Storing and Sharing Secrets: Management of Pacific Geographic Materials in Early Modern European Empires

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Abstract: This paper uses Pacific geography as a case study for a comparative analysis of the management of geographic knowledge by imperial states in the early modern period. Thanks to changes in commercial cartographic practice and the development of archival institutions, the Antipodes underwent substantial focus and alteration in the sixteenth and early-seventeenth centuries, priming the pump for further exploration from the late-seventeenth century onward.

Keywords: Pacific exploration, geographic knowledge, history of cartography

Introduction

Travel across any space, terrestrial or aqueous, requires a basic level of knowledge about the routes, conditions, and distances involved in reaching one’s destination. Such geographic knowledge has always carried value and in the early modern period imperial states erected new institutions and processes to safeguard this precious information—often compiled in textual and cartographic form—against rivals. Paradoxically, however, the amount of geographic knowledge necessary to outweigh the risks of embarking for faraway destinations—for example, to the opposite side of the world—required the mobilization of the very geographic knowledge that some officials would rather have kept locked away.

This was the case for the Pacific Ocean, which was of increasing interest due to its commercial potential yet was still dangerous to navigate due to the paucity of existing maps and descriptions. Therefore, Pacific geography can serve as a useful case study for a comparative analysis of the management of geographic knowledge by imperial states in the early modern period. Thanks to changes in commercial cartographic practice and the development of archival institutions, the Antipodes underwent substantial focus and alteration in the sixteenth and early-seventeenth centuries, priming the pump for further exploration from the late-seventeenth century onward. Imperial power in the Pacific was not only challenged with ships and troops; rather, it was contested by the possession and, increasingly, the circulation of geographic knowledge within Europe.

The story of bringing the Pacific to the European world map is thus a trans-imperial one of competitive collaboration—a global phenomenon that sheds light on the knowledge politics and practices of empire.

1 Geographic knowledge is of a «set of intellectual practices» meant to apply spatial information to life and examine it as «an object of science, art and wonder». The term encompasses both information and the active processes by which that information is codified, critiqued, and disseminated. C. WITHERS, R. MAYHEW, Geography: Space, Place and Intellectual History in the Eighteenth Century, in «Journal for Eighteenth Century Studies», 34, 4 (2011), p. 446.

2 This is not to discount or trivialize the consistent, diverse, and intense resistance by indigenous populations across the Pacific to the European invasion of their lands and waters. Much has been written about these encounters and their effect on European intellectual history, as well as on the spread of empire. For a recent study, see B. DOUGLAS, Science, Voyages, and Encounters in Oceania, 1511-1850, Houndsmills, Palgrave Macmillan, 2015. For a case study of the complexities of managing Pacific empires on the ground, see S. MAWSON, Rebellion and Mutiny in the Mariana Islands, 1680–1690, in «Journal of Pacific History», 50, 2 (2015), pp. 128-148.
For example, in 1589 Abraham Ortelius, the renowned Flemish geographer and publisher, added «Maris Pacifici, quod vulgo Mar del Zud» to his atlas, *Theatrum Orbis Terrarum* (fig. 1.1). The first stand-alone map of the Pacific, its publication arose 76 years after Vasco Nuñez de Balboa lead the first European expedition to see and name the *Mar del Sur*, the South Sea. It was published seventy years after the Portuguese-born and Spanish-employed Ferdinand Magellan set out on the world’s first circumnavigation and gave the ocean the additional, and misleading, name of Pacific, or peaceful.

The full title of Ortelius’ map translates to, «A very new description of the peaceful sea, commonly called South Sea with the regions lying around it, and its islands, scattered everywheres». These islands are not randomly scattered, rather they are meticulously placed based on the information available to Ortelius in 1589. For this map, Ortelius gathered not only published and manuscript reports of Magellan’s circumnavigation, but also 25 Portuguese manuscript charts by Bartolomeo de Lasso in the possession of fellow Dutch mapmaker, Petrus Plancius. English travel writer Richard Hakluyt also provided Ortelius with place names from recent discoveries in North America, unpublished as yet for political reasons.

Ortelius’ map shows that a geographer’s sources depended upon his personal correspondence network and consultation of available descriptions and maps, in manuscript and, increasingly, in print. Ortelius was in a middle position, using domestic and international relationships to create maps that depicted the rapidly changing world. Geographers like Ortelius faced varying degrees of censorship and access to markets depending on where they were based. These limitations created a sense of competition yet also collaboration amongst mapmakers, intellectuals, and early modern states alike, all of whom were necessary to create the small canon of Pacific geographic knowledge available in the late sixteenth and early seventeenth centuries.

This interplay between state, trade company, and private enterprise, between domestic industry and foreign affairs, underwrote the integration of the Pacific into European geography and characterizes the larger administration of knowledge in overseas empires. The creation of maps like «Maris Pacifico» is an instructive microcosm of the diversity of actors, networks, and objects that allowed Europeans to literally shape the world they thought they knew. To explore these themes further, this paper will outline the institutions, voyages, and geographers who together shaped the presentation of the Pacific in the sixteenth and early-seventeenth centuries. The goal is not a comprehensive history of European cartography or exploration of the Pacific, rather the examples given are meant to be illustrative of the complex network of actors and institutions common to imperial knowledge management.

Consolidating and controlling sources of Pacific geographic knowledge: The *Armazém da Guiné* and the *Casa de la Contratación*

Portuguese mariners set up Europe’s first entrepôts in the lucrative East Indies. Portuguese pilots also drew some of the earliest and most accurate charts of those islands, as well as of Africa and parts of the Americas. In order to protect and maintain their global interests, officials decided to create a centralized mapping and geographical body. In Portugal, there is evidence that such a body existed by 1496, when Bartholomew Dias, the famous navigator, served as its head. The *Armazém da Guiné*—later

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3 The atlas was first published in 1570 and is considered the first atlas, or standardized collection of maps published as a set, ever published. A. ORTELIUS, *Maris Pacific quod vulgo Mar del Zud*, in *Theatrum Orbis Terrarum*, Antwerp, Ortelius, 1590.


5 Sources for the map are explained in *Cartographica Neerlandica Background for Ortelius Map No. 12*. Plancius was involved with planning expeditions around the world and was especially interested in northern passages to China. G. SCHILDER, *Development and Achievements of Dutch Northern and Arctic Cartography in the Sixteenth and Seventeenth Centuries*, in *Arctic* 37, 4 (1984), pp. 493-514.


the Armazén da Guiné, Mina e Indias and led by the receiver of stores (almoxarife)—oversaw the upkeep of the master chart (the padrão de el-Rei), distribution and return of charts, training of pilots, and management of the content of charts.8

Circulation of geographic materials was tightly controlled. For example, a royal charter issued 13 November 1504 disallowed Portuguese charts from having information about navigation below the river Congo and lands below 8°S in South America; non-compliant charts were to be brought to the Armazén for correction. The same charter forbade the construction of globes.9 The regulations of 1592 for the post of cosmografo-mor—a post created in 1547 to work in tandem with the almoxarife—decree that the cosmografo-mor had to inspect all maps ordered by private citizens. If the charts did not conform to the padrão, they could not be released. Not only was some information kept secret, therefore, but the Portuguese Crown also did not want to disseminate false information. The information they did release into circulation had to be approved by experts who worked from the latest, and usually secret, sources.

