Historical geopolitics and the cartography of the Monarquía Hispánica

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Abstract

This study examines the conceptualisation and governance of the Monarquía Hispánica during the sixteenth and seventeenth centuries. The study centres on three core territories: Spain, New Spain and the Philippines; reintegrating Spain's prime Asian domain within study of the Monarchy, a region often neglected in modern scholarship on the Hispanic World, such as those by Elliott, Kamen and Lynch.

The progress of these twin processes, conceptualisation and governance, is considered through the official cartography of this period; that produced by or for the core institutions of the Monarchy: the Casa de la Contratación, the Consejo de Indias and the royal court. This official cartography visualised the geopolitical concerns of the period; urbanisation, territorialisation, the proliferation of Spanish-Catholic culture and global diplomacy. Within this study, a new, historically contextualised, geopolitical framework is offered which challenges the assumed modernity and secularity of geopolitics, further developing the work of Ó Tuathail and Agnew.

The official cartography of the Monarquía Hispánica is abundant and diverse. As such, this study structures cartographic analysis using a two-layered categorisation framework. Firstly, the common subjects mapped by early modern cartographers are acknowledged: urban, territorial and global maps. Secondly, the production context of specific maps and collections is considered. This new framework seeks to address the main problems presented by the influential schemas of Robertson and Mundy. Furthermore, the schema encourages comparison between works from a range of production zones; a comparative approach between European, American and Filipino material lacking in much existing literature, including works by Mundy, Quirino and Kagan.

Finally, this comparative approach highlights the integrated nature of cartography from the early modern Monarchy; a multi-scale discipline producing views which could be used side-by-side. This reflects the Monarchy's geopolitical aspirations and activities, which operated at multiple scales and were not simply integrated but interdependent.

Contents

Abstract

List of Plates i

Acknowledgements iv

Declaration v

Introduction 1

Chapter One: Historical geopolitics and the Monarquía Hispánica 18

Chapter Two: Urban Cartography 42

Chapter Three: Territorial Cartography 73

Chapter Four: Global Cartography 98

Chapter Five: Comparative Cartography and Integrated Geopolitics 111

Epilogue 141

List of abbreviations vi

Bibliography vii

List of Plates

i. 1	*Aspecto Symbólico del Mundo Hispánico puntualmente arreglado al geográfico* (1761) Vicente de Memije.	2
i. 2	*Aspecto geográfico del Mundo Hispánico* (1761) Vicente de Memije.	4
i. 3	Three place name glyphs from *pinturas* of the *Relaciones geográficas* (1577): *Guaxtepec* (1580) Anonymous, *Amoltepec* (1580) Anonymous, *Ixtapalapa* (1580) Martín Cano.	14
i. 4	Two river glyphs and two road symbols from the *Relaciones geográficas* (1577): *Tecuicuilco* (1580) Anonymous, *Cuzcatlan* (1580) Anonymous, *Ixtapalapa* (1580) Martín Cano, *Teozacoalco* (1580) Anonymous.	15
I. 1	*Cholula* (1581) Anonymous. *El Mapa de Sigüenza* (16th century), Anonymous.	39
II. 1	*Valencia* (1563) and *Barcelona* (1563), Anton van den Wyngaerde.	45
II. 2	*Toldeo* (1563) and *Cordoba* (1567), Anton van den Wyngaerde.	47
II. 3	*Monzón* (1563) and *Madrid* (1562), Anton van den Wyngaerde.	48
II. 4	*Amsterdam* (c. 1560), Jacob van Deventer.	50
II. 5	*Meztitlan* (1579), Gabriel de Cháves.	53
II. 6	Sixteenth-century Nahua cadastral map, Anonymous.	55
II. 7	*Izquyluca* (1594) Anonymous.	56
II. 8	*Tetlistaca* (1581) Anonymous, and *Guaxtepec* (1580) Anonymous.	57
II. 9	*Quatlatlauca* (1579), Anonymous.	60
II. 10	*Epazoyuca* (1580), Anonymous.	62
II. 11	*Santa María Natividad y San Antonio* (1602), Anonymous, and *Acacingo* (1606), Anonymous.	63
II. 12	*Descripción geométrica de la ciudad y circunvalación de Manila y sus arrabales...* (1671), Fr. Ignacio Muñoz.	65
II. 13	*Manila* (pre-1645), Anonymous. *Large majolica jar* (c. 1700), Puebla de los Angelos production. *Majolica basin* (late 17th century), Puebla production.	67
II. 14	*Nobilis ac regia civitas Valentie in Hispania* (1608), Antonio Manceli. *Topographia de la villa de Madrid* (1656), Pedro Texeira.	69
III. 1	*La Spaña* (1554) Giacomo Gastaldi, *Nova descriptio Hispaniae* (1555) Thomas Geminus, *Hispaniae description* (1560) Domenico Zenoi.	77
III. 2	*Escorial Atlas: Portion 5 and Portion 6* (c. 1560-75) Pedro Esquivel and Diego de Guevara (?).	79

III. 3	*Escorial Atlas: España* (c. 1580-90) Juan López de Velasco and João Baptista Lavanha (?).	81
III. 4	*El Atlas del Rey Planeta: Coastline south of Granada* (1634) and *Marbella* (1634) Pedro Texeira.	83
III. 5	*El Atlas del Rey Planeta: Tabla general de España* (1634) Pedro Texeira.	84
III. 6	*Doce figures ó planos de eclipse de luna observado en México el 17 de Noviembre de 1584, hechas por Jaime Juan, Cristóbal Gudiel, Francisco Domínguez y el Doctor Farfan conforme á las instrucciones de Su Majestad* (1584) Francisco Domínguez.	86
III. 7	*Descripcion de la Audiencia de Nueva España* (1575) Juan López de Velasco. *Descripcion del Destricto del audiencia de Nueva Espana* (1601) and *Descripcion de las Indias del Poniente* (1601) Juan López de Velasco and Antonio Herrara.	89
III. 8	*Carta hydrographica y chorographica de las Islas Filipinas* (1734), F. Pedro Murillo Velarde, Nicolás de la Cruz Bagay and Francisco Suarez.	91
III. 9a	Accompanying vignettes from *Carta hydrographical y chorographica de las Islas Filipinas* (1734) Francisco Suarez.	93
III. 9b	Accompanying vignettes from *Carta hydrographical y chorographica de las Islas Filipinas* (1734) Francisco Suarez.	94
IV. 1	*Planisphere* (1529) Diego (Diogo) Ribeiro.	101
IV. 2	*Demarcacion y nauegaciones de Yndias* (1575) López de Velasco. *Descripcion de las Yndias de ocidentales* (1601) Juan López de Velasco and Antonio Herrara.	105
IV. 3	*Mapamundi* (1634) Pedro Texeira.	108
V. 1	Map showing the locations mapped by Anton van den Wyngaerde which are mapped on the Escorial Atlas index map.	114
V. 2	*Oxen* (Ojén) (1564) Anton van den Wyngaerde. *Escorial Atlas: Portion 2* (c. 1560-75), Pedro Esquivel and Diego de Guevara (?).	115
V. 3	*Zahara de los Atunes* (c. 1564) Anton van den Wyngaerde.	116
V. 4	*Puerto de Santa María, Jerez de la Frontera* and *Sanlucar de Barrameda* (c. 1567) Anton van den Wyngaerde. Detail from *Escorial Atlas: Portion 2* (c. 1560-75), Pedro Esquivel and Diego de Guevara (?).	118

V. 5	*Guadalajara* (1565) Anton van den Wyngaerde.	119
V. 6	*Texupa* (1579) Anonymous. Map marking the *pinturas* of the *Relaciones geográficas* (1577) which show a single town and those which include a broader, regional context.	122
V. 7	*Muchitlan-Zumpango* (1582) Anonymous. *Zumpango* (1582), Anonymous.	123
V. 8	Map showing *pinturas* of the *Relaciones geográficas* (1577) which make internal reference to other locations.	124
V. 9	*Cempoala* (1580) Anonymous. *Epazoyuca* (1580) Anonymous.	125
V. 10	*Ixcatlan A and B* (1579) Anonymous.	126
V. 11	*Atlatlauca* (1580) Anonymous. *Teutenango* (1582) Anonymous.	127
V. 12	*Descripción de la Isla Hermosa dirigida por Hernando de los Ríos Coronel con carta fecha en Manila a 27 de junio 1597* (1597) Hernando de los Ríos Coronel.	132
V. 13	*Plano de la ensenada y plaza de Cavite con sus fortificaciones y las cercanías de la misma donde se localizan los pueblos de San Roque, Cavite el Viejo y la Estanjuela y las bocas de los ríos Binacaya, Bacoor y Cavite el Viejo* (1663) Juan Somodevilla Tejada.	134
V. 14	*Mapa de la Vega del Río Grande llamado Cagayán, hasta las provincias de Sifún, Yoga, Paniqui, Pangasinan, etc., en el que se señalan misiones y pueblos* (1690) María Antonia Colomar Albajar.	135

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Declaration

I declare that no material in this thesis has been presented for publication or submitted for another degree, and that it is the product of my own research.

Introduction

In Manila, in 1761, Vicente de Memije produced his famous map of the Monarquía Hispánica, entitled '*Aspecto Symbólico del Mundo Hispánico*'. The map came as Bourbon efforts to reassert control over the American and Asian portions of the Monarchy were beginning, as these regions enjoyed a greater degree of autonomy in the seventeenth century. Memije's *Aspecto Symbólico* is famous for its allegorical representation of the Monarchy as a woman; her feet lay in the Philippines, her mantle the Americas and her crowned head, Spain. The skirts of *España* were formed by the silver galleon routes connecting the Philippines with the Americas, while the shipping lanes bridging the Atlantic form a necklace, the pendant of which is a compass rose. This allegorical cartography was becoming increasingly unusual beyond political pamphlets by the eighteenth century and reflects an effort to assert the importance of the Philippines, Memije's home, as the foundation of the empire. In the accompanying thesis, *Theses mathematicas de Cosmographia, Geographica y Hydrographica, en que el globo terraqueo se contempla por respecto al mundo hispanico,* Memije references the biblical story of the Persian king, Nebuchadnezzar, where in a dream he sees a mighty statue forged from silver, bronze, iron and gold, but whose feet were made of clay and iron.[1] The feet, being weaker than the rest, caused the statue fell, the metal body undermined by its unstable foundation. Thus, the cartographer asserted, without stability in the Philippines, the fortunes of the Monarchy as a whole would be compromised. This map has attracted much scholarly attention for its bold statement of the foundational role of the Philippines within the eighteenth-century Monarchy, as well as being a rare example of allegorical-style cartography in an ever more empirical age. **(Plate i. 1)**

It is not only this map, however, which interests us in the present study. Memije also produced the *Aspecto Geographico del Mundo Hispanico,* an excellent and accurate geographic map of the Monarchy. This hemispheric view captured the Philippines, the Americas and western Europe separated by the vast Atlantic and Pacific Oceans. This bold map successfully pictures the disparate Monarquía Hispánica as a cohesive geopolitical unit, which by the eighteenth-century was becoming ever more imperial. Yet, Memije's perspective and framing were not novel, but rather built on an

[1] Daniel 2: 39-45; Ricardo Padrón, "Allegory and Empire" in *Mapping Latin America,* ed. Jordana Dym and Karl Offen (Chicago and London: The University of Chicago Press, 2011): 86.

PLATE i. 1

Aspecto Symbólico del Mundo Hispánico puntualmente arreglado al geográfico, (1761) Vicente de Memije (Collection Maps K.Top.118.19; British Library, London)

approach successfully pioneered by the Monarchy's first chronicler-cosmographer, Juan López de Velasco, in the 1570s. Velasco had, at that time, produced a hemispheric view of the Monarchy, a political unit developed within diplomatically-defined geographical parameters. The Monarchy of the eighteenth century was a product of geopolitical developments wrought around the time Velasco had been mapping; the imperialising politics of the later 1700s included efforts to solidify and defend these boundaries from external attack and internal resistance. **(Plate i. 2)**

What is remarkable about Memije's geographical map is how little it differs from Velasco's 1575 view. The orientation may differ, and the geographical view offered may be more accurate, but the message has not changed. Both Velasco and Memije were seeking to assert the natural homogeneity of the Monarchy, projecting a sense of togetherness which was only ever theoretical. Politically, control was always limited, distance proving so great a barrier to direct governance that strategies were developed to facilitate indirect rule in the Americas, and by extension the Philippines.[2] Nonetheless, both cartographers, for different reasons and to serve different purposes, presented very similar views to the Monarchy. In both views the Philippines are westernised; an effort to prove and promote Spanish possession of this Asian archipelago. The Americas occupy a central position, hinting at their economic and partly political dominance, a level of power emerging in Velasco's time which was being suppressed during Memije's lifetime. Spain occupies a marginal position, balancing the small and distant Philippines to the other side of the map. In Velasco's view the political centre of the Monarchy is almost absent, for Memije it crowns the hemisphere, reasserting centralised control over what was increasingly conceptualised as an empire rather than a Monarchy.

While serving different purposes and addressing different issues, Memije's maps, allegorical and geographical, owed a debt to cartographic innovations and diplomatic arrangements made two centuries previously. The geopolitical aims developed in the sixteenth century were still present, though they had been adapted over time and on account of changing circumstances. Nonetheless, the projection of the Monarquía Hispánica as a Spanish-Catholic space, interdependent and cohesive, remained, and the cartographic approaches taken to render that geopolitical effort communicate greater continuity than change.

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[2] John L. Phelan, *The Hispanization of the Philippines: Spanish Aims and Filipino Responses, 1565-1700*, (Madison: The University of Wisconsin Press, 1959): 6.

PLATE i. 2

Aspecto Geográphico del Mundo Hispánico, (1761) Vicente de Memije (Collection Maps K.Top.118.18; British Library, London).

Historical geopolitics, cartography and the Monarquía Hispánica

This study considers the ways in which the Monarquía Hispánica conceptualised and governed its territory during the sixteenth and seventeenth centuries. These two activities, conceptualisation and governance, may seem distinct. Nonetheless, governance in peninsular Spain, the Americas and Asia was affected by how these territories were perceived. Many studies of the early modern Monarchy, such as the surveys by J. H. Elliot, Henry Kamen and John Lynch, have focussed on political, economic and social developments within Spain and Spanish America exclusively. [3] This study, however, will consider Spain, New Spain and the Philippines, reincorporating the Asian archipelago within the Viceroyalty of New Spain, to which it belonged throughout this period. The way these three territories were imagined, individually and collectively, changed over the sixteenth and seventeenth centuries, adapting to new political circumstances and reflecting the changing agenda of the Monarchy during this period.

The pioneering approach to governing territory adopted by the Monarquía Hispánica will also be considered, addressing the institutionalisation of both governance and knowledge-acquisition in this period. The Spanish contribution to the advancement of scientific knowledge has often been side lined, as little research or information gathered by the early modern Monarchy was made available beyond the institutions through which it governed. Antonio Barrera-Osorio and María Portuondo have challenged these assumptions, arguing that policies of secrecy that protected knowledge gathered across the Monarchy were a recognition of the political value of a broad-range of information.[4] Information-gathering practices supported the activities of the Monarchy and were understood in these terms; there was no expectation of a wider contribution to scientific knowledge beyond the Monarchy, and much of the research conducted within its territory was innovative and pioneering.

Cartography produced within the Monarquía Hispánica was understood within this context; as a creative and informative tool that possessed both symbolic and strategic value that meant such knowledge had to be protected. This study considers the

[3] J. H. Elliot, *Imperial Spain,* (London: St Martin's Press, 1963); Henry Kamen, *Spain's Road to Empire* (London: Penguin Books, 2002); John Lynch, *Spain under the Habsburgs, Volume II: Spain and America, 1598-1700,* (Oxford: Basil Blackwell, 1969).
[4] Antonio Barrera-Osorio, *Experiencing Nature* (Austin: University of Texas Press, 2006); María M. Portuondo, *Secret Science: Spanish Cosmography and the New World* (Chicago and London: The University of Chicago Press, 2009).

emerging prominence of cartography amongst the broad range of cosmographical fields conducted across the Monarchy. Cosmography encompassed a range of disciplines from geometry to history, mathematics to ethnography, and botany to linguistics. Yet, it was cartography that was increasingly recognised early in the sixteenth century to be a valuable instrument of governance. A vast number of cartographic sources survive from this period, encouraging much scholarly assessment of the role of mapping across Spanish domains. These studies are, however, usually limited to considering specific territories, regions or cartographers in isolation. This has resulted in some excellent area studies; the works of Barbara Mundy and Carlos Quirino provide detailed assessments of mapping in New Spain and the Philippines respectively. Furthermore, David Buisseret's short, though well-researched, introduction to Spanish peninsular cartography is also essential reading given the limited number of studies in this area. [5] This study, however, considers the ways in which cartography supported the conceptualisation and governance of not only one, but three territories across the Monarchy, requiring a comparative approach which accommodates maps from different locations.

Diverse approaches to mapping, chronological progressions and stylistic differences between territories offer much information about how Spain, New Spain and the Philippines were perceived throughout two centuries of transition and transformation. In addition, this approach highlights the interaction between cartography and other forms of knowledge, as maps often contain a range of information which is not directly geographical. I will, therefore, also consider how, and whether, this information was used by the institutions so often commissioning these cartographical projects, further contributing to our understanding of how territories across the Monarchy were understood and administered.

The use of cartography as a strategy of governance across the early modern Monarquía recognised the close relationship which exists between geography and politics. The Monarchy was a geographically contingent political structure, shaped by the physical environment as much as by political ideology; its success depended on its

[5] Barbara Mundy, *The Mapping of New Spain,* (Chicago and London: The University of Chicago Press, 2001); Carlos Quirino, *Philippine Cartography, 1320-1899,* 3rd edition (Manila: Vibal Foundation, 2010); Richard L. Kagan, *Urban Images of the Hispanic World*, (New Haven & London: Yale University Press, 2000); David Buisseret, "Spanish Peninsular Cartography, 1500-1700" in *The History of Cartography, Vol. Three, Part 1: Cartography in the European Renaissance,* ed. David Woodward (Chicago: The University of Chicago Press, 2007), 1069-94

ability to overcome the challenge of distance. As such, this study acknowledges the essentially geopolitical nature of the Monarchy, presenting a framework for discussing geopolitics within historical contexts. To support the present discussion, this framework is contextualised to facilitate geopolitical study within the early modern period, challenging the assumed modernity and secularity of geopolitics as a critical discipline.[6]

Finally, a new categorisation framework is presented which facilitates assessment of the cartographic sources both individually and comparatively. A range of categorisation frameworks have been developed to structure the study of cartography in the early modern period, such as those of Donald Robertson or Barbara Mundy.[7] However, these approaches present a range of challenges and fail to accommodate maps produced beyond a Central American production zone, for which these frameworks were developed. The approach deployed in this study, however, reflects core preoccupations of the extant sources from all three locations with regard to their geographical subject matter. The visual content of these maps structures the framework, while the impact of production context on cartographic output, both in terms of creation and later use, will also be considered. This two-layered framework encourages detailed engagement with specific maps while allowing for a range of sources to be studied in conjunction with one another.

Before discussing the sources that form the foundation of the present study, however, it is necessary to consider what we mean when we use the term 'map' and thus frame cartographic activity and output in a historical and cultural context.

Maps: the challenge of definition

The challenge of defining what is meant by the term 'map' in the early modern Monarquía has been approached in a number of ways. Ricardo Padrón promoted a

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[6] The specific modernity of geopolitics was embedded by the fathers of the discipline, Harold Mackinder and Friedrich Ratzel, developing a scholarly approach to the interaction between geography and politics within the context of contemporary international politics; see: Gearóid Ó Tuathail, *Critical Geopolitics,* (Minneapolis: University of Minnesota Press, 1996): 6. The assumed secularity of modern geopolitics can be seen in the work of Shapiro and Agnew, who propose an emerging disconnection between religion and geography at the close of the medieval period; see: Gerard Toal, "Spiritual Geopolitics: Fr. Edmund Walsh and Jesuit anti-communism", in *Geopolitical Traditions*, eds. Klaus Dodds and David Atkinson (London and New York: Routledge, 2000): 187.

[7] Barbara E. Mundy, "Mesoamerican Cartography", in *The History of Cartography, Vol. Two, Book Three: Cartography in the Traditional African, American, Arctic, Australian and Pacific Societies,* ed. David Woodward and G. Malcolm Lewis (Chicago: The University of Chicago Press, 1998), 183-256; Donald Robertson, "The *pinturas* (maps) of the Relaciones Geográficas Within a Catalog" in *The Handbook of Middle American Indians, Vol. 12: Guide to the Ethnohistorical Sources, Part One,* ed. Howard Cline (Austin: University of Texas Press, 1972): 243-78.

linguistic approach to recover contemporary definitions, charting the growing association of the Spanish *mapa* with gridded, geometrical cartography.[8] This definition was, as Padrón has highlighted, limited to a small community of cartographically literate, peninsular Spaniards. As such, it probably had little relevance for Spaniards in the Americas or Asia, let alone indigenous Mesoamericans or Filipinos.

Linguistic techniques are further complicated by translation, as Walter Mignolo has emphasised.[9] While Spaniards are known to have translated the term *pintura* to the Nahuatl *amoxtli,* these words were far from synonymous. While *amoxtli* could refer to an image, including a map, it also had literary associations; the logographic nature of pre-Columbian Nahuatl meant that text and image were co-existent and mutually dependent. Furthermore, while there has been much research into indigenous Mesoamerican understandings of maps and their functions, no comparable research exists for an indigenous Filipino context. The apparent lack of an indigenous cartographic tradition in the Philippines has undoubtedly contributed to this situation, though the extent to which this is an issue of source survival has not been successfully considered. As such, it is difficult to draw conclusions regarding indigenous Filipino understandings of cartography before or following Spanish settlement in the archipelago and the potential implications of translation in the production of maps in the region.

The Spanish conception of cartography was not limited linguistically or stylistically to the geometrical *mapa.* Even within official circles a range of terms were deployed to refer to cartographic productions, such as *pintura, dibujo, croquis,* alongside a variety of other words. What these terms meant to the people using them at the time is not always easy to discern. It is hard to know whether they were used to convey a specific meaning or whether they were, in fact, considered synonymous.

What this linguistic diversity does convey is that the understanding of what constituted a map was not fixed or limited. Mapping represented a broad field of enquiry and response, with different mapping genres serving different purposes and perhaps offering a range of perspectives on their zone of enquiry. From landscapes and cityscapes to geodetic surveys and world maps, from itinerary-style productions to cadastral surveys and city plans, cartography was a varied and dynamic investigative,

[8] Ricardo Padrón, "Mapping Plus Ultra: Cartography, Space and Hispanic Modernity", *Representations* No. 79 (Summer 2002).
[9] Walter Mignolo, "Colonial Situations, Geographical Discourses and Territorial Representations: Toward a Diatopical Understanding of Colonial Semiosis", *Dispositio,* Vol. XIV Nos. 36-38 (1991).

informative and illustrative discipline. The further diversity presented through contact with non-European peoples thus simply added further depth and intricacy to an already broad-ranging discipline which was clearly capable of accommodating various styles.

Any definition of 'map' within the context of the early modern Monarquía Hispánica must, therefore, be able to reflect this diversity and breadth. To adopt a basic definition, maps were geographical in subject matter, representing the physical environment, though capable of including a range of non-geographical information within their plane view. Furthermore, while preferred styles emerged in the early modern period, most dominantly the geometrical survey, a vast range of styles and techniques were employed and clearly understood, acknowledged for their potential to convey different perspectives and information. Our modern conception of cartography is narrowly defined in a way the early modern notion of cartography which operated within the Monarchy was not. The early modern view of cartography, which will be adopted within this study, was capable of supporting a level of detail, diversity and nuance which exceeds the capabilities of the aerial, geometrical view of the modern 'map'.

The Cartography of the Monarquía Hispánica

The Monarquía Hispánica of the sixteenth and seventeenth centuries saw cartographic output increase rapidly. During this period new styles of cartography developed and new mapping techniques and technologies were refined. Much of this cartography was produced by or for the institutions governing and managing the Monarchy: the Consejo de Indias, the Casa de la Contratación and, importantly, the royal court. The Casa, the House of Trade, had a duty to produce maps of the Monarchy, supporting further exploration and expansion, as well as securing trade and transport routes across Spain's hemisphere of influence. The Consejo, or Council of the Indies, required information about the Monarchy's various domains to support the practical task of governing these vast and distant territories, a requirement which on some occasions was not successfully undertaken. Cartography was an essential resource in acquiring such knowledge, alongside written questionnaires and expeditions focussing on a range of disciplines, from botany to ethnography. Finally, the royal court expressed great interest in cartography throughout the sixteenth and seventeenth centuries, fuelled in many respects by the personal interest several monarchs had in the subject. While Philip II is, perhaps, most famous for his interest in cartography, his father, Charles V, and

grandson, Philip IV, also possessed a great interest in maps and the process of mapping, appreciating cartography for its strategic and informative potential as well as its beauty and creativity. The broad-ranging interest in cartography as a technology of governance, however, meant that most of the maps produced in the Monarchy were never published and did not even circulate beyond the closed circle of these central institutions, protected, or perhaps strangled, by a policy of secrecy.

While this secrecy prevented maps being published, and thus having impact beyond the institutional core of the Monarchy, the protection afforded to cartographic productions has seen a huge number survive from the early modern period. These maps fulfil a range of purposes and employ an array of techniques, technologies and styles; their diversity as impressive as their number. Within the context of a study such as this, it is, therefore, necessary to make a selection of sources from this broad corpus.

As such, this study will focus on, what will be here termed 'official cartography', confining itself to maps directly commissioned by or specifically produced for the core institutions of the Monarchy: the Casa, Consejo and Corte. Discerning provenance is often a challenge, with authorship rarely acknowledged and commissioning statements often lost. Therefore, only those maps or map collections which can be directly associated with the Casa, Consejo or royal court will be considered. As such, the vast corpus of legal maps available from New Spain across this period will not receive in-depth consideration, produced, as they were, to address specific legal disputes rather than the needs of the bodies governing and managing the Monarchy.[10]

The geopolitical focus of this study makes the selection of official cartography preferable, presenting a number of officially-commissioned view of spaces across the Monarchy at a variety of scales. This 'official' label does not imply, however, that these views conform to sanctioned ideas, though they can be seen addressing specific criteria set out in instructions or can be seen to fulfil particular requests for information. A brief view of these maps quickly dispels any assumption of uniformity or stylistic constraint; while cartographic commissions often detailed the 'where' and 'what', they very rarely specified the 'how'.

[10] For an introduction to the *Tierras* legal maps, see "Mapas indígenas novohispanos bajo resguardo del Archivo General de la Nación" available online via the Biblioteca Digital Mexicana: http://bdmx.mx/detalle/?id_cod=44#.VAraBKP2vMw (last accessed: 06/09/2014).

The sources to be considered in this study fall into two broad categories: surveys and individual productions. Surveys were often long-term undertakings, requiring a number of years to prepare and produce. They could involve a number of cartographers, though there were surveys conducted by individuals. Importantly, surveys produced multiple maps, sometimes ranging in scale or perspective, though often adopting one or a specified set of approaches. Individual productions, in contrast, represent one-off maps, perhaps representing the only known work of a particular cartographer or representing a single map which was not produced as part of a broader survey project. Some cartographers were involved in both practices, and it is sometimes difficult to be sure that certain surviving individual maps were not originally part of a series. Within this study, efforts have been made to discern the production context of maps, though surviving contextual material is often scarce and not always accessible.

The main survey works to be considered in this study are the city view project of Anton van den Wyngaerde, the Escorial Atlas project, led initially by Pedro Esquivel, the abortive survey of New Spain undertaken by Francisco Domínguez, the *Relaciones Geográficas* surveys, and the *Descripción de España,* Pedro Texeira's atlas of 1634.

Wyngaerde's city views and Esquivel's Atlas, both, almost certainly, commissioned directly by Philip II in the 1560s, were intended to capture an impression of Spanish-Habsburg lands in the Iberian Peninsula. Importantly, both were charged with creating images of territories which, while once considered distinct and separate, were increasingly considered to belong to 'Spain', a territory which was emerging theoretically and politically by the mid- to late-sixteenth century. While Wyngaerde adopted the techniques and perspectives of the artist, and Esquivel the quadrants and plumb lines of the early modern geometrical cartographer, both successfully captured an impression of continuity and connection across Spain's many kingdoms. By the time the Atlas' index map was produced at the end of the sixteenth century, the authors could convincingly present the whole peninsula as 'Spain', one unit of a global Monarchy centring on Madrid.

Texeira's seventeenth-century Atlas achieves a similar, though more cohesive, effect to the sixteenth-century surveying efforts, adopting aspects of artistic cartography alongside geometrical surveying. The 'Spain' the Portuguese cartographer captures is, however, that at the end of its unified phase, as Portugal asserted independence in 1640, only six years after work on the Atlas was concluded. Nonetheless, Texeira's Atlas,

produced for Philip IV if not commissioned by the monarch, combines functionality with artistry in a natural and highly effective way. The Atlas, which offered the king of review of existing coastal defences, loses none of its utility in it luxurious presentation, though it remains, sadly, unfinished. Texeira more explicitly acknowledges the global role of Spain within the Monarchy, including a *mapamundi* at the end of the Atlas, a map which proclaims truly global ambitions over a unified Iberian world ruled by Philip IV, 'El Rey Planeta'.

Surveys were not confined to Spain, with New Spain finding itself the subject of a number of surveying efforts. In the early 1570s, the Portuguese cosmographer, Francisco Domínguez, was commissioned, apparently by Philip II, to produce a survey of New Spain. None of the preparatory sketches survive and the survey was never completed due to continued financial complications.[11] While remaining a tantalising mystery for historians of cartography, what little we know of Domínguez's work is instructive; emphasising the disjoint between royal ambitions with regard to exploration and the administrative capabilities of the Monarchy. Furthermore, the Domínguez case acts as an example of how early modern cosmographic disciplines were conducted and funded.

The surveys of Spain conducted by Wyngaerde, Esquivel and Texeira, as well as Domínguez's unfinished survey of New Spain, were all conducted by professionals. Wyngaerde, though an artist, was most certainly a trained chorographer and applied geometrical techniques in his use of perspective and assimilation of multiple preparatory sketches in his finished views. Esquivel, Texeira and Domínguez were almost certainly all trained cartographers, and Esquivel was Professor of Mathematics at the University of Alcalá. Their productions are those of the professional, adopting a uniform approach or set of approaches which are cohesive in their final presentation. Not all surveys were conducted in this way, however, with one of the most famous geographical surveys conducted in the early modern Monarquía employing respondents from a range of professional and educational backgrounds.

The *Relaciones geográficas* survey of 1577, a fifty-point questionnaire produced by Juan López de Velasco, was issued across the Monarchy's Central and South American territories. The 1577 issue proved to be its most successful, with over 160

[11] For documents relating to Domínguez's appeals for his salary, see: Méritos y servicios: Francisco Domínguez (PATRONATO,261,R,9: 4; AGI, Seville); David Goodman, *Power and Penury,* (Cambridge: Cambridge University Press, 1988), 67.

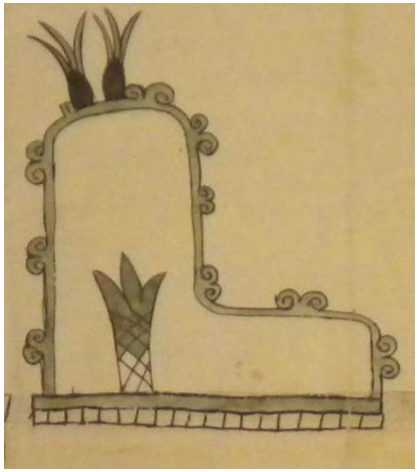
responses, predominantly from New Spain and Guatemala.[12] Responses were predominantly textual, though forty-eight include extant *pinturas,* or maps, from the first issue. A range of individuals contributed to both portions of the questionnaire, though the influence of indigenous Mesoamerican training and knowledge can be seen most explicitly in the cartographic portion of the responses. These are stylistically diverse and include a range of information beyond that specifically requested in the questionnaire, including historical and cultural details particular to the indigenous communities of the old Aztec-México Empire. These were especially influenced by traditional Nahuatl logographic text and common glyphs relating to water, settlements, roads and the flora and fauna of the region, which can be found in many map responses. **(Plate i. 3 and i. 4)**

The questionnaire was issued again in 1584 with some success in New Spain, and on a further three occasions across the seventeenth-century, with another three surveys following in the eighteenth century. These later issues were adaptations of the original questionnaire, though the Bourbon editions of the eighteenth century adopted a format closer to that of the 1577 issue. Sadly, few responses to these later surveys survive; this is particularly disappointing for the 1679 issue, a demographic survey, which uniquely extended the catchment to include the Philippines. Unfortunately only the data from Guatemala has survived.

Moving away from the survey collections, the individual maps are far more disparate in terms of authorship and archival accessibility. Nonetheless, these maps generally fall into one of two content-categories: those representing urban locations and world maps. Within this category we have city views, such as those by Fr. Ignacio Muñoz, who mapped Manila for the Consejo de Indias in 1671, or Pedro Texeira's famous plan view of Madrid, remarkably published in Antwerp, in 1656. Alongside these urban views we have Ribiero's planisphere, produced c. 1529 following diplomatic talks relating to the placement of a demarcation antemeridian to match that agreed at Tordesillas in 1494, as well as hemispheric maps produced by Juan López de Velasco, the first chronicler-cosmographer of the Indies. One exception to the

[12] Few responses to the *Relaciones geográficas* survive from Peru, though the illustrations of Felipe Guaman Poma de Ayala from his '*El primer nueva corónica y buen gobierno*' (1615-16) provide a mestizo perspective on urban space in particular (København, Det Kongelige Bibliotek, GKS 2232 4°). This chronicle was presented to Philip III as both an historical record of Andean society and as a critique of Spanish government in the region: http://www.kb.dk/permalink/2006/poma/info/en/frontpage.htm (last accessed: 29/08/2014).

PLATE i. 3



Three place-name glyphs from *pinturas* of the *Relaciones geográficas,* 1577 issue.

Left: *Guaxtepec* (1580), Anonymous (XXIV-03; NLB, Austin). The glyph is a compound logograph, combining the term '*tepec*' with the term '*guajes*' which referred to the rubber plant after which the town was named. *Tepec* specifically meant 'hill', though came to be a general suffix for settlements, like the English 'ton' or 'thorpe'.

Centre: *Amoltepec* (1580), Anonymous (XXV-03; NLB, Austin). This is also a compound place-name glyph, combining a stylised *tepec* glyph with the *amol* glyph, referring to the soap plant or Amole.

Right: *Ixtapalapa* (1580), Martín Cano (XXIV-08; NLB, Austin). Ixtapalapa means 'place by the water' and this glyph combines a glyphic representation of stone with that for water.

PLATE i. 4

Two river glyphs from the *pinturas* of the *Relaciones geográficas,* 1577 issue.

