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Researching North America: Sir Humphrey Gilbert's 1583 Expedition and a
Reexamination of Early Modern English Colonization in the North Atlantic World

by

Nathan J. Probasco

A DISSERTATION

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Doctor of Philosophy

Major: History

Under the Supervision of Professor Carole B. Levin

Lincoln, Nebraska

May, 2013

Researching North America: Sir Humphrey Gilbert's 1583 Expedition and a
Reexamination of Early Modern English Colonization in the North Atlantic World

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University of Nebraska, 2013

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Sir Humphrey Gilbert's 1583 expedition to North America was the first attempt by an Englishman to colonize beyond the British Isles, and yet it has not been subject to thorough scholarly analysis for more than seventy years. Although it is often overlooked or misinterpreted by scholars, an exhaustive examination of the voyage reveals the complexity and preparedness of this and similar early modern English expeditions. Gilbert recruited several specialists who expended considerable time and resources while researching and otherwise working in support of the voyage. Their efforts secured much needed capital, a necessary component of expensive private voyages, and they ensured that Gilbert had a reasonably clear picture of North American geography, flora, and fauna before leaving England's shores. Focusing specifically on the cartography, nautical science, and promotional literature of the expedition, my dissertation clarifies their role in Elizabethan colonization and elucidates the preparation stages of early modern English colonizing voyages.

By enlisting promoters like Richard Hakluyt, Stephen Parmenius, and Christopher Carleill, whose skills and experience varied considerably but who nonetheless wrote compelling, well researched texts spanning multiple genres, Gilbert maximized his chances of gaining subscribers. He also recruited various skilled practitioners like John

Dee to create manuscript and printed maps that helped him to gain permission for the voyage, to advertise it, to guide it, and to stake his claim to North America. Much of Gilbert's intelligence came from reading printed and manuscript texts, which allowed him to establish England's legal claim to North America. He and his supporters also interviewed Englishmen and foreigners who had been to Norumbega. Based upon their navigational research, Gilbert's circle intended to implement several seafaring advances during their transatlantic crossing, even if the crew was unable to execute all of their plans. Scholars typically depict England's earliest colonizing voyages as being haphazard and experimental in nature, but a close examination of the preparations for Gilbert's voyage shows that he and his supporters worked diligently for several years to ready themselves for their expedition to North America.

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Acknowledgements

Much like Gilbert's voyage, my dissertation is the culmination of extensive preparations that required the guidance and support of a number of groups and individuals. Had it not been for my doctoral advisor, Professor Carole Levin, I would not have pursued graduate study in the first place. Her unceasing support and encouragement made an otherwise daunting task seem quite manageable, while her comments and suggestions helped me sharpen my thesis and make other improvements to my paper. Working alongside Carole has been a pleasure, and I can only hope that my dissertation meets the high standards that she has set for her students.

One of the most enjoyable aspects of writing my dissertation was visiting archives and interacting with scholars across the United States and in England. The individuals who assisted my research at these repositories are too numerable to name here, so I will simply mention the primary institutions that I utilized over the past three years: The British Library in London; the Folger Shakespeare Library and the Library of Congress in Washington, D.C.; the Henry E. Huntington Library in San Marino, California; the John Carter Brown Library in Providence, Rhode Island; the National Archives of the United Kingdom in Kew; and the Newberry Library in Chicago.

The staff at the University of Nebraska's Love Library also deserves recognition for their assistance. Medieval and Renaissance Studies Librarian Kathy Johnson was instrumental in acquiring a subscription to State Papers Online, an essential resource for anyone interested in British history. The Interlibrary Loan Office expeditiously attended to all of my requests. Whether bringing me dozens of oversized books or extending the due dates on my materials, the personnel was always courteous and helpful.

It was only through the financial assistance provided by various institutions and individuals that I was able to visit faraway archives. The Charles H. Watts Memorial Fellowship from the John Carter Brown Library funded two months of research using one of the world's premier collections for historians of European colonization. A Mayers Fellowship from the Huntington Library was equally significant to my project, as it gave me access to the Huntington's exceptional holdings in British materials. Presidential and Othmer Fellowships from the University of Nebraska offered me both the means and the time to write drafts of my paper. The University of Nebraska Department of History was giving as well, since I funded many of my research trips with departmental awards, including the Albin T. and Pauline Anderson Memorial Award, the Dov Ospovat Research Grant, the Viola Florence Barnes Travel Grant, and two Marguerite C. and Clare McPhee Research Fellowships. I used the Warren F. and Edith R. Day Dissertation Travel Award from the University of Nebraska Office of Graduate Studies to fly to Washington, D.C., in 2012 and the Paul A. Olson Travel Grant from the University of Nebraska Medieval and Renaissance Studies Program to fly to England in 2010. I was able to travel to England that summer in large part due to the generosity of Professor Nancy Stara, who has supported my work for several years and to whom I will always be indebted.

I was fortunate enough to have been selected to take part in two seminars that provided me with essential research tools to compose my dissertation. Participating in the 2010 Bosch Foundation Archival Seminar for Young Historians revealed to me the nuts and bolts of archival research. My discussions with seminar convener Mischa Honek and with my cohort Felix Shürmann were especially productive in narrowing my

topic and in framing my dissertation, and each of the seminar participants made me a better researcher in some way. Our docents and hosts in Boston, Chicago, Madison (Wisconsin), and Washington, D.C., were receptive of our interests and perceptive in their comments.

The Mellon Summer Institute in Vernacular Paleography was an equally enlightening experience, and the skills that I learned during those four weeks gave me access to innumerable sources for my dissertation and for future endeavors. Director Heather Wolfe patiently worked with the participants as we navigated English manuscripts, and her impressive transcription skills were an example for us all. Susi Krasnoo ensured that the seminar ran smoothly, and the presenters at the Huntington Library deftly illustrated various aspects of early modern documents. Each of my fellow transcribers made my stay in southern California a productive and enjoyable one.

While completing my degrees at the University of Nebraska, I had the pleasure of interacting with professors, staff members, and students from a number of departments. I worked most closely with other early modern Europeanists, including Cassie Auble, Michael Hewitt, Shannon Meyer Jones, Catherine Medici-Thiemann, Andrea Nichols, Mark Reuter, and Paul Strauss. We took courses together, travelled with one another to conferences, and partook in spirited discussions, all of which made me a better person and student. My undergraduate advisor, Professor Peter Maslowski, wrote numerous letters of recommendation on my behalf and offered constructive advice on polishing my writing. He consistently went beyond the call of duty, for which I owe him dearly. My doctoral committee members, Professors Jeannette Jones, Amy Burnett, Jessica Coope, and Julia Schleck, were a delight to work with. Their specialties vary considerably and

differ from my own, and yet each of them offered me judicious advice that improved my finished product. It was during an English travel writing seminar taught by Julia in 2008 that my interest in Gilbert's expedition blossomed, and over the intervening period she has critiqued portions of my paper and served as a valuable reference for my studies.

As with all aspects of my life, my education was made possible by my family's unwavering support. My passion for history grew out of my father's interest in World War II, and an appreciation for learning was instilled within me at a young age. I never would have pursued a B.A. or an M.A., let alone finished my Ph.D., without my parents' encouragement and guidance. Their work ethic was a model for me to follow, and, along with my grandparents and my in-laws, they provided day-care while I travelled to seminars and archives. I am fortunate to have such supportive family to depend upon.

My wife Heidi, our daughter Remy, and our son Anton sacrificed more than anyone so that I could complete my dissertation. I missed numerous holidays and vacations while writing and researching. When Heidi went to her job each day, I stayed at home playing with the kids and using nap time and nights to write. While I visited archives, my wife remained in Lincoln to work and to watch our children. Without Heidi, Remy, and A.J., it would have been much more difficult and much less enjoyable to write my dissertation. Now that I have finished it, I will devote more time to being a dedicated husband and father.

Even though Gilbert's voyage took place more than four centuries ago, I learned much about our modern world by studying it. He and his supporters consulted many sources during their meticulous preparations, and yet their expedition still ended poorly. I can only hope that my thorough preparations for this dissertation have a better outcome.

Introduction

“Sir Humfrey Gilbert ... is gone. But vvhether, no man knovves”

*...But heard that sundrie friends
of mine, had taken leaue
At Courte, and vvere all Shipte avway.
this brute may thee deceyue
Thou follish Boy (quoth I)
nay Sir by svveete Sainct Iohn
(Quoth he) Sir Humfrey Gilbert sure,
and all his troupe is gone.
But vvhether, no man knovves,
Saue they that are in Barke,
Who with one mind, and one consent,
do hope to hitte one marke*

- Thomas Churchyard, 1578¹

On June 11, 1583, five years to the day after receiving England's first letters patent for colonization, Sir Humphrey Gilbert (fig. 1) set sail from Plymouth Sound bound for the territory known as “Norumbega,” roughly equivalent to modern day New England.² His half-brother Walter Raleigh in command of the flagship *Bark Raleigh* turned back for Plymouth after just three days at sea due to seasickness, leaving the four remaining vessels to make the arduous two month passage to Newfoundland without the brunt of their provisions. The ships separated in the North Atlantic but arrived unscathed at St. Johns, Newfoundland, in early August. Gilbert formally claimed the island for

¹ Thomas Churchyard, *A discourse of the Queenes Majesties entertainment in Suffolk and Norffolk: with a description of many things then presently seene. Devised by Thomas Churchyard, Gent. With diuers shewes of his own inuention sette out at Norwich: and some rehearsal of hir Highnesse retourne from progresse. Whereunto is adjoynded a commendation of Sir H. Gilberts ventrous journey* (London: Henry Bynneman, 1578), H3r-v.

² Late sixteenth century cartographers and explorers invariably located Norumbega between modern day Maine and Maryland, though its precise location was disputed due to the relative absence of European voyages to the area.

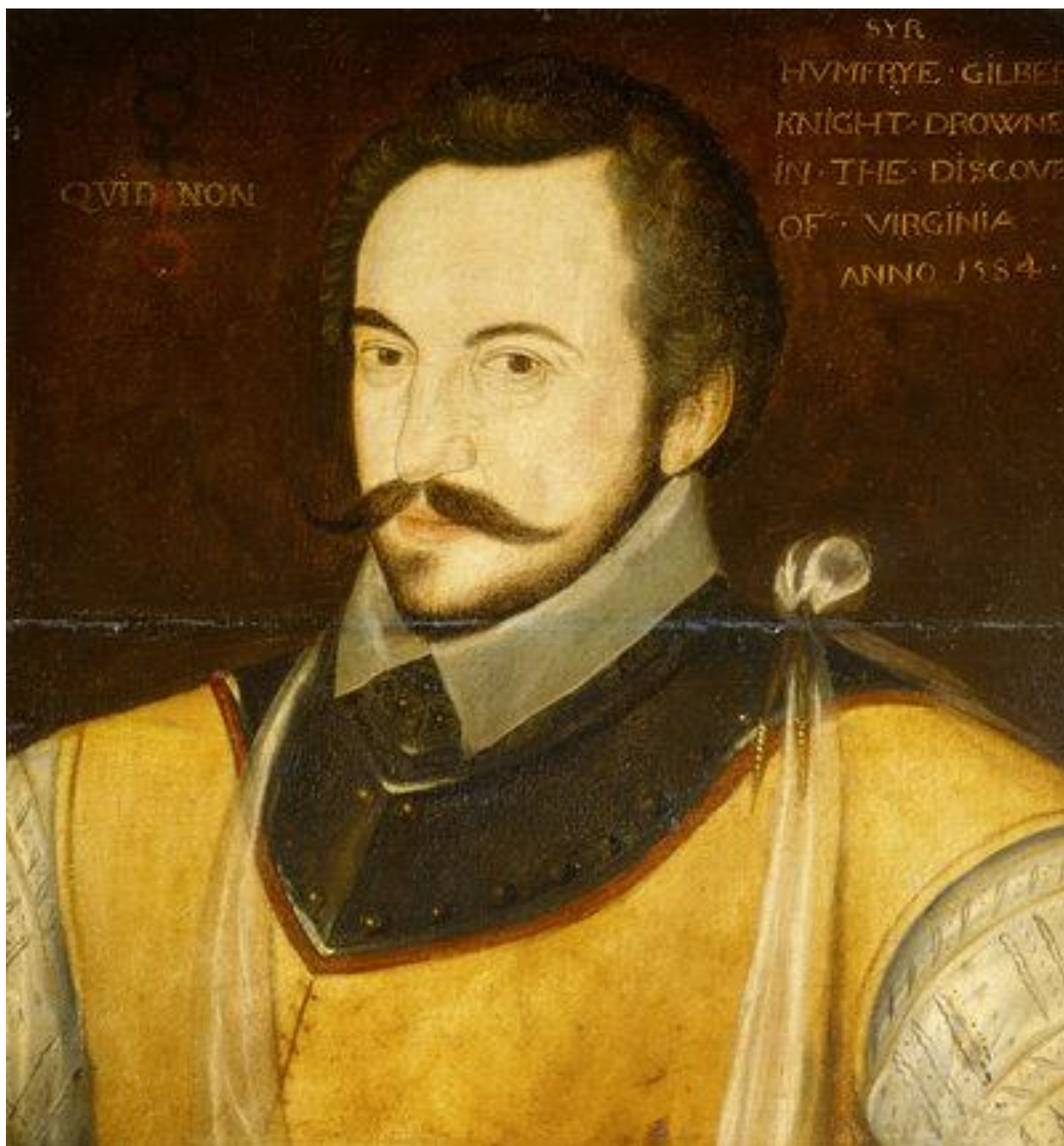


FIGURE 1. Unknown artist, *Syr Hvmfrye Gilbert Knight Drowned in the Discovery of Virginia Anno 1584*, ca. 1584. Compton Castle, Compton, UK. From Google Images.

England and spent ten days surveying, making maps, and accumulating supplies. He sent the *Swallow* home with uncooperative and ill sailors before continuing southward.

Following eight days of unrelenting storms, his largest remaining vessel, the *Delight*,

sank with more than eighty men near Sable Island, an isolated and hidden sandbar located more than one hundred miles from the North American continent. Gilbert yielded to the pleas of his remaining crew members and abandoned the expedition, but the frigate *Squirrel* on which he was sailing disappeared north of the Azores on the return voyage. Only the few dozen crewmen aboard the *Golden Hind* and the *Swallow* made it home safely, and England's initial attempt at overseas colonization ended disastrously.

Owing to this unfortunate series of events, scholars typically characterize Gilbert's final expedition as a failed experiment in England's emerging expansionist movement, one that was marred by ignorance, greed, and miscalculation. In his otherwise excellent study of Tudor/Stuart colonization and militarism, John C. Appleby writes that "[t]he Gilbert ventures clearly reveal the underlying limitations of English colonization" during the period. Andrew Hadfield has insinuated that avarice alone motivated Gilbert to colonize, and Peter Pope described the visit to North America as "farcical." According to Philip Edwards, "Gilbert blundered his way through one enterprise after another," culminating with his last voyage.³ By primarily focusing on developments *en voyage*, these authors tend to miss the greater significance of Gilbert's 1583 expedition. Shifting the crux of my study from his landing to the developments before his departure engenders an entirely different and, I believe, more precise conception of the expedition. In this dissertation I investigate the preparations for

³ John C. Appleby, "War, Politics, and Colonization, 1558-1625," in *The Oxford History of the British Empire*, vol. 1, *The Origins of Empire: British Overseas Enterprise to the Close of the Seventeenth Century*, ed. Nicholas Canny (Oxford and New York: Oxford University Press, 1998), 63; Andrew Hadfield, *Literature, Travel, and Colonial Writing in the English Renaissance, 1545-1625* (Oxford: Oxford University Press, 1998), 97, 99n66; Peter E. Pope, *The Many Landfalls of John Cabot* (Toronto: University of Toronto Press, 1997), 166; Philip Edwards, "Edward Hayes explains away Sir Humphrey Gilbert," *Renaissance Studies* 6 (September 1992): 271.

Gilbert's expedition as a way to elucidate the research and other labors behind England's earliest colonizing voyages.

Despite the profusion of recent scholarship on English colonization, the British Empire, and the Atlantic world in general, the investigatory foundations for colonizing voyages and the preliminary actions undergirding them remain rather unclear. When Gilbert embarked for North America in 1583, he had been interested in colonization and exploration for at least two decades, and his Norumbega project was more than three years in the making. During that period, he procured the services of some of Elizabethan England's most skilled practitioners, who completed various tasks that suited their areas of expertise, which ranged from cartography and practical navigation to linguistics and poetry. The specialists conducted substantial research on Gilbert's behalf to ensure that he had access to the most up-to-date information on North America and on the North Atlantic, two areas that remained unfamiliar to the majority of the English population until well into the seventeenth century.

Previous English transatlantic navigators such as Sir Francis Drake and Martin Frobisher had received advice from their own experts, some of whom Gilbert also sought out, but they required less specificity concerning the American landmass. Although Drake established a foothold on the Pacific coast at *Nova Albion* in 1579, neither he nor any other English voyager prior to Gilbert intended to permanently settle in North America.⁴ In fact, English explorers generally viewed the continent as a mere obstacle preventing them from reaching the wealth of China, Indonesia, and Japan. In designating

⁴ In 1578, Frobisher planned to establish a mining settlement, most probably in modern-day Nunavut, Canada. Like the European fish drying grounds on Newfoundland's eastern coast, it was not to be a self-sustaining colony.

Norumbega as his terminus, Gilbert faced a set of challenges that had not concerned his predecessors. If Gilbert's coterie wanted their colony to prosper, they needed to accumulate data about the region's climate, commodities, geography, and inhabitants. With this in mind, Gilbert and his specialists conducted interviews with the few Englishmen who had spent time in North America, and they began reading manuscripts and printed texts relating to North America, transatlantic navigation, and similar topics.

The research conducted by Gilbert's circle served as the basis for their promotional literature, because unlike the majority of French and Spanish colonizing voyages, they did not receive Crown subsidization.⁵ Since the late 1550s, Gilbert had been a favorite of Queen Elizabeth I, as he served the young Princess for a time after being introduced to her by his great aunt Katherine (Kat) Ashley, then a governess to Elizabeth.⁶ In 1583, however, Elizabeth was just five years removed from one of the great financial disasters of her reign: Frobisher's final voyage to North America. The explorer had acquired nothing but fool's gold with the queen's £4,000 investment, so she was unwilling to fund further overseas ventures. Gilbert needed to find new ways to subsidize his expensive project and to entice mariners to undertake a risky voyage to an

⁵ On the benefits that the English system presented for both colonizers and the Crown, see Elizabeth Mancke, "Chartered Enterprises and the Evolution of the British Atlantic World," in *The Creation of the British Atlantic World*, ed. Elizabeth Mancke and Carole Shammas (Baltimore: The Johns Hopkins University Press, 2005), 238-40.

⁶ Raphael Holinshed and John Hooker, *The Second volume of Chronicles: Conteyning the description, conquest, inhabitation, and troblesome estate of Ireland; first collected by Raphaell Holinshed; and now newlie recognised, augmented, and continued from the death of king Henrie the eight vntill this present time of sir Iohn Perot knight, lord deputie: as appeareth by the supplie beginning in pag. 109, &c. By Iohn Hooker alias Vowell gent. Wherevnto is annexed the description and historie of Scotland first published by the said R.H. and now newlie reuised, enlarged, and continued to this present year; as appeareth in pag. 405: &c. By F.T. With two tables seruing both countries added in the end of this volume*, bk. 2 (London?: Henry Denham?, 1586), 132.

unknown land that may or may not contain anything of value to Europeans. Much of his recruitment was probably done in person or by word of mouth, but the majority of the known promotional texts that he used to attract investors and subscribers remain extant as well. Gilbert's texts introduced English readers to Norumbega for the first time, and they made it possible for him to depart for North America with a fairly well provisioned fleet comprising five vessels and approximately 260 men.

In addition to overcoming the practical difficulties of colonization, Gilbert also confronted the task of settling a remote and largely unknown territory. He broke new ground by choosing a destination ignored by other English expansionists, since the vast majority of English exploration up to 1580 had been eastward. Aside from voyages to the Grand Banks fishery and piratical activities concentrated in the Caribbean, only a few minor private expeditions had sailed in search of the Northwest Passage. The area between Newfoundland and Florida remained wholly uncharted by Englishmen, but members of Gilbert's expedition overcame this deficiency through research and reconnaissance.

A diverse group of Englishmen and foreigners completed tasks to help Gilbert amass data on the region; the famed geographer Richard Hakluyt, the noted Welsh polymath Dr. John Dee, the Latin poet Stephen Parmenius, "the ideal courtier" Sir Philip Sidney, and dozens of other individuals contributed money, texts, and maps for the voyage. By pooling their resources, Gilbert's supporters accumulated sufficient intelligence on where Norumbega was located, who would be there, and what commodities they could expect to find in the area. Examining their research illuminates the exchange of ideas that took place among colonizing groups and in other educated

Elizabethan circles. Though only a handful of Englishmen had been to Norumbega, including the ten men that Gilbert sent there to reconnoiter in 1580, his crewmembers were not blindly sailing into the unknown. Gilbert and his associates knew how they would reach Norumbega, and they constructed a relatively clear picture of the land that they intended to settle.

Expounding Gilbert's copious preparations casts doubt upon previous accounts of his voyage, and my study revises the present perception of early English colonization. As Ken MacMillan, one of the leading scholars in early modern English and Atlantic history, has recently opined: "modern historians characterize English activities in America before about 1675 as mundane, commercial ventures that were extremely fragile and always in jeopardy of failure."⁷ MacMillan disagrees with this assessment, and though we are in the minority of this largely one-sided historiographical debate, I similarly hope that my dissertation portrays Elizabethan voyages as the complex, well prepared expeditions that they truly were.

The Current State of Scholarship on Gilbert's 1583 Expedition

The excerpt from Thomas Churchyard's poem that opens this introduction references Gilbert's first voyage in 1578, but it exemplifies the current state of scholarship pertaining to both of his expeditions. Historians continue to misinterpret Gilbert's intended destination in 1583, making it appear as though "no man knowes"

⁷ Ken MacMillan, "Centers and Peripheries in English Maps of America," in *Early American Cartographies*, ed. Martin Brückner (Chapel Hill: University of North Carolina Press for Omohundro Institute of Early American History and Culture, 2011), 68.

where he was headed that year. The large number of authors who have wrongfully listed Newfoundland as his projected endpoint and have misconstrued other aspects of his voyage make it clear that a new study is needed to more accurately portray Gilbert's endeavor.⁸ Newfoundland was indeed the expedition's final landfall in North America,

⁸ Several excellent works nonetheless err on Gilbert's destination. These include Eric Hinderaker and Peter C. Mancall, *At the Edge of Empire: The Backcountry in British North America* (Baltimore: Johns Hopkins University Press, 2003), 19; Peter C. Mancall, *Fatal Journey: The Final Expedition of Henry Hudson: A Tale of Mutiny and Murder in the Arctic* (New York: Basic Books, 2009), 4, 29, 32, 143; Douglas R. Egerton et al., eds., *The Atlantic World: A History, 1400-1888* (Wheeling, IL: Harlan Davidson, 2007), 140; Peter Linebaugh and Marcus Rediker, *The Many-Headed Hydra: Sailors, Slaves, Commoners, and the Hidden History of the Revolutionary Atlantic* (Boston: Beacon Press, 2000), 56; Mark Netzloff, *England's Internal Colonies: Class, Capital, and the Literature of Early Modern English Colonialism* (New York: Palgrave Macmillan, 2003), 98; Elizabeth Mancke, "Negotiating an Empire: Britain and Its Overseas Peripheries, c. 1550-1780," in *Negotiated Empires: Centers and Peripheries in the Americas, 1500-1820*, ed. Christine Daniels and Michael V. Kennedy (New York and London: Routledge, 2002), 239; Bruce P. Lenman, *England's Colonial Wars 1550-1688: Conflicts, Empire and National Identity* (Harlow, UK: Pearson Education, 2001), 89; T.O. Lloyd, *The British Empire 1558-1995*, 2nd ed. (New York: Oxford University Press, 1996), 15; K.G. Davies, *The North Atlantic World in the Seventeenth Century* (Minneapolis: University of Minnesota Press, 1974), 8; Ivor Noël Hume, *The Virginia Adventure, Roanoke to James Towne: An Archeological and Historical Odyssey* (New York: Alfred A. Knopf, 1994), 20; Hadfield, *Literature and Colonial Writing*, 97, 99n66. Accurate but brief assessments of Gilbert's voyage and his destination in particular include Margaret F. Pickett and Dwayne W. Pickett, *The European Struggle to Settle North America: Colonizing Attempts by England, France and Spain, 1521-1608* (Jefferson, NC: McFarland, 2011), 100; Kim Sloan et al., *A New World: England's first view of America* (Chapel Hill: University of North Carolina Press, 2007), 19-21; Michael G. Moran, *Inventing Virginia: Sir Walter Raleigh and the Rhetoric of Colonization, 1584-1590* (New York: Peter Lang, 2007), 39; David B. Quinn, *Set Fair for Roanoke: Voyages and Colonies, 1584-1606* (Chapel Hill and London: for America's Four Hundredth Anniversary Committee by the University of North Carolina Press, 1985), 7; Carole Shammas, "English commercial development and American colonization, 1560-1620," in *The Westward Enterprise: English Activities in Ireland, the Atlantic, and America, 1480-1650*, ed. K.R. Andrews, N.P. Canny, and P.E.H. Hair (Liverpool: Liverpool University Press, 1978), 155-56; Gavin R. Hollis, "The Absence of America on the Early Modern Stage" (PhD diss., University of Michigan, 2008), 8; Elizabeth Heale, "Travailing abroad: the poet as adventurer," in *Travels and Translations in the Sixteenth Century: Selected Papers from the Second International Conference of the Tudor Symposium (2000)*, ed. Mike Pincombe (Aldershot, UK: Ashgate, 2004), 10; Stephanie Abbot Roper, "Paper Conquests: Early

but confusing the island for Gilbert's true destination to the southwest presents readers with an erroneous treatment of the voyage and its objectives. For Gilbert, Newfoundland represented little more than a reprovisioning station, but the explorer and the island have become inextricably linked. Historians of English colonization would not accept Puerto Rico as the destination of the 1585 Roanoke and 1607 Jamestown voyages, which both reconvened and took on provisions at the island on their way to mainland North America, but confusion over Gilbert's expedition has persisted for decades.

Moreover, in-depth scholarship on the expedition remains scant, even though failed English colonies like Roanoke and unprofitable English expeditions like the Frobisher voyages have commanded numerous books and articles within the past fifteen years.⁹ A few authors have investigated the so-called "Minor Voyages" of the Spanish Atlantic World, but similar expeditions in the English Atlantic remain comparatively understudied.¹⁰ Historians of English colonization regularly omit extended discussions of Gilbert's expedition in part because no colony was established as a direct result of his efforts, but his preparations are sufficiently documented to allow for analyses of his voyage and of the intended makeup of his colony.

Modern English Mapping of North America as Promotional Tools" (PhD diss., University of Kansas, 1998), 163.

⁹ See, for example, James Horn, *A Kingdom Strange: The Brief and Tragic History of the Lost Colony of Roanoke* (New York: Basic Books, 2010); Michael Leroy Oberg, *The Head in Edward Nugent's Hand: Roanoke's Forgotten Indians* (Philadelphia: Pennsylvania University Press, 2008); Karen Ordahl Kupperman, *Roanoke: The Abandoned Colony*, 2nd ed. (Lanham, Md.: Rowman & Littlefield, 2007); James McDermott, ed., *The Third Voyage of Martin Frobisher to Baffin Island 1578* (London: Hakluyt Society, 2001); Thomas H.B. Symons, Stephen Alsford, and Chris Kitzen, eds., *Meta Incognita: A Discourse of Discovery, Martin Frobisher's Arctic Expeditions, 1576-1578*, 2 vols. (Ottawa: Canadian Museum of Civilization, 1999).

¹⁰ See, for instance, Louis André Vigneras, *The Discovery of South America and the Andalusian Voyages* (Studies in the History of Discoveries) (Chicago and London: University of Chicago Press for Newberry Library, 1976), 23-137.

In addition to the inaccuracies that have crept into some accounts of Gilbert's voyage, recent articles and chapters relating to his colonizing ventures look at his final expedition tangentially or through a very broad lens.¹¹ All but a few of the sustained studies of Gilbert's expedition and of his role in English colonization predate World War II. With titles like *Sir Humphrey Gilbert: Elizabeth's Racketeer*, these books predominantly focus on his brutality in Ireland, and they lack any thorough discussion of the preparations for his final voyage.¹² Such dated works retain some value in recounting Gilbert's life, but the authors all but ignore the background to and ramifications of the 1583 voyage.¹³

¹¹ Rory Rapple, whose M.Phil. thesis focused on Gilbert, intends to publish a biography of the explorer that will emphasize his political ideas and other neglected aspects of his life. See Rapple, "The political thought of Sir Humphrey Gilbert," (MPhil thesis, Cambridge University, 1998).

¹² Donald Barr Chidsey, *Sir Humphrey Gilbert: Elizabeth's Racketeer* (New York: Harper & Brothers, 1932); William Gilbert Gosling, *The Life of Sir Humphrey Gilbert: England's First Empire Builder* (London: Constable, 1911).

¹³ The most recent works of some relevance to Gilbert include Ken MacMillan, "Exploration, Trade and Empire," in *The Elizabethan World*, ed. Susan Doran and Norman Jones (London and New York: Routledge, 2011), 652-57; Timothy Sweet, "Economy, Ecology, and *Utopia* in Early Colonial Promotional Literature," *American Literature* 71 (1999): 399-427; Peter T. Bradley, *British Maritime Enterprise in the New World: From the Late Fifteenth to the Mid-Eighteenth Century* (Studies in British History, Volume 57) (Lewiston, NY: The Edwin Mellen Press, 1999), 262-68; Claire Sponsler, "Medieval America: Drama and Community in the English Colonies, 1580-1620," *Journal of Medieval and Early Modern Studies* 28 (Spring 1998): 453-78; Edwards, "Hayes explains Gilbert," 270-86; Kenneth R. Andrews, *Trade, Plunder, and Settlement: Maritime Enterprise and the Genesis of the British Empire, 1480-1630* (Cambridge: Cambridge University Press, 1984), 183-99; David B. Quinn, Alison M. Quinn, and Susan Hillier, eds., *New American World: A Documentary History of North America to 1612*, vol. 3, *English Plans for North America. The Roanoke Voyages. New England Ventures* (New York: Arno Press, 1979), 215-64; British Archives, *What Strange New Radiance: Sir Humphrey Gilbert and the New World Expedition, Brochure, and Catalogue* (Ottawa: Public Archives, Canada, 1979); David B. Quinn and Neil M. Cheshire, ed. and trans., *The New Found Land of Stephen Parmenius: The life and writings of a Hungarian poet, drowned on a voyage from Newfoundland, 1583* (Toronto: Toronto University Press, 1972); Douglas R. McManis, *European Impressions of the*

The eminent Atlanticist David B. Quinn did more to elucidate Gilbert's colonization projects than any scholar. His two-volume compilation of primary source material relating to Gilbert's voyages reproduced many important tracts from the 1583 expedition, but a thorough examination of the voyage was beyond the scope of the editor.¹⁴ Despite the absence of such an analysis, Quinn made his view of the expedition clear at the outset of his collection by stating that it "would have been surprising if Gilbert's plans had succeeded."¹⁵ Quinn continued this line of thinking in *The New Found Land of Stephen Parmenius*, a collection that he edited and translated with Neil M. Cheshire. They transcribed and annotated new archival sources relative to the expedition, and Gilbert's preparations were briefly covered.¹⁶ In his final work on Gilbert, Quinn reiterated his earlier claims that Gilbert's expeditions were more "important in the development of English concern with North America...than for their positive achievements, which were minimal."¹⁷ Gilbert's voyages certainly played a vital role in fostering further interest in colonization, but my dissertation challenges Quinn's contention that the expedition had no real accomplishments. The material return of the voyage was negligible, because Gilbert's findings and specimens were lost in shipwrecks. His innovations in nautical science, cartography, and promotional literature were significant, however, and examining them provides insight into the research and other developments leading up to his voyage and similar English colonizing expeditions.

New England Coast, 1497-1620 (Chicago: University of Chicago Press, 1972), 37-39, 49-67.

¹⁴ David B. Quinn, ed., *The Voyages and Colonising Enterprises of Sir Humphrey Gilbert*, 2 vols. (London: Hakluyt Society, 1940). Quinn's appraisal of the 1583 expedition is in the first volume, pages 49-100.

¹⁵ Quinn, ed., *Voyages of Gilbert*, vol. 1, vii.

¹⁶ See Quinn and Cheshire, ed. and trans., *New Found Land*.

¹⁷ Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 181.

