returned fortified from both the environment and the trek. Albeit, being a man meant providing for one’s family.⁴¹⁷

⁴¹⁴ Joaquín Fernández, *El Zar de Asturias: Alejandro Pidal y Mon (1846-1913)* (Gijón: Ediciones Trea, 2005), 91.

⁴¹⁵ Pedro Pidal and José F. Zabala, *Picos de Europa: contribución al estudio de las montañas españolas* (Madrid: Club Alpino Español, 1918).

⁴¹⁶ *Ibid*, 67.

⁴¹⁷ Victoria Robinson, *Everyday Masculinities and Extreme Sport: Male Identity and Rock Climbing* (New York: Bloomsbury Academic, 2008).

Concerns about masculinity imbued alpinism. Like hunters, alpinists faced nature head on and tested their physical strength and masculine virtue against the snows and rocks of perilous peaks. In contrast to hunting, alpinism had no wide medieval or early modern precedent aside from a couple of recorded expeditions in 1336 and 1492.⁴¹⁸ Nevertheless, alpinism gave men an opportunity to combat their anxieties about turning feminine through physical exertion that, in verisimilitude with hunting, parodied military ethos.⁴¹⁹ Alpinism originated in the sixteenth-century and represented one way in which wealthy and middle-class European men displayed martial male virtues, paraded their nationalisms, and achieved a spiritual experience in the process.⁴²⁰

Europeans had not always considered the mountains an aesthetically pleasing landscape, but this view changed between the seventeenth-century and nineteenth-century.⁴²¹ The incorporation of the Alps into the Grand Tour enjoyed by upper-class Europeans demonstrated that their sensibilities shifted even before Romantic writers had pegged the mountains as sublime monuments.⁴²² Regardless, Romantic authors lauded the mountains as they argued that man and nature formed an organic whole.⁴²³ Their influence could be detected in the literary works of Spanish authors such as Francisco Giner de los

⁴¹⁸ Joseph E. Taylor III, *Pilgrims of the Vertical: Yosemite Rock Climbers and Nature at Risk* (Cambridge, MA and London, England: Harvard University Press, 2010), 18.

⁴¹⁹ Susan R. Schrepfer, *Nature's Altars: Mountains, Gender, and American Environmentalism* (Lawrence, Kansas: University of Kansas Press, 2005), 5-10.

⁴²⁰ *Ibid.*, 127.

⁴²¹ Taylor III, 20.

⁴²² *Ibid.*

⁴²³ Nicolás Ortega Cantero, "Las raíces culturales de la conservación de los paisajes" *Estudios sobre el paisaje* (2000): 238-240. It is not my intention to analyze in depth the Romantic movement and its authors.

Ríos, Antonio Machado, and Miguel Unamuno in the early twentieth-century.⁴²⁴ Unlike literary writers, alpinists did not enjoy the mountains from afar, yet they too committed their love for the landscape to paper. Before there could be alpinist literature, however, there had to be mountain climbers.

Arguably, the advent of modern mountaineering found its birth in two Genevans, Horace Bénédict de Saussure and Marc Théodore Bourrit, who decided to offer a cash reward to the first person to scale Mont Blanc. In the 1780s, Saussure's incentive garnered the attention of Michel Paccard, who subsequently scaled the mountain in August 1786. The event's tinge of danger and excitement garnered publicity, adding to mountain climbing's appeal.⁴²⁵ The opportunity to prove oneself in such a dangerous situation provided European men with a chance to display their manhood.

The proliferation of mountain climbing as a sport took place as a response to Europe's urbanization and industrialization. Daily life shifted from an agrarian existence to one in which labor became an indoor activity and success became measured in the acquisition of material goods and their social display.⁴²⁶ Working-class laborers physically toiled in plants from Manchester to Barcelona while the middle-class too found itself in a new social environment in which leisurely activity became increasingly open to wage laborers. The Spanish middle-class copied the social attitudes and tastes of the upper-

⁴²⁴ Casado de Otaola, *Naturaleza Patria*, 135-136; Cantero, 248-249; Eduardo Martínez de Pisón, *Imagen del paisaje: La generación del 98 y Ortega y Gasset* (Madrid: Caja Madrid, 1998), 64-65.

⁴²⁵ Taylor III, 18.

⁴²⁶ *Ibid*, 17.

classes by appropriating their symbols and culture.⁴²⁷ Spaniards, moreover, recast city settings into landscapes of leisure. Wealthy patrons opened spaces such as gardens and concerts in which they and their cohorts could enjoy a high culture resting outside of the aristocratic courts; as, high prices and strict etiquette protocols limited access.⁴²⁸ In other words, institutions and activities such as pleasure gardens demonstrated the widening of democratic attitudes in the nineteenth-century, but the newly wealthy and cultured still jealously protected their domains of leisure. Opportunities to participate in high culture did not flourish just in the cities. Mountain climbing provided Europe's upper and middle-classes with the chance to take part in a sport in which few participated, to demonstrate their manhood, and to help fuel the rivalries behind the construction of Europe's nationalist projects.

Ascending mountains provided "maximum distinction," especially in a world wherein sports became ever more prominent.⁴²⁹ Unlike concert halls, pleasure gardens, and museums in which one could gain access for a simple fee, mountains stood inaccessible. The physical requirements and the cost of equipment put alpinism out of reach for most.⁴³⁰ An entire consumer and literary culture developed around alpinism. Specialized technologies ranging from footwear to axes proliferated alongside journals, travelogues, and associations that updated fellow alpinists on the latest climbing exploits,

⁴²⁷ Jesus Cruz, *The Rise of the Middle-Class in Nineteenth-Century Spain* (Baton Rouge: Louisiana State University, 2011), 11.

⁴²⁸ *Ibid.*, 171, 185.

⁴²⁹ Taylor III, 4.

⁴³⁰ *Ibid.*

methods, and technologies.⁴³¹ The Alps were the cradle of modern alpinism. By the 1850s, the sport acquired international dimensions with the British at the forefront.⁴³²

Mountain climbing represented a form of leisure that melded nineteenth-century concerns about the feminization of society through the desire both to distinguish oneself against people who engaged in urban forms of play and to demonstrate one's masculine, martial qualities. Simultaneously it took on imperialistic and nationalistic overtones as teams from different nations competed to conquer peaks. Historians have examined the British and American context in depth.⁴³³ Most prominently, British climbers established alpinism as a colonial activity in which climbing became a metaphor for imperial conquest of places that no humans had ever traversed before.⁴³⁴ All too aware of the imperialistic overtones of mountain climbing, Spaniards did not want foreigners to ascend their own mountains before they did, fearing the symbolic conquest of their national pride. Indeed nationalism imbued alpinism around the world from Europe to Oregon.⁴³⁵ In 1919, Pidal mused, "What could I or my compatriots think if one day I caught wind of the news that some foreign alpinists had waved the flag of their homeland above the virgin peak of the Naranjo de Bulnes, in Spain, in Asturias and in my favorite hunting spot for ibex?"⁴³⁶

⁴³¹ Ibid, 9.