Left: *Tecuicuilco* (1580), Anonymous (XXIV-19; NLB, Austin). Nahuatl maps often included fish within rivers.

Right: *Cuzcatlan* (1580), Anonymous (XXIII-15; NLB, Austin). Many Nahuatl maps represent rivers and streams with branching tributaries and swirling eddies.

Two modes of representing roads seen in Nahuatl cartography from the *pinturas* of the *Relaciones geográficas,* 1577 issue.

Left: *Ixtapalapa* (1580), Martín Cano (XXIV-08; NLB, Austin). Footprints indicate roads and paths, and indicate directionality within the *pinturas*. This can reflect the most usual direction of travel or, in maps with historical or temporal context, can indicate the order in which objects on the map should be read.

Right: *Teozacoalco* (1580), Anonymous (XXV-03; NLB, Austin). With the introduction of horses across the American continents, Nahuatl cartographers began to include hoof prints alongside footprints in their representation of roads.

predominantly urban or global nature of individual maps is a map of the Philippines by Fr. Pedro Murillo Velarde, a famous territorial map of the archipelago produced seemingly in response to a request for such a map from Philip V.

The official maps of the Monarchy, crossing boundaries of genre and production context, share many of the same issues of survival and discerning provenance. These sources, nonetheless, offer a diverse and rich corpus of material through which to consider the governance of the Monarchy, highlighting the essential interaction between geography and politics across Spanish held domains. Specifically, the maps of Spain, New Spain and the Philippines chart the refashioning of Spanish culture in the Americas, and efforts to repeat the relative success of this process in Asia. These efforts often fell short domestically and overseas, though the cartography continues to report on this disjoint between aspiration and reality.

Chapter Overview

The present study is divided into five chapters. The first explains the ways in which geopolitics can be applied to historical study, specifically immersing the discipline within the context of the early modern Monarquía Hispánica. The structure of the Monarquía is then outlined, emphasising the specific differences between early modern notions of rule within a monarchy as opposed to an empire. These differences are essential to our understanding of the geopolitical aims and activities of the Monarchy during the sixteenth and seventeenth centuries. Finally the ways in which cartography operated as a tool of governance within the Monarchy is discussed, and the categorisation framework to be applied to the cartographic sources will be outlined, detailing three core genre-categories: urban, territorial and global cartography.

The second chapter studies urban cartography, outlining the role of towns within the Monarchy, emphasising why urban locations were a popular subject for cartography across the Monarquía. These urban settlements provided a foundation for rule within the Indies, following a model of urban expansion developed in peninsular Spain. The practical and ideological functions towns and cities served will be discussed, presenting the classical, Christian and Renaissance ideas influencing urban development. This section is further divided between maps presenting urban views, itinerary maps and urban plans, making the stylistic diversity of the extant sources more manageable.

The third chapter considers territorial cartography, charting the emergence of territories such as Spain, New Spain and the Philippines. These territories were often

first made real through cartographical surveys, shaping their geographical limits through the application of geometrical mapping techniques. These seemingly objective cartographic practices projected a sense of geographical homogeneity that made the proposed territorial cohesion visually convincing if not politically practicable.

The fourth chapter discusses global cartography, though not all the maps offer a whole-world outlook. These maps most commonly present a view of the 'world of the Monarchy', a conception of the globe as defined within diplomatically agreed jurisdictional limits. At a global level the geopolitical aims of the Monarchy are divided between the desire to assert claims of possession over territory, commonly represented in the surviving cartography, and the desire to spread a Spanish-Catholic culture across the world; a powerful aim, though one which fails to feature regularly on the maps.

Finally, the fifth chapter adopts a comparative approach, viewing cartography of different genres and from different locations side by side. This comparative methodology presents new conclusions about the role of individual cartographic collections and how they were viewed and used within the early modern Monarchy. In conclusion, the geopolitical aims of the Monarchy, the imposition of urban culture, the territorialisation of the Monarchy, and the global diplomatic and cultural programmes, are shown to not simply co-exist but collaborate, reliant on one another for success.

Chapter One: Historical geopolitics and the Monarquía Hispánica

Maps have long been recognised to possess political significance and utility, allowing geography, the physical landscape and objects of administrative interest to be accommodated alongside politics in one visual plane. Cartography offers an opportunity to shape geography in a way which is impossible in reality though is politically extremely useful; drawing and redrawing borders and boundaries, planning new uses for land and laying claim to further territories. In the last century the study of this intersection between geography and politics has emerged as a discreet discipline, 'geopolitics', which acknowledges the symbiotic relationship between geography and politics within the practices of governance, interstate relations and with regard to political structures, such as empire. The emergence of geopolitics within the last century has led some to regard the discipline as essentially modern, addressing spatio-political concerns exclusively associated with the modern era. Recent reassessment has, however, argued for the application of geopolitical approaches and frameworks within historical contexts, and this thesis will further develop these arguments within the context of the Monarquía Hispánica.

This chapter will, therefore, outline a geopolitical framework for the present study of the Monarquía Hispánica, which acknowledges the specific geopolitical context of the sixteenth- and seventeenth-century Monarchy. This context reflects the structure of Spanish political power domestically and overseas, as a conciliar Monarchy rather than a colonial Empire. Furthermore, I will consider how this monarchical structure was embedded and articulated practically and theoretically through processes of spatial fashioning and conceptualisation. Following this, the role of cartography within this system of governance, as a mode of territorial possession, diplomatic tool, planning apparatus and reportory device will be outlined. Finally, I will propose a new categorisation framework for early modern Spanish maps, which reflects the core geopolitical aims of the Monarchy as well as the form and function of specific maps and cartographic collections.

Historical geopolitics

Any study which considers the intersection between geography and politics can be considered to belong to the field of geopolitical scholarship. Yet, since its emergence nearly a century ago, geopolitics has been generally confined to studies of modern

political relations. This restrictive approach to geopolitics has limited the application of a useful critical framework within historical contexts. Building on recent critical reassessments of geopolitics, I will argue that the discipline has much value for historical scholarship and specifically supports the study of the Monarquía Hispánica as a geographically contingent political structure.

While reassessment of geopolitics has led to some questioning of core aspects of the discipline, its essentially modern nature has been little challenged. Agnew and Ó Tuathail's influential reassessment of geopolitics as a 'discursive practice by which intellectuals of statecraft 'spatialize' international politics'[13] remedies the assumption of an 'objective geography', [14] though continues to chronologically restrict geopolitics through its association with the nation-state, a modern phenomenon. Though Henry Kamen has argued convincingly for the use of 'state' within discussion of early modern Europe, caution must be exercised.[15] The use of 'statecraft' in conjunction with 'international' in the context of Agnew and Ó Tuathail's definition indicate an association with the modern nation-state which is misleading when applied historically, as Alejandro Cañeque has detailed.[16] As such, current definitions of geopolitics seem unable to accommodate historical contexts which precede the emergence of the nation-state.

In recognition of this disciplinary limitation, Ó Tuathail has offered an alternative to geopolitics which can be specifically applied to pre-modern contexts: 'geo-power'. Geo-power essentially refers to the application of geographical knowledge to support the 'governmental production and management of territorial space'.[17] These twin functions are seemingly presented as the prime interests of pre-modern, though perhaps post-medieval, rulers. Why 'power' and not 'politics' must be employed in this pre-modern context is not clearly expressed, and the question of whether producing and managing territorial space is not, or has ceased to be, an aspect of modern geopolitics remains unanswered. Though Ó Tuathail succeeds in arguing that geopolitics need not

[13] Ó Tuathail, *Critical Geopolitics,* quoting Gearóid Ó Tuathail and John Agnew, "Geopolitics and Discourse: Practical Geopolitical Reasoning in American Foreign Policy", in *The Geopolitics Reader,* eds. Simon Dalby, Paul Routledge, Gearóid Ó Tuathail (London & New York: Routledge, 2003), 80.
[14] Agnew argues for an "objective geography" in, John Agnew and Stuart Corbridge, *Mastering Space* (London & New York: Routledge, 1995), 3. This had previously been questioned by J. B. Harley in "Maps, Knowledge and Power" in *The Iconography of Landscape,* eds. Denis Cosgrove, Stephen Daniels (Cambridge: Cambridge University Press, 1988), 278.
[15] Henry Kamen, *Early Modern European Society* (London & New York: Routledge, 2008), 6-7.
[16] Alejandro Cañeque, *The King's Living Image: The Culture of Politics and Viceregal Power in Colonial Mexico,* (London and New York: Routledge, 2004): 7-11.
[17] Gearóid Ó Tuathail, *Critical Geopolitics,* 7.

be necessarily secular,[18] his effort to apply geopolitics historically appears half-hearted and lacks commitment.

While present day critical geopolitics falls short of offering a viable theoretical foundation for its historical application, the discipline remains intellectually relevant to historical scholarship and offers a useful framework for historical study. Disregarding the essentially modern, state-driven definitions we must return to a more elemental approach, one which acknowledges the complex, multi-directional connections between geography, as both a scholarly discipline and description of the physical environment, and politics, as a symbolic and strategic approach to power and governance. This more basic foundation acknowledges the core aspects of the modernity-focussed branch of geopolitics, while opening a viable and valuable pathway to applying geopolitics historically.

It is with this straightforward though theoretically sound definition which we approach the present study, acknowledging the Monarquía Hispánica as a geographical entity as well as a political one. The intersection between geography and politics was essential for the successful expansion and consolidation of the Hispanic Monarchy over two centuries of Habsburg rule, and laid a foundation for further growth and redefinition under their Bourbon successors. As such, it is vital to appreciate the geographical and political particularity of the Monarchy before considering its geopolitical aims and cartographical efforts.

Empire and Monarchy

While commonly termed the 'Spanish empire' in modern scholarly writing, it is important to acknowledge that Spanish domestic and overseas governance was conceived as a Monarchy rather than an empire. This distinction is not simply technical; a monarchy was considered to offer a different style of rule to an empire in the early modern period, as it experienced a different relationship with its subsidiary territories from that which an imperial metropolis had with its colonies. The style of rule Spain employed both domestically and overseas was monarchical, not imperial. No Spanish monarch was ever styled an emperor in any serious way with regard to their own global dominions; Charles V was emperor over a Holy Roman Empire, not a Spanish one. The territories Spain ruled over in Europe, the Americas and in Asia were kingdoms or

[18] Toal, "Spiritual Geopolitics", 187-210.

provinces rather than colonies, and while into the late seventeenth and eighteenth centuries colonial vocabulary became more commonly used, this reflected a change in the way Spanish overseas domains were understood in relation to Spain herself. The challenge of calling the Monarquía Hispánica an 'empire' is really one of tracking what 'empire' meant at different stages in the history of extended Spanish rule and avoiding the imposition of eighteenth-, nineteenth- or even twentieth-century definitions of 'empire' on an early modern pattern of governance. The danger of anachronism is more easily recognised when speaking of monarchy than it is when discussing empire, which has an extremely complex lexical history and has developed modern associations which are often difficult to shake off.

The early modern conception of monarchy nonetheless owed much to classical, and specifically Roman, definitions of *imperium*. An empire was considered to rule over land acquired by force, which came to share a common society and culture under the rule of one individual.[19] Within the Roman world the necessity of shared culture was a particularly powerful feature of empire, with Roman law providing the foundation for this cultural community and serving to sustain it. The extent of Roman law was felt to mark the limits of the Roman Empire, as the law defined public and private expectations of civility which were considered 'Roman'.[20] As the Empire grew, territory could be acquired as effectively and securely by the spread of law as it was by the application for military force. This unique, legally-defined shared culture was termed *civitas,* and had strong associations with urban society, which was home to these legal communities.[21]

The cultural foundation of imperial rule was strongly adopted and reconceptualised by late antique and medieval Christian thinkers in the wake of the transformation of the Roman world. The Church felt itself to be inheritor of the territorial expanse of Rome, reimagined as Christendom, crossing the divide between the remnants of the eastern and western portions of the Roman Empire. Where law had once served as symbol of imperial culture, now the Christian faith was the foundation of *civitas.*[22] Following the Roman model, the association between urban life and civility was sustained, most famously in Augustine's allegorical 'City of God'.

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[19] Anthony Pagden, *Lords of All the World* (New Haven & London: Yale University Press, 1995), 13-16.
[20] Pagden, *Lords of All the World,* 22.
[21] Pagden, *Lords of All the World,* 19; Kagan, *Urban Images of the Hispanic World,* 20.
[22] Pagden, *Lords of All the World,* 24-25; Kagan, *Urban Images of the Hispanic World,* 21; Alejandro Cañeque, *The King's Living Image,* 195.

While the concept of urbanised civility continued into the medieval period, the overall conception of extended territorial rule was redefined. Isidore of Seville in his *Etymologiae* substituted the Latin term *imperium* for the Greek *monarchia,* and in doing so connected imperial rule with monarchy.[23] Monarchy did not directly equate to empire; the intended relationship between subsidiary territories and the political core within a monarchy was closer to being partners in a shared governing structure than being parts of a hierarchical structure in which one group had power over another. This idea, alongside the concept of urbanised civility, greatly influenced the process of territorial expansion by Spain from the late medieval into the early modern period.

Though theories of empire certainly influenced theories of monarchy, the relationship between the heartland of the Monarquía in peninsular Spain and her overseas domains owed more to domestic conceptions of monarchical governance than imperial rule. As such, the geopolitical ambitions and efforts of the Hispanic Monarchy emphasised this non-imperial approach to rule, while the cartographic renderings of different territories demonstrate greater parity of engagement than hierarchy or metropolitan prioritisation.

Geopolitics and the Monarquía Hispánica

The Monarquía Hispánica was a product of geopolitical processes, both practical and intellectual. The space the Monarchy occupied was shaped by politically defined lines of demarcation, outlined in various treaties, notably Tordesillas (1494), Zaragoza (1529) and Madrid (1750). These treaties created 'theoretical spheres of influence', dividing the world between the Spanish and Portuguese crowns.[24] Such a division was in line with an emerging two worlds mentality which had already divided the globe between the Old World and the New. That the Portuguese and Spanish hemispheres largely aligned with this parallel division only strengthened the Iberian position.

These politically defined zones were impossible to fix geographically as no reliable solution to the problem of determining longitude was found until the eighteenth century. However these imaginary demarcations were lived realities; with every dispute over the position of one of these lines their presence was more acutely felt, and with every treaty or mutual agreement regarding fringe regions they became more real. The

[23] Pagden, *Lords of All the World,* 15.
[24] Frank Lestringant, *Mapping the Renaissance World,* trans. David Fausett (Cambridge: Polity Press, 1994), 3.

Treaty of Badajoz (1524) was a victim of politicised discourse of this kind; suggestions to initiate collaborative research both within the Iberian Peninsula and overseas were rejected as the kings and their delegations 'were interested in advantage and not in fact'.[25] This ongoing, though often negotiable, mutual agreement between the Crowns of Spain and Portugal to honour the specified limits of their assigned territorial zones was not simply to avoid potential economic or political losses. The Treaty of Tordesillas (1494) represented a statement of faith as much as one defining sovereign jurisdictions; both Spain and Portugal wished to support papal claims to dominion over the world in the name of Christ. This reflected a desire to shore up their own claims to newly discovered regions and also a wish to stand by a long held assumption that the Church was inheritor of the Roman world, an idea connected to the famed Donation of Constantine.[26] While this document had been proven a forgery in the mid-fifteenth century, the view that the Church had inherited the Roman world from emperors who were merely regents of Christ, supported their assumed right to control and donate land on His behalf.

Yet, the Iberian hemispheres outlined in Tordesillas and Zaragoza, while conceptually real to both Portugal and Spain, were not legally owned by either.[27] Tordesillas had limited Spanish sailing routes in the Portuguese jurisdiction, and Zaragoza had effectively created exclusive zones for trade and navigation, yet neither treaty granted any legal rights of ownership to either Crown.[28] Neither could claim formal possession of their half of the world, requiring legal frameworks to be developed at smaller scales to create a web of sovereignty. Thus, traditional techniques of localised land acquisition were combined with larger scale projects of territorial production to ensure that rights to exclusivity granted by treaty could be supported by legally underwritten sovereign rule.

An Urban Monarchy

While the Monarquía represented the world's first truly global framework of sovereign rule, in essence it was founded on a network of urban settlements. Practical, historical and intellectual reasons existed for this urbanised network, which created a political,

[25] Ursula S. Lamb, "The Spanish Cosmographic juntas of the sixteenth century", *Terrae Incognitae* Vol. 6, Issue 01 (1974), 55.
[26] Pagden, *Lords of All the World,* 27, 32.
[27] Lauren Benton and Benjamin Straumann, "Acquiring Empire by Law: From Roman Doctrine to Early Modern European Practice", *Law and History Review,* Vol. 28, No. 1 (Feb 2010), 9.
[28] Benton and Straumann, "Acquiring Empire by Law", 19.

cultural and a necessarily legal foundation for the spread of the Monarchy and its continued survival. Urbanisation and with it the promotion of a civilised, Catholic culture formed a core geopolitical aim of the Monarchy, underpinned theoretically by classical, Christian and humanist conceptions of civic virtue as shaped by civic space and the proliferation of true Faith.

Historically, establishing towns had been a method of securing territory along a shifting frontier during the Reconquest era, and was thus conceived politically rather than economically.[29] These towns possessed symbolic value as Christian settlements and enjoyed special legal privileges which made their existence and survival possible. This legal dimension would continue to play a role in the overseas expansion of the Monarchy. Spanish urban culture was not like that in northern Europe, having a strong connection with agriculture and lacking the mercantile base which was common to the Low Countries or England. Ciudad Real, established during the Reconquest, was almost exclusively home to agricultural workers who farmed the surrounding countryside, a pattern that was repeated across the peninsula.[30] Nonetheless, an urban frontier was an effective mode of securing territory and ensuring that frontier populations were well protected and had local economic centres to support farming or small-scale artisanal enterprises.

This traditional method of securing land through urban foundations was continued in the Indies. Town establishment, most notably in the Americas, served one essential purpose: to create pockets of legally owned land which, when taken collectively, provided a physical urban framework to support the theoretical zones of influence granted by treaty. When we speak of 'legal' rights in the context of Spanish overseas expansion it should be remembered that the law under consideration was that of Spain, and while attention was paid to protecting the rights of autochthonous peoples, the interests of Spanish settlers were of prime importance. As such, all 'discoveries' by Europeans had to be licensed by the Crown and any settlement of these lands was subject to a further license. Ceremonies were carried out upon 'discovery' which supposedly made these lands Spanish possessions in the name of the monarch; these ceremonies aimed to make strong claims against possible counter-claims by other empires as much as they sought to justify land ownership to themselves. The presence

[29] Jay Kinsbruner, *The colonial Spanish-American City: urban life in the age of Atlantic capitalism* (Austin, TX: The University of Texas Press, 2005), 4.
[30] Kinsbruner, *The colonial Spanish-American City,* 3.

of native peoples was not considered problematic as they were 'vassal Indians' practically before the 'ceremonies and writs' of possession had been undertaken.[31]

The process of town establishment was carefully structured to ensure "permanence" in settlement, an important notion to a society where use of land was integral to proving ownership.[32] Furthermore the legal aspect of urban planning required settlements to decide early on whether they were to be cities, towns or villages, as each possessed different legal status and either operated within pre-existing civic jurisdictions or created a new network. The individual settlement was only ever one part of a larger framework, with cities having fiscal, legal and administrative jurisdiction over surrounding towns and villages. Furthermore the urban structure of the Catholic Church had similar jurisdictional hierarchies, from archdiocese to parish, and supported this approach to territorial expansion, though rarely coincided with civil districts.

The towns and cities in the Indies followed the model of Reconquest settlements; built to protect and congregate settled populations and to legally secure territory. One innovation, however, was the development of a standard model of urban planning following a grid structure. The example of the Reconquest town of Santa Fe, constructed outside Granada to support troops besieging the Moorish city, is often hailed as the model of 'New World' urbanisation.[33] Santa Fe followed a rectilinear ground plan, though this was a common structure for military encampments as they were simple to construct and followed regular patterns. While medieval cities had followed an organic radial or linear pattern, lacking any formal planned structure, Santa Fe was unusual in retaining its grid plan when a town was built on the site of the encampment in the late 1490s.

We cannot, however, be sure that Santa Fe was a conscious model for future towns and cities in the Indies, as initial royal instruction relating to urban development was not structurally prescriptive. Nonetheless, a preference for a grid plan did emerge within the first decades of settlement in the Caribbean and American mainland.[34] By the late sixteenth century this rectilinear pattern was codified in a set of Ordinances issued

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[31] Ordinances, 1573: Article 4, 13; translations of the Ordinances from: Axel I. Mundigo and Dora P. Crouch, "The City Planning Ordinances of the Laws of the Indies Revisited: Part I: Their Philosophy and Implications," *Town Planning Review*, 48:3 (July 1977): 249-59.
[32] Ordinances, 1573: Article 32; David Vassberg, *Land and Society in Golden Age Castile* (Cambridge: Cambridge University Press, 1984), 6; Georgina H. Endfield, "'Pinturas', Land and Lawsuits: Maps in Colonial Mexican Legal Documents", *Imago Mundi,* Vol. 53 (2001), 19.
[33] Alejandro Colás, *Empire* (Cambridge: Polity Press, 2007), 59.
[34] Kinsbruner, *The colonial Spanish-American City,* 10-11.

by Philip II in 1573. These Ordinances outlined procedures for establishing and constructing towns and cities in the Indies, making pre-existing practices official while also being influenced by intellectual theories about urban planning.

New towns in the Indies still had to fulfil basic public functions; towns had to balance public space with private dwellings and ensure that the town was well provided for. With this in mind space beyond the central plaza zone was designated for private houses, and additional space for common pasture land and stock pens was required to be set aside.[35] Furthermore, plots for agriculture were provided in the region surrounding the town, continuing the Spanish tradition of agricultural urbanism.[36] This pattern was essentially practical and ensured that the urban population was housed and fed. The central plaza provided a clearer expression of the interaction between practical requirements of urban life and the intellectual background to urban planning.

Towns had long been considered the home of civilised society, housing communities connected by common cultural frameworks, whether legal or religious. This association between civility and urban living had been maintained in Spanish thought and conceptualised as *policía,* a term which encapsulated public responsibilities and private duties to the continued good of the community.[37] Thus when the Ordinances placed important public institutions, such as the *cabildo* (town council) house, market, hospital and jail, at the literal centre of an urban community it was a statement of the importance of public good and the institutional face of civilized culture.[38] The prime position afforded to the Church projected the notion that urban settlements were founded in faith, and the proximity between the Church and other public institutions associated public life with a shared religious identity.[39] Thus *policía* was literally built into the fabric of the urban community, and the built environment was intended to support civilised life. This approach was certainly informed by classical treatises on urban planning, such as *De Architectura* by Vitruvius which had been rediscovered in the late fifteenth century and translated into Spanish in 1526.[40] It was also informed by

[35] Ordinances, 1573: Article 90, 133.
[36] Ordinances, 1573: Article 130-32
[37] Kagan, *Urban Images of the Hispanic World,* 27.
[38] Ordinances, 1573: Article 121.
[39] Ordinances, 1573: Article 119
[40] Kinsbruner, *The colonial Spanish-American city,* 23.

Christian thought, particularly Augustine and Aquinas, who both associated Christian civility with an urban setting.[41]

The concept of *policía* had a further impact on the process of urban development in the Indies, with public offices being assigned before construction of the town or city had begun.[42] This was partly a practical approach to ensuring that construction proceeded swiftly under the guidance of senior officials with the support of civic officers and clerics. Furthermore the occasional requirement to move a town after it was initially established, such as with the first 'New World' city of Santo Domingo, relied on the continuity of civic officials to maintain a community identity. Thus Santo Domingo was still Santo Domingo after it had moved, retaining its legal status and jurisdiction. This sense of the town 'being' the community that lived there as much as it was the built environment itself had its roots in the classical concept of *civitas,* an idea which survived within Spanish notions of *policía.*

This global urban network further served to support the two core functions of the Monarchy: the Catholic mission and trade. The role of the Church in the success of the Monarchy should not be underestimated, though it should be remembered that the Church within the Monarchy effectively acted as one of its many institutional agents. The *Patronato Real,* contracted via a series of papal bulls, granted the Monarquía Hispánica special privileges over ecclesiastical appointments and over use of church revenues.[43] This arrangement hoped to make the spread of Christianity beyond the 'Old World' both easier and more sustainable, thus ensuring that an evangelical mission would be successful. The *Patronato* thus provided a means of supporting more general patterns of conquest and settlement, with both the regular and secular clergy being essential resources in sustaining Spanish rule overseas. The urban network in turn supported this evangelical mission; the Church capitalised on New Spain's congregation policies of the 1530s, which sought to make the exploitation of indigenous labour dues and the collection tribute payments easier. The indigenous communities living within planned towns, called *congregaciones* or *reducciones*, were a ready audience for evangelisation; Aquinas had considered an urban setting preferable for conversion.[44] The growth of Catholicism in South America and the Philippines might be considered

[41] Pagden, *Lords of All the World,* 18; Kagan, *Urban Images of the Hispanic World,* 21.
[42] Ordinances, 1573: Article 43.
[43] Nicholas P. Cushner, *Spain in the Philippines* (Manila: Ateneo de Manila University, 1971), 74-75.
[44] Cañeque, *The King's Living Image,* 197-98; Kinsbruner, *The colonial Spanish-American city,* 28; Kagan, *Urban Images of the Hispanic World,* 21.

the real legacy of Spanish rule in these regions, and the extent of Church presence across these territories was contemporarily considered a sign that the Monarchy was successfully embedded overseas.[45] As law had defined the true limits of the Roman Empire, so too did the specifically Spanish style of Catholicism offered under the *Patronato* signal the real scope of the Monarchy.

Interest in the religious dimension of the Monarquía Hispánica has often side-lined discussion of Spain's economic interests in overseas territorial acquisition. Columbus was not travelling across the Atlantic to convert the people he might find when he reached land, but instead was hoping to discover a western route to the lucrative Asian market. This economic dimension was supported by the urban network; each town or city was expected to have at least one market to which local and overseas products could be brought and traded. The initiation of the galleon trade between Manila and Acapulco further highlighted the importance of this urban-market network, as specific markets were named as authorised receivers of Asian goods in an effort to regulate this global trade.[46]

While on the one hand managing the Monarchy as a global whole was not a realistic possibility, on the other hand neither was governing via a localising urban network a feasible option. A system needed to be imposed which allowed for effective administration of the Monarchy's possessions in the Americas and Asia, and the governing structures of the Iberian Peninsula suggested a viable solution. As such, a mid-scale approach to governance was developed which drew on pre-existing peninsular structures; a network of kingdoms and provinces which were theoretically if not practically equal to the Monarchy's possession in Europe.

A Monarchy of Kingdoms

To speak of 'Spain' in the early modern period is largely to speak of a composite monarchy, a political system where one kingdom, that of Castile, ruled over other kingdoms and provinces across the peninsula. It was a relatively successful approach, no doubt in part on account of the association between the unification of the Crowns of Castile and Aragon under Ferdinand and Isabella with the completion of Reconquest, a task encompassing the whole peninsula. Nonetheless, adherence to local identities and

[45] Georgina H. Endfield, "'Pinturas', Land and Lawsuits", 13, 15.
[46] John Lynch, *Spain under the Habsburgs, Vol. II*, 226-26; Birgit M. Tremml, "The Global and the Local: Problematic Dynamics of the Triangular Trade in Early Modern Manila", *Journal of World History*, Volume 23, No 3 (September 2012),576

loyalties certainly persisted, and people felt they were Castilian, Catalan or Aragonese before they were Spanish.[47] In spite of these challenges the structure of the peninsular composite monarchy served as inspiration for the challenge of accommodating far-distant territories within a European political structure. Thus new kingdoms were created and added to this peninsular structure, a situation which provided precedent for governing methodologies, and seemingly sought to offer parity between European kingdoms and those in the Indies.

The initial pattern of exploration, conquest and settlement had not leant itself to the establishment of large-scale political units; instead *audiencias* were established which had primarily judicial functions though also served as councils for managing overseas acquisitions. The first two *audiencias* were those of Santo Domingo (est. 1511) and Mexico (est. 1527). This small-scale structure was reviewed in the 1530s, following the rapid mainland conquest by Cortés, and it was decided that an adapted 'kingdom' structure, inspired by peninsular Spain, would be initiated in the New World. Thus, the Viceroyalty of New Spain was established in 1535, headed by Antonio de Mendoza, which would rule over much of central America, the Caribbean and later also the Philippines. This was followed in 1542 by the Viceroyalty of Peru, which would rule over Spain's southern American possessions.

The Council of the Indies was established in 1523, removing the responsibility for the Spain's American and Asian domains from the Council of Castile, creating an administrative body dedicated to communicating the needs of the Indies to the monarch, and transmitting the wishes of the monarch to his overseas domains.[48] The decision to create a Council dedicated to the Indies, while a logical use of a pre-existing conciliar system, invested the Indies with a kind of equality with other council-run units such as Castile or Aragon. Yet parity was impossible given the distances involved between the Council and the lands over which it governed. As Parker has commented, distance was 'public enemy number one' within the Monarchy and the viceroyalties of New Spain and Peru, and especially the governorship of the Philippines, were victims of this insurmountable problem of visibility and communication.[49] While the rapid territorial expansion of the sixteenth century diverted attention away from administrative failings,

[47] J. H. Elliott, "A Europe of Composite Monarchies", *Past and Present* No. 137 (1992), 58.
[48] J. H. Elliott, "Spain and America in the sixteenth and seventeenth centuries", in *The Cambridge History of Latin America,* ed. Leslie Bethell (Cambridge: Cambridge University Press, 2008), 290.
[49] Geoffrey Parker, *The Grand Strategy of Philip II,* (New Haven & London: Yale University Press, 1998): 47.

the change of pace seen in the seventeenth century highlighted the impossibilities of effective central conciliar governance.

The development of vice-kingdoms and provinces and the imposition of associated systems of rule, through the viceroys and governors invested with near-kingly powers, had helped to practically secure rule in the Indies.[50] Nonetheless, conciliar government in the peninsula was still responsible for making the decisions these vice-rulers transmitted and imposed in the Indies. To make these decisions, formulate laws and rule effectively peninsular government required knowledge about these distant territories to ensure their pronouncements were informed and relevant. The sixteenth century, therefore, saw an effort to mine the Indies for information almost as thoroughly as they mined the silver and gold which flooded across the Atlantic back to Spain.

An Information Monarchy

Knowledge acquisition was an integral strategy adopted by the Monarquía Hispánica in its effort to overcome the challenges imposed by distance across its global domains. By gaining diverse knowledge about both domestic and overseas territories it was hoped that 'good governance' could be secured throughout the Monarchy. This notion of securing good governance through knowledge can be seen represented in the oft-quoted adage 'I obey but do not execute'. While often employed as a way of avoiding unwanted controls from centralised government, the phrase was formally meant to avoid the imposition of inappropriate or unnecessary legislation. Ignorance of local situations could mean that such legislation was not simply unnecessary but damaging, and thus to 'obey' the order of the ruler but not 'execute' their will was a way of protecting both subjects and monarch from the impact of lacking knowledge.[51]

A diverse range of information was collected by agents of the Monarchy to support exploration, settlement and administration of Crown territory. This wide-ranging information gathering operated within the disciplinary field of cosmography. Cosmography aimed at universal knowledge and crossed disciplinary boundaries, pursuing mathematical, botanical, ethnographic, historical and geographical studies amongst diverse others. Importantly, while having scholastic and humanist roots,

[50] Phelan, *The Hispanization of the Philippines,* 6.
[51] John L. Phelan, "Authority and Flexibility in the Spanish Imperial Bureaucracy", *Administrative Science Quarterly* Vol. 5, Issue 01 (1960), 59.

cosmography in the early modern period was undergoing a methodological shift which saw active attempts to combine intellectual and practical approaches to studying the world.

The multitude of information gathered by agents of the Monarchy was largely useless without a framework for ordering, processing and importantly using this information for administration and governance. Within a decade of Columbus' return from the 'New World' an institutional framework was initiated which sought to collect and collate information which would support the practical requirements of managing a global Monarchy. The chronology of these establishments highlights the pattern of institutionalisation responded to contemporary needs and was a generally reactive strategy.

The first great institution of the 'New World' arm of the Monarchy was the Casa de Contratación or House of Trade. The Casa was primarily an economic institution and its cosmographic interests were generally focussed on navigation and maritime technologies which would support growing overseas trade. As such, the Casa's prime interest was in producing navigational charts and developing strategies for assimilating and circulating information about new discoveries. As early as 1508 the Casa was required to develop and maintain a master chart of the world which had to be updated at regular intervals.[52] Pilots were expected to return their log-books after every voyage, on which they were required to record all new lands sighted or landed during their time at sea. It was therefore important to ensure that pilots were equipped to manage this responsibility and as such the Casa developed a training programme for pilots. This educational enterprise was relatively successful and set basic professional standards for those guiding vessels on long transoceanic voyages, providing them with a foundation in astronomical observation and the use of navigational instruments.[53] This theoretical work was intended to complement their minimum six years of sailing experience. It was hoped that the programme would address the lack of experienced pilots and reduce the number of incidents at sea caused by lack of experience, which could have heavy economic and human costs.[54] Furthermore the Casa invested in researching and

[52] Barrera-Osorio, *Experiencing Nature,* 38; David Turnbull, "Cartography and Science in Early Modern Europe: Mapping the Construction of Knowledge Spaces", *Imago Mundi* Vol. 48 (1996), 11.
[53] Barrera-Osorio, *Experiencing Nature,* 40.
[54] María M. Portuondo, "Cosmography in the *Casa, Consejo* and *Corte* during the Century of Discovery" in *Science in the Spanish and Portuguese Empires,* eds. Daniela Bleichmar et al., (Stanford, CA: Stanford University Press, 2009), 65.

developing new navigational technologies and instruments which would increase accuracy in transoceanic travel and, it was hoped, further reduce risk. By providing centrally produced charts, outlining basic professional standards for pilots and issuing licensed navigational instruments the Casa aimed at standardising the experience of transoceanic navigation and travel. While this mission had mixed success, the Casa was relatively successful in outlining common standards of cosmographical practice which was an achievement very much ahead of its time.

Following the Casa, the Consejo de Indias or Council of the Indies, was established in 1524 to govern the American and then Asian possessions of the Monarquía Hispánica. The timing of this foundation coincides with the completion of the first wave of mainland conquest and settlement in Central America; Cortés had reached Tenochtitlán in 1519 and conquered the Aztec-México Empire by 1521. The real scale of the American domains was just emerging and the impact this had on how the territory was to be governed was clear. The Indies were no longer simply a trade concern, and strategies for their governance had to be developed. The Consejo equally engaged early on in gathering information about their newly assigned and ever growing territories, though unlike the Casa their interests were inland rather than essentially maritime. This was especially true after the reforms instituted following the inspection by Juan de Ovando in the mid-sixteenth century, who was dismayed at the lack of information that was available about the Indies.[55] Information was required about the geography, natural and human history, botany, demography and ethnography of the Indies and projects were launched to address these concerns. While the knowledge-gathering activities of the House of Trade and Council of the Indies were far from discrete, the Consejo adapted the cosmographic framework to focus increasingly on information which would support day-to-day administration and the development of strategies of governance.