Several authors who have more recently examined English expansion writ large give Gilbert only cursory attention and have essentially relegated him to a footnote in the history of Europe's colonization of the Americas. When he is discussed, historians tend to utilize him as an archetype of foolhardiness and brutality rather than as an innovator. It is telling that many scholars cite Gilbert's decapitation of Irish rebels during the 1560s as the embodiment of his colonizing agenda, and they sometimes link this time-worn example to his probable treatment of Native Americans.¹⁸ In this narrative, Gilbert is "a swaggering West Country man...who became interested in overseas colonization through his brutal military campaigns against the inhabitants of southern Ireland."¹⁹ Nothing in the manuscripts or printed works of Gilbert's circle gives the impression that they

¹⁸ Among the excellent writers who nevertheless make this connection are Rory Rapple, *Marital Power and Elizabethan Political Culture: Military Men in England and Ireland, 1558-1594* (Cambridge: Cambridge University Press, 2009), 119, 201; Peter C. Mancall, *Hakluyt's Promise: An Elizabethan's Obsession for an English America* (New Haven, CT, and London: Yale University Press, 2007), 63; Karen Ordahl Kupperman, *Indians and English: Facing Off in Early America* (Ithaca, NY: Cornell University Press, 2000), 232; Michael Leroy Oberg, *Dominion and Civility: English Imperialism and Native America, 1585-1685* (Ithaca, NY: Cornell University Press, 1999), 24; Nicholas P. Canny, "The Ideology of English Colonization: From Ireland to America," in *Theories of Empire, 1450-1800*, ed. David Armitage (Aldershot, UK, and Brookfield, VT: Ashgate, 1998), 183; Karl S. Bottigheimer, "Kingdom and Colony: Ireland in the Westward Enterprise, 1536-1660," in *Westward Enterprise*, ed. Andrews, Canny, and Hair, 51-52; David B. Quinn, *The Elizabethans and the Irish* (Ithaca, NY: Cornell University Press for the Folger Shakespeare Library, 1966), 127-28; Hinderaker and Mancall, *Edge of Empire*, 1-8; Egerton et al., eds., *Atlantic World*, 127; Lenman, *Colonial Wars*, 64; Sloan et al., *A New World*, 153; on linking the Irish to Native Americans, see Jane H. Ohlmeyer "'Civilizing of those Rude Parties': Colonization within Britain and Ireland, 1580s-1640s," in *Oxford History of British Empire*, vol. 1, 146; Alison Games does not believe that the Elizabethans planned to use the Irish model in North America. See Games, *The Web of Empire: English Cosmopolitans in an Age of Expansion, 1560-1660* (New York: Oxford University Press, 2008), 123-24.

¹⁹ Stephen J. Hornsby, *British Atlantic, American Frontier: Spaces of Power in Early Modern British America* (Lebanon, NH: University Press of New England, 2005), 19; similarly, Anthony McFarlane writes of Gilbert's 1583 project that "his Irish experience suggested that 'barbarian' natives could simply be pushed aside. See McFarlane, *The British in the Americas, 1480-1815* (New York: Longman, 1994), 28.

intended to abuse Native Americans. On the contrary, Gilbert's 1582 instructions for the colony make it clear that he planned to trade with the groups whom he encountered. He even drew up plans to record various indigenous languages and to examine their agricultural practices.²⁰ These instructions offer precise details about the proposed colony, and yet they also have been attributed to "an abortive" voyage that "never materialized" or "that never took place."²¹ Gilbert was, in fact, obliged to depart a year later than he had expected, but he still resolved to implement his earlier plans.

Other authors have proven the misguidedness of Gilbert's colonization endeavors by citing his famous death, when he used his last words to quote a passage from Thomas More's *Utopia*.²² For me, this example is more emblematic of Gilbert's humanist background, which gave him a different perspective of overseas colonization than his English forerunners. Gilbert was educated at Eton and Oxford, and he wrote a few discourses on how to reform Ireland that used Machiavellian terminology.²³ After he

²⁰ London, British Library (hereafter BL), Additional (hereafter Add.) MS 38823, ff. 1r-v, 5v.

²¹ See Stephanie Pratt, "Truth and Artifice in the Visualization of Native Peoples: From the time of John White to the Beginning of the 18th Century," in *European Visions: American Voices* (British Museum Research Publication Number 172), ed. Kim Sloan (London: British Museum Press, 2009), 39n4; Karen Ordahl Kupperman, *The Jamestown Project* (Cambridge, MA, and London: Belknap Press for Harvard University Press, 2007), 114-16; Michael G. Moran, "Renaissance Surveying Techniques and the 1590 Hariot-White-de Bry Map of Virginia," in *Three Keys to the Past: The History of Technical Communication* (volume 7 in ATTW Contemporary Studies in Technical Communication), ed. Teresa C. Kynell and Michael G. Moran (Stamford, CT: Ablex, 1999), 155.

²² Gilbert's final words were "we are as near to heaven by sea as by land"; a detailed account of Gilbert's death is David Armitage, "Literature and Empire," in *Oxford History of British Empire*, vol. 1, 107-8.

²³ See, for example, BL, Lansdowne (hereafter Lans.) MS 98, ff. 1r-7v; BL, Add. MS 48017, ff. 118r-125v; BL, Add. MS 48015, ff. 397r-407v. In chapter three of his *Principe*, Machiavelli mentioned the need to send out colonies. Gilbert had clearly read some of his works, as he argued that it was better for the Irish to fear the English than to

returned from Ireland, Gilbert helped organize a reading group that debated the merits of classical texts. The participants included the humanist political theorist Sir Thomas Smith, Smith's son of the same name, Smith's nephew John Wood, civil lawyer and Latinist Dr. Walter Haddon, and emerging writer Gabriel Harvey.²⁴ At a 1570 gathering, the men debated Livy's *History of Rome*. Gilbert and Thomas Smith Jr. favored the military tactics of the aggressive and ruthless Roman consul Marcellus, but they ultimately yielded to the elder Smith and Haddon, who supported the more cautious, delaying tactics of Roman General Fabius Maximus.²⁵ Gilbert was also "the very friend"

love them; on Gilbert's education, see Holinshed and Hooker, *Second volume of Chronicles*, bk. 2, 132.

²⁴ Harvey also studied with one of Gilbert's primary investors, Philip Sidney, and the primary promoter of the 1583 voyage, Richard Hakluyt. Harvey's brother John commented that as early as 1580 Gabriel and "the Oxforde Preacher" (Hakluyt) had been companions. See John Harvey, *An Astrological Addition, or Supplement to be annexed to the late Discourse vpon the great Coniunction of Saturne, and Iupiter. Wherin are particularly declared certaine especiall points before omitted, as well touching the eleuation of one Planet aboue another, with theyr seuerall significations: as touching Oeconomical and houshold prouision: with some other Iucicials, no less profitable, Made and written this last March, by Iohn Haruey, Student in Phisicke, Whereunto is adioyned his translation of the learned worke, of Hermes Trismegistus, intituled, Iastromathematica: a booke of especiall great vse for all studentes in astrologie, and phisicke* (London: Richard Watkins, 1583), A7r; Matthew Day, "Hakluyt, Harvey, Nashe: The Material Text and Early Modern Nationalism," *Studies in Philology* 104 (Summer 2007): 284; Lisa Jardine and Anthony Grafton, "'Studied for Action,': How Gabriel Harvey Read His Livy," *Past and Present* no. 129 (November 1990): 36.

²⁵ The account of this debate was handwritten by Harvey in his copy of *T. Livii Patavini, Romanae historiae principis, decades tres, cum dimidia* (Basel, 1555). See Jardine and Grafton, "'Studied for Action,'" 36, 40-42; Rapple, *Marital Power*, 82; Netzloff, *England's Internal Colonies*, 5. Their debate certainly related to Ireland, as England was in the midst of trying to colonize there, and the Livy text concerned Roman colonization and other expansion. Gilbert and both Smiths played a large role in fighting the Irish. Marcellus, the so-called "Sword of Rome," and Fabius Maximus, the "Shield of Rome," were ideal candidates to juxtapose. The former single-handedly killed the Galic King Viridomarus by spear, while the latter subdued Hannibal during the Second Punic War with his war of attrition. The debates had probably been taking place since 1567, when Gilbert recounted his dreams. Harvey acquired Gilbert's manuscript, probably from the elder Smith, and he looked it over with Wood. See BL, Add. MS 36674, ff. 58r-62v;

of Dr. Thomas Wilson, who wrote the most widely printed Ciceronian rhetoric of the day, and was associated with several of Elizabethan England's most prominent humanists.²⁶ Recent scholarship has focused on the educated circles of Raleigh and Sidney, who were both involved with the 1583 expedition, and Gilbert similarly surrounded himself with likeminded humanists.²⁷ His circle of experts deserves attention, as they pooled their knowledge to promote and to execute the expedition. Scholars tend to view Gilbert as the epitome of English ignorance and arrogance in the colonial milieu of the late sixteenth century, but the opposite seems closer to reality. Gilbert and his network knew much more about the Americas than their predecessors, which helped them form accurate, though overly optimistic depictions of the land that they aimed to settle.

Although the majority of the attention paid to Gilbert has been nominal and/or negative, within the past several decades a few authors have provided lucid accounts of Gilbert in articles, even if none have focused on his last voyage. Andrew Fitzmaurice recently clarified Gilbert's humanist ideals, while Rory Rapple examined his educational and political pursuits.²⁸ Perhaps the closest work to my own is Mary Fuller's chapter on Gilbert in her book, *Voyages in Print*. She looks at the rhetoric of a select number of

Washington, D.C., Library of Congress, Manuscript Division (hereafter LOC), David B. Quinn Papers (hereafter DBQ), Box 77, Folder 3.

²⁶ BL, Lans. MS 144, f. 384r; see Thomas Wilson, *The Arte of Rhetorique, for the vse of all suche as are studious of Eloquence, sette forth in English by Thomas Wilson* (London: Richard Grafton, 1553).

²⁷ Matthew Woodcock, *Sir Philip Sidney and the Sidney Circle* (Tavistock, UK: Northcote House Publishers, 2010); H. R. Woudhuysen, *Sir Philip Sidney and the Circulation of Manuscripts: 1558-1640* (Oxford: Oxford University Press, 1996); Shannon Miller, *Invested with Meaning: The Raleigh Circle in the New World* (Philadelphia: University of Pennsylvania Press, 1998); Moran, *Inventing Virginia*.

²⁸ See Andrew Fitzmaurice, *Humanism and America: An Intellectual History of English Colonisation, 1500-1625* (Cambridge: Cambridge University Press, 2003), 39-50; Rapple, *Marital Power*.

promotional works from both his 1578 and 1583 voyages in order to highlight their advertising effectiveness.²⁹ Unlike Fuller's work, similar studies tend to focus on the execution of early modern expeditions rather than looking at their preparatory stages.³⁰ No study has yet taken a comprehensive look at the preparations for Gilbert's final expedition, but such an investigation reveals the great efforts and knowledge required of early modern colonizers and explorers.

Theories, Frameworks, and Sources

In 1972, French Historian Fernand Braudel categorized the years from 1578 to 1583 as "the turning point of the [sixteenth] century," because this period witnessed a lasting shift in Europe's hydrographic center from the Mediterranean Sea to the Atlantic Ocean.³¹ Gilbert's two voyages coincided with this reorientation, and the swift rise of Atlantic studies since Braudel's time has prompted scholars across several disciplines to experiment with using the Atlantic basin as a paradigm of inquiry.³² For Karen Ordahl Kupperman, the Atlantic model is particularly advantageous because it "allows us to see that many...supposed dead ends [like Gilbert's voyage] actually were essential to the

²⁹ Mary C. Fuller, *Voyages in Print: English travel to America, 1576-1624* (Cambridge: Cambridge University Press, 1995), esp. 16-30.

³⁰ There have been a few studies of the preparations for Frobisher voyages, which were much better documented than Gilbert's expeditions. See Symons, Alsford and Kitzen, eds., *Meta Incognita*, 2 vols.; James McDermott, "The account books of Michael Lok, relating to the north-west voyages of Martin Frobisher, 1576-1578: text and analysis," (MPhil thesis, University of Hull, 1984).

³¹ Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, trans. Siân Reynolds, vol. 2 (London: Collins, 1972), 1176-77.

³² On the history of Atlantic Studies, see Bernard Bailyn, *Atlantic History: Concept and Contours* (Cambridge, MA: Harvard University Press, 2005), 3-56.

evolution of relationships.”³³ One of the most prominent Atlanticists at present, David Armitage, recently put forward “a threefold typology of Atlantic history.” My dissertation employs the cis-Atlantic methodology that he coined and which examines “the history of any particular place – a nation, a state, a region, even a specific institution – in relation to the wider Atlantic world.”³⁴ My micro-historical examination of Gilbert’s expedition sheds light on the complexities of his voyage in order to draw broader conclusions at the macro-historical level about processes in the early modern Atlantic.³⁵ I incorporate far flung localities like the Canary Islands, Florida, and Newfoundland to demonstrate that even at this early stage in English colonization, Gilbert and his coterie knew much about the Atlantic system and how it functioned.

Alison Games’s pioneering text *The Web of Empire* offered ways of studying lesser-known English travelers like Patrick Copland and minor English colonies like Madagascar to draw noteworthy conclusions, as she proved that the cosmopolitanism and decentralization of England’s early empire helped it prosper.³⁶ I build upon her work by showing that many of Gilbert’s innovations would have been unnecessary had he received Crown funding, and I extend my investigation backwards to include the

³³ Karen Ordahl Kupperman, *The Atlantic in World History* (New York: Oxford University Press, 2012), 2.

³⁴ David Armitage, “Three Concepts of Atlantic History,” in *The British Atlantic World, 1500-1800*, ed. David Armitage and Michael J. Braddick, 2nd ed. (Houndmills, UK: Palgrave Macmillan, 2009), 15-25; see also Anthony Pagden, *Lords of all the World: Ideologies of Empire in Spain, Britain and France c. 1500-c. 1800* (New Haven, CT, and London: Yale University Press, 1995), 63-102; Canny, “Ideology of Colonization,” 179-202; Bernard Bailyn, introduction to *Soundings in Atlantic History: Latent Structures and Intellectual Currents, 1500-1830*, ed. Bernard Bailyn and Patricia L. Denault (Cambridge, MA, and London: Harvard University Press, 2009), 2-8.

³⁵ See Toyin Falola and Kevin D. Roberts, introduction to *The Atlantic World, 1450-2000*, ed. Toyin Falola and Kevin D. Roberts (Bloomington, IN: Indiana University Press, 2008), xiii-xiv.

³⁶ Games, *Web of Empire*, 6-15.

preparatory stages of his oft ignored voyage. Much like Games, who suggests that a global perspective is best for understanding the interconnectedness of England's empire, for my project it made sense to draw a geographical demarcation line at the equator rather than at a prime meridian. Gilbert's interests first concerned the Northwest Passage and later centered on colonization in North America. Framing my work around the North Atlantic world or utilizing what Jack P. Greene calls "a broad *hemispheric perspective*," two fairly recent historiographical currents, is more precise than employing an Atlantic world or global perspective. These approaches are more appropriate for my study.³⁷

Despite the rapid growth of Atlantic studies, the sea itself remains conspicuously hidden, which has led two of the foremost scholars in the field, Greene and Philip D. Morgan, to call for "historical studies of all things maritime."³⁸ Alison Games's comments that "the Atlantic history that many historians produce is rarely centered around the ocean, and the ocean is rarely relevant to the project" identify significant shortcomings of the current trajectory of Atlantic world scholarship. N.A.M. Rodger also is right to suggest that "too often, 'Atlantic history' is history with a hole in the middle."³⁹ Following the lead of these historians, I put the Atlantic back in Atlantic

³⁷ Jack P. Greene, "Hemispheric History and Atlantic History," in *Atlantic History: A Critical Appraisal*, ed. Jack P. Greene and Philip D. Morgan (New York: Oxford University Press, 2009), 301; John R. Chávez, *Beyond Nations: Evolving Homelands in the North Atlantic World, 1400-2000* (Cambridge: Cambridge University Press, 2009), xiii-xiv, 1-3.

³⁸ Philip D. Morgan and Jack P. Greene, introduction to *Atlantic History*, ed. Greene and Morgan, 12.

³⁹ Alison Games, "Atlantic History: Definitions, Challenges, and Opportunities," *American Historical Review* 111 (2006): 745; N.A.M. Rodger, "Atlantic Seafaring," in *The Oxford Handbook of the Atlantic World, c. 1450 - c. 1850*, ed. Nicholas Canny and Philip Morgan (New York: Oxford University Press, 2011), 71; an ecological history of the Northwest Atlantic is W. Jeffrey Bolster, "Putting the Ocean in Atlantic History: Maritime Communities and Marine Ecology in the Northwest Atlantic, 1500-1800,"

history, and this is accomplished by defining the challenges of transatlantic travel in the early modern era. The ocean was central to Gilbert's project, and his supporters researched Atlantic winds and currents to determine the best route to Norumbega. Gilbert's coterie helped transform the Atlantic from a barrier into a conduit for trade and colonization.⁴⁰

In addition to utilizing Atlantic world methodologies for my project as a whole, each individual chapter is based upon the theoretical work of other scholars. Atlantic history is inherently interdisciplinary due its emphasis on transnationalism and cross-cultural encounters, and I draw from the research of geographers and literary scholars, among others. The critical cartography theories pioneered by the late J.B. Harley and recently expounded by his adherents were formative for my chapter on maps and sea charts.⁴¹ For Gilbert, maps and the process of mapping denoted power, and his supporters depicted Norumbega in ways that reinforced Gilbert's objectives. Thorough examinations of Gilbert's maps yield important knowledge about his expedition and about early modern cartography and colonization in general.

American Historical Review 113 (February 2008): 19-47; see also Joyce E. Chaplin, "The Atlantic Ocean and Its Contemporary Meanings, 1492-1808," in *Atlantic History*, ed. Greene and Morgan, 35-51; Thomas Benjamin, *The Atlantic World: Europeans, Africans, Indians, and Their Shared History, 1400-1900* (New York: Cambridge University Press, 2009), 67-75; William H. McNeill, "Transatlantic History in World Perspective," in *Transatlantic History*, ed. Steven G. Reinhardt and Dennis Reinhartz (College Station, TX: Texas A&M University Press for the University of Texas at Arlington, 2006), 3-18; John K. Thornton, *A Cultural History of the Atlantic World, 1250-1820* (Cambridge: Cambridge University Press, 2012), 7-15.

⁴⁰ See M.J. Seymour, *The Transformation of the North Atlantic World, 1492-1763, An Introduction* (Westport, CT, and London: Praeger, 2004), 2.

⁴¹ See, for instance, J.B. Harley, "Maps, knowledge, and power," in *The Iconography of Landscape: Essays on the symbolic representation, design and use of past environments*, ed. Denis Cosgrove and Stephen Daniels (Cambridge: Cambridge University Press, 1988), 277-312.

New historicism blossomed alongside Atlantic studies, and this school of thought is useful for analyzing Gilbert's promotional literature in relation to the history of Elizabethan colonization, which helps us better understand early modern voyaging. Melding literary and historical studies in a work on the early modern period is productive, especially since Gilbert and several members of his circle were well educated humanists and authors themselves. An exegetical examination of each text coupled with a review of the historical context under which they were written allows for a fuller understanding of their place in the voyage. Writing and mapping served as tools of colonization for Gilbert's circle and promoted English dominance in North America.

Establishing trade relations with Native Americans was among Gilbert's chief objectives for ensuring the prosperity of his colony, so he collected some information on the indigenous population of the Americas. While my study incorporates aspects of ethnohistory, it is inescapably Anglocentric. My main concern is comparing Gilbert's depiction of Norumbega's Native Americans (Narragansett and Wampanoag) to the sources that he had available. Many European writers of the day disapproved of non-Christians, and Gilbert's sources indicated that he would find both willing trade partners and dangerous cannibals when he arrived in North America. Gilbert's circle did not feel that their colony would infringe upon American territorial rights, because they adhered to the Renaissance notion that non-Christians could only occupy though not truly possess land.⁴² Native Americans on the Atlantic coast of North America were certainly active participants in the early modern Atlantic world, but Gilbert never got the chance to meet

⁴² Kupperman, *Atlantic in World History*, 15.

any. Yet examining his research still provides a sense of how England's first colonizers viewed Native Americans and molded characterizations of them that fit imperialist aims.

My dissertation is hardly an attempt to lionize Gilbert, to amend his image, or to cast his expedition as exceptional among early modern voyages. Rather, I am interested in divulging the mechanics of England's first colonizing expedition to shed light on the research and other preparations conducted by Gilbert's circle. Fortunately, enough of Gilbert's plans remain extant in scattered manuscript collections and in printed texts to paint a reasonably clear picture of his actions and those of his supporters between 1580 and 1583. Quinn reproduced many of these documents in books that he published in 1940 and 1979, but he had the habit of transcribing and reprinting only the excerpts of manuscripts and texts that he deemed pertinent.⁴³ As a result, the historical context and overall intent of each document sometimes remained concealed. When possible, I have gone back to the original sources to correct transcription errors that have appeared over time and to obtain a more comprehensive understanding of each manuscript, its composition, and its purpose. In the process, I have discovered some relevant manuscripts and printed works that have not been reproduced, and I hope that these materials give my project originality and offer scholars areas for future investigation.

An attempt has been made to trace the development of the expedition in chronological order, but more often my organization is topical due to the fact that the varying preparatory tasks of Gilbert and his supporters regularly coincided with one another. I still hope that my four interconnected chapters display the progression of the voyage from its roots in 1580 to its culmination three years later. Where appropriate, I

⁴³ See Quinn, ed., *Voyages of Gilbert*, esp. vol. 2; Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, esp. 211-64.

draw elements from other Elizabethan voyages, including Gilbert's first expedition, which was even more sparsely documented than his final one. I generally use these examples to fill in details on matters for which sources from the 1583 voyage are lacking, or to indicate how Gilbert resembled and differed from his contemporaries. The primary differences between Gilbert's expedition and other Elizabethan voyages resulted from his lack of state sponsorship, but by the end of my paper I still hope that he and his supporters come across as being fairly unexceptional among early modern English expansionists.

Focus and Limits of Study with Chapter Synopses

Among the first steps in Gilbert's colonizing process was to establish his legal right to settle in North America. Without it, he would have difficulty convincing investors to risk their money for him and travelers to risk their lives for him. In the opening chapter of my dissertation, I examine the manuscripts that Gilbert used to prove that England's claim to North America was sound. Members of his circle took great lengths to confirm the validity of their claim to the land and of their right to utilize the North Atlantic. Their discussion primarily took place in manuscript so as to exclude foreigners and potential enemies from their debate. They had to determine where Spanish sovereignty ended in the Americas, and many of the manuscripts that they wrote have not been subject to scholarly scrutiny. Such an analysis shows that Gilbert and his associates read several sources to prove England's claim to North America.

Once Gilbert's claim was made, he set about researching the best location to plant his colony. He planned to acquire American commodities desired in Europe by trading English cloth to Native Americans, an exchange that would simultaneously provide England with a much needed vent for its most lucrative commodity and bring valuable American goods to English markets. Settling in temperate climates near a river's mouth adjoining Native American habitations would bring the colonists into contact with trade partners, and it would also protect them from seaborne attacks by rival Europeans. Gilbert needed crops for food and to trade, so they were prerequisites for his colony as well. He and his supporters ultimately determined that the Narragansett Bay, where Italian explorer Giovanni da Verrazano had landed in 1524, was the best site to colonize. All of their successive promotional literature, maps, and manuscripts focused on the Norumbega (Providence) River that fed the bay and which, Gilbert hoped, would support his colony.

English interest in westward expansion closely coincided with the rise of print culture during the sixteenth century, and Gilbert was among the first and most prolific of all English explorers and colonizers to use print in support of his voyages. In my second chapter, I address where his promotional information came from and whether it was effective by examining the six printed texts that Gilbert's circle wrote to advertise his expedition. Gilbert recruited a handful of skilled authors, whose expertise and literary output for the voyage varied widely. To write his first advertisement in 1580, Gilbert hired Italian linguist John Florio, who provided English readers with one of the earliest

accounts of North America.⁴⁴ In late 1581 or very early in 1582, Richard Hakluyt began collecting sources for Gilbert's second publication. Hakluyt's *Divers Voyages*, an assortment of translated foreign accounts regarding North America, was aimed at England's nobility and merchant class.⁴⁵ It was printed simultaneously with the work of Hungarian humanist Stephen Parmenius, who wrote a Latin embarkation poem in praise of Gilbert's voyage that he directed at Gilbert's humanist friends.⁴⁶ Christopher Carleill, a soldier turned sailor like Gilbert, wrote a well-crafted examination of the state of English overseas trade, which drew more investments for the voyage than any other piece.⁴⁷ Gilbert revised his interview of illiterate Essex sailor David Ingram into a promotion for the voyage as well, since Ingram had passed through Norumbega after being marooned in the Gulf of Mexico by John Hawkins in 1568. Gilbert's longtime

⁴⁴ Jacques Cartier, *A shorte and briefe narration of the two Nauigations and Discoueries to the Northweast partes called Newe Fravnce: First translated out of French into Italian, by that famous learned man Gio : Bapt : Ramutius, and now turned into English by Iohn Florio: Worthy the reading of all Venturers, Trauellers, and Discouerers* (London: H. Bynneman, 1580).

⁴⁵ Richard Hakluyt, *Divers voyages touching the discouerie of America, and the ilands adiacent vnto the same, made first of all by our Englishmen, and afterward by the Frenchmen and Britons: And certaine notes of aduertisements for obseruations, necessarie for such as shall heereafter make the like attempt, With two mappes annexed heereunto for the plainer vnderstanding of the whole matter* (London: Thomas Dawson, 1582).

⁴⁶ Stephen Parmenius, *De Navigatione Illvstris et Magnanimi Equitis Aurati Humfredi Gilberti ad deducendam in novum orbem coloniam suscepta, carmen επιβατικῶν* (London: Thomas Purfote, 1582).

⁴⁷ Christopher Carleill, *A breef and sommarie discourse vpon the entended Voyage to the hethermoste partes of America: Written by Captaine Carleill in April 1583. for the better inducement to satisfie suche Marchauntes of the Moscouian Companie and others, as in disburcyng their money towards the furniture of the present charge: doe demaunde forthwith a present returne of gaine: albeit their saied perticuler disbursements are required but in verie slender sommes: The highest beeyng twentie and fiue pounce. The seconde at twelue pound ten shillynges. And the lowest at sixe pound fiue shillings* (S.I: J. Kingston?, 1583).

associate George Peckham wrote a treatise to keep interest in the venture after Gilbert failed to reappear in England by late 1583.⁴⁸

These promotional texts ranged across several genres, and Gilbert's group was clearly casting a wide net to capture as many potential sources of funds as possible. No previous English explorer had utilized such diverse works to gain interest in his pursuits, making it clear that Gilbert's humanist circle believed in the power of print. They needed to revise the undercurrent of English conceptions about the Americas, since the wonders of this new land often brought trepidation to readers. Each author had to pick and choose from sources to ensure that their audience would be convinced to colonize, which explains why they only mentioned undesirable characteristics of the territory, such as the presence cannibals, in manuscripts. Where sources permit, I reconstruct the appeal of these works to potential investors and make educated guesses as to their potential print runs. Gilbert and his supporters clearly viewed printed publications as necessary components of colonization, and their efforts helped advance the print culture of colonization in early modern England.

Maps served similar, promotional functions for the 1583 voyage, but Gilbert's supporters used maps and charts with other intentions as well. In my third chapter, I

⁴⁸ Sir George Peckham, *A Trve Reporte, Of the late discoueries, and possession, taken in the right of the Crowne of Englande, of the Newfound Landes: By that valiaunt and worthy Gentleman, Sir Humfrey Gilbert Knight. Wherein is also breefely sette downe, her highnesse lawfull Tytle therevnto, and the great and manifolde Commodities, that is likely to grow thereby, to the whole Realme in generall, and to the Aduenturers in particular. Together with the easines and shortnes of the Voyage. Seene and allowed* (London: John Charlewood, 1583); Ingram's text is no longer extant, but we know from Humphrey Dyson that in 1583 a book was printed with the title *A discourse of the adventures & travailes of David Ingram being sett on shore with 100 more of his fellowes by Captaine Hawkins in the heathen countries in* A° 1583. See William A. Jackson, "Humphrey Dyson's Library, or, Some Observations on the Survival of Books," *Proceedings of the Bibliographical Society of America* 43 (1949): 285.

analyze the five maps that were made in support of the voyage in order to uncover the purpose of each one and to elucidate how maps functioned during an early modern colonizing expedition. Gilbert hired his longtime associate and the great geographical mind of the Elizabethan age, John Dee, to create his two most detailed maps. Scholars have not fully elaborated upon their relationship, which had a great impact on the expedition, as Dee conducted substantial research for his old friend and helped promote the voyage. He designed his first map to gain the permission and the support of Elizabeth and her council for the expedition, as they did not want the voyage to resort to piracy.⁴⁹ The second map, a sea chart devised to guide Gilbert to the colony, improved upon previous maps of North America by expert cartographers like Gerard Mercator and Abraham Ortelius, because Dee's use of a polar projection facilitated sailing in northern latitudes.⁵⁰

To ensure that Dee had ample resources to draw his maps, Gilbert hired the skilled Portuguese navigator Simão Fernandes to make a dangerous reconnaissance mission to Norumbega, and he returned with a map of the area.⁵¹ This type of preliminary survey was novel for the time, and in consideration of the risk and cost of such a voyage, it reveals Gilbert's regard for accurate maps. Gilbert also enclosed maps within his promotional literature, including those by Michael Lok and Robert Thorne in Hakluyt's *Divers Voyages*. Lok drew his map specifically for the expedition, and though rudimentary, it depicted Norumbega as the ideal location from which to establish commerce with Europe, the Americas, and Asia. The Thorne map was a reproduction of

⁴⁹ BL, Cotton MS Augustus I.i.1.

⁵⁰ Free Library of Philadelphia, Rare Book Division, Elkins Americana, no. 42.

⁵¹ BL, Cotton Roll, XIII, 48.

a 1527 original, and Hakluyt included it expressly to supplement the material written by Thorne in the text. Gilbert also hired the obscure figure Thomas Bavin to create detailed maps of North America's Atlantic coastline as a way to gain additional funds for the colony and to support Gilbert's claim to the land.

Despite Gilbert's high esteem for cartographic materials, historians often depict colonizers, especially at this early stage, as being hesitant to use maps of any kind. Not only does my thesis challenge this interpretation by showing that Gilbert embraced cartography for various purposes, but I also clarify the ways in which colonizers used maps to sustain their projects. Moreover, my examination offers an alternate interpretation of many of Gilbert's maps, including Dee's charts, which recently have been analyzed by a host of scholars. My hope is that this chapter will revise the current perception of map use by early colonizers.

Much as my examination of Gilbert's expedition confronts the assumption that early modern European explorers and colonizers distrusted maps, it also casts doubt upon the belief that such men failed to prepare for their treacherous transoceanic voyages across unknown seas. My final chapter addresses an aspect of the early modern voyage that rarely gets taken into account: navigation in practice. Early modern navigational techniques are fairly well documented, as are the sixteenth century manuals describing them, but the transition from plans on paper to practical application at sea remains ambiguous. Through an examination of the manuscript instructions for Gilbert's voyage, I pinpoint the texts that his supporters read in preparation for their sea passage. By comparing their notes to the lone surviving account of the voyage, I show how theory developed into practice.

Coastwise sailing in well traversed waters such as the English Channel or the Mediterranean Sea required sixteenth century sailors to use relatively simple navigational skill and tools, as land usually remained within view and the surrounding coastal contours were well established. Safely reaching a specific North American port after a voyage of several weeks required an assortment of instruments, however; cross-staffs, compasses, and the log and line, which measured latitude, direction, and distance traveled respectively, were among the transoceanic navigators' most prized possessions. They also needed a rather precise understanding of Central and North Atlantic ocean currents and winds. The most dangerous aspect of sailing was making landfall, which was especially difficult for England's first transatlantic navigators due to their piecemeal comprehension of North American geography. The North Atlantic proved to be a significant obstacle in itself, as its breadth remained unknown without a reliable means of gauging longitude at sea.

Considering the numerous hindrances to transatlantic voyaging, Gilbert and his specialists had to be thoroughly prepared. They read the most up-to-date navigational texts to ensure that the voyage safely reached Norumbega. Two books by seasoned navigators William Borough and Robert Norman were among their most formative works, as the authors' descriptions of magnetic dip and compass variation influenced Gilbert's plans to cross the Atlantic.⁵² It is clear from the surviving account of the

⁵² William Borough, *A Discovrs of the Variation of the Cumpas, or Magneticall Needle. Wherin is Mathematically shewed, the maner of the obseruation, effectes, and application thereof, made by W.B. And is to be annexed to The newe Attractiue of R.N.* (London: Iohn Kyngstan, 1581); Robert Norman, *The newe Attractiue, Containyng a short discourse of the Magnes or Lodestone, and amongst other his vertues, of a newe discouered secret and subtill propertie, concernyng the Declinyng of the Needle, touched therewith under the plaine of the Horizon. Now first founde out by Robert Norman Hydrographer.*

voyage that the crew understood North Atlantic ocean currents and prevailing winds. Likewise, they drew up the earliest known plans to measure longitude at sea using a 1582 solar eclipse as predicted in an English almanac.⁵³ Clarifying the Atlantic's width would have been a boon to all English sailors in the Atlantic, but Gilbert did not depart until 1583 and did not get the opportunity to view the eclipse. The fact that Gilbert's expedition ended with two shipwrecks has led scholars to doubt his navigating prowess, but it does not diminish the innovativeness and preparedness of the voyage.