By the seventeenth century, regulations had relaxed somewhat, as the Armazén approved the printing of rutters, books of written sailing directions. However, surviving materials about Portuguese mapmaking are limited. No printed maps from the eighteenth century survive, while only a few manuscript charts are scattered throughout Europe. The Armazén was destroyed in the Lisbon earthquake of 1755 and did not revive until the creation of the Sociedade Real Marítima Militar e Geográfica para o Desenho, Gravação e Impressão de Cartas Hidrograficas, Geográficas e Militares in 1798. By this time, the Portuguese hold over the spice trade had declined.

In terms of early modern mapping, Portugal’s influence is most evident in the use of pilots as sources, as was the case with Ortelius’s «Maris Pacifico». Individuals and individual charts could escape the close censor of the Armazén, and the institution itself could be breached, for the right price. For example, it is likely the 1504 charter regulating the publication of maps and globes was in response to Amerigo Vespucci, a Florentine, defecting from Portuguese patronage to Spanish. In 1508, Charles V appointed Vespucci piloto mayor of the Spanish equivalent of the Armazén, the Casa de la Contratación, founded in 150310. Whereas the Armazén and the Casa could serve as vaults for cartographic documents, controlling the movements of skilled individuals eager for personal benefit proved much more difficult.

Vespucci, as the first piloto mayor, oversaw the training of pilots and maintenance of the master chart of the Carrera de Indias, the padrón real11. While it is true that the padrón real was kept in a chest locked with three keys12, it is more accurate to characterize the geographic knowledge collected by the Casa as closely monitored, not truly clandestine. In 1510 the Casa received instructions to keep navigational rutters secret. To prevent rivals from gaining geographic knowledge, the Casa banned foreign pilots from owning

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8 Ivi, p. 54.
9 Ibidem.
10 Teixeira de Mota argues that the Casa was patterned after the Portuguese example, which is likely. TEIXEIRA DE MOTA, Some Notes, p. 54. For more on the founding of the Casa, and its partner institution, the Consejo de Indias, founded in 1523 to manage to the political and legal administration of overseas empire, see C. ALBERTO GONZÁLEZ SÁNCHEZ, La Casa de la Contratación y la historia cultural, in La Casa de la Contratación y la navegación entre España y las Indias, edited by A. COSTA RODRÍGUEZ, A. ADOLFO RODRÍGUEZ, E. VILA VILAR, Sevilla, Universidad de Sevilla, 2003, pp. 543-566; M. PORTUONDO, Secret Science: Spanish Cosmography and the New World, Chicago, University of Chicago Press, 2009.
11 A. GONZÁLEZ SÁNCHEZ, La Casa de la Contratación, pp. 546, 563. For more on the examination of pilots, see L. MARTÍN-MERAS, Las enseñanzas náuticas en la Casa de Contratación de Sevilla, in La Casa de la Contratación, pp. 667-693. For more on how knowledge was transmitted to new generations of pilots, see J. D. BUTTINGER, G. M. RIVERA, A. E. BUTTINGER, Mateo Jorge, a Pilot of the Casa de la Contratación 16th Century Sevilla, in La Casa de la Contratación, pp. 639-668. Portuondo explains that the piloto mayor later shared some duties with Consejo cosmographers. PORTUONDO, Secret Science, 1, 9. There were also some disputes between pilots (practitioners) and cosmographers (intellectuals). Ibid, 278-9, 282-3; MARTÍN-MERAS, Las enseñanzas náuticas, p. 674.
12 «Ya se os escribió que enviase a los oficiales de Sevilla la descripción patrón que trajo Sarmiento de las costas y navegación del Estrecho y así lo habréis, previéndoles para que con todo secreto y recato y en presencia de Diego Floréz hagan que el cosmógrafo tome la razón de todo ello, y ponga en las cartas haciendo solas aquellas que fueren necesarias para que esta armada las lleve, y sin quedarle ninguna otra se meta el patrón en la arca de tres llaves, y cuando vuelva esta armada se recobren las que llevan y se guarden». AGI, IG-739, N.306, Consulta del Consejo de Indias sobre expedición de Pedro Sarmiento de Gamboa al Estrecho de Magallanes, 1 March 1581, Madrid, quoted in PORTUONDO, Secret Science, p. 99.
Navigational charts in 1527\textsuperscript{13}. However, pilots in training circulated manuscript manuals and theoretical treatises to augment their educations, which also required six years of service in the \textit{Carrera de Indias}\textsuperscript{14}. Some pilots transcribed portions of these manuscripts to create their own copies\textsuperscript{15}. Control of circulation, in manuscript or print, was a vital, and elusive, goal.

Under Phillip II (r. 1556-1598), cartography was «codified»\textsuperscript{16}. Reforms in the 1560s mandated that pilots list their rutters and charts, as well as give a notarized copy of their log book to the \textit{Casa}. Pilots were required to turn over their original rutter if they left the profession or died and had to swear to cartographic secrecy before going abroad\textsuperscript{17}. A formal order of September 21, 1556 prohibited the printing and sale of any book dealing with the Indies if not examined first by the \textit{Consejo de Indias}, the legal institution of Spanish empire\textsuperscript{18}. Just as in the Portuguese case, such restrictions were not absolute; the printing order had to re-issued several times throughout the sixteenth century.

Although Spain exercised a state monopoly over geographic publications, some books were indeed published and circulated throughout Europe\textsuperscript{19}. During the reign of Phillip III (r. 1598-1621), cosmographers were encouraged to publish their works, although such publications had to undergo a careful vetting process\textsuperscript{20}. Cosmographers at the \textit{Casa} pioneered the genre of the navigational manual, two of the most famous being Pedro de Medina’s \textit{Arte de navegar} (1545), printed in 20 French editions, and Martin Cortes’ \textit{Breve compendio de la esfera y de la arte de navegar} (1551), printed in 6 English editions between 1561 and 1630. Under Phillip III’s patronage, information flowed more freely, representing a «radical reconceptualization of the strategic value of geographic knowledge»\textsuperscript{21}. This radical reconceptualization peaked with the publication of Rodrigo Zamorano’s \textit{Regimiento de navegación e hidrografía} (Madrid, 1606), a printed navigation manual containing the latest version of the \textit{padrón real}\textsuperscript{22}.

By the mid-sixteenth century, the Spanish Crown had not only changed its policies regarding secrecy, it had also realized that printed charts could be re-produced more quickly and uniformly. Geography, in chart or text form and carefully edited and reviewed, could be used to trumpet the power and majesty of Spain’s worldwide empire. Printed works also showed off the prowess of its considerable body of technical experts, the chroniclers and mathematical cosmographers of the \textit{Casa}. However, authorship was limited for the most part to these experts, employees of the Crown; censorship still reigned and would continue to do so into the eighteenth century. Furthermore, by the seventeenth century much of what the Spanish sought to keep hidden—the locations of mines, settlements and the routes of treasure galleons—was no longer a secret. French, Dutch, and English ships hassled their holdings from the West to the East Indies, most famously with Francis Drake’s circumnavigation (1577-80). Members of religious orders skirted publication restrictions and spread information about missions, especially on the Asian frontier. Phillip III’s push to publish information was not a benevolent outpouring of intellectual rapprochement; it was a shrewd reaction to a shift in geopolitics.