Mention must also be made of the Academia Real Matemática, founded in 1583 by Juan de Herrara in Madrid. It is said that following the loss of the young mathematician Jaime Juan while on an astronomical expedition in New Spain and the Philippines, Herrara became concerned about the lack of well-trained mathematicians in Spain and founded the Academia in response.[56] Though termed a mathematical academy, the early modern conception of mathematics was far broader than it might be

[55] Portuondo, "Cosmography in the *Casa, Consejo* and *Corte*", 69.
[56] Portuondo, "Cosmography in the *Casa, Consejo* and *Corte*", 74.

considered today, taking in aspects of astronomy, engineering and cartography. The Academy was not long lived, though its successor, the Jesuit Colegio Imperial, was hugely important in educating young men in disciplines useful to the continued survival of the Monarchy, and interacted closely with the Council; the College's mathematical professor also serving as conciliar cosmographer major.[57]

Finally the royal court also played an important role within the information gathering strategy of the Monarchy. The Crown often sponsored specific projects, such as reports on border defences with France or reviews of Mediterranean ports, and was regularly involved in projects initiated via the Casa, Consejo or the Academia.[58]

The institutional acquisition and deployment of knowledge was not confined to Spain, and it is important to remember that one of the great legacies of the Spanish approach to overseas expansion was that it carried many of its institutions with it. Universities, learned societies, hospitals and colleges were established throughout central and south America and also in the Philippines. These institutions became especially important in the seventeenth century, a period in which the central control of the Monarchy loosened on account of both European and American developments. These 'New World' institutions contributed to the development of Creole knowledge systems which were not simply structured to collect information but to discuss, deploy and critique. [59]

In Spain, Central and South America and the Philippines, knowledge acquisition was never confined solely to persons formally educated within their specific field of enquiry. This reflected a respect for practical knowledge born of experience and, as we had seen above, was formally incorporated within the pedagogical practices of the Casa. It was also a pragmatic response to the need for first-hand information as it was not always possible to send an appropriately trained professional to conduct research or gather information, offering a further remedy to the problem of distance. This strategy of combining professional and non-professional, or theoretical and practical knowledge was not always an easy one to follow. It was, however, the result of a discourse relating

[57] Portuondo, "Cosmography in the *Casa, Consejo* and *Corte*", 75.
[58] Felipe Pereda and Fernando Marías, "Introducción", in *El atlas del rey planeta : descripción de España y de las costas y puertos de sus reinos de Pedro Texeira (1634)*, eds. Felipe Pereda, Fernando Marías (Hondarribia: Editorial Nerea, 2003), 13.
[59] Juan Pimentel, "The Iberian Vision: Science and Empire in the Framework of a Universal Monarchy, 15800-1800", in *Osiris* 2nd Series, Vol. 15 (2000), 26-27.

to how knowledge should be created and who should contribute to this process which was different from the scholastic or humanist traditions.

Yet knowing about the lands which made up Spain's vast American and Asian Monarchy could not substitute the benefits of actually seeing them first hand. Travel was hardly a practical solution; a round trip to the Philippines could take between three and five years and the dangers of ocean travel and tropical illness made the prospect of long-distance research an unpleasant one.[60] Cartography was quickly seen as a solution, with maps offering a view of towns, regions and territories which were previously obscured by distance.

Mapping a Monarchy

Any period of rapid terrestrial expansion encourages assessment of how the expanding power undertakes and manages 'territorialisation' within their new domains. Yet, what 'territorialisation' means is not clearly defined and is often quite specific to the period or geographical context in which this process occurs. For example, the expansion of Russia into various eastern European countries during the mid-twentieth century employed a different territorialisation strategy from that adopted by the British in India in the eighteenth and nineteenth centuries. While there may be common threads running through these processes they rarely follow specified or uniform patterns. The historical and geopolitical context of territorialisation in New Spain and the Philippines was, therefore, specific to each location, a particularity which will be considered here.

Territorialisation is often defined as the process of producing territory, though what territory is produced from is not clearly specified. Territory can be seen as the product of a transformation of space, though once again these terms possess a complex and critical theoretical background. Nonetheless working definitions of these terms are required, and within the present discussion the definitions of 'space' and 'territory' which have been adopted seek to draw a balance between the diverse theoretical approaches to these terms.[61] At a basic level 'territory' will be taken to refer to an extent

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[60] Pierre Chaunu, *Conquête et exploration des nouveaux mondes (XVI siècle)* (Paris: Presses universitaires de France, 1969), 277; Felipe Fernández-Armesto, "Philip II's Empire: A Decade at the Edge", *The Hakluyt Society Annual Lecture 1998,* (Beccles: Keely Print, 1999), 5.

[61] Nuria Valverde and Antonio Lafuente infer that 'territory' reflects the natural state of the physical environment, while 'space' is created through mapping practices in "Space Production and Spanish Imperial Geopolitics", in *Science in the Spanish and Portuguese Empires,* eds. Daniela Bleichmar et al., (Stanford, CA: Stanford University Press, 2009), 198; while Stuart Elden argues for a constructed 'territory' against the non-constructed, if not natural, 'space' in "Land, terrain, territory", *Progress in Human Geography,* Vol. 34, No. 6 (2010), 1-2.

or area of land, which may or may not have set boundaries, which exists within a socio-cultural conceptual framework. This framework imbues territory with meaning or significance based on a predominant or specified set of ideas, often a combination of historical, cultural, social, religious, political or economic concepts. As such, 'territory' is both a tangible physical landscape and an intangible conceptual construction.[62] With this in mind 'space' can be seen as this same extent or area of land which lacks this meaning or significance. The space/territory discourse is therefore very specific to the context of transformation and the groups or individuals guiding this process. Recognising this transformation context ensures that the implications of the specific territorial outlook of the guiding group are acknowledged; land perceived as space by the guiding group commonly has territorial identity for other groups or individuals. Territorialisation is therefore often termed an 'ethnocentric' process, though this association with ethnicity can be misleading, especially so within the context of the overseas expansion of the Monarquía Hispánica.

Territory is therefore considered to be 'constructed' and this acknowledgement of agency within the territorialisation process is very important. While not always formally planned, territorialisation is not an incidental process, it is active and intentional. As when constructing a building, the process of constructing territory required a diverse range of tools and materials to transform space into territory; a process which operates at multiple scales of space and time. These tools and materials of transformation may involve physically changing space, establishing urban centres or placing boundary markers. Alternatively it may involve the imposition of new economic or political structures, as well as the extension of religious culture or social practices. Furthermore processes such as place-naming and the imposition of official languages contribute to the progress of spatial refashioning, alongside the physical and structural aspects of this construction project.

Territorialisation does not simply occur on the ground, it also operates on paper through mapping. The relationship between territory and cartography is complex, reciprocal and hugely important. It is often through maps that the process of territorialisation is planned, edited and managed as the physical environment can be more easily understood and controlled in a cartographic format than it is in reality. This

[62] Santa Arias, "Rethinking space: an outsider's view of the spatial turn", *GeoJournal,* Vol. 75, No. 1 (2010), 29.

can create a parallel world of maps which repeatedly fail to capture territorial realities though suit governing sensibilities.

Recent scholarly work has drawn attention to the ways that out modern conception of territory has been shaped by cartographic practices and norms.[63] While the cartographic model that has informed this modern territorial outlook emerged in the mid to late eighteenth century, the basic premise that maps inform our understandings and expectations of territory nonetheless has relevance to an early modern context. The rapid overseas expansion of the Spanish Monarchy occurred at a time when a diverse range of cartographic styles were widely employed before geometrical, mathematized cartography emerged as the definitive type in the eighteenth century. This diversity of cartographic styles partly reflects a view that different mapping approaches were required for a range of territorial contexts, and that some were more appropriate in specific circumstances than others. This approach in part also reflects the way territory operates at different scales; Storey has emphasised that territory is not simply associated with the state or nation, but can reflect smaller units, such as racialised geographies in urban centres, 'the Jewish quarter' or 'China Town', or micro-territories such as personal space, which can be 'invaded' or 'respected'.[64] Associated with this multi-scalar cartographic territory is the notion that different mapping styles can inform how space is conceptualised as territory, contributing to the framework of meaning in which territory operates. The decision to adopt a landscape style as opposed to a plan view when mapping a town or city helps to shape how future observers conceptualise such territories. Furthermore, building a globe rather than producing a world map adjusts the viewer's perspective of global space and territorial relationships.

It would be possible to describe the Monarquía Hispánica as a Monarchy of maps. Mapping was a predominantly official activity within Spanish domains; the recognition of the strategic potential of cartographic information ensured such practices were controlled.[65] As such, during the sixteenth and seventeenth century a series of official cartographic projects were initiated by the central institutions of governance like the House of Trade, Council of the Indies and importantly the royal court. These

[63] David Storey, *Territories: The claiming of space, 2nd edition* (London & New York: Routledge, 2012), 22-25; Stuart Elden, "Missing the Point: Globalization, Deterritorialization and the Shape of the World", *Transactions of the Institute of British Geographers,* Vol. 30, No. 1 (March 2005), 15.
[64] Storey, *Territories,* 8.
[65] Agustín Hernando, "Poder, cartografía y política de sigilo en la España del siglo XVII", in *El atlas del rey planeta : descripción de España y de las costas y puertos de sus reinos de Pedro Texeira (1634)*, eds. Felipe Pereda, Fernando Marías (Hondarribia: Editorial Nerea, 2003), 80.

projects captured the various territorial strategies adopted during the overseas expansion into the Americas and the Philippines, from the establishment of towns and kingdoms to the advancement of a global religious community. The reasons behind these mapping projects are often unknown, documents relating to their commission have often been lost and information regarding their use, intended or real, is often absent. While much about these projects remains a mystery they were certainly intended as ways of gathering information about domestic and overseas territories, as well as supporting the practical territorialisation strategies occurring on the ground. Furthermore maps were a way of overcoming some of the difficulties imposed by distance in a global monarchy, though it should be remembered that distance was not simply an extra-European issue; within the Iberian peninsula the distances between the different kingdoms and territories in relation to central government in Madrid could be as challenging as the distances between Madrid and Mexico City or Manila. The cartographic output of these officially-commissioned projects was diverse, and engaged a range of contributors, both trained cartographers and non-professionals. Though diverse, the maps produced for the Crown normally reflected three broad categories: maps with an urban focus, those with a more traditional territorial outlook, picturing kingdoms or provinces, and those which were global in scope. These categories reflect the primary territorial scales in operation across the Monarchy which were informed by geopolitical ideas about its structure and function.

Categorising cartography

A number of categorisation frameworks have been developed to study cartography within historical contexts, with the cartographic output of the Monarquía Hispánica having inspired some well-respected categorical schemes. Nonetheless, the tendency to focus analysis within the early modern Spanish context to the Central and South American production zone means that applying these schemas in a discussion which exceeds this production context would be inappropriate. As such, a new categorisation framework has been developed specifically for this study, accommodating the broader geographical scope while addressing other problematic features of the pre-existing frameworks.

Preliminary analysis has highlighted that cartographic material produced during the sixteenth and seventeenth centuries across the Monarchy present three main geographical subjects: those with an urban focus, those taking in larger territorial units,

such as kingdoms or provinces, and finally those with a global focus. These categories, while relatively broad, retain sufficient specificity to usefully structure critical analysis, avoiding some of the challenges posed by Mundy's framework for indigenous Mesoamerican cartography.[66]

Mundy's schema offers four categories: terrestrial maps with historical detail, terrestrial maps without historical detail, cosmographical maps and celestial charts. While each category is able to accommodate much stylistic and methodological diversity, it possesses an interpretative range which can undermine the useful application of the framework. For example, one may question whether a city plan lacks historical detail or a 'historical narrative' simply because it is not overtly chronological. The city plan of Cholula, for example, encapsulates a detail of its pre-conquest past in the glyph in the top right corner representing the city's temple. This detail, while lacking a historical narrative similar to the Sigüenza map, which charts the legendary migration of the Aztec people from their lost homeland of Atzlán to the city of Tenochtitlan, nonetheless captures information that, by the time of production, was considered historical. The categorisation framework being employed in this study therefore seeks to overcome much of this interpretative complexity; the broad subject-themes make the process of assigning sources to particular categories simple, while offering sufficient flexibility to make the framework generally applicable. **(Plate I. 1)**

In combination with this threefold content-structured framework, and in recognition of the integral role authorship plays in the outcome of cartographic projects, a series of production contexts will also be specified which reflect the main sites of cartographic production: Europe, New Spain and the Philippines. While many maps produced during the sixteenth and seventeenth centuries are anonymous, their place of production is often known. Therefore, by describing a map as belonging to a Filipino, European or New Spanish production context the problem of stylistic assumptions based on ethnicity is avoided.

This ethnic dimension is the primary issue with Robertson's influential framework, which divided the maps of the *Relaciones geográficas* of 1577 between those of 'Native', 'European' or 'Mixed' production.[67]

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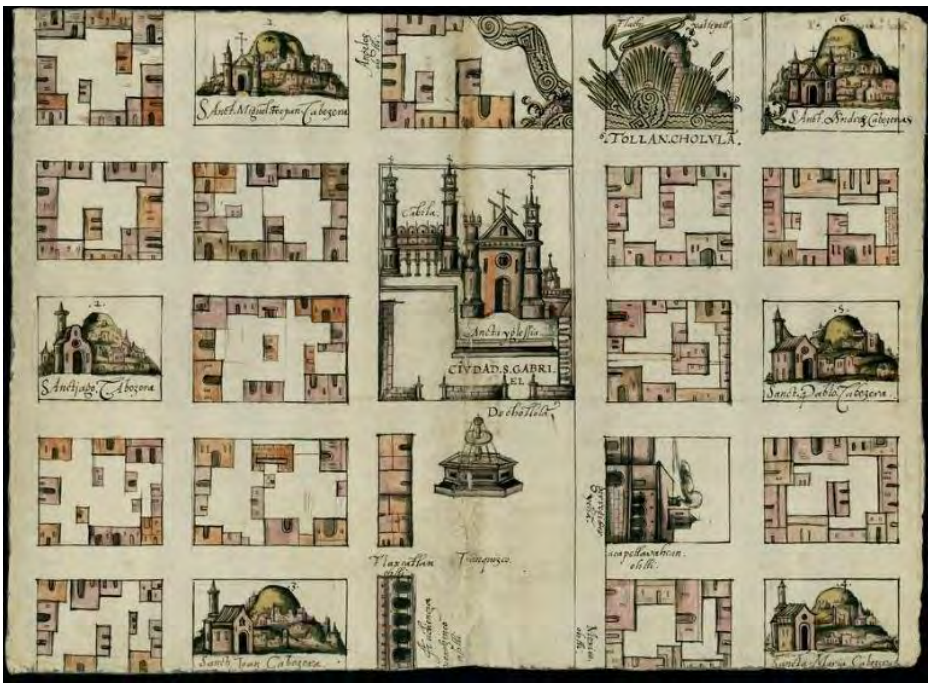
[66] Mundy, "Mesoamerican cartography", 187.
[67] Donald Robertson, "The *pinturas* (maps) of the Relaciones Geográficas Within a Catalog" in *The Handbook of Middle American Indians, Vol. 12: Guide to Ethnohistorical Sources, Part One,* ed. Howard Cline (Austin: University of Texas Press, 1972): 243-78.

PLATE I. 1



Cholula (1581), Anonymous, (XXIV-1; NLB, Austin). The *solar* labelled TOLLAN.CHOLVLA in the top right corner records the site of an indigenous Mesoamerican temple from the pre-conquest period.

El Mapa de Sigüenza (16th century), Anonymous, (Instituto Nacional de Antropología y Historia, Mexico).

These definitions become artificially oppositional, presenting 'Native' cartographic conventions as entirely distinct from European mapping practices. As a result most of the *Relaciones* maps fall into the 'Mixed' category, less because they are collaborative productions than because they fail to conform to the strict requirements of either the 'Native' or 'European' category. Furthermore, Robertson's framework seems to lack an appreciation of the contemporary production context of these maps. Produced nearly fifty years after mainland conquest in Central America began, a generation of Mesoamericans had grown up in contact with Europeans and as such syncretic cultural practices were already emerging, creating an argument for classifying all maps produced in the post-Columbian period to be termed 'Mixed'.

The two-layered framework employed here, however, recognises the varied features, groups or individuals which may have influenced cartographers within their production context; an approach which has not been previously applied by historians of Spanish imperial cartography. Furthermore, these three categories reflect the geographical breadth of the present study, including material from Spain, New Spain and the Philippines. Within the current framework, a European producing a map of the Philippines in Manila is operating within a Filipino production context regardless of his ethnic background. This approach acknowledges the various influences, conscious or otherwise, which may affect a cartographer when producing a map. To continue our example, a European mapping the Philippines in Manila may have been open to stylistic influences from China or Japan, as well as indigenous Mesoamerican cartographic conventions transmitted to the archipelago via transpacific migration and trade.

This consideration of production context recognises the essentially local nature of knowledge, a growing consideration in the history of science.[68] The place in which knowledge is produced impacts not simply on the type of knowledge developed or practices undertaken, but also affects the dissemination and growth of knowledge beyond its place of origin. As such, it is integral to recognise the impact that place has not simply on the author of a map, but also on its viewers and with regard to its survival. This framework seeks to address some of the issues presented by a number pre-existing categorisation schemes, traditionally structured around questions of authorship or content.

[68] Turnbull, "Cartography and Science", 5-6.

In the next three chapters each of the three broad themes, the urban, territorial and global, will be considered individually using a range of cartographical sources from across the sixteenth and seventeenth centuries. By combining the new tripartite content-based analytical framework with a production context categorical schema, assumptions common to pre-existing categorisation schemes relating to authorship, function and preferred form can be avoided.

Chapter Two: Urban Cartography

The urban cartography of the early modern Monarquía Hispánica is a complex collection of material and there are some clear challenges in the analysis of maps of this genre. All too often it is impossible to definitively name an author or outline specifically why a map was produced. This lack of context does, undoubtedly, have implications for historical study. Without knowing why a map was produced it is difficult to discern whether the finished production seems to have fulfilled the brief, should there have been one. Furthermore, without information about the author, considering the extent to which the background of the mapper influenced the style and content of the work is practically impossible to say with any certainty. These challenges should, however, encourage continued study rather than imposing a barrier on fruitful engagement with the surviving source material. By viewing a range of maps of the same genre collectively some of these issues can be addressed at least in part, as stylistic or content patterns can indicate preoccupations of the author or the individual or group commissioning specific works.

The stylistic diversity of urban cartography does, however, present further challenges both of comprehension and for comparative analysis. Understanding the relationship between a cityscape-map produced by a formally trained European artist and an itinerary-style map produced by a Nahuatl-speaking Mesoamerican trained in pre-Columbian representational conventions is not easy. However by unlocking the content in both maps and understanding the implications of representational style on the message being communicated by the maps, an analytical approach can be developed which allows the maps to communicate with one another. This kind of communication can be hindered, however, by the ambiguities surrounding authorship in particular, which are common to much cartography from the early modern period.

Urban cartography of the early modern Monarchy is, therefore, often heavily obscured by the challenges of establishing basic facts. Nonetheless, the volume and diversity of this genre make it an attractive area for historical study, and some basic features can be identified which can help to structure analysis. Firstly, urban cartography is primarily geared to representing town and cities, whether in isolation or by picturing them within their broader geographical context. The number of urban maps produced across the Monarquía Hispánica highlight not only the vitality of this cartographic genre, but also the importance of urban spaces within the fabric of the

Monarchy, both domestic and overseas. The town was the prime unit of Spanish territorial expansion, a process refined during the peninsular Reconquest, and then transported across the Atlantic and then the Pacific to the Indies.

Secondly, sixteenth and seventeenth-century urban cartography tended to adopt one of three broad cartographic genres: the cityscape or urban view, the urban or ground plan, and the itinerary style. Each of these mapping genres adopts a different perspective on the town or city, and can highlight a desire to communicate a particular message about the urban centre or centres being mapped. The itinerary style was most commonly used to capture a route between locations, and reflects a transitory experience of space. However, itinerary cartography can also highlight a relationship between settled locations, showing the regional dynamics of a predominantly urban society, like that of the Monarchy. By comparison, the urban or ground plan presents the town as if seen from above, often adopting mathematical methodologies to ensure accuracy. These 'geographic' maps, as they were commonly termed in the sixteenth century, sought to achieve a level of verisimilitude which would indicate that such maps may have been intended for strategic or practical use. Furthermore, they project an image of urban order and rationality, particularly in the urban settlements of the Indies. Finally, the cityscape or urban view presents the town or city in such a way that the presentation is selective, a perspective contemporaries would have termed 'chorographic'.[69] The elevated viewpoint projects a sense of an authoritative gaze; the implications of distance and perspective within these maps mean that only particular points can be specifically highlighted. As such, the urban view allows the cartographer to emphasise certain features of the urban location, and this selection is usually be highly informative.

Though the specific reasons for producing particular maps or undertaking cartographic projects may remain largely unknown and details about cartographers themselves may have been lost, by considering what is shown and how this content is presented a meaningful discussion can be undertaken which may shed light on some of the more obscure issues relating to motivation and authorship. Furthermore, a content-based approach can help to reconstruct how contemporary viewers and users of maps considered them.

[69] Kagan, *Urban Images of the Hispanic World,* 21.

The Urban View

The late sixteenth century was a dynamic period of cartographic production and innovation across the Hispanic Monarchy. Fuelled by Philip II's personal interest in cartography, many surveying projects and information-gathering exercises were commissioned during his reign. An early project was a survey of towns in the Low Countries, produced by Jacob van Deventer.[70] His images of towns adopted a plan view style, and seem to have been intended as both decorative illustrations of lands under Spanish rule and also as valuable intelligence about the region. A similar project intended to record 'descriptions' of towns and cities in Spain was commissioned c. 1561, to be conducted by another Flemish artist, Anton van den Wyngaerde. Wyngaerde had worked for Philip before his Spanish commission, having produced images of Spanish battles against the French and sketches of London and Richmond Palace when Philip was married to Mary Tudor.[71] Wyngaerde was a master of the city view, an artistic style which involved capturing a town or city from an elevated viewpoint.

Wyngaerde celebrated the artistic nature of his productions, though his images equally act as cartographic records of Spanish towns and cities, presenting often unique information on the architectural history of towns and cities across early modern Spain.[72] Accurate and detailed, Wyngaerde's city views are nonetheless artistic constructions, his preparatory sketches often highlighting the compilation style of the final city view. Wyngaerde's view of Valencia (1563) offers one such example, capturing the city as if seen from the north, while presenting important landmarks, such as the cathedral of Asunción de Nuestra Señora, as if seen from the west, to ensure they present a more recognisable façade.[73] This compilation style was used throughout his work, particularly when capturing port cities, including Cádiz and Barcelona, as if viewed from the sea, combining sketches taken from the shore and inland to produce the final image. **(Plate II. 1)**

The compilation style and elevated perspective adopted in city view cartography offers limited opportunities for highlighting specific landmarks, architectural or natural.

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[70] Richard L. Kagan, "Philip II and the Geographers" in *Spanish Cities of the Golden Age: the views of Anton van den Wyngaerde,* ed. Richard L. Kagan (Berkeley & London: University of California Press, 1989), 44.
[71] Egbert Haverkamp-Begemann, "The Spanish Views of Anton van den Wyngaerde" in *Spanish Cities of the Golden Age: the views of Anton van den Wyngaerde,* ed. Richard Kagan (Berkeley & London: University of California Press, 1989): 55.
[72] Kagan, *Spanish Cities of the Golden Age,* 213-14; 286.
[73] Kagan, *Urban Images of the Hispanic World,* 14.

PLATE II. 1

Valencia (1563), Anton van den Wyngaerde (Ms. Min 41. 1; National-Bibliothek, Vienna).

Right: Detail from *Valencia,* showing cathedral of Asunción de Nuestra Señora.

Barcelona (1563), Anton van den Wyngaerde (Ms. Min 41. 12; National-Bibliothek, Vienna).

Certain features, most commonly religious buildings, provided clear focal points, dominating the landscape physically as well as being socially domineering. Many of Wyngaerde's views betray the dominance of Catholicism architecturally and culturally in Spain; his image of Toledo, Spain's primal see, exudes a Christian purpose, filled with churches and religious houses. This sense of a Christian civic space is continued in Wyngaerde's images Jaén, Antequera, Guadalupe and Avila. Perhaps most explicitly the position of the cathedral of Córdoba, occupying the old mosque in the centre of the city, proclaims the Catholic character of Spain as it emerged from its Reconquista past. **(Plate II. 2)**

Alongside sites of religious interest, Wyngaerde also focussed on sites of political significance across the peninsula; the view of Monzón marks only one secular site, the Cortés of Aragon, to which the city was home.

[74] Yet, it is in his view of Madrid that the Flemish artist allowed politics to overshadow faith. The Alcalá palace dominates the image, impressing itself on the viewer from its hilltop location. Philip II had moved the court permanently to Madrid in 1561 and Wyngaerde's image, produced in 1562, emphasises the newly royal character of the city. On the western bank of the Manzanares River the woodland of the Casa del Campo, recently acquired as a royal hunting wood, acts as a further symbol of royal power and presence in the city.[75] **(Plate II. 3)**

Wyngaerde's view of Madrid captures the city as typical of so many across the Spanish kingdoms; the balance between the urban centre and the rural landscape is precisely judged, communicating the close relationship between agriculture and urbanism which was particular to Spain in this period. While only a preparatory drawing for a final view which was either never completed or has been lost the Madrid map is remarkable, presenting a unique image of the city at a crucial moment of transition. Emerging from its medieval past, Wyngaerde's image shows Madrid before the process of modernisation and expansion began in the coming decades, transforming the city into the bustling centre of a global monarchy.

[74] Fernando Marías, "II. 3. Monzón", in *Spanish Cities of the Golden Age: the views of Anton van den Wyngaerde,* ed. Richard L. Kagan, 150-154.
[75] Fernando Marías, "I. 1. Madrid", in *Spanish Cities of the Golden Age: the views of Anton van den Wyngaerde,* ed. Richard L. Kagan (Berkeley & London: University of California Press, 1989), 112.

PLATE II. 2

Toledo (1563), Anton van den Wyngaerde (Ms. Min 41. 19; National-Bibliothek, Vienna).

Cordoba (1567), Anton van den Wyngaerde (Inventory no. 8455. 6, Victoria and Albert Museum, London)

PLATE II. 3

Monzón (1563), Anton van den Wyngaerde (Ms. Min 41. 6, National-Bibliothek, Vienna)

Madrid (1562), Anton van den Wyngaerde (Ms. Min 41. 35ro; National-Bibliothek, Vienna)

The corpus of Wyngaerde's finished views and preparatory sketches, though large, has received little detailed scholarly attention.[76] Recognised for their beauty and historical significance, the reason these images were produced remains unclear. Attempts to print a selection of Wyngaerde's city views in the 1580s were a failure, and it is possible that the works were not commissioned with publication in mind.[77] It is known that maps adorned the walls of the Alcalá and the Escorial during Philip II's reign and it is possible that Wyngaerde was producing views for decorative ends. However, the case of Jacob van Deventer might indicate that Wyngaerde's views were intended to be informative as well as beautiful.

Jacob van Deventer was another Flemish cartographer who had been tasked to map the towns and cities of the Low Countries by Philip II in the 1550s.[78] The Dutch Revolt cut short Deventer's efforts, and following the cartographer's death c. 1574 Philip expressed concern for the fate of the Deventer maps. The 'three books of maps of the Netherlands with the arms of the King of Spain' were eventually delivered to Brussels, where Philip requested they be sent securely to Madrid, as he was concerned they could be of use to the rebels if discovered. There they remained for 300 years, undiscovered and unused.[79] In light of this occurrence, we must consider that, while Wyngaerde's maps may have been commissioned for their artistic merit or for decorative purposes, their informative potential was not underestimated by Philip II. **(Plate II. 4)**

The timing of Wyngaerde's commission, c. 1561, places the project alongside other cartographic and information gathering exercises being conducted in Spain and Spanish domains overseas, indicating that it was one part of a broader scheme to understand through text and image the vast geographical expanse of the Hispanic Monarchy. The 1577 *Relaciones geográficas* questionnaire, which built on successful aspects of the 1574 *Relaciones histórico-topográficas* of Castile, was another such effort at learning more about Spanish domains overseas.

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[76] Egbert Haverkamp-Begemann, "The Spanish Views of Anton van den Wyngaerde", *Master Drawings* Vol. 7 No. 4 (Winter, 1969), 375-339 & 438-450 and ed. Kagan, *Spanish Cities of the Golden Age,* (1989).

[77] For further detail on efforts to print Wyngaerde's work see: Haverkamp-Begemann, "The Spanish Views", in *Spanish Cities of the Golden Age*, 63-65 and Haverkamp-Begemann, "The Spanish Views", *Master Drawings,* 386-87.

[78] Cornelis Koeman and J. Visser (eds.), *De stadsplattegronden van Jacob van Deventer, Vols. 1-9*. (Landsmeer: Robas, 1992).

[79] Robert W. Karrow. *Mapmakers of the Sixteenth Century and their Maps,* (Chicago: Speculum Orbis Press, 1993), 151.

PLATE II. 4

Amsterdam, (c.1560) Jacob van Deventer. (inv.nr A (492.629.005) 73; Rijksarchief in Noord-Holland, Haarlem).

The *Relaciones geográficas,* a cosmographical survey first issued in 1577, was managed by the first royal chronicler-cosmographer, Juan López de Velasco. The project was initiated in the hope of gathering information which would support the 'good governance' of the Indies, though the specific intentions behind this statement are unclear. The survey was broadly cosmographical; the fifty questions of the 1577 issue requested information relating to geography, natural history, the indigenous population, as well as history, agriculture, hydrography and the religious institutions present in specific localities. The corpus is hugely diverse, with the most numerous responses having been received from New Spain, a pattern which was repeated with later issues of the survey.

The written responses offer a huge volume of information on a breadth of issues, presenting an important picture of the physical environment, society and culture of the Central and South American mainland only half a century after the first, full-scale incursions into the region. Yet this was not simply a textual exercise; question 10 of the 1577 *Relaciones* requested that the respondent:

> Make a plan in colour of the streets, plazas, and other significant features such as monasteries, as well as can be sketched easily on paper, indicating which part of the town faces south or north.[80]

The *pinturas* of the *Relaciones geográficas*, as the 'plans' were termed, adopted various visual and structural approaches. The urban view was a popular mode of spatial representation in the survey, alongside village or town plans and a small number of other less common types, including circular cosmographies and hydrographical charts. Unlike the Wyngaerde views, the *pinturas* often pictured more than one town or village in the same image. While this was not expressly requested in the printed instructions, these maps reflect the nature of urban life in New Spain; networks of connected communities set within a rural landscape of controlled pasture and 'barbarian' wilderness.

[80] Translation taken from Howard F. Cline "The Relaciones Geográficas of the Spanish Indies, 1577-1648", *Handbook of Middle American Indians, Vol. 12: Guide to the Ethnohistorical Sources, Part One,* ed. Howard F. Cline (London: University of Texas Press, 1972), 235, Original text: '…disegno en pintura de las calles, y plaça, y otros lugares señalados d monasteries como quiera que se pue da rascuñar facilmente en un papel, en que se declare, que parte del pueblo mira al medio dia o al norte' from Meztitlán relacion instruction (XXIV-12), *Relaciones Geográficas of Mexico and Guatemala, 1577-1585*, Benson Latin American Collection, General Libraries, The University of Texas at Austin.

The *pintura* of Meztitlán produced by the local *alcalde mayor*, the creole Gabriel de Cháves, in 1579, presents some of these seemingly contradictory thoughts about space. The town of Meztitlán occupies a strong central position in the image and is dominated by the local church, with other towns and villages shown in the image following this church-centric pattern. The importance of Catholicism in the process of settlement in New Spain cannot be overestimated, with both the regular orders and secular clergy involved in town building across the viceroyalty.[81] Furthermore, religious communities were often the face of Spanish expansion in frontier regions, a pattern repeated in the Philippines where non-religious Spaniards were generally confined to living within the main cities, predominantly Manila or Cebu.[82] **(Plate II. 5)**

The association between urban life and evangelism was relatively well developed by the early modern period, and Spain in particular had developed a tradition of town establishment as a symbol of Christian faith, a legacy of practices from the Reconquest period. The *congregaciones* or *reducciones,* towns where indigenous groups were gathered together to ensure labour dues and taxes were collected efficiently, were quickly supported by religious groups who saw congregated populations as a ready audience for evangelism. Scattered rural populations were harder to engage with, and there was always a sense that inaccessible or frontier regions maintained a barbarous and idolatrous character. The impact of topography on evangelism and civility was also a concern in the Philippines, where the highland regions surrounding Manila cast a shadow over the 'Rome of the East' in the lowland bay region.

In the Meztitlán *pintura* Cháves alludes to this frontier concern by picturing Chichimec warriors near the top of the image.[83] The forced perspective of the map presents a landscape stretching horizontally for nearly 150km as a steady incline, and thus the 'crest' of the image, marked by the warriors and the 'fuerte de Xalpa' actually represent the limit of Spanish authority to the northeast. In contrast the heartland of Meztitlán, occupying a central position, has a civilized rural hinterland marked by fields reminiscent of pre-Columbian strip-farming patterns. This style of farming, seen in a sixteenth-century cadastral map marking field dimensions and usage, survived into the

[81] Kinsbruner, *The colonial Spanish-American City,* 28-29.
[82] Irving, *Colonial Counterpoint,* (Oxford: Oxford University Press, 2010): 39-41; Colás, *Empire,* 60.
[83] Mundy, *The Mapping of New Spain,* 39, 43.

Plate II. 5

Meztitlan (1579), Gabriel de Cháves (XXIV-12; NLB, Austin)

Detail of Meztitlan *pintura*: the town is dominated by its church and a Catholic shrine sits amongst ploughed fields following a common Mesoamerican strip farming approach.

Detail of Meztitlan *pintura*: Chichimec warriors can be seen on the 'crest' of the image, with the frontier fort of 'Xalpa' in the background.

post-Conquest era, visible in a land grant map of Izquyluca (1594). **(Plate II. 6 and II. 7)**

The Meztitlán image conforms to an urban view style, though it could equally be said to adopt features of the itinerary map tradition, which retained some popularity in Europe beyond its medieval heyday. While this style of mapping may seem simplistic to modern observers, itinerary cartography reflects a particular experience of space – the process of travelling from one place to another by a set route with specific markers.[84] This monodimensional experience of space did not disappear, but the itinerary style of mapping became less popular into the early modern period, as a two-dimensional rendering of space became ever easier to achieve.