In writing on the state of historical scholarship, historian Joel F. Harrington notes that “[u]nlike Sixteenth-century observers ... we often remain constrained by our teleological perspective – We know what happens next.”⁵⁴ Such an overly deterministic perspective helps explain why so many modern scholars have cast Gilbert's 1583 expedition, which ended so badly, as a considerable failure. Weather prevented him from leaving on time, and shipwrecks destroyed half of his vessels. He claimed Newfoundland for England, but John Cabot had done so nearly a century earlier. Furthermore, English colonists would not capitalize on his efforts for another twenty-five years, and claiming Newfoundland was not even among Gilbert's initial objectives. He did some surveying on the island, took samples, and made maps, but the fruits of his labor were almost completely lost with the wreck of the *Delight*. Prominent members of the expedition like Maurice Brown, Parmenius, and Gilbert himself never even made it back to England.

Hereunto are annexed certaine necessarie rules for the art of Nauigation, by the same R.N. (London: Iohn Kyngstan, 1581).

⁵³ BL, Add. MS 38823, f. 4r.

⁵⁴ Joel F. Harrington, *Reordering Marriage and Society in Reformation Germany* (Cambridge: Cambridge University Press, 1995), 273.

Due to the problems that plagued the expedition, few historians have given Gilbert a prominent place within the history of English colonization. Though his expedition failed to establish a colony, his preparations were nonetheless significant. By hiring some of the most skilled writers of the day, Gilbert eloquently introduced Norumbega to English readers while simultaneously acquiring funds for the voyage. His efforts also placed Norumbega on English maps for the first time, and his mapmakers proved the value of cartography in supporting colonization by effectively utilizing maps for several purposes. Reading the latest navigational literature convinced Gilbert to employ novel nautical instruments to finally determine the broadness of the North Atlantic, and the interviews and additional research conducted by Gilbert's circle provided them with copious intelligence about North America.

By the time that Gilbert departed England in June 1583, he had a rather accurate picture of where he was going and what would be there upon his arrival, even though almost no one from England had ever traveled to Norumbega. An examination of Gilbert's final expedition, then, elucidates several noteworthy developments in the history of English colonization and transoceanic voyaging, while bringing out a number of common themes: Early modern English voyages were quite thoroughly prepared. They required great coordination from a number of individuals with expertise in various subjects. A considerable amount of reading and interviewing was done in preparation for the voyages. The organizers of such expeditions used many resources prior to leaving, and they took hints from a number of disciplines. Although the tangible, material return from Gilbert's 1583 expedition was minimal, its innovations were many, and we can learn much by studying it.

Chapter One

“the crowne of England hath most right to ... America”: Establishing Gilbert’s claim to

North America

a great parte of the Sea Coasts of Atlantis (otherwise called America) next unto us, and of all the Iles nere unto the same from Florida, Northerly, and chiefly of all the Ilands Septentrionall (great and small) the Title Royall and Christien Supreme Government, is due, and appropriat unto one Sovereaign Elizabeth her most Gracious Majestie.

-John Dee, 1580¹

1. Introduction

When Francis Drake returned to London in 1580 following the second documented circumnavigation of earth, he received a hero’s welcome for his remarkable feat. Queen Elizabeth knighted Drake, awarded him arms, and presented him with the “Drake Jewel” for bringing her an immense return on her fairly minimal investment. The Spanish were noticeably less pleased with his exploits. Spain’s Ambassador resident in London, Bernardino de Mendoza, made a formal protest to Elizabeth on account of Drake’s depredations of the Spanish Empire in the Americas. The Queen retorted that Spain did not actually possess many of the lands and seas that comprised its empire. By her reasoning, Spaniards merely had “touched here and there upon the Coasts [of the Americas]” and had ascribed place names to rivers, towns, and regions. Elizabeth

¹ BL, Cotton MS Augustus I.i.1v.

contended that the Spaniards' actions did not "entitle them to ownership," as "[p]rescription without possession is worth little."²

During the late sixteenth century, when Europe's comprehension of North America's geographic composition remained fragmentary, the monarchs of England, France, and Spain all staked claims to portions of the continent. Some of their putative domains overlapped, and Gilbert's voyage coincided with an uptick in these rival claims. Even though France largely withdrew from North American colonization after the 1560s, Anglo-Spanish disputes over the region intensified throughout the 1580s. For Gilbert's colony to succeed, he needed to offer sufficient proof that, as an Englishman, he had the lawful right to claim territory in North America. Failing to evince his entitlement to the land would make it much more difficult to entice investors to bankroll his expedition and to convince sailors, soldiers, and specialists to accompany him across the Atlantic. He had to demonstrate to these individuals that international law permitted them to settle in North America and that they need not fear reprisals from Spain.

The varied evidence that English expansionists used to declare their right to colonize North America has become a prominent topic in recent historical scholarship.³

² Patricia Seed, *Ceremonies of Possession in Europe's Conquest of the New World, 1492-1640* (Cambridge: Cambridge University Press, 1995), 10.

³ Discussions of this topic include Lauren Benton, *A Search for Sovereignty: Law and Geography in European Empires, 1400-1900* (Cambridge: Cambridge University Press, 2010); Lauren Benton, "Atlantic Law: Transformations of a Regional Legal Regime," in *Oxford Handbook of Atlantic World*, ed. Canny and Morgan, 400-16; Christopher Tomlins, *Freedom Bound: Law, Labor, and Civic Identity in Colonizing English America, 1580-1865* (New York: Cambridge University Press, 2010); Ken MacMillan, *Sovereignty and Possession in the English New World: The Legal Foundations of Empire, 1576-1640* (Cambridge: Cambridge University Press, 2006); Christopher Tomlins, "Law's empire: chartering English colonies on the American mainland in the seventeenth century," in *Law, history, colonialism: the reach of empire*, ed. Diane Kirkby and Catherine Coleborne (Manchester: Manchester University Press, 2001), 26-45; Miles

French and English explorers challenged the validity of Papal Bulls of Donation and the basis of claims by prior discovery in determining possession of American territories.⁴ Many non-Iberian polemicists accepted that Columbus had “discovered” the Americas in 1492, but as Peter Fitzpatrick has noted, Spanish monarchs like King Philip II needed to “secure continuing recognition among the community of nations” that their claims were sound and that they were beyond refutation.⁵ In post-Reformation England and France, papal decrees got short shrift from Protestants like Gilbert. Nor did Gilbert simply countenance that discovery constituted possession, and even if he had, the research conducted by members of his circle suggested that their British ancestors had made landfall at North America prior to the Spanish. Gilbert and his supporters were among the most outspoken members of the emergent anti-Spanish faction at court that strove to impede the progress of the Spanish Empire to further their own expansionist agenda.

The North American coastline stretching from Florida in the south to Nova Scotia in the North measures more than two thousand miles, so it made sense for Gilbert to pin down his projected destination before embarking on his voyage. That way, he would not have to waste precious time and provisions while searching for a favorable colony site. Moreover, his investors and crewmembers would expect him to have a clear idea of

Ogborn, *Global Lives: Britain and the World, 1550-1800* (New York: Cambridge University Press, 2008), 18, 47-48, 52-53; Mancke, “Chartered Enterprises,” in *Creation of British Atlantic*, ed. Mancke and Shammas, 240; Benjamin, *Atlantic World*, 214-15; on the differing notions of “possession” among Europe’s early modern colonial powers (the Dutch, English, French, Spanish, and Portuguese), see Seed, *Ceremonies of Possession*, 8-40; among the British, French, and Spanish, see Pagden, *Lords of all the World*, 44-62, 76-102.

⁴ W. J. Eccles, *The French in North America, 1500-1783*, rev. ed. (East Lansing, MI: Michigan State University Press, 1998), 3, 8.

⁵ Peter Fitzpatrick, “Terminal legality: imperialism and the (de)composition of law,” in *Law, history, colonialism*, ed. Kirkby and Coleborne, 18.

where he was headed and what would be there upon arrival. Only a handful of French, Portuguese, and Spanish navigators had explored the region between Florida and Newfoundland, but their reports highlighted a number of estuarine features along the coast. Together with the intelligence that Gilbert received from members of Drake's crew and from other English travelers to the Americas, these sources provided him with the information that he needed to select his destination.

During the early stages of their preparations, Gilbert's circle scoured printed and hand-written works to find accounts of North America and examples of Britons who had reached the region before the Spanish. Much of their writing was not printed, because manuscripts gave them more control over who could read their work and consequently more freedom in what they wrote. Their manuscripts delineated the bounds of the Spanish Empire as understood by Gilbert's associates to verify that his colony would not encroach upon other Christian rulers. Gilbert received the majority of his legal advice from Richard Hakluyt the elder, a lawyer by training, and from John Dee, an accomplished legal mind in his own right.⁶ They researched where English sovereignty ended in the North Atlantic, since Gilbert wanted to sail unimpeded to his colony and hoped to engage in commerce along the North American coast thereafter. The group certainly distributed their manuscripts among potential investors and crewmembers, who were presented with proof of England's claim to North America. The survival of Gilbert's colony hinged on his ability to prove to English people and foreigners alike that he had the legal right to colonize North America.

⁶ Dee's legal training is explained in MacMillan, *Sovereignty and Possession*, 57-74.

2. Gilbert's Colonial Jurisdiction and the Limits of the Spanish Empire

During the early 1580s in the wake of Drake's circumnavigation, questions concerning the legality of establishing English settlements and Anglo-Spanish trade in the Western Hemisphere came into focus for English expansionists. The authors of Gilbert's printed propaganda sought to verify England's claim to North America in order to convince investors to sign on with Gilbert. A more extensive, preliminary debate on the issue took place in manuscript, which was not subject to the stringent censorship laws of Elizabethan England.⁷ Writers used manuscripts to keep their ideas restricted to a select few and out of the hands of foreigners resident in England.⁸ Members of Gilbert's circle took an active part in manuscript circulation at court, and they made a strong case that English people had the right to colonize North America. Their documents were meant to assure hesitant investors and crewmembers that an English colony in North America did not infringe upon Spain's American empire.

Part of the confusion concerning the boundaries of the Spanish Empire lay in discrepancies among Europeans regarding the quintessence of "possession." In the example that opens this chapter, the Spanish Ambassador insists that Spain's initial discovery of the Americas and a continuing presence there gave it entitlement to the entire continent. Elizabeth, on the other hand, maintained that the Spanish needed to

⁷ See Cyndia Susan Clegg, *Press Censorship in Elizabethan England* (Cambridge: Cambridge University Press, 1997).

⁸ Elizabethan manuscripts were not always meant for private consumption, and, in fact, some probably had a greater readership than printed works. Even if Gilbert meant for his manuscripts to remain out of the hands of the Spanish or other foreigners, he was not always successful. Mendoza sent King Philip II quite accurate reports regarding the 1583 expedition.

construct and then inhabit settlements in all parts of the Americas to claim the entirety of what was then treated as a single continent.⁹ According to the Queen and to England's legal experts, citizens of a nation had to improve and physically occupy land by establishing towns, building homes, peopling those homes, and fencing off territory to denote possession.¹⁰ The thesis that early modern Iberian monarchs sought to control people and that English colonists primarily concerned themselves with controlling and possessing land is a bit oversimplified. Yet, it is evident that the former based their claim to North America in the preemption of their discovery and the latter in their domination of the land.¹¹ The conflicting definitions of possession among Europeans complicated Gilbert's effort to settle North America, an area also claimed by the Spanish.

Gilbert had less difficulty denying Native American land rights, since English law discounted all territorial claims made by non-Christians. In the almost exclusively Christian societies of early modern Europe, legal writers argued that non-Christians could occupy but not truly possess land.¹² English legal theory specified that any land not under cultivation was "virgin land" that could be claimed by Europeans. Such a means of territorial appropriation had its basis in the Roman concept of *res nullius* (things without owners), which stated that untilled or unoccupied lands remained available for the common good until an individual or a group took them into possession through

⁹ Seed, *Ceremonies of Possession*, 8-10. For the Portuguese, controlling the trade of a territory denoted possession, as did the technological advances (maps, navigational expertise, and knowledge of winds) that allowed them to reach these places.

¹⁰ See Pagden, *Lords of all the World*, 81-102.

¹¹ Patricia Seed, *American Pentimento: The Invention of Indians and the Pursuit of Riches* (Minneapolis: University of Minnesota Press, 2001), 3, 12-14; this view is complicated by John H. Elliott, *Empires of the Atlantic World: Britain and Spain in America, 1492-1830* (New Haven, CT: Yale University Press, 2006), and MacMillan, *Sovereignty and Possession*, 11.

¹² Kupperman, *Atlantic in World History*, 15.

cultivation or some other labors. Unseeded “waste lands” squandered God’s benevolence and needed to be improved through cultivation to make the land profitable. In his 1583 *True Reporte*, a promotional tract written for Gilbert, Buckinghamshire Catholic Sir George Peckham contended that Native Americans ceded their territorial rights by only harvesting crops that occurred naturally. They needed to plant their own produce to possess the land.¹³ Unbeknownst to Peckham, many agrarian Native American groups in eastern North America planted a variety of crops, but English colonists misinterpreted their distinctive agricultural practices. Surplus grounds were left fallow for a few years to increase fertility, and Englishmen viewed them as waste lands primed for settlement. Moreover, they perceived some Native Americans’ lack of clothing and “advanced” technologies as forms of incivility that forfeited their land rights.¹⁴ Upon his arrival, Gilbert did not even need to offer the present inhabitants a written acknowledgement of his taking possession of their land. Engaging in commerce or simply working the soil sufficed as a declaration of intent according to English law. The English did not give corresponding ownership privileges to Native Americans or to other Europeans who tilled American soil, because English rights did not extend to citizens of other nations.¹⁵

Gilbert’s 1578 letters patent from Elizabeth further defined his expected prerogatives in North America. In contrast to private letters meant to be read only by their recipient, letters patent were a public means of expressing the patentee’s rights in

¹³ Peckham, *True Reporte*, C1r-C3v.

¹⁴ Nathan Probasco, “Virgin America for Barren England: English Colonial History and Literature, 1575-1635,” *Literature Compass* 9, no. 6 (2012): 411; Seed, *American Pentimento*, 29-44; MacMillan, *Sovereignty and Possession*, 8-9.

¹⁵ Seed, *American Pentimento*, 13-26.

England and abroad as bestowed by the imperial crown.¹⁶ Gilbert's patent endowed him and his heirs with the authority "to have hould occupie and enjoye...sea and land" not possessed by other Christians. He had the power to expel anyone who endeavored to inhabit in any direction within two hundred leagues of his colony, or who sought "to annoye [him] eyther by Sea or lande."¹⁷ As per his patent, Gilbert's territory would form a great circle centered at his colony with a diameter of nearly fourteen hundred miles that encompassed some 1.5 million square miles and nearly one billion acres. Had he established his settlement in the Narragansett Bay, Rhode Island, his projected terminus, the boundary of his lands would have stretched from South Carolina in the south to Central Quebec in the north, and from Ohio in the west to a point more than six hundred miles east of Cape Cod in the Atlantic. His territory would not have reached Spanish Florida or the Newfoundland fishery.¹⁸ The Atlantic comprised approximately half of Gilbert's jurisdiction, so his experts had to consider the limits of English sovereignty on both land and sea.

The Welsh polymath John Dee was the first person to suggest in writing that Britain's location lent itself to forming a sea-based rather than a land-based empire.¹⁹ In his unpublished *Θαλαττοκρατία Βρεττανική*, Dee envisioned an empire that included "all

¹⁶ MacMillan, *Sovereignty and Possession*, 79-80.

¹⁷ Gilbert's patent is transcribed in Quinn, *Voyages of Gilbert*, vol. 2, 188-90.

¹⁸ A league was comprised of approximately three nautical miles. A single nautical mile equals about 1.15 miles, so three nautical miles equal roughly 3.45 miles. Therefore, two hundred leagues equal 690 miles. This number is the radius of Gilbert's great circle of land, and by doubling it one gets the diameter of his circular territory (roughly 1381 miles). By multiplying the circle's radius (690) by itself, and then multiplying that number by pie (3.14) one gets the square miles of the territory. Ergo, Gilbert's dominion extended over almost exactly 1.5 million square miles, or roughly 958,553,073 acres. About half of his territory was on land, and the other half comprised the Atlantic Ocean.

¹⁹ On the law of the seas among early modern Europeans in the Americas, see Benton, *Search for Sovereignty*, 104-61.

the Brytish Ocean” touching England, Ireland, Scotland, and the lesser isles.²⁰ He based his claim from the tenth century reign of King Edgar, who had united the English, the Scots, and the Welsh into a single kingdom.²¹ To Dee, the British Empire subsumed the seas encircling the British Isles: the St. Georges Channel, the English Channel, and the North Sea, stretching to the coasts of Denmark, France, Germany, and Holland. He believed that English suzerainty fanned out 200 miles in all directions from the coast and for over 1000 miles into “the Western Mayn Ocean Sea” from Cornwall, the Scillies, Ireland, and lesser sea islands farther west. This expanse reached more than half the distance from Ireland to Newfoundland, leading Dee to conclude that Elizabeth maintained “a mighty portion of Sea Sovereigntie, in that Ocean” between Scotland and the Americas.²²

When Dee called for the creation of a “Pety-Navy-Royall” in his 1577 *General and Rare Memorials pertayning to the Perfect Arte of Navigation*, he explained his vision of Britain’s sea empire. He specified that “The vse of the Sea is Common, but not the Iurisdiction of the Sea. And yet, the same, may be Præscribed: And the Proprietie therof fall to the Title Royall.”²³ Based upon his logic, merchants from any nation could trade in any waters, but sovereigns like Elizabeth held *imperium maris* (dominion of the seas) over the seas nearest to their polities. They had the authority to permit or to prevent sailors of any nationality from utilizing these waters. As David Armitage has pointed

²⁰ San Marino, CA, Henry E. Huntington Library (hereafter HL), MSS Mfilm 00554, item 01, 95v. Dee titled his work *ΘΑΛΑΤΤΟΚΡΑΤΙΑ ΒΡΕΤΤΑΝΙΚΗ* (Alternatively, see BL, Harley MS 249, ff. 95-105; BL, Royal MS 7 C. XVI, ff. 158-165).

²¹ On Dee’s view of King Edgar, see also his *General and Rare Memorials pertayning to the Perfect Arte of Navigation: Annexed to the Paradoxal Cumpas, in Playne: now first published: 24 yeres, after the first Inuention thereof* (London: Iohn Daye, 1577), G4v.

²² HL, MSS Mfilm 00554, item 01, 96r-99v; quotes at 99v.

²³ Dee, *General and Rare Memorials*, ^e3r, ^e*2r, quote at C3r.

out, Dee's adherence to the notion of *mare clausum* (closed seas) contrasted with the *mare liberum* (free seas) conviction espoused by Richard Hakluyt, the younger and others. Late in his life, Hakluyt claimed that no authority could deny the rights of navigation and of free trade in the oceans. Elizabeth's exchange with Mendoza as discussed at the outset of this chapter proves that she agreed with Hakluyt. Drake, by the law of nations, had the rights to sail around the earth and to trade in the Spanish West Indies, because no monarch possessed the sea.²⁴

Gilbert could meet his colonizing objectives by making use of both Dee's and Hakluyt's beliefs. Gilbert needed to have free reign to sail anywhere in the North Atlantic in order for his colony to prosper through commerce. Dee's modified *mare clausum* thinking allowed Gilbert to claim imperium over the seas closest to his colony. He granted trading privileges to his investors, to his relatives, and to his heirs, but he forbid his "Merchant adventurers" from trading with members of the Muscovy Company, inhabitants of Southampton, or anyone who had not invested in his first or last voyages. If any such person was found with goods from the colony, Gilbert intended to confiscate them.²⁵ Gilbert also perceived an opportunity for profit in the *mare liberum* principles championed by Hakluyt and Elizabeth. He hoped to use his colony as a base from which to trade in the Spanish West Indies and at Newfoundland, so he needed to have the ability to sail freely in non-English waters.

The inchoate understanding of American geography among English and Spanish chorographers, however, made it difficult to pinpoint where Spanish sovereignty ended

²⁴ Armitage, *Lords of all the World*, 47, 100-9; Elspeth McKown, "Imagining 'An Other England' in the North Atlantic, 1577-1625" (MA thesis, Dalhousie University, 2011), 84.

²⁵ Gilbert's orders are transcribed in Quinn, *Voyages of Gilbert*, vol. 2, 323. The Muscovy Company, which traded with Russia, was established in the early 1550s.

and where English sovereignty began in the Atlantic and in North America. Prior to the seventeenth century, terms like “the Indies,” “the West Indies,” “America,” and “Norumbega” were nebulous and were used indiscriminately when discussing North America. After Raleigh’s reconnaissance of Roanoke in 1584, Spaniard Pedro Cubiaur wrote that “*Las naos de Ralý qui ý ban a noronbega han luculos*” (The ships of Raleigh which were going to Norumbega have returned).²⁶ Hakluyt similarly deemed Raleigh’s destination Norumbega.²⁷ Yet William Cecil, in a discussion of Martin Frobisher’s second voyage to present-day Canada, referred to his “viage to the West Indies.”²⁸ In another document, Frobisher’s destination was identified as “the Northwest Indias.”²⁹ The Latin title of Dee’s 1580 map for Gilbert indicated that all of the Americas were “named the West Indies in the ordinary way,” but Dee preferred the term Atlantis to describe the newly discovered continents.³⁰ From the beginning of his project, Gilbert made it clear that he intended to colonize the region known as Norumbega, but, at the time, both the English and the Spanish claimed jurisdiction over the region.

²⁶ Kew, The National Archives of the United Kingdom (hereafter TNA), State Papers (hereafter SP) 94/2, f. 77.

²⁷ Richard Hakluyt, *A particuler discourse concerninge the greate necessitie and manifolde commodityes that are like to growe to this Realme of Englande by the Westerne discoueries lately attempted, written in the yere 1584: Known as Discourse of Western planting*, ed. David B. Quinn and Alison M. Quinn (London: Hakluyt Society, 1993), 120-21.

²⁸ Hatfield House Archives (hereafter HHA), Cecil Papers (hereafter CP) 8/93, f. 1r.

²⁹ HHA, CP 8/88, f. 1r.

³⁰ BL, Cotton MS Vitellius C. VII, f. 8v. Dee lists his map as “Atlantidis, (Vulgariter Indiae Occidentalis nominatae), emendatio descriptio quàm adhuc est divulgata - A° 1580”; on the fluidity of terms describing American and Norumbega in particular, see Kirsten A. Seaver, “Norumbega and ‘Harmonia Mundi’ in Sixteenth-Century Cartography,” *Imago Mundi* 50 (1998): 34-58; Peter E. Pope, *Fish into Wine: The Newfoundland Plantation in the Seventeenth Century* (Chapel Hill: University of North Carolina Press, 2004), 15.

That the northern limit of Spain's American empire was relatively ambiguous and that its hold on that empire was rather tenuous further complicated matters. On a few occasions, Spanish King Philip II demonstrated that he would enforce his claim to North America through violence. In 1565, Spanish soldiers massacred the French Huguenot garrison at Fort Caroline, an attack that convinced prospective English and French colonists that they needed to be certain of their respective claims to North America. During his third slaving voyage in the late 1560s, John Hawkins also lost several ships to Spanish attacks in the Gulf of Mexico. In many cases, however, English and French corsairs and traders engaged in secretive or open trade in the Spanish West Indies on an *ad hoc* basis.³¹ Between 1568 and 1585, English pirates and privateers conducted fourteen raids on the Spanish West Indies, and there were probably at least as many assaults that went undocumented.³²

Even if Elizabeth turned a blind eye to her subjects' indiscretions in the Spanish Caribbean between the 1560s and the 1580s, she remained ambivalent about the founding of English colonies on the North American continent. In 1562, the Portuguese ambassador to England unsuccessfully petitioned Elizabeth to prevent English merchants from trading in Guinea, a land that the Portuguese King claimed as his own.³³ Yet that same year, the Queen detained Huguenot explorer Jean Ribault for settling in Spanish territory after he sailed to England to purchase supplies for his North American colony. Elizabeth preferred to be reactive rather than proactive when it came to her colonization

³¹ Kris E. Lane, *Pillaging the Empire: Piracy in the Americas, 1500-1750* (Armonk, NY: M.E. Sharpe, 1998), 17-49; J. Leitch Wright, Jr., *Anglo-Spanish Rivalry in North America* (Athens, GA: University of Georgia Press, 1971), 5-6, 17-31.

³² Benjamin, *Atlantic World*, 232.

³³ Seed, *Ceremonies of Possession*, 9-10.

policy, but she was finally convinced to offer Gilbert his letters patent in 1578.

Nonetheless, she made it blatantly clear in the patent that he was not to settle any lands possessed by other Europeans. Gilbert had no intention of settling an area that would arouse Spanish ire or that might elicit an attack. Yet he also wanted to be within reach of Spain's Caribbean settlements and of the *Flota de Indias* that transported American bullion back to Spain, as he had explained when he convinced Elizabeth to grant his patent. If he failed to acquire trade goods from Native Americans that were coveted in Europe, his colony could still profit by serving as a base for the well-established English tactic of acting as a parasite upon Spain's American empire.³⁴

England had not been involved in a pan-European or broader trade network for many years by the early 1580s, but Gilbert was surprisingly limited in where he could legally claim lands. The Muscovy Company had forced Gilbert to shelve his plans to search for the Northwest Passage in the 1560s, and their patent made all lands north and northeast of England off limits for non-members. In January 1582, Elizabeth received a complaint from King Frederick II of Denmark and Norway that her merchants should desist English trade to Russia via the northern cape altogether.³⁵ The Turkey Company formed in 1581 and had a monopoly on trade to the Middle East, and the Eastland Company controlled trade to Scandinavia and to the Baltic States beginning in 1579. The Spanish and Venice Companies had similar policies in place by the time that Gilbert departed England in 1583. The Company of Merchant Adventurers of London and foreign bodies such as the Hanseatic League further limited Gilbert's potential for

³⁴ See Nate Probasco, "Elizabeth I, Sir Humphrey Gilbert, and the Anglo-Spanish Conflict," *Explorations in Renaissance Culture* 37, 2nd Special Issue on Queen Elizabeth I (Summer 2011): 119-35.

³⁵ BL, Add. MS 48001, ff. 75r-76v.

colonizing in the Eastern Hemisphere.³⁶ North America represented one of the few locations that Gilbert could hope to find a legal outlet for trade and a favorable place to settle.

Due to the limits of where unaffiliated English merchants could trade, a number of English writers discussed the possibility of trading and of colonizing in North America at the precise time that Gilbert was preparing to sail for Norumbega.³⁷ One intriguing manuscript dating from between 1580 and 1584 offers details about the commodities of Spain and its American colonies. The author alleged that Philip II annually acquired more than four million ducats from Peru and another twenty million in gold alone “from the Indian.” Cochineal, silk, tobacco, and various other crops and minerals from the Americas and Asia fuelled Spain’s war in the Low Countries, much to the detriment of European Protestants. Spain’s immense sheep herds also helped it control the European wool trade that was once dominated by English traders.³⁸ It was hoped that voyages like Gilbert’s would bring American commodities into the sphere of English merchants, who, following the collapse of the wool trade, desperately needed to find new markets and new sources of trade goods.

³⁶ See McFarlane, *British in Americas*, 12-18.

³⁷ Although England’s right to trade and to colonize in North America remained in doubt during the early 1580s, English writers compiled an impressive amount of data on Spanish trade and on Spain’s American territory. Manuscript intelligence from 1583 displayed the rations and monthly wages in ducats for Spanish sailors in the Americas (BL Lans. MS 37, f. 202r). One W. King suggested to Burghley or some other high government official that an English ship lie in wait near San Juan de Puerto Rico and Santo Domingo to capture passing vessels. The privateers could then water on Hispaniola and finally head for the Gulf of Mexico (HHA, CP 98/137, f. 1r).

³⁸ BL, Cotton MS Julius, F. VI, f. 229r. This manuscript is undated, but information about William of Orange and about the union of Spain and Portugal indicates that it was written sometime between 1580 and 1584.

The apparent abundance of America's commodities led another of Gilbert's contemporaries to ask whether it was permissible for Christians to trade with "a heathen or infidel," and the unnamed author considered a number of similar questions: Can Christian allies of a conquering Christian realm trade with the indigenous inhabitants or Christian emigrants of conquered areas? If not, how should English merchants know trade is unlawful? Can the governor of the land use violence against Christian traders or steal their trade goods? How could the offended seek recompense? The anonymous writer clearly was weighing the benefits and the risks associated with colonization, and he asked a question that many of Gilbert's associates were also wondering:

If a cristian prince have conquered a pte of a heathan countrie and gives hymselfe the title of the whoale countrie / whether it be lefull [lawful] for another christian prince in League with the conqueror, to invade and conquere that the natives holde by force againste the cristian prince/³⁹

After Philip II annexed Portugal in 1580, he declared his sovereignty over the totality of the Americas, and his claim was supported by the Papacy. Yet Spanish colonists only inhabited coastal areas in modern-day Florida and points southward, which left nearly all of North America unsettled by Europeans. Gilbert hoped to establish his colony far from Spanish settlements, and so the author of the above manuscript pondered if it was lawful for Christians to "invade and conquere" areas held by natives. As an example, he cited the wrongs done to Francis Drake during his voyage around South America.⁴⁰ The writer had clearly been thinking about the issue, as he asked "whether by the law civill the Spaniard have anie remedie here in England." Since Englishmen were treated poorly in Spanish colonies, he wanted to know how far the treaty between

³⁹ TNA, SP 12/146, f. 55r.

⁴⁰ "S: F. Drake" is written in a different hand in the margin next to this description.

England and Spain extended, and, should it be breached, if English subjects could treat the Spanish as enemies prior to the announcement of the league being broken.⁴¹

It is apparent that by the late sixteenth century English expansionists were considering the possibility and ramifications of colonizing in the Americas, but they needed to know the precise limits of Spain's territory in the Western Hemisphere. Elizabeth underscored in her patent to Gilbert that settling Spanish lands would void his license and would in consequence eliminate any support that he might expect to receive from the English Crown. Therefore, his specialists needed to determine at what point Spanish dominion ceased in North America, which would give them an idea of where they could legally settle.

By the early 1580s, Gilbert's primary advisors, Dee and Hakluyt (the younger), recognized the same location as New Spain's northern border. It was not Saint Augustine (Florida) or some other Spanish fortification, but rather the River May. Rivers are among the most easily identifiable borders, and they have served as demarcation lines between states and nations for centuries. A number of rivers, including the Wye and the Tweed, have constituted the borders between England and Scotland and between England and Wales for centuries. Choosing a river as the boundary of Spain's empire was a distinctively English decision, and in the minds of Gilbert's coterie, it left much of the North American continent open to settlement.⁴²

The River May (present day St. John's River) empties into the Atlantic Ocean ten miles east of Jacksonville, Florida, and it was one of the first North American rivers to be

⁴¹ TNA, SP 12/146, f. 55r.

⁴² On the importance of rivers in European claims to the Americas during the sixteenth century, see Benton, *Search for Sovereignty*, 40-59.

explored and named by Europeans. Early modern cartographers often included the river on their maps, and, perhaps due to Franco-Spanish disputes over the river, Gilbert's circle designated it as the northern edge of Spain's American empire.⁴³ In 1565, the Spanish established Fort Saint Augustine less than fifty miles south of the River May, another reason why Gilbert held it as the *de facto* boundary of Spain's North American territory.

An anonymous English manuscript reveals that the river was a topic of discussion among those interested in North America from at least the 1580s. The writer detailed the islands and principal towns in the Spanish West Indies, such as Havana, Cuba; Santa Elena, Florida; Mexico; and Honduras. He listed the "Rio de Maio" as one of the principal rivers of the Americas and specified that it contained an island at its mouth that once housed "Ribaldes [Jean Ribault's] forte." According to the author, one could reach the south sea and Cathay via the river and its tributaries, as evidenced by the great Cathaian ships that were seen at the southern end of the river. Another of its tributaries reached Mexico City, and several small pinnaces used the river each year to bring treasure to the North American coast.⁴⁴

The above manuscript is strikingly similar to selections from Hakluyt's 1584 "Discourse on Western Planting." Hakluyt's research indicated that the River May, despite having few tributaries, flowed to the Pacific and that one of its branches reached Mexico City. The river is, in fact, quite wide (up to three miles across) for several miles

⁴³ Spanish colonists technically inhabited land north of the river at Santa Elena in present-day South Carolina, but they abandoned the small fort after Drake exposed it in 1586. Hakluyt knew that the fort was still occupied as of 1584. See his *Western Planting*, 50-51; on Santa Elena, see David J. Weber, *The Spanish Frontier in North America* (New Haven, CT, and London: Yale University Press, 1992), 66-75.