⁴³² Ibid, 20.

⁴³³ Taylor III; Schrepfer.

⁴³⁴ Rueben Ellis, *Vertical Margins: Mountaineering and the Landscapes of Neo-Imperialism* (Madison, Wisconsin: The University of Wisconsin Press, 2001).

⁴³⁵ Erik Lawrence Weiselberg, "Ascendency of the Mazamas: Environment, Identity and Mountain Climbing in Oregon, 1870 to 1930" (PdD diss., University of Oregon, 1999).

⁴³⁶ Pedro Pidal, *El Naranjo de Bulnes Peña-Santa* (Madrid: Ramona Velasco, Viuda de P. Pérez de Velasco, 1919), 8. The Naranjo de Bulnes is a limestone peak in the Picos de Europa.

Moreover, Spaniards started to view the mountains as a place from which to initiate a new era for Spain in the wake of the Disaster of 1898.

The Picos de Europa, as demonstrated above, became a site of nationalistic pride in the mid-nineteenth-century. Nationalists celebrated them as the geographic point at which the Reconquista of the Iberian Peninsula began. To think that a foreigner could symbolically conquer them was an anathema. Pidal and Zabala wrote, "Spain, preoccupied during its existence...in combatting foreign invasions...in discovering other worlds...wasted (its) energy in giving life and character to nineteen new republics, has as of recent remained very behind other nations."⁴³⁷ Pidal and Zabala characterized Spain's weakness as a symptom of its former strength. They argued that Spain had exhausted its energies defending Europe from repeated invasion and birthing the Latin American republics. Such observations personified Spain as a worn out parent, rather than a nation divided politically and lacking an industrial infrastructure. They then prescribed an excursion to the mountains as a treatment for Spain. They wrote, "From the summits of our mountains, one will have before their eyes the amplest horizons from which to conquer ideals taught to us so far from the mountains, that will give one lessons on willpower, energy, and the constancy in the beautiful open book of nature."⁴³⁸

Spain's mountains, the two authors believed, could provide Spanish youths with the lessons necessary to make Spain eminent once more. The nation who suffered because of its historical tribulations as the great power needed to rediscover its place in the world,

⁴³⁷ Pidal and Zabala, 7-8.

⁴³⁸ Ibid.

and it could do so through an experiential affinity with nature. Spanish nationhood, as well as Spanish nature, needed defending.

In 1899, in the immediate aftermath of Spain's defeat, Pidal published a polemical work that focused attention on the dangers that foreigners posed to Spain. In *¡Alerta España!: Lo que puede, piensa y quiere el extranjero*, Pidal penned, "The foreigner, after all, here as there, under this or that appearance... is and always will be *the enemy*..."⁴³⁹ Pidal used "foreigner" as a euphemism for the British and Americans, the so-called "Anglo-Saxon races."⁴⁴⁰ That he focused his rage on the United States was no mystery. Spain had ceded its last American colonies to that nation, effectively surrendering the last bastions of its imperial heyday. Britain took an active role in Spain's defeat. First, it had provided the American fleet with coal. Second, British authorities had pressured the Egyptian government not to allow Spain's Mediterranean fleet to refuel and pass through the Suez Canal on its way to protect its interests in the Pacific.⁴⁴¹ It was not surprising that Britain became a target of Pidal's Regenerationist critique. Despite the fact that Pidal carried on a correspondence with individual Britons, including with Buck and Chapman as seen in the previous chapter, Pidal excoriated the "Anglo-Saxon" race and its ethics.

Pidal tried to explain Spain's failures in terms of its enemies' moral duplicity. The responsibility for the Disaster of 1898 rested on Anglo-Saxon moral degeneration in favor of profit and capital. In *¡Alerta España!*, Pidal made these notions clear. He explained, "The

⁴³⁹ Pedro Pidal, *¡Alerta España!: Lo que puede, piensa y quiere el extranjero* (Madrid: Librería de Fernando Fé, 1899), 1.

⁴⁴⁰ *Ibid*, 2.

⁴⁴¹ Sebastian Balfour, "Spain and the Great Powers in the Aftermath of the Disaster of 1898," in *Spain and the Great Powers in the Twentieth Century* edited by Sebastian Balfour and Paul Preston (London and New York: Routledge, 1999), 14-15.

Anglo-Saxon race, that believes only in God and Darwin, his prophet, they believe much more naturally in the latter, took the lead, the Yankees arrived with their parents bidding them farewell with the following advice, 'My son make money honestly if you can but make money.'"⁴⁴² Pidal then concluded that the Anglo-Saxons could not manage this in their own countries, and traveled to other places in order to exploit them. Their commercial, industrial, and scientific superiority allowed them to take advantage of ignorant peoples, but at the cost of themselves becoming "Anti-Christian, dishonest, and ugly."⁴⁴³ Pidal provided an alternative ideology of development in contrast to the unrepentant capitalism of the British and the Americans. That new path resided in educational reform and the exploitation of Spain's natural bounty.

In *¡Alerta España!*, Pidal set the tone of his beliefs and his agenda for regenerating Spain through a rediscovery of its nature. First, though, Pidal lambasted the Anglo-American model of education in which students, in his opinion, were forced to read thousands of pages of texts and internalize the ideas that their professors made essential. He argued such activities drain students so far that it impeded their capacity to form ideas. They needed to abjure the amoral ideology of capitalism.⁴⁴⁴ He then urgently pleaded Spaniards to embrace a character that exhibited a "moral self" and a "practical self."⁴⁴⁵ Put succinctly, Spaniards needed a moral code that included Catholic morality but did so in such a way as to catch up industrially and scientifically with the British and the Americans.

⁴⁴² Pidal, *¡Alerta España!*, 2-3. Pidal wrote the quote in English.

⁴⁴³ Ibid, 3.

⁴⁴⁴ Ibid, 6-8.

⁴⁴⁵ Ibid, 6.

Spaniards could only achieve “our regeneration” through “strength of materials” and the “strength of ideas.”⁴⁴⁶

The materials that Pidal referred to included coal, the plains, and nature, which he represented with the terms the Black, the Green, and the Plains. The Black represented the fuel needed for an industrial economy. “Coal,” he wrote, “is the bread of industry.”⁴⁴⁷ Meanwhile, the plains, *el llano*, its soils, provided man with the materials necessary to produce goods.⁴⁴⁸ The Green provided a natural backdrop on which his compatriots could regain their strength. The Marques de Villaviciosa de Asturias understood that a simple return to nature or an agrarian way of life alone would not remedy Spain’s economic woes. Nevertheless, he argued for the merits of physical activity as a means towards regeneration, paying particular attention to the Picos de Europa and the natural splendor of his native Asturias.⁴⁴⁹ Asturians by virtue of their lands’ health, he claimed, “drink the best milk and eat the best meat in Spain.”⁴⁵⁰ Pidal lamented, “A great pity that not all of Spain is green.”⁴⁵¹

Pidal held a pragmatic view of the need to have urban spaces and industrial activity. Like the Spaniards who fretted about biological impotence, he worried about the social and physical effects industrial life had on Spaniards.⁴⁵² Ostensibly agrarian farmers, such as those he lauded in Asturias, needed not to worry about physical degeneration. But what of

⁴⁴⁶ Ibid, 8.