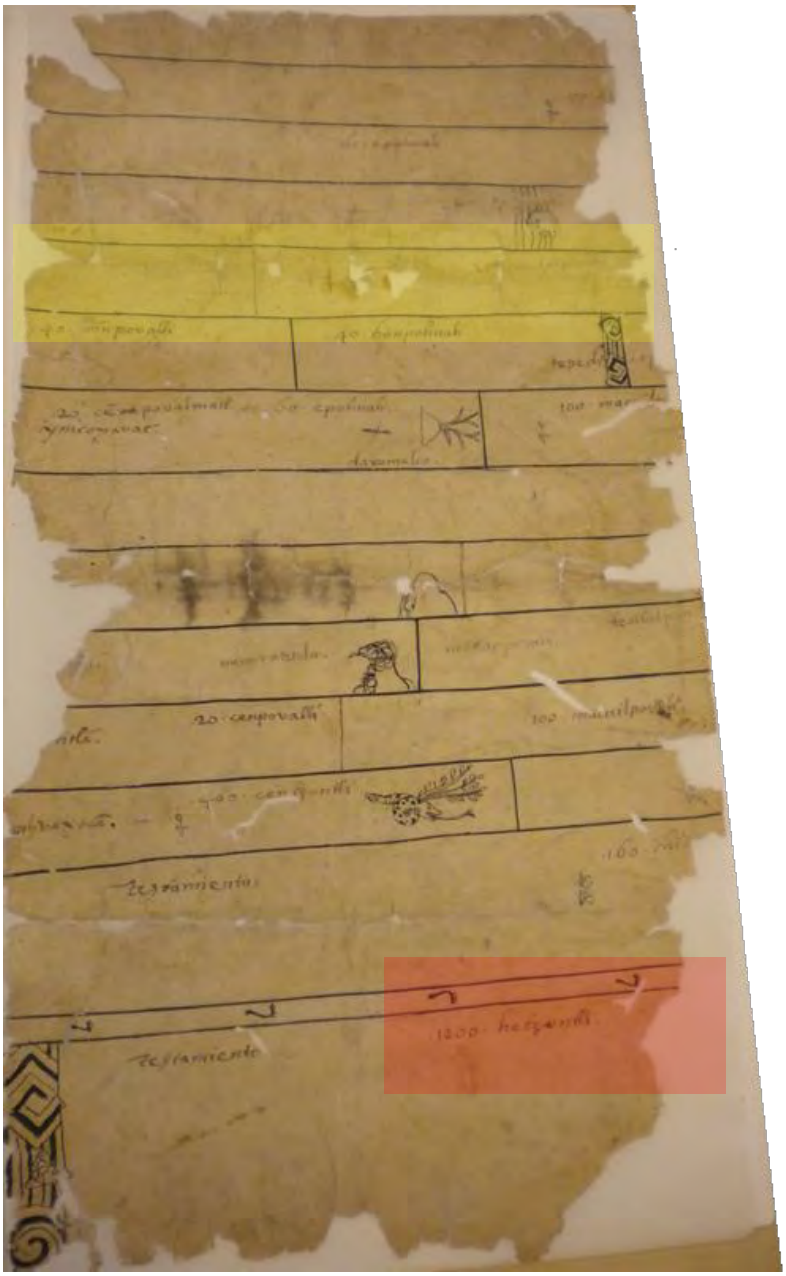
Itinerary maps

Itinerary maps represent the most common cartographic genre employed within the *Relaciones geográficas*. This is no doubt partly a consequence of engaging non-professionals in producing maps for the survey, but may also reflect the development of a syncretic style of cartographic representation which included elements of pre-Columbian indigenous visual traditions. Nahuatl cartographic traditions represented regions without communicating the spaces between focal locations, lacking a visualisation of 'landscape' as is captured in the Wyngaerde city views, where urban centres are contextualised within the rural landscape. The *pintura* of Tetlistaca (1580) has an evidently regional focus, like the map of Meztitlán, but leaves a plain background on which streets, churches representing towns accompanied by their glyphic names, and local flora are pictured. The *pintura* of Guaxtepec, however, combines elements of the pre-Columbian itinerary style with a European landscape background. **(Plate II. 8)**

The itinerary style of mapping, furthermore, emphasises a crucial aspect of the process of Catholicisation; the conversion of the landscape. The substitution of the Nahuatl *tepec* glyph, traditionally used to signal a town or village, with a church reflects the success of the Spanish conquest and evangelisation as an essential aspect of territorial expansion. The physical presence of churches within the landscape was symbolic and, as such, carefully moderated. The Church adopted a politic approach in their foundation of religious institutions, as the placing of churches or monastic

[84] Padrón, "Mapping Plus Ultra", 38.

PLATE II. 6



Sixteenth-century cadastral map from the *Codice de las posesiones de Don Andrés* (G24: García Collection; NLB, Austin). The map provides information on the size of fields, giving measurements in a pre-Columbian Nahuatl unit, the *matl*, which measures around two metres. For example, the yellow highlighted field reads: '*20 matlacpoualli | 60 cempoualli tlaxomalco*' or '20 *matl* wide by 60 *matl* long to the corner'. The red highlighted field, which lies next to a road indicated by footprints, can graze 1200 sheep or '1200 *hezontli*'.

PLATE II. 7

Izquyluca (1594), Anonymous, (*Tierras,* vol. 279, exp. 1, f. 116; AGN, Mexico City). This regional view shows agricultural land, following a similar strip-farming pattern shown in the Meztitlan *pintura* and the sixteenth-century cadastral map (Plate II. 6).

PLATE II. 8

Tetlistaca (1581), Anonymous, (XXV-12; NLB, Austin). This itinerary-style production highlights specific places, landmarks and flora, though does not provide a 'landscape' view. Routes to Tetlistaca from satellite towns are marked, footprints indicating the direction of travel from periphery to centre.

Guaxtepec (1580), Anonymous, (XXIV-03; NLB, Austin). While conforming largely to the itinerary genre, the *pintura* of Guaxtepec also adopts a landscape background, a European-inspired innovation for indigenous cartographers. Although Spanish glosses persist throughout, the indigenous glyph for Guaxtepec can be seen below the central church.

foundations geographically was skilfully contrived to either create associations with pre-Columbian places of worship or actively disassociate Christian sites with 'pagan' temples. The controversy over the miracle of Our Lady of Guadalupe, however, emphasised the difficulties of this politic approach. A vision of the Virgin Mary by the indigenous Juan Diego at a site associated with the pre-Columbian goddess Tonantzin raised concerns that apparent devotion to Christ masked continued 'heathen' practices.[85] These concerns were not resolved until the mid-eighteenth century, when the papacy acknowledged the apparition as genuine, though it was not until 2002 that Juan Diego was finally declared a saint.

Itinerary cartography, so often visually dominated by churches, reflected successful efforts to create a Christian landscape, composed of a number of connected sites of urbanised, Catholic civility. The monodimensionality of the itinerary tradition presented a web of Christian sites, uninterrupted by a heathen, uncivilised hinterland or an indeterminate frontier which an expansive landscape suggested. Importantly, however, itinerary cartography most accurately captures an individual experience of and perspective on the landscape of New Spain, showing the relationships between neighbouring villages and towns which formed the urban foundation for the Monarchy as a whole.

The Urban Plan

The urban plan reflects a 'geographic' rather than 'chorographic' style of representation, almost exclusively adopting a bird's eye view of towns or cities. Urban plans are more commonly associated with the Americas and the Philippines, where rationalised, planned rectilinear towns and cities predominated. In contrast, Old World cities had grown organically from classical or medieval centres, resulting in a complex combination of urban building patterns, making bird's eye representations difficult to produce.

As outlined in the previous chapter, the 1573 Laws of the Indies codified the rectilinear urban structure already much in use across Spanish America. Influenced by classical and Renaissance writings on urban form, as well as by Spanish precedents including the military encampment of Santa Fe, on the outskirts of Granada, the town planning ordinances outlined the expected pattern for founding and constructing towns.

[85] Jacques Lafaye, *Quetzalcóatl and Guadalupe* (Chicago: Chicago University Press, 1976), 211-12.

The initial step of forming a civic council, or *cabildo,* before the settlement was even constructed established the legal and administrative foundation for the town or city, constituting a body of men which embodied the classical and medieval notions of *civitas,* reimagined in Spanish society as *policía.* This important aspect of urban development in the Indies is largely invisible in the cartography of New Spain or the Philippines, though the cabildo house was often prominently pictured. Urban plans do, however, show that patterns of urban settlement were present across much of New Spain and the Philippines, which either predated the codification of these construction norms in 1573 or followed the requirements once they were legally issued.

The *pinturas* accompanying the written responses to the *Relaciones geográficas* survey regularly adopted an urban plan view, showing the settlement as if seen from the air. These kinds of images often highlighted the specific features requested by the survey, most commonly religious houses, and orientation was usually indicated. Furthermore, many of the structural requirements codified in the Ordinances are identifiable – the rectangular plaza, the position of religious and civic institutions within it, and the presence of market facilities within this central zone.

The *pintura* produced in Quatlatlauca (1579) is a clear and basic example of this kind of mapping style. The grid street structure is clearly visible, with corner intersections marked with square buildings. The empty space in the centre of each *solar,* or block, could indicate vacant space, garden or pasture space, though could be a stylistic decision. That each *solar* is represented by four corner blocks is significant, however, as blocks were traditionally divided into four, though later subdivisions could see huge numbers of people sharing *solar* plots.[86] Furthermore, the apparent uniformity of building design, while perhaps a stylistic choice by the cartographer, may also reflect the expectation that new towns follow a uniform architectural style. Uniformity in building design 'for the sake of the beauty of the town' was certainly influenced by classical and Renaissance writers, such as Vitruvius and Alberti.[87] **(Plate II. 9)**

The central plaza in Quatlatlauca is a traditional rectangular shape, being nearly twice as long as it is wide, as stipulated in section 112-13 of the Ordinances. The church occupies a central position, while the 'casas reales' or royal council building adjoins the plaza to the left. To the right of the plaza are the 'celu[l]as', which might be prison cells,

[86] Kinsbruner, *The colonial Spanish-American City,* 25-26.
[87] Ordinances, 1573: Article 134.

PLATE II. 9

Quatlatlauca (1579), Anonymous, (XXIV-16; NLB, Austin). The rectinlinear pattern of streets is clearly visible in this town plan, with the church occupying a central position in the rectangular *plaza mayor.* The *casa reales* are to the left of the church, while the *celu[l]as* are to the right.

though more likely represent monastic accommodation given the proximity to the central church. The implied relationship between religious and civic institutions encouraged by their physical proximity, as outlined in the Ordinances, is certainly reflective of a desire to physically structure *policía* within urban settlements. The plaza space is a manifestation of the nexus of public and private expectations that *policía* embodies, encouraging individuals to support the Catholic-civic community to which they belonged; a pattern similarly adopted in the map of Epazoyuca (1580). **(Plate II. 10)**

Many of these urban features, as well as representations of surrounding rural regions, are shared by two early seventeenth-century maps produced as part of land-grant legal cases. The 1602 map of Santa María Nativitas y San Antonio in present day Hidalgo, and the 1606 map of Acacingo in Puebla, both clearly show grid plan towns conforming to standard patterns of urban development. The Acacingo map clearly presents agricultural production in the surrounding region, while the map of Santa María y San Antonio shows how two towns have grown and become connected since their initial foundation. A perhaps surprising feature of Spanish towns and cities in the Americas is that they were rarely walled, lacking a definitive limit which allowed civic conglomerations to form. Present day Mexico City includes many pre-Columbian towns within its suburbs, such as Ixtapalapa and Culhuancan. Walled towns tended to be fortified settlements, or *presidios,* in frontier zones or on the coast where they might be open to attack from pirates or foreign enemies. Nascimientio in Chile represents a prominent American example, while Manila in the Philippines was the main walled Spanish settlement in Spain's primary Asian domain. **(Plate II. 11)**

Pre-Columbian Central and South America had developed many urbanised cultures, including the Aztec-México and Inca. In contrast, before Spanish settlement in the Philippines the islands had been a non-urban culture, with most indigenous groups living in a *barangay,* or settlement of between 30 and 100 families. The development of cities like Manila and Cebu therefore had a huge impact on the Philippines following permanent Spanish settlement.One of the most striking and informative early modern maps of Manila was produced by the Dominican Fr. Ignacio Muñoz in 1671 for the Council of the Indies.[88] An earthquake in 1645 had devastated large parts of the city, though Muñoz's map shows Manila and the surrounding suburbs reconstructed. The

[88] MP-FILIPINAS, 10; AGI, Seville.

PLATE II. 10

Epazoyuca (1580),Anonymous, (XXV-11; NLB, Austin). The *plaza mayor* with its large central church dominates the plan of Epazoyuca. The arterial roads in and out of the town are marked with alternating foot and hoof prints; the introduction of the horse in Central and South America had important practical and social functions, with only Spaniards allowed to ride the animals in both the viceroyalties of New Spain and Peru.

PLATE II. 11

Left: *Santa María Nativitas y San Antonio* (1602), Anonymous, (*Tierras,* vol. 183, exp. 2, f. 190, AGN, Mexico City).

Above: *Acacingo* (1606), Anonymous, (*Tierras,* vol. 2676, exp. 14, f. 135, AGN, Mexico City).

walled section of the city conforms most clearly to the bird's eye view style associated with city plans, this being the area most likely to have been surveyed in detail by Muñoz, a talented mathematician.[89] Letters and numbers visible throughout the map correspond to an accompanying key, highlighting royally appointed features including a forge and trading warehouses, as well as military features including the barracks. Within the *intramuros* region of the city, perhaps unsurprisingly for a member of the Order of Preachers, Muñoz highlights the many religious buildings present in the city. Manila was often called the 'Rome of the East', its dedication to the Roman Catholic faith making it a haven of religious exiles from across Asia, as well as symbol of the hopes of Spanish evangelism in that continent.[90] **(Plate II. 12)**

Manila was the world's first truly global city, with Spanish settlement in the Philippines initiating the first global trade network circumnavigating the world.[91] As Flynn and Giráldez have argued, before the Spanish settlement of Manila, no direct trade connection had been present between Asia and the Americas, leaving the world market 'not yet fully coherent or complete'.[92] The implications of this global network were not simply economic, but also artistic, cultural and, importantly, social. Muñoz's record of the ethnic and cultural divisions between districts of the city highlights the social implications and challenges of this first truly global entrepôt.

The main Chinese settlement lay in the Parian (e), pictured to the east, while over the Pasig River to the north the small settlement of Binondoc was home to Chinese converts to Christianity. Various settlements to the south of the walled city and over the river to the northeast were home to indigenous Filipinos and to the south of the Parian lay the Japanese suburb of Dilao. While these ethnic divisions were far from comprehensive or fixed they do highlight a desire for separation between both those of European descent and Asians and between settler groups more generally. The Chinese population was always large and tensions existed between the Iberoamerican population and the Chinese, though efforts to expel the settled *sangleys* always failed as they were a hugely important trading power in the city.[93]

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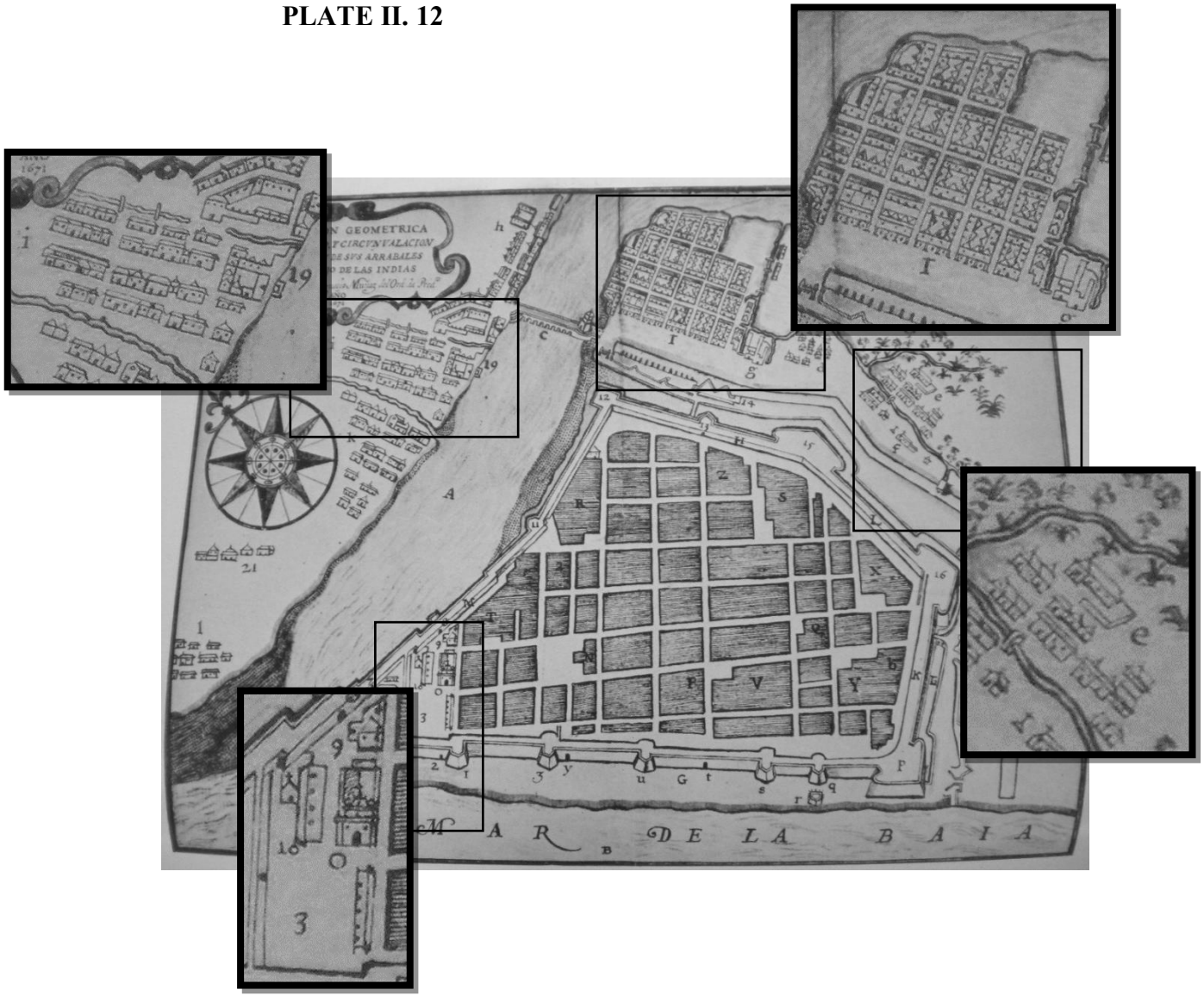
[89] Kagan highlights the association of bird's eye or ichonographic views with mathematically proficient cartographers like military engineers in Kagan, *Urban Images of the Hispanic World,* 3.
[90] Irving, *Colonial Counterpoint,* 27.
[91] Irving, *Colonial Counterpoint,* 19.
[92] Dennis O. Flynn and Arturo Giráldez, "Born with a "Silver Spoon": The Origin of World Trade in 1571", *Journal of World History,* Vol. 6, No. 2 (2005), 201.
[93] Irving, *Colonial Counterpoint,* 36-38; Tremml, "The Global and the Local", 570

PLATE II. 12



Descripción geométrica de la ciudad y circunvalación de Manila y sus arrabales… (1671), Fr. Ignacio Muñoz (MP-FILIPINAS, 10; AGI, Seville). Details provided clockwise from bottom left: the barracks of the Banderas (3), royal forge (9) and royal warehouses (10); Bindonoc (i); the Parian (I); Dilao (e).

The trading profile of Manila has dominated scholarly research of the Philippines, with the galleon trade guiding much discussion of the role the islands played within the Hispanic Monarchy. An anonymous map of Manila produced before 1645 is evidence of the way in which the galleons tied the Philippines to the Americas. As a subsidiary domain of New Spain, the Philippines maintained a particular relationship with the Viceroyalty which defied Spanish attempts at controlling contact and exchange. The map, which is painted on the lid of a wooden chest now held in Puebla, Mexico, shows the outline of Manila as mapped by Muñoz shared many continuities with this pre-1645 layout. The artist of the chest map, however, adopts an elevated viewpoint reminiscent of Wyngaerde's cityscapes. **(Plate II. 13)**

The *intramuros* occupies a central position on this map, contrasting the larger buildings of the Spanish city with the smaller, more crowded suburbs home to native Filipinos, and Japanese and Chinese settlers. The ethnic diversity of the city and its trade profile are highlighted in the diversity of vessels in the Pasig River (right) and Bay of Manila (top) which include European galleons and Chinese junks. The Chinese settlement of the Parian is not visible in the image; it is possible that the suburb did not feature as the painter was positioned there looking over the city, though we cannot be sure who painted the image or why.

That the chest is now in the Museo de Arte José Luis Bello y González, Puebla may indicate that it travelled to Mexico as part of the galleon trade, whether as a commercial item, souvenir, or storage box for a sailor making the long transpacific journey to the Americas. Puebla was one of the markets trading goods from the Manila galleons, the market in the city also being called the Parian, a word with Tagalog roots which means 'market'. The connection between Puebla and Asia was also expressed in the city's pottery industry. Puebla specialised in producing a majolica-style pottery with a blue and white pattern mimicking Chinese porcelains which were becoming popular in the Americas as well as in Europe.[94]

The Manila chest is illustrative of the many networks connecting the disparate territories of the Hispanic Monarchy, and highlights the special position Manila held as entrepôt of a world market connecting Asia with the Americas in a regular pattern of transpacific trade. Yet, the Philippines, as a subsidiary territory of New Spain, retained a

[94] Robin Farewell Gavin, Donna Pierce and Alfonso Pleguezuelo, *Cerámica y Cultura: The Story of Spanish and Mexican Mayólica* (Albuquerque: University of New Mexico Press, 2003), 9.

PLATE II. 13

Manila, (pre-1645), Anonymous, (Museo de Arte Jose Luis Bello, Puebla, Mexico). The image is painted on the interior face of the lid of a wooden chest.

Left*: Large majolica jar* (c. 1700), Puebla de los Angelos production, (Museo Franz Mayer, Mexico City). Right: *Majolica basin* (late 17th century), Puebla production, (Denver Art Museum, Denver). Both works mimic Chinese ceramics, adopting a blue and white colour scheme.

marginal character politically if not economically, and certainly failed to attract broad cartographic attention. Instead the mapping projects which pictured and largely created territories domestically and overseas in the sixteenth and seventeenth centuries were focussed largely on Spain and New Spain.

Plan view-style urban cartography, in contrast, was generally confined to the Americas and the Philippines, where the rationalised rectilinear town plan made a birds-eye representation simpler to achieve. Nonetheless, there are also important examples of plan views for Spanish cities. These generally emerged at the beginning of the seventeenth century; Antonio Manceli's plan of Valencia, produced in 1608, generally being regarded as the first true plan view of a Spanish city. Manceli adopted mathematical surveying techniques which had been increasingly refined in the Italian city states and were now travelling to Iberia.[95] His plan of Valencia, commissioned by the city's viceroy, the Marquis de Caracena, achieved a generally accurate, though slightly distorted, view of the city, highlighting major landmarks in an accompanying key. Manceli would go on to complete a similar plan of Madrid, the first ever produced of that city.[96] **(Plate II. 14)**

Manceli's plan of Madrid would, however, be overshadowed by the plan produced by the Portuguese cartographer, Pedro Texeira, which was published in Antwerp in 1656. Texeira's famous *Topographia de la villa de Madrid* was impressive in its accuracy and mathematical execution, but achieved symbolic importance on account of the message it presented. The map was entitled *Mantua Carpe[n]tanorvm sive Martitvm Urbs Regia,* 'Mantua of the Carpetana, or Madrid, Royal City', a statement of both the supposed classical origins of the city and its contemporary status as seat of the Habsburg monarchs. This classical association was not simply an attempt at historical contextualisation, it was a clear attempt to associate the glory of the Roman Empire with that of the Monarquía Hispánica. Madrid is presented as the city of the king, Philip IV, to whom the map is dedicated, 'his city, and summation of the world subject to him'.[97] The global Monarchy is irresistibly drawn to the Royal City, and

[95] Richard L. Kagan, "*Urbs* and *Civitas* in Sixteenth- and Seventeenth-Century Spain", in *Envisioning the City: Six Studies in Urban Cartography,* ed. David Buisseret (Chicago & London: The University of Chicago Press, 1998), 85.
[96] Kagan, "*Urbs* and *Civitas*", 85.
[97] Kagan, "*Urbs* and *Civitas*", 86; Richard L. Kagan, "Arcana Imperii: Mapas, ciencia y poder en la corte de Felipe IV", in *El atlas del rey planeta: descripción de España y de las costas y puertos de sus reinos de Pedro Texeira (1634),* eds. Felipe Pereda and Fernando Marías, (Hondarribia: Editorial Nerea, 2003): 70.

PLATE II. 14

Nobilis ac regia civitas Valentie in Hispania., (1608), Antonio Manceli (Private Collection, Valencia, Spain)*Topographia de la villa de Madrid*

Topographia de la villa de Madrid (1656), Pedro Texeira (INVENT/23233; BNE, Madrid)

Madrid is the centre of the world; there is no distinction as to whether this was specifically the world of the Monarchy or the world as a whole, a powerful ambiguity. Furthermore, the description of Philip IV as *Regi Catholici | Forti et Pio*, 'Catholic King | Strong and Pious', emphasises the person of the king as an embodiment of the religious ideals of the global Monarchy, and the necessarily urban setting for that faith-culture.[98] The apartments of the Buen Retiro, Philip's new palace, are enlarged in the map, aggrandising the physical home of the monarch and with it the Monarchy. Many of the arterial streets around the city are also enlarged,[99] lending an artificial sense of rationality in this medieval city, a trick Wyngaerde also played in his view of Valencia. The urban form of the city is important to the overall message and Texeira's insistence that the plan was so accurate that one could 'count the doors and windows of each building'[100] emphasises once again the concept that the urban form was a physical manifestation of the character of its inhabitants, a sum of individual details. Madrid, as home to 'El Rey Planeta', must be seen as a kind of perfect city.

Texiera's intentions, like those of Manceli, are not so difficult to discern as the maps of the *Relaciones geográficas* or of the Philippine views during the early modern period. Both cartographers sought to represent Spanish cities as appropriately grand for urban centres at the heart of a Monarchy with truly global reach. Their apparent rationality and the impossibility of their perspective do, however, mask the challenges facing Spain during the early seventeenth century, as plague and famine created serious political, economic and social challenges which affected these 'perfect' cities as much as the rural hinterland.[101] It is perhaps not surprising, therefore, that the geometrical plan became an attractive mode of urban representation during this period, as reality could be hidden behind mathematics.

Conclusion

The urban cartography of the Monarchy can be overwhelming in both its volume and visual diversity, the range of mapping genres offering different perspectives. Diversity can mask similarity, however, and many of these maps share common features across genres. Predominantly these similarities are content-based, and urban cartography from the early modern Monarchy possesses two broad visual preoccupations. Firstly, religion

[98] Kagan, "Arcana Imperii", 70.
[99] Kagan, "Arcana Imperii", 70.
[100] Kagan, "Arcana Imperii", 69; Kagan, "*Urbs* and *Civitas*", 86.
[101] John Lynch, *Spain Under the Habsburgs, Volume II,* 6-7, 10.

shapes many of the maps from this period. This does not result in the moral geographies or Jerusalem-centred *mappaemundi* of the medieval period, but rather shows the central position Christianity held physically and socially across the Monarchy. From Wyngaerde's Spanish city views to the *relaciones* of New Spain and beyond, to city plans of Manila, churches and religious houses structure settlements and dominate the landscape. Catholicism successfully drove the Monarchy's continued expansion in the Americas and Asia, providing a mission for continued growth and additional personnel with which to achieve it.

Secondly, *urbs*, the physical form of urban space, was of interest to those governing the Monarchy as well as to the cartographers mapping it. In Spain, urban space was cartographically manipulated to achieve more 'rational' and 'perfect' results, allowing cities which had grown during the medieval period to conform more closely to Renaissance ideals of urban planning. An idealised approach to planning was codified by the end of the sixteenth century in the Indies, and the success of efforts to impose urban structure can be seen throughout American and Filipino cartography. If towns were to function as the foundation of the Monarchy it was essential to ensure they were the right kind of towns. The cartographers did not need to manipulate urban space to present an idealised view, the ideal was physically present if not always theoretically sound.

The vast number of urban maps available from the sixteenth and seventeenth centuries emphasises the importance of urbanisation within the overall progress of the Monarchy. Towns and cities remained the social foundations of this global network of governance and retained their focal identity throughout the early modern period, providing localised manifestations of political, economic, cultural and religious networks which extended beyond civic limits or territorial boundaries. While the maps can tell us much, they often conceal far more; we rarely know who produced each map and, importantly, why such maps were produced in the first place. Provenance remains a problematic mystery and one which may prove an insurmountable barrier to an accurate appreciation of much urban cartography in this period. The intimate relationship between form and function means without an understanding of why a map was produced we cannot ever fully understand why it was made the way it was.

Nonetheless, urban maps provide an important, localised perspective of the Monarchy produced by those living within it during a period of transition and rapid

transformation. The continuity of many urban features across the Monarchy's vast territories meant that urbanism achieved a kind of universality across the 'mundo hispánico', evidenced by the vibrancy of the urban cartographic tradition of the early modern period. The Monarchy's civic-religious programme was a legacy of the Reconquista, adapted for another world and urban cartography supported this new urbanism, reporting its progress across the Monarquía Hispánica.

Chapter Three: Territorial cartography

The concept of 'territory' in much modern scholarship has been classically associated with the development and survival of the 'state' or 'nation'. How territory was constructed, maintained and adapted within this state or national context has shaped discussion and created a narrow chronological range within which the notion of 'territory' has operated. Territory is, however, not simply a modern, national concern, and thinking territorially occurred in many pre-modern, pre-national contexts. The Monarquía Hispánica was not composed of states or nations, but rather of kingdoms and provinces, governorships and viceroyalties. Nonetheless, the concept of 'territory' as a space with socio-cultural significance, when operating at this classical supra-regional level, has influenced how the various domains, both domestic and overseas, were managed and understood within the structure of the Monarchy.

While territory need not possess clear or defined boundaries, the political nature of most territorial units makes the imposition and maintenance of boundaries preferable and often necessary. These boundaries limit power exercised by groups or individuals to specific areas and importantly demarcate the jurisdictional areas of one power group in relation to others.[102] The process of setting boundaries and more generally fashioning space and employing it to anchor the conceptual framework on which territory relies are important aspects of territorialisation as a broader project of constructing territory. This practice can occur on the ground, physically placing markers in the landscape to represent the boundaries between one group and another. It is perhaps more common, however, for this process to occur cartographically.

Maps, in their most basic function, make space easier to see and at the scale of a province or viceroyalty maps provide the only possible way of seeing territory as a whole. As such maps offer the possibility of planning the process of territorialisation before it has begun, or following its progress cartographically until it is deemed complete or the plan has changed sufficiently to initiate a new one. The territory contained within maps is far easier to manipulate than the physical landscape is in reality, and the level of uniformity or diversity presented by the map can guide or obscure the process of territorialisation. To take a modern example, the 'Map' view offered by Google Maps does not differentiate between the type of landscape being presented – the landscape is reduced to a grey background whether desert or rainforest.

[102] Colás, *Empire,* 45.

Switching to the 'Earth' view, a satellite image of the world, the geographical diversity of the landscape is revealed. The cartographical conventions adopted by cartographers and the style of their presentation thus affect the way space is conceptualised and the project of territorialisation presented.

As we saw in the first chapter, 'territorialisation' can be considered, at a basic level, to be a process by which space, as a meaningless expanse, is transformed into territory. This classic conceptualisation of territorialisation has been commonly associated with colonial systems of rule, and can also be considered true of the process of overseas expansion undertaken by the Monarquía Hispánica. Places like 'New Spain' and 'the Philippines' did not exist before the Spanish arrived in mainland Central America or in the islands of Southeast Asia. They were created conceptually and territorially through a multi-faceted process of territorialisation both in situ and, importantly, on maps. This kind of territorialisation purports to create something out of nothing, territory with significance from meaningless space.

This is clearly a highly ethnocentric process, as can be seen in the case of both New Spain and the Philippines. The Spanish considered the lands of Central America to be 'space' because they did not fit within their pre-existing understanding of global geography, they were accommodated within this geographical framework while the process of constructing 'New Spain' was underway. Yet, the Aztec-México Empire, which had flourished in the Valley of Mexico and beyond for centuries before the arrival of the conquistadores, had possessed a clear territorial character and identity for the indigenous Mesoamerican peoples who lived there. The sophistication of their tribute collection systems and evidence of cadastral mapping practices only emphasise further the territorial nature of pre-Columbian Central America. In the Philippines, though the scale of territory was much smaller, the *barangay* acted as a territory defined by familial relationships and remained an important foundation for society during the period of Spanish rule and beyond. Nonetheless, these units were adapted and reformed in the process of territorialisation undertaken by secular and religious agents of the Monarchy.

In many respects the process of territorialisation is one of reformulation or aggregation, where pre-existing territorial units are refashioned into new ones, or collate to create larger territories operating within adjusted conceptual frameworks. This was the character of territorialisation which Spain underwent in the sixteenth and

seventeenth centuries. The Iberian Peninsula had been a collection of kingdoms and provinces during the Reconquest period, though a developing sense of unity between kingdoms emerged during the reign of the Catholic Monarchs, Ferdinand of Aragon and Isabella of Castile. This process continued throughout the reigns of the Spanish Habsburgs, as the various peninsular kingdoms were encouraged to look to a Habsburg king in Madrid as the source of royal power over 'Spain'. Alongside this political rendering of 'Spain' lay an emerging conceptual understanding of what it was to be 'Spanish', a notion growing in the Indies rather than the peninsula. Local identities and allegiances became less important in the face of the indigenous 'Other'. The imposition of a religious-civic framework intended to spread the Catholic faith and urban civility across the Indies helped to create a view of being 'Spanish' which was founded in cultural norms shared across many kingdoms of the Iberian Peninsula.[103]

Maps of the sixteenth and seventeenth century show this process of territorial construction occurring, and importantly adopt geometrical surveying techniques to render many of these territorial representations. The reasons for this stylistic choice are not entirely clear, though in a period where diplomacy hinged on unfixable lines of demarcation, a technique which offered a spatial representation based on verifiable data promised a level of accuracy and perhaps objectivity that was highly attractive.

Spain

The development in geometrically-informed cartography did not begin in the Enlightenment, even if the approach achieved dominance during this period. The sixteenth century saw rapid development in cartography employing geometrical surveying principles. A number of European monarchs, including Duke Albrecht of Bavaria and Elizabeth I of England, commissioned surveys of their lands during the sixteenth century, though the survey of Philip II was perhaps the most successful project undertaken in this period.[104] The Escorial Atlas represents perhaps the greatest cartographic achievement of the early modern period, and yet it remained hidden and largely forgotten for centuries after it was first produced.