⁴⁴ BL, Cotton MS Otho E. VIII, ff. 57r-58v, esp. 57r.

into the Florida interior, but it originates at Lake George rather than the Pacific.⁴⁵ Early European explorers may have confused the river for an inland sea, since it has an unusually slow flow rate of one third of a mile per hour.

Hakluyt also knew that on May 1, 1562, Jean Ribault had named the river and had claimed an island in its mouth, setting off a long and rather fierce Franco-Spanish struggle to control the port.⁴⁶ Ribault sailed north after exploring the river, and he founded Charlesfort on modern day Paris Island, South Carolina. His small garrison soon mutinied, and all of the Frenchmen returned home. In 1564, Ribault's lieutenant René de Laudonnière established Fort Caroline at the mouth of the River May, but his colonists were uprooted and massacred by Spanish soldiers the following year. The Spanish Governor of Florida, Don Pedro Menéndez de Avilés, erected Fort San Mateo at the same site, but the French attacked it in retaliation and the area was abandoned by Europeans by the late 1570s.⁴⁷ Hakluyt probably surmised that the battles over the River May stemmed from the riches that it contained, so he deemed land immediately to the north as open for colonization.

Dee probably consulted similar sources as Hakluyt for his 1583 guide chart for Gilbert's voyage.⁴⁸ Dee's chart depicts the "River Meo" as Florida's northern border, and it serves as the demarcation line for Spain's sphere of influence in North America. The river flows to the coast of Florida from an inland sea that has tributaries to both the

⁴⁵ By 1575, Spanish colonizers recognized that the River May originated in a lake in central Florida. See Providence, The John Carter Brown Library (hereafter JCB), MS Codex Sp 7 – 1 SIZE, map insert at 7v-8r.

⁴⁶ Hakluyt, *Western Planting*, 51, 84.

⁴⁷ Menéndez also erected Fort Santa Elena at Ribault's abandoned Charlesfort, and he constructed a final fortification at St. Augustine, Florida; on the Franco-Spanish battle for the region, see Weber, *Spanish Frontier*, 60-70.

⁴⁸ I discuss this map in detail in chapter three.

Gulf of Mexico and to Mexico City itself. Dee outlined Florida in yellow, but the area adjoining the river to the north, “Apalachia,” is considered a different territory and, for that reason, is outlined in red. Farther to the north and east is Gilbert’s Norumbega.⁴⁹

Michael Lok’s map in Hakluyt’s 1582 *Divers Voyages*, which was written in support of Gilbert’s voyage, resembles Dee’s guide chart in various respects and also prominently displays the River May. Lok placed the “R. de May” at the north end of Florida, complete with a settlement on an island near its mouth. To the north is Dee’s “Apalchen,” a separate territory, which abuts Norumbega in the north.⁵⁰ Gilbert’s cartographers made it apparent that the northern border of Spain’s American empire was sufficiently south of Gilbert’s projected colony site to avoid confrontation.

When Gilbert began amassing evidence on where to plant his colony, he exclusively focused on the region north of the River May. In his 1582 instructions for the expedition, Gilbert stated that Philip II could not claim dominion over lands not under “manual occupation” by his subjects. Up to that point, Spanish colonists had only settled lands “within the River of May or a very little thereabouts,” so territory to the north remained open for colonization.⁵¹ That year, Gilbert and his associates also interviewed David Ingram, an Essex sailor who had walked from the Gulf of Mexico to Cape Breton and who will be discussed in more detail in the following chapter. Gilbert’s circle only questioned him about lands north of the River May.⁵² Lands to the south may have been

⁴⁹ BL, Cotton MS Augustus I.i.1.

⁵⁰ Michael Lok, *Illvstri Viro, Domino Philippo Sidnæo Michael Lok Civis Londinensis Hanc Chartam Dedicabat: .1582.*, in Hakluyt, *Divers Voyages*, n.p. I discuss this map in greater detail in chapter three.

⁵¹ BL, Add. MS 38823, ff. 5v-6r.

⁵² At BL, Sloane MS 1447, f. 1r, Ingram claims to have travelled north of the River May for seven months; the copy of his report at the Bodleian Library [(hereafter BLO), Tanner

more favorable for colonization, but Gilbert felt that they were either part of Spain's empire or that they were too close to Spanish settlements. He considered lands north of the river as a *tabula rasa* upon which to establish his colony, so he began to research England's claim to that region.

3. Gilbert's Manuscripts and England's Claim to North America

Gilbert demonstrated that he intended to settle an area of North America that was outside of his conception of Spain's American empire, but the question remained: did Englishmen have the right to trade and to settle in the Americas? According to Philip II and the Papacy, Columbus's seminal voyage and the ensuing papal bulls entitled the Iberians to possess the whole of the Western Hemisphere. Since Philip controlled the entire Iberian Peninsula after 1580, he also got to decide who could trade in the Americas. Gilbert's associates felt differently, and they set about proving that Englishmen had every right to trade and indeed settle in North America.

Gilbert and his supporters were not the only ones in England who were discussing this topic. In a late sixteenth century English manuscript, an unidentified writer asked whether English subjects could "lawfully trade into the Indies [the Americas]." The author claimed that Pope Alexander VI's 1493 papal bull *Inter cætera* (among other [texts]), which gave the Crowns of Castile and Aragon the ability to colonize in the

MS 79, f. 172r], give the same time span. Yet the report at TNA, SP 12/175, f. 163r, says that he spent just three months north of the river. According to Maurice Browne, Gilbert claimed that Ingram had travelled in the region for "above Three monethes" too. Browne's letter to John Thynne, dated August 20, 1582, is reprinted in *New American World*, ed. Quinn, Quinn and Hillier, vol. 3, 247-48.

Americas, did not pertain to Native Americans, since the pope “had no awthoritie to subiect temprallie the infidells or to take away their land without cawse.” The Pope could not simply eschew the Law of Nations and the Right of Navigation that permitted English merchants to trade by sea and on land. Spanish traders engaged in commerce in England, and English ones in Spain, so “by the Lawe of Nature and Nations,” the Pope and his Spanish co-religionists could not prevent trade “in their gulff in the Adlatick Sea” or elsewhere in the Americas.⁵³

The legality of trading and settling in North America had been on Gilbert’s mind since at least the early 1570s, when he first devised plans to colonize somewhere in the Americas. He and his associates claimed that the 1494 Treaty of Tordesillas that partitioned all of the Americas between Castile and Portugal went beyond papal authority. At the very least, the edict only bound those two realms to remain within their limits. Non-Iberians, he argued, were free to go where they pleased in the Western Hemisphere. Gilbert contended that trade, “possessyon, plantinge of people and habytacion,” should be considered lawful for Europeans in places that the Iberians had “not alredie added to their possession.”⁵⁴ Gilbert cited the example of his own cousin, Thomas Stukeley, whom Elizabeth had provided with a ship during his intended voyage to Spanish Florida in 1563.⁵⁵ French colonists in Florida and Brazil, who owed

⁵³ HHA, CP 10/80, f. 1r; Hakluyt, *Western Planting*, 96-113, offers a similar view.

⁵⁴ TNA, SP 12/95, f. 139v. This manuscript dates from 1574 and was authored by Gilbert, Sir George Peckham, Richard Grenville, Christopher Carleill, and eighteen others.

⁵⁵ See HHA, CP 153/147, f. 1r; in 1570, at a banquet at the home of Robert Dudley, earl of Leicester, Gilbert quarreled with Francis Russell, second earl of Bedford, over Stukeley’s reputation. Gilbert insisted that Stukeley had fled to Spain to assist the Spanish against the Moroccans, but others called him a traitor. Gilbert had to be restrained by his friends. See Kupperman, *Jamestown Project*, 45-49; Juan E. Tazón, *The*

allegiance to Papal authority, were allowed to traffic in the Americas due to the natural rights of trade and temporal dominion, so English merchants deserved the same privileges. Since Spain, Portugal, and France had claimed much of the Americas, Gilbert petitioned Elizabeth and Edward Clinton, first earl of Lincoln, to allow him to colonize regions that other Europeans had ignored.⁵⁶

When Gilbert set his sights on settling Norumbega, he asked Dee to prove England's entitlement to North America. Dee was regarded as the preeminent English authority on international law. Civil lawyer Charles Merbury recalled in 1581 that Dee had presented to Elizabeth various tables based upon ancient and other credible writers proving that should could "iustly call her selfe LADY, and EMPERES of all the Northe Ilands." According to Merbury, Dee had made it apparent to Elizabeth and to her subjects that they had as much of a right to colonize North America as any other Europeans.⁵⁷ In 1577, Elizabeth had, in fact, visited Dee's home, where he declared to her England's "title to Greenland, Estetiland and Friseland" in the North Atlantic.⁵⁸

At about the same time that Gilbert's expedition was expected to depart for North America, Peckham visited Dee to discuss "the tytle for Norombega in respect of Spayn and Portugall parting the whol world's distilleryes." Peckham had known Gilbert from at least 1574, and he was heavily involved in Gilbert's subsequent colonizing endeavors.

Life and Times of Thomas Stukeley (c. 1525-78) (Aldershot, UK: Ashgate, 2003), 64-75, 90-92.

⁵⁶ TNA, SP 12/95, f. 139v.

⁵⁷ John Dee, *The Limits of the British Empire*, ed. Ken MacMillan and Jennifer Abeles (Westport, CT: Praeger, 2004), 29.; Charles Merbury, *A Briefe Discovrse of Royall Monarchie, as of the Best Common Weale: Wherin the subiect may beholde the Sacred Maiestie of the Princes most Royall Estate* (London: Thomas Vautrollier, 1581), A2v.

⁵⁸ John Dee, *The Private Diary of Dr. John Dee, and the Catalogue of his Library Manuscripts*, ed. James O. Halliwell (London: Camden Society, 1842), 4.

Peckham returned to Dee's Mortlake residence in November 1582 with "Clement the seamaster" and one "Mr. Ingram," who was probably David Ingram, another member of Gilbert's circle. England's claim to North America was again undoubtedly among their topics of discussion. Dee must have provided sufficient reassurance of England's right to colonize Norumbega, as Peckham granted him 50,000 acres of the territory in Norumbega that he had recently purchased from Gilbert. He promised an equal amount of land from Gilbert's gift to fellow Catholic Thomas Gerrard, and he promised to send Dee an authorized agreement within a few days.⁵⁹

The reverse of a map created by Dee for Gilbert in 1580 provides insight into his discussions with Peckham, and he presents a strong case for Britain's claim to Norumbega.⁶⁰ Dee titled his work "the Queenes Majesties Title Royal to these foreyn Regions, and Ilands," or "A brief Remembraunce of Sondrye foreyne Regions, discovered, inhabited, and partlie Conquered by the Subjects of this Brytish Monarchie."⁶¹ He divided his single folio treatise into four interconnecting points that laid out the legal basis for the British claim to North America: "The Clayme in particular, The Reason of the Clayme, The Credit of the Reason, and The value of that credit by force of Law." According to Dee, much of North America had been discovered, inhabited, and "partly conquered" by English, Irish, Scottish, and Welsh explorers. He recounted numerous voyages as proof that all of North America from Florida to Newfoundland and the many islands in between belonged to the English. The claim,

⁵⁹ Nicholas H. Clulee, *John Dee's Natural Philosophy: Between Science and Religion* (New York: Routledge, 1988), 187; Fitzmaurice, *Humanism and America*, 44.

⁶⁰ The content of this map will be addressed in chapter three.

⁶¹ BL, Cotton MS Augustus I.i.1v. Much of Dee's argument was a reiteration of his unpublished "famous and Ryche Discoveries" from 1577.

wrote Dee, could be upheld by the law of nations, civil law, and divine law. He copied much of his legal ideas from William Lambarde's *Archaionomia, sive de priscis anglorum legibus libri*, a copy of which he owned.⁶²

Of the dozen British claims to North America cited by Dee, his examples range from historically substantiated expeditions to mythical voyages. John Cabot undoubtedly led an expedition to Labrador in 1497, and though Dee names his son Sebastian in the manuscript, the teen may have accompanied his father to Northeast America. Their expedition and Martin Frobisher's voyages to regions farther north eight decades later are heavily documented. Stephen Borough clearly sailed into the seas north of Russia in 1556 as well.⁶³ Less verifiable among Dee's sources is the alleged voyage of "Mr Robert Thorn his father [ie Robert Thorne the elder] and Mr [Hugh] Eliot of Bristow" to Newfoundland circa 1494. The reputed colony established by the Welsh Prince Madoc ab Owain Gwynedd at "Terra Florida" in 1170 borders on myth, as does the expedition of Irishman Saint Brendan of Clonfert to his namesake island in 560. Dee's list also

⁶² Julian Roberts and Andrew W. Watson, eds., *John Dee's Library Catalogue* (London: Bibliographical Society, 1990), entry no. 681; William Lambarde, *Archaionomia, sive de priscis anglorum legibus libri sermone Anglico, vetustate antiquissimo, aliquot abhinc seculis conscripti, atq[ue] nunc demum, magno iurisperitorum, & amantium antiquitatis omnium commodo, è tenebris in lucem vocati. Gulielmo Lambardo interprete. Regum qui has leges scripserunt nomenclationem, & quid praeterea accesserit, altera monstrabit pagina* (London: John Day, 1568); see MacMillan, *Sovereignty and Possession*, 62; Ken MacMillan has convincingly argued that Dee never presented the map and its corresponding text to Elizabeth. See MacMillan, "John Dee's 'Brytanici imperii limites,'" *Huntington Library Quarterly* 64 (2001): 155.

⁶³ Hakluyt included an account of Borough's voyage in his 1589 *Principal Navigations*. See "The voyage of Steuen Burrough toward the riuer Ob intending the discouerie of the northeast passage, An.1556" in Hakluyt, *The principall navigations, voyages and discoveries of the English nation, made by Sea or ouer Land, to the most remote and farthest distant Quarters of the earth at any time within the compasse of these 1500. yeeres: deuided into three seuerall parts, according to the positions of the Regions wherunto they were directed. ...* (London: George Bishop and Ralph Newberie, 1589), 311-21.

includes King Edward III, who may have spearheaded a northern expedition in 1360, and the voyages to Iceland directed by King Arthur and King Malgo, both of whom may never have existed.⁶⁴

Although some of Dee's examples seem dubious to modern readers, his evidence validated each of his claims. Many medieval European repositories owned manuscript accounts of Saint Brendan's explorations, including *Vita Sancti Brendani* and *Navigatio Sancti Brendani Abbatis*. Dee no doubt had access to such works, and Saint Brendan's Isle was a fixture on most maps of the period and remained a common cartographic feature into the eighteenth century.⁶⁵ Dee owned a number of sources that he interpreted as being relative to Madoc's voyage. He hand-wrote a manuscript containing the Welsh poet Maredudd ap Rhys's verses on Madoc, and it remained in Dee's library until at least 1583.⁶⁶ His copy of Giovanni Battista Ramusio's *Della Navigationi et Viaggi*, now at Trinity College in Dublin, contains copious marginalia and other annotations about Madoc as evidence of the British claim to the Americas. Dee also heavily marked his copy of *Historia del mondo nuovo di Fernando Colombo* (now at the British Library), a biography of Columbus written by his second son, Ferdinand. Dee indicated that the "white men" (f. 114v) encountered by Columbus in the Americas descended from

⁶⁴ BL, Cotton MS Augustus I.i.1v.

⁶⁵ John L. Allen, "From Cabot to Cartier: The Early Exploration of Eastern North America, 1497-1543," *Annals of the Association of American Geographers* 82, no. 3, The Americas before and after 1492: Current Geographical Research (September 1992): 502-3.

⁶⁶ Roberts and Watson, eds., *Dee's Library Catalogue*, 40, entry no. DM35.

Madoc's colonists and that the supposed "Brytishe custom of names" (f. 125r) in some places had the same origin.⁶⁷

Dee also initiated the project to compile the first printed history of Wales, which was finished in 1584 by the Welsh antiquarian, clergyman, and historian David Powel and which included a lengthy account of Madoc's voyage. Powel's sources indicated that Madoc led three voyages to "some part of *Noua Hispania* or *Florida*" and that he left male and female colonists in Mexico in 1170. Citing David Ingram and Gilbert's 1576 *A discourse of a discoverie for a new passage to Cataia*, Powel reiterates that English and Welsh words like Penguin and Briton were used in the Americas, and he even speculates that Moctezuma II and the Aztecs had descended from Madoc's colonists.⁶⁸ Powel concludes that "that countrie [the Americas] was long before by *Brytaines* discovered, afore [before] either *Columbus* or *Americus Vesputius* lead anie *Spaniardes* thither."⁶⁹

Dee had ample documentation at his disposal from Thorne's voyages too. In 1577, he had borrowed some of Robert Thorne the younger's personal papers from

⁶⁷ Julian Roberts and Andrew G. Watson, "John Dee's Library Catalogue: Additions and corrections, November 2009," 8, 11, quote at 11, accessed February 27, 2013, <http://www.bibsoc.org.uk/documents/John%20Dee's%20Library%20Catalogue%204.pdf>; William H. Sherman, "John Dee's Columbian Encounter," in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas (Dordrecht: Springer, 2006), 133-36.

⁶⁸ See Humphrey Gilbert, *A discourse of a discoverie for a new passage to Cataia* (London: Henry Middleton, 1576),

⁶⁹ Caradoc of Llancarfan, *The historie of Cambria, now called Wales: A part of the most famous Yland of Brytaine, written in the Brytish language aboue two hundreth yeares past*, ed. David Powel, trans. Humphrey Llwyd (London: Rafe Newberie and Henrie Denham, 1584), 227-29. Hakluyt included some of Powel's Madoc material in his compilations, and he cited his voyage as proof of Britain's discovery of North America. See "The voyage of Madoc the sonne of Owen Gwynned prince of Northwales to the West Indies. Anno. 1170" in Hakluyt, *Principal Navigations* (1589), 506-7; Hakluyt, *Western Planting*, 88-89. A modern analysis of Madoc is Gwyn Williams, *Madoc: The Making of a Myth* (London: Eyre Methuen, 1979).

London author Cyprian Lucar, whose father Emanuel had been an apprentice to Thorne.⁷⁰

In his manuscripts, Thorne did, in fact, refer to his father and to Hugh Elliot as “the discoverers of the Newfownd Landes,” of which, he claimed, “there is no dowt.” Dee read through the papers and drew in his well-known manicule (hand-with-pointing-finger-symbol) to emphasize Thorne’s statement. He underlined other passages and included another manicule next to Thorne’s comment regarding “the land we fownd, which is called Terra De Labarador.” Throughout the manuscript, Thorne refers to Newfoundland as an English territory discovered by Englishmen, and he claims that the Americas had been unjustly divided amongst the Iberians.⁷¹ A newly discovered butlerage account record of Eliot’s putative voyage to “the new found isle” gives additional credence to Thorne’s story.⁷²

Dee acted as consultant for Frobisher’s expeditions and personally knew Borough from at least 1557, making details of their voyages easy to come by.⁷³ By 1580, primary sources on Cabot’s late fifteenth century crossing of the North Atlantic were more difficult to track down. A number of Dee’s contemporaries included details about

⁷⁰ See Lucar’s note “To Mr. John Dee, 1577,” at BL, Cotton MS Vitellius C. VII, f. 344r; Lucar’s papers on Thorne include BL, Lans. MS 100, ff. 65r-80v, and BL Cotton MS Vitellius C. VII, ff. 329r-341v. See also HHA, CP 245/5.

⁷¹ BL Cotton MS Vitellius C. VII, ff. 331r, 333r, 334r, 338v, 339r, 340r. See Roberts and Watson, eds., *Dee’s Library Catalogue*, entry no. DM34; on Dee’s manicule, see William H. Sherman, *Used Books: Marking Readers in Renaissance England* (Philadelphia: University of Pennsylvania Press, 2008), 25-52.

⁷² Evan T. Jones, “Henry VII and the Bristol expeditions to North America: the Condon documents,” *Historical Research* 83 (August 2010): 452-54. The document in question dates from 1502 rather than 1494, but it reveals Eliot’s involvement in Newfoundland at an early date.

⁷³ On Dee and Borough, see BL, Cotton MS Vitellius C. VII, f. 60v.

Cabot's voyage in their books, so information must have been available at the time.⁷⁴

English chroniclers supplied evidence concerning the earliest voyages mentioned by Dee.

Robert Fabyan in his 1533 *cronycle* recorded that "Malgo kynge of the Brytons" began his reign in 552 and "by hys manhode subdued ye iles of Iseland, Orchades or Orkeys, and Norway wyth other[s]."⁷⁵ In his 1577 *Chronicles*, Raphael Holinshed asserted that King Arthur had conquered Iceland, Götaland in southern Sweden, and other territories during his early sixth century reign.⁷⁶ Dee used Arthur's discoveries to prove to

⁷⁴ George Best, *A True Discovrse of the late voyages of discoverie, for the finding of a passage to Cathaya, by the Northvveast, vnder the conduct of Martin Frobisher Generall: Deuided into three Bookes. In the first wherof is shewed, his first voyage. Wherein also by the way is sette out a Geographicall description of the Worlde, and what partes thereof haue bin discovered by the Nauigations of the Englishmen. Also, there are annexed certayne reasons, to proue all partes of the Worlde habitable, with a generall mappe adioyned. In the second, is set out his second voyage, with the aduentures and accidents thereof. In the thirde, is declared the strange fortunes which hapned in the third voyage, with a seuerall description of the Countrey and the people there inhabiting. VVith a particular Card thervnto adioyned of Meta Incognita, so farre forth as the secretes of the voyage may permit*, bk. 1 (London: Henry Bynnyman, 1578), 16. Dee owned this book. See Roberts and Watson, eds., *Dee's Library Catalogue*, entry no. 1319; Pietro Martire d' Anghiera, *The Decades of the newe worlde or West India, Conteynyng the nauigations and conquestes of the Spanyardes, with the particular description of the moste ryche and large landes and ilandes lately founde in the west Ocean perteynyng to the inheritaunce of the kinges of Spayne. In the which the diligent reader may not only consyder what commoditie may hereby chaunce to the hole christian world in tyme to come, but also learne many secretes touchyng the lande, the sea, and the starres, very necessarie to be knowẽ to al such as shal attempte any nauigations, or otherwise haue delite to beholde the strange and woonderfull woorkes of God and nature*, trans. Rycharde Eden, bk. 3 (London: Guilhelmi Powell, 1555), 118v-119r.

⁷⁵ Robert Fabyan, *Fabyans cronycle newly prynted / wyth the cronycle, actes, and dedes done in the tyme of the reygne of the moste excellent prynce kynge Henry the vii. father vnto our most drad souerayne lord kynge Henry the .viii. To whom be all honour, reuerẽce, and ioyfull contynaunce of his prosperous reygne, to the pleasure of god and weale of this his realme amen* (London: Wyllyam Rastell, 1533), 47r-v.

⁷⁶ Raphael Holinshed, *The Firste volume of the Chronicles of England, Scotlande, and Irelande conteynyng the description and chronicles of England, from the first inhabiting vnto the conquest : the description and chronicles of Scotland, from the first original of the Scottes nation till the yeare of our Lorde 1571 : the description and chronicles of Yrelande, likewise from the first originall of that nation untill the yeare 1571 / Faithfully*

Elizabeth and to Hakluyt (the elder), among others, that several North Atlantic islands belonged to England. Dee owned many of the so-called “Brut Histories” detailing the legendary exploits of the Trojan soldier Brutus, who, it was said, founded Britain, united the British Isles, and was a descendent of Arthur. Many of the Brut stories trace their origins to Geoffrey of Monmouth in the twelfth century.⁷⁷

Based upon the well-documented examples of British voyages to the Americas that he was able to compile, Dee advocated expansion to all of the islands and the mainland north of Florida. He asserted that other Christian rulers, such as Philip II, had staked claims to the continent using the same rationale. Therefore, Elizabeth was justified in sending out her own colonists. Dee showed that the British claim to North America was sufficiently verified by a number of varied authors to permit Gilbert’s colonizing expedition.

As Anthony Pagden has noted, almost every English critique of Spanish sovereignty in the Americas began with rejecting the validity of the Treaty of Tordesillas and the Bulls of Donation.⁷⁸ Dee was no exception. In his unpublished “Brytanici imperii limites” (Limits of the British Empire) from 1578, Dee questioned whether the Iberians, as had been stipulated in the papal decrees, had ever agreed upon a dividing line between their American territories. They never fully explored the Americas to the north

gathered and set forth by Raphaell Holinshed (London: Iohn Hunne, 1577), 133. Dee owned this book. See Roberts and Watson, eds., *Dee’s Library Catalogue*, entry no. 1681; Hakluyt also included accounts of Arthur’s and Malgo’s conquests in his *Principall Navigations* (1589), 243-45.

⁷⁷ Dee, *Diary*, 4, 6; Roberts and Watson, eds., *Dee’s Library Catalogue*, nos. 274, 548, 601, 669, 1200, 1681, 1686, 1687, 1699-1703, 1747, 1968. 59-60; MacMillan, *Sovereignty and Possession*, 59-60; Dee was somewhat obsessed with Arthur, even giving the name to his first born son.

⁷⁸ Pagden, *Lords of all the World*, 48.

of forty-five degrees latitude either, which, Dee reasoned, was why the Pope had not pinpointed the northern boundaries of their empires. According to Dee, the papal bulls and treaties granted the Iberians territories to the south of that line but only to lands that had not been discovered earlier by other nations, leaving much of North America to England.⁷⁹

In Gilbert's instructions for the 1583 voyage, which Dee probably had a hand in writing, he included a brief list entitled "How the crowne of England hath most right to all the mayne land and Islands alongest the coste of America from the cape of Florida to .58. degrees northward." Gilbert and his associates believed that Pope Alexander VI had no right to divide the Americas between Ferdinand II of Aragon and John II of Portugal. Ken MacMillan has verified that the authors of Gilbert's instructions had access to Alexander's 1493 bull *Inter Cætera*, as they asserted that the bull's verbosity, a staple of papal decrees, did not bestow territorial rights.⁸⁰ Although Gilbert's patent employed similar linguistic conventions, English explorers had no qualms about disagreeing with the edict of a long-dead Spanish pope. The bulls precluded non-Iberians from claiming North America, but Gilbert took umbrage with the papal supposition of jurisdiction in the spiritual, as well as the temporal world.

Moreover, Gilbert's circle suggested that Spanish exploration of North America proper postdated England's exploration of the continent. They wrote that Sebastian Cabot had discovered the region from the Cape of Florida to 58 degrees north latitude (Labrador) in 1495. To prove this claim, Gilbert's experts cited Stephen Gomes, who

⁷⁹ Dee, *Limits of Empire*, 92-97; MacMillan, *Sovereignty and Possession*, 66-74.

⁸⁰ MacMillan, *Sovereignty and Possession*, 107.

discussed Cabot's discovery on folio 125 of his "Story of the West Indies."⁸¹ The reference alludes to Pietro Martire d' Anghiera's *History of Trauayle in the VWest and East Indies*, translated by Richard Eden, edited by Richard Willes, and printed in 1577. On the recto of folio 125, Martire recalls that Cabot travelled west from England until he encountered mountains of ice, and thereafter he turned southwest and eventually reached Cuba. Cabot named the northern region "*Baccallaos*" after the plentiful codfish stocks there. Later in his work, Martire states that Cabot travelled as far north as "the Cape of *Laborador* at fyftie and eight degrees" before heading south along the coast. Martire had interviewed Cabot in Spain sometime between 1512 and 1516, so his account had credibility.⁸²

Sebastian Cabot was about fourteen years old in 1495, and Martire never mentions the date of his exploration. Henry VII only granted letters patent to Cabot's

⁸¹ BL, Add. MS 38823, ff. 5v-6r; Sebastian's father John actually led voyages for England during the late fifteenth century. However, beginning in the early sixteenth century, authors beloved that it was Sebastian who led these voyages, hence the confusion in the Gilbert manuscript. 1495 is the date that Cabot probably arrived in England, as he did not embark on his first voyage for Henry VII until 1496. Hakluyt gave this as the date of his voyage in *Divers Voyages* as well, so he may be responsible for this misdating. Authors who have confused Sebastian with John Cabot include William Camden, *Annales The True and Royall History of the famous Empresse Elizabeth Queene of England France and Ireland &c. True faith's defendresse of Diuine renowne and happy Memory. Wherein all such memorable things as happened during hir blessed raigne, with such acts and Tratises as past betwixt hir Ma^{tie} and Scotland, France, Spaine, Italy, Germany, Poland, Sweden, Denmark, Russia, and the Netherlands, are exactly described*, bk. 3 (London: George Purslowe, Humphrey Lownes, and Miles Flesher, 1625), 44.

⁸² Pietro Martire d' Anghiera, *The History of Trauayle in the VWest and East Indies, and other countreys lying eyther way, towards the fruitfull and ryche Moluccaes. As Moscouia, Persia, Arabia, Syria, Ægypte, Ethiopia, Guinea, China in Cathayo, and Giapan: VVith a discourse of the Northwest passage*, ed. Richarde Willes, trans. Richarde Eden (London: Richard Iugge, 1577), 125r, 228r; see Evan T. Jones, "Alwyn Ruddock: 'John Cabot and the Discovery of America,'" *Historical Research* 81 (May 2008): 244-45.

father John in March 1496, but it is possible that the younger Cabot sailed on his father's initial transatlantic voyage. In his *Divers Voyages*, Hakluyt reprinted Cabot's letters patent in both English and in the original Latin, and he dated them as March 5, 1495 (1496 new calendar).⁸³ Cabot did not depart until 1496, so Gilbert may have been referring to the patent as his source. In either case, it served Gilbert's purposes to mention Sebastian rather than his father, because John was born in Venice. By his own account, Sebastian was born in Bristol, so attributing the 1496 voyage to him strengthened England's claim to North America.

In their manuscript instructions, Gilbert and his supporters cited an additional English claim to North America that originated in Martire's text. Spanish writers customarily alluded to Columbus's 1492 voyage to prove that their right to the Americas preceded English expeditions to the Western Hemisphere. Gilbert's experts, on the other hand, cited the 228th folio of an unnamed book to prove that Juan Ponce de León, the first Spaniard to reach North America proper, landed on the continent after the English. In Martyr's text, on the verso of folio 228, he wrote that Ponce de León explored Florida in 1512. His fleet actually dropped anchor at Florida in April 1513, more than fifteen years after Cabot's trailblazing voyage.⁸⁴

Gilbert acknowledged that Columbus had reached the West Indies in 1492, but he and his supporters deemed the islands a separate dominion from the continent.⁸⁵ Apparently unbeknownst to Gilbert and his associates, Pope Clement VII had buttressed the English claim with his 1535 decree stating that North America was not a Spanish

⁸³ Hakluyt, *Divers Voyages*, A1v-A2v.

⁸⁴ BL, Add. MS 38823, f. 6r; Martyr, *History of Trauayle*, 228v.

⁸⁵ Hakluyt, *Western Planting*, 90-97.

possession. Since the Spanish discovery of the continent postdated the late fifteenth century bulls of donation, the Italian Pope denied Spanish exclusivity to the region.⁸⁶ Spanish exploration of Florida during the 1560s gave it control of that region, but Cabot's voyage gave England possession of all America territory north of the River May. Similarly, Gilbert's circle cited Cabot's first voyage to refute André Thévet, who declared that Cape Breton Island in present-day Nova Scotia was discovered by and named for the Bretons in 1504.⁸⁷

Much has been made of the Protestant ethos that distinguished England's earliest colonizers from their Spanish counterparts, but Gilbert and his associates rarely placed their colonizing agenda within a religious context. Gilbert's instructions are one of the few exceptions. He and his experts allude to a few Bible verses to criticize the Spanish colonizers' surreptitious objectives in their genocidal colonizing of North America. Citing Numbers 13, Gilbert insinuates that the native population of the Americas is descended from the Ten Lost Tribes of Israel. Spanish invaders of their land of milk and honey had transformed the territory and eradicated its inhabitants. Gilbert references Spanish avarice in quoting Exodus 11. The chapter describes the final plague in Egypt that began with inquiries over silver and gold, the same metals that Spain had extracted from the Americas. Gilbert suggests that the Spanish would incur God's wrath as the Egyptians had. In citing the Twelfth chapter of Luke, he was probably reiterating verse Two and Jesus's prophesy that "[t]here is nothing concealed that will not be disclosed."

⁸⁶ Weber, *Spanish Frontier*, 69, 386n35; Eccles, *French in North America*, 3.

⁸⁷ André Thévet, *la cosmographie vniverselle d'andré thevet cosmographe dv roy. illvstree de diverses figvres des choses plvs remarquables vevës par l' Auteur, & incogneuës de noz Anciens & Modernes*, vol. 2 (Paris: Pierre l'Huillier, 1575), ff. 1010r, 1024v-1025r.