⁴⁴⁷ Ibid, 15.

⁴⁴⁸ Ibid, 16-17.

⁴⁴⁹ Ibid, 12-13.

⁴⁵⁰ Ibid, 12.

⁴⁵¹ Ibid, 13.

⁴⁵² Goode, *Impurity of Blood*; Pidal, *¡Alerta España!*, 19.

the urbanites? The solution was simple. Reject the ideas of the intellectuals who, “Deprive one of the time necessary...to ascend the mountains so as to discover immense panoramas and strengthen one’s chest in order to live life as intensely as possible.”⁴⁵³

Pidal remained aware of the problems that Spain had to surmount in order to challenge the Great Powers. Though his spiritual, romantic conception of nature led him to adore the Picos de Europa, his belief in their benefits did not reside simply in their aesthetic qualities; the physical labors one endured in them proved essential as well. Leisure had to be pursued not for its own sake, but rather as a means Spaniards used to maintain their health in the intellectually and physically insalubrious cities. Nature did not exist as an abstract thing with which man interacted. Labor in the outdoors was nature. He wrote, “Oh Nature, the sweat from climbing the mountains, my bear hunts in the hills of Aragon and Asturias, and my ibex hunts in the Picos de Europa!”⁴⁵⁴ Pidal transformed the Picos de Europa and mountaineering into referents for the solution to Spain’s physical degeneration. Alongside this process, he also made Asturias the “essence of the fatherland.”⁴⁵⁵

Pidal’s Nationalism and the Mountains

Pedro José Pidal’s nationalism shaped his perceptions of nature and focused his efforts specifically on the Picos de Europa in order to forge Spain’s first truly national park.

⁴⁵³ Ibid, 50-51.

⁴⁵⁴ Ibid, 51.

⁴⁵⁵ Núñez, “The Region as *Essence* of the Fatherland.”

In his address before the Spanish Senate in 1916, Pidal made his fellow senators aware that the Third Excursionist Congress in Catalonia had discussed the possibility of creating *Parques Nacionales de Cataluña* two years prior.⁴⁵⁶ He declared, “But, I understand, that before the National Parks of Catalonia, being a region that cannot be referred to as ‘national,’ and that is evident, we all ought to create the National Parks of Spain.”⁴⁵⁷ Pidal’s effort to preserve the Picos de Europa at Covadonga as a National Park of Spain exhibited the presence of many nationalisms in Spain in the late nineteenth-century and early twentieth-century. Spain’s defeat in 1898 only served to exacerbate them. In contrast to the minority nationalism found in Catalonia, the Basque Country, and, to a lesser extent, Galicia, Pidal’s Asturian regionalism did not confront or contest the existence of Spanish nationalism. Instead, Pidal believed that Asturias typified what it meant to be Spanish.

By the eighteenth-century, reformers had shifted Spanish nationalism from the perception that Spain constituted a geographic space solely into a more contemporary notion of a nation.⁴⁵⁸ After 1900 different ideologues, élites, and movements supported the idea of a unitary Spanish *patria*.⁴⁵⁹ For such a common perception of Spain to become part of a national consciousness, the nation needed to be unified through the growth of markets,

⁴⁵⁶ Pedro Pidal y Bernaldo de Quirós, *Parques Nacionales: Proposición de ley y discursos provincianos en el Senado por los Sres. Marqués de Villaviciosa de Asturias y Covadonga de Romanones el 14 de junio de 1916* (Madrid: Ramona Velasco, 1916), 21.

⁴⁵⁷ Ibid.

⁴⁵⁸ Juan Pablo Fusi Aizpúrua, “Centre and Periphery 1900-1936: National Integration and Regional Nationalisms Reconsidered,” in *Élites in Power in Twentieth-Century Spain: Essays in Honour of Sir Raymond Carr* edited by Frances Lannon and Paul Preston (New York: Oxford University Press, 1990), 34.

⁴⁵⁹ Ibid, 37.

uniform education, mass communication, and some urbanization.⁴⁶⁰ Infrastructure alone did not hold nations together. It required a sense of national unity. In the Spanish case, the military and conservatives found separatist nationalisms such as those in Catalonia and the Basque Country threatening to that unity, especially in the wake of the Disaster of 1898.⁴⁶¹ They characterized leftist movements and separatist nationalisms as “anti-Spanish.”⁴⁶² Paradoxically, Regional nationalism made the region a representation of the essence of the whole. In Pidal’s case, he used his love of his home region Asturias as a vehicle for his Spanish nationalism. Asturias was Spain, and Spain founds its most pure form in Asturias. As a result, the geographic space of Asturias and his perception of it became fundamental in articulating why Covadonga physically and spiritually embodied Spain. Nature and landscapes were just as critical to the creation of national identity as the political, economic, and educational dimensions historians have focused on.

Pidal viewed Spain’s peaks as a refuge from the cityscape and a chance to reinvigorate the Spanish body and soul. However, the Picos de Europa as the location for the creation of Pidal’s “imagined environment” rested with the fact that Covadonga had already been forged into a place of memory. In one scholar’s words, it was a *lieux de mémoire*, a point on which Asturian regionalists could assert that they, claiming descent

⁴⁶⁰ Ibid, 35.

⁴⁶¹ José Álvarez Junco, *Mater Dolorosa: La idea de España en el siglo XIX* (Madrid: Taurus Historia, 2001), 601.

⁴⁶² Ibid, 602.

from Asturian King Pelayo, stemmed the tide of Moorish expansion and initiated the Reconquista.⁴⁶³

Another historian demonstrated in great detail how Asturians from the late nineteenth through the early twenty-first century tried to transform Covadonga into a place of national commemoration, nationalism, and Asturian particularity.⁴⁶⁴ Ultimately, efforts to promote Asturian regionalism proved ineffective due mainly to the contestation between different political groups and a general sense of apathy among the population.⁴⁶⁵ Regionalism remained the purview of the wealthy and elite.⁴⁶⁶ Despite the lack of popular support, Asturian regionalism permeated Pidal's work and played an important part in his quest to protect the Picos de Europa as a place of national mythos and regeneration. Such ideas create cultural perceptions of physical space. Conversely, one cannot project an imagined environment unless there is a terrestrial reality on which to project. Pidal never differentiated Covadonga as the birthplace of Spain from the physical reality of the mountains; mountains dictated history. Pidal declared, "Conquest is the daughter of strength. And who gives us strength? Well, nature, it is the mountains which intensify life

⁴⁶³ Nora, 23-24. Nora wrote that a *lieux de mémoire* can have a double-property in which it is both a self-referential site and a place, "forever open to the full range of its possible significations."