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[103] Tamar Herzog, "Can You Tell a Spaniard When You See One? "Us" and "Them" in the Early Modern Iberian Atlantic", in *Polycentric Monarchies: How did Early Modern Spain and Portugal Achieve and Maintain a Global Hegemony?, eds. Pedro Cardim et al. (Brighton: Sussex Academic Press, 2012), 148.*

[104] Sarah Tyacke and John Huddy, *Christopher Saxton and Tudor Map-Making,* (London: British Library, 1980): 24-25; Geoffrey Parker, "Maps and Ministers: The Spanish Habsburgs" in *Monarchs, Ministers and Maps,* ed. David Buisseret (Chicago & London: The University of Chicago Press, 1992), 130.

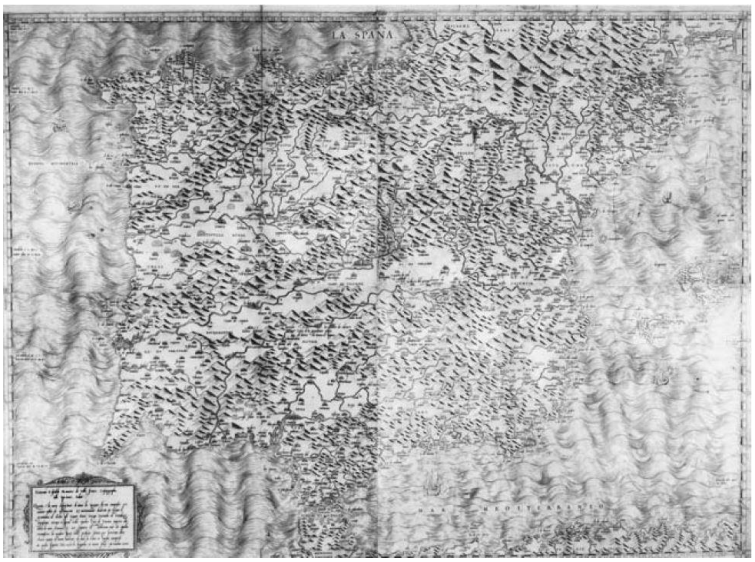
Ptolemaic maps of Spain had become popular from the late fifteenth century after the *Geographia* was rediscovered and printed in Western Europe. By the mid-1500s new maps were being produced which were more accurate in their representation of the Iberian peninsula, such as Giacomo Gastaldi's *La Spaña*, which was produced in 1554. Gastaldi's map was followed a decade later by Geminus' *Nova descriptio Hispaniae* (1555), published in London under royal authority from Philip, who lived in the city during his marriage to Mary Tudor. While both maps improved on the general outline of the Iberian Peninsula, neither contained much detailed information regarding Spain's interior geography, falling back on graphic fillers, such as wooded regions, hills or mountains to occupy empty space. Similar fillers can be observed in Zenoi's *Hispaniae descriptio* (1560), though here inland hydrography achieves a similar level of accuracy to coastal features. This lack of detail most likely results from a lack of first hand data, and it can be assumed that both Gastaldi, who produced his map in Venice, and Geminus in London were working from second hand information.[105] While coastlines were generally accurate in this period on account of a well-developed tradition of portolan chart production in Spain, and particularly in Portugal, maps including inland detail were rare and such territorial views were a developing genre. **(Plate III. 1)**

The survey of Bavaria produced by Philipp Apian between c. 1550 and 1560 was a genre-defining production. Covering c. 44,000 sq. km it was the most ambitious, as well as the most detailed and accurate survey of its kind. Apian's survey was also significant because the mathematician turned cartographer employed data he had collected first hand to produce his maps, and the impact this had on accuracy and consistency in the final production was evident.[106] Sadly Apian's original map was destroyed by fire in the mid-eighteenth century, though his masterpiece survived in contemporary copies, including that by Abraham Ortelius. The Flemish cartographer also published Seco's map of Portugal, a similarly ambitious and accurate geographical survey first published in Rome in 1561.[107]

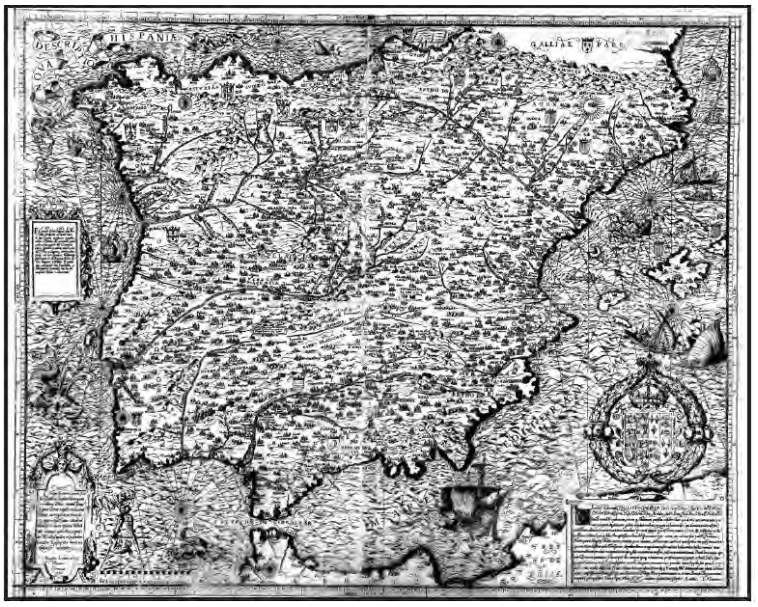
It is within this context of innovation and ambition that the Escorial atlas must be considered. It is generally agreed that a geographical survey of Spain expected to employ geometrical surveying techniques was commissioned by Philip II between the

[105] Parker, "Maps and Ministers", 126.
[106] Parker, "Maps and Ministers", 130.
[107] Parker, "Maps and Ministers", 130.

PLATE III. 1



La Spaña (Venice, 1554), Giacomo Gastaldi.



Nova descriptio Hispaniae (London, 1555), Thomas Geminus.

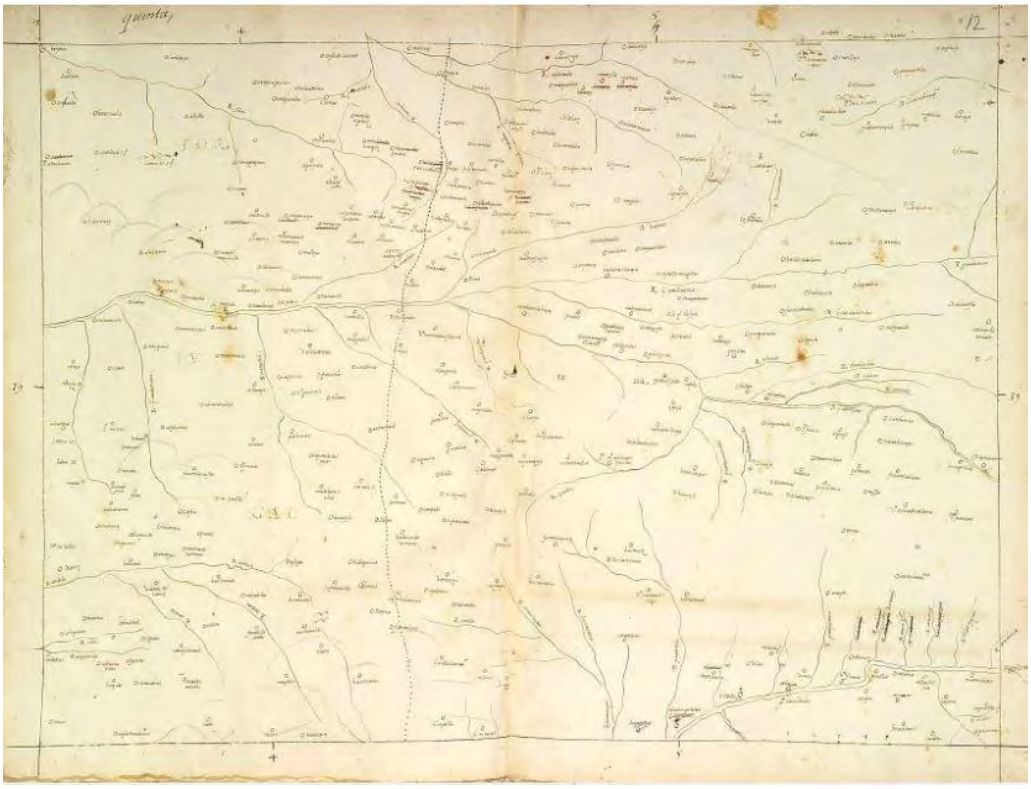
Hispaniae descriptio (Venice, 1560), Domenico Zenoi.

mid-1550s and early 1560s; sadly documentary evidence which might date the production more clearly has never been found.[108] The project was led by Pedro Esquivel, a mathematics professor at the University of Alcalá, and, following his death in the early 1570s, was taken on by his assistant, Diego de Guevara.[109] Guevara sadly died only a few years after assuming control of the project and it was left unfinished. This phase of the survey produced a twenty-one page, double-sided folio atlas, containing twenty portion maps of Spain's Iberian domains, commonly referred to as the 'Escorial Atlas' as it has been stored in the palace library probably since its production. Esquivel and Guevara seem to have produced the Atlas employing geometrical approaches to surveying, including sixteenth-century triangulation techniques.[110] A fan diagram of Toledo found on the back of one of the folio pages indicates that while gathering data for the Atlas the cartographers made use of natural vantage points to take and verify measurements, in a similar way to Wyngaerde's use of an elevated vantage point to capture his city views.[111] **(Plate III. 2)**

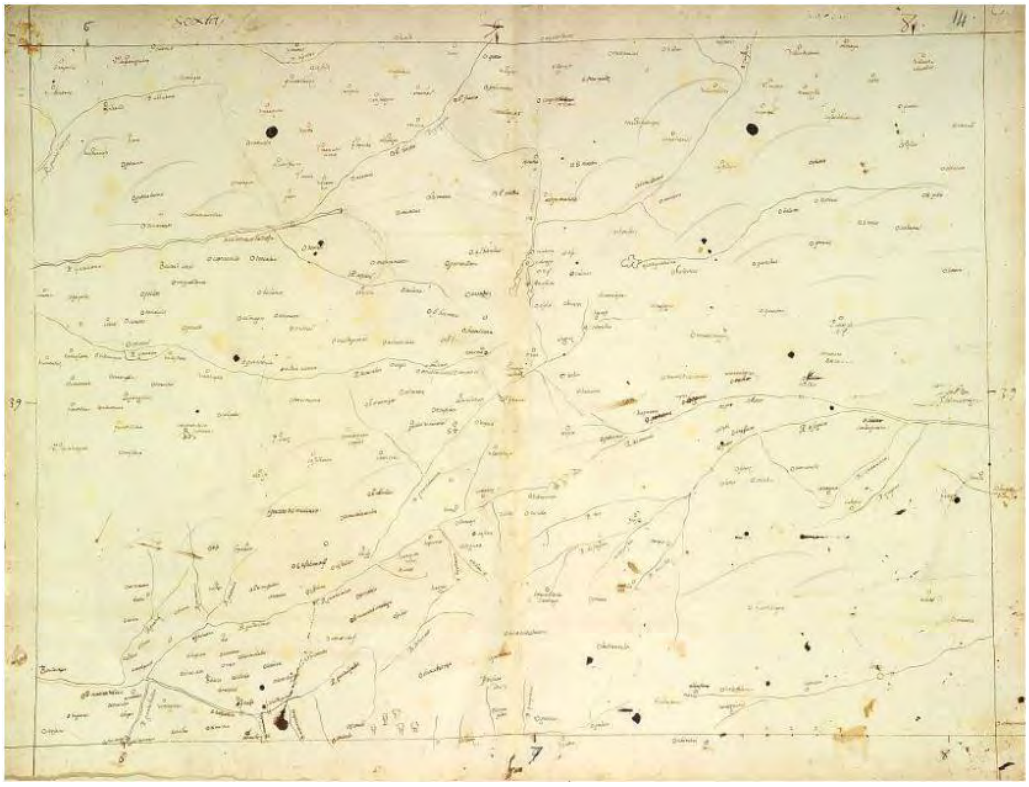
While the Atlas remained unfinished, an index map was produced, piecing together the twenty portions into a whole map. An exact date for the index map has not been determined, though the accuracy of the mapping of Portugal might indicate that the index map was produced after the union of crowns in 1581. It has been suggested that Juan López de Velasco, then royal chronicler-cosmographer, may have been involved in the production of the index map, as his handwriting has been identified in the Atlas providing corrections and additions. This is further supported by a recent study of the Stockholm Codex, a collection of geographical data about Spain which features over 3,000 co-ordinates for places and features found in the Atlas.[112] The handwriting of both Velasco and João Baptista Lavanha, a celebrated cartographer of Portuguese ancestry, has been identified in the Codex. Lavanha predominantly corrects co-ordinates while Velasco offers astronomically determined detail, such as the latitude and longitude of major cities including Madrid, Toledo and Seville.[113] The Codex itself does not seem to

[108] Antonio Crespo-Sanz offers an alternative chronology in his "Novel Reflections on the Atlas at El Escorial", ICC Presentations (2005) and "Un mapa olvidado: el Atlas de El Escorial", *Catastro* (2005) which would place the Atlas and index map within the reign of Charles V.
[109] Goodman, *Power and Penury,* 66; Juan de Herrara has also been associated with completing the project following Esquivel's death, see David Buisseret, "Spanish Peninsular Cartography, 1500-1700", 1083.
[110] For detail on surveying techniques and equipment see: Crespo-Sanz, "Novel Reflections", 1-3.
[111] Buisseret, "Spanish Peninsular Cartography, 1500-1700", 1084.
[112] Kungliga Bibliotheket, MS M.163.
[113] Parker, "Maps and Ministers", 131-32.

PLATE III. 2



Escorial Atlas, Portion 5 (c. 1560-1575) (MS. K.I.1, fols. 11v-12r; Patrimonio Nacional, Madrid)



Escorial Atlas, Portion 6 (c. 1560-1575) (MS. K.I.1, fols. 13v-14r; Patrimonio Nacional, Madrid)

have been employed to produce a new map of Spain, though may have supported the correction of the original Atlas either during the production of the index map or after. **(Plate III. 3)**

When considering the Atlas, index and Codex together the ambition of these territorial mapping projects in Spain during the sixteenth-century can be appreciated. While Apian's survey covered 44,000 sq. km and Seco 89,000 sq. km in Portugal, the Atlas covered 497,000 sq. km and achieved a level of accuracy regarding urban centres which was extraordinary, only to be improved upon when the index map was produced.[114] The Atlas and index map are less visually imposing than other maps of Spain produced during this period, yet both are accessible and usable in their simplicity. The reason for their production is unknown, though it might be assumed that the Atlas was intended to have administrative utility, which perhaps encouraged the production of the functional index map.

The simplicity of the presentation seems to make the image of 'Spain', covering the Iberian Peninsula as a whole, effortless; there are no internal divisions and the focus is on urban centres and hydrographical features, not on political units or historical, regional relationships. The success of the Escorial Atlas and the index map is in their ability to present an image of 'Spain' as a unified whole and a geographical reality. Whether the intention was to produce an Atlas with this goal in mind is unknown, but a consequence of the scope and style of the project is that the domestic Monarchy is visualised as a cohesive territory.

A project perhaps associated with the Escorial Atlas and worthy of mention in its own right is the *Descripción de España y de las costas y puertos de sus reynos,* produced in 1634 for Philip IV by Pedro Texeira.[115] The atlas was the idea of the Portuguese cosmographer Lavanha in the 1620s, but was undertaken by his compatriot and apprentice Texeira, on account of Lavanha's advanced age. The commissioning of the atlas followed a practical halt in cartographic commissions under Philip III, excepting an expedition to map the Strait of Magellan in which both Pedro Texeira and his brother João were involved. Philip IV's reign breathed new life into royal patronage of mapping projects, and no doubt Lavanha's position as mathematics tutor to the young

[114] Parker, "Maps and Ministers", 130.
[115] NLV, Codex Miniatus 46.

PLATE III. 3

España (c. 1580-90) (MS. K.I.1, fols. 1v-2r; Patrimonio Nacional, Madrid). The 'key' or index map to the Escorial Atlas, thought to have been authored by Juan López de Velasco and João Baptista Lavanha.

king put his suggestion in a favourable position to receive royal authorisation. **(Plate III. 4)**

The *Descripción* is a luxurious atlas, picturing the coastline and ports of Spain alongside sectional views of the coastal portions of the peninsula. The work successfully combines the topographic perspective offered by Wyngaerde's views with the geographic map portions of the Escorial atlas, moving with ease between the two cartographic perspectives. Texeira's atlas was so beautifully and carefully executed that it is hard to imagine it serving a practical purpose, and yet it was commissioned to provide much needed information about the defensive capabilities of Spain's long coastline. The author had spent much of his professional life travelling along the coasts and northern border of Spain, providing advice about the state of existing defences and providing future defensive solutions.[116]

The atlas is bracketed by two remarkable maps; the first is a *Tabla general de España,* or view of the whole peninsula. Portugal, which was still under Spanish sovereignty when the atlas was produced, does not stand out as an 'addition' to the internal fabric of the peninsula, which is already a collage of kingdoms and provinces. Instead, while visually subdivided into a multi-coloured patchwork of political units, Texeira succeeds in presenting Spain as a cohesive whole. The sea surrounds the peninsula and a blandly beige France to the north does little to detract from the mass of labels and colours that is Spain. In the context of the Catalonian revolts and the practical autonomy of kingdoms like Aragon, it is possible that Texeira's map of Spain sought to present an image of a unified peninsula, a task easier for Texeira to achieve cartographically than for the Count Duke of Olivares to attempt in reality. **(Plate III. 5)**

The scientific credentials of the image are presented with the inclusion of a scale in leagues, which corresponds to the latitude scale running on either side of the map. The length of a degree of latitude is given at 17 leagues, somewhere between traditional Spanish and Portuguese opinions on the length of a degree. Notably, longitude is not represented, a method for its effective calculation being beyond contemporary capabilities. The second map is an untitled world map, another beautifully-executed image with remarkable coastal accuracy across the world, excepting the 'island' of California and the great southern continent, which will be discussed in greater detail below.

[116] Pereda and Marías, "Introducción", 14-15.

PLATE III. 4

Coastline south of Granada (1634) Pedro Texeira (Codex Miniatus 46; National-Bibliothek, Vienna)

Marbella (1634) Pedro Texeira (Codex Miniatus 46; National-Bibliothek, Vienna)

PLATE III. 5

Tabla general de España (1634) Pedro Texeira (Codex Miniatus 46; National-Bibliothek, Vienna)

This unique atlas is, however, unfinished; it lacks titles on some pages and information is missing from some of its heavily decorated cartouches. It was accompanied by a 79 folio text, one of three which survive, providing detail about the content of the Atlas and about the regions shown. Comparative work on the three texts has been completed which show that two, one held in the Biblioteca Nacional de Madrid and the other in the British Library, are nearly exact copies of one another, though the latter may have been copied by a foreign hand as linguistic inconsistencies are present.[117] The final copy, held with the atlas in the National Library of Vienna, is different, containing shorter accompanying descriptions of the images in the Atlas in favour of short sections on the history, territory and government of Spain.[118] The reasons for the diversity between texts is unknown, though it seems likely that the Vienna text was originally intended to accompany the Atlas, while the purpose of the other versions remains a mystery.

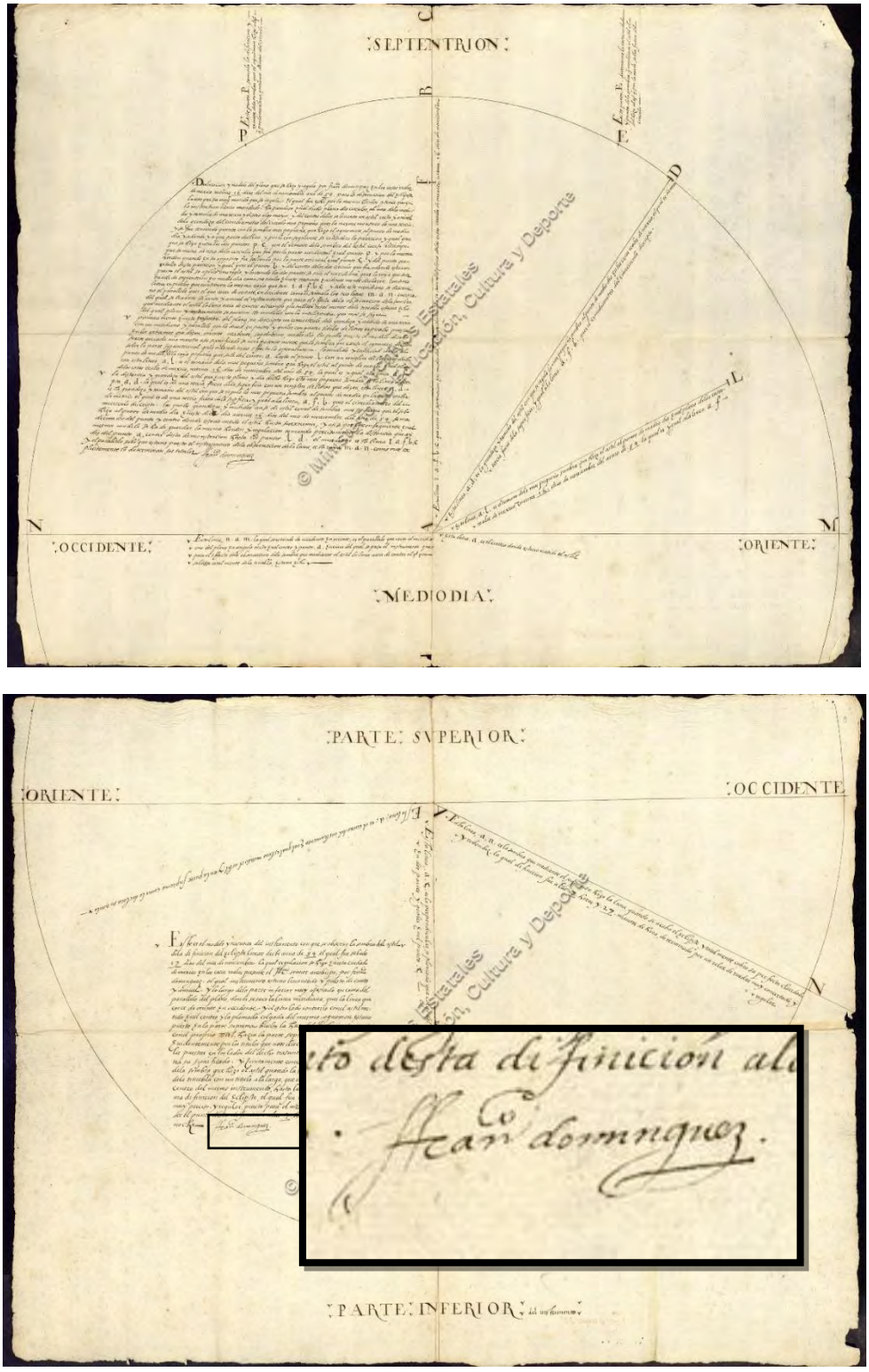
It is possible that the Stockholm Codex, to which Lavanha contributed, may have been employed in the production of the 1634 *Descripción.* Should this be the case, the relationship between these two Atlases, produced under Philip II and Philip IV, may change our understanding of both projects and indicate that the seventeenth-century 'edition' sought to finish and improve upon a project initiated in the previous century.

New Spain

Similar surveying projects to those conducted in sixteenth-century Spain were also carried out in Central and South America, from the *Relaciones geográficas* questionnaire to the less famous Domínguez survey of New Spain. The cartographer Francisco Domínguez was sent c. 1570 to New Spain to conduct a geographical survey of the viceroyalty comparable to the Escorial Atlas project in its scope and administrative potential. First draft sections were returned to Spain by Domínguez c. 1575 after five years of travelling across New Spain collecting survey data. The drafts, which are now lost, were returned with a query relating to his salary which was five years overdue.[119] **(Plate III. 6)**

[117] BNE, Ms. 1802 and BL, Add. 28497 [126 folios], Felipe Pereda, "Un atlas de costas y ciudades iluminado para Felipe IV: La ‹‹Decripción de España y de las costas y puertos de sus reynos›› de Pedro Texeira", in *El Atlas del Rey Planeta,* eds. Felipe Pereda and Fernando Marías (Hondarribia: Editorial Nerea, 2002), 48.
[118] NLV, Cod. Vin. 5707[119], Pereda, "Un atlas de costas y ciudades iluminado para Felipe IV", 48.
[119] Goodman, *Power and Penury,* 66.

PLATE III. 6



Doce figuras ó planos de eclipse de luna observado en México el 17 de Noviembre de 1584, hechas por Jaime Juan, Cristóbal Gudiel, Francisco Domínguez y el Doctor Farfan conforme á las instrucciones de Su Majestad (1584), Francisco Domínguez (MP-MEXICO, 34 7R (top) 8R (bottom); AGI, Seville). Domínguez's signature can be seen on both pages.

We have little detail about Domínguez's life after this point, though we know he assisted Jaime Juan in his 1584 astronomical survey, collecting information on lunar eclipses in cities across New Spain, a project aiming to provide clearer longitudinal data about Spain's overseas domains.[120] The physician, Dr Francisco Hernández and his assistant Dr Farfan, who were conducting their own natural history expedition in New Spain, are also recorded as providing further measurements of the eclipse, alongside Domínguez, to verify Juan's measurements.[121] A decade later Domínguez was still in New Spain, still waiting for his salary, now overdue by two decades; a petition submitted in 1594 listing Domínguez's 'merits and services' noted he was a '*cronista, y cosmographo* [de] *la Nueva Spaña, Philipinas y de la granchina* [...] *y del Peru, y de todas las* [...] *tierras, de las Indias*'; the petition met with a call for further information.[122] Ambitions stretching beyond New Spain indicated by the 1594 petition were clearly never realised, and the New Spain survey was never completed. A legal case from 1610 showed that the salary due Domínguez was still not received prior to his death c. 1598, though the San Hipólito hospital in Mexico City continued the case into the seventeenth-century – the outcome is unknown.[123] The Domínguez survey, which might have been one of the most significant achievements of Crown sponsored cartography in the early modern period, instead stands as a reminder of some of the fiscal and administrative failings of the world's first truly global realm.[124]

The Indies

A brief mention should be made at this juncture of a series of manuscript maps produced by Juan López de Velasco in the mid-1570s for his *Geografía y descripción universal de las Indias,* a work which was commissioned by the Council of the Indies. The maps contained in this work were later published by Juan de Herrara in his *Décadas* at the turn of the seventeenth century. These maps, presenting a view of the homogenous 'Indies' on both sides of the Pacific, came to embody the publically available image of the Monarchy for over a century. Both versions of the maps are very similar, comprising a series of maps of Spain's American domains, though the printed

[120] 'Doce figuras ó planos del eclipse de luna observado en México el 17 de Noviembre de 1584, hechas por Jaime Juan, Cristóbal Gudiel, Francisco Dominguez y el Doctor Farfan conforme á las instrucciones de Su Majestad' (17/11/1584): 7R, 8R.
[121] Antonio Barrera, "Empire and Knowledge: Reporting from the New World", *Colonial Latin American Review,* Vol. 15 No. 1 (June 2006), 48.
[122] Méritos y servicios: Francisco Domínguez [AGI, PATRONATO,261,R,9: 4].
[123] Goodman, *Power and Penury,* 66-67.
[124] Similar financial challenges seem to have been shared by Esquivel, see: Crespo-Sanz, "Novel Reflections", 4.

versions also include an image of the 'Indias del Poniente', the Western Indies. **(Plate III. 7)**

The map of New Spain, both in manuscript and printed format, is largely unremarkable. Inland detail is rather limited, the emphasis instead being on highlighting coastal towns and cities rather than detailing inland topography. Importantly, however, the map does provide an impression of how New Spain was seen and understood at the time of the unsuccessful Domínguez survey. Given the timing of the original production of this map, it is a tantalising possibility that the preliminary survey maps created by Domínguez may have informed Velasco's work. Furthermore, the style of the maps is reminiscent of the index map produced for the Escorial Atlas, and may provide further evidence for Velasco's involvement in producing that work.

The map of the 'Indias del Poniente' is, however, far more interesting. Firstly, the very fact that a map which takes a broad view of mainland Asia and the Southeast Asian and Pacific islands is entitled 'A description of the Western Indies' is indicative of a clear piece of geopolitical manipulation. Asia had been traditionally conceived within European geography as the Orient or the East, but within the Spanish zone of jurisdiction as outlined by the Treaties of Tordesillas and Zaragoza, Asia fell within the western portion of that zone. By claiming that this whole region could be considered the 'Western Indies' further highlights that the cartographer is seeking to make an ambitious claim with regard to the extent of Spanish jurisdiction.

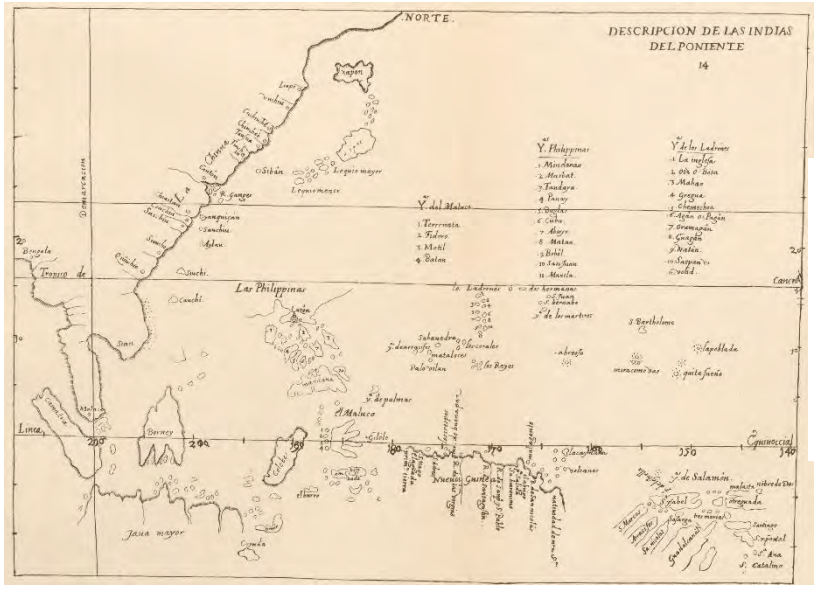
Furthermore, by placing the Philippines, Spain's foothold in Asia, within its geographical context it presents the importance of that gobierno as primarily strategic. Financially the Philippines were hardly worth sustaining, but as a possible gateway to Asia, with all its economic and evangelical potential, the islands were a valuable territorial asset. Other contemporary images present the islands in a similar light – the Philippines were a base from which to commence the conversion of mainland Asia and acted as a hinge for trade between Asia and the Americas and Europe.

It is not known whether Velasco ever produced a manuscript version of the map of the 'Western Indies', if so it has been lost as now only the printed version survives. Regardless, these maps present an important picture of the American and Asian possessions of the Monarchy, and hint at their ambitions to continue that expansion into the western portion of their jurisdiction. They are also hugely important because they were eventually published, and with so few maps in this period reaching the printing

PLATE III. 7

Descripcion de la Audiencia de Nueva España (1575) Juan López de Velasco, from *Descripcion y Division de las Yndias* (Codex Sp 7 / 1-SIZE, 17000-4; JCB, Providence).

Descripcion del Destricto del audiencia de Nueva Espana (1601) Juan López de Velasco and Antonio Herrara, in *Historia General* (B601 H564h /1-SIZE, 01808-009; JCB, Providence).



Descripcion de las Indias del Poniente (1601) Juan López de Velasco and Antonio Herrara, in *Historia General* (B601 H564h /1-SIZE, 01808-019; JCB, Providence).

press they are not simply interesting for their content but also the message they may have sent to contemporary viewers across Europe and perhaps across the world.

The Philippines

After the Esquivel and Domínguez surveys one may have expected a similar surveying project to have been undertaken in the Philippines, which were by the last decades of the sixteenth-century an established subsidiary territory of the Viceroyalty of New Spain. No such survey was, however, undertaken during the Habsburg period, and it was not until 1733 that the Crown made a formal request for a Philippine survey. The resulting map remained a blueprint for most maps of the Philippine archipelago for almost a century and, as the Philippines moved towards independence, took on a new role as a symbol of Filipino nationalism.

The *Carta hydrographica y chorographica de las Islas Filipinas* was published in Manila in 1734, drawn by the Spanish Jesuit Fr. Pedro Murillo Velarde and engraved and printed by the Tagalog Filipino Nicolás de la Cruz Bagay, with accompanying images drawn by the artist Francisco Suarez, also a Tagalog Filipino. The speed of its publication after the initial request would indicate that the map was already in production before the request from Philip V was received. The Velarde map is not, as has been claimed, the first ever image of the Philippines;[125] many maps from the sixteenth-century onwards depicted the islands in varied levels of detail, from a small archipelago on the edge of a global map, to regional views of southeast Asia, or details of specific islands. Furthermore, the Flemish cartographer Pieter van den Keere was the first to picture the islands as a connected archipelago.[126] What makes the Velarde map special, however, is that the map, along with the accompanying vignettes, was arguably the first map to successfully conceptualise 'the Philippines' as a territorial unit unto themselves;[127] Velarde chooses not to place the islands within a broader regional context, excepting the inclusion of Borneo to the bottom left of the map. **(Plate III. 8)**

The Velarde map is remarkable for many reasons. It was the most accurate rendering of the archipelago when it was produced, providing a detailed representation of not only the large islands in the group, but also many of the smaller islands scattered

[125] Padrón, "Las Indias olvidades: Filipinas y América en la cartografía imperial española." 3° Simpósio Iberoamericano de História da Cartografia, Agendas para a História da Cartografia Iberoamericana, Universidade de São Paulo, São Paulo (April 2010): 2.
[126] Quirino, *Philippine Cartography,* 35.
[127] Padrón, "Las Indias olvidades", 9.

PLATE III. 8

Carta hydrographica y chorographica de las Islas Filipinas (1734) F. Pedro Murillo Velarde; engraved and printed, Nicolás de la Cruz Bagay; accompanying images, Francisco Suarez (MR/45/31; BNE, Madrid)

across the region. The 1734 edition provided information on shipping routes, and included elements from the portolan mapping tradition, such as rhumb lines criss-crossing the seas around the Philippines. From an ethnographic perspective the map highlights the achievement of Filipino craftsmen in art, engraving and printing, a tradition initiated by Tomás Pinpin, the first Filipino typographer.[128] That Cruz Bagay and Suarez are named is significant when considered against the usually anonymous indigenous mappers of the *Relaciones geográficas* in New Spain. Furthermore, the images drawn by Suarez capture the ethnic diversity of Manila and the Philippines more widely in the first decades of the eighteenth century; his images picture not only Spaniards, Chinese, Japanese or Filipinos, but also mestizos of New Spain, Persians, black Africans, and a native of Malabar in India.[129] The looming threat of barbarity, paralleling the Chichimecs of Cháves' Meztitlán, can be seen in the armed Aëtas, an indigenous Filipino group occupying the upland regions surrounding Manila. **(Plate III. 9a and III. 9b)**

The incidental details within Suarez's images offer a glimpse at daily life in the islands, from the music played and danced to, to sports enjoyed such as cockfighting. It also illustrates agriculture and rural pursuits, and highlights the flora and fauna of the islands. Three plans of forts and cities are also provided; the fort of Cavite in Manila Bay is shown surrounded by boats of various types and small coastal towns are highlighted, the city of Manila itself, depicted in a similar way to the Muñoz map, and the fort of Zamboanga, a detailed image of the Spanish settlement on Mindanao, picturing the governor's residence, barracks, chapel, store houses and the Jesuit house.