Gilbert implied that the Spanish colonizers' poor treatment of Native Americans contradicted Biblical teachings and therefore voided their claim to North America. As a consequence, he declared that it was lawful "for all christyans to invade and conquere any suche countryes kingdomes and domynions" held by the oppressive Spaniards.⁸⁸

In Edward Hayes's interpretation of Gilbert's voyage, he pointed out that not long after Columbus had sailed to the West Indies, the Cabots discovered "the rest [of the Americas] from Florida northwards to the behoof of England." Each Spanish attempt to explore or to settle on the mainland had failed (such as Ponce de León's expedition to Florida in 1521, and the Spanish Jesuit mission at Ajacán [Virginia] in 1570), leading Hayes to conclude that God had intervened to stymie Spanish endeavors to enlarge their empire. French explorers had simply assigned toponyms to territories, rivers, and other features that were English possessions due to the right of prior discovery, and Hayes deduced that England had a better substantiated claim to North America than any other European nation.⁸⁹

Gilbert's circle utilized a number of print and manuscript sources to assert English sovereignty over North America and over the North Atlantic. Some of the documents that they consulted were quasi-fictitious and not what a modern observer would deem "objective," but historical research during the sixteenth century was a far different practice. The legends of Sir John Mandeville and Prester John were cited alongside travel narratives by Columbus or Drake, and the distinction between fact and fiction was blurry to some authors and non-existent for others. Despite the apparent naïveté of many

⁸⁸ BL, Add. MS 38823, ff. 6v-7r.

⁸⁹ Edward Hayes, "A report of the voyage and successe thereof, attempted in the yeere of our Lord, 1583. by Sir Humfrey Gilbert knight," in Hakluyt, *Principal Navigations*, 680-81.

early modern scholars and the ostensible partiality of their research practices, the depth of Gilbert's inquiry comes across as strikingly modern. He and his associates referenced a variety of sources from rare manuscript poems and hard to come by papal bulls to recently printed chronicles and the Bible. They skillfully used their resources to discredit Spanish colonizers and to confirm England's discovery of North America. Their research comprised a significant part of Gilbert's preparations, and it gave his expedition credibility.

4. Giovanni da Verrazano's *Refugio* and Gilbert's Plans for a Colony

Once Gilbert and his supporters determined where they could legally colonize in North America, they began searching for the most favorable site for their settlement. The location needed to meet various criteria in order for the colony to thrive; it had to be protected from the rages of the sea, and Gilbert's circle wanted to limit the potential for attacks by Europeans, and, to a lesser extent, by Native Americans. Yet they also hoped to settle near Native American villages to facilitate trade. Gilbert needed a source of fresh drinking water and a port large enough to accommodate ships of several hundred tons burden. A favorable climate and fertile soil would be advantageous as well. Only a few accounts of North America were available in England during the late sixteenth century, but Gilbert's research indicated that the Bay of Refuge ("Refugio," modern-day Narragansett Bay) explored by Giovanni da Verrazano in 1524 met the majority of the criteria that he set up for his colony.

Gilbert received considerable advice on where to settle from Richard Hakluyt, the elder, a practicing lawyer and Member of Parliament who was well-versed in cartography and geography. He also knew Dee and was neighbors with Gilbert's younger brother Adrian at the Middle Temple, one of London's Inns of Court. In notes that Hakluyt wrote for Gilbert in 1578, he suggested that Gilbert settle near the sea by a bay, a lake, or a river to have a protective barrier against assaults. In the event of an attack, any enemy ships would remain open to the wind and waves, while Gilbert's soldiers would be protected and perhaps provisioned by nearby Native Americans. Hakluyt was even more specific in telling Gilbert to plant his colony on "an Ilande in the mouth of some notable river, or upon the poynt of the lande entring into the river." Such a location is indicated on several maps relative to the expedition, and from this spot the colonists would be able to receive supplies from England and could sail unmolested up the river and its tributaries. Hakluyt speculated that one of the rivers might even lead to the Northwest Passage, a common misconception at the time. At the very least, Gilbert's colonists would encounter populations who possessed or who knew where to find a diversity of commodities.⁹⁰

One of Hakluyt's most valuable pieces of advice was to settle in a temperate climate that, according to the thinking of the time, would have minerals, fresh air and

⁹⁰ Hakluyt, *Divers Voyages*, K1r-K3v; though written in 1578, Hakluyt the elder's notes were not printed until 1582, when his namesake included them in his *Divers Voyages* to promote Gilbert's forthcoming voyage. The younger Hakluyt titled them "Notes framed by a Gentleman heretofore to bee given to one that prepared for a discoverie. and went not: And not unfitt to be committed to print, considering the same may stirre up considerations of these and of such other thinges, not unmeete in such new voyages as may be attempted hereafter." Gilbert had slightly different intentions in 1578 that he did for his final voyage, but his initial colonization experience no doubt impacted his later endeavors. On Hakluyt's notes, see Tomlins, "Law's empire," 31; *New American World*, ed. Quinn, Quinn, and Hillier, vol. 3, 2, 23.

water, ample forests, plentiful game, and edible plants like fruits and grains. Gilbert needed such crops for his colony to survive, and he required building materials like stone and timber to construct dwellings, casks, chests, and ships. Hakluyt suggested that Gilbert build a saw mill on a river near forests of Cypress trees, which yielded a hard and durable wood. Since no European had spent enough time in North America to understand its climate, Hakluyt offered a number of proposals to correspond with the site that Gilbert chose. If the region proved to be as warm as La Rochelle, France, Gilbert could use sea water to make salt, a staple of the Newfoundland fishing fleets that would help the colony prosper. If, on the other hand, the climate and soil were more akin to wine producing regions like Seville, Spain; Bordeaux, France; or the Canary islands, his colonists could produce and trade that commodity. Olives and olive oil for cooking, medicine, and clothing production would become their chief exports if the climate resembled that of Southern Spain or the Barbary Coast. Hakluyt speculated that North America might produce cochineal needed for dyes, large animals skins to make leather, or a range of plants from sugar cane to oranges to potatoes.⁹¹

Hakluyt's hypothesis that produce thrived in temperate climates was sound, but, like his contemporaries, he had an imprecise understanding of climate. Prior to leaving on the voyage, Hayes predicted that southern Newfoundland would have a climate analogous to the Anjou or Poitou regions of France due to their similar latitudes. He extrapolated that inland regions were warmer than the fishermen's coastal drying grounds, since mountains protected the area, which was not subject to ocean winds. Hayes admitted that the island, located to the south of England, was colder than his home,

⁹¹ Hakluyt, *Divers Voyages*, K1r-K3v.

a discrepancy that he blamed on the sun's motion; he believed that the sun picked up moisture from the Atlantic as it passed from Europe to the Americas, making it colder in the west. It remained warmer in Europe and Africa, because the sun picked up heat from Asia's deserts. Hayes still suggested that North America was habitable to at least 48 degrees north, since Russia and Sweden, two regions that were colder than Newfoundland, supported relatively large populations at the time.

In one of the most widely read navigational manuals of the early modern era, Martín Cortés's *Arte of Navigation*, the Spanish cosmographer placed the earth's only hospitable zone between the Tropic of Cancer in the south and the Arctic Circle in the north (from approximately 23 degrees north to 67 degrees north latitude). It is no coincidence that Hakluyt, the younger asserted that England legally possessed all of North America between 30 and 67 degrees north.⁹² Cortés's expanse, which includes much of North America, Europe, and Asia, in addition to parts of North Africa, was thought to be the only region on earth that could harbor human life. Land immediately to the south, referred to by Cortés as the "burnt" or "Torrida" zone, was too hot for permanent settlements. Territory beyond the Arctic and Antarctic circles was too cold, a belief seconded by English writer John Rastell.⁹³ Cortés conceded that some cultures thrived between the Tropic of Capricorn and the Antarctic Circle, but he cautioned against settling in such a dry region. Indeed, when Spanish navigators first reached the

⁹² Hakluyt, *Divers Voyages*, ¶3v; Gilbert's 1582 instructions put the northern extent of the claim at 58 degrees north, because his source, Francisco López de Gómera, indicated that Cabot had reached that latitude. See BL Add. MS 38823, f. 5v.

⁹³ Rastell, who wrote the first English text to print the word "america," believed that land beyond Iceland was "so cold...No man may there abyde." See Joyce E. Chaplin, *Subject Matter: Technology, the Body, and Science on the Anglo-American Frontier, 1500-1676* (Cambridge, MA, and London: Harvard University Press, 2001), 17, 43.

equator and points southward during the early sixteenth century, they were amazed to encounter healthy people living in these seemingly uninhabitable regions.⁹⁴

Gilbert concluded that North America had a climate suited for his colony, and he intended to make it profitable by trading English goods for American commodities. The elder Hakluyt offered him numerous recommendations on how to maximize the potential for commerce, many of which Gilbert reissued in his 1582 instructions for the voyage. Of the utmost importance, wrote Hakluyt, was to use “all humanitie and curtesie and much forbearing of revenge to the inland people.” That way, Gilbert would acquire a variety of American commodities and secure reliable allies for the duration of his stay. Discerning which commodities each group possessed and needed, as well as their strengths, weaknesses, and alliances, would benefit the English colonizers too. Hakluyt suggested that Native Americans would dictate interactions with the English, as Gilbert’s men “might not be suffered by the savages to enjoy an whole countrey or any more then the scope of a Citie.” To prevent casualties from potential surprise attacks while trading upriver, he told Gilbert to construct barges and boats “covered with doubles of course linnen.” Even if Gilbert failed to secure an alliance with his nearest neighbors, by controlling a safe haven near the sea, he could engage in trade along the coast and have access to fish for sustenance and trade. Hakluyt optimistically believed that Native Americans would provide Gilbert with supplies and that he would acquire a variety of American commodities by fortifying a navigable river. Obtaining the diversity of American goods known to exist would eliminate England’s dependence upon European

⁹⁴ Martín Cortés, *The Arte of Nauigation, conteynyng a compendious description of the Sphere, with the making of certayne Instrumetes and rules for Nauigations, and exemplified by many Demonstrations*, trans. Richard Eden (London: Richard Iugge, 1579), B8v-C1v.

realms like Spain and France. Rather than enriching their “doubtfull friendes” and wasting England’s precious commodities through intra-European commerce, Hakluyt wanted Gilbert to establish a lucrative trade in North America.⁹⁵

During his preparations, Gilbert also personally spoke with “2 or 3 of the best sort both by office skill and judgment” from Drake’s crew from his circumnavigation. The men informed Gilbert that the most profitable land in terms of fertility, minerals, and other commodities, that they had seen on their trip was at about 45 degrees north latitude. One of Drake’s quarter masters reported the presence of an island in the Pacific Ocean at 46 degrees north which was the most productive place that he saw during his entire voyage.⁹⁶ Gilbert intended to settle at about this same latitude in North America, so the reports from Drake’s voyage certainly gave him hope of finding a productive land.

Dee also was in touch with members of Drake’s crew, including one Hugh Smith, and he authored a brief account of the circumnavigation now in the Lansdowne collection at the British Library.⁹⁷ His intelligence supplemented Gilbert’s knowledge of the region, and Hakluyt knew much about Drake’s voyage too. He wrote a pamphlet on seizing the Strait of Magellan that was based upon William Winter’s report of his return

⁹⁵ Hakluyt, *Divers Voyages*, K1r-K3v. In light of the raging French Wars of Religion, Hakluyt also suggested that Gilbert’s colony could be a safe haven “if change of religion or civill warres shoulde happen” in England. Much like the Pale of Calais, which England had lost in 1558, it would be a bulwark on the continent, yet separate from it. Voyages to the colony and the establishment of a fleet in North America would benefit the English Navy, and Hakluyt felt that Gilbert should “be able to encounter with [a] forreyne force.”

⁹⁶ BL, Add. MS 38823, ff. 7v-8r; a quartermaster was often the fifth in command on a ship, behind the captain, master, master’s mate, and bosun. They were likely in charge of the condition of one quarter of the ship, hence their title, and their areas of specialization varied.

⁹⁷ BL, Lans. MS 122, ff. 21r-29r; Dee, *Diary*, 11; see Peter J. French, *John Dee: The World of an Elizabethan Magus* (London: Routledge & Kegan Paul, 1972), 179.

from the Strait during the circumnavigation.⁹⁸ Drake's crew had taken a vow of secrecy on all matters relating to their voyage, so Gilbert and his supporters could not print any of the information that they received. The comments of Drake's shipmates reinforced Gilbert's confidence in the habitability of the temperate climates of North America, and such first-hand English accounts of the region were difficult to come by.

In addition to locating members of Drake's crew, Gilbert also tracked down and interviewed John Walker, an Englishman who had discovered a silver mine adjoining "the Riuer of Norambega" in 1580. Precisely why Walker sailed to North America is unknown, but he may have done so on Gilbert's behalf. Walker reported that the mine was situated on a hill on the north bank of the river about nine leagues from its mouth. Even more importantly, he estimated that the river's mouth was ten leagues across and twenty-five fathoms deep without sandbars. Upriver at the mine, it maintained a breadth of seven leagues and a depth of more than seventeen fathoms. Walker recalled that the river remained quite wide for at least twenty miles into the interior, at which point he gave up his search. Gilbert focused on the dimensions of the river during the interview, since he wanted to reach the mine and points farther inland. Walker confirmed that the river would accommodate even the largest of Gilbert's ships, and he also had found a Native American village seven miles from the river. The inhabitants possessed large, tanned animal hides, most likely of an elk or a bison. After some minor exploration, Walker returned to England in just seventeen days. With excellent soil, abundant sweet

⁹⁸ Richard Hakluyt, "A Discourse of the Commodity of the Taking of the Straight of Magellanus," in E.G.R. Taylor, ed., *The Original Writings and Correspondence of the Two Richard Hakluyts*, vol. 1 (London: Hakluyt Society, 1935), 139-46; See Hakluyt, *Western Planting*, xvi; Mancall, *Hakluyt's Promise*, 80-82.

wood trees, ample furs, and potential Native American trade partners in a region so near to England, the River of Norumbega presented the ideal location for Gilbert's colony.⁹⁹

Walker made it apparent that the River of Norumbega met much of the criteria that Gilbert had set out for his colony, and his reconnaissance was supported by Gilbert's source materials.¹⁰⁰ In light of Hakluyt's suggestions, Gilbert believed that by fortifying the mouth of the river he could acquire through trade "all the comodities that do or may growe betweene 66. and 23. degrees of latitude," the same temperate region established by Cortés. The river also would grant him access to a number of plentiful lakes and rivers that other Europeans could not explore, which would allow him to control any Euro-Native American trade in the region. Gilbert estimated that the river was within 2000 leagues of the Gulf of Mexico and of the Pacific Ocean, so he eventually hoped to trade in these waters too. Gilbert and his experts referenced "Thevets cosmographie .fo. 1008" and "Verarzanus the discouwerer of those costs [coasts]" to prove that "Noerinberge ... is one of the greatest ryvers in the world."¹⁰¹

Examining Gilbert's sources reveals why he chose to colonize the Norumbega River. On the verso of folio 1008 of Thévet's 1575 *cosmographie vniverselle*, the French explorer depicted the river as the ideal location for habitation in North America.

According to his report, a number of large rivers fed the Norumbega, "one of the most

⁹⁹ TNA, CO 1/1, ff. 9v-10r; how Walker determined that the river of his exploration was the Norumbega is unknown.

¹⁰⁰ Scholars typically associate the Norumbega River with Maine's Penobscot River. Gilbert, however, used Verrazano as his primary source, so he chose to colonize the explorer's "Refugio" (the Narragansett Bay). On the Penobscot and Norumbega, see Susan Danforth, *The Land of Norumbega: Maine in the Age of Exploration and Settlement* (Portland, ME: Maine Humanities Council, 1988), 36-38, 46; Richard D'Abate and Victor A. Konrad, "General Introduction," in *American Beginnings*, ed. Baker, et al., xxv-xxxi.

¹⁰¹ BL, Add. MS 38823, f. 7r.

beautiful rivers on earth,” which the local Narragansett or Wampanoag dubbed the *Aggoncy*.¹⁰² The river was so advantageously located, in fact, that some early sixteenth century French explorers had erected a small stronghold ten to twelve leagues from its mouth that they dubbed Fort Norumbega. When the explorers arrived at the coast, they were greeted by a large group of Native Americans, who offered them food for mere trinkets. Thévet estimated that by fortifying one of the many islands in the bay, which he placed at precisely forty-two degrees, fourteen minutes north latitude, colonists could control the entire coast.¹⁰³ Dee located the Norumbega River at this same latitude on his maps for Gilbert. He renamed it the Dee River, and it is not insignificant that he owned both volumes of Thévet’s compilation.¹⁰⁴

Gilbert and his experts drew up meticulous plans for reconnoitering the River of Norumbega to ensure that it would meet their demands. They designated a member of the crew to consider if the river could be defended at or near its mouth. The authors indicated that a series of small islands or channels near its mouth would be best for defensive purposes. Gilbert could construct a number of small fortifications on the

¹⁰² The term “*Aggoncy*” may derive from the Narragansett word for green, “Agaskee.” See JCB, MS Codex Ind 41– 1 SIZE, vol. 1, pg. 9; the word “Narragansett” is an English distortion of Nanhigganeuck, the Narragansetts’ actual name, which means “people of the small point.” It was not used until the seventeenth century. See Seed, *American Pentimento*, 194.

¹⁰³ Thévet, *la cosmographie vniverselle*, ff. 1008v-1009r. Thévet also located the Norumbega River at about 43 degrees north, and he cautioned that the Norumbega region not be confused with Canada proper at fifty-two degrees north. Scholars have long doubted the veracity of Thévet’s account, particularly folio 1008. See William Ganong, *Crucial Maps in Early Cartography and Place-Nomenclature of the Atlantic Coast of Canada* (Toronto: University of Toronto Press, 1964), 434-35; an English translation of portions of Thévet’s texts is Roger Schlesinger and Arthur P. Stabler, ed. and trans., *André Thevet’s North America: A Sixteenth-Century View* (Kingston, CAN: McGill-Queen’s University Press, 1986).

¹⁰⁴ Dee listed the books as “Cosmographie d’ André Thevet en fancois .2. volum. paris.” See Roberts and Watson, eds., *Dee’s Library Catalogue*, entry no. 238.

islands to intercept enemy fleets attempting to access the bay, and placing ships within each river channel would allow him to block ships from traveling past his forces on the river into the interior of North America. Gilbert's men felt that it would be ideal to locate a place in the bay to anchor his ships and to find good harbors for unloading and loading supplies.¹⁰⁵

Gilbert and his experts also used their sources to catalogue a variety of commodities found in the temperate climates of North America near the Norumbega River that they intended to acquire. Their research indicated that the region possessed several species of coniferous trees like cedar, pine, and spruce that contained softwood for lumber, as well as hardwood trees like ash, birch, and oak for shipbuilding or firewood. Other shipbuilding materials such as pitch, tar, and rosin would be within reach of the colony, and there were also berry producing trees for sustenance. A number of fruits like oranges, a range of plants from gourds to odiferous flowers and apothecary drugs, which were prized trade goods in England, could be found in the region as well.¹⁰⁶

Gilbert discovered that North American wildlife was equally impressive. He hoped to obtain beaver and fox pelts to trade in Europe, along with geese, duck, and other game birds for food. Gilbert and his associates were particularly intrigued by "a great beast like a bull with a long shaggy heares called a Buffoll." Ingram reported seeing a bison during his travels, and Gilbert referenced the animal in providing one of the earliest English descriptions of a walrus: "another beast as bigge as he [the bison], which hath 2

¹⁰⁵ BL, Add. MS 38823, ff. 1v, 7r; a portion of this manuscript has been transcribed by Quinn, Quinn, and Hillier in *New American World*, vol. 3, 244-45. They suggest that the 1582 instructions relate to Peckham's voyage, but the emphasis on the River of Norumbega indicates that they were for Gilbert.

¹⁰⁶ BL, Add. MS 38823, f.7r-v.

teethe like an elyfante and liveth most in the Sea.” Gilbert wrote that whales and both salt and fresh water fish like cod and hake abounded in the region too. The affluence of the Grand Banks fishery off of Newfoundland was well established by the 1580s, but Gilbert boasted that one hundred fish from the Norumbega fishing grounds were worth one thousand “Newland fish.” The high number of quality havens, the numerous navigable rivers, and ocean’s great depth near the coast made fishing even easier. Additionally, Gilbert suggested that the fishing bank provided ample harvests year round, and fishermen could make salt to cure their catch right on the shore. He reported that the region contained alabaster, copper, and rubies, and that Norumbega’s Native Americans possessed gold, “which they accompt [as] the besest [basest] metall.”¹⁰⁷

Gilbert and his associates compiled their list of Norumbega’s flora and fauna in large part from Verrazano’s account of his 1524 voyage. Verrazano reported that Native Americans around the Narragansett Bay possessed copper and alabaster. They prized sheets of copper more so than gold, which, due to its color, they considered “the most worthless of all” metals. Forests of oak, cypress, palms, laurel, and other tree species unknown to Europeans bordered the bay, and nearby one might find Lucullian apples, plums, and fruits not available in Europe. Verrazano commented upon the region’s “enormous number of animals” that included deer, stags, hares, and lynx. The land just a few leagues inland, Verrazano wrote, was “as pleasant as I can possibly describe, and suitable for every kind of cultivation – grain, wine, or oil.” He was certain that the fertile soil would produce an abundance of any crop, and he personally saw fruits, grapevines, and fragrant flowers growing naturally. Verrazano made his discoveries by sailing right

¹⁰⁷ BL, Add. MS 38823, f.7v.

up to the coast, since North America's estuarine waters were quite deep.¹⁰⁸ He went so far as to suggest that the Norumbega River might lead to the Northwest Passage, since Native Americans in the area reported that the great city of Norumbega was near an in-drawing sea. Cartographers like Dee, Thévet, Gerard Mercator, and Abraham Ortelius followed Verrazano's account by placing the great city on their maps.¹⁰⁹

Verrazano's portrayal of the indigenous population of the Narragansett Bay (probably Narragansetts and Wampanoags) was his most detailed ethnological description of any of the groups that he encountered during his voyage. He described them as "the most beautiful" and as having "the most civil customs" of all the peoples whom he met on the voyage. They were more robust, more healthy, and taller than Europeans. They rarely got sick, lived long lives, and readily approached Verrazano's men. Like the majority of the Native Americans whom the explorers encountered, they wore little clothing and willingly traded their possessions for trifles like trinkets and bells. Verrazano stressed that "[t]hey are very generous and give away all they have."¹¹⁰

Verrazano's report made it obvious that from Norumbega one could attain a diversity of commodities from the North American interior, so Gilbert needed to bring with him trade goods prized by the region's Native Americans. Much has been made of the wealth that Europeans gained through American commodities, but English merchants also aspired to find new outlets for their wares.¹¹¹ The Antwerp cloth market began a precipitous decline following the Spanish invasions of the Low Countries in the late

¹⁰⁸ Lawrence C. Wroth, *The Voyages of Giovanni da Verrazzano, 1524-1528* (New Haven, CT: Yale University Press for Pierpont Morgan Library, 1970), 82, 134-39.

¹⁰⁹ Peter Charles Hoffer, *The Brave New World: A History of Early America*, 2nd ed. (Baltimore: Johns Hopkins University Press, 2006), 98.

¹¹⁰ Wroth, *Voyages of Verrazzano*, 87, 134-40.

¹¹¹ See, for example, Kupperman, *Atlantic in World History*, 72-97.

1560s, and England's trade in cloth, its staple export, began to suffer. English merchants quickly sought out new trade partners, which partly explains why the Turkey Company and similar organizations were launched at this time.¹¹² Edward Fenton planned to establish a lucrative trade in Asia in 1582, when he took with him on his voyage a variety and large amount of clothing.¹¹³ Gilbert's associate Peckham commented in 1583 that "it is wel known that all Sauages" in both the north and south of America "will take meruailous delight in any garment be it neuer [ever] so simple" and will pay handsomely for shirts, coats, or caps.¹¹⁴ For Gilbert, exchanging cloth for American commodities would simultaneously secure a much needed market for England's primary export while bringing new, lucrative trade goods into England.

Trading English cloth for American commodities had been a part of Gilbert's colonizing agenda for at least fifteen years by the time that he sailed for Norumbega. In his *discourse*, which was written in 1566 but not printed until 1576, he estimated that Native Americans could replace England's European rivals as its primary outlet for cloth.¹¹⁵ Eight years later, Gilbert wanted to establish a colony somewhere in the Americas, and he intended to fund it by bringing English cloth "to that people...livnge [in the Americas] in the temperaturs of England and other pertes of Europe," who needed clothing to survive cold winters. He and his associates were certain that American commodities could take the place of the declining wool trade with their "skante trustie neighbours" in Europe. They witnessed Iberian merchants rapidly supplanting English

¹¹² See the elder Hakluyt's notes on dyestuffs in Taylor, ed., *Writings of Hakluyts*, vol. 1, 137-39.

¹¹³ TNA, SP 12/153, ff. 90r-91r.

¹¹⁴ Peckham, *Trve Reporte*, E2r.

¹¹⁵ Gilbert, *discourse of Cataia*, H2r.

traders as the primary wool producers in Europe, a trend that debased the value of English cloth. The men planned to assuage England's problem with its ever increasing poor population by employing idle English people at their colony in "the worke of clothes." They allotted £1000, fully a fifth of their capital, to purchase and make "clothes and merchandize fytt for the people" (in the Western Hemisphere).¹¹⁶

Gilbert's 1574 expedition never materialized, but he maintained his plans to trade English cloth to Native Americans during the two expeditions that he organized.¹¹⁷

England's wool trade had decayed even more from its mid-sixteenth century peak when Gilbert prepared his 1578 voyage bound for North America, and he again carried with him various English garments to trade. The pilot of his ship *Falcon*, Simão Fernandes, reported that he had in his hold 200 yards of Holland-cloth, a type of lace linen fabric.¹¹⁸

His cargo also included eight embroidered but unfinished silk doublets, tight-fitting shirts typically worn by men that are the antecedents of modern jackets. Additionally, he had onboard two lengths of Calico-cloth, a plain woven textile originating from and named for the city of Calicut, (now Kozhikode) India, that could be brightly decorated.

Fernandes offered fewer specifics regarding the "certen shirts to the nombre of 4 dosen" or about the "certen dosens of hose and shoes" aboard the *Falcon*.¹¹⁹ Gilbert did not

¹¹⁶ TNA, SP 12/95, ff. 138r-140r. The group probably intended to colonize South America.

¹¹⁷ Gilbert may have made the voyage in 1574, but there is only one obscure reference to support this idea. That year, the "perishing of the five British Shippes uppon the quoaost of Sussex begine richlye laden with merchandizes from the Sowthe perte" was reported. There is a fairly lengthy account of the aftermath in the National Archives. See TNA, SP 12/107, ff. 212r-213r.

¹¹⁸ Fernandes gives the dimensions of the cloth as "The ellne or thereabouts, to the nombre of cc yards." Presumably, he means that the cloth measured 200 yards in length and one ellne (roughly 45 inches) in width.

¹¹⁹ LOC, DBQ, Box 77, Folder 3.

know what clothing Native Americans valued most, so he took with him a variety of garments to suit different needs and interests.

As Gilbert began conducting research for his final expedition, he hoped to determine precisely what clothes to take with him for bartering. Based upon his interview of Ingram, Gilbert expected to find Native Americans wearing little-to-no clothing in the temperate regions of North America. Only a few of the questions that Gilbert asked Ingram in their 1582 interview were recorded, but he was particularly concerned with “what kind of people there be [at Norumbega], and how they be apparrelled.” Ingram recalled that men in the region covered only their mid sections with furs or leaves, and women similarly concealed themselves with leaves. Truthful or not, his report gave Gilbert hope that he would find an outlet for English cloth at Norumbega.

Gilbert asked his ship captains to take note of Native American apparel and to record “the thinges that they in every particuler place shall most esteme either of their owne contryes commodyties or of ours.” He clearly intended to discern what trade goods they desired, and he hoped that clothing was among them. Gilbert designated one of his crewmembers to carry an English dictionary on the voyage to record Native American words next to their English equivalents. The colonists could use this knowledge to make amicable relations and to establish trade. Thomas Hariot wrote such a lexicon of Algonquian words at Raleigh’s Roanoke colony. John White also drew Roanoke’s Algonquians in their garb, thus copying Gilbert’s instructions to his artists to draw “the figures and shapes of men and women in their apparell.”¹²⁰ Not only would these

¹²⁰ BL, Add. MS 38823, ff. 1r-v, 5r.

drawings offer a sense of the inhabitants' appearances to Gilbert's associates in England, but they would also indicate what clothing Norumbega's Native Americans needed most.

By the late sixteenth century it was well-established by European writers that Native Americans willingly traded their valuable commodities for mere trifles (bells, toys, etc.) as well. In John Florio's 1580 translation of Jacques Cartier's voyages, which he wrote for Gilbert, Cartier established that Iroquois merchants literally traded the clothes off of their backs for beads, combs, and bits of tin.¹²¹ Gilbert knew from Verrazano's narrative that Native Americans in the Narragansett Bay could be appeased with simple trifles too. Verrazano anticipated that Native Americans would want European metals like steel and iron, European weapons like swords, or clothes of silk, gold or other materials, all of which they lacked. When he arrived at the bay, the Native Americans who greeted him showed no interest in such items. Instead, Verrazano gave them cheap items like bells and mirrors, which they used as bodily decorations. According to his report, "[t]he things we gave them that they prized the most were little bells, blue crystals, and other trinkets to put in the ear or around the neck."¹²²

As a result of Verrazano's narrative and similar accounts, English explorers commonly brought trinkets with them to the Americas. In 1578, Frobisher took with him "Belles, glasses and other toyes to emboldē[n] the barberous people to vse some courtesie."¹²³ As early as 1566, Gilbert had advocated sending poor children to the

¹²¹ Cartier, *shorte narration*, D4r-E3r, I3r.

¹²² Wroth, *Voyages of Verrazzano*, 138; James Axtell, *Beyond 1492: Encounters in Colonial North America* (New York: Oxford University Press, 1992), 84-85.

¹²³ Thomas Churchyard, *A Prayse, and Reporte of Maister Martyne Forboishers Voyage to Meta Incognita. (A name giuen by a mightie and most great Personage) in which praise and report is written diuers discourses neuer published by any man as yet. Now spoken of by Thomas Churchyarde Gentleman, and dedicated to the right honorable M.*

Americas “to learne handie craftes, & therby to make trifles and such like, which the *Indians* and those people doe muche esteeme.” He reasoned that English merchants could establish trade there to prevent being further “[en]combred with loyterers, vagabonds, and such like idle persons.”¹²⁴ For his 1578 voyage, Gilbert’s loaded his ship *Falcon* with “certen Manylios of brasse,” referring to the pennanular metal armlets and bracelets that were often used as a form of currency in West Africa, especially in present-day Nigeria. William Towerson had taken manillas with him on his voyages to the Guinea coast during the 1550s, and Ingram twice recalled in his interviews with Gilbert’s circle that Native Americans near Norumbega wore manillas.¹²⁵ He told Walsingham, Peckham, and “others of good judgement” that “[a]ll the people [on the North American coast] generallie do weare manilions or bracelets as big as a mannes fynger uppon eche of ther armes and the like on the small of eche of ther legge wherof Commonly one ys golde & two silver.”¹²⁶ In another report, Ingram reiterated that all men and women near Norumbega wore hoops of gold and silver about their legs and arms, which explains why Gilbert brought some manillas with him.¹²⁷

As Gilbert began making preparations for his final voyage, he amassed small trinkets to trade at Norumbega. Sometime before March 15, 1582, John Ashley created

Secretarie Wilson, one of the Queenes Maiesties most honorable Priuie Counsell (London: Andrew Maunsell, 1578), B7r.

¹²⁴ Gilbert, *discourse of Cataia*, H2r.

¹²⁵ Gilbert mentioned in his instructions that he initially planned to establish a base near the Canaries, so he may have wanted to trade the manillas in West Africa for goods that he would need on his voyage.

¹²⁶ BLO, Tanner MS 79, ff. 172v-173r.

¹²⁷ TNA, SP 175, f. 163r.

“beads and other devises to venter with sir Humphrei Gilbert.”¹²⁸ Ashley, a cousin to Elizabeth and a great uncle to Gilbert following his marriage to Kat Champernowne, had known Gilbert for some time and was Master of the Jewel House and treasurer of the queen’s jewels and plate. He was as competent as any person in England to fabricate items for Gilbert to trade.