\textsuperscript{13} Ivi, p. 7.
\textsuperscript{14} MARTÍN-MERÁS, \textit{Las enseñanzas náuticas}, p. 676.
\textsuperscript{15} This practice continued into the early seventeenth century. BUTTINGER, RIVERA, BUTTINGER, \textit{Mateo Jorge}, pp. 639-668; MARTÍN-MERÁS, \textit{Las enseñanzas náuticas}, pp. 667-693.
\textsuperscript{16} PORTUONDO, \textit{Secret Science}, p. 103 and ch. 3.
\textsuperscript{17} Ivi, pp. 131-2.
\textsuperscript{18} Ivi, p. 105. Spanish officials also monitored books being shipped to the Americas. See ALBERTO GONZÁLEZ SÁNCHEZ, \textit{La Casa de la Contratación}, pp. 543-566.
\textsuperscript{19} PORTUONDO, \textit{Secret Science}, p. 53. Books were also published elsewhere. For example, in 1558 Stephen Borough was invited to the \textit{Casa} and given Cortes’ \textit{Compendio}. Borough brought it to England where it was translated by Richard Eden in 1561. BUTTINGER, RIVERA, BUTTINGER, \textit{Mateo Jorge}, p. 663; P. BARBER, \textit{England II: Monarchs, Ministers, and Maps, 1550-1625, in D. BUSSERET (ed.), Monarchs, Ministers and Maps: The Emergence of Cartography as a Tool of Government in Early Modern Europe}, Chicago, University of Chicago Press, 1992, p. 65.
\textsuperscript{20} For example, the maps Herrera, chronicler major of the \textit{Consejo}, used in his \textit{Décadas} were twenty-year old maps by Velasco, who had been forbidden from publishing them. They were out of date when Herrera asked to use them, thus were allowed. PORTUONDO, \textit{Secret Science}, pp. 295-7. The Spanish state kept out of print those books that did not match their evangelizing mission or had geostrategic information. Thus, better navigation manuals than those that got printed existed in manuscript. ALBERTO GONZÁLEZ SÁNCHEZ, \textit{La Casa de la Contratación}, p. 562.
\textsuperscript{22} Ivi, p. 280; MARTÍN-MERÁS, \textit{Las enseñanzas náuticas}, p. 686.
Seeking and evaluating new geographic knowledge: Pedro Fernandez de Quiros

Spain not only stored information, they gathered it as well. Important among their South Seas expeditions, many of which were organized by the Viceroyalties of Nueva España and Peru, were Francisco Cortes and Juan Ladrillero’s navigation from Pacific to Atlantic round South America in 1557-9. Pedro Sarmiento de Gamboa repeated the venture in 1579-80, reaching Spain. Once in Spain, Gamboa would meet with Casa cosmographer Rodrigo Zamorano to discuss his experiences in the Straits of Magellan and to help build instruments and charts for a return voyage, this time to establish a fort that would keep out the French, Dutch, and especially the English. However, Gamboa’s 1581 expedition was a disaster. Gamboa returned to Spain nearly ten years later after found ing two doomed austral cities, having been shipwrecked, rescued, and captured first by the English and then the Huguenots on his return home. As with so many who would attempt the Straits of Magellan, inclement weather and currents thwarted any attempt to traverse it regularly. Gamboa’s efforts did not go unnoticed outside Spain, however. In Ortelius’ «Maris Pacifici» there is a small sign indicating a settlement in the extreme south of South America, with the description, «The fort Philip II ordered to be erected here, anno 1582».

Earlier in his career, Gamboa was also involved in the first of a series of Spanish expeditions whose goal was not to cross the Pacific, but to see if it might be hiding resources or even an entire continent. Gamboa persuaded the Viceroy of Peru to send ships to look for Tupac Yupanqui’s mythical islands. The new Viceroy approved of the expedition but gave command instead to his nephew Álvaro de Mendaña, who sailed west from Callao in November 1567. By February 1568, Mendaña had arrived in the Solomon Islands.

Mendaña managed to persuade authorities to finance another expedition to colonize the Solomon Islands 25 years later. He set sail in 1595 with 340 men, women, and children, as well as his brothers, wife, and a pilot named Pedro Fernandez de Quiros. After Mendaña died in Santa Cruz, his wife, Isabel Barreto, took command and led the group to the Solomons, where they set up a settlement for several months. Whereas multiple members of the first expedition submitted surviving manuscript accounts of the voyage, the only accounts of this second expedition come from Quiros.

Disappointed by the limited findings of the expedition, Quiros returned to Europe to lobby for another voyage to search for a southern continent. The lead-up and aftermath of the second Quiros expedition are particularly interesting in terms of the management and circulation of Pacific geographic knowledge. To shore up his reputation, Quiros advertised his cartographic and navigational skills across

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26 Isabel Barreto was the first female Admiral and Governor (Adelantada). Camino argues that her historical role has been silenced or marginalized due to the interests of historians and chroniclers. Being an admiral was exceptional, but being a woman involved in conquering was not. M. MAROTO CAMINO, Producing the Pacific: Maps and Narratives of Spanish Exploration (1567-1606), Amsterdam, Editions Rodopi, B. V., 2005, pp. 44-46.

27 There are two manuscript copies in Spain. A copy is included in J. ZARAGOZA, Historia del descubrimiento de las regiones australes hecho por el general Pedro Fernandez de Quiros, Madrid, Manuel G. Hernandez, 1867. The volume was re-issued (Madrid, Dove, 2000). See also La Austrialia del Espiritu Santo / The Journal of Fray Martin de Munilla O.F.M. / and other documents relating to The Voyage of Pedro Fernandez de Quirós / to the South Sea (1605-1606) / and / the Franciscan missionary plan / (1617-1627), translated and edited by Celsus Kelly, London, Hakluyt Society, 1967.
Europe. He was recognized as a superb mapmaker at Rome in 1601 and by the Spanish Council of State and the Consejo de Indias in 1603. These accolades, along with the maps, secured him a second voyage.  

Sailing west across the Pacific, his ships encountered what today are the Tuamotu, Line, and Cook archipelagos. Upon reaching the New Hebrides, Quiros became convinced that this island was the tip of Terra Australis Incognita. During several elaborate rituals, Quiros dubbed the island Australia [sic.] del Espíritu Santo and founded a city that would connect Spanish power from Lima to Manila, Nueva Hierusalem. Despite his grand plans, his officers forced him to leave. Quiros sailed back to America, while his pilot, Luis Vaez de Torres, set out for Manila, sailing the strait between New Guinea and Australia along the way.