The Velarde map bridges the gap between an urban or local view and a territorial perspective, including features of both to provide a map which nonetheless communicates clearly to the viewer. While Quirino has argued that the illustrated panels 'are not an integral part of the map' as they occur on only one original copy, the two elements work so effectively together to illustrate the Philippines it seems odd to think that they are not intended to operate co-operatively. [130]

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[128] Quirino, *Philippine Cartography,* 62. The book trade in the Philippines flourished, with over a thousand titles published in Manila before 1811, impressive when considered against Brazil which had no press until 1808; see: Irving, *Colonial Counterpoint,* 25-26.
[129] The Persian is also labelled as an Armenian, see Quirino, *Philippine Cartography,* 64.
[130] Quirino, *Philippine Cartography,* 62. The positioning of the images on either side of the map may indicate that other surviving original copies have had their side panels removed.

PLATE III. 9a

Accompanying vignettes from *Carta Hydrographica y Chorographica de las Yslas Filipinas* (1734), Francisco Suarez (MR/45/31; Biblioteca Nacional de España).

Left column: *Top:* Sangleys, *Centre:* Cafres, *Bottom:* Mestizos (left) and Japanese (right).

Right column: *Top:* Filipino flora and fauna, *Centre:* Plan of Samboangan, *Bottom:* Plan of Cavite.

PLATE III. 9b

Accompanying vignettes from *Carta Hydrographica y Chorographica de las Yslas Filipinas* (1734), Francisco Suarez (MR/45/31; Biblioteca Nacional de España).

Left column: *Top:* Spaniard, black Creole, 'Indios' and native Aetas, *Centre:* Armenian or Persian, Mogol and Malabar Indian, *Bottom:* 'Indio' and 'India' on their way to church, others described as 'Indios'.

Right column: *Top:* Filipino agriculture and fauna, *Centre:* Desuajan island, *Bottom:* Plan of Manila.

It is possible to argue that the Velarde map has become historically significant predominantly on account of its modern association with the Filipino independence movement. This association does, however, highlight the important message that the map seems to have originally communicated. The Philippines, as an archipelago, had previously been territorialised within the context of Asia, one part of a swathe of islands and mainland which were considered to fall within the Spanish hemisphere. Within this broader Asian context the Philippines could be perceived as a failed attempt at spreading Spanish-Catholic culture in this region, the gateway to Asia remained closed except to traders of luxury goods. The Velarde map, however, changes the terms under which the Philippines are to be understood, reterritorialising the archipelago. In the 1734 edition, the Philippines are shown to be urbanised, productive and, though ethnically diverse, generally cohesive. Velarde releases the Philippines from an association with a 'failed' past, demonstrating that the islands are a success as a locale of interactions and encounters. This process of cartographic reterritorialisation sought to adjust the socio-conceptual framework within which the territorial Philippines were understood, and generally achieves this aim. It is perhaps for this reason that the Velarde map became a symbol of Filipino independence, the eighteenth-century Jesuit cartographer had created a territory which was a unit unto itself and reimagined under its own terms.

Conclusion

The territorial cartography of the Monarchy succeeded in creating new spatial units which, when rendering cartographically, appeared convincingly real. It is interesting, however, that this creative process achieved the greatest level of success within the Iberian Peninsula itself, the mapping of 'Spain' providing the most ambitious and effective results for the sixteenth and seventeenth centuries. This is, seemingly, the result of a number of factors. Firstly, the resources required to conduct a geographical survey of the geometric variety increasingly favoured during this period were more readily available in Europe than elsewhere; personnel and resources had to be transported across oceans for comparable results to be achieved in the Americas and Asia. While this was clearly viable in New Spain, where a survey was conducted if not completed, the Philippines seems to have been a less practicable and appealing prospect.

In addition, territorial cartography most commonly sets limits on space, marking boundaries between what is 'ours' and what is 'theirs'. Throughout the sixteenth

century determining the edges of newly discovered lands was a challenge, with New Spain eventually becoming a sprawling viceroyalty stretching from the Yucatan peninsula to the Californian coast as new land continued to be added to existing territorial units. The sheer number of islands which seemed to make up the Philippines presented a different, though associated, set of challenges; even securing the shape and location of the large islands of Luzon and Cebu proved extremely trying. The Iberian Peninsula, however, was known through experience if not science, making a reformulation of territory and boundaries a far simpler task.

Finally, it is important to consider the impact that efforts to create visual and practical uniformity had on the successful creation of territorial cartography and on the development of the territories themselves. The maps that survive of Spain from the sixteenth and seventeenth centuries share many visual features and achieve a sense of geographical homogeneity which makes them convincing territorially. Within Spain, the cultural values and norms associated with 'being Spanish' were recognised as common across the peninsula; a Catholic-civic culture which shared agricultural, economic, social and political structures regardless of regional diversities of climate, language and custom. These 'Spanish' features, it has been recently argued, emerged from an American context rather than a European one; nonetheless they seem to have promoted domestic cohesion in Iberia more readily than in New Spain. The similarity of 'Spaniards' emerged when individuals were placed in a location where feelings of alterity were directed against an indigenous 'other'. It was seemingly not until the seventeenth century that a sense of cohesion began to emerge in New Spain, perhaps fuelled by the increasing economic dominance of the viceroyalty within the Monarchy.[131] Gauging territorial identity in the Philippines is even more challenging, as we might convincingly argue that Manila, as a cosmopolitan civic-community, was the exception in the islands rather than the norm.

Nonetheless, the specific framing of cartography and use of particular techniques supported the successful creation of territories in the Americas, Asia and in Europe. The success of territorial cartography lay in its ability to achieve a sense of spatial neutrality, making the geographical expanses mapped seem natural and real. The manipulation of geometrically informed cartography to project a sense of spatial objectivity ensured that territorial mapping is complex to challenge; the image of

[131] David Brading, *The First America: The Spanish Monarchy, Creole Patriots and the Liberal State 1492-1867,* (Cambridge: Cambridge University Press, 1993).

‘Spain’ as a complete peninsular space or the ‘Philippines’ as a cohesive archipelago, when presented in a geometrical format, creates spaces which, by their verisimilitude, must be ‘real’ though they are entirely constructed.

Chapter Four: Global cartography

Mapping the world was very much a developing genre of cartography in the sixteenth and seventeenth centuries. Though there had been world maps and globes during the classical and medieval periods, the true scale of the world was only just emerging in the sixteenth century as the dimensions of the Americas were better understood and the Pacific was traversed for the first time. Furthermore, the development and refinement of geometrical mapping techniques saw the nature of global cartography change, as by the mid-sixteenth century cartographic projections were improving the accuracy and utility of mapping at a global scale.

Global cartography within the Monarquía Hispánica was generally navigational or diplomatic in character. This responded to two broad concerns created by the global Monarchy, how to reduce risks when travelling between Spanish territories, and how to maintain these territories against rival claimants. A recurrent theme of cartography with a global outlook in this period is, therefore, the placing of the demarcation lines set by the Treaties of Tordesillas (1494) and Zaragoza (1529), which had practical implications for maritime travel as well as being diplomatically important. These needs generated a range of global maps, from those which represented the world as a whole, to those with a 'world of the Monarchy' outlook, showing the lands of the Monarquía as a Spanish-Catholic world within the world.

The Padrón Real

The need for an updated global picture in the light of the discovery of the Americas was recognised early on by the Spanish monarchy. In 1508 a request was made by King Ferdinand for a world map to be created by cosmographers at the Casa de la Contratación, which had been founded only five years previously. This map would be a royal master chart or *Padrón Real,* which could be used to record the new geographical discoveries, occurring regularly in the early sixteenth century. The *Padrón Real* is, perhaps, the most famous and yet most mysterious map produced by order of the Spanish Crown during the early modern period. An innovation following Portuguese precedent, it was a global reference map from which authorised sectional copies could be produced to be circulated amongst pilots undertaking voyages between the growing number of the Monarchy's extra-European territories. In turn, these pilots would

contribute up-to-date details relating to new discoveries which could be added to the *padrón* or provide information for the correction of the master chart.[132]

While an ambitious and innovative idea, the *padrón* failed in practice. One of the chief problems was that the *Padrón* was a portolan map, a cartographic method incapable of accurately projecting transoceanic routes at a global scale.[133] As such the *Padrón* could not effectively support navigation, the primary purpose for which it was intended. Furthermore, encouraging pilots to contribute to the map by turning in their log-books proved ineffective. By 1575 Philip II had received complaints about offending pilots, though the imposition of heavy fines for failing to return log-books did not improve the situation.[134] This may have been an active boycotting of the *Padrón* by pilots who considered the charts produced by the master map to be unnecessary to experienced pilots, or so inaccurate that they were viewed as a potential liability. Another reason may have been that pilots, regardless of training requirements to the contrary, were not sufficiently literate to maintain log-books to the standard expected by the Casa and required by the cosmographers updating the *Padrón*.[135]

By the late sixteenth century maintaining the *Padrón* was increasingly seen as a pointless endeavour, being inherently inaccurate on account of its production methodology and continually out of date as information used to update the chart was inconsistent and took time to reach Seville. It seems that by the early seventeenth century the master chart of the Monarchy had fallen out of use. What is perhaps surprising is that no new official world map was developed to replace it. A reluctance to adopt a new projection-based cartography, pioneered in northern Europe by cartographers like Mercator, was perhaps at the heart this decision.[136] Another view is that future *Padrón*-style projects became a victim of the general reduction in cartographic output across the Monarchy during the seventeenth century. A further possibility, though one which seems not to have been seriously considered by cartographic historians, is that the cosmographers of the Casa had learned from the mistakes of the *Padrón.* As such, it may simply have been acknowledged that maintaining a master chart cost more in time and effort that it could possibly provide in

[132] Barrera-Osorio, *Experiencing Nature,* 50; Goodman, *Power and Penury,* 77; Lamb, "Spanish Cosmographic Juntas", 57-60; Turnbull, "Cartography and Science", 9; 14.
[133] Turnbull, "Cartography and Science", 9; 14.
[134] Lamb, "Spanish Cosmographic Juntas", 57; Goodman, *Power and Penury,* 77.
[135] Barrera-Osorio, *Experiencing Nature,* 50-51; Portuondo, "Cosmography in the *Casa, Consejo* and *Corte*", 64.
[136] Turnbull, "Cartography and Science", 14.

up-to-date and accurate geographical information. A global map was simply too difficult to produce when the true scale of the world was revealing itself so rapidly.

The constantly changing nature of the *Padrón* has also created a problem for historians, as there are no extant versions of the *Padrón* to study. It would appear that the politically sensitive nature of a mapping project of this kind meant that the development of each revised version caused the previous chart to be destroyed. It would seem, therefore, that when the *Padrón* was finally abandoned the last copy was either destroyed or, if it was retained, has been subsequently lost. However, other contemporary world maps produced within the Monarchy can provide some evidence for how the *Padrón* may have looked in the early decades of its production and provide some evidence of how such maps were used.

The Ribeiro Planisphere

The Ribeiro Planisphere was produced in 1529 by the Portuguese cosmographer Diego Ribeiro. Ribeiro had held office in the Portuguese Casa da India before entering the service of the Spanish Crown in the 1520s, prior to Magellan's attempt at circumnavigating the globe, a voyage for which Ribeiro served as official chart maker.[137] By the late 1520s Ribeiro was working at the Casa, responsible for checking charts and navigational instruments produced at the House of Trade. There he worked alongside other Casa cosmographers, such as Alonso de Chaves, and is known to have worked on the *Padrón Real* during this time. **(Plate IV. 1)**

Concerns over the position of an antemeridian to the Tordesillas demarcation line had emerged as early as 1512, though such concerns became more immediate when Magellan crossed the Pacific in 1520.[138] The Portuguese were concerned that the Spanish would lay claim to Asian islands and mainland territories which, they felt, fell within their hemisphere of influence. The status of the Moluccas, or Spice Islands, in relation to this imagined antemeridian created a diplomatic dispute which remained unresolved even after the Junta of Badajoz (1524). The contemporary inability to accurately calculate longitude presented a barrier to definitively placing the

[137] Jerry Brotton, *Trading Territories: Mapping the Early Modern World* (London: Reaktion Books Ltd, 1997), 124.
[138] Lamb, "The Spanish Cosmographic juntas", 52.

PLATE IV. 1

Planisphere (1529), Diego (Diogo) Ribeiro (Carte Nautiche Borgiano III; Biblioteca Apostolica Vaticana, Vatican City).

antemeridian and, though scientific solutions were suggested, the status of the Moluccas and the placing of the Asian demarcation were essentially diplomatic issues.[139]

Such issues were partially resolved at the Junta of Zaragoza which resulted in the drawing up of a treaty in 1529. This saw Castile cede the Moluccas to Portugal in exchange for 350,000 ducats and the demarcation was agreed at 17° east of the Moluccas.[140] The issue of longitude still meant that any such demarcation was both hypothetical and much disputed; the Portuguese and Spanish disagreed over the length of a degree of longitude which ranged from 16⅔ leagues, as reckoned by Spanish cosmographers, to 17½ leagues, as calculated by their Portuguese counterparts. It is within the context of this ongoing dispute that we must consider the planisphere Ribeiro produced in 1529. Though the planisphere was not used at Zaragoza it certainly acknowledges the terms of the treaty signed there, promoting Spanish claims in Asia and picturing the instruments used to 'prove' these claims.

The demarcation lines set at Tordesillas and Zaragoza immediately appear absent from the Ribeiro planisphere. On closer inspection, however, the position of these demarcations is indicated, using small standards of the Portuguese and Castilian Crowns. While the standards marking the Tordesillas demarcation stand back to back and level, at the Zaragoza demarcation the two standards are separated and the Castilian standard is higher than that of Portugal. It would seem that Ribeiro is trying to imply that, while the Tordesillas line was generally agreed, the demarcation set at Zaragoza was still uncertain, and while Castile may have gained an advantage via that treaty, there was still no definitive agreement on where the division lay.

Though Ribeiro represents the Asian demarcation with some hesitation, his placing of the East Asian islands under dispute was more overtly in favour of Castile. By placing islands, including the Philippines, to the west of the map, Ribeiro is making it clear that they belong within the Spanish hemisphere. This process of 'westernising' the Philippines occurs throughout much Spanish early modern global cartography, and seeks to present the Americas and Spain's Asian possessions as a naturally cohesive unit, 'a hemispheric and transpacific territory'.[141] The challenge of such a technique was how to make the Pacific Ocean seem smaller, representing an essential marine highway connecting Spain's overseas domains rather than an insurmountable obstacle separating

[139] Lamb, "The Spanish Cosmographic juntas", 55-56.
[140] Brotton, *Trading Territories,* 136.
[141] Padrón, "Las Indias olvidadas", 4, 6-7, 'un territorio hemisférico y trans-pacífico', 11.

them. In the planisphere, Ribeiro uses an elaborate declination table and informative cartouche in an attempt to draw the viewer's attention away from the vastness of the Pacific Ocean, though fails to do so very convincingly.[142]

The use of images of navigational instruments in the Ribeiro planisphere is not simply to fill space, but also to emphasise the navigational techniques preferred by the Casa, the same techniques used to outline Spanish claims to the Moluccas. Surekha Davies has shown that by showing instruments, such as the astrolabe and quadrant, within the context of an ongoing diplomatic dispute, Ribeiro is picturing the techniques employed to present a cosmographical solution to a diplomatic problem.[143] This institutional and royal allegiance is complemented by Ribeiro's own personal convictions as a cosmographer, most explicitly highlighted by his adoption of the Portuguese reckoning of a degree of longitude, noting that each degree was 17½ leagues in length.

Ribeiro's planisphere provides a clear example of the role of global cartography as a diplomatic aid, and marks a shift in how cartography was used and perceived, a 'type of visual contract' which could be drawn up and agreed to or refused.[144] Though the Ribeiro planisphere overtly promoted Castilian claims both in the Americas and Asia it was widely accepted, being generally too accurate and pleasing too many people, both diplomats and cosmographers, to be rejected for its geopolitical message.[145] By adopting a broad information base, combining contemporary Portuguese and Castilian knowledge and opinion with classical learning, Ribeiro created a map which was not simply a political artefact but also possessed practical cosmographical value.

A Demarcation and Division of the Indies

As the sixteenth century progressed, the desire to present the Indies as a coherent territory continued, a process which received greater authority after a suitable return route across the Pacific had been discovered in 1565. This effort to create a relationship between Spain's 'western' Asian Indies and her 'eastern' American domains intersected with diplomatic efforts to secure Spanish claims in both regions, and also promoted the

[142] Ricardo Padrón, "A Sea of Denial: The Early Modern Spanish Invention of the Pacific Rim", *Hispanic Review* (Winter 2009), 13.
[143] Surekha Davies, "The Navigational Iconography of Diogo Ribeiro's 1529 Vatican Planisphere" *Imago Mundi,* Vol. 55 (2003), 103-12. Lamb notes that such scientific solutions were often rejected as 'kings were interested in advantage and not in fact', see: "The Spanish Cosmographic juntas", 55.
[144] Brotton, *Trading Territories,* 137.
[145] Brotton, *Trading Territories,* 146.

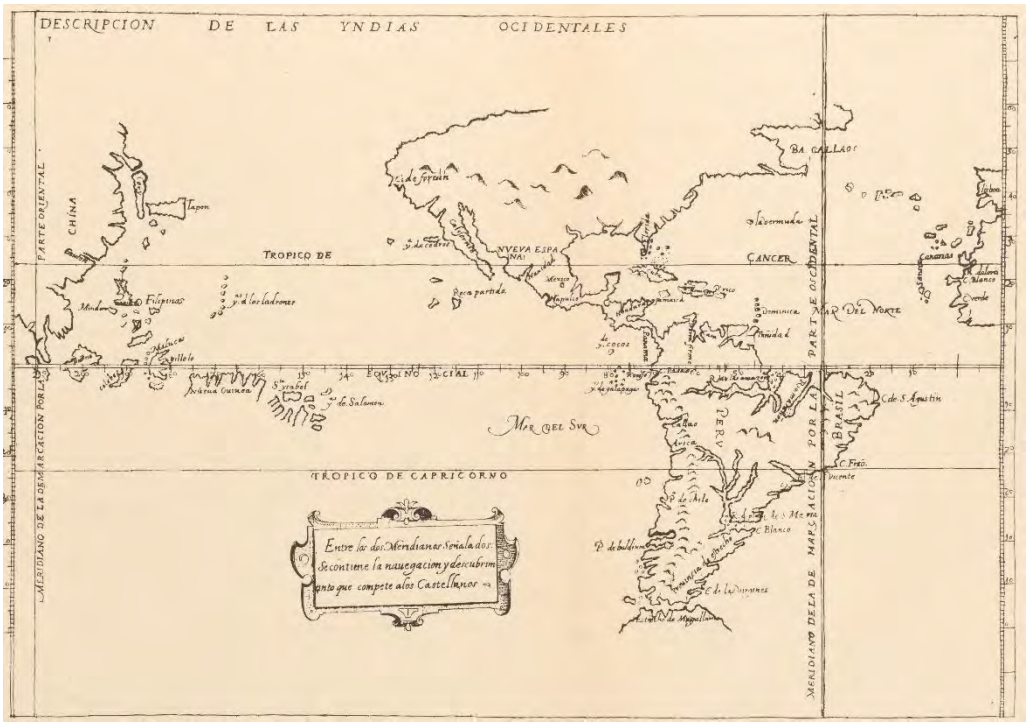
implementation of Spanish-Catholic geopolitical aims across the Monarchy. The challenge came in promoting the position of the Philippines as part of a larger American domain, one gobierno of the Viceroyalty of New Spain, a process which required it to 'belong' to the Americas rather than Asia. This mental repositioning of the Philippines as an American, 'western' territory is seen in much of the global cartography of the early modern Monarchy, as discussed above with regard to the Ribeiro planisphere. One of the most explicit and successful attempts at westernising the Philippines and creating a cohesive Asian-American 'Indies' can be found in Juan López de Velasco's *Descripcion* [sic] *de las Indias Ocidentales*, produced in manuscript form in 1575 and later published in Herrara's *Décadas* at the turn of the seventeenth century. **(Plate IV. 2)**

The 1575 manuscript version, drawn in black ink and tinted with a number of coloured washes, presents a clear picture of the Indies as a cohesive unit. While the Atlantic coasts of Europe and Africa are shown, the viewer's attention is drawn to the central portion of the map, covering the Americas, the Pacific Ocean and 'western' Asia. This focus is achieved by bounding the map with the 'western' demarcation line in Asia, agreed by the Treaty of Zaragoza, and the 'eastern' demarcation, agreed at Tordesillas. Furthermore, the Pacific is presented as much smaller than in reality, drawing mainland China closer to North America, a trick which, in conjunction with marking the transpacific sailing routes, makes the world's largest ocean appear much smaller and less problematic. In addition, the ghostly presence of a large southern continent seems to hint at Spain's hopes of further territorial gains within their hemisphere.

By comparison the seventeenth-century printed version is quite different, presenting an extended Pacific and doing away with the transoceanic trading routes. Nonetheless, the clearly marked and labelled demarcation lines once again draw the viewer's attention to the central portion of the map, the 'Indias Ocidentales', which seem naturally associated, stretching across the Pacific. There are a greater number of labels marking important urban centres and island groups across the Monarchy, making Spain's domains seem 'known' to an extent not achieved in Velasco's original manuscript, which only marks three mainland cities: Mexico City, Lima and a Spanish city which might be Toledo. The Philippines are also better represented, with Luzon a complete island and 'Manilla' clearly labelled. Furthermore, the great southern

PLATE IV. 2

Demarcacion y nauegaciones de Yndias (1575), Juan López de Velasco, from *Descripcion y Division de las Yndias* (Codex Sp 7 / 1-SIZE, 17000-1; JCB, Providence).



Descripcion de las Yndias del ocidentales (1601) Juan López de Velasco and Antonio Herrara, in *Historia General* (B601 H564h /1-SIZE, 01808-006; JCB, Providence).

continent is gone, replaced instead by a cartouche which proudly states that all that seen between the two marked demarcations belongs to Castile. The cartouche cleverly bridges part of the Pacific which is not filled with islands, distracting the viewer again from the vastness of the Pacific Ocean separating the Americas from the Asian Indies.

What these maps achieve in slightly different ways is to assert that the Indies are a cohesive territorial entity, and that their relationship is natural rather than forced. The return route across the Pacific certainly made this assertion far more practicable, though the reality remained that the Philippines continued to be a lonely outpost of Spanish ambitions in Asia, which was both an economic boon to the Americas and a drain on New Spain's resources. The manipulation of the demarcation lines, which so boldly dissect both maps, ensures that the Indies are framed as a whole, a Castilian space which by 1601 did not even need Castile to be visible, labelling Spanish Lisbon instead. By cutting the Indies away from the heartland of the Monarchy in Europe the Philippines can become associated with the Americas more easily, and Asia does not need to compete for the attention of the Americas with Europe. Finally the Velasco maps, in both manuscript and printed form, ambitiously seek to change culturally embedded orientation inherent to European thought, that Asia represents the east, the Orient; instead claiming that in this 'New World Asia' could be part of a 'western' domain.[146] The traditional geographical rules do not apply within Velasco's work, and as such create a kind of micro-globe in which the Americas and Spanish Asia operate. This is perhaps the great achievement of this series of maps, so important because they were published; they assert Spanish claims over their 'global' Monarchy, even if that globe was in reality only ever half a world.

Pedro Texeira's *Mapamundi*

Texeira's *mapamundi* acts as an epilogue to his Atlas of 1634, proclaiming the global extent of the Monarquía Hispánica in the early decades of the seventeenth century. Although dedicated to the Spanish king, Philip IV, the map is very much a Portuguese production, reflecting the unity of the Iberian kingdoms during this period. The position of the Philippines, and the Moluccas before them, in Iberian global cartography had been, for nearly a century, a statement of jurisdiction; both the Ribeiro planisphere and Velasco's map of the Indies placed the islands on the western fringe of their world views, positioning them firmly within the Spanish hemisphere. Texeira's *mapamundi*,

[146] Padrón, "Las Indias olvidadas", 7.

however, places the Philippines to the east, keeping them within their Asian, oriental context. As a result, the unity of the Spanish hemisphere is disrupted, yet the overall impression is not one of fragmentation. No demarcation lines are marked on the map, preventing a visual separation or division of global space, as is seen so boldly in Velasco's cartography. Throughout the Union of Crowns period the demarcation lines were functionally honoured, though symbolically they had disappeared in Texeira's rendering of the world as an Iberian space; Philip IV could truly claim to be 'El Rey Planeta'. **(Plate IV. 3)**

The sumptuous decoration and detailed flourishes do not, however, detract from the practical nature of the map. Texeira balances elegance with erudition, and the *mapamundi* offers a generally accurate rendering of the world. Europe is, unsurprisingly, well-formed and labelled, while Africa, the Americas and the southern coast of Asia are also accurately drawn. The interior of Africa offers few named locations or landmarks, while the central region of the Americas is precisely drawn; the Caribbean islands, the Andes and hydrographical detail in Peru are all particularly accurate, reflecting Texeira's involvement in mapping these regions early in his career and he makes use of first-hand knowledge.[147] Asia, particularly well known to Portuguese mariners, shows far more inland detail, though the northern coast is less accurate and the Caspian Sea adopts a classically influenced shape. Some modern observers would, no doubt, criticise Texeira's use of classical knowledge, though this is simply a reflection of seventeenth-century cosmography as a discipline which continued to employ scholastic methodologies.

Although classical detail persists throughout, most overtly in the representation of a great southern continent, Texeira can be seen to assimilate new geographical information which was circulating amongst cosmographers during this period. One of Europe's earliest renderings of the Great Wall of China is seen in this map, and though California was later proven not to be an island, contemporary reports 'confirming' the region's island status clearly influenced the Portuguese cartographer. Furthermore, a northern protrusion of the great southern continent, seen in the lower right corner of

[147] Agustín Hernando, "Poder, cartografía y política de sigilo en la España del siglo XVII", in *El Atlas del Rey Planeta,* 95.

PLATE IV. 3

Mapamundi (1634) Pedro Texeira (Codex Miniatus 46; National-Bibliothek, Vienna).

Texeira's map represents what is now known to be the northern coast of Australia.[148] Terra Australis had been found, but not fully understood.

Texeira's map is fascinating for its statement of global rule on Philip IV's behalf, presenting the world as a cohesive space under unified Iberian rule. Demarcation lines do not disrupt the viewer's gaze as they travel from west to east and back again, and embedded European conceptions of orientation are not challenged within this unified view. This cohesion and unity was, however, short lived. Within six years the world would be divided once again, as Portugal reasserted its independence and, with that, its rights to exclusive jurisdiction across half the globe. During the seventeenth-century, as Spain underwent a period of economic and demographic crisis, its grip began to loosen and New Spain began to command greater control across the Monarchy.[149] Nonetheless, the Texeira *mapamundi* represents a brief moment when a European monarch could claim, with some authority, to be 'King of the World'.

Conclusion

Global cartography demonstrates a greater functional change from the sixteenth into the seventeenth century than is seen in the urban or territorial genres of the same period. The world of the sixteenth-century was a diplomatic and mercantile space, traversable and contestable. The seventeenth-century world, however, presents a far more unified view, reflecting political changes in the Iberian Peninsula; the Union of Crowns effectively connecting the Iberian hemispheres for over half a century. The late seventeenth century signals yet another representational shift, this time one of absence. Even global cartography was affected by the decrease in momentum seen in mapping across the Monarchy, but also more generally across the cosmographical disciplines. The global-scale maritime charts of the sixteenth-century also came to be replaced by smaller, regionally focussed maps, which proved far more flexible and responsive to changes and discoveries seen across the seventeenth century.

As the kingdom of Spain, nascent and changeable, fell victim to economic and demographic crises it began to lose influence and, arguably, control over its American and Pacific territories in favour of New Spain. The extent to which greater access to Mexican archives may affect our understanding of global cartography is not clear at

[148] Hernando, "Poder, cartografía y política de sigilo", 95.
[149] Lynch, *Spain under the Habsburgs, Vol. II,* 13.

present, though it does not appear that New Spain developed a great tradition for global mapping as Spain's presence within the Monarchy diminished.

It is extremely difficult to discern whether this decrease in global cartography reflected a general feeling of decline amongst Spaniards who no longer felt at the head of a global Monarchy; absence of evidence needs not be interpreted negatively. Furthermore, as the newly independent Dutch Republic led Europe in the discipline of world mapping it is not clear whether their prior relationship with Spain affected the circulation of Dutch maps in the Iberian Peninsula. Considering how such Dutch products were viewed and used, as well as how they circulated within seventeenth-century Spain presents an interesting avenue for further research which may adjust our understanding of how accessible world maps were in Spain during this period.

What is notable about both sixteenth and seventeenth-century official global cartography, however, is that very little allusion is ever made to the twin projects of Hispanisation and Catholicisation. Urban maps regularly highlight the essentially Catholic nature of the Monarchy's varied landscape, and territorial cartography which promotes an impression of uniformity within territories and cohesion between them. However, global cartography communicates less about its geopolitical efforts within its hemisphere than in promoting and protecting its claims to rule within that hemisphere. It is not clear whether such a global-scale representational programme was considered inappropriate or whether this kind of visual assertion had never been considered previously; whatever the answer, it is clear that no view of a Spanish-Catholic half-world was ever produced in either the sixteenth or seventeenth centuries.

Chapter Five: Comparative Cartography and Integrated Geopolitics

The previous three chapters have considered specific genres of cartography in turn, emphasising the particular messages conveyed by these genres with regard to the core geopolitical programmes of the Monarquía Hispánica. This chapter will further develop discussion to emphasise the ways in which individual maps or cartographic surveys interacted, assessing the impact of this collaborative dimension. Though it seems few cartographers were ever asked to specifically undertake integrated projects, it seems that much of the cartography of the Monarchy was able to interact, presenting a view of particular geographical subjects which offered greater depth and nuance, afforded by a multi-scale approach.

This integrative approach to cartography reflected the interdependent nature of the geopolitical efforts of the Monarchy through the sixteenth and seventeenth centuries. Urbanisation, territorialisation and the global effort to achieve diplomatic and cultural aims were seemingly independent, though in reality each process relied on the successful continuation and achievement of the others. The interactive nature of the Monarchy's cartography hints at the necessarily collaborative nature of its geopolitical outlook; maps allowed multiple strands of activity to come together to create a cohesive view of the Monarquía.

Cartographic collaboration in the Monarquía Hispánica

Rarely do cartographic historians consider how cartography may have interacted or how different maps may have been used in association with one another. Acknowledging our own, multi-scale interactions with cartography highlights a need for different approaches to representing space and gaining understandings of it which exceed geometrically defined, aerial cartography. Modern engagement with cartography is now most commonly via digitally available maps which offer zoom functions, to the point of presenting street-eye views of particular locations, a multi-scale experience of space which helps us rationalise and understand our surroundings. This way of representing and comprehending space is not a modern innovation, however, and the multi-scale cartography of the Monarquía Hispánica requires reassessment along these lines.

Spain and New Spain progressed through a period of cartographic development almost in tandem, and their respective cartographic records offer many parallel features. Both territories underwent localised mapping projects with a specifically urban focus, as

well as having geometrical surveys of their lands produced at almost the same time. These parallel projects, encompassing urban mapping and territorial cartography, certainly demonstrate a strong relationship with, and arguably reliance on, one another to successfully produce a vision of either Spain or New Spain which is both comprehensive and multi-faceted.

Supporting these urban and territorial perspectives were global maps, which contextualised territories spatially and promoted specific understandings of and approaches to political jurisdictions across the world. While global maps are not directly integrated with urban and territorial images they do interact with them, providing a further range of detail and context which supports a cohesive, though clearly constructed, view of the Monarchy as a worldwide endeavour.

The Philippines present a diverse set of challenges for historians, as the range of sources which have survived from the sixteenth and seventeenth centuries does not give a clear view as to whether our source base is incomplete or simply limited. We have very few localised or urban maps from this period, as most cartography presenting the Philippines placed the islands within either a regional or global context. This presentation is, however, instructive, emphasising both the strategic profile of the islands and also the limited urban presence Spaniards had throughout the early modern period. Furthermore, the placement of the Philippines on early modern world maps is a significant statement of possession and highlights effort to refashion global space to reflect these jurisdictional claims.

Judging the impact maps of Spain, New Spain and the Philippines may have had on contemporary observers and users is very challenging, as few documents contextualising specific productions exist. Furthermore, recapturing how these maps may have been used is equally challenging, as there is little clear evidence in many cases to suggest these maps were used at all. We can, however, look to chronological patterns, production contexts and to the individuals or institutions commissioning these works, when known, to gain a clearer impression of how maps may have been used and what purpose they were intended to serve.

Spain: The Atlas and the city views

The specific dating of the Escorial Atlas presents some chronological ambiguity for historians, as discussed in the third chapter. Nonetheless, convincing evidence which would place the commission of the Atlas in the late 1550s or early 1560s means the

work was likely commissioned alongside the city views of Anton van den Wyngaerde, commissioned c. 1561. The chronological proximity between these two projects seems not to have been incidental. They have been commonly associated in historical scholarship relating to Spain's sixteenth-century cartographic efforts, and have been considered twin projects, representing Spain in different, though complementary, ways.