When Gilbert left England in 1583, Hayes reported that his cargo included various toys and entertainments like morris dancers, hobby horses, and maylike conceits “to delight the Sauage people, whom we intended to winne by all fayre meanes possible.”¹²⁹ Gilbert also had with him half a barrel of morris bells, the small metal bells attached to garments worn by morris dancers.¹³⁰ The dancers were trained to dance the morris around a maypole, and hobby horses were among their accoutrements. The men attached the wicker horse to their waists to pantomime and to make it appear as if they were on horseback. They would then dance by mimicking the movements of a horse. Hayes noted that for the “solace of our people, and allurement of the Sauages, we were prouided of Musike in good uariety.” Gilbert hired trained musicians, who played trumpets, fifes, drums, cornets, and hautboys (oboes), among other instruments, to provide musical accompaniment for his dancers.¹³¹ Taking the time and effort to seek out such men and to provide them with precious provisions shows how much Gilbert desired to make amicable relations with the native population of Norumbega. The morris dance

¹²⁸ Richard Madox, *The Diary of Richard Madox, Fellow of All Souls*, ed. Elizabeth Story Donno (London: Hakluyt Society, 1976), 96. Ashley was a neighbor of Emanuel Lucar, a Merchant-Taylor from London and a Fellow of New College, who had provided documents about Robert’s Thorne voyage to Dee and to Hakluyt for his *Divers Voyages*.

¹²⁹ Hayes, “report of Gilbert,” 684-85.

¹³⁰ LOC, DBQ, Box 77, Folder 3; Gilbert took two firkins worth of morris bells with him. This amount equaled approximately half of a barrel.

¹³¹ Hayes, “report of Gilbert,” 684, 692.

has been performed in England since at least the fifteenth century, and Gilbert's research assured him that Native Americans would appreciate the music and pageantry as well.

Hayes recalled that Gilbert's fleet also was "indifferently furnished of all petty haberdashery wares to barter with those simple people" (in North America).¹³² The garments among Gilbert's cargo probably included coats and shirts, though haberdashers also made trinkets like bells, glass, and beads.¹³³ Either way, it is clear that Gilbert brought with him a number of different commodities to trade at Norumbega. Ingram, Verrazano, and other Europeans who had been to North America confirmed that Native Americans on the eastern coast prized trinkets that had little value in Europe. They also lacked clothing, an auspicious shortage for English merchants in desperate need of a new outlet for their staple commodity. Gilbert blueprinted his colony to become profitable through commerce, and his research gave him a clear idea of the trade goods that he should take with him on his expedition.

5. Conclusion

When the last of Gilbert's ships dropped anchor in St. John's Bay, Newfoundland, on August 3, 1583, Gilbert convened his ship captains, his masters, and all of the English masters and owners of fishing vessels presently in the bay. Aboard his flagship *Delight*, Gilbert showed the assembly his letters patent and told them that his intent was "to take

¹³² Hayes, "report of Gilbert," 684-85.

¹³³ Gilbert would have needed canvas and calf-skins to wrap around the clothes to prevent dampness during the voyage. See G.V. Scammell, *Ships, Oceans and Empire: Studies in European maritime and colonial history, 1400-1750* (Aldershot, UK: Variorum, 1995), essay 4, 363.

possession of those lands to the behalfe of ye crowne of England, & the aduancement of Christian religion in those paganish regions.” Gilbert requested the fishermen’s assistance, so far as they would offer, in repairing his fleet and in providing supplies for his crew. The English and foreign fishermen welcomed Gilbert to the harbor by discharging their cannons, and they furnished Gilbert’s crewmembers with all of the food and drink that they needed.

Two days later, Gilbert ordered his tent to be pitched near the bay. He summoned his crew, as well as the English and foreign merchants and masters at port, so that all might “be present at his taking possession of those Countreis.” His letters patent were read aloud in English and interpreted for foreigners, and, as per his patent, he took possession of all lands and waters within 200 leagues in every direction in the name of Queen Elizabeth. Gilbert also “had deliuered vnto him (after the custome of England) a rod [a stick] and a turffe of the same soile, entring possession also for him, his heires and assignes for euer.” He explained that thereafter the area should be accepted as a territory of the Queen of England, and that he had the right to possess it and to enjoy it. With the land now under his jurisdiction, Gilbert established three laws based in English law that he expected everyone in his territory to obey. Only the Church of England would be tolerated. Elizabeth was to be defended against any traitors. Anyone blaspheming against the Queen would lose their ears as well as their ships and goods. Gilbert ordered that the laws and his claim be written down, and, apparently, all present consented to follow him. Likewise, Gilbert’s men erected the Arms of England engraved in lead on a pillar of wood, and he allotted drying grounds for any fishermen who agreed to pay him

rent and serve him and his heirs.¹³⁴ During his week-long stay at Newfoundland, Gilbert also drew up passports for foreign fishermen present in the bay, allowing them to troll his waters for their catch.¹³⁵ Together with the maps drawn of the region and of the surrounding waters, Gilbert's formal possession ceremony gave him sufficient title to Newfoundland and gave England its first colonial territory beyond Britain.

Despite the great lengths that Gilbert took to assert his authority on the island, non-Anglo fishermen continued to freely utilize the Grand Banks fishery for decades, even after Gilbert's kinsman Bernard Drake attacked several Iberian vessels at Newfoundland in 1585.¹³⁶ The fishermen who frequented the banks had no reason to change their habits in a system that had been in place for as long as ninety years.¹³⁷ While Gilbert's annexation of Newfoundland did not change the composition of the fishery, his successors built upon his research to justify England's colonizing of North America. Virginia colonist William Strachey cited many of Gilbert's examples to prove that the land from Florida to Cape Breton rightfully belonged to the English Crown. He declared that the Spanish did not maintain an army on the land, and their lone settlement at St. Augustine was hardly sufficient entitlement to all of North America. He cited Madoc's 1170 voyage as proof of the British claim to the region, and he explained that Native Americans used Welsh words and placed crosses in their homes. Cabot's voyage,

¹³⁴ Hayes, "report of Gilbert," 686-88.

¹³⁵ An example of Gilbert's passport can be found in Chicago at the Newberry Library (hereafter NL), Ayer MS 1236, ff. 1r-2v.

¹³⁶ See Probasco, "Elizabeth, Gilbert, and Conflict," 119-35.

¹³⁷ Seventeenth century English colonizers of Newfoundland recalled that Gilbert's voyage had guaranteed English domination of the island. See JCB, MS Codex Eng 4 – 2 SIZE, pgs. 1-2.

wrote Strachey, proved that English sailors had reached North America prior to Columbus, which gave them the right to colonize the continent.¹³⁸

Dee, Gilbert, and Hakluyt were among the first men in England to explain at length the British title to North America. Although some of the claims that they cited were not very strong, each was supported in print and/or manuscript sources. It would have been much easier for Gilbert to simply plant his settlement without considering England's entitlement to North America, but he needed to reassure potential colonists of their right to inhabit the region. The extensive research of Gilbert and his supporters confirmed that the English had as much right to people North America as any other Europeans, and the agreed upon location of his colony became the favored destination of English colonizers for more than a century.

¹³⁸ JCB, MS Codex Eng 105 – 1 SIZE, pgs. 8-14.

Chapter Two

“For you, Sir Humphrey, wanted this literary offspring of mine”: The Promotional

Literature of Gilbert’s Expedition

*We are haulf perswaded to enter into the journey of
Sir Humphry Gilbert very eagerli; whereunto your
Mr Hackluit hath served for a very good Trumpet.*

-Sir Philip Sidney to Sir Edward Stafford, July 21, 1584¹

1. Introduction

Humphrey Gilbert was among the first English writers to advocate American colonization in print. At the urging of his longtime friend, poet George Gascoigne, Gilbert allowed his 1566 manuscript to be printed a decade later as *A discourse of a discouerie for a new passage to Cataia*. In the text, he suggested settling “about the Sierra Nevada,” which, à la Abraham Ortelius, he depicted at the opening of the fabled Northwest Passage on a map enclosed at the end of the book. Gilbert wanted to transplant England’s growing poor population to a re-provisioning station between England and Cathay, where they would provide cheap labor for extracting North American commodities.² Even if much of his work was conjectural, it encouraged

¹ Sidney’s letter to Stafford, which is no longer extant, is printed in Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 264. It is conspicuously dated more than a year after Gilbert’s departure, which likely indicates that Sidney was interested in continuing Gilbert’s objectives with Peckham and others.

² Gilbert, *discourse of Cataia*, H1v; Gilbert knew Gascoigne from at least 1572, when he fought under Gilbert in the Low Countries; on the *discourse*, see Glyn Williams, *Arctic Labyrinth: The Quest for the Northwest Passage* (London: Penguin, 2009), 15-16.

Martin Frobisher to initiate preparations for a voyage in search of the Passage, and Gilbert's book was printed to promote that voyage.

During the late 1560s and the early 1570s, Gilbert wrote several other humanist tracts, most of which dealt with Irish colonization, but the *discourse* is his only known printed work.³ Gilbert asked Gascoigne, "the most inventive and influential of the early Elizabethan poets," to write the preface for that text, and the author made minor alterations from his 1566 manuscript.⁴ Amidst the preparations for his expeditions, Gilbert enlisted a diverse assortment of writers to publicize his intentions. By 1578, Gascoigne had died, so Gilbert called upon Thomas Churchyard, another influential poet who had fought under Gilbert in the Low Countries in 1572. Together with actor Paul Bucke and the Bristol merchant and translator John Frampton, they published three varied works in support of Gilbert's first voyage in 1578.⁵ Five years later, Gilbert's circle went to even greater lengths to print a number of promotional documents to help

³ See, for example, BL Lans. MS 98, ff. 1r-7v; BL, Add. MS 48017, ff. 118r-125v; BL, Add. MS 48015, ff. 397r-407v.

⁴ Gillian Austen, *George Gascoigne [Studies in Renaissance Literature, vol. 24]* (Cambridge, UK: D.S. Brewer, 2008), xi; Gilbert, for example, included in his book details from Abraham Ortelius's atlas, which was not in print in 1566.

⁵ These include Paul Bucke, *Praier for Sir Humfrey Gilberte* (London?: H. Kirkham, 1578); Churchyard, *discourse of entertainment*, H2r-K3v; Martin Fernández de Enciso, *A Briefe Description of the Portes, Creekes, Bayes, and Hauens, of the Weast India: The Originall whereof was directed to the mightie Prince Don Charles, King of Castile, &c*, trans. John Frampton (London: Henry Bynneman, 1578). Gilbert is the dedicatee of the latter work, as he probably intended to reach North America via the Caribbean. Enciso's text was the first European tract describing the geography of the West Indies and North America. Bucke's *Praier* is not extant. See Donald Beecher, "The legacy of John Frampton: Elizabethan Trader and Translator," *Renaissance Studies* 20, no. 3 (2006): 320-39; Gilbert also received an advertisement from author and Gascoigne admirer George Whetstone, who was listed as a gentleman aboard *The Hope of Greenway* for the 1578 voyage. He alludes to travelling with Gilbert's "honorable voidage" in his *Promos and Cassandra*, one of the primary sources for Shakespeare's *Measure for Measure*. See Whetstone, *The Right Excellent and famous Historye, of Promos and Cassandra: Deuided into two Commicall Discourses...* (London: John Charlewood, 1578), A2r.

fund the expedition and to gain subscribers. Gilbert was not the only Elizabethan voyager to utilize print; Frobisher, Raleigh, and the young Thomas Smith issued a number of manuscript and printed promotional texts, but the substantial financial support that they received from wealthy government officials and nobles precluded the need to publish with the same breadth and diversity as Gilbert.⁶

Richard Hakluyt, who has rightly been dubbed “the most important promoter of the English colonization of North America in the Elizabethan Era,” was one of Gilbert’s more ardent supporters.⁷ He was involved in the dissemination of at least three works that promoted the 1583 expedition, and he may have been the impetus behind others. Gilbert’s precise role in promoting the voyage can only be speculated upon, since the available sources do not allow for anything more. He was well educated and endorsed learning, and he and his supporters clearly recognized the value of printed texts for promotional purposes. To advertise the voyage, they printed no less than seven texts, ranging from a humanist-authored Latin poem to an English report on Norumbega compiled from interviews with an illiterate sailor. Many of the documents were first-hand accounts from the Americas that appealed to readers and thus spoke to what

⁶ See, for instance, I.B., gentleman, *A Letter sent by I.B. Gentleman vnto his very frende Mayster R.C. Esquire, vvherin is conteined a large discourse of the peopling & inhabiting the Cuntry called the Ardes, and other adiacent in the North of Ireland, and taken in hand by Sir Thomas Smith one of the Queenes Maiesties priuie Counsel, and Thomas Smith Esquire, his Sonne* (London: Henry Binneman, 1572), which was written to promote Thomas Smith’s attempt to colonize the Ards in Ireland; Dionyse Settle, *A true reporte of the laste voyage into the West and Northwest regions, &c. 1577 worthely atchieued by Capteine Frobisher of the sayde voyage the first finder and Generall. With a description of the people there inhabiting, and other circumstances notable* (London: Henrie Middleton, 1577); Hakluyt, *Western Planting*.

⁷ Heidi Brayman Hackel and Peter C. Mancall, “Richard Hakluyt the Younger’s Notes for the East India Company in 1601: A Transcription of Huntington Library Manuscript EL 2360,” *Huntington Library Quarterly* 67 (September 2004): 436.

Anthony Pagden calls “the autopic imagination.”⁸ Ascertaining the effectiveness of each of Gilbert’s printed works is difficult, but when sources allow, it appears that they ranged from moderately to highly effective in gaining investments. Examining the potential sources for each text reveals the considerable research conducted by their authors and offers a sense of what Gilbert and his associates expected to find in North America. Placing the works within their historical context and imagining their intended audience clarify how these men expected print to benefit their expedition.

The printed texts issued in support of Gilbert’s voyage have not been examined as a unit, and few scholars have recognized the significance of this corpus.⁹ In the most exhaustive study of the works, Mary Fuller suggests that “the Gilberteana [Gilbert materials] established ways of theorizing and representing English discovery projects which would persist over decades.”¹⁰ His texts were among the earliest to comprise “a distinct literature of colonization” in England, but the promotional documents for the 1583 expedition remain largely overlooked, aside from a few analyses of Hakluyt’s

⁸ Anthony Pagden, *European Encounters with the New World: From Renaissance to Romanticism* (New Haven, CT: Yale University Press, 1993), 51-54.

⁹ See Fuller, *Voyages in Print*, 16-38; Rachel Lloyd, *Elizabethan Adventurer: A Life of Captain Christopher Carleill* (London: Hamilton, 1974), 80-81; Mancall, *Hakluyt’s Promise*, 92-101; Pamela A. Neville-Sington, “‘A very good Trumpet’: Richard Hakluyt and the Politics of Overseas Expansion,” in *Texts and Cultural Change in Early Modern England*, ed. Cedric C. Brown and Arthur F. Marotti (Houndmills, UK: Macmillan, 1997), 67-69; Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 183; Other books on the topic include Francisco J. Borge, *A New World for a New Nation: The Promotion of America in Early Modern England* (Bern, Switzerland: Peter Lang, 2007); Moran, *Inventing Virginia*; Jeffrey Knapp, *An Empire Nowhere: England, America, and Literature from Utopia to The Tempest* (Berkeley: University of California Press, 1992).

¹⁰ Fuller, *Voyages in Print*, 20; for a similar thesis, see McFarlane, *British in Americas*, 25.

Divers Voyages.¹¹ Gilbert and his supporters printed varied texts in great numbers to appeal to a broad and heterogeneous audience. A range of individuals from the Cambridge educated soldier-adventurer Christopher Carleill to the Italian linguist John Florio authored promotions for the voyage, and nearly all of these men were well educated humanists like Gilbert. As Andrew Fitzmaurice recently declared, two interconnected characteristics distinguish the promotional tracts of the era and of Gilbert's voyages in particular; their intent was primarily to advocate the colonizing of the Americas and their authors were among sixteenth century England's most accomplished humanists.¹² Many of Gilbert's backers conducted substantial research to ensure that their content was as accurate as possible, which would give their patron the best chance of acquiring funding and thus the greatest probability of attaining success.

Gilbert's wave of publications coincided with a marked increase in Anglo-Spanish tension, which gave his body of texts broader, national implications. English writers aimed to discredit the Spanish colonization model while enticing English investors to immigrate to North America. As Andrew Hadfield writes, "it is not without significance that the *Brevissima Relación* [by Bartolomé de Las Casas] was translated as *The Spanish colonie*, or that it appeared in 1583 when the first concerted efforts to establish colonies in the New World were being made by the English." He cites the "significant number of exhortatory and propagandist treatises" printed at this time,

¹¹ Peter C. Mancall, *Envisioning America: English Plans for the Colonization of North America, 1580-1640* (Boston: Bedford Books, 1995), 3; see Jack P. Greene, *The Intellectual Construction of America: Exceptionalism and Identity from 1492 to 1800* (Chapel Hill and London: University of North Carolina Press, 1993), 36-49; E. Brooks Holifield, *Era of Persuasion: American Thought and Culture, 1521-1680* (Boston: Twayne Publishers, 1989), 14, 19-38.

¹² Fitzmaurice, *Humanism and America*, 43-50.

including the works of Hakluyt, Peckham, and Florio, as evidence of anti-Spanish sentiment in England.¹³ In addition to promoting Gilbert's colony, these works made English readers aware of the threat posed by unfettered expansion of Catholic Spain. Gilbert and his associates acted with a sense of urgency, and they wanted to persuade investors to get their share of the American landmass before it was too late.

Gilbert needed promotional works simply to make the Americas known to potential investors, as only a handful of experts and fishermen had any detailed knowledge of the area. Moreover, as of 1580, English authors had published less than a dozen works on the Americas, the majority of which were translated foreign accounts. The Frobisher texts offered some pertinent information for investors, but they dealt with regions to the north of Gilbert's intended destination. Frobisher also did not intend to colonize, which meant that he had only nominal interest in researching North American land. By printing several works pregnant with information on North America's commodities, geography, and inhabitants, Gilbert's circle not only introduced Norumbega to England's reading public, but they also effectively used the printed word to persuade Englishmen to invest enough money to allow the expedition to depart. Gilbert's voyage may never have left England without the work of his propagandists, who eloquently and persuasively made a case for colonizing North America.

¹³ Hadfield, *Literature and Colonial Writing*, 96-104; Thomas Scanlan begins his study of early modern travel writing in 1583, because that year marked the "date of publication of an extremely influential and significant colonial text," the English translation of Las Casas. See Thomas Scanlan, *Colonial Writing and the New World, 1583-1671: Allegories of Desire* (Cambridge: Cambridge University Press, 1999), 1; Bartolomé de Las Casas, *The Spanish Colonie, or Briefe Chronicle of the Acts and gestes of the Spaniardes in the West Indies, called the newe World, for the space of xl. yeeres*, trans. M. M. S. (London: Thomas Dawson, 1583).

2. John Florio's *shorte narration*: Announcing the Expedition and Introducing English Readers to Norumbega

Four years after Gilbert first advocated English colonization of the Americas in print, a similar suggestion appeared in the earliest known text associated with the 1583 voyage. In 1580, John Florio translated Giovanni Baptista Ramusio's own translation of Jacques Cartier's voyages to New France, and he entitled his book *A shorte and briefe narration of the two Nauigations and Discoueries to the Northwest partes called Newe Fravnce*. Gilbert cited Cartier's voyages numerous times in his 1576 *discourse*, because the French explorer's travel logs provided considerable information about North American geography and North Atlantic ocean currents.¹⁴ Gilbert clearly admired Cartier. He had read Ramusio's Italian version of his voyages in *Navigazioni et Viaggi*, and the idea of publishing Cartier's account originated with either he or Hakluyt. Hakluyt contacted Florio on Gilbert's behalf, financed the printing of the book with some of his associates, and provided Florio with his edition of Ramusio's *Navigazioni et Viaggi*.¹⁵ Hakluyt likely revised Florio's translations and wrote the introductory remarks on the benefits resulting from American colonization. At the very least, he looked them

¹⁴ See Gilbert, *discourse of Cataia*, C3v-D1r, D2v.

¹⁵ Hakluyt, *Divers Voyages*, ¶3v; Hackel and Mancall, "Hakluyt the Younger's Notes," 423; Anthony Payne, "'Strange, remote and farre distant countreys': The Travel Books of Richard Hakluyt," in *Journeys through the Market: Travels, Travellers, and the Book Trade*, ed. Robin Myers and Michael Harris (New Castle, DE: Oak Knoll Press, 1999), 4, 12-13, 34; see Giovanni Batista Ramusio, *Terze volume della navigazioni e viaggi nel qualsi contengono le navigazioni al mondonuovo* (Venice: Tommaso Giunti, 1556), 435r-453v; Fuller, *Voyages in Print*, 146; Mancall, *Hakluyt's Promise*, 86-87.

over to ensure their accuracy.¹⁶ No less than thirteen copies of Florio's translation survive, which is an average number of extant examples in comparison to similar travel accounts from the era.¹⁷

Publishing translated selections from Ramusio's text was the perfect way to announce Gilbert's voyage. The significance of Ramusio's book for late sixteenth century European explorers is difficult to overstate, as it was the earliest compendium of travel writing and the most comprehensive source available on early modern voyages.¹⁸ As Florio noted in his preface, Ramusio had called for the creation of colonies in North America due to the region's fertile soil, abundant fauna, and navigable rivers. Hakluyt continued to recommend Ramusio's collection as a necessary source for overseas travelers into the seventeenth century.¹⁹ Despite its importance to European expansion, the book, along with many other notable texts in the genre, had not been translated into English by 1580. England lacked the exploratory experiences of France, Portugal, or Spain, so no comparable English text existed. Deceased translators like Richard Eden and Richard Willes had made noteworthy exploration texts available to English readers hungry for such accounts, but the absence of Ramusio's book within the vernacular travel

¹⁶ Andrew Fitzmaurice disagrees, saying Florio likely completed the introduction. See Fitzmaurice, *Humanism and America*, 153-54; Quinn and Cheshire, ed. and trans., *New Found Land*, 20; R.A. Skelton, Introduction to Giovanni Battista Ramusio, *Navigazioni et Viaggi, Venice 1563-1606*, ed. R. A. Skelton and George B. Parks (Amsterdam: Theatrum Orbis Terrarum, 1970), xiii; David B. Quinn, *Richard Hakluyt, Editor: A Study Introductory to the facsimile edition of Richard Hakluyt's Divers Voyages (1582) to which is added a facsimile of A Shorte and Briefe Narration of the Two Navigations to Newe Fraunce Translated by John Florio (1580)*, vol. 1 (Amsterdam: Theatrum Orbis Terrarum, 1967), 6-7.

¹⁷ Quinn, *Hakluyt Editor*, vol. 1, 46-7.

¹⁸ Quinn, *Hakluyt Editor*, vol. 1, 2.

¹⁹ See HL, MS EL 2360, f. 2r.

literature was a prominent omission.²⁰ Florio's translation remedied the situation and provided the literate public with information about Gilbert's intended destination.

Hakluyt possessed the language skills to translate Ramusio's Italian, since he translated Italian documents two years later for his *Divers Voyages*. He wanted to ensure the veracity of Cartier's accounts, however, so he recruited the young Italian linguist John (Giovanni) Florio to help him. Born in London to Italian Protestant exiles, Florio spent time in Switzerland before returning to England during the early 1570s. A humanist like Gilbert and Hakluyt, Florio met the latter while matriculating at Oxford, where he taught Italian, the language of the Renaissance and one en vogue at the University. Florio probably tutored Hakluyt, who himself taught geography at Oxford during the late 1570s and the early 1580s.²¹ In Florio's first publication, a 1578 introduction to Italian phraseology entitled *Florio, His firste Fruites*, he included a commendatory verse by one "R.H. Gent," so the two had known one another for a few years by 1580.²² Around this time, Florio also attempted to gain access to the academic circle of Philip Sidney, an enthusiastic colonization proponent in his own right. In 1582,

²⁰ On this topic, see William H. Sherman, "Bringing the World to England: The Politics of Translation in the Age of Hakluyt," *Transactions of the Royal Historical Society* (Sixth Series) 14 (2004): 204-6; Jonathan Hart, "The Example of Spain: French and English Representations of the Spanish in the New World," in *Colonizer and Colonized (Proceedings of the XVth ICLA Congress Leiden 1997)*, ed. Theo D'haen and Patricia Krüs, vol. 2 (Amsterdam and Atlanta: Rodopi, 1999), 337-56; Eden's translations included Sebastian Münster's *A treatise of the newe India* (1553), Pietro Martire d'Anghiera's *Decades of the new world* (1555), and Gonzalo Fernández de Oviedo y Valdés's *Summario* (1555).

²¹ Quinn, *Hakluyt Editor*, vol. 1, 3; on Florio, see Michael Wyatt, *The Italian Encounter with Tudor England: A Cultural Politics of Translation* (New York: Cambridge University Press, 2005), 157-254.

²² John Florio, *Florio, His firste Fruites: which yeelde familiar speech, merie Prouerbes, wittie Sentences, and golden sayings. Also a perfect Induction to the Italian, and English tongues, as in the Table appeareth. The like heretofore, neuer by an man published* (London: Thomas Dawson, 1578), **4r; See Fitzmaurice, *Humanism and America*, 45.

Florio dedicated some Italian verses to another major Elizabethan expansionist, Edward Dyer, so Hakluyt and Gilbert were not his only connections to overseas activities.²³

Florio's translation was printed on June 25, 1580, amidst Gilbert's preliminary preparations for his expedition. Sometime between April and November of that year, Gilbert sent Simão Fernandes to Norumbega to reconnoiter for a preferable colony site, and he had recently revived his colonization plans when the text went to print. Florio did not mention Hakluyt's support in the text, but Hakluyt explained his role two years later in his own book, *Divers Voyages*, another of Gilbert's promotions. In addition to paying the print costs of Florio's book with his friends' help and suggesting that it be translated in the first place, Hakluyt also claimed that the text was "to be annexed to this present translation" (*Divers Voyages*).²⁴ Of the twenty-two extant examples of *Divers Voyages*, only one remains bound with Florio's translation: the copy at St. John's College, Oxford. Hakluyt scholar Anthony Payne cautioned that the initials "P S" and the instruction "Florio ... iind" on the book's vellum binding do not necessarily indicate that it belonged to Philip Sidney, but this scenario makes sense due to Florio's interest in joining the

²³ Wyatt, *Italian Encounter*, 165-66; Frances A. Yates, *John Florio: The Life of an Italian in Shakespeare's England* (Cambridge: Cambridge University Press, 1934; reprint 2010), 27-29, 41-47; Quinn, *Hakluyt Editor*, vol. 1, 3; The Latin dedication to the work included verses by Florio's friends like playwright Matthew Gwinne and poet Samuel Daniel, among others, so he must have been well known already; Florio later became famous for his English-Italian dictionary (1598) and his English translation of Montaigne's *Essays* (1603), which he completed using the patronage of French ambassador to England, Michel de Castelnau, Seigneur de la Mauvissière, whose children he also tutored. See TNA, SP 78/14, ff. 80-81, 100, 108, 119; Matthew Steggle, "Charles Chester and Richard Hakluyt," *Studies in English Literature, 1500-1900* 43, no. 1: The English Renaissance (2003): 69.

²⁴ Hakluyt, *Divers Voyages*, ¶3v; see Quinn, *Hakluyt Editor*, vol. 1, v.

Sidney circle.²⁵ Other historians have suggested that adjoining the texts might have been impossible by 1582 if too few of Florio's translation survived when Hakluyt needed them.²⁶ Hakluyt clearly intended to bind Florio's book to his own tract, and the probable explanation for his choice is also the simplest one: affixing the books would obviate the need to reprint Florio's translation on its own. Together, the works encompass much of Europe's knowledge about Northeast America, and they would, therefore, comprise an excellent piece of publicity for Gilbert's voyage.

Cartier's account focuses on the St. Lawrence Seaway rather than Norumbega, a geographic discrepancy that has led scholars to shy away from associating *A shorte and briefe narration* with Gilbert's voyage.²⁷ Payne speculates that Hakluyt initiated the project to shed light on the economic possibilities available in the St. Lawrence region as a way to promote Southampton merchant Edward Cotton's 1580 expedition to the area, or that he simply wished to make the previously inaccessible Italian accounts available in English.²⁸ David B. Quinn originally conjectured that Hakluyt wanted to encourage expeditions to the St. Lawrence region that would supplement Gilbert's primary voyage.²⁹ Quinn later revised this thesis, and, like Andrew Fitzmaurice and John Parker,

²⁵ Payne, "strange, remote, and farre," 12-13; Pamela A. Neville-Sington and Anthony Payne, *An Interim Census of Surviving Copies of Hakluyt's Divers Voyages and Principal Navigations* (London: Hakluyt Society, 1997), 28.

²⁶ Quinn, *Hakluyt Editor*, vol. 1, 12.

²⁷ See Mancall, *Hakluyt's Promise*, 86-89; Margaret Small, "A World Seen through Another's Eyes: Hakluyt, Ramusio, and the Narratives of the *Navigazioni et Viaggi*," in *Richard Hakluyt and Travel Writing in Early Modern Europe*, ed. Daniel Carey and Claire Jowitt (Farnham, UK: Ashgate, 2012), 50.

²⁸ Payne, "strange, remote, and farre," 13.

²⁹ Quinn and Cheshire, ed. and trans., *New Found Land*, 20; David B. Quinn and Alison M. Quinn, "A Hakluyt Chronology," in *The Hakluyt Handbook*, ed. David B. Quinn, vol. 1 (London: Hakluyt Society, 1974), 274.

he found it likely that Hakluyt printed the work to directly support Gilbert.³⁰ As Dee's 1583 map for Gilbert makes evident, both men regarded the St. Lawrence River as Norumbega's northern border, and they certainly believed that Cartier's account had relevance to the region.³¹ Gilbert's expedition was the only documented voyage that Hakluyt was involved with in 1580, so Florio was certainly working for Gilbert's benefit.

Edward Cotton did, in fact, receive permission from Gilbert to claim land in North America under his patent, but Cotton's voyage departed before Florio's work was printed.³² Since the book did not engender his voyage, its date and content support the argument that Hakluyt and Florio collaborated to announce Gilbert's intended voyage and to gain investments. The writers alluded to their goal in the title, since they believed that the translation would benefit "all venturers, trauellers, and discouerers." Similarly,

³⁰ See Quinn, *Hakluyt Editor*, vol. 1, 6-7; Fitzmaurice, *Humanism and America*, 45, 153; John Parker, *Books to Build an Empire: A Bibliographical History of English Overseas Interests to 1620* (Amsterdam: N. Israel, 1965), 105.

³¹ See BL, Cotton MS Augustus I.i.1. I examine the map in detail in chapter three.

³² Quinn, *Hakluyt Editor*, vol. 1, 6-7. Henry Oughtred, one of Elizabethan England's most influential merchants and ship owners, had a stake in the voyage too. An embargo on shipping caused by the threat of Spanish intervention in Ireland on February 14, 1580, delayed the voyage, but eight days later Oughtred received permission from the Privy Council to dispatch his fishing vessels (see Quinn, Quinn, and Hillier, eds., *New American World*, vol. 4, 56-57). A 300 ton ship of Southampton left Falmouth in March, and Oughtred got his three ships out in May. The Gulf of St. Lawrence was their presumable destination, but they first headed for the Strait of Belle Isle in northeastern Newfoundland to trade "with the Sauage people, (for whom we carried sundry commodities)." They also planned to take whales and make train oil. After catching some fish, game, and birds, the expedition returned to England without reaching their destination. See Richard Whitbourne, *A discourse and discouery of Nevv-found-land with many reasons to prooue how worthy and beneficiall a plantation may there be made, after a far better manner than now it is* (London: Felix Kyngston, 1620), B3v-B4r. In 1583 Hayes wrote that Gilbert had "granted certaine assignments out of his commission to sundry persons of meane ability... to plant and fortify in the north parts of America about the river of Canada" (St. Lawrence River), but he legitimately complained that "Time went away without any thing done by his (Gilbert's) assignes." See Hayes, "report of Gilbert," 682.

they dedicated the work to all gentlemen, merchants, and pilots, and to Edmund Bray, High Sheriff of Oxfordshire, who both men likely knew.³³

Although it is Florio's only promotional work and the first of twenty-eight travel writing texts that Hakluyt is associated with, they nevertheless crafted a concise yet compelling preface on the benefits of colonizing the Americas. They hoped to profit the realm by inspiring English merchants to pursue the same lucrative commodities that traders from Portugal, Spain, and Venice recently had acquired across the Atlantic.³⁴ These nations already had claimed much of the Western Hemisphere, but, according to Florio and Hakluyt, England had a well substantiated claim to the region. Subsequently, they wrote to convince Englishmen to "attempt any newe discoverie in the Northwest partes of *America*." With land as fruitful as Western European soil and "tractable" inhabitants willing to accept Christianity and to submit to an English style of government, the region was ideal for colonization. Colonists could expect a voyage of just three weeks to reach North America, an area containing the commodities of Russia, Denmark, and many other places. Once established at their colony, they could set up trade with Native Americans and teach them to till and fertilize their land.³⁵ The focus on commodities is reminiscent of Hakluyt, even if the preface lacks the sophistication of his later writing.

Florio and Hakluyt proposed that English merchants create a North American colony to serve as a halfway point for commerce between England and East Asia. Gilbert had made a similar appeal more than a decade earlier in his *discourse*, but for Florio and

³³ Cartier, *shorte narration*, B1r.