After his return in 1607, Quiros lobbied even more vigorously for a third chance to return to his «earthly paradise». As part of this effort, Quiros produced a large-scale world map, a 1610 treatise on navigation, as well as at least fifty memorials outlining his past work and future promises. Most of these memorials were dispersed in manuscript. Quiros also paid for fourteen of them to be printed at his own expense between 1607 and 1614. The Eighth Memorial sent to the Spanish Crown proved to be the most influential for Pacific geographic knowledge circulation. In it, Quiros re-counts his discovery of several islands and argues Spain should claim the southern continent as a Catholic land. He describes the islands he has seen as lands of plenty, with mild weather and many resources including spices, pearls, silver, and gold. The people he describes are gentle and pliable; they would be easy «pacificar y doctrinar», to pacify and indoctrinate. The land, he surmises, «in its outline it quarters the entire Globe», and all this «without having to neighbor with Turks, nor Moors, nor with others of nations that usually worry and perturb agendas». In Quiros’ mind, his discovery could spare Spain problems with imperial rivals and create a world where Spain, «continues being the center».  

Printed in Madrid in 1608 and Seville in 1609, the Eighth Memorial was reprinted in 1612 by Dutch cartographer Hessel Gerritz in his Detectio Freti Hudson. Gerritz also created a map showing Quiros’ route. There were two French editions of the memorial in 1617 and numerous manuscript translations. Purchas included it in his influential travel collection (1625) and Quiros’ account would be repeated in

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28 Quiros is said to have drawn more than 200 charts of the Pacific, the first 5 commissioned by Mendaña in 1595. For an exhaustive overview of the maps of Quiros’ expeditions, see C. Kelly, Some Early Maps Relating to the Quiroés—Torres Discoveries of 1606, Lisbon, Congresso Internacional de História dos Descobrimentos, 1961. The Portuguese Quiros worked for Spain during the period when Portugal and Spain were joined (1580-1640). Quiros was from a separatist part of Portugal, though this does not prove he had such tendencies himself. M. Luque, C. Mondragon, Faith, Fidelity and Fantasy: Don Pedro Fernandez de Quiros and the “Foundation, Government and Sustenance” of La Nueva Hierusalem in 1606, in «Journal of Pacific History» 40, 2 (2005), p. 140.

29 For a description of these rituals, see BL MS Add 13974, f. 186. For analysis of the rituals, see Camino, Producing the Pacific, ch. 4; Luque, Mondragon, Faith, Fidelity and Fantasy, pp. 133-148.

30 Quiros calls it a «Parayso terrenals». BL Add. MS 13974, f. 184.

31 The State Library of New South Wales holds some of these memorials. They are digitized online and also are offered with pdfs of English translations at The Spanish Quest for Terra Australis, accessed 18 January 2018, http://www.sl.nsw.gov.au/stories/spanish-quest-terra-australis.

32 Copy in BL Add MS 13974, ff. 184-6. Another memorial referencing his 8th and 16th memorial is at ibid, ff. 186-8.

33 Ibid, f. 184.

34 Translation by author. Original: «La grandeza de las tierras nuevamente descubiertos, juzgado por lo ‘q yo vi, y por lo que el Capitá Luis Vaez de Torres Almirante de mi cargo a viso a V.M de buena razun su longitud es tanta como la de toda Europa, Asia menor, y hasta el Caspio y la Persia çó todas las Islas del Mediterraneo, y Oceano, que en su contorno se quarta de todo el Glovo...y esto sin a vezindar con Turcos, no Moros, no con otras de las naciones que suelen inquietar y perturbuar las agen». BL Add MS 13974, f. 184.


36 For copies of the Eighth Memorial, including the 1608 Madrid edition and the first English edition in 1617, see P. Fernandes de Quiros, Terra Australis incognita; or, A New southern discoverie/ [by] Ferdinand de Quir, accessed 18 January 2018, http://trove.nla.gov.au/work/19301112. In addition to inclusion in BL MS Sloane 333, the memorial is also part of source collections gathered in late eighteenth and nineteenth centuries from Spanish archives and held at the BL. BL Add MS 17625 f. 1-44, f. 87; these documents are labeled as part of a collection on Pacific discovery. BL Add. MS 13974 contains a copy of the 8th memorial; these documents were “indorsed by, or sent to” Bernardo de Iriarte, member of the Consejo de Indias. BL Egerton MS 902, ff. 2-23 has an overview of the Quiros expedition. The volume is a collection of voyages to the Americas gathered by Don Joseph Antonio de Armona Cavall/o in 1772.

170
printed collections throughout the seventeenth and eighteenth centuries. The circulation of written and printed word ensured that Quiros’ discoveries, especially Espíritu Santo and the Solomons, would be included in maps and travel accounts, although the exact location of his discoveries would vary greatly by geographer.

Indeed, the veracity of Quiros’ claims, especially about the Southern Continent, would become a topic of debate for cartographers and state officials for the next two centuries. For example, in 1670 Diego Luis de San Vitores sought support to evangelize Pacific islands with the Mariana Islands as his base. He republished Quiros’ Eighth Memorial to drum up support. The new Viceroy of Nueva España, the Marques de Mancera, reviewed Quiros’ work and decided that his findings were false and imprecise. Over time, sources of Pacific geographic knowledge would be re-evaluated, yet seldom jettisoned. The paucity of voyages and accounts until the end of the seventeenth century would create a durable canon of voyages and geographic entities that made up the idea of the Pacific. Quiros would serve as a pillar, however shaky, of this canon.

In contrast to Quiros’ general exposure across Europe, his second-in-command Torres’ discovery of the Torres Strait between Australia and New Guinea would not be immediately integrated by geographers. The Torres Strait as a geographical feature only began to be known after 1762, when the English captured Manila and East India Company (EIC) hydrographer Alexander Dalrymple uncovered a report by Torres sent to the King of Spain, dated July 12, 1607. Several reports and four charts drawn by Don Diego de Prado y Tovar had been sent back to Spain after the expedition. However, these materials never slipped into more general circulation; it is not the existence of geographic materials that is central to the creation of knowledge, but the circulation of that knowledge.

After 50 memorials, Quiros was finally allowed to return to the South Seas. However, he died while preparing for the voyage in Panama in 1615. After Quiros, Spain lost its inclination to explore the open waters of the Mar del Sur. This is for a variety of reasons including imperial overextension, the weakening of the Portuguese state under the Iberian Union, and the rise of maritime power in England and the United Provinces. The Viceroyalties of Nueva España and Peru also decided not to fund long-distance endeavors due to a lack of available ships and the threat to coastal waters represented by Drake’s voyage of 1577-80. Additionally, cosmographers in Spain had grown increasingly skeptical that the Pacific contained the treasures that those like Quiros so believed in. Finally, whereas Spain and Portugal were undisputed leaders in navigation and exploration in the sixteenth and seventeenth centuries, they were not the leaders in another crucial field, print. The printing industry in the Iberian Peninsula was dominated by foreign artisans and split between several major cities and two primary languages. The industry declined in the last quarter of the sixteenth century due to religious and civil censorship, royal privileges creating monopolies, and a general lack of materials and means.