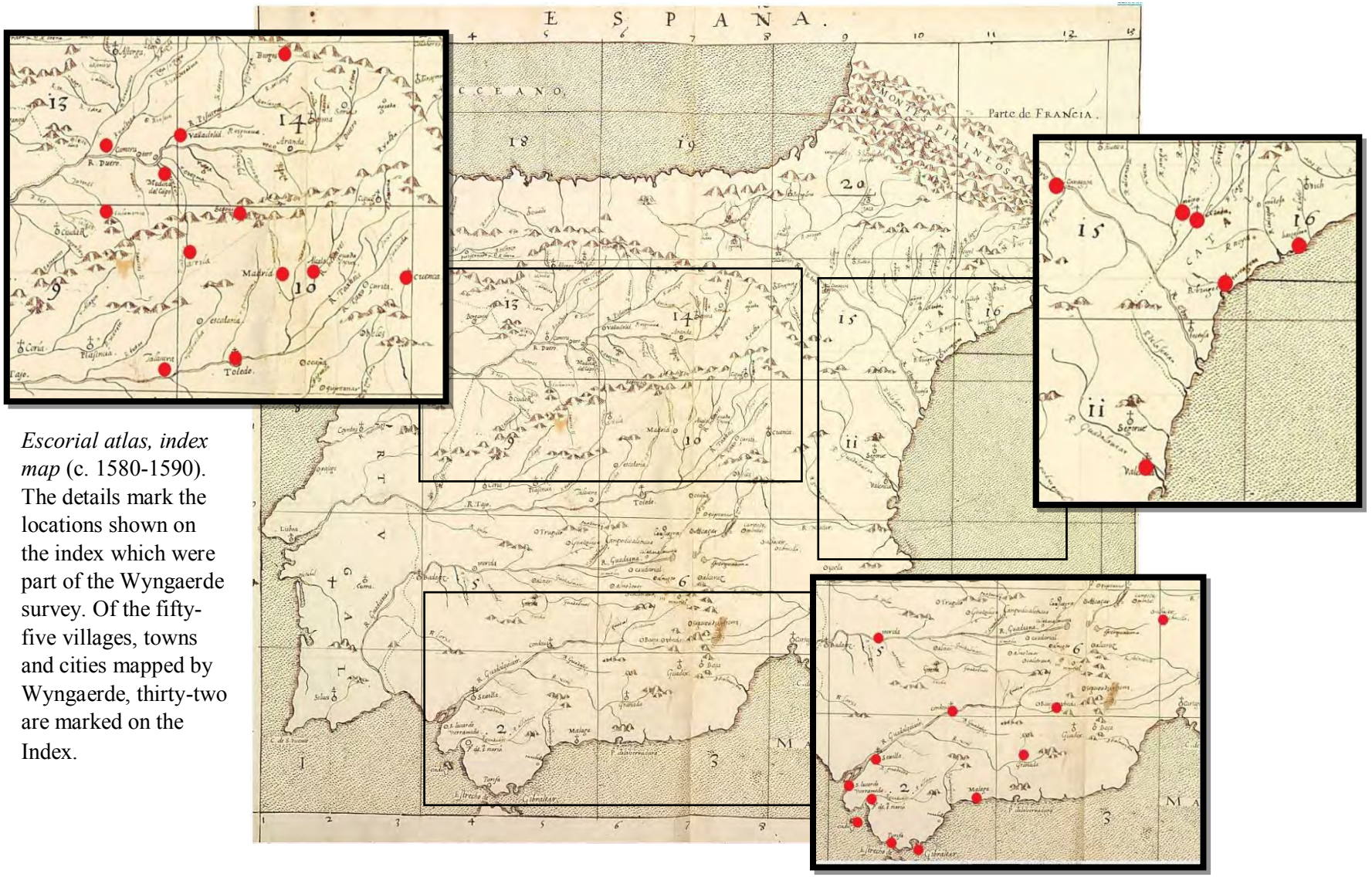
This is, in many ways, true. The Escorial Atlas, and particularly its index map, offer a level of overall detail which communicates sufficient information about the Iberian Peninsula to be visually meaningful and, importantly, strategically useful. The Wyngaerde views, meanwhile, present specific details about a range of, usually urban, locations. Of the fifty-five locations mapped by Wyngaerde only thirty-two can be seen on the Escorial index map. This is perhaps not surprising as the function of the index is to provide a peninsular overview rather than great detail; some of the places Wyngaerde maps are small villages, such as his rare sketch of Oxen (Ojén), near Marbella. The atlas proper, however, does manage to capture many of those locales absent from the index map; Ojén is mapped, as are Carmona and Antequera. **(Plate V. 1 and V. 2)**

Though the atlas could have substituted the Wyngaerde maps in terms of coverage, the depth of information presented in the topographic views exceeds what is possible on a geometrical map at the scale of the Escorial Atlas. In Zahara de los Atunes, Wyngaerde pictures the various stages involved in the tuna industry, from the capture of the fish in nets near the shore, the use of harpoons to kill the catch, and the filleting and salting process in preparation for export. This, now abandoned, *almadraba* is not named in the Escorial atlas or its index map, even though it was a wealthy fishing town; residents could capture as many as 60,000 tuna in a season, making the duke Spain's richest grandee.[150] Indeed, many of Wyngaerde's maps provide the earliest known view of particular locations, including Almansa, Chinchilla and, perhaps surprisingly, Gibraltar.[151] **(Plate V. 3)**

Though the Wyngaerde views offer detail, there is rarely any sense of relational geography conveyed in the maps. In the views of Puerto de Santa María, Jerez de la Frontera and Sanlucar de Barrameda there is no real indication that these three coastal towns are close together; one of the two views of Santa María does make reference to Cadíz, though this is absent from the second, tinted version. This broader geographical

[150] Richard L. Kagan, "V. 11. Zahara de los Atunes", in *Spanish Cities of the Golden Age,* 296.
[151] Richard L. Kagan, "II. 14. Almansa", "II. 15. Chinchilla de Montearagón", and "V. 9. Gibraltar" in *Spanish Cities of the Golden Age*: 213, 214, 286.

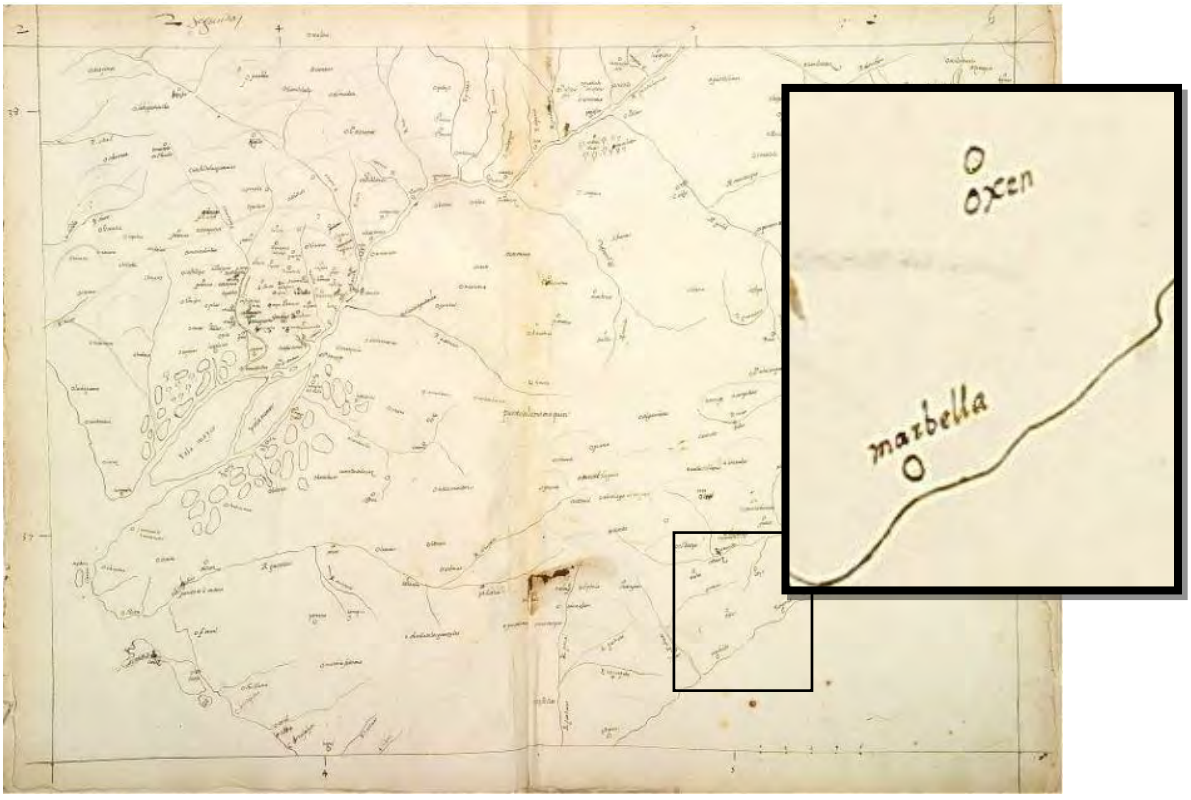
PLATE V. 1



Escorial atlas, index map (c. 1580-1590). The details mark the locations shown on the index which were part of the Wyngaerde survey. Of the fifty-five villages, towns and cities mapped by Wyngaerde, thirty-two are marked on the Index.

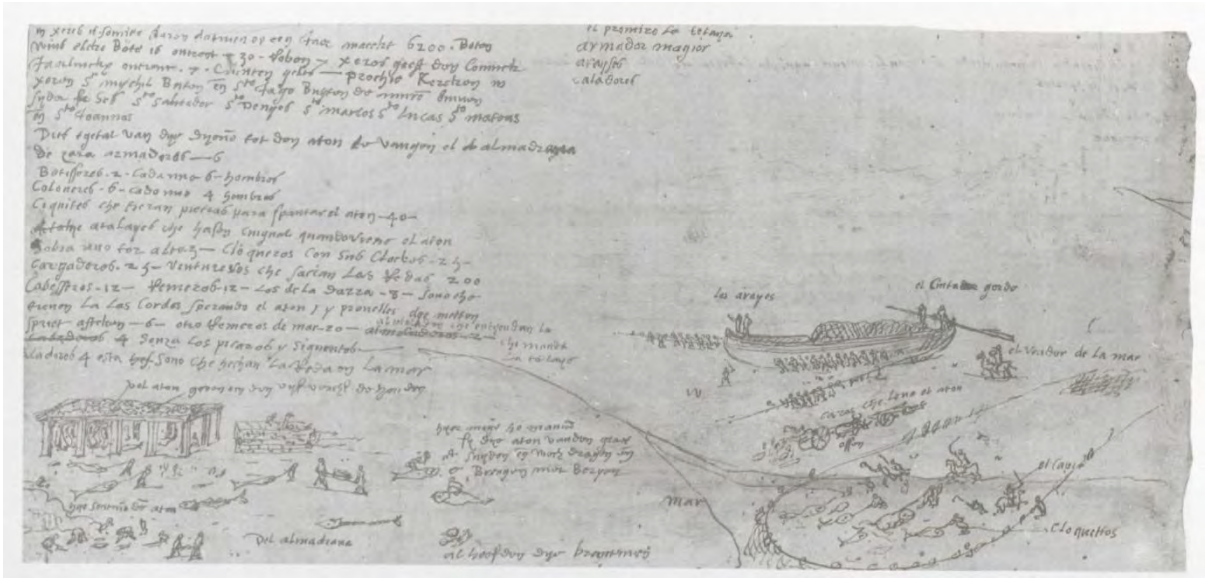
PLATE V. 2

Oxen (Ojén) (1564), Anton van den Wyngaerde (Ms. Min 41. 22ro, National-Bibliothek, Vienna).



Escorial Atlas, Portion 2 (MS. K.I.1, fols. 5v-6r). To the right is a detail from the Portion 2 map, showing the village of Oxen (Ojén), overlooking Marbella.

PLATE V. 3



Zahara de los Atunes (c. 1564), sketch (top) final view (bottom), Anton van den Wyngaerde (Ms. Min 41. 33ro and 74). These images show an *almadraba* or fishing port on the Mediterranean coast.

context is what the atlas offers the viewer, presenting an aerial representation of whole swathes of the peninsular mainland. **(Plate V. 4)**

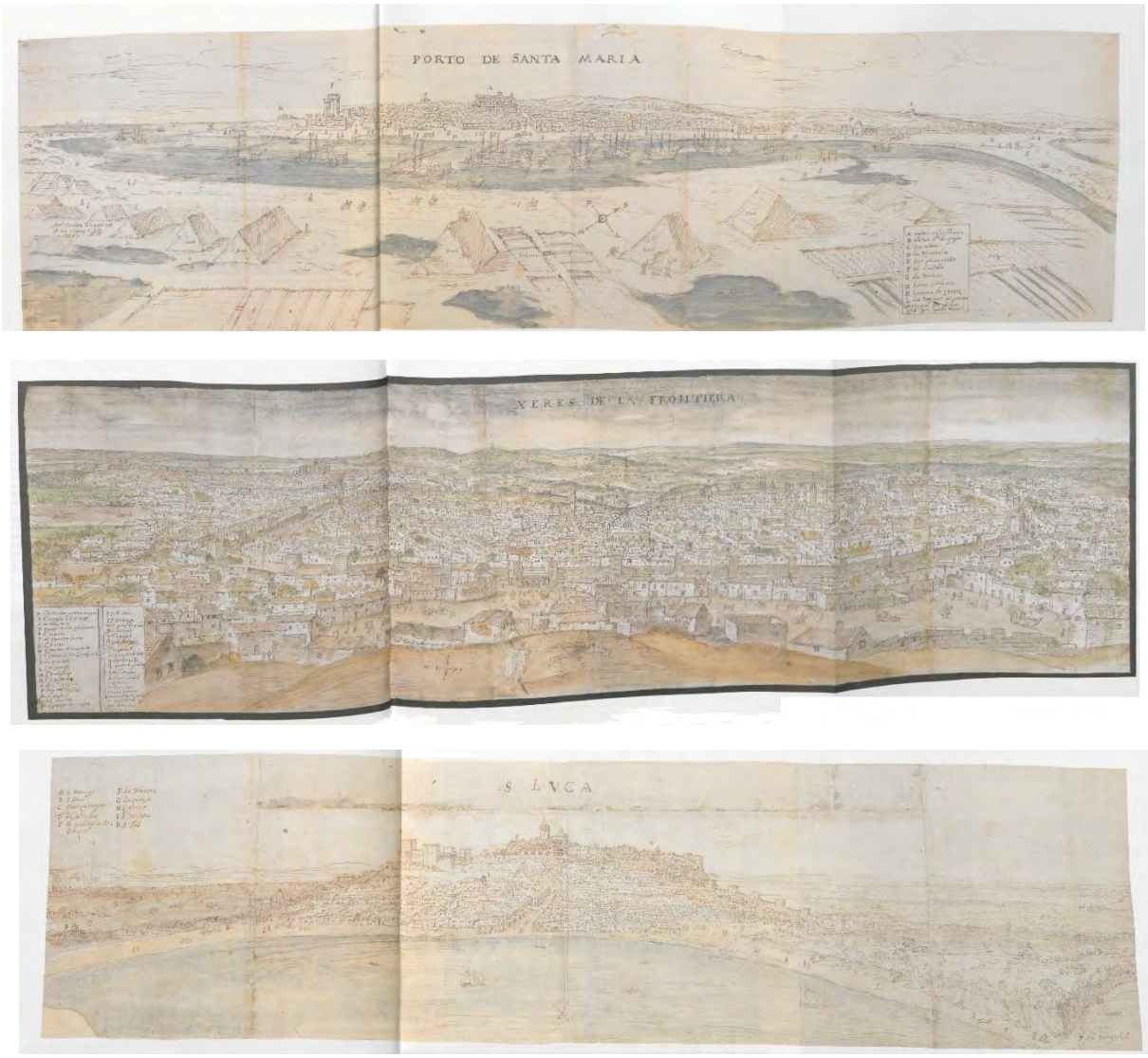
It is this balance and interaction between localised, detailed presentations of specific locations and broader regional or peninsular perspectives which emphasises the need for both types of map. Without the Atlas or its index map Wyngaerde's views lack a frame of context; they are isolated images of specific locations without any sense of how they relate to one another. However, without Wyngaerde's views, the Atlas, and particularly the index map, lack detail and specificity; there is no sense of the unique, local character of any one location. The Escorial Atlas and the Wyngaerde city views, therefore, seem like natural partners in the effort to present a cartographical rendering of Spain as it was emerging in the sixteenth century.

The localised perspective offered by Wyngaerde's views captures a specific period of the 1560s; as Lestringant proposes, the local, large-scale image can capture a level of immediate and transient detail which characterises such maps.[152] This perspective was updated through the issuing of another surveying project, this time a written survey, the *Relaciones historico-topográficas.* Many of the towns and cities shown at their apogee, or just before, by Wyngaerde were in decline by the late 1570s when the questionnaire was issued. The Guadalajara of 1565 is shown by Wyngaerde as prosperous, on the verge of initiating a project to widen the plaza mayor. Yet, by 1579, the citizens were reporting mercantile and economic decline, causing many inhabitants to leave.[153] Yet much as Wyngaerde's views capture a specific moment in each town's history, so too did the *Relaciones* survey; neither survey sought to offer contemporaries an ongoing perspective. Furthermore, the changing fortunes of such places are not communicated in the Atlas or the index map, perhaps produced in the 1590s, further evidence of the ever transient nature of cartography, continuously out of date. Nonetheless, without the Wyngaerde maps, and later the *Relaciones* responses, the localised details presented by both works would be historically absent, as the Atlas and index were produced to fulfil different, more generalised, objectives. **(Plate V. 5)**

The atlas and its accompanying index map were, and are, without doubt, a remarkable achievement of early modern cosmographic endeavour. The modern preference for geometrical cartography adopting an aerial viewpoint perhaps means we

[152] Lestringant, *Mapping the Renaissance World,* 3.
[153] Richard L. Kagan, "IV. 2. Guadalajara", in *Spanish Cities of the Golden Age*: 238.

PLATE V. 4



Puerto de Santa María (top), *Jerez de la Frontera* (middle) and *Sanlucar de Barrameda* (bottom) (c.1567), Anton van den Wyngaerde, (Ms. Min 41. 20 and 13, National Bibliothek, Vienna, and Clarendon.III.259, Ashmolean Museum, Oxford). These three coastal towns lie close together, though none of the maps make any reference to either of the other towns.

Right: Detail from *Escorial Atlas, Portion 2* (MS. K.I.1, fols. 5v-6r). This section shows Sanlucar de Barrameda, Xerez (Jerez de la Frontera) and Puerto de S. María; their physical proximity is not indicated in Wyngaerde's views.

PLATE V. 5

Guadalajara (1565), Anton van den Wyngaerde (Ms. Min 41. 67, National-Bibliothek, Vienna).

are more comfortable considering the merits and accuracy of the Atlas over Wyngaerde's maps. However, without the topographic, or to speak contemporarily, the chorographic view, we only possess one, overtly territorial, perspective on the peninsula. By using the Atlas and Wyngaerde's views, as well as the *Relaciones,* the viewer possesses a multi-faceted perspective, presenting a variety of viewpoints and a greater level of depth, which appears to have been, at least in part, the contemporary purpose of these maps.

New Spain: The *Relaciones geográficas* and the absent survey

The *Relaciones geográficas,* issued in 1577, combined the written element of the *Relaciones historico-topográficas* with the desire for visual representation of urban locations seen in Wyngaerde's work. The result was a rich corpus of written responses, offering information on a huge range of themes and issues from the early decades of New Spain's existence, as well as a number of maps which were predominantly local in focus and often specifically urban. When the questionnaires were returned to Spain both the written and cartographic responses were archived under the supervision of Juan López de Velasco, who had issued the survey. The fate of these responses, unpublished and uncollated, has often been considered evidence that the project was deemed to have failed; Mundy even reflects on how disappointed Velasco must have been when he received the responses, particularly the accompanying *pinturas*, baffling in their lack of uniformity.[154] These maps could not have been used to create a complete map of the viceroyalty, lacking scale and sufficient representational uniformity to be knitted together, and were apparently culturally alien to an early modern Spanish observer.[155]

Taking a sample of 25 *pinturas* from the 1577 *Relaciones* corpus, we can see this situation clearly. Nine of the *Relaciones* maps offer only local views, picturing a particular town or village in detail. In the *pintura* of Texupa, the main focus of the map is the town, its grid structure plainly presented in the centre of the map. Encircling this urban core, topographical detail about the surrounding area, such as hills and rivers, is shown, combining European and Mesoamerican artistic styles.[156] The hills and rivers form a landscape backdrop to the town, a European device, while the design of these

[154] Mundy, *The Mapping of New Spain,* 13.
[155] The extent to which Nahuatl-Mesoamerican cartographic styles were totally alien to Spanish observers is currently difficult to assess as no study of Spanish folk-cartography has been conducted. There is some evidence to suggest that similarities may exist between itinerary-style productions in particular; see: Buisseret, "Spanish Peninsular Cartography, 1500-1700", 1072.
[156] Mundy, *The Mapping of New Spain,* 79-80.

features makes use of Nahuatl-Mesoamerican naming and visual conventions. No other towns are depicted and the overall impression is one of isolation. **(Plate V. 6)**

Sixteen *pinturas* from the sample, however, present a broader regional view. These usually employ an itinerary style, showing the typical progress of an individual between specific locations in the vicinity. The *pintura* from Muchitlan, a cabacera of Minas de Zumpango, presents such an itinerary regional view. Each town is marked by a Nahuatl place-name glyph, and population statistics are given for each location, with Spanish glosses added to explain the data provided. The *pintura* of Zumpango also provides population and tribute statistics, adopting an itinerary style, though with an intermittent landscape backdrop. The Zumpango map does not, however, mark the location of Muchitlan and there is no visual connection between these geographically proximate maps. **(Plate V. 7)**

Of these 25 *pinturas* only five make reference to other places within the sample. The map of Cempoala, for example, shows the town of Epazoyuca; there is even some parallel between the visual representations of Epazoyuca's church on both maps. Furthermore, the twin maps of Ixcatlan reference Atlatlauca, which is pictured in the bottom left of both Ixcatlan maps. In addition, the *pinturas* of Atlatlauca and Teutenango reference one another, though the latter only names Atlatlauca, labelling the road which leads there. These internal references may reflect strong social or political relationships between these settlements, which often predated European arrival in the Americas. Additionally, as these five towns are located in the heavily settled regions of the Atlantic coast and along the central valley region, the internal references reflect the concentration of settlements in these regions by the mid-sixteenth century. **(Plates V. 8 – V. 11)**

Though these five local views present geographical interactions which offer a greater sense of dimensionality, they do not neatly connect to form a broader view of these regions. The mixture of representational styles and lack of scale mean that, while these *pinturas* interact, they do not interlock, forming a territorial map akin to the Escorial index map. That the *Relacion* maps do not collectively depict a homogenous territory has been given as evidence of their failure. What is rarely considered, however, is whether these maps were, in fact, ever intended to offer such a territorial perspective. If we return to the questionnaire itself, the point requesting the production of a 'plan' does not specify the style, scale or preferred format, but instead asks that specific

PLATE V. 6

Above: *Texupa* (1579) Anonymous (C-028-010; RAH, Madrid).

Below: A map showing the distribution of maps showing a single town view (blue) and those which include a broader, regional context (red).

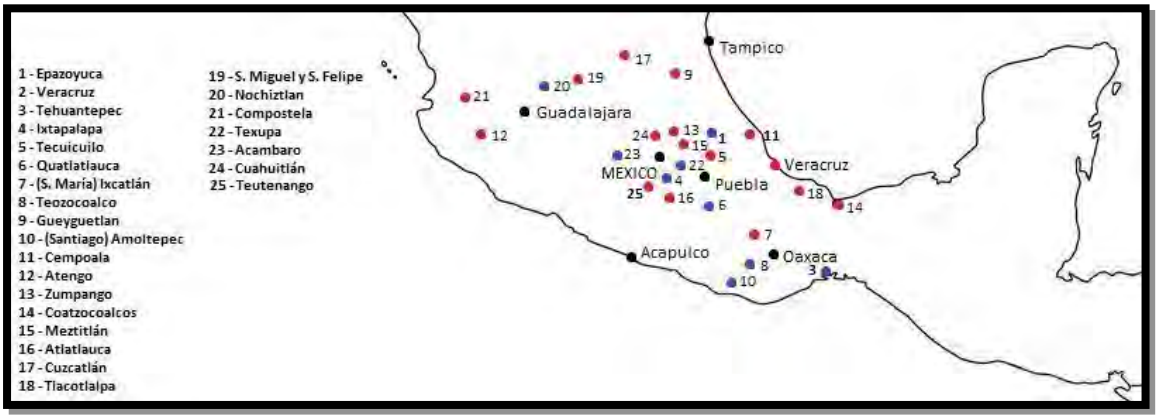
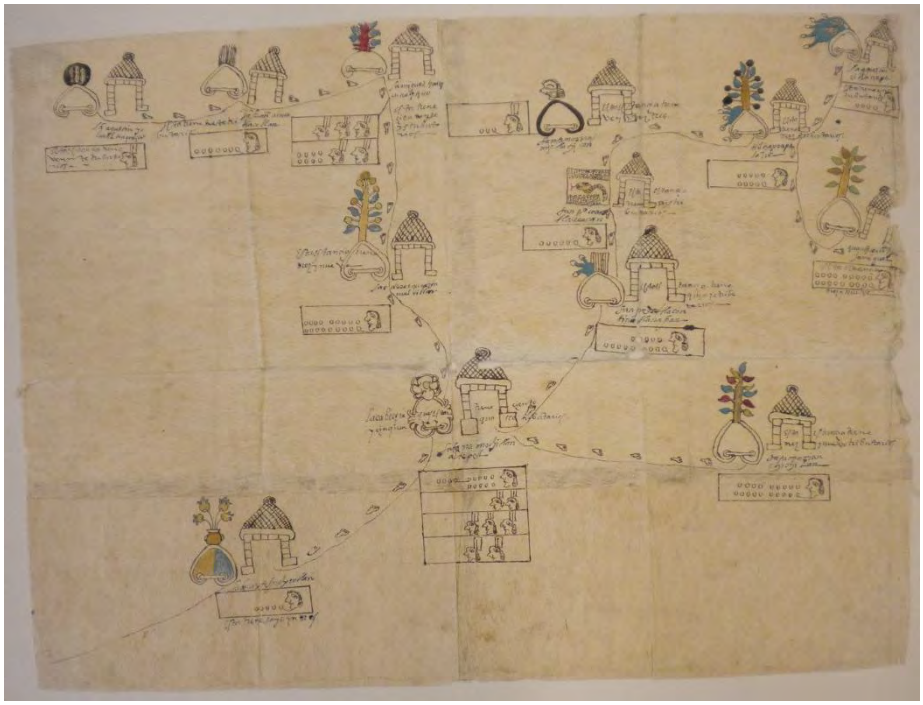


PLATE V. 7

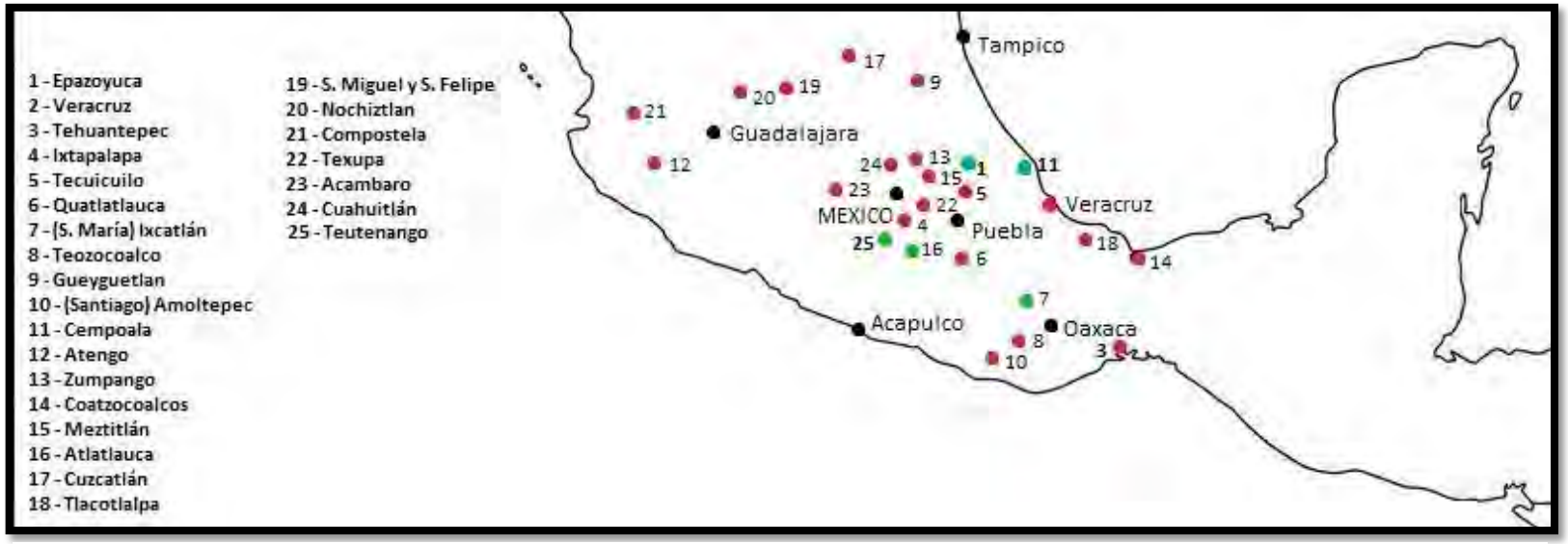


Top: *Muchitlan-Zumpango* (1582), Anonymous (XXV-13; NLB, Austin).

Bottom: *Zumpango* (1582), Anonymous (C-028-011; RAH, Madrid).

Neither *pintura* makes reference to the presence of the other town, though they were within the same district.

PLATE V. 8



Map showing *pinturas* which make internal reference to other locations. Those marked in green all reference one another, while those in blue are also linked to one another.

PLATE V. 9

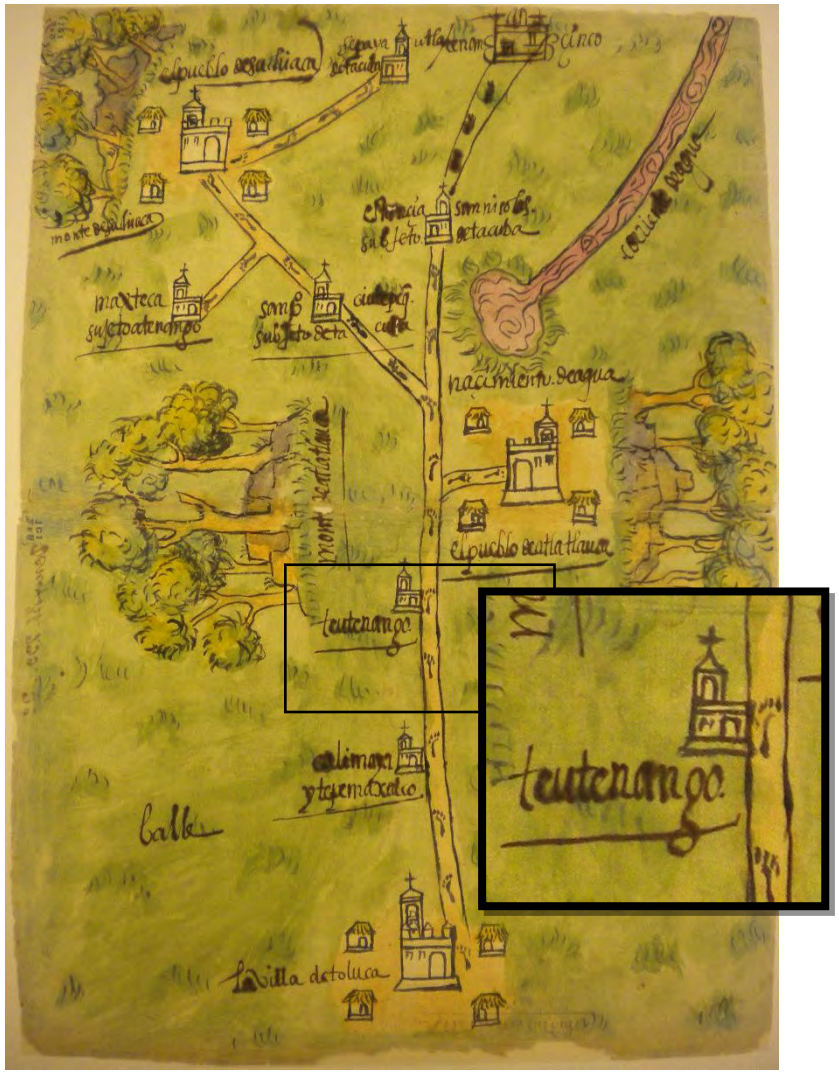
Left: *Cempoala* (1580), Anonymous (XXV-10; NLB, Austin) including detail of Epazoyuca.

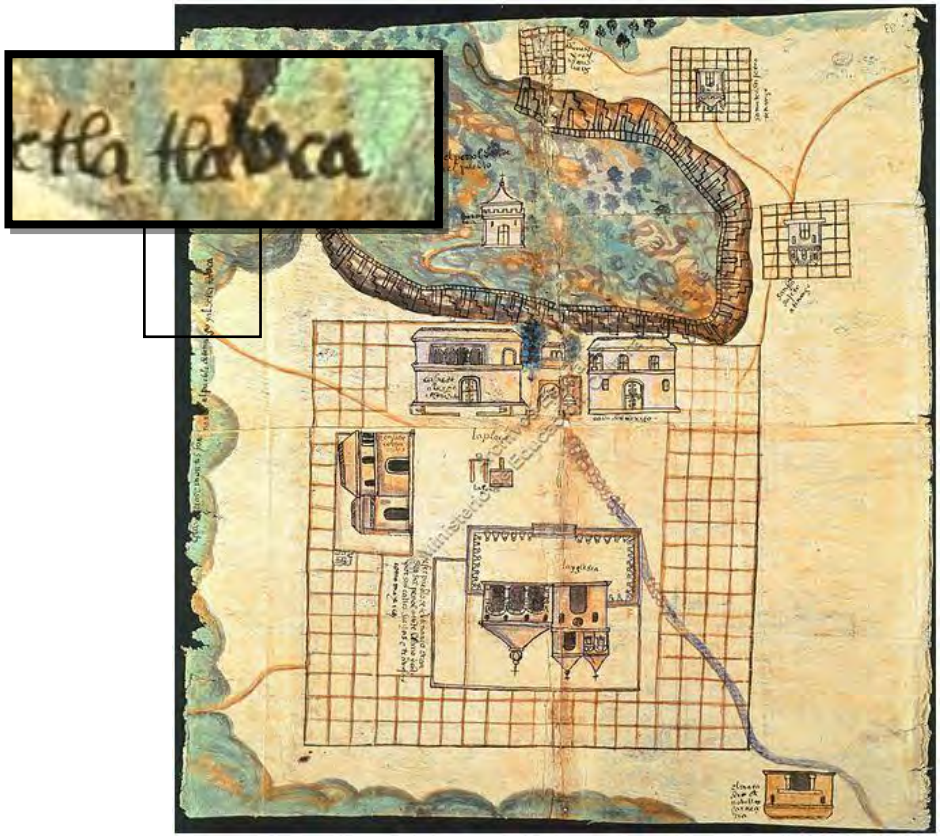
Right: *Epazoyuca* (1580), Anonymous (XXV-11; NLB, Austin). The map does not reference Cempoala, taking a specifically local view.

PLATE V. 10

Ixcatlan (1579) Anonymous (XXIV-07 I (top) and II (bottom); NLB, Austin). On both these *pinturas,* Atlatlauca is shown (see Plate III. 11).