³⁴ Cartier, *shorte narration*, A2r.

³⁵ Cartier, *shorte narration*, B1v.

Hakluyt, a simple trading post would not suffice. The success of Spain's colonies affirmed that Europeans needed to establish permanent settlements in North America if they wished to prosper.³⁶ Fortunately, the Cabot voyages gave England a stronger claim to North America than any other European nation. English merchants simply needed to amass a large fleet to send each year to a colony located at a North American coastal haven.³⁷ To maximize efficiency, each ship would transport supplies to the colony and return to England with merchantable American commodities. Launching a colony was hardly as easy as Hakluyt and Florio suggested, but their idealized depiction of colonial life was meant to convince English readers of the feasibility of colonizing North America.

The body of Florio's translation affirmed the statements contained in the preface, and Cartier's reliable, firsthand account of North America displayed the benefits of colonization. Florio reproduced Cartier's reports of his first two voyages to the Gulf of St. Lawrence in 1534 and 1535-6 to offer a glimpse of North America's abundant wildlife, fertile soil, and temperate climate. During Cartier's first, brief, twenty-day voyage, his crew captured over one hundred cod off the coast of North America in a single hour. On the aptly named Island of Birds, they could hardly believe the profusion of easily captured meat, and they also filled two boats with the now extinct great auk. Rivers on mainland North America had equally impressive stocks of aquatic life, while deer, rabbits, otters, and various sorts of birds proliferated.³⁸ Numerous types of trees,

³⁶ Gilbert, *discourse of Cataia*, H1v; Cartier, *shorte narration*, B2r.

³⁷ Florio and Hakluyt may have suggested locating the colony at a coastal haven after speaking with Hakluyt the elder, as he had made the same suggestion to Gilbert in 1578. See Hakluyt, *Divers Voyages*, K1r.

³⁸ Cartier, *shorte narration*, C1v-D1r, K3v.

including cedars, firs, pines, and other species needed for construction, could supplement England's declining forests and, by Cartier's estimate, could be used to construct ships of up to three hundred tons burden.³⁹ He appraised the fertile soil near the St. Lawrence as more valuable than all of Newfoundland, since fruits, nuts, herbs, and wild corn seemed "to haue bene sowed and plowed." Cartier attested to the region's bountiful meadows and characterized the climate as being warmer than Spain, which is quite an exaggeration for the relatively cold climate of Atlantic Canada.

Cartier described in some detail the Micmac, Beothuk, and Iroquois whom the Frenchmen encountered. He primarily focused on the potential for trade, making his account particularly useful for Gilbert, who intended to maintain his colony through Anglo-Native American commerce. Most of the groups whom Cartier came across readily traded animal furs and skins for iron, hatchets, knives, and the same "trifles" (beads, combs, rings, pieces of tin, and the like) that Gilbert brought with him during both of his voyages. Even though Cartier considered the trade favorable to the French, he curiously denigrated some of his trade partners, most likely Iroquois, as "very great Thieues."⁴⁰ Throughout his dealings, he only felt threatened once; a throng of young Micmac tradesmen in dozen of canoes surrounded his ship, but he simply fired his gun to disperse them. Relations were largely amicable, and Iroquois women even danced and sang when the Frenchmen approached to trade. Cartier optimistically concluded that the

³⁹ Cartier, *shorte narration*, D4r, G3v; Jillian R. Smith, "Shipbuilding and the English International Timber Trade, 1300-1700: a framework for study using Niche Construction Theory," *Nebraska Anthropologist* 24 (2009): 89-102. England was becoming increasingly dependent upon Russia for timber during the late sixteenth century.

⁴⁰ Cartier, *shorte narration*, D4r-E3r, I3r.

supposedly “wilde and unruly” people whom he met could easily be converted to Christianity.⁴¹

Even more congruent with Gilbert’s purposes, Cartier underscored that the Iroquois, Micmac, and Beothuk needed English cloth, as they “verie miserably” clothed themselves with animal skins. During the summer, they essentially went about naked, but Cartier found that some of them remained uncovered in extremely cold and snowy conditions. Providing them with cloth, he argued, would bring them to some “familiaritie and ciuilitie.”⁴² Cartier had hoped to exchange French cloth for precious metals, another commodity prized by English investors. He learned of a people upriver on the St. Lawrence who were appareled like the French and possessed copper, red copper, gold, and silver. His crew diligently searched for the famous red copper of Saguenay during their second voyage, but the Lachine rapids prevented them from reaching their destination. Rumors of a land that never saw snow or ice and contained apples, oranges, almonds, and nuts gave Cartier hope of finally securing commodities that would bring him wealth.⁴³ He never located these resources either, but Gilbert intended to succeed where Cartier had failed.

Cartier’s reports provided a host of detailed information concerning the resources and geography of northeastern North America, and he felt certain that colonizing the region would be undemanding yet profitable. He depicted the region as a fertile and commodity-filled land peopled by friendly inhabitants. Hakluyt and Florio realized that translating his travel narratives would rouse English readers and provide Gilbert with

⁴¹ Cartier, *shorte narration*, C4r, D4r-Elv, I2v.

⁴² Cartier, *shorte narration*, K2r-v.

⁴³ Cartier, *shorte narration*, F4v, K4r, I4r.

information on the seldom visited region. In fact, the Franco-Algonquian lexicon that Cartier included at the end of his accounts was probably the basis for Gilbert's plan to record Native American languages spoken near his colony.⁴⁴ Even though three years separated the printing of Florio's work from Gilbert's departure, he issued the book to announce his renewed attempt to colonize Norumbega. Florio's translation initiated the promotional impulse for Gilbert's expedition.

3. Richard Hakluyt's *Divers Voyages*: Gaining Investments by Establishing England's claim to Norumbega

Not long after convincing Florio to translate Cartier's voyages, Hakluyt printed a collection of his own translations to promote Gilbert's expedition. By late 1581, Gilbert felt certain that he would depart England the following summer, so he appointed Hakluyt to gather, transcribe, and publish a number of varied sources on Norumbega that would publicize the expedition. The most significant and probably most widely distributed promotional work for the voyage, Hakluyt's 1582 *Divers Voyages* has much in common with Florio's translation. Both men wanted to encourage Englishmen to colonize North America along with Gilbert by reprinting and/or translating foreign works that described verifiable voyages to the continent. Neither man had much of an authorial reputation at the time, so Florio made no mention of Hakluyt's assistance. Similarly, Hakluyt did not sign his work but only initialed the epistle.⁴⁵

⁴⁴ Cartier, *shorte narration*, F2r, M3v-M4v.

⁴⁵ Hakluyt signed, by hand, some copies of his book, such as one of the two examples at the John Carter Brown Library ([R] D582 H155d cop. 1).

Hakluyt probably began working on his book in 1581 by intermittently researching, transcribing, and translating as his Oxford teaching duties would allow.⁴⁶ It undoubtedly took him months to track down and decipher the mariner's logs, governmental and company records, travel writings, and additional items originating in England and abroad that comprise his book. His sources included manuscripts currently held by the National Archives of the United Kingdom and the British Library, along with English, French, and Italian travel narratives dating from the mid-to-late sixteenth century.⁴⁷ Hakluyt had ample financial support to complete his project; in addition to Gilbert's pay and his salary from Oxford, he continued to receive a monthly pension of nearly £7 for his services to the Clothworkers Company.⁴⁸ Oxford scholars and students, including Hakluyt's linguistically talented bedfellow Stephen Parmenius, likely assisted with the work. During his preparations, Hakluyt travelled extensively between London and Oxford to consult men like Dee, Drake, Michael Lok, William Borough, Cyprian Lucar, and the elder Hakluyt.⁴⁹ Florio could have easily translated the Italian portion of the text, but a close examination of the translations indicates that he was not involved. Florio may have been preoccupied with other projects at the time, and in all likelihood Hakluyt completed the book on his own.⁵⁰ He took several leaves of absence from

⁴⁶ Quinn and Cheshire, ed. and trans., *New Found Land*, 20-21; Payne, "strange, remote, and farre," 5.

⁴⁷ Quinn, *Hakluyt Editor*, vol. 1, vii-x; Quinn, *Hakluyt Handbook*, vol. 2, 338-40; Neville-Sington, "A very good Trumpet," 68; Quinn and Cheshire, ed. and trans., *New Found Land*, 21.

⁴⁸ R.D. Ramsay, "Clothworkers, Merchant Adventurers and Richard Hakluyt," *English Historical Review* 92 (July 1977): 519-20.

⁴⁹ Mancall, *Hakluyt's Promise*, 92; Quinn and Cheshire, ed. and trans. *New Found Land*, 20; Quinn, *Hakluyt Editor*, vol. 1, 14.

⁵⁰ Quinn, ed., *Hakluyt Editor*, vol. 1, 35-37; Yates, *Florio*, 55-60, 79.

Oxford in late 1581 and early 1582, including nearly the entire month of July, during which he probably advertised and dispersed his new book.⁵¹

Scholars continue to debate Hakluyt's objective for printing his work, in part because of his near silence regarding Gilbert's expedition.⁵² Several decades ago, David Waters suggested that Hakluyt wrote it as an instruction manual on American geography. Peter Mancall recently proposed that "Hakluyt's inclusion of Verrazano's account from 1524 of his discovery of Norumbega served no obviously nationalistic goal," but Verrazano's Norumbega was Gilbert's destination.⁵³ Quinn believed that Hakluyt began assisting Gilbert in 1580 if not earlier, and with his book he aimed to prove that Gilbert's intended destination was not imaginary. The text would also prove England's claim to Norumbega if anyone protested Gilbert's right to settle there.⁵⁴ Payne posited that the small size of the octavo pamphlet suggests that it "is clearly a handbook for encouraging and justifying English colonizing ventures to North America," but he did not associate the work with Gilbert's voyage.⁵⁵

⁵¹ D.B. and A.M. Quinn, "A Hakluyt Chronology," 273.

⁵² See John Winter Jones, Introduction to Richard Hakluyt, *Divers Voyages Touching the Discovery of America and the Islands Adjacent*, ed. John Winter Jones (London: Hakluyt Society, 1850), xviii-xix, xxxvi-xlii, lxiii-cxi; David Armitage, "The New World and British Historical Thought: From Richard Hakluyt to William Robertson," in *America in European Consciousness, 1493-1750*, ed. Karen Ordahl Kupperman (Chapel Hill: University of North Carolina Press for the Institute of Early American History and Culture, 1995), 54; in agreement that Hakluyt printed his text to promote Gilbert's voyage, see Fuller, *Voyages in Print*, 17; Small, "Hakluyt, Ramusio, and Narratives," 52; on Hakluyt and the British Empire, see David Armitage, *The Ideological Origins of the British Empire* (Cambridge: Cambridge University Press, 2000), 70-81.

⁵³ David Waters, *The Art of Navigation in England in Elizabethan and Early Stuart Times* (New Haven, CT: Yale University Press, 1958), 178; Mancall, *Hakluyt's Promise*, 100.

⁵⁴ Quinn, *Hakluyt Editor*, vol. 1, 8-9.

⁵⁵ Neville-Sington and Payne, *Census of Hakluyt*, 8; Payne, "strange, remote, and farre," 5.

Hakluyt's close involvement in Gilbert's preparations, the content of *Divers Voyages*, and its print date all confirm that Hakluyt wrote his book to attract benefactors for the expedition. Gilbert initially intended to sail for Norumbega in the weeks after the book was printed in May 1582.⁵⁶ May was relatively late in the sailing season for an outgoing crossing of the North Atlantic, but Gilbert, who finally sailed on June 11, 1583, obviously did not agonize over a possible early onset of winter. Hakluyt's pithy tract would have been cheap compared to larger anthologies like his magnum opus, *The Principal Navigations, Voyages, Traffiques and Discoveries of the English Nation*, so anyone interested in joining the expedition could purchase the text or speak directly to Hakluyt.⁵⁷ Payne and Quinn agree that the twenty-two surviving copies of what is essentially a promotional pamphlet represent a fairly high percentage of the total number printed. The quantity is fairly large compared with similar tracts and is indicative of a relatively modest print run with a specific group of readers in mind.⁵⁸

Hakluyt intended to confirm England's legal claim to "that part of America which is from Florida to 67. degrees northward," and he utilized the examples of noteworthy explorers to encourage other Englishmen to sail for Norumbega with Gilbert. In the title, he clarified that North America and its adjacent islands were discovered "*first of all by our Englishmen*" and only later by "*Frenchmen and Britons.*" The book's content established England's entitlement to North America, because the Spanish did not explore

⁵⁶ See, for example, BL Add. MS 38823, ff. 1r-8v.

⁵⁷ See also Neville-Sington, "A very good Trumpet," 77n2.

⁵⁸ Neville-Sington and Payne, *Census of Hakluyt*, 8, 26-31; Payne, "strange, remote, and farre," 5; Quinn, *Hakluyt Editor*, vol. 1, 46. The twenty-two surviving copies of *Divers Voyages* may be just a fraction of the overall print run, however, since large works are more likely to survive the tests of time than small ones.

lands north of Florida. Likewise, French explorers arrived in North America after Cabot, so their claim was also weak.

Hakluyt opened his text with a note on a Portuguese discovery that he likely added at the last minute.⁵⁹ Through discussions in March 1582 with “An excellent learned man of Portingale” (Portuguese Ambassador to England Don Antonio de Castilio), Hakluyt had acquired new information concerning the Northwest Passage.⁶⁰ Castilio informed Hakluyt that a passage existed at about fifty-eight degrees latitude above North America and remained ice free for much of the year. He was probably referring to Hudson’s Strait. Hakluyt placed this information at the beginning of his text, because it enhanced the potential profitability of Gilbert’s colony. Not only would the documented wealth of the Americas be attainable at Norumbega, but the riches of Asia were also within reach. In the two lists of European geographical writers and travelers that follow, Hakluyt succinctly displayed the rapid acceleration of English exploration and colonization. The four most recent authors, Gilbert, Dionyse Settle, George Best, and Nicholas Chancellor, all hailed from England, as did the nine most recent European voyagers. English exploration progressed slowly, but Hakluyt indicated that Englishmen were at the forefront of Europe’s westward expansion by 1582.

Selecting Philip Sidney as dedicatee for the book made sense, as Sidney, a Christ Church man like Hakluyt, had yet to subscribe to the voyage. The celebrated courtier had been interested in American exploration for at least five years by 1582, and Gilbert had served under Sidney’s father in Ireland. Hakluyt’s epistle presented Sidney and other

⁵⁹ D.B. Quinn, C.E. Armstrong, and R.A. Skelton, “The primary Hakluyt bibliography,” in *Hakluyt Handbook*, vol. 2, 461-62; Quinn, *Hakluyt Editor*, vol. 1, 30; Neville-Sington and Payne, *Census of Hakluyt*, 25.

⁶⁰ Taylor, ed., *Writings of Hakluyts*, vol. 1, 174n1.

readers with a persuasive thesis in favor of English colonization. Spain's annexation of Portugal in 1580 had weakened the Portuguese Empire, and the brutality of Spanish colonizers towards Native Americans had sparked outrage across Europe. Taking a page from Gilbert's *discourse*, Hakluyt wanted to create a release valve for England's overflowing jails by sending "some colonies of our superfluous people into those temperate and fertile partes of America."⁶¹ The area was less than six weeks travel from England and was closer to the British Isles than to any other place in Europe. Using words from Gilbert's patent, Hakluyt testified that the land north of Florida was "unpossessed by any Christians," was devoid of inhabitants aside from easily converted Native Americans, and appeared to offer itself to England. If he were only younger, Hakluyt lamented, he would invest all of his assets in colonizing North America.

Even at this early stage in his career, Hakluyt was familiar with recent European explorers and cited several of their accounts to prove the existence of the Northwest Passage. In addition to referencing his friends Gerard and Rumold Mercator and Englishmen like the Cabots, Drake, and Frobisher, he alluded to the works of Verrazano, Spanish historian Francisco López de Gómara, French colonizer Jean Ribault, and the Italian Zeno brothers.⁶² By mid-1582, Hakluyt and Dee may have been collaborating rather than working independently for Gilbert, since Hakluyt mentioned that Castilio had spoken with "a friend of mine, a man of great skill in the Mathematikes."⁶³ According to Hakluyt, Dee intended to use Gilbert's colony as a base from which to search for the Northwest Passage, and Dee was, in fact, working with Gilbert's brother Adrian and his

⁶¹ Hakluyt, *Divers Voyages*, ¶r.

⁶² Hakluyt, *Divers Voyages*, ¶1v-¶2r.

⁶³ Hakluyt, *Divers Voyages*, ¶v.

longtime associate John Davis to find the Passage.⁶⁴ Hakluyt noted that Philip II had forbidden his sailors from venturing above forty-five degrees north, a rumor mentioned by Dee. Both men speculated that the Spanish King was concealing the Passage from his rivals, but they had insufficient proof to confirm their theory.

Hakluyt reinforced some of the claims in his dedication by relying upon his humanist ideals. He urged English colonists to set themselves apart from their Spanish and Portuguese counterparts by shunning mineral wealth in favor of proselytizing Native Americans. Only by seeking God's glory could English colonizers avoid corruption and succeed where the Iberians had failed.⁶⁵ Hakluyt even outlined plans for the creation of a navigational school in London similar to Seville's *Casa de Contratación* (House of Trade) and the academy blueprinted by Gilbert ten years earlier. England's master navigator France Drake apparently had agreed to lecture at the school, but the plan never materialized.⁶⁶

Hakluyt divided the body of his book into three distinct sections ending in "*Finis*," so he probably devised it as three separate tracts. The copy at the National Library of Scotland lacks one section, but the other extant examples are largely intact. The book was printed along with two maps, and because some copies lack one or both of them, they may have been printed separately. Section one of the book (A1r¹-D4r¹) includes sources on Englishmen in North America and begins with the 1496 letters patent issued by Henry VII to John Cabot and his sons, a document that Hakluyt copied from

⁶⁴ See TNA, SP 12/30, f. 39r; TNA, SP 12/161, f. 62r-v; Dee, *Diary*, 6-7, 18-19; Davis knew Gilbert from at least 1567, and he probably served as Gilbert's apprentice. See BL, Add. MS 36674, ff. 58r-62v.

⁶⁵ See Fitzmaurice, *Humanism and America*, 49.

⁶⁶ Hakluyt, *Divers Voyages*, ¶3r; on Gilbert's academy, see BL, Lans. MS 98, ff. 1r-7v.

the Rolls Office.⁶⁷ It is followed by Hakluyt's English translation of the same tract for Englishmen and women who could not read Latin. Issued on March 5, 1496, the patent antedates Spain's exploration of North America and offers proof of England's prior legal right to the land north of Florida. Hakluyt even misdated the patent as 1494, perhaps intentionally, to emphasize that Cabot arrived on North America proper before any other Europeans. The patent does not specifically mention America, but it granted the Cabots permission to explore to the east, north, and west of England. Hakluyt complemented the patent with an excerpt on Sebastian Cabot's voyage to North America from Robert Fabyan's 1533 *cronycle*, a text that he had borrowed from John Stowe, one of England's most prolific antiquarians.⁶⁸ Hakluyt added details from his copy of Ramusio and from Cabot himself, who, before his death in 1557, apparently had verified to Hakluyt that a passage existed north of the Americas at sixty-seven degrees latitude.⁶⁹

Materials relating to the voyage of Robert Thorne the younger complete the first third of the book. Like Dee, Hakluyt borrowed the manuscripts that he transcribed for this section from Cyprian Lucar, and he probably copied the remaining Thorne piece from Richard Grafton's *A chronicle ... of the affayres of Englande*.⁷⁰ Thorne's accounts provided evidence of great commodities in the East Indies that could be attained via an

⁶⁷ TNA, Chancery: Treaty Rolls 76/178, membrane 8; Hakluyt, *Divers Voyages*, A1r-A2v; see Mancall, *Hakluyt's Promise*, 98.

⁶⁸ Fabyan, *Fabyans cronycle newly prynted*.

⁶⁹ Hakluyt, *Divers Voyages*, A3r-v; Quinn, *Hakluyt Handbook*, vol. 2, 338.

⁷⁰ BL, Cotton MS Vitellius C. VII, ff. 329r-343v; BL, Lans. MS 100, ff. 65r-80v; HHA, CP 245/5, item 11; Richard Grafton, *A chronicle at large and meere history of the affayres of Englande and kinges of the same deduced from the Creation of the vvorlde, vnto the first habitation of hys islande: and so by contynuanee vnto the first yere of the reigne of our most deere and souereigne Lady Queene Elizabeth: collected out of sundry authours, whose names are expressed in the next page of this leafe* (London: Henry Denham, 1569), 1149; see Quinn, *Hakluyt Handbook*, vol. 2, 338-39.

ice-free passage above North America. His manuscripts supported Hakluyt's overall thesis, since Thorne stressed that "New found lã[n]d [was] discovered by the englishmen."⁷¹ The section concludes a map that Thorne had made in 1527, which Hakluyt reproduced and included as a reference point for the merchant's writings. These documents enhanced the appeal of Gilbert's colony by confirming the existence of the Northwest Passage and by reinforcing England's claim to North America.

The second section (A1r²-G3v) of *Divers Voyages* contains foreign accounts of North America, beginning with Verrazano's 1524 voyage to "Morumbega." As shown in chapter one, members of Gilbert's circle placed great significance on his narrative, and the elder Hakluyt probably titled his "Inducements to the lykinge of the voyadge intended to that parte of America which lyethe betwene 34. and 36. degree" after Verrazano's discoveries.⁷² Verrazano offered extensive details about Norumbega and its large population of Wampanoags and Narragansetts. During his fifteen day sojourn at about 41 degrees north latitude, he encountered a "courteous and gentle people," who wore jeweled necklaces and went about naked, implying that they would trade their valuable resources for English cloth. Verrazano emphasized their similarity to Northern Europeans and marveled at their "shape and whitenes." As Gilbert made evident in his instructions, Norumbega's Native Americans happily provided Verrazano's men with victuals and traded copper for trifles like paper, glass, and bells. The region supported several tree species, and Verrazano estimated that it would support corn, wine, and oil-

⁷¹ Hakluyt, *Divers Voyages*, D1v, D2v.

⁷² See Hakluyt's "Inducements" in Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 62-64.

producing crops as well.⁷³ More importantly, Norumbega contained the twenty-league-wide “Bay of Refugio” (Narragansett Bay), which was home to five island and was replenished by rivers for fresh water. Upon his arrival, Verrazano encountered twenty boats in the bay, so the potential for trade was high. Hakluyt clarified in the margin that the haven was “The Country of Sir h.G. voyage” (ie Gilbert’s destination).⁷⁴

Hakluyt retrieved Verrazano’s descriptions, as well as the apocryphal narratives of the Venetian noble brothers Antonio and Nicolò Zeno that follow, from his copy of Ramusio’s *Navigazioni et Viaggi*.⁷⁵ Dee often mentioned the Zenos’ explorations of mythical islands like Frisland, Estland, Islanda, Engronelant, Estotiland, Drogeo, and Icaria to reference the geographic composition of the North Atlantic.⁷⁶ Their story offered minimal information on Norumbega, but it fit within Hakluyt’s overall narrative. Hakluyt exerted little effort to include Jean Ribault’s account of Florida in his book, since he copied verbatim the 1563 English version of the voyage and simply altered the title.⁷⁷

⁷³ Hakluyt, *Divers Voyages*, A1v-B1v.

⁷⁴ Hakluyt, *Divers Voyages*, B1r-B3r; Dee referenced Gilbert in the same way (“S. H. G.”) in his “Mathematicall Præface,” in *The Elements of Geometrie of the most auncient Philosopher Evclide of Megara. Faithfully (now first) translated into the Englishe toung, by H. Billingsley, citizen of London. Whereunto are annexed certaine Scholies, Annotations, and Inuentions, of the best Mathematiciens, both of time past, and in this our age. With a very fruitfull Praeface made by M. I. Dee, specifying the chiefe Mathematicall Sciences, what they are, and wherunto commodious: where, also, are disclosed certaine new Secrets Mathematicall and Mechanicall, vntill these our daies, greatly missed* (London: Iohn Daye, 1570), d2r.

⁷⁵ Quinn, *Hakluyt Handbook*, vol. 2, 338-39.

⁷⁶ See Andrea di Robilant, *Irresistible North: from Venice to Greenland on the trial of the Zen brothers* (New York: Alfred A. Knopf, 2011), 49-153; the lone Zeno account, now widely accepted as fiction, was printed in 1558 by a Zeno descendent also named Nicolò.

⁷⁷ Jean Ribault, *The whole and true discoverie of Terra Florida, (englished the Florishing lande) Conteyning aswell the wonderfull straunge natures and maners of the people, with the merueylous commodities and treasures of the country: As also the*

He indicated, however, that by 1582 it was nearly impossible to locate a copy of Ribault's text, and he suggested that a new version be printed.⁷⁸ Two things stand out about Ribault's account: Florida's fertile soil and the region's friendly Native Americans (likely Utina), who were eager to trade with Europeans. The section ends with Lok's map showing many of Verrazano's discoveries and other place names mentioned by Ribault and the Zeno brothers.

The final third of the book (H1r-K3v) consists of two sets of colonization / exploration instructions written by Hakluyt's elder cousin and a one page list of American commodities compiled by Hakluyt himself. The documents provide practical information about the Americas, conducting a voyage, and colonizing in general. The first document, instructions written by the elder Hakluyt for Arthur Pett and Charles Jackman's 1580 voyage to China, offered advice on how to select a preferable colony site. Among the most important considerations, wrote Hakluyt, were an explorer's victuals, his maps, and the locating of an excellent haven near a large indigenous population who required cloth. By trusting their charts, by sailing as far as their provisions would allow, and by establishing themselves at a well populated port, English colonists could trade their staple export for goods needed at home.

Hakluyt titled the next document "Notes framed by a Gentleman heretofore to bee giuen to one that prepared for a discouerie, and went not." Hakluyt the elder wrote the instructions for Gilbert's first expedition, but the author wanted to disguise the fact that Gilbert failed to reach North America. Like the previous document, the directions

plesaunt Portes, Hauens and wayes therevnto. Neuer founde out before the last yere 1562 (London: Rouland Hall, 1563). Just four copies of this book are known to exist.

⁷⁸ Hakluyt, *Divers Voyages*, Ω4r.

illustrated the necessary steps in preparing for a colonizing voyage. The final piece (K4r-v) is the only one in the collection written specifically for Gilbert's 1583 expedition.

Hakluyt copied Gilbert's patent in titling it "The names of certaine commodities growing in part of America, not presently inhabited by any Christians frō[m] Florida Northward."

He compiled the list from the other travel accounts in his book, from Florio's translation, and from examples in Thévet's and Best's texts.⁷⁹ The commodities range from known produce of North America to "Golde in good quantitie," citrus fruits, silkworms, and even leopards. The inclusion of "a beast farre bigger then an oxe" was taken from Ingram's interview and reveals Hakluyt's fascination with the American bison. The list, like his epistle and Florio's preface, exaggerated North America's assets to make Gilbert's project seem like a sure success.

Determining the readership and the effectiveness of any early modern promotional text is difficult, but surviving evidence indicates that *Divers Voyages* influenced at least a few individuals to join Gilbert's expedition. A day after the book was licensed, Sir Edmund Brudenell, a prominent landowner, justice of the peace, and Protestant sheriff of Northamptonshire with Catholic sympathies, purchased the copy that now resides at the Free Library of Philadelphia. It is headed "Liber Ædmundi Brudenell

⁷⁹ Hakluyt might have used other unnamed sources, such as Nicolás Monardes's recently printed *Ioyfyll Newes out of the newfound world, wherein are declared the rare and singular vertues of diuers and sundrie Herbs, Trees, Oyles, Plants, & Stones, with their applications, aswell to the vse of Phisicke, as Chirurgery: which being wel applied, bring such present remedy for all diseases, as may seeme altogether incredible: notwithstanding by practize found out, to be true. Also the portrature of the sayde Herbes, very aptly described: Englished by Iohn Frampton Merchant. Newly corrected as by conference with the olde copies may appeare. Wherevnto are added three other bookes treating of the Bezaar stone, the herbe Escuerçonera, the properties of yron and steele, in Medicine and the benefite of snowe*, trans. John Frampton (London: Thomas Dawson, 1580).

militis / empt' termino pasce / 1582 / 22 / die Maij / 1582." He even included the price, "precij X^L," but he probably mislabeled what should have been ten shillings.⁸⁰ In June, Brudenell and several Catholic gentlemen drew up an elaborate agreement to take part in the expedition, and Brudenell's reading of *Divers Voyages* probably influenced his decision to join on with Gilbert.⁸¹

Hakluyt's book also gained the interest of its dedicatee, Philip Sidney, who wrote that "Master Hackluit hath served for a very good Trumpet" for Gilbert's voyage.⁸² On July 7, 1582, Sidney signed an agreement with Gilbert, and though neither party recorded the amount of Sidney's investment, it must have been substantial. Gilbert's gift of three million acres of Norumbega territory to the young courtier doubled the acreage that he had granted to Sir George Peckham and to Sir Thomas Gerrard for their stake in the expedition.⁸³ Like his father, Sidney considered accompanying Gilbert to North America, commenting that he was "haulf perswaded to enter into the journey of Sir Humphrey Gilbert very eagerli" and see his purchase firsthand.⁸⁴ Elizabeth would not

⁸⁰ Payne, "strange, remote, and farre," 5; on Brudenell, see TNA, PC 1/13, ff. 539r, 563r.

⁸¹ LOC, DBQ, Box 102, Folder 10; Anthony Payne, *Richard Hakluyt: A guide to his books and to those associated with him 1580-1625* (London: Quaritch, 2008), 7; Neville-Sington and Payne, *Census of Hakluyt*, 30-33. Brudenell's agreement is reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 2, 257-60.

⁸² Sidney to Sir Edward Stafford, July 21, 1584, in Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 264.

⁸³ Gilbert's pacts with Sidney, Gerrard, and Peckham are reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 2, 245-66.

⁸⁴ Sidney to Sir Edward Stafford, July 21, 1584, in Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 264; in agreement that *Divers Voyage* influenced Sidney's decision to join Gilbert, see Day, "Hakluyt, Harvey, Nashe," 286.

have allowed him to leave anyway, but Sidney maintained his interest in the expedition and colonization in general, granting some of his land to Peckham in July 1583.⁸⁵

In all likelihood, Hakluyt's book attracted John Thynne the younger and Maurice Browne to the expedition as well. In August 1582, Browne, a close friend of Walsingham and a fellow supporter of colonization, was promised a new map of the Americas by one of Gilbert's associates. The map was probably Lok's chart from *Divers Voyages* or a map that Dee had made for Gilbert in 1580.⁸⁶ One of the extant copies of *Divers Voyages*, which was once owned by Thomas Thynne, 2nd Marquis of Bath, still resides at Longleat House, Wiltshire, the ancestral seat of the Thynne family located between the mercantile centers of Southampton and Bristol. The book contains several check marks and the word "Finis" written on the text in a hand that appears to match John Thynne's. Quinn suggested that the writing potentially indicates discussions between Thynne and Browne.⁸⁷ Browne readily joined the expedition as chronicler and suggested that Thynne, who did not wish to travel, invest money, corn, wheat, or wheat peas, and also lend him his crossbow and arrows. Thynne eventually supplied butter, cheeses, and marmalade for Gilbert's voyage.⁸⁸

Like Browne, Hakluyt intended to accompany Gilbert on the expedition, but in large part due to the success of *Divers Voyages*, Walsingham granted him an embassy to

⁸⁵ TNA, SP 12/161, ff. 118r-125v; See TNA, SP 12/165, f. 102r. Dated 1583, this manuscript mentions Sidney's continuing interest in American exploration at this point.

⁸⁶ Browne to Thynne, July 6, 1582, in Quinn and Cheshire, ed. and trans., *New Found Land*, 189-92. Quinn and Cheshire agree that it was *Divers Voyages* and Lok's map. See 189n2 and 190-91n6.

⁸⁷ Quinn, ed., *Hakluyt Editor*, vol. 1, 33-34; Neville-Sington and Payne, *Census of Hakluyt*, 28.

⁸⁸ Browne to Thynne, August 20, 1582, in Quinn and Cheshire, ed. and trans., *New Found Land*, 194-95, also 40, 46.

Paris instead. Officially, he served as chaplain to Sir Edward Stafford, Elizabeth's ambassador to France, but in reality his duties centered on gathering exploration and colonization intelligence for the Queen.⁸⁹ Considering the number of quality texts that Hakluyt went on to publish, researching suited his talents better than adventuring anyway. *Divers Voyages* was just the beginning of his promotional output, and yet it cogently verified North America's profitability and played a vital part in endorsing Gilbert's expedition.