Whereas the presence of printing presses does not guarantee the free circulation of ideas, the ability to share one’s ideas broadly is important to early modern geography. In a field dominated by the necessity to compare as many sources as possible, exchange of information was key. Without it, not only were ideas not read by wider audiences, but states were loath to risk ships and funds in long-distance

37. Quiros’ voyage was included in fragments in A. DE MORGIA, Sucesos de las islas Filipinas, Mexico, 1609; C. SUAREZ DE FIGUEROA, Hechos de Don Garcia Hurtado de Mendoza, Madrid, 1613; FR. T. DE TORQUEMADA, Monarquia Indiana, Seville, 1615; J. CAMPBELL, Navigantium atque Iterantium Bibliotheca, London, 1744; S. PURCHAS, Hakluytus Posthumus or Purchas his Pilgrimes, London, 1625; C. DE BROSSES, Historie des navigations aux terres australes, Paris, 1756; A. DALRYMPLE, An Historical collection of the several voyages and discoveries in the South Pacific Ocean, London, 1770-1.


41. BUSCHMANN, Iberian Visions, pp. 51-2.

The commercial possibilities, and pitfalls, of Pacific geographic knowledge: Abel Tasman

While Spain was consolidating the Manila-Acapulco route from the east, the dominance of Portugal in the western approach to the East Indies was being contested by new trade powers. In response to the Dutch Revolt, Philip II closed the Lisbon spice market to Dutch and English traders in 1585, spurring both countries to seek direct trade with Asia. The EIC was founded in 1600, followed in 1602 by the Verenigde Oostindische Compagnie (VOC). More heavily capitalized than its English counterpart, the VOC aggressively moved into areas of Portuguese influence. Dutch voyages were funded by merchants and companies eager to open new markets. As part of their charter, the States General granted the VOC control over the Straits of Magellan and lands east of the Cape of Good Hope. The VOC kept manuscript maps and charts in the company’s archives; from 1619 they employed a closed policy like the Spanish and Portuguese Crowns43. However, also like their Iberian counterparts, the VOC was subject to leaks. As Amsterdam was the center of atlas and waggoner publishing in the seventeenth century, Dutch voyages often appeared on maps quickly upon their return. In 1605 the VOC sent their first expedition to explore the shores of New Guinea. The voyage made it into print in Hessel Gerritsz’s 1622 chart of the Pacific45. Gerritsz was the cartographer of the VOC, showing the tension between company secrecy and the profits available to individuals from maps that contained updated information desired by an audience of navigators and merchants. In the 1610s there were several accidental encounters with the western coast of Australia by merchant vessels46. Geographers gathered information about these finds via their personal networks in Amsterdam and farther afield; the VOC’s centralization worked against its closed cartographic policy.

The VOC was not the only Dutch source of geographic information about the Pacific. Although they dominated the waters east of the Cape of Good Hope, there was a loop hole in their holdings in the Straits of Magellan. Despite its depiction as part of a southern continent on many sixteenth-century large scale maps, not all navigators were convinced that Tierra del Fuego was a continent. In 1615, independent Dutch merchants sent Cornelius Schouten and Isaac Le Maire to see if they could steer around Tierra del Fuego and, thus, around the VOC monopoly of the East Indies. From 1615-1617, Schouten and Le Maire circumnavigated the globe, entering the Pacific via a strait that sent their ships around Cape Horn. Schouten’s account of the expedition appeared in French in 1618, published with charts and figures by Guillaume Sanson in Amsterdam47. Translations and subsequent editions of the account proliferated

43 A map showing VOC territory had to be approved by the Herren XVII. K. ZANDVLIET, Mapping the Dutch World Overseas in the Seventeenth Century, in D. WOODWARD (ed.), The History of Cartography, III, Chicago, University of Chicago Press, 2007, p. 1433. For a corollary to VOC mapping practices, see Sutton’s treatment of Visscher’s productive relationship with the West India Company (WIC), ca. 1600-1650. The WIC would commission or share information with Visscher, effectively turning his prints, sold on the open market, into propaganda for the WIC’s projects. E. A. SUTTON, Capitalism and Cartography in the Dutch Golden Age, Chicago, University of Chicago Press, 2015, chaps. 4-5.

45 So-called due to Lucas Waeghener’s second volume of his sea atlas, printed in 1586. When translated into English and published as the Mariner’s Mirror, this volume would be the first to show English mariners their own coasts in their own language. A. H. ROBINSON, Marine Cartography in Britain: A History of the Sea Chart to 1855, Oxford, Oxford University Press, 1962, p. 65.


47 Journal ou l’Admirable Voyage de Guillaume Schouten Hollandois. Comme par luy est discovery vers le zud du descroit de Magellan un nouveau passage, pour parvenir en la mer du Zud, jusques a ce temps incogni. Quelles Terres, Isles, Gens & aventures estranges pay luy sont trouvez en la dicte Mer du Zud. Amsterdam, Guillaume Sanson. No date is listed, but the British Library catalogue dates their example (BL 1045.3.17.(1.)) to 1618.
with a Latin edition, another French edition, and an English edition, all printed in 1619. The dedication of the English edition echoes the shock and pleasure brought by the "newe unexpected and never heretofore discovered Passages." Despite a century of awareness by Europeans, the Pacific could still dazzle with unknown features. The inclusion of charts in most versions of the printed account also served to democratize the geographic wonder; all could in theory now pass through and trade with the Pacific. Any vestige of a Spanish or a VOC "mare clausum," closed sea, always a tenuous claim, was now shattered.

The VOC continued their own reconnaissance. In 1643, Governor-General Anthonie van Diemen ordered Abel Tasman to sail to the "partly known as well as the undiscovered South and East lands, to discover and find some important lands, or at the very least some practicable passages to well-known rich places, to be used eventually to enhance and enlarge the general welfare of the company." Also aware of the need for precise recorded information, Van Diemen ordered that Francois Jacobsz Visscher accompany the voyage to act as chronicler and cartographer. The expedition visited Van Diemen's Land (Tasmania), the west coast of New Zealand, Tonga, and Fiji. Van Diemen was disappointed that Tasman had seemed content to merely observe and quickly sail on, "Tasman has not made many investigations regarding the situations nor form and nature of the discovered lands and peoples but, has in principle left everything to a more inquisitive successor."

The VOC gave Tasman another chance in 1644, this time telling him to, "take up seriously the further discovery of these South lands in the hope of achieving something profitable." Van Diemen ordered Tasman to investigate the possibility of a strait between New Guinea and Australia, as the Torres Strait was not included on contemporary VOC charts. He also wanted Tasman to explore the approach to Van Diemen's Land. On the first count Tasman, like his predecessors, took the entrance to the Torres Strait for a shallow bay. As to the second count, the short cut to Van Diemen's Land proved to be the Gulf of Carpentaria, discovered in 1606 by fellow Dutchman Willem Janszoon. Tasman sailed along the entire coast of New Guinea, but these results were even paltrier than his first expedition. Tasman's failure in the eyes of the VOC was the death knell for Dutch exploration in the Pacific. Much like Spain after Quiros' second voyage, the promise of the Pacific was not translating into returns fast enough. States and companies alike decided to consolidate their losses and focus on less difficult and more lucrative enterprises.

Just because Tasman was thought a failure by his employers does not mean that geographers did not include his voyages. The incomplete coasts of Van Diemen's Land and New Zealand appeared on maps by mid-century. Cartographer of the VOC Joan Blaeu's 1648 world map to commemorate the Peace of Munster popularized Tasman's voyages and the outline of Nova Hollandia (Australia). It also omitted Terra Australis.