⁴⁶⁴ Boyd, "Covadonga y el regionalismo asturiano," and Boyd, "The Second Battle of Covadonga."

⁴⁶⁵ Boyd, "The Second Battle of Covadonga," 38.

⁴⁶⁶ Núñez, 505.

and is the wellspring of energy. To cross the mountains is to boost the individual's robustness."⁴⁶⁷

In language that a noble hunter would have used, Pidal described the mountain climb as a military pursuit. Alpinism joined conquest with freedom and nature with strength. The man subjugated the mountain and realized his emancipation. The Marques de Villaviciosa then spoke of the relationship between vigor and military success, and he pointed to the mountains as the genesis of that relationship.⁴⁶⁸ Pidal believed that the mountains forged and toughened martial peoples and their leaders. History and nation lived and died in the hills. Spaniards found their birthplace in their peninsula's peaks. They could be reborn in them as well. At the turn of the century, a small group of Spaniards thus decided to take to the peaks.

The Club Alpino Español

Alpinism in Europe and North America shifted from an individual pursuit into a participatory sport at the end of the nineteenth-century. Early mountaineers climbed solo or with a small team of intimate individuals, but this gave way to alpine sports clubs. These sports clubs had a heterosocial dimension, meaning that they were composed of upper and middle-class European men.⁴⁶⁹ The establishment of protection and alpine clubs increased dramatically between the 1870s and the 1910s. The foundation in 1874 of the *Club Alpin*

⁴⁶⁷ Pidal, *Parques Nacionales*, 16.

⁴⁶⁸ Ibid.

⁴⁶⁹ Taylor III, 13.

Français was followed by similar associations in Britain in 1898, South Africa in 1891, the United States in 1902, Canada and Japan in 1906, Norway and Spain in 1908.⁴⁷⁰

The establishment of the Club Alpino Español in 1908 marked the acceptance of alpinism as a popular sport in Spain. Moreover, the association sought to generate awareness and an appreciation for alpine sports, including skiing and mountain climbing, in their annual publications, magazines, and monographs such as the account of Pidal and Zabala's 1904 expedition.⁴⁷¹ That Romantic appreciation for the mountains came from its members such as Francisco Giner de los Ríos.

Beginning with its creation in 1876, the *Institución Libre de Enseñaza* engaged in what one labeled, "the valorization" of the Spanish landscape.⁴⁷² Under the leadership of Francisco Giner de los Ríos, one of Spain's foremost intellectuals and a devout Krausist, the institution conducted geographical expeditions into the mountains near Madrid. In 1886, the association embarked on an expedition to the Sierra de Guadarrama. Giner de los Ríos lauded the educational benefits of the expedition while simultaneously recalling, "the expansion of fantasies, the ennoblement of emotions, the dilation of intellectual horizons, the dignity of our pleasures and the love of moral things that always sprouted through the filter of Nature."⁴⁷³ Giner de los Ríos stood as one of Spain's most influential intellectual figures. However, he also was one of the first and founding colleagues of the Club Alpino

⁴⁷⁰ Nogué, 152-153; Taylor III, 34; *Anuario: Club Alpino Español (1911)* (Madrid: Club Alpino Español, 1912), 95.

⁴⁷¹ Pidal and Zabala, *Picos de Europa*.

⁴⁷² Cantero, 248.

⁴⁷³ Francisco Giner de los Ríos, "Paisajes," *Boletín de la Institución Libre de Enseñaza* 11 (1916), 58 quoted in Cantero, 249.

Español and along with other members established a *chalet*, a cabin, in the mountains north of Madrid.⁴⁷⁴

In May of 1908, a group of Spaniards who called themselves *La Sociedad Twenty* decided to introduce skiing and a love of mountaineering to Spain. The Twenty resolved to construct a cabin at Navacerrada in the mountains north of Madrid. Despite their claims that they wanted to make alpine sports popular throughout Spain, they implemented financial restrictions that in reality kept most Spaniards from participating. In its annual yearbook for 1911, the Club recalled their introduction of skiing, “those who were critical at the beginning, followed with great interest...and ended up considering it a wholesome exercise...what they had embraced in other countries, we had no reason not to embrace ourselves.⁴⁷⁵ As Pidal claimed earlier, mountain sports provided healthy physical activity, despite its foreign origin. On the contrary, Spaniards needed to embrace it as their own. Notwithstanding, the call for universal enthusiasm, the club's membership remained small and exclusive, due mainly to its high association fees, which members used to construct the cabin.

In order to build the club's base in Navacerrada, the *Sociedad Twenty* decided to expand. It offered membership and sold bonds of twenty-five pesetas apiece, hoping to gross a total of 10,000 pesetas.⁴⁷⁶ A decade later such prices remained beyond the reach of most Spaniards. The pension for a civil servant widow in 1900 stood at a mere ten pesetas

⁴⁷⁴ *Anuario: Club Alpino Español*, 98.

⁴⁷⁵ *Anuario* (1911), 95.

⁴⁷⁶ *Ibid*, 96.

a month.⁴⁷⁷ By 1909, the Club had started construction on the *chalet* with 9,325 pesetas collected from over 60 donor members, Francisco Giner de los Ríos among them.⁴⁷⁸ The Club further institutionalized its exclusivity when it constructed the *chalet* to house a maximum of 150 people.⁴⁷⁹ According to the Club regulations for the cabin, members had to accompany visitors and any who used the facility without a member present had to obtain authorization from the Club's administration. The members' comportment was of the utmost importance. Article Eight of the Club's regulations forbade members from discussing politics and religion inside the cabin. Furthermore, the Club, it claimed, painstakingly educated members and wanted them to conduct themselves in society in a manner that reflected well on the organization.⁴⁸⁰

The Club's foundation and regulation promoted alpinism in its forms of skiing and mountaineering as leisure activities with a universal appeal, but it maintained an exclusive membership through high fees and limited space. Like Pidal, they shared an ethos of physical regeneration, pointing out that cynics eventually embraced alpine sports as salutary. Likewise, they accepted tactile contact with nature not merely as physically regenerative, but believed that alpinism instilled an organic, experiential education. The Club's message remained self-contained. Its press remained dormant until the publication of Pidal and Zabala's *Picos de Europa* in 1918.⁴⁸¹ It published another *Anuario* in 1918, *El*

⁴⁷⁷ Adrian Shubert, *A Social History of Modern Spain* (London and New York: Routledge, 1990), 42.

⁴⁷⁸ *Ibid*, 97-98.

⁴⁷⁹ *Ibid*, 98.