PLATE V. 11





Left: *Atlatlauca* (1580) Anonymous (XXIII-13; NLB, Austin). Atlatlauca is referenced in the *pinturas* from Ixcatlan (Plate III. 10) and in turn references the town of Teutenango (right).

Right: *Teutenango* (1582) Anonymous (MP-MEXICO, 33; AGI, Seville). The *pintura* from Teutenango references Atlatlauca to the extreme left, labelling the road leading to the neighbouring town.

features of the settlement, such as the streets and monasteries, be represented. It seems strange that, should Velasco have sought stylistic or methodological uniformity, he did not specifically request it. We know from other cosmographical exercises initiated by the royal chronicler-cosmographer, such as the requests for lunar eclipse data between 1577 and 1588, that Velasco was competent at providing clear, technical instructions when required. Furthermore, on receiving the first responses from the *Relaciones geográficas* c. 1581, had Velasco been disappointed by the results, why would he have reissued the questionnaire in a format practically identical to the 1577 issue? In fact, the request for a town plan in the 1584 issue is even less specific than that outlined seven years previously, indicating that Velasco had little interest in uniformity as far as the *pinturas* were concerned.[157]

While it is possible that this continued lack of specificity was an acknowledgement of 'failure', it is perhaps more likely that Velasco never intended the maps of the *Relaciones* to fulfil territorial aims. Before the questionnaire had even been issued, Francisco Domínguez had been sent to New Spain to produce a territorial map of the viceroyalty akin to the Escorial atlas.[158] Only two years before the *Relaciones* was issued, Domínguez appears to have returned his now lost preliminary maps, which may have been similar to the portion maps of the Escorial atlas. With this in mind, Velasco would not have felt the need for the *pinturas* to fulfil territorial ambitions being met by Domínguez's survey. Much as the Wyngaerde city views do not duplicate the task of the atlas, the *pinturas* were not intended to duplicate Domínguez's work; they were intended to complement it.

The *pinturas* offer a localised, predominantly urban perspective on life in New Spain, while the Domínguez maps would have reflected more general, and perhaps strategic, territorial concerns. There is no record of the contemporary reaction to the failure of the Domínguez project; it may have been greatly missed, though the repeated failure to pay the cartographer, as detailed in Chapter Three, would suggest that the project became a victim of changing priorities. How this may have affected contemporary use or interest in the *pinturas* is impossible to gauge; it appears, however,

[157] Question 10 in the 1584 issue reads: Describe the site upon which each town is established: whether it is on a height, or low-lying, or on a plain. Make a plan of each". Translation taken from Cline, "Relaciones Geográficas of the Spanish Indies", 235.
[158] His 'merits and services' testimony (PATRONATO,261,R,9: 4; AGI, Seville) indicates that he may also have been intended to continue this territorial mapping project in Asia, though there is no evidence to suggest this was ever achieved.

that administrators at the Casa or Consejo did not really make use of the survey or its accompanying maps. It is possible that, without the territorial survey to complement the local views, the *pinturas* lacked relevance and context and were impossible to conceptually place and thus utilise; the space these maps represented was unreadable.

A further explanation for why the *pinturas* and written responses to the *Relaciones geográficas* lacked contemporary use is that there was not a clearly defined group to use them. This is partly an effect of the strict policy of secrecy which surrounded so much cosmographic endeavour across the Monarchy, and particularly in Spain, throughout the sixteenth and seventeenth centuries. This prevented free access to documents which, had they been taken up by a civic or public sphere, may have been used beyond their original purpose in a diverse range of ways. As Paula Findlen demonstrates within the context of Renaissance Italy, a 'conversable space' was essential to the dissemination and development of natural historical knowledge, specifically within the context of collecting.[159] Furthermore, there was no civic or public sphere at this time, another consequence of the strangling Crown-imposed secrecy, as well as the lack of a bourgeois class in early modern Spain. The growth of a 'collecting class' within Renaissance Italy was founded in cultural expectations of an educated, patrician class; *civilitá* demarcated knowledge spaces as well as providing social order in public and private settings, a dual purpose *policía* seems to have lacked.[160] The knowledge-gathering institutions of Spain were pioneering in their ambitions and many of their approaches, yet the strict limits imposed on the individuals within these institutions prevented the full deployment of the information they gathered.

What can be confirmed is that, without the Domínguez survey, the historical position of the *Relaciones geográficas* maps has been misinterpreted. A corpus of town plans which was never intended to have a purely territorialising function, framing the viceroyalty as a discrete entity, have been imbued with this purpose by modern scholars seeking to gain an image of the emergence of 'New Spain'. The inability of the *pinturas* to fulfil these inappropriately assigned purposes has seen the *Relaciones geográficas* survey, particularly its cartographic portion, labelled a failure. By returning these *pinturas* to their contemporary context, however, they can reclaim their original purpose. They were intended to show the progress of urbanism and with it

[159] Paula Findlen, *Possessing Nature,* (Berkeley, Los Angeles & London: University of California Press,1996), 100.
[160] Findlen, *Possessing Nature,* 98.

Hispanisation and the growth of Catholicism in the Americas, an agenda they address with vibrancy and skill.

Spain and New Spain: A Global Setting

Acting as a backdrop to the territorial and urban images of Spain and New Spain was the Padrón Real, the Monarchy's master chart of the world. This nautical chart was not, however, intended for public use or display, instead fulfilling a practical need for an up-to-date and accurate chart recording routes between Spain's global domains. Although the Padrón has not survived and, therefore, we cannot be sure of its presentation or appearance, other contemporary mappaemundi give us an impression of how the Padrón may have looked.

As was noted in the previous chapter, Ribeiro's planisphere may be our closest approximation of an early sixteenth-century Padrón; it adopts the same portolan style as was used for the Monarchy's master chart. The planisphere, furthermore, provides a contemporary layout for global mapping, a Eurocentric model of the world with the Americas to the west and Asia to the east. This pattern is an early modern innovation; previously Europe had been to the western edge of the world, with Asia to the east, while in medieval cartography Asia had been at the top of a circular, Christian cosmography, represented via the T-O map structure. It is important to bear in mind, as a modern viewer, that while this early modern, Eurocentric geographic layout has certainly supported claims of European dominance or supremacy, it was not developed with this aim in mind, nor was it deployed by the Spanish for this purpose. It rather reflects the additional nature of the Americas, tagged on to the western edge of the known world, while Asia continued to occupy its traditional, oriental position.

It is noteworthy that, while a diplomatic document, Ribeiro's planisphere does not mark Spain's domains distinctly on the map. British imperial cartography of later centuries would mark all British territories in red; this kind of visual proclamation of ownership is, however, absent from comparable early modern Spanish mapping. There are two core reasons why this may be the case. The first is that, as a private, practical map protected by a policy of state secrecy, the Padrón did not need to promote Spain's territorial interests in this kind of overt, diplomatic way. The second is that, given the hemispheric scope of the jurisdictional zones agreed under Tordesillas and Zaragoza, there was no need to mark out specific territories as belonging to Spain; half the world was in the possession of the Crown of Castile. As such, on the planisphere the coats of

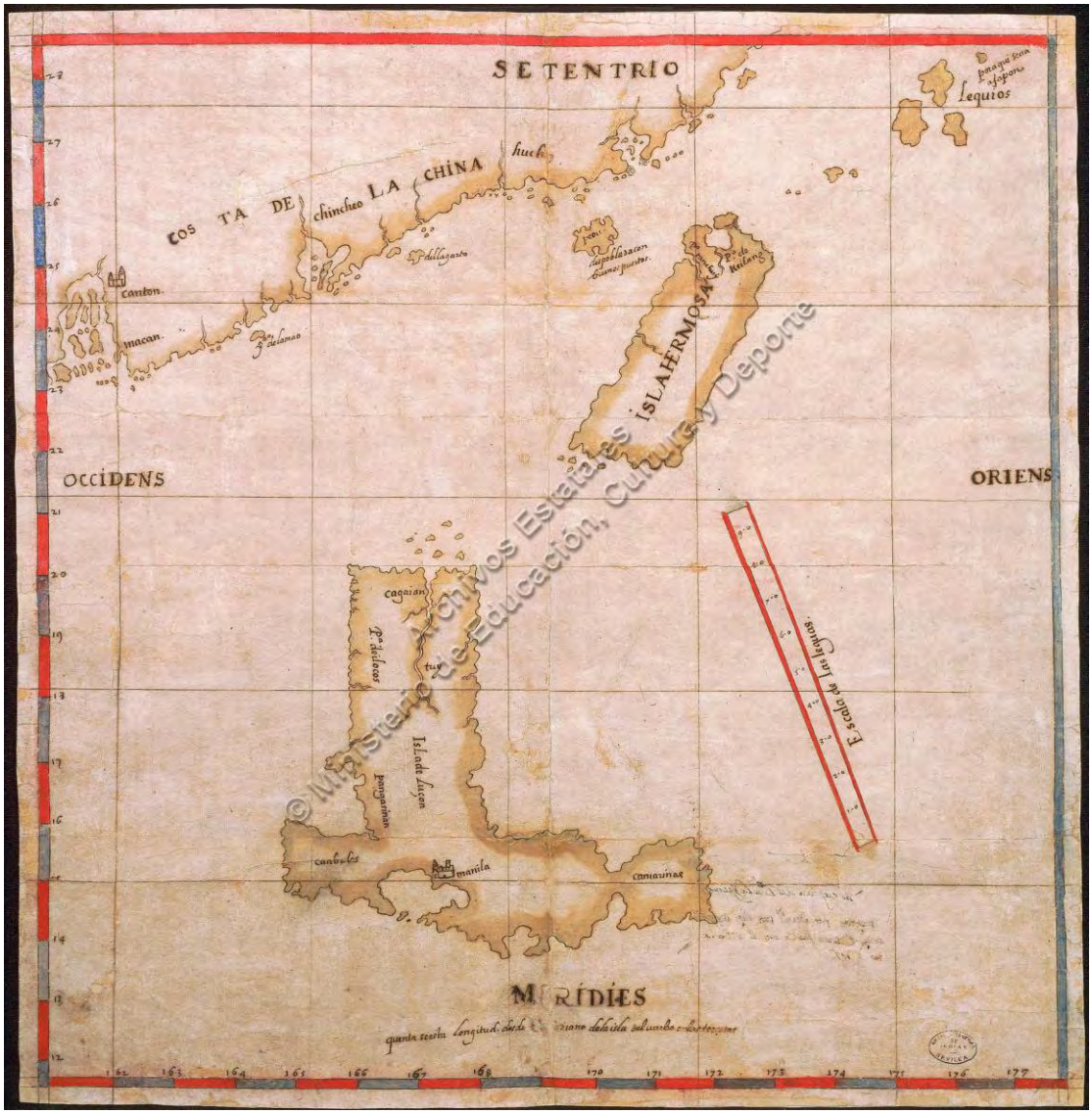
arms of Castile and Portugal mark the demarcation lines, acting as badges of ownership and promoting particular diplomatic claims.

The western position of the Americas in most world cartography of the early modern period, though a symptom of western exploration from the Iberian peninsula, does require brief analysis, for the most part on account of the effect this western position had on the conceptualization and mapping of the Philippines. The Americas were conceived as a western landmass from the moment of their discovery; it was Columbus' pursuit of a western route to the Indies which led Europeans to reach the Caribbean. As such, a western placement on European maps seems appropriate, particularly for Spaniards proclaiming their dominant jurisdiction in the New World.

For the Philippines, however, this western framing of the Americas had consequences. As part of the Monarchy, formally engaged by the 1570s, they belonged to a Spanish-western hemisphere. Yet, the Philippines were Asian, and thus traditionally occupied an oriental position. This Asian character was the feature which made this archipelago so strategically and symbolically useful; the Spanish were proclaiming the extensive range of their dominions over the vast Pacific Ocean. A map of the Isla Hermosa (Taiwan) north of Luzon, sent alongside a letter to the King from Hernando de los Ríos Coronel, emphasised the importance of holding Hermosa and the Philippines in relation to a proposed future expedition into China; an ambitious Asian campaign which never occurred. **(Plate V. 12)**

Yet, the placement of the Philippines on the eastern edge of world maps visualised the physical distance and sense of dislocation experienced by the Monarchy's prime oriental territory. The issues of proximity and belonging were not easily reduced and efforts to westernise the Philippines in European mentalities often fell short of success. As Padrón has shown in his excellent discussion, the weight of Asia exerted centrifugal forces on the archipelago, which were not overcome simply by appending the southeast Asian islands to the west of the map. Velasco's map showing the 'Division and demarcation of the Indies' was, in essence, the most successful sixteenth or seventeenth-century effort to fully accommodate the Philippines in the western hemisphere. This he achieved by centring his map on the Americas, choosing not to picture Africa, Europe or Asia, but rather to show the fringe of Spain to the East, and the Philippines to the west, locked to the Americas by the embrace of the two demarcation lines. It is, perhaps, significant that in this particular map Toledo, Spain's

PLATE V. 12



Discrepción de la Isla Hermosa dirigida por Hernando de los Ríos Coronel al Rey con carta fecha en Manila a 27 de junio de 1597 (1597), Hernando de los Ríos Coronel (MP-FILIPINAS,6; AGI, Seville).

primal see, is marked rather than Madrid, representing the spiritual core of the Spanish-Catholic global Monarchy.[161]

Wherever they were placed, whether to the east or to the west, the Philippines remained a marginal location cartographically and seemingly also for those governing the Monarchy from Spain. As a subsidiary territory of New Spain, primary responsibility for the islands fell to the viceroy, not the Casa, Consejo or even the king. As such, our cartographic knowledge of the Philippines during the sixteenth and seventeenth centuries hardly parallels the depth of engagement seen in Spain or New Spain, and our view of the archipelago is fragmentary throughout this period.

The Philippines

The picture of the Philippines presented in early modern cartography usually adopts a regional or global perspective, lacking the detailed, localised views which survive for Spain and New Spain. The urban images currently available are predominantly concerned with coastal settlement on the island of Luzon, such as Manila and Cavite. One of two surviving plans of Cavite shows the position of proposed defences for the port-cum-garrison as part of a petition to the Junta de Guerra. Defence seemed to be a common theme for mapping in the sixteenth and seventeenth-century Philippines; a map of the valley of the Río Grande, or Cagayán River, to the far north of the island of Luzon was also produced for defensive reasons. **(Plate V. 13 and V. 14)**

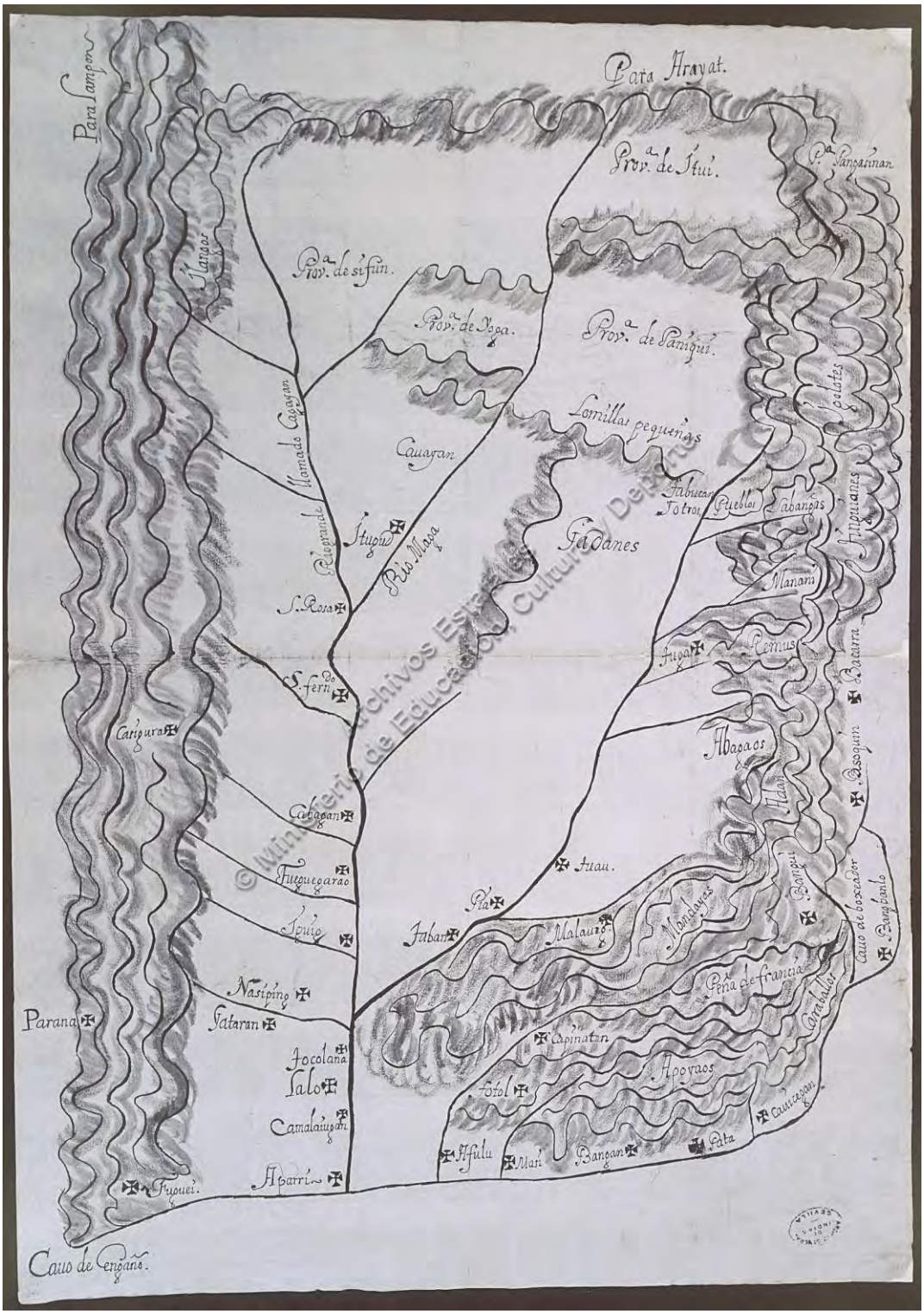
No localised or urban survey was commissioned under the Habsburg monarchs; at the time of the late sixteenth-century cartographic projects in Spain and New Spain the Philippines was only just settled by Spaniards and no return route across the Pacific had yet been charted. At this time, therefore, it would not have been practicable to pursue an inland survey of the archipelago when the Spanish hold on the islands was so delicate. In addition, with so few Spaniards settled across the Philippines, the cartography seems to reflect where Spanish presence was felt most keenly.[162] The Spanish were largely restricted to settling in coastal regions; there were laws relating to Spanish presence beyond cities such as Manila and Cebu, effectively preventing the

[161] By 1575, when this map was produced, the royal court had already moved to Madrid, making this city the political heart of Spain, though Toledo retained its religious primacy.
[162] Vicente Rafael, *Contracting Colonialism,* (Ithaca & London: Cornell University Press, 1988): 18.

PLATE V. 13

Plano de la ensenada y plaza de Cavite con sus fortificaciones y las cercanías de la misma donde se localizan los pueblos de San Roque, Cavite el Viejo y la Estanjuela y las bocas de los ríos Binacaya, Bacoor y Cavite el Viejo (1663), Juan Somodevilla Tejada, (MP-FILIPINAS,8; AGI, Seville).

PLATE V. 14



Mapa de la Vega del Río Grande llamado Cagayán, hasta las provincias de Sifún, Yoga, Paniqui, Pangasinan, etc., en el que se señalan misiones y pueblos (1690), María Antonia Colomar Albajar, (MP-FILIPINAS,140; AGI, Seville).

widespread settlement of lay people beyond the coast.[163] Such rules were intended to protect the indigenous communities of the archipelago and support the Catholic mission across the islands. The map of the Cagayán River, though a defensive tool primarily, also shows this pattern of settlement; the landscape is dominated by Catholic missions and indigenous pueblos.

Our fragmentary view of the Philippines at local, urban level may well result from challenges of transporting maps back to Spain, a journey which, throughout the early modern period, took years rather than months or days. As archives in the Philippines and Mexico become more internationally accessible, through the development of digital collections, it may be possible to add greater depth and detail to our understanding of the sixteenth- and seventeenth-century Philippines, as it may be assumed that some material intended to reach Spain remained in either location. Furthermore, it is quite likely that, as a territory directly associated with New Spain, the viceroyalty commissioned its own surveys and cartographic projects which were not recorded in the archives of the Casa de la Contratación or the Consejo de Indias. This type of investigation is, sadly, beyond the scope of the present study, though would present a fascinating avenue for future research which could dramatically change our current understanding of the Philippines before the eighteenth century.

Cartography and geopolitics

Cartography is a multi-scalar discipline. Maps at different scales offer a diversity of information at varying levels of detail or quantity. As has been shown above, by viewing a particular space through maps at a range of scales a perspective on that space can be developed which is nuanced and multi-faceted, each different scale working alongside another to contribute to an overall image of that space. This collaborative approach to cartography, as was pioneered with mixed success in the early modern Monarquía Hispánica, supports the legibility of maps, making the spaces they represent readable within a broader context.

As cartography is a necessarily multi-scale disciple, so too is geopolitics. Geopolitical activity is rarely, if ever, monoscalar, instead relying on a number of processes operating at various scales to work alongside one another to achieve specific or overarching goals. Yet, it is important to acknowledge that, in many contexts, these processes are not simply integrated, they are interdependent; the success of certain

[163] Nicholas P. Cushner, *Spain in the Philippines,* (Manila: Ateneo de Manila University, 1971): 105.

processes and activities relying on the successful outcome of others. This was most certainly the case in the Monarquía Hispánica, its activities within Spain and across its overseas domains being dominated by three processes: urbanisation, territorialisation and a global programme of religio-cultural change shaped by diplomatically defined realms of jurisdiction.

Urbanisation was the foundation of the Monarchy both in Spain and overseas, in the Americas and later, with mixed success, in the Philippines. As town establishment had proven a valuable method of securing land gained during the Reconquista, urban foundations in the New World proved essential to successfully securing land acquired in the name of the King. These settlements had many practical benefits; founding legally defined, officially sanctioned settlements was a method of firmly securing newly acquired territory and establishing the political and economic structures necessary to make these towns and cities prosperous and ensure their continued survival. Nonetheless, the physical structure of such settlements, most overtly in the legally ordered towns and cities of the New World, was guided by ideological and theoretical considerations which had broader implications. Urban settlements were considered bastions of civility, a notion which affected town planning, as discussed in Chapter One, affected civic architecture, with public buildings being arranged centrally, facing an interior, community space: the central square. Furthermore, Christian influence encouraged an association between urban living and faith; New World urbanism revolved around the Church which was central ideologically and physically, being placed in the central square of all newly erected towns. These classical and Christian ideas were combined and further developed into the Spanish concept of *policía,* and it was this idea of urbanised, Spanish-Catholicism which underpinned the global ambitions of the Monarchy.

While the urban cartography of the Monarchy proclaims *policía* as a localised phenomenon, the global ambitions of the Monarchy to forge a Spanish-Catholic community across the globe fail to feature cartographically, whether through official or unofficial channels. The prime focus of global mapping is diplomacy, rendering diplomatically defined jurisdictional zones on maps to secure them visually in a way they could never be practically implemented. Nonetheless, the diplomacy of division was involved in this broader religious programme, as the authority of these global divisions was founded in a matter of faith. The original dividing line, the Treaty of

Tordesillas, was instituted not by politicians or kings, but rather by the Pope, Alexander VI. As such, all maps depicting the demarcation line dividing the Americas between Spain and Portugal were statements of support for Catholic authority over global space.

Beyond what might be termed this 'diplomacy of faith', there are very few cartographic clues demonstrating the Spanish commitment to spreading a Spanish-Catholic culture at a global scale. World maps of the sixteenth century in particular seem to adopt styles more commonly associated with maritime charts and are usually highly functional in their presentation. Those of the seventeenth century follow a similar pattern of functionality, though the volume of world maps produced, while never high across the Monarquía , certainly seems to have dropped in this period, making comparative study for the latter decades of the century challenging. While a modified version of the medieval concept of universal rule certainly seems to have encouraged Spanish Habsburg monarchs in their desire for continued territorial expansion, Philip IV notably labelling himself 'El Rey Planeta', this further ideological underpinning of a global strategy is never really articulated cartographically.

The global programme, though well developed and multi-faceted, was largely invisible from the cartographic culture of the Monarchy. Yet, it is perhaps a realisation that the global programme was realised through other processes, most clearly urbanisation, though also through the ongoing process of territorialisation, which meant that the world as a canvas for Spanish ambitions was illustrated, almost exclusively, in practical and political ways. The process of evangelisation could not occur at a grand, worldwide scale; rather individual villages and towns were the frontier of conversion. Urban cartography highlights this fact, each town is constructed around its religious institutions. In Spain too, while perhaps not physically the heart of each town and city, Wyngaerde's views show the Church to be the dominant force in civic life, adjusting the perspective and orientation of his images to display these institutions in their best light.

Faith may have encouraged territorial expansion, but it was the political institutions, the *cabildos, gobiernos* and viceroyalties, which governed and secured these territories. Returning to Wyngaerde's views, beyond labelling religious landmarks, the institutions governing towns and cities are marked. From royal palaces to buildings belonging to a regional *corte*, the viewer is reminded of the status and importance of their temporal rulers as well as their spiritual leaders. Towns and cities were also the foundation for governing the Monarchy, though a civic based political

structure was too fragmentary to be successful. Spain's conciliar approach to governance provided the blueprint for territorialisation in its overseas domains, and the kingdom-based structure of rule was extended across the Atlantic.

The initial territorial programme in the Americas recognised the impossibility of ruling a hemisphere from Madrid. Global governance necessarily had to be devolved to in-situ governing bodies paralleling the peninsular councils, possessing sufficient autonomy to reduce the impact of distance; the governing institutions of the Americas could not be waiting on instruction from the king with regard to all matters. Thus, a mid-scale programme of rule was imposed, bridging the gap between universal ambitions and a localised, urban presence. The Viceroyalties of New Spain (1535) and Peru (1542) built upon the foundation of early urban settlement in the American mainland, in turn providing additional support and stability to this relatively small network of towns. The viceroyalties, furthermore, took the Monarchy closer to a universal style of rule, as the King in Madrid could now rule via handpicked representatives invested with powers close to those of the king himself. The globalising ambitions of the Monarchy had made territorialisation necessary overseas, but had also been, arguably, realised by it.

The process of territorialisation was not limited to the Americas or even the Philippines, which increasingly developed a status as a territorial base for evangelisation and Hispanisation in Asia, a status which remained largely unfulfilled. The Iberian kingdoms, including and excluding Portugal at different times, developed a corporate identity, culturally and increasingly politically, over the later sixteenth century, as the notion of 'Spain' born from the 'Hispania' of the classical world began to emerge in reality. There is much to link the emergence of 'Spain', practically and theoretically, to the growth of territorialisation in the Americas, as those Iberians operating in New Spain, Peru and elsewhere across the central and southern portions of the continent began to develop a sense of sharing a collective identity as 'Spanish'. Traditional identities, Castilian, Aragonese, lost relevance so far from their geographical context and those 'Spaniards' living in the Americas began to appreciate their shared culture more than their regional differences. This sense of connection was forged in towns and cities which shared an economic, agricultural, political and religious culture with so many peninsular settlements, as was intended to be the case in the Americas particularly. 'New Spain' preceded 'Spain' as a formal entity, and it is possible to argue

that the new directly inspired the creation of the old, global expansion encouraging territorial consolidation in the domestic context.

Conclusion

Integrated cartography has shown itself to be highly successful in creating a detailed sense of place, by offering multi-scale representations of different locations and territories, up to and including the world as a whole. This multi-scale approach allows the viewer to contextualise each map in different ways; appreciating a territory as part of a global space as well as being composed of localised networks of urban or pastoral sites, or acknowledging the global significance of an individual city, such as Manila. This process of cartographic contextualisation, furthermore, emphasises the many connections between disparate places; allowing distant territories to be placed side by side, overcoming physical distance in a way which would be impossible in reality. Success lies in the diversity of approach, perspective and scale, and the same can be seen in the geopolitical programme of the Monarchy.

The geopolitical legacy of the Monarquía Hispánica can be seen today; Latin America and the Philippines remain highly urbanised, predominantly Catholic and most commonly Spanish-speaking. The territorial units which the Habsburgs imposed on the Americas and in Asia may not always survive entirely intact, but many follow the general pattern imposed in the sixteenth-century; modern Mexico owes more to New Spain than to the pre-Columbian geography of the Aztec-México Empire. This legacy is founded on the success of three, core geopolitical processes: urbanisation, territorialisation and a global programme of imposing a Spanish-Catholic culture worldwide. Although never a truly 'global' possibility, the Monarchy successfully exerted its efforts over its traditional hemisphere of jurisdiction and, while Bourbon reforms and independence movements changed, adapted and claimed these core processes, they were initially imposed by the Habsburg Monarquía Hispánica.

Epilogue

Geopolitical activity across the Monarquía Hispánica demonstrated much continuity between the sixteenth and seventeenth centuries, though the cartography which visualised this activity highlighted the period as one of changing pace and priorities. Cartographic perspectives on the geopolitical activity of the sixteenth century are diverse and numerous, demonstrating the concerted strategy the Monarchy articulated domestically and in its extended hemisphere of influence. This level of detail becomes more limited in the seventeenth century, a result of the general reduction in cartographic output during this period; in part a consequence of the loss of direct royal patronage during the reign of the mentally diminished Charles II. Further domestic crises, from demographic damage wrought by plague and famine to a lengthy period of economic hyperinflation, saw the position of Spain within its own Monarchy begin to wane.[164] This depressing picture need not project an entirely negative perspective however, as the territories of Central and South America began to carve out increased autonomy as peninsular Spain increasingly failed to command either influence or political dominance in the region. Nonetheless, the seventeenth century saw geopolitical activity continue, though in a more limited, localised fashion, concerned with undertaking daily tasks and maintaining the achievements of the previous century more than innovating practically or ideologically.

The advent of Bourbon rule, however, marked a change in geopolitical ideology. Reforming activity was not swiftly initiated following the dynastic transition, though by the middle decades of the century political and economic changes were certainly being felt throughout Spain's overseas domains. This reforming period saw the Monarchy reconceptualised as an Empire, a change which required a new cartography. As such, cartography and geographical surveying regained some of its sixteenth-century dynamism; even the *Relaciones geográficas* surveys were reissued; the first Bourbon version, of 1777, practically mirrored the 1577 edition.[165]

For many cartographic historians the 1775 map of South America, produced by Juan de la Cruz Cano y Olmedilla for the Spanish Crown, has come to embody this

[164] Lynch, *Spain Under the Habsburgs, Volume II,* 1-13.
[165] Robert C. West, "The Relaciones Geográficas of Mexico and Central America, 1740-1792", in *The Handbook of Middle American Indians, Volume 12: Guide to the Ethnohistorical Sources, Part One*, ed. Howard Cline, (Austin: University of Texas Press, 1972): 442-47.

new, imperial cartography. Geometrically accurate and boldly presented, measuring six feet by eight feet, the map reflected recent diplomatic agreements to formally position a boundary between Portuguese Brazil and the Viceroyalty of Peru. Although the map was published, it was never intended for public consumption, being produced for internal use within the institutions of governance; the tradition of recognising geographical knowledge as politically useful and sensitive continued. Yet, it is another pair of maps showing Spain's Empire which seems to embody the changing priorities of Bourbon global politics: Vicente de Memije's maps of the *Mundo Hispánico.*

Vicente de Memije's maps, as shown in the Introduction, present geographical and allegorical views of the Spanish 'world', stretching from peninsular Spain across the Atlantic to the Americas and beyond, across the Pacific, to the Philippines. The geographic map has received little attention, though it offers an accurate and detailed view of the Empire over a decade before Cruz Cano's detail map of South America. The allegorical map has received greater scholarly attention, though this has tended to discount Memije's view of the Body of the Empire as "delightfully quixotic".[166] Although seemingly the product of "bankrupt cartographic ideology", the Memije map is anything but; it is a firmly modern, eighteenth century view of Spanish territorial domains.

Seen in isolation as a mid-eighteenth century production, the *Aspecto Symbólico* seems to owe more to sixteenth-century cartographic ideology than to eighteenth century rational mapping techniques. Yet, Memije accurately captures the contemporary political situation within this map. Firstly, the lack of demarcation lines reflects their effective revocation under the 1750 Treaty of Madrid; though the 1761 Treaty of El Pardo technically reinstated these divisions, news of this agreement did not reach Manila until after Memjie produced his maps.[167] Secondly, Memije seeks to promote the position of the Philippines within the Hispanic world, a territory presented as essential to the continued prosperity and survival for the Empire as a whole. Renewed interest in the islands grew in the Bourbon period, as the creation of plantations sought to make the Philippines an economically viable and self-sustaining colony, encouraging

[166] Ricardo Padrón, "From Abstraction to Allegory: The Imperial Cartography of Vicente de Memije" in *Early American Cartographies,* Martin Brückner (ed.), (Chapel Hill: The University of North Carolina Press, 2011): 38, quoting O. H. K. Spate, *Monopolists and Freebooters* (Minneapolis: University of Minnesota Press, 1983): 399.
[167] Padrón, "From Abstraction to Allegory", 49.

agriculture as a complement to the archipelago's position as an entrepôt of international maritime trade.[168] The ships carrying goods across the oceans to the Americas and Spain are still shown to be essential, forming the clothes and accessories to the Body of Empire, recognising the increased focus on economic development under Bourbon rule. The Americas, the centre of the Empire, are both essential and, seemingly, secondary within the image; a mantle to the Body, the Americas are an adornment rather than a physical part of the corpus. Finally, the head, Spain, is upturned, looking to the cherubs and flaming Sword of Faith, enforcing Catholicism as an inspiration for expansion and a social reality across the Empire.

Both the geographic and the symbolic maps show the *Mundo Hispánico* as a cohesive whole, captured easily within one cartographic frame. The *Aspecto Symbólico,* while perhaps unusual to modern eyes, is clearly innovative when seen in the context of sixteenth and seventeenth century cartography, representing an overtly modern, eighteenth-century viewpoint. Memije's map emphasises the need to reconsider Bourbon rule as a mixture of reform and continuity, rather than a clean break between the monarchical Habsburg past and the imperial Bourbon future. By viewing Memije's work as one example of early modern cartography, a tradition stretching from the early-sixteenth century to the late-eighteenth century, we can acknowledge continuity but equally appreciate the specific transformations and innovations of Bourbon rule.

[168] Russell K. Skowronek, "On the Fringes of New Spain: The Northern Borderlands and the Pacific", in *International Handbook of Historical Archaeology,* eds. Teresita Majewski and David Gaimster, (New York: Springer, 2009): 479.

Abbreviations

AGI Archivo General de Indias; Seville.

BNE Biblioteca Nacional de España, Madrid.

JCB The John Carter Brown Library; Providence, RI.

NLB Nettie Lee Benson Latin American Collection; The University of Texas at Austin, TX.

RAH Real Academia de la Historia; Madrid.

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