Willem Jansz Blaeu, Joan's father, offers a further example of the politics of South Seas cartography. The elder Blaeu intended to include the Straits of Le Maire in a book of his geographic work, but the VOC sequestered his source material because they feared it violated their charter. Isaac Le Maire's Australian Company, founded to underwrite his 1615 voyage, argued that they should be allowed to publish the discoveries. When the States General asked Blaeu to halt the publication of his book he decided to include the information on his 26-inch terrestrial globe instead. To avoid controversy, Blaeu

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48 Diarium vel Descriptio laboriosissimae, & Molestissimi Itineris, facti à Guilielmo Cornelii Scoutenio Hornano. Annis 1615, 1616, & 1617. Cum à parte Australi freti Magellanici, novum ductum, ant fretum, in Mangum Mare Australe detexit, totum’q Orbem terrarium circumnavigavit, Amsterdam, Petrum Kærium, 1619. Example at BL 1045.3.17.(2).
49 Journal Ou Description du merveilleux voyage de Guillaume Scouten, Hollanois natif de Hoorn, fait es années 1615, 1616, & 1617. Comme (en circump-navigeant le Globe terrestre) il a discovery vers le Sud du destoit de Magellan un nouveau passage, jusques à la grande Mer de Zud, Amsterdam, Pierre du Keere, 1619. Example at BL 1045.3.17.(3).
51 Ibid, epistle dedicatory.
52 ARA VOC 866, ff. 490-500, quoted in SCHILDER, From Secret to Common Knowledge, p. 79.
53 ARA VOC 1142, ff. 7v, quoted in SCHILDER, From Secret to Common Knowledge, p. 80.
54 ARA VOC 868, ff. 39-50, quoted in SCHILDER, From Secret to Common Knowledge, p. 80.
55 J. BLAEU, Nova totius terrarum orbis tabula, Amsterdam, Blaeu, 1648.

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173
produced state 1-b of the globe with the offending information omitted; Tierra del Fuego is erased, and nothing is engraved in its place. State 1-c has the Schouten expedition findings including Cape Horn, the Straits of Le Maire, and the northern coast of New Guinea. However, he chose to omit the southern coast of New Guinea which had been in states 1-a and 1-b. Torres’s discoveries were too tenuous in their source material, especially in the face of the overwhelming coverage of the Schouten expedition in 1618, when state 1-c was struck.

In the wake of Tasman in the 1640s, the younger Blaeu updated the globe yet again. In order to include the shores of *Nova Hollandia*, the younger Blaeu removed an «Advice to the Reader» text box and a dedicatory cartouche. The Reader was assumed to prefer the latest geographical features to textual instruction as to how to use the globe. Blaeu also included the discoveries in North America of Baffin (1616) and Button (1612-3). California became an island on this later state, as well as shifted 20 degrees east56. Via such globes and the atlases that the Blaeus began to publish in the 1630s, previously secret information of the VOC became public; the knowledge monopoly was trumped by the market.

The Blaeu globes’ development over time focuses the discussion on the politicized space of the Pacific. By the time the VOC seized the spice-rich Moluccas from the Portuguese in 1641, their dominance in the western Pacific was unquestioned by imperial rivals. Geographic knowledge was a valuable commodity in the United Provinces as it opened the door to the spice trade, not to mention book sales. As to the creation of an insular California and the omission of the Torres Strait, cartography was always changing in its representations, but that does not mean that the new depictions were progressively closer to a “real” Pacific. Mapmakers’ and state officials’ goal was never an objective map of the Pacific, rather they sought enough geographic knowledge to bend the space to their purposes.

Collecting and refining geographic knowledge: Nicolas Sanson, the Abbe de Paulmier, and Richard Hakluyt

The Blaeu workshop burned in 167257. Only fourteen years prior to this, Nicolas Sanson d’Abbeville published France’s first world atlas. Sanson and the geographers of Paris would capitalize on their own central position near a printing industry and the availability of court patronage to displace their Dutch counterparts by the early eighteenth century, a position they would hold throughout the eighteenth century58. In 1658, when his atlas was published, Sanson, was a *geographe ordinaire d’roi*, one of several geographers supported by the crown with an annual stipend59. Just as the VOC and the Spanish state employed cartographers, so too did the French Crown—geography was an accepted, and even lucrative, profession for those who could gain the training and information network necessary to produce appealing charts.

58 Of course, mapmakers had been active in France for centuries prior to the second half of the seventeenth-century. For the Pacific, the most important was the Dieppe School, so named for the association of its practitioners with the northern French port. A defining characteristic of Dieppe charts was Java-la-Grande, a cartographic innovation showing a large land mass in Southeast Asia, combining Java, Sumatra, and *Terra Australis Incognita*. Dieppe geographers credited the Portuguese with the discovery of the land mass, although the Portuguese never corroborated this attribution. H. WALLIS, *A Portuguese Discovery? The Enigma of the Dieppe Maps*, in *Studies from Terra Australis to Australia*, p. 47. The Dieppe school interests cartography specialists because it can be seen as suggesting the Portuguese discovered Australia before other Europeans. See B. RICHARDSON, *Was Australia Charted before 1606? The Java la Grande Inscriptions*, Canberra, National Library of Australia Press, 2006; R. J. KING, *Havre de Sylla on Jave La Grande*, in «Terra Incognita» 45, 1 (2013), pp. 30-1; T. CAMPBELL, *Egerton MS 1513 A Remarkable Display of Cartographical Invention*, in «Imago Mundi», 48 (1996), pp. 93-102.
59 The King had *geographes de roi* (100 to 400 livres/year after presentation of masterpiece map) and a *premier geographe du roi* (1200 livres/year). SPONBERG PEDLEY, *Commerce of Cartography*, p. 30.
French geographers, again like their Dutch counterparts, tended to be compilers who controlled publishing. They would consult all available sources—manuscript and print, old and new—to create a manuscript map. Judging by the titles of European maps, however, particular value was placed on recent European discoveries⁶⁰. This manuscript would then be sent to guild-trained engravers, printed, and sold under the compiler’s name⁶¹. Employment by the King did not impede possible commercial gains. Just as Blaeu made manuscript maps for the VOC and sold printed materials based upon his access to secret information to the rich merchant class for a considerable profit, so too did French geographers maintain storefronts and take commissions to create wall maps, globes, and atlases. This hybrid role, state-employed yet answerable to a public market, points to the contested place that cartographic information had in the circulation of knowledge in the early modern period.

In contrast to the Spanish, the French map market thrived under state censorship, which was always more de juris than de facto. Mapmakers would seek a privilege for their works, in effect a monopoly on the publication and the information it contained. In 1704, an arrêt de conseil dictated that printed maps be reviewed by authorities. However, access to manuscript maps was not limited in France until 1773, and the French did not create their own version of the Casa until the founding of the Depot des Cartes, Plans et Journeaux de la Marine in 1724⁶². As was common at the time, one geographer’s memoirs and maps would act as templates, or would be out-right stolen, by rivals.