⁴⁸⁰ *Ibid*, 100.

⁴⁸¹ Pidal and Zabala. Incomplete citation.

Turismo y la Sierra de Guadarrama in 1919, and in 1925 it began printing its own journal *Alpina: Órgano oficial del Club Alpino Español*.⁴⁸² Contributors to *Alpina* continually acclaimed alpinism for its fortifying effects, its educative and moral-instilling properties, and its appeal as martial conquest of self and nature.⁴⁸³

The Club Alpino Español was not the sole arbiter of alpinism in Spain. Others included authors such as Andrés Pérez-Cardenas who published a guidebook, *Alpinismo Castellano: Guía y crónicas de excursiones por las Sierras de Gredos, Bejar y Francia*.⁴⁸⁴ As a delegate of the Royal Tourism Commission, Pérez-Cardenas tried to make alpinism more accessible by listing itineraries one could follow and including pertinent information such as which trains to take from Madrid to reach the nearby Sierras de Gredos.⁴⁸⁵ In and of themselves, alpinists did not emerge as a political force for environmental protection. They did, however, indicate that a larger, albeit still tiny, number of Spaniards wanted to engage in leisurely sports, skiing and mountain climbing in particular. Their arguments mirrored those that Pidal espoused in his writings, and they would be points he mobilized when proposing that Covadonga be declared a national park.

The Parque Nacional de la Montaña de Covadonga

⁴⁸² *Anuario de 1918* (Madrid: Club Alpino Español, 1918); *El Turismo y la Sierra de Guadarrama* (Madrid: Club Alpino Español, 1919); *Alpina: órgano oficial del Club Alpino Español* (Madrid: Club Alpino Español, 1925).

⁴⁸³ Juan Madinavieta in *Anuario de 1918*, 5; *Alpina* Book II no. 6 (April 15, 1927): 2.

⁴⁸⁴ Andrés Pérez-Cardenal, *Alpinismo Castellano Guía y crónicas de excursiones por las Sierras de Gredos, Béjar y Francia* (1000 Ejemplares, 1914).

⁴⁸⁵ *Ibid*, 1.

No greater insight into Pidal's political thinking exists than his resolution brought before the Spanish Senate on June 14, 1916.⁴⁸⁶ In it, Pidal not only requested that Covadonga be safeguarded as a National Park, but he also laid out the reasons why Spain required national parks and why Covadonga needed to be its first. Throughout the declaration, the Marques de Villaviciosa trumpeted his Asturian regionalism, Regenerationism, and his love of mountainous nature.

Pidal delivered a pithy three article declaration that he followed up with fourteen pages of explanation: one can only imagine how long it may have taken Pidal to orate them. Article One in its entirety declared, "National Parks will be created in Spain."⁴⁸⁷ Article Two argued that picturesque landscapes, forested terrain, and those areas with special geographical or hydrological qualities could qualify for protection. Put succinctly, they had to be considered naturally beautiful and house an abundance of fauna.⁴⁸⁸ Article Three put the Ministry of Development in charge of the National Parks system.⁴⁸⁹ According to Article Two, the government must preserve landscapes first and foremost for their aesthetic qualities.

During his long exegesis, Pidal pointed out that the state already protected sites considered important for their artistic qualities and their power to unify such as, "A castle, a tower, a wall, a temple, a building..."⁴⁹⁰ He then asked, Are they not sanctuaries of art?

⁴⁸⁶ Pidal y Bernaldo de Quirós, *Parques Nacionales*.

⁴⁸⁷ Pidal, *Parques Nacionales*, 5.

⁴⁸⁸ *Ibid.*

⁴⁸⁹ *Ibid.*

⁴⁹⁰ *Ibid.*, 7.

Why has there not been a *Sanctuary* made for Nature, for Mother Nature?"⁴⁹¹ The underlying logic for such belief rested with the notion, that he explained in greater depth, that such visual characteristics nourished the creation of a nationalistic consciousness. In *¡Alerta España!*, he argued that the mountain air and streams provided strength and respite for city-dwellers.⁴⁹² As above, Pidal also invoked the historical importance of mountains as places of vitality and martial invigoration.⁴⁹³ Pidal ended his oration with a catalog of nature protection societies, parks, and legislation from other countries. The entire affair concluded when the Conde de Ramanones, the President of the Council of Ministers, applauded the motion but warned that its implementation would be difficult as the peasants, *campesinos*, lacked the intelligence necessary to understand why the forests should be saved.⁴⁹⁴ The peasants intelligently used resources such as wood for heat and fuel. Despite the Conde de Ramanones's reservations, the announcement took effect.

On December 8, 1916, Alfonso XIII proclaimed the creation of the Parque Nacional de la Montaña de Covadonga. Like the protection laws of 1879 and 1896, royal promulgation precluded debate in the Congreso de los Diputados. Alfonso XIII reiterated Pidal's three articles and ordered all members of government to respect and enforce the law.⁴⁹⁵ The inauguration of the park was set to coincide with the 1200th anniversary of the

⁴⁹¹ *Ibid*, 7.

⁴⁹² *Ibid*, 8.

⁴⁹³ *Ibid*, 16.

⁴⁹⁴ *Ibid*, 22.

⁴⁹⁵ Alfonso XIII, "Ley de Parques Nacionales," *Gaceta de Madrid* no. 343 (December 8, 1916): 575.

Battle of Covadonga.⁴⁹⁶ In the meantime, Pidal decided to inform the public in his work *Lo que es un Parque Nacional y el Parque Nacional de Covadonga*.⁴⁹⁷ Pidal shifted his tone from earlier works and set out a cost-benefit analysis of implementing a National Park. He discussed the necessary sacrifices to which current owners must commit, namely that they could not hunt, cut down trees, or damage the land in any way; he conceded that locals had to consent, but in the case of the Covadonga park it proved a *fait accompli*.⁴⁹⁸ Indeed, the ibex there already belonged to the monarchy.⁴⁹⁹ Pidal made the point that if Spaniards denuded their picturesque scenery, they would suffer privations and become beholden to foreign interests. The Swiss, Pidal argued, carried considerable economic weight in Spain while simultaneously earning billions of pesetas from their Alpine tourism.⁵⁰⁰ That same year Pidal wrote an exposition in the *Gaceta de Madrid*, wherein he proposed several more places for National Park designation. He included the Valle de Ordesa and the Sierra de Gredos on his list.⁵⁰¹ Such mountain landscapes, he claimed, harbored the *Patria's* primitive, natural state and contained in them a true memory of the first people and their traditions.⁵⁰² Natural landscapes and human landscapes were one and the same.

⁴⁹⁶ Joaquín Fernández, *El hombre de los Picos de Europa: Pedro Pidal, marqués de Villaviciosa: fundador de los Parques Nacionales* (Madrid: Caja Madrid, 1999), 256.