4. Stephen Parmenius's *De Navigatione ... Humfredi Gilberti*: An Appeal to other Humanists

Divers Voyages was printed concurrently with another promotional document for Gilbert's expedition that Hakluyt helped procure. Stephen Parmenius's poem *De Navigatione ... Humfredi Gilberti* should be viewed as a complementary work to *Divers Voyages*. Parmenius wrote his poem for Gilbert's fellow humanists and perhaps for the aristocracy, while Hakluyt directed his text at the merchant class and a more general audience. Parmenius is one of the most enigmatic figures associated with Gilbert's expedition. After leaving his home of Buda, Hungary, where he had lived under Turkish rule since his birth in the late 1550s, Parmenius studied at Heidelberg in 1579 and may have visited other Protestant centers, as he was likely a Calvinist. He entered Christ Church, Oxford, by the end of 1581 and lived with Hakluyt, a respected lecturer of

⁸⁹ Parmenius to Hakluyt, August 6, 1583, in Hakluyt, *Principal Navigations*, 698-99; See Mancall, ed., *Envisioning America*, 45; Jones, Introduction to Hakluyt, *Divers Voyages*, xvii-xviii.

geography.⁹⁰ Parmenius served as a tutor during his two-year stay at the University, and he quickly came to the attention of prominent officials like Laurence Humphrey, President of Magdalen College, Oxford, whom Parmenius wrote to from Newfoundland during Gilbert's expedition.⁹¹ He met the Oxford educated mathematician Thomas Savile and Dee's associate Charles Merbury, who was tutored by Humphrey and, like Parmenius, earned the patronage of the young Oxford-educated humanist Henry Unton.⁹² Parmenius's reach also spread to London, where he became acquainted with Savile's friend, the famous historian and second master of Westminster School William Camden, who referred to the Hungarian poet as "*Dominus Parmenius Budensis*."⁹³

While bedfellows, Hakluyt briefed Parmenius on Gilbert's plan to establish a colony in North America, and he introduced the two men. In late 1581 or early in 1582, Parmenius agreed to serve as "voyage orator" for the expedition.⁹⁴ His duties would supplement those of Browne, the voyage chronicler, and Gilbert instructed the poet "to record in the Latine tongue, the gests and things worthy of remembrance, happening in this discoverie, to the honour of our nation, the same being adorned with the eloquent stile of this Orator and rare Poet of our time."⁹⁵ Parmenius was well educated and skilled in Latin, so Hakluyt and Gilbert also asked him to compose an embarkation poem for the voyage.

⁹⁰ Quinn and Cheshire, ed. and trans., *New Found Land*, 4-9; Hakluyt, *Western Planting*, xv-xvi, 24.

⁹¹ See Parmenius to Hakluyt, August 1, 1583, in Hakluyt, *Principal Navigations*, 697-99.

⁹² Merbury, *discovrse of monarchie*, *3r-*4v; Quinn and Cheshire, ed. and trans., *New Found Land*, 10-19.

⁹³ Mordechai Feingold, *The Mathematicians' Apprenticeship: Science, Universities and Society in England, 1560-1640* (Cambridge: Cambridge University Press, 1984), 72, 125-26, 130-33; Quinn and Cheshire, ed. and trans., *New Found Land*, 4, 17-19, 214.

⁹⁴ Quinn and Cheshire, ed. and trans., *New Found Land*, 79.

⁹⁵ Hayes, "report of Gilbert," 692; Fitzmaurice, *Humanism and America*, 45, 133.

Few scholars have examined *De Navigatione* and its distinctive personification of North America. Those who have studied it, consider the work to be “a careful eulogy ... of England, her Queen, her social policy, and the achievements of her explorers,” and the poem has been called the work of an “accomplished and imaginative Latinist” well versed in the works of Vergil and Horace.⁹⁶ David Armitage has contended that the pithy tract is England’s nearest equivalent to an imperial epic, and he even christened Parmenius “The English Camoens” for his similarity to Portugal’s most famous poet, Luís Vaz de Camões.⁹⁷ Parmenius’s superb humanist education certainly shined through in his work. Like Gilbert, a second son who lacked a large inheritance due to primogeniture, the poet believed that birth alone should not dictate a man’s value, and, like Hakluyt, he alluded to the corrupting influence of American wealth. By declaring that “virtue is the only true nobility” and “that wealth diverts men from the pursuit of liberty,” Parmenius put forth “two supposedly radical arguments of humanist republicanism.”⁹⁸ His educated audience surely appreciated his knowledge of *studia humanitatis*, even more so than modern observers.

De Navigatione was printed within a month of *Divers Voyages* in the days or weeks prior to June 21, 1582. Gilbert’s inability to sail for North America that summer afforded Parmenius time to polish his work and reissue it the following year to support Gilbert’s renewed attempt at colonization. Parmenius signed one of the revised copies for Hakluyt on March 31, 1583, and he probably gave it to him in early April after

⁹⁶ Quinn and Cheshire, ed. and trans., *New Found Land*, 23; Anne-Marie Lewis, “The Personification of America in Stephen Parmenius’ *De Navigatione* (1582),” The 2010 American Philological Association Meeting. http://apaclassics.org/images/uploads/documents/abstracts/Lewis_2.pdf.

⁹⁷ Armitage, “Literature and Empire,” 117-18.

⁹⁸ Fitzmaurice, *Humanism and America*, 49.

Hakluyt returned from advertising Gilbert's expedition in Bristol.⁹⁹ Unlike Florio or Hakluyt, Parmenius alluded to Gilbert's voyage in his title, which translates as *An Embarkation Poem for the voyage projected by the celebrated and noble Sir Humphrey Gilbert Golden Knight, to take a colony to the New World*. Parmenius planned to create a grand epic of English exploration, and his research for the poem, along with Hakluyt's assistance, provided an excellent start to this endeavor.¹⁰⁰ Like Hakluyt's octavo, the poem was commissioned to obtain last-minute investments for the expedition, and because Gilbert personally requested Parmenius's "literary offspring," he likely funded the printing costs.¹⁰¹

Just two known examples of Parmenius's poem exist at the British and Huntington Libraries, so it probably had a rather small print run.¹⁰² *De Navigatione* is the only Latin propaganda for the voyage, and because most of the English reading public did not use the language by 1582, Gilbert required fewer copies. The choice for Latin over English played to Parmenius's language strengths as well, and Gilbert probably wanted the poem for his humanist friends and educated groups like the nobility, courtiers,

⁹⁹ D.B. and A.M. Quinn, "A Hakluyt Chronology," 275-77; Lewis, "Personification of America"; Walsingham to Thomas Aldworth, March 11, 1583, in Hakluyt, *Principal Navigations* (1600), vol. 3, 182.

¹⁰⁰ R.V. Young, "'O My America, My New-Found-Land': Pornography and Imperial Politics in Donne's 'Elegies,'" *South Central Review* 4 (Summer 1987): 41-42.

¹⁰¹ Quinn and Cheshire, ed. and trans., *New Found Land*, 77; see Fuller, *Voyages in Print*, 23.

¹⁰² Parmenius's only other known publication, a five-page poem entitled *Paeon ... ad psalmum Davidis*, dates from around 1582 as well. It likely had a similar print run, because only two known copies exist at the British and Eton College Libraries. Parmenius dedicated *Paeon* to his patron, Henry Unton, and it was printed by Huguenot émigré Thomas Vautrollier. Essentially a religious hymn, the concise work was Parmenius's way of giving thanks for his safe journey to England. See Parmenius, *Paeon Stephani Parmenii Budeii ad psalmum Davidis CIV conformatus et, gratiarum loco, post prosperam ex suis Pannoniis in Angliam peregrinationem, Deo optimo et ter maximo servatori consecratus* (London: Thomas Vautrollier, 1582).

Privy Councilors, and members of Parliament. It was clearly written for “a higher intellectual social bracket” than *Divers Voyages*, and it complemented the book.¹⁰³ The Huntington copy includes an inscription in Parmenius’s hand to French Huguenot Geoffroy le Brumen, one of the apothecaries who had studied the fool’s gold brought back by Frobisher in 1578.¹⁰⁴ Le Brumen shared Parmenius’s interest in overseas exploration, and he entered Walsingham’s spy circle by 1582 at the latest. Le Brumen sent the Secretary of State various pieces of intelligence over the next several years, and it appears that Parmenius became a member of Walsingham’s anti-Spanish group as well.¹⁰⁵

Like Hakluyt’s book, Parmenius’s poem was a call for Englishmen to accompany Gilbert across the Atlantic to colonize North America. Unsurprisingly, he dedicated the work to Gilbert, “celebrated knight” (line 0) and “England’s pride” (line 111). After recounting Gilbert’s military endeavors on the continent and in Ireland, Parmenius laments that the explorer’s wife and young children must remain in limbo at home while he endures the dangers of the open sea. Making matters worse, Lady Gilbert had already lost her brother John Aucher and her father Sir Anthony Aucher, who both died valiantly while defending Calais in 1558 (113-128). Parmenius framed Gilbert’s expedition as a similar struggle for national security that would ensure England’s economic prosperity and spread Protestantism to thousands of Native Americans.

¹⁰³ Hakluyt, *Western Planting*, xvi.

¹⁰⁴ Bernard Allaire, *French Reactions to the Northwest Voyages and the Assays by Geoffroy Le Brumen of the Frobisher Ore*, in *Meta Incognita*, vol. 2, 55; Quinn and Cheshire, ed. and trans., *New Found Land*, 225.

¹⁰⁵ Le Brumen’s letters, dated between 1582 and 1584, include TNA SP 15/27/1, ff. 252r-253v; 78/7, f. 105; 78/8, ff. 110r-112r; 78/9 ff. 22r-23r, 72r-73r, 81r-82r, 124r-126v; 78/10, f. 3r; 78/11, ff. 114, 132, 152; 78/12, f. 117; 83/22, f. 145r.

Parmenius wrote at length about Elizabeth, whom he calls “dear to God” and “godlike” (94). Though peaceful in comparison to the ostensibly bellicose sovereigns of Spain, France, and the Ottoman Empire, Elizabeth, declared Parmenius, was still feared by monarchs across Europe and Asia. The poet expressed his disdain for European Catholicism by often criticizing religious war and what he perceived as the average Catholic’s lack of a voice in comparison to Protestants. He made a plea to Elizabeth, potential investors, sailors, “high-minded youths, and all who congregate To Gilbert’s flag” (235-239) that they might save North America from Spanish treachery:

You surely see that sad
America, who proffered recently
(With downcast crown) her rights and loyalty
To independent England, now holds out
Her ample hand (unkempt, and with her hair
Long since disheveled).

“Please do not ignore
My tears, fair sister,” she implores, “but feel
For me in my misfortune. Are you not aware
What times and what disasters I have seen
After the Spaniards’ endless appetite
For gold had spurred them on to infiltrate
My lands? (For certainly they were not moved
By any moral zeal or holiness)” (242-251).

Parmenius believed that the Spaniards’ ignoble thirst for gold did not derive from any moral or religious ambitions, so North America needed to be saved from them and peopled with English colonists.

Hakluyt and perhaps other Oxford scholars had instructed Parmenius on the history of English exploration, since his poem lauds English explorers like Hugh Willoughby, William Borough, and Anthony Jenkinson. He even extolled Frobisher’s failed search for the Northwest Passage (277-294). His mention of Drake, who “recently

sailed round The vast circumference of Earth” (295-296) was among the earliest printed references to the circumnavigation, just as Lok’s comment on the voyage in *Divers Voyages* was the first on a printed map.¹⁰⁶ Parmenius’s poem also is rife with classical allusions, such as his suggestion that Elizabeth, like Athena, would protect Gilbert’s voyage after it left the Thames (175-179). The poet assured his audience that Gilbert would act as a shepherd at his colony and lead Norumbega’s Native Americans into the Golden Age of Elizabethan England. Creating laws and giving each person a role in society would help the colony prosper, and Parmenius presumed that Norumbega would “yield to all, from little effort, rich Provisions from her ample store of goods” (135-159).

¹⁰⁶ Elizabeth and her advisors took great care to keep all matters of Drake’s voyage secret, and the first full account was not printed until 1589, when Hakluyt was allowed to include a brief version of the circumnavigation in his first edition of the *Principal Navigations*. The account, which was included after printing, has received much scholarly attention. See, for example, David B. Quinn, “Early Accounts of the Famous Voyage,” in *Sir Francis Drake and the Famous Voyage, 1577-1580: Essays commemorating the quadricentennial of Drake’s circumnavigation of the Earth*, ed. Norman J.W. Thrower (Berkeley and Los Angeles: University of California Press, 1984), 33-48. Since Parmenius had the support of Gilbert, Walsingham, and Raleigh, he was allowed to reference Drake’s recent voyage. Only the brief accounts of Drake’s voyage by Hakluyt, Borough, Nicholas Breton, and the unnamed translator of Agustín de Zárate’s *Discoverie* predated Parmenius’s reference. See Hakluyt, *Divers Voyages*, ¶2r; Borough, *Discovrs of Cumpas*, *4v; Agustín de Zárate, *The Discoverie and Conqvst of the Prouinces of Perv, and the Nauigation in the South Sea, along that Coast, And also of the ritche Mines of Potosi* (London: John Charlewood, William How, and John Kingston, 1581), ¶1r; Nicholas Breton, *A Discourse in commendation of the valiant as vertuous minded Gentleman, Maister Frauncis Drake, with a reioysing of his happy aduentures* (London: John Charlewood, 1581). The only known copy of Breton’s book is located in the Kraus collection in the Library of Congress (STC 3646.5); See Helen Wallis, “The Cartography of Drake’s Voyage,” in *Famous Voyage*, 137-41. There is also a brief mention of Drake by William Blandie, *The Castle, or picture of pollicy shewing forth most liuely, the face, body and partes of a commonwealth, the duety quality, profession of a perfect and absolute Souldiar, the martiall feates encounters and skirmishes lately done by our English nation, vnder the conduct of the most noble and famous Gentleman M. Iohn Noris Generall of the Army of the states in Friseland. The names of many worthy and famous gentlemen which liue and haue this present yeare. 1580. ended theyr liues in that land most honorably. Handled in manner of a dialogue betwixt Gefferay Gate, and William Blandy, Souldiars* (London: Iohn Daye, 1581), H3r.

He reminded his readers that Cabot discovered North America with its fertile soil and temperate climate just a short distance from England, but the misguided and disorganized Spaniards threatened to expand northward. Parmenius concludes his poem with the anthropomorphic America imploring England to “grasp My shore more closely with your saving hand In fitting graciousness” (307-317).

In conjunction with Hakluyt’s *Divers Voyages*, the publication of *De Navigatione* in mid-1582 signaled a more aggressive attempt to gain funding for the expedition.¹⁰⁷ In June, Gilbert began disbursing lands as stipulated in his patent by granting huge swaths of territory to Peckham, Gerrard, and Sidney, who provided him with “divers sommes of money” around this time.¹⁰⁸ A group of Catholics and Catholic sympathizers that included Peckham, Gerrard, Brudenell, and Frobisher also joined on with the expedition in June. They signed two agreements, one of which was given to Walsingham, stating that by March 31, 1583, they would put forth some vessels and men under the command of Frobisher, soldier / naval commander Richard Bingham, and soldier / recusant Sir William Stanley.¹⁰⁹ Frobisher and Bingham initially planned to sail with Edward Fenton’s 1582 expedition bound for Asia, but internal disputes led them to abandon the venture. No evidence suggests that their voyage for Gilbert took place either, but one month prior to their departure deadline, Bingham leased the ship *Messuage*, alias *Tent*,

¹⁰⁷ See Payne, “strange, remote, and farre,” 5; Quinn, *Hakluyt Editor*, vol. 1, 27, 33.

¹⁰⁸ Gilbert’s agreements are reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 2, 245-54, 256-57, 260-66; quote at 247.

¹⁰⁹ The agreement is reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 2, 257-60.

and a number of pinnaces and their furniture from London Gentleman William Morgan.¹¹⁰ The Catholic group clearly planned to follow Gilbert across the Atlantic.

It is probably no coincidence that in July 1582, Elizabeth began to repay £450 due to Gilbert for his service in Ireland.¹¹¹ Prior to writing his will on August, 28, 1582, Gilbert also sold to Sir Edward Hoby his manor at Minster on the Isle of Sheppey, which he had just purchased the previous year from Lord Henry Cheney of Toddington. Gilbert indicated that Hoby owed him money for his manor at Minster and another estate.¹¹² Gerrard sold off some of his land in April or March 1582 as well.¹¹³ Gilbert hoped to sail for Norumbega that summer, so he and his associates started collecting debts and selling property to fund the voyage. While it cannot be proven that Hakluyt's book and Parmenius's poem helped secure Gilbert's 1582 investments, his circle obviously coordinated their wave of publications to coincide with their projected departure.

Despite Parmenius's initial optimism regarding colonization, upon reaching Newfoundland he was noticeably less impressed with Gilbert's endeavor. On August 6, 1583, he wrote to his former roommate in bewilderment from St. John's Harbor: "But what shall I say, my good Hakluyt, when I see nothing but a very wilderness?"¹¹⁴ Only a few days later, Parmenius drowned along with eighty other crewmen aboard the *Delight*, thus ending his brief association with Gilbert. His tragic demise epitomizes the

¹¹⁰ Washington D.C., Folger Shakespeare Library (hereafter Folger), MS Z.c.22 (48). Bingham's agreement with Morgan is dated February 26, 1583.

¹¹¹ TNA, SP 63/94, f. 153r.

¹¹² TNA, Records of the Prerogative Court of Canterbury 11/67, f. 219r-v; TNA, SP 12/158, f. 148r; TNA, PC 2/13, f. 534v.

¹¹³ LOC, DBQ, Box 77, Folder 1.

¹¹⁴ Stephen Parmenius to Richard Hakluyt, August 6, 1583, in Hakluyt, *Principal Navigations*, 698-99; in his *Western Planting*, 24, Hakluyt spun Parmenius's comments about Newfoundland's commodities to be favorable.

execution of Gilbert's expedition, much as his poem exemplifies the promotional literature issued in support of it.

5. David Ingram's *adventures & travailes*: The First Account of Norumbega by an Englishman

At roughly the same time that Parmenius printed his revision of *De Navigatione*, Gilbert's circle issued another promotional work describing the travels of David (Davy) Ingram. In 1567, Ingram, a twenty-five-year-old from Barking, Essex, sailed with John Hawkins's third and final slaving mission, which eventually reached the Gulf of Mexico. After a disastrous defeat at the hands of Spanish soldiers in October, Hawkins reluctantly marooned Ingram and one hundred other mariners near Tampico to prevent the rest of his crew from starving. Rather than risk another encounter with the Spanish, Ingram, along with Richard Browne and Richard Twide, began walking north along the Atlantic coastline. Over the course of a year, the trio traversed approximately three thousand miles (two thousand by Ingram's estimation), and they never stayed at any location for more than a few days. In October 1568, they reached Cape Breton, Nova Scotia, where they hitched a ride on a Norman vessel. Less than a year later, they reached England and received acclaim from Hawkins, whose rickety ship miraculously had returned home several months earlier.¹¹⁵

For the next dozen years, Ingram disappears from the historical record, until Gilbert sought out another first-hand account of Norumbega to advertise his expedition.

¹¹⁵ BL, Sloane MS 1447, f. 1r.

He had already interviewed his Portuguese navigator Simão Fernandes and the English chaplain John Walker, the only other men in England known to have visited Norumbega. Ingram had travelled throughout the region and for a longer duration, however, so he presumably knew more about North America than anyone else in England. It was probably Hakluyt who tracked down Ingram, since he also located the only surviving member of Richard Hore's 1536 voyage to Newfoundland. Hakluyt rode more than one hundred miles to Great Ryburgh, Norfolk, to find Thomas Butts, so locating Ingram, who still lived in Barking in 1582, was probably much easier.¹¹⁶

Once Ingram was located, Hakluyt, Walsingham, Gilbert, Peckham, and others interviewed him about his journey, and Walsingham retained a written copy of their discussion as proof of the account.¹¹⁷ From Peckham and London antiquarian Humphrey Dyson, we also know that during the first half of 1583 a book appeared with the title *A true discourse of the adventures & travailes of David Ingram being sett on shore with 100 more of his fellowes by Captaine Hawkins in the heathen countries*.¹¹⁸ Since the book is not extant, its content remains a mystery. Fortunately, Hakluyt included an account of Ingram's journey in his first edition of *Principal Navigations*, which he entitled, "The voyage of Dauid Ingram from the bay of Mexico ouer land neere to the

¹¹⁶ See Hakluyt, *Principal Navigations*, 517-19; Thomas, the son of Sir William Butts, the prominent Henrician court physician painted by Hans Holbein the younger, provided Hakluyt with information about the Hore expedition for his account in *Principal Navigations*.

¹¹⁷ Maurice Brown wrote that Ingram confessed to "my Master [Walsingham] who hath his confession in writing." See Browne to John Thynne, August 20, 1582, in Quinn and Cheshire, ed. and trans., *New Found Land*, 193; Andrews, *Trade, Plunder, and Settlement*, 192; Gesa Mackenthun, *Metaphors of Dispossession: American Beginnings and the Translation of Empire, 1492-1637* (Norman and London: University of Oklahoma Press, 1997), 49.

¹¹⁸ In his *Trve Reporte* (C3v), Peckham cites "the relation of a countryman of ours, namely *Dauid Ingram*; On Dyson, see Jackson, "Dyson's Library," 285.

Cape Briton. An. 1567.”¹¹⁹ Hakluyt typically copied his source texts nearly word for word, so his version of Ingram’s travels must resemble the book. As the earliest written account of an Englishman’s travels on mainland North America, the text was an important source of propaganda for the expedition.

Considering Hakluyt’s major part in publishing Florio’s translation and Parmenius’s poem, he was likely the driving force behind the Ingram text too. Hakluyt spent time with the mariner, who, as an illiterate, needed someone to craft a narrative out of his jumbled memories.¹²⁰ Ingram’s recollections about his journey remain extant in two manuscripts at the Bodleian and British Libraries.¹²¹ Copies of Ingram’s interview also exist at the National Archives of the United Kingdom and at the British Library, the latter of which Hakluyt wrote between August and September 1582 and titled, “Sondrie Reportes of the contrie Wich Sir Humfrie Gilberte goeth to discouer.”¹²² These four documents range from a concise list of questions and answers to an in-depth narrative of Ingram’s trip, and Gilbert’s coterie certainly circulated the manuscripts amongst their friends and associates.¹²³ Despite the historical significance of the Ingram manuscripts, they have not been subjected to much scholarly analysis. Examining them reveals the great extent that Gilbert and his supporters were interested in the commodities and native population of Norumbega, and their printed book on Ingram’s travels reflected these interests.

¹¹⁹ Hakluyt, *Principal Navigations*, 557-62. Hakluyt alternatively titled the account “The relation of Dauid Ingram concerning his trauaile in the countrie of America.”

¹²⁰ D.B. and A.M. Quinn, “A Hakluyt Chronology,” 277.

¹²¹ BLO, Tanner MS 79, ff. 172r-180v; BL, Sloane MS 1447, ff. 1r-11v.

¹²² TNA, SP 12/175, f. 163r-v; BL, Add. MS 48151, ff. 161r-166r.

¹²³ See Woudhuysen, *Sidney and Manuscripts*.

As mentioned in chapter one, Gilbert's circle only questioned Ingram about lands north of the River May, which they deemed the *de facto* northern border of Spain's American empire.¹²⁴ The interview began with a question regarding the fruitfulness of the land and its commodities, two of Hakluyt's interests. The men wanted to know what crops grew naturally at Norumbega, because they would sustain Gilbert's colonists and serve as the basis for trade with England and the rest of Europe. The interviewers inquired about the area's wild game and cattle, two additional sources of food. Ingram recalled that undomesticated horses, animals larger than horses with great tusks, and a type of sheep with red meat inhabited the region. Norumbega's plum trees would provide food and wine, while an apple-like fruit with black liquor at its center and trees with bark tasting like pepper would be valuable as novelties in Europe.¹²⁵ The lack of livestock posed a problem due to the immediate and long-term sustenance that they represented. Gilbert knew that Sable Island near Cape Breton had plenty of cattle and pigs, however, and he intended to stop there on his way to Norumbega.¹²⁶

The inquisitors also showed a keen interest in "what kind of people there be, and how they be apparelled." Gilbert and Hakluyt optimistically believed that Native Americans would replace Europeans as the primary consumers of English cloth. Ingram did not disappoint them, responding that many Native American cultures wore little clothing. Others resided in towns with streets broader than those in London, and some wore gold and silver decorations on all parts of their anatomy. Ingram even saw a pearl as large as a man's thumb. Gilbert's men specifically asked about Native American

¹²⁴ BL, Sloane MS 1447, f. 1r.

¹²⁵ TNA, SP 12/175, f. 163r-v.

¹²⁶ BL, Add. MS 38823, f. 3r; Gilbert's plan for Sable Island is discussed in greater detail in chapter three.

domiciles to learn about their resources and to test Ingram's account against Fernandes's and Verrazano's reports. Ingram remembered seeing round houses held up by crystal pillars and adorned with gold and silver. One of his interviewers approvingly corroborated in the margin of the manuscript that Fernandes had also seen round houses in the area. Hakluyt knew that Verrazano found round houses at Norumbega too.¹²⁷ As if not clear enough already, Ingram reassured the men that gold, silver, pearls, and unknown minerals abounded on the land and in North America's plentiful rivers.¹²⁸

Gilbert's circle again tested Ingram with their final question to certify the validity of his account. They asked whether he had seen an animal larger than an ox. Unbeknownst to Ingram, Fernandes saw such an animal at Norumbega during his 1580 recognizance, which the authors noted in the margin. Fernandes returned to England with its hide, providing concrete evidence of its existence. In 1580, Walker also had travelled to the New England area, where he saw hides up to eighteen feet square set out to dry that were probably Elk or Bison.¹²⁹ Ingram recalled seeing an ape-like creature with the ears of a bloodhound, an answer that must seem dubious to modern readers. In another account by Ingram, however, he noted that the "Buff" had such long ears, so he was probably referring to bison on both occasions.¹³⁰ He likely saw a hide rather than a living bison on the Atlantic Coast, which may explain his confusion. Despite the implausibility of some of his story, Ingram swore "ypon his life" to its verity and even agreed to accompany Gilbert on his voyage to prove that it was factual.¹³¹

¹²⁷ See Hakluyt, *Divers Voyages*, B2v.

¹²⁸ TNA, SP 12/175, f. 163r-v.

¹²⁹ LOC, DBQ, Box 102, Folder 17.

¹³⁰ BL, Sloane MS 1447, f. 6v; See Peckham, *Trve Reporte*, E4r.

¹³¹ TNA, SP 12/175, f. 163v.

Using the interview and other information provided by Ingram, Hakluyt created a rough draft of the sailor's travels. He made slight alterations to the manuscript when he included Ingram's story in his 1589 *Principal Navigations*, so we can assume that he also changed the account in 1583. Hakluyt's most significant revision was the addition of a paragraph stating that Norumbega contained a series of towns within six to eight miles of another. He also revised Ingram's report by stating that smaller villages could be found throughout the country at roughly ten mile increments. Hakluyt wanted to show prospective colonists and investors that Norumbega was heavily populated with potential trade partners.¹³²

The manuscript that Gilbert's circle crafted out of Ingram's interview firmly established Norumbega's mineral wealth, which included gold, pearls, and homes with large silver and crystal pillars. The population apparently revered their kings, and Ingram's reference to well proportioned, tall Native Americans with shaven heads corresponded to other European travel narratives. Information on their animal skin shields and small bows was also accurate.¹³³ Ingram curiously stated that "The Canibals doe most inhabite betweene Norumbege, and Barimashe," which explains why Gilbert instructed his specialists to discern which of Norumbega's Native Americans "be men eaters."¹³⁴ By 1582, cannibalism was a well-established trope in European travel writing on the Americas, having first been mentioned by Columbus. Ingram may have heard

¹³² See BL, Sloane MS 1447, ff. 1r-11r; Hakluyt, *Principal Navigations*, 557-62.

¹³³ BL, Sloane MS 1447, ff. 2r-3v.

¹³⁴ BL, Sloane MS 1447, f. 4r-v; BL, Add. MS 38823, f. 1r.

such tales, and as an abomination to Christians, cannibalism would certainly intrigue Gilbert, his associates, and other English readers.¹³⁵

The report offered much additional information and reiterated that Native Americans in Norumbega built round, weakly constructed houses. The region's many rivers would provide fresh water for the colony and would potentially lead to the Pacific Ocean, since Native Americans to the north had seen great ships from the west. An assortment of furs unknown to Europeans, abundant fish stocks, and fertile, often treed land suitable for many crops made the region even more appealing.¹³⁶ Ingram declared that a variety of animals populated Norumbega too, such as bison, fox, deer, goats, and sheep. His long, detailed description of bison and the value of their hides made evident his fascination with an animal that was unfamiliar to Europeans. Curiously, he claimed to have seen an animal twice the size of a horse and elephants as well. He observed various bird species, including the penguin, one of several words that he interpreted as being of Welsh origin.¹³⁷ Ingram recalled that some Native American men were polygamous, and he estimated that various North American rivers were many miles wide. He probably mistook Delaware Bay, Chesapeake Bay, or Albemarle Sound as the great rivers that took him an entire day to cross as he made his way toward Cape Breton.¹³⁸

By the time that Ingram related his story to Gilbert's men, his two travel companions had both passed away, leaving Ingram as the sole source of their journey. Owing to this coincidence and to the implausibility of his narrative, scholars have long

¹³⁵ See Philip P. Boucher, *Cannibal Encounters: Europeans and Island Caribs, 1492-1763* (Baltimore: Johns Hopkins University Press, 1992), 13-30; Mackenthun, *Metaphors of Dispossession*, 50-51.

¹³⁶ BL, Sloane MS 1447, f. 5r-v.

¹³⁷ BL, Sloane MS 1447, ff. 7r-8v.

¹³⁸ BL, Sloane MS 1447, f. 9v.

doubted its reliability.¹³⁹ Robert Bromber recently surmised that Ingram's account inspired Shakespeare's *Tempest*, but he considered Ingram a liar and doubted that he could have made his journey in less than three years.¹⁴⁰ Yet in 1999, British author Richard Nathan retraced Ingram's path in reverse (to avoid unfavorable weather) from Guysborough, Nova Scotia, to Tamaulipas, Mexico. He covered the nearly 4,000 mile trek in just nine months, well short of the time that Ingram required to make the same trip.¹⁴¹ Ingram travelled in warmer, southern climates during winter, and he reached colder, northern regions as spring arrived. The walk was clearly possible, whether or not Ingram completed it.¹⁴²

Regardless of its historical merit, Ingram's story certainly captivated sixteenth century audiences. Gesa Mackenthun believes that his book was among the "best-sellers of travel writing" and a "public success" that "was literally read to pieces."¹⁴³ Though a bit optimistic, she hits the mark in suggesting that the text "conveys more about the expectations of Ingram's interviewers than it does about his authentic travel

¹³⁹ See Quinn, ed., *Voyages of Gilbert*, vol. 1, 62-65; Everett DeGolyer, ed., *Across Aboriginal America: The Journey of Three Englishmen Across Texas in 1568* (El Paso: Carl Hertzog for Peripatetic Press, 1947), 7-11; Charlton Ogburn, "The Longest Walk: David Ingram's Amazing Journey," *American Heritage* 30 (April/May 1979): 4-13; Edmund S. Morgan, *American Slavery, American Freedom: the Ordeal of Colonial Virginia* (New York: W.W. Norton, 1975), 21-22; Francis Jennings, *The Invasion of America: Indians, Colonialism, and the Cant of Conquest* (Chapel Hill: University of North Carolina Press, 1975), 47; Mancall, *Hakluyt's Promise*, 190-94, 232-33.

¹⁴⁰ Robert Bromber, "The Liar and the Bard: David Ingram, William Shakespeare, and the *Tempest*," *Yearbook of the Spanish and Portuguese Society for English Renaissance Studies*, no. 12 (2002): 123-33.

¹⁴¹ Richard Nathan, *Walking With Time: A Travel Narrative by Richard Nathan*, unpublished manuscript supplied by the author.

¹⁴² DeGolyer, ed., *Aboriginal America*, 11, is among the few scholars who believe that Ingram made the walk.

¹⁴³ Mackenthun, *Metaphors of Dispossession*, 49.

experience.”¹⁴⁴ In large part, Ingram simply told Gilbert and Hakluyt what they wanted to hear. He probably made the walk, but during his interrogation he also exaggerated and forgot details.

Indeed, certain parts of Ingram’s account must be considered exaggerations or outright lies. He likely did not hear Welsh words being spoken in Norumbega, but they supported Hakluyt’s and Dee’s claims that the Welsh Prince Madoc discovered the Americas before the Spanish got there.¹⁴⁵ Ingram certainly forgot some details over time as well, and other apparent embellishments can be corroborated by similar travel narratives. Florio’s translation of Cartier’s voyages is a case in point. Cartier claimed to have seen “great beastes, as great as Oxen, which haue two great teeth in their mouths like vnto the Elephant, and liue also in the Sea.”¹⁴⁶ Like Ingram, he was astonished by an animal that he had never seen before, a walrus.

In both editions of his *Principal Navigations*, Hakluyt also printed the account