In Sanson’s historic atlas, Cartes Generales de Toutes les Parties du Monde (1658), he promises charts of all areas of the world. In reviewing the charts he chose to include, toutes equates to those areas frequented by European ships—his is a commercial world dominated by sea travel. In the dual hemisphere world map which begins the collection, the western hemisphere starts in the West with the Ladrones and New Guinea (fig. 1.2). To the south is a lightly drawn line, signaling the reader that this is a tentative shoreline, unlike the darker outlines of the other continents. It denotes Terre Magellanique, Australe et Inognere. Sanson combined all the common names for the Southern Continent, displaying his command of the source bank but again signaling some discomfort at the lack of concrete verification of location. Tierra del Fuego is also incomplete; unlike Ortelius a century before, Sanson preferred to not make a definitive statement as to its outline and possible connection to a south land. Nevertheless, the general shape of the coastline, ascending in a diagonal to the northwest, is reminiscent of Ortelius, whose influence is still evident. Dotting the Pacific are those islands encountered by the Spanish in their coastal and Carrera de Manila voyages, as well as the more recent Dutch finds. The Isles de Isabella linger east of New Guinea, which also is exaggerated in width and has a ghost coastline. California is an island and it is overshadowed by a giant protuberance in northwest North America; the protuberance is also part of Ortelius’ Pacific, while an insular California is not. The impression that comes from the Sanson world map is of a relatively cluttered Pacific, yet one that is plagued by lingering uncertainty and guess work necessitated by a lack of source material. It is a confession of the limits of geography. Interestingly, the

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⁶⁰ Ortelius’ first map of the Pacific mentioned that is was a «new description», see note 4 above. As in the Schouten accounts mentioned above, the newness of the discovery is what made it so sensational. New information equated with accurate information, as seen in a 1630 chart title, W. Blaeui, Tabula Magellanica, qua Tierrae del fuego, cum celeberrimis fretis a F. Magellano el I. Le Maire detectis novissima et accurassima description exhibetur, Amsterdam, Blaeu, 1630(?). Example at BL Maps K.Top.124. 81. A similar strategy is employed in BL Maps C.7.c.6., inset between pages 1 and 2: J. Speed, A New and Accurat Map of the World Drawne according to ye truest Descriptions latest Discoveries & best Observations t'ye have beene made by English or Strangers, London, 1626.

⁶¹ Some print sellers, such as Alexis-Hubert Jaillot, specialized in the selling of maps and oversaw their production, contracting out to a geographer to prepare the base manuscript and then engravers to prepare the plate. Jaillot shifted from individual map publishing to his Atlas nouveau, a large-format atlas dedicated to the Grand Dauphin that was the first French atlas to use word “atlas” in title. Due to this, Jaillot won the title of geographe de roi on July 20, 1686, accompanied by a yearly stipend of 600 livres and a long-lasting relationship with the French Court. This changed in the eighteenth century, with more training necessary to gain similar titles. PETTO, From L’État, c’est moi à L’État, c’est l’État, pp. 53-78.

⁶² PEDLEY, Commerce of Cartography, pp. 84, 194. The papers of the Depot are held in the Archives Nationales in Paris. As exemplified in the triangulation survey to map France starting in 1689, the French were at the forefront of cartographic innovation. For more on the triangulation survey, and the relationship between cartography and the state, see J. W. KONVITZ, Cartography in France: 1660-1848, Science, Engineering, and Statecraft, Chicago, University of Chicago Press, 1987.
ghost coasts disappear on the smaller-scale map of South America, as does the conjectured coastline in the Pacific Northwest of North America. Sanson was willing to hypothesize more at a remove than on more detailed continental maps. The large protuberance in North America mirrors the outsized French interest in the interior of North America. This did not prevent individuals from scheming as to ways to expand French influence further, such as the Abbé de Paulmier’s plan to convert the citizens of the Southern Continent. To bolster his request, Paulmier produced a pamphlet outlining the known geography of the area, which he enlarged in 1659 and published without authorization in 1663 and with authorization in 1664. Paulmier sent a dossier of documents, including maps of Tasman’s voyages, to Royal Historiographer Francois de Chesné. In addition, Paulmier attacked Dutch maps, especially Blaeu’s 1648 projection, for concealing geographic knowledge. He thought that Blaeu’s omission of the southern continent was a duplicitous move, not a cartographically conservative one. To argue that Terra Australis does indeed exist, the Abbe cited Quiros’ petitions and the account of a French explorer, Gonneville, who had apparently sailed to a southland in 1503. If corroborated, Gonneville’s shipwreck on land south of the Cape of Good Hope would claim Terra Australis for France by right of first discovery. The problem was, there was no prior mention of Gonneville before the Abbe’s original 1654 petition, as Margaret Sankey’s work has shown. Nevertheless, Gonneville’s “discoveries” in the south Indian Ocean began to be incorporated into maps from 1661. Louis XIV approved of Paulmier’s venture, yet ire on the part of Lazarists in Madagascar sidelined the expedition. Paulmier, along with Quiros, represents the zeal for expansion that existed alongside more measured approaches to the region taken by Sanson and other geographers. He also shows how readily available information was to those motivated enough to gather it, despite the best efforts of the VOC and centralized state repositories.

Like France, England sent few expeditions to the Pacific prior to 1700. Two notable exceptions exist, however. Sir Francis Drake circumnavigated the globe in 1577-1580 to find riches along the coasts of South America. Sir Thomas Cavendish had similar goals when he sailed in 1586-8, and, like Drake, he captured a Spanish treasure galleon in the Pacific. These early, privately-funded endeavors more closely mirror English exploration activity in Africa, India and Hudson Bay, which was dominated by traders and privately-funded investors focused on quick returns, much like the VOC. Eager to avoid clashes with imperial rivals but desperate for access to East Asian ports, the English focused their energies on seeking out the Northwest Passage in the late sixteenth and early seventeenth centuries. The thrust north coincided with the creation of settler colonies along the eastern seaboard of North America, a place where the right of first discovery would be hotly contested.

One of the ways Drake and Cavendish’s exploits reached a wider audience was through the work of Richard Hakluyt. Hakluyt meticulously gathered, corroborated, collated, and compiled his massive history of voyages for decades before its publication in one volume by George Bishop and Ralph

65 J. ABBE PAULMIER, Mémoires pour l’establissement d’une mission chrétienne dans le troisième monde, Autrement appelé, La Terre Australe, Meridionale, Antarctique [sic], & Inconnuë, Paris, 1664.
66 Letter to de Chesne and dossier: Recueil de plusieurs Relations tant anciennes que modernes, Voyages, Navigations, et Memoires, c’est a dire, La cinquième partie de L’Univers dépêintdans toutes les Mappes-monde, sous le tilter de Terres Australes Incogneuës pour Monsieur du Chesne Conseiller du Roy, Historiographe de France, en Advocate n tous les Conseils de sa Majesté, 1659, BNF Ms NAF 7454.
Newberie in 1589\textsuperscript{69}. At the last minute, the first edition was altered to include an insert of six un-paginated leaves recounting the circumnavigation of Sir Francis Drake, who was again in the public eye for his part in the victory over the Spanish Armada the year before. The second edition of \textit{The Principal Navigations, Voyages and Discoveries of the English Nation}, extended to three volumes, came out in 1598, altered slightly, and reissued in 1599\textsuperscript{70}. Hakluyt's work was the first in English to add a spatial organization to historical events\textsuperscript{71}. In the pages of Hakluyt, readers could enter the history of long-distance voyages, a history which he hoped England would continue to expand\textsuperscript{72}. In doing so, he was also constructing a unique version of the world that highlighted certain regions, as well as highlighted how little was known about others.

Hakluyt traveled around Europe to collect information, showing the degree to which geographic information was available if one had mobility and a wide network on contacts in private and state positions. For example, Hakluyt corresponded with both Gerard Mercator and Abraham Ortelius. He encountered an exiled Portuguese in France who shared geographic information with him, as well as used José de Acosta's \textit{Historia natural y moral} (1589) which included a description of Drake's voyage and the Straits of Magellan\textsuperscript{73}. However, use of foreign sources was not always easy. In the dedication to Sir Robert Cecil in the second volume, Hakluyt recounts the trouble he had in printing a set of voyages to Florida in 1587. The four voyages had been kept from wider circulation for twenty years by «the malice of some too much affectioned to the Spanish faction». When the book was published at Hakluyt's expense in Paris, the Lord Chief Justice of France supposedly asked, «in great choler…who had done such intolerable wrong to their whole kingdom, as to have concealed that woorthie worke so long»? The justices were upset that geographic knowledge that might have been to the benefit of the French Crown was not allowed to circulate. Hakluyt's collection was meant to further spread the news of English voyages, in order to place England on equal footing with its imperial rivals.

Although he wished to highlight mainly English voyages, Hakluyt realized that their experience in the Americas was sparse, necessitating his translation of numerous French and Spanish documents. He had access to many of these in any case, «because since our warres with Spaine, by the taking of their ships, and sacking of their townes and cities, most of all their secrets of the West Indies, and every part thereof are fallen into our peoples hands (which in former time were for the most part unknownen unto us)». Of most interest in these secrets is the true breadth of the Pacific, the Manila-Acapulco route, and hints as to a large sea leading to a Northwest Passage north of California. Hakluyt saw the exposure of these documents as just and necessary for England to progress as a maritime power; a divergent strategy to that preferred by Spain. This was particularly important in England, for naval officers and officials were expected to purchase their charts on the open market; a centralized hydrographic body was not created in Britain until 1795.

\textsuperscript{69} The first edition of 1589 was a one volume folio, dedicated to Sir Francis Walsingham; in addition, it had a preface, tables and index, and 825 pages of content. Example available at BL G.6604.
\textsuperscript{70} Quotes in this article are from the second edition (London, George Bishop, Ralph Newberie, and Robert Barker, 1599), specifically the example at BL 683.h.5.6. For more on the bibliographical details of the second edition, see «Hakluyt Census», Hakluyt Society, accessed 18 January 2018, http://www.hakluyt.com/hakluyt_census.htm . Hakluyt’s work is currently undergoing a massive editorial project led by Daniel Carey and Claire Jowitt, growing out of a conference held at the NMM in 2008. See also, D. CAREY, C. JOWITT, editors, \textit{Richard Hakluyt and Travel Writing in Early Modern Europe}, The Hakluyt Society Extra Series 47, Farnham, Ashgate, 2012.
\textsuperscript{72} Hakluyt says he was helped by «Geographie and Chronologie (which i may call the Sunne and the Moone, the right eye and the left of all history»). R. HAKLUYT, \textit{Principall Navigations…}, I. preface to the reader. Hakluyt’s nationalism has long been a subject of interest and contention to historians. For a taste of the debate, see ARMITAGE, \textit{The New World and British Historical Thought}, pp. 52-75; L. B. CORMACK, \textit{Good Fences Make Good Neighbors: Geography as Self-Definition in Early Modern England}, in «Isis» 82, 4 (1991), pp. 652-3; J. POLLOCK, «The Geographical Compass»: History, Authority, and Utility in the English Voyage Account, 1660-1730», PhD dissertation, University of Pittsburgh, 2012, p. 5.
\textsuperscript{73} PORTUONDO, \textit{Secret Science}, p. 264.
\textsuperscript{74} Ivi, vol. II, second dedication.
Conclusion

The differences in the strategies of Hakluyt and the Casa underline the lack of certainty that characterized, not plagued, early modern geography. The details that would become durable parts of Pacific representations in early modern Europe were more dependent upon the degree to which certain information circulated, in manuscript and, increasingly, in print. When a strong geographic management system was at work, as with the Armazém and Casa, important details such as the Torres Strait could be kept from more general use. However, no closed knowledge policy was secure, as the numerous leaked details in the case of VOC cartographers, who were also commercial print-sellers, bears out. Lest we think of the Pacific as an entity slowly emerging at the hands of European mastery, remember that the Solomons were not fixed on maps until the late eighteenth century, despite their encounter by Mendaña in 1567. Remember also the creative fictions employed by the Abbe de Paulmier and the obsessive search for a continent that drove Quiros. The Pacific was a geographical reality, to be sure, and a highly politicized topic. However, it also functioned as a useful abstract space upon which Europeans could project their hopes, dreams, and delusions. This function of the Pacific would not necessarily diminish as its cartography became more fixed.

For the Pacific region, two ingredients – expeditions and people able to translate voyages into books and charts – would prove crucial in shaping how the Pacific became entrenched in European geography. In the early modern period, maps were used as state weapons and guarded as state secrets; they were elite objects of power-knowledge. However, states were not able to keep geographic materials locked away; circulation, intentional and less so, ensured that a growing body of geographic knowledge about the remote Pacific consolidated in the early modern period. Magellan, Drake, Cavendish, Schouten/Le Maire, and to a certain extent Quiros were all names that would continue to be considered authoritative by geographic knowledge producers, as would the works of Blaeu, Sanson, and Hakluyt. For the Pacific, geographic knowledge producers were not quick to jettison any scrap of information, rather to catalogue it in the hopes that new expeditions, when and if they sailed, might add to the corpus of European impressions of the world’s largest ocean.

The production of geographic knowledge about the Pacific depended on the interactions of institutions and individuals engaged in compiling, archiving, and sharing maps, charts, and voyage accounts. The precise relations of these actors and organizations were determined by the imperial state which housed it, with closed, yet not sealed, systems in Portugal and Spain, relatively monitored systems in the United Provinces and France, and a more open system in England. The proliferation of knowledge and the creation of a cartographic canon depended more on the exceptions to the application of control than to the careful maintenance of a censored repository; geographic knowledge production depended more on circulation than on sequestration in the two centuries prior to the famous voyages of Cook, Bougainville, and others. For global empires, the management of knowledge required the mobilization of people and materials, both within Europe and around the world. By tracing how such systems worked, and how they allowed for exceptions, we gain a fuller understanding of the structure and practices of imperial knowledge in the early modern period.

Illustrations

Archives

AGI – Archivo General de Indias, Sevilla, Spain
ARA – Archief Rijksmuseum Amsterdam, Amsterdam, Netherlands
BL – British Library, London, United Kingdom
BNF – Bibliothèque Nationale de France
NMM – National Maritime Museum, Greenwich, United Kingdom

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