⁴⁹⁷ Pedro Pidal, *Lo que es un Parque Nacional y el Parque Nacional de Covadonga* (Madrid: Imprenta de Ramona Velasco, Viuda de P. Pérez, 1917).

⁴⁹⁸ *Ibid.*, 6.

⁴⁹⁹ Chapman and Buck, *Unexplored Spain*, 366. The landowners ceded exclusive hunting rights for Spanish ibex to King Alfonso XIII in 1905.

⁵⁰⁰ Pidal, *Lo que es un Parque Nacional*, 8.

⁵⁰¹ Pedro Pidal, "Exposicion" *Gaceta de Madrid* no. 55 (February 24, 1917): 460.

⁵⁰² *Ibid.*

The Congreso de los Diputados supported the establishment of the park. Representatives from Asturias took advantage the commemoration ceremony in 1918 to aggrandize their region and promote the tourism Pidal discussed. A new law proposed the construction of a railroad network so that people could access the national park.⁵⁰³ It also called for investments in art academies, schools, and technical institutes and the establishment thereof.⁵⁰⁴ Despite their efforts, the law that Alfonso XIII signed omitted many of the calls for more money and instead concentrated on issues directly related to the commemoration itself, though it did establish a mining school in Oviedo.⁵⁰⁵ Ironically, the tension between mining in Asturias and the sanctity of the National Park characterized the twilight years of Pidal's profession career. Regardless, Spain had a park and an advocate for its protection. King Alfonso XIII officially set the park's boundaries through a royal decree on August 18, 1918.⁵⁰⁶ The Parque Nacional de la Montaña de Covadonga officially became Spain's first national park and a place that nature-goers enjoy to this day.

Conclusion

Despite his marginalization by previous scholars, Pedro José Pidal and his proposition for the establishment of the Parque Nacional de la Montaña de Covadonga

⁵⁰³ "Proposición de ley del Señor Suarez Inclan (Don Felix) estableciendo la manera de conmemorar en Asturias el XII centenario de la Batalla de Covadonga," *Diario de las Sesiones de los Diputados* apendice 3 no. 38 (Madrid: Archivo del Congreso de los Diputados).

⁵⁰⁴ Ibid.

⁵⁰⁵ "Remision Proyecto de Ley," (Madrid: Archivo del Congreso de los Diputados).

⁵⁰⁶ *Gaceta de Madrid* 230 (August 18, 1918), 494.

marked the most immediate bridge between Spain's animal conservation legislation and the desire to preserve sites of memory. In other words, landscape protection and animal welfare became singularly applicable in Spanish law under Article Two of the Ley de Parques Nacionales. Like a devoted Romantic, Pidal believed that the organic whole amounted to more than the sum of its parts. However, to ascribe such an accomplishment to the individual will and foresight of Pidal would be erroneous. Pidal personified a context and, fortunately for generations of future Spaniards, had both the passion and the connections to enable the establishment of Spain's parks systems before the political oscillations of the Second Republic, the Civil War, and the consolidation of Franco's victory between 1931 to 1939.

The Parque Nacional de la Montaña de Covadonga had its foundation in the apprehensions and passions of fin de siècle elite Spaniards. The immediate crisis of the Disaster of 1898 motivated Spaniards to look for both ailments in their societies and the panacea for those maladies. Pidal's passions as a sportsman, especially as a mountain climber, informed how he articulated his prescription for his nation's weakness. In the late nineteenth-century, upper-class Europeans expressed masculinity through martial values and confrontations with nature, rebelled against modernity and its alleged feminization, and responded to the encroachment of the middle-classes on their domains of leisure through the proliferation of mountain sports. In Spain's unique national context, Regenerationism in various forms proposed solutions to its miseries. Alpinism incorporated all of the above and combined it with a nationalist ethos and a spiritual,

Romantic quality. The mountains provided fortitude, strength, and education through physical contact with their purity.

Where better to commemorate Spain's rebirth than at the spot of its inception twelve centuries earlier under the leadership of King Pelayo, an Asturian? Indeed, he argued, Asturians gained their robust physique from their lands, and the regenerative effects must be shared with all Spaniards, preferably through alpinism. The Parque Nacional de la Montaña de Covadonga, appropriated as a place of memory for its historical association and for its position among the Picos de Europa, exemplified in the minds and hearts of those present at its inauguration a stepping stone towards making Spain exceptional again.

Conclusion

Over the course of five centuries, Spaniards forged an environmental consciousness. It changed, developed, and responded to the worldly concerns of upper-class Spaniards from the sixteenth-century to the twentieth-century. The tradition of empirical naturalism converged with the practice of noble hunting in the late nineteenth-century. The environmental legal precedents that hunting laws established set the background in which Pedro José Pidal took his life experience as a hunter and an alpinist and forged those with the issues that Spain faced in the wake of 1898. Pidal's views of nature and nation led him to argue for the establishment of Spain's first national park, a task he completed successfully in 1918. It was a long and complex road.

Christopher Columbus's first voyage unlocked the New World to European exploration and exploitation. Under the Habsburgs, Spanish naturalists set out to categorize the plants, animals, and novelties they had never encountered before. Aristotelian Biblical topology ruled the European mind. Those who never traveled to the Americas relied on the testimonies of those who had. For Pedro Martir de Angleria and Juan E. Nieremberg it was easy to bend the Biblical topological worldview to encompass the New World. Gonzalo Fernandez de Oviedo, Francisco Hernandez, and Juan de Cardenas explained the New World's flora and fauna in terms, Aristotelian humors, consistent with Biblical typology. As observers, however, they had to rely on the already extant, but not widespread, empiricism of the medieval period. Their efforts to record and describe favored it as the only means to recount and interpret about what they saw. Regardless, the preternatural dominated the

world as Spaniards debated the moral and physical ramifications of New World goods and Felipe II hired an Italian alchemist to solve his money problems. That transformed with a change of dynasty and the pioneering work of a Swede and a Frenchman.

In the eighteenth-century Carl Linnaeus and Buffon created workable systems of classification for plant and animal species. The need to do so arose from the influx of specimens that arrived from the New World. In cabinets of curiosities in both private and state collections, a growing number of European naturalists could examine what Cardenas, Oviedo, and Hernandez had seen for themselves. Linnaeus in the Netherlands and Buffon in Paris created their respective systems of artificial and natural classification based on empirical observation.

The systems proved popular among Europe's naturalists and set the base in which they could speak to each other and incorporate their findings. Spain, under the leadership of Carlos III and Carlos IV, underwent a series of reforms pointed at rebuilding its political prestige and economic vitality. Carlos III weakened the Church's political and moral hold on society when he expelled the Jesuits in 1767. Debates about the humoral and moral effects of the American goods such as chocolate and tobacco became nugatory as the Bourbons preferred reason so to capitalize on the natural world. To that end Carlos IV commissioned the Royal Botanical Expeditions whom he tasked with the mission to catalog Spanish America's species, take geographic data, and compose an ethnology of the indigenous people the expeditions encountered. The works of Linnaeus and Buffon prevalently loomed in the libraries and the empirical methodology Spanish naturalists deployed during

the Royal Botanical Expeditions. The work of men like Sessé, Mociño, and Pineda had to wait nearly two centuries to gain recognition. A formidable combination of war, cost, and political intrigue claimed much of the work. Mociño fled into exile. Malaspina fled Spain after he served time in prison for his prescient critiques of Spanish administration of its American territories. Regardless, Spanish naturalism continued.

After the American Wars of Independence in the early nineteenth-century, Spanish naturalists started to pay greater attention to their regions. Ornithology developed as part of the trend in which inexpensive printing and a proliferation of naturalistic knowledge made it easier for naturalists to add to the corpus of science and critique each other's work. Spaniards, following the field observation model based on Buffon's work, enthusiastically set to the task of identifying and cataloging Spain's bird life. As Spaniards tried to expand their country's economy in the late nineteenth-century, some argued that birds rendered protection against insects that damaged Spanish agriculture. Among their advocates, birds represented a powerful ally to bolster Spain's fortunes and in some cases provided role models of parenting and work ethic to the lower-classes. This apprehension about the lower-classes united those who wanted to protect birds for commercial reasons with those who demanded hunting restrictions to safeguard game supplies.

Noble hunting provided the second strand of protections and a legal precedent for species protections. The Real Cédulas of Carlos III and Carlos IV, promulgated in 1772 and 1804, established hunting seasons and other limitations such as who could use a shotgun and when one could use hunting dogs. These laws ostensibly favored the upper-classes and

the nobility who could hunt outside of the season at the expense of lower-class Spaniards who could not legally benefit from Spain's wild four-legged and winged foodstuffs. The laws also instituted protections for certain bird species such as partridges and limited the manner in which they could be hunted. Also, it barred people outright from disturbing bird nests. Bird enthusiasts molded their own beliefs on to this already existent legal architecture in the Ley de Caza decretada en 10 de Enero de 1879, the Ley de 19 de Septiembre de 1896 por la que se dictan normas para la Protección de los pájaros, the Ley de Caza de 16 de Mayo de 1902, and the Reglamento para la aplicación de la misma de 3 de Julio de 1903. This series of laws heralded the point at which Spaniards merged animal protection with national well-being. Furthermore, the nobility managed to preserve their domain of masculine, martial leisure through the imposition of exorbitant fees that in practice excluded most Spaniards from hunting. Lower-class hunting continued, regardless, as courts could not enforce the law due to vague language and practical unenforceability. Still, law fused the notion of national well-being with environmental legislation, reflecting a new environmental consciousness. That logic played an essential role in Pedro José Pidal's arguments for the need to reinvigorate Spaniards through nature.

Pidal's writings and thoughts meshed nationalist protectionism with his experiences as a sportsman and a political thinker. The existence of the Club Alpino Español confirmed others shared his alpinist enthusiasm with others. He argued that alpinism and the experience of Asturian nature, in his mind the embodiment of Spanish nature, could reinvigorate the Spanish body. He chose the Montaña de Covadonga in the Picos de Europa as the place to establish that natural haven. Covadonga symbolized Spanish nationhood,

Pidal argued, because it was there that King Pelayo initiated the Reconquista against the Moors. Marshaling its scenery, spiritual majesty, and historical significance: Pidal proposed the Ley de Parques Nacionales to his colleagues in the Congreso de los Diputados in 1916. Two years later, King Alfonso XIII set the park boundaries through royal decree.

1918 marked the year wherein four centuries of Spaniards interacting with their environment entered the era of modern environmental protection. It was not the world's first national park nor was it Spain's last to be established. The Parque Nacional de la Montaña de Covadonga, now named the Parque Nacional de los Picos de Europa, was a special place. Spain initiated the process through which we all now view the environment beginning when the Catholic monarchs commissioned a Genoese sailor to find a new route to lands of spices. The world that Columbus found was no less special and filled with wonders that forced Europeans to reinvent nature. Spaniards played a fundamental role in the process, but political convulsions marred their ability to contribute in the way that naturalists in other European nations did. Despite the years of chaos in the early eighteenth and early nineteenth-century, Spaniards, albeit upper-class ones, never ceased to embrace new ways of interacting with nature. Many historical precedents and events needed to be in place, but their efforts culminated in a national park to call their own.

Epilogue

History is unrelenting and a person can be at their apogee one day and then at their nadir shortly after that. Pedro José Pidal enjoyed nearly a decade of peace in his capacity as the caretaker of the Parque Nacional de Montaña de Covadonga. Shortly after that park's

inauguration, King Alfonso declared the creation of Spain's second national park, the Parque Nacional del Valle de Ordesa located in the Pyrenees on August 15, 1918.⁵⁰⁷ Three days later the King promulgated the boundaries for both national parks, and, like its predecessor, the *Parque Nacional del Valle de Ordesa* embraced the same bans on hunting and habitat destruction among Spain's mountain peaks.⁵⁰⁸ By 1929, Pidal had to defend his hard-fought gains in support of environmental protection.

In 1930, Pidal published a letter in which he recounted his struggle against a British-owned mining company named The Asturiana Mines Limited. The company wanted access to the Lago de Enol, a lake that the Parque Nacional de la Montaña de Covadonga surrounded, to use in its mining processes. Pidal vehemently objected. He cited the fact that the Britons if they had their way, would race to the lake and plant their national flag on it.⁵⁰⁹ His friend and King Alfonso XIII issued a Royal Order that gave the company access to the lake's water; however, complications prevented the firm from actually exploiting the opportunity as they could not legally interfere with the park itself.⁵¹⁰ A year later, Pidal expressed his outrage that the English Mines Company had appropriated the waters of the Lago de Enol and had built a highway to aid their access.⁵¹¹ Pidal lamented how the company would reduce the lake to "a puddle" as well as the fate of the lake's salmon and

⁵⁰⁷ Victoriano Rivera, *Guía del Valle de Ordesa* (Madrid: Espasa-Calpe, S.A., 1929), 21.

⁵⁰⁸ Alfonso XIII, "Real Decreto," *Gaceta de Madrid* 3. no. 250 (August 18, 1918): 493-494. Rivera, 4-5.

⁵⁰⁹ Pedro Pidal, *El Lago de Enol: Carta publicada en la Prensa de Asturias* (Madrid: Romana Velasco, Viuda de P. Péree, 1930), 4-5.

⁵¹⁰ *Ibid*, 7.

⁵¹¹ Pedro Pidal, *Monarquía del "Filioque": Republicana, Nacional, o de Alfonso XIII* (Madrid: Romana Velasco, Viuda de P. Péree, 1931), 26-27.

trout.⁵¹² In 1931, Pidal's career and subsequently his state of mind began to deteriorate as Spain became a republic.

As an ardent Catholic monarchist who had a friendly relationship with Alfonso XIII, despite tensions due to the Lago de Enol issue, Pidal's status in the Spanish Second Republic became precarious at best. In his 1931 piece *Monarquía del "Filioque": Republicana, Nacional, o de Alfonso XIII*, Pidal expounded on his theological views, but his 1933 piece *El Misterio del Uni en el Verso* manifested a political mysticism that had never before appeared in his writings.⁵¹³ Without any context whatsoever and with words in bold and italics he wrote statements such as, "After the fight between those who sustain the value of **Reason** and those who devalue **Reason**, between the *dogmatics* and the *skeptics*, it is what constitutes the battlefield, the warhorse, better said, philosophy, what it called the **Problem of Knowledge**."⁵¹⁴ Pidal defined that Reason as the "Will of the Creator and Ruler."⁵¹⁵ Such statements no doubt displayed Pidal's belief in God, but he never clarified who constituted dogmatics nor skeptics. Though one could assume he directed his critique at the Republic or more specifically at the current of environmental thought that gained ground during the Republican era, ironically because it played an integral role in the historical context of his worldview, empirical science. The aforementioned Eduardo Hernández-Pacheco promoted that ethos.

⁵¹² Ibid.

⁵¹³ Pidal, *Monarquía del "Filioque"*, 37; Pedro Pidal, *El Misterio del Uni en el Verso: Explica el universo determina su filosofía, su religión, su ciencia, su moral y su política* (Madrid: Sucesores de Rivadeneyra, S.A., 1933).

⁵¹⁴ Ibid 10-11.

⁵¹⁵ Ibid, 10.

Pacheco, a geologist, became a leading figure in the *Junta Central de Parques Nacionales*.⁵¹⁶ Once the Ministry of Development acquired the *Junta Central de Parques Nacionales* under its jurisdiction, it preferred Hernández-Pacheco's scientific rationales for preservation over Pidal's excursionist ones. Hernández-Pacheco focused on places that had scientific in addition to aesthetic merit. The two men constantly engaged in editorial arguments against each other.⁵¹⁷ After the establishment of the Second Republic, Hernández-Pacheco and Pidal's different notions of nature preservation clashed even farther.⁵¹⁸ Once in control of the National Parks system, Hernández-Pacheco abandoned the National Parks model of conservation for a system that created *Sitios Nacionales* and *Sitios Naturales de Interés Nacionales*, National Sites and Natural Sites of National Interest.⁵¹⁹ A greater number of places became protected, but each encompassed a much smaller area than the National Parks. Environmental protection remained along with an emphasis on tourism. Nevertheless, the rationale behind those protections shed the justification of Regenerationism, and in its place, an emphasis on scientific inquiry flourished.

With the establishment of the Second Republic in 1931, Spain's political organizations experienced an overhaul. The *Junta Central de Parques Nacionales* did not escape unscathed. On June 7, 1931, the *Comisaría de Parques Nacionales* replaced the *Junta*. In the new order, Pidal's ideology looked antiquated: his monarchist loyalties, claims of

⁵¹⁶ Ruiz-Gómez: 164.

⁵¹⁷ Ibid: 170.

⁵¹⁸ Rafael Matal Olmo, "Los orígenes de la conservación de la naturaleza en España" in *Estudios sobre el paisaje* (Madrid: Ediciones de la Universidad de la Universidad Autónoma de Madrid, 2000), 264.

⁵¹⁹ Ibid, 274.

legitimacy based on the previous regime, and constant public criticisms did not ingratiate the Marques de Villaviciosa with his cohorts.⁵²⁰

On March 21, 1935 the Republican government issued a decree putting the National Parks under the control and administration of the General Director of Mountains, Fishing, and Game. On March 26, 1935, Pidal lost his posts in the National Parks system, including his role as the Director of the *Parque Nacional de la Montaña de Covadonga* and the *Parque Nacional del Valle de Ordesa*. Pacheco replaced him soon afterward. Pidal then publicly decried the action in his book, *Trinitario Dinastico: Descubrimiento de la Verdad por la Belleza*, released in 1935, which he subtitled as the second edition of *El Caso de Los Parques Nacionales*.⁵²¹

Pidal directed his fury at the *Director de Montes*, Fernando Baró y Zorrilla. Pidal placed all the blame for his diminished status on the director, ranted about how the Republic no longer abided to monarchist legislation, accused the new park officials of a return to the feudal-like state of *caciquismo*, and accused the director of “prostituting the National Parks of Spain...”⁵²². That same year, 1935, Pacheco wrote the forward to a guidebook about the *Parque Nacional del Valle de Ordesa*.⁵²³ In his prologue he mentioned

⁵²⁰ Pedro Pidal, *Monarquía de “Filioque”: Republicana, Nacional o de Alfonso XIII* (Madrid: Ramona Velasco, Vuida de Prudencio Pérez, 1931), 33-35.

⁵²¹ Pedro Pidal, *Trinitario Dinastico: Descubrimiento de la Verdad por la Belleza* (Madrid: Sucesores de Rivadeneyra, S.A., 1935), 5.

⁵²² *Ibid*, 6-7.

⁵²³ Eduardo Hernández-Pacheco, “Prólogo,” in *Guías de Los Sitios Naturales de Interés Nacional: El Parque Nacional del Valle de Ordesa* by Arnaldo de España (Madrid, 1935).

the efforts of the author who was a member of the Spanish Society of Alpinism.⁵²⁴ Nowhere did he mention Pidal or make any reference to the spiritual benefits of enjoying Spain's nature. Pidal's ethos was expelled along with him.

Pedro José Pidal y Bernaldo de Quirós outlived the Republic that he resented for taking his positions away from him. Pidal's exit from the government proved almost kismet as a few short months later, in late summer 1935, Francisco Paulino Hermenegildo Teódulo Franco Bahamonde made contacts in the extreme rightist organization *Unión Militar Española*, a move towards the outbreak of the Spanish Civil War.⁵²⁵ In the intervening years between the Republic's defeat in 1939 and the establishment of Spain's third national park, the Parque Nacional del Teide in 1954, the country endured a period of mass civil war, foreign intervention, and political violence as Franco consolidated his grip. Pidal died in Gijón on November 17, 1941. In 1949 his remains were interred in the mountains, he had fought to preserve.⁵²⁶ The Picos de Europa, it seemed, had not yet witnessed their last battle for Spain.

⁵²⁴ Ibid, 5.

⁵²⁵ Paul Preston, *Franco: A Biography* (London: HarperCollins e-books, 1993) kindle edition, chapter 4.

⁵²⁶ Joaquin Fernández Sanchez, *El hombre de los Picos de Europa : Pedro Pidal, Marques de Villaviciosa, Fundador de los Parques Nacionales* (Icona, 1999), 338-341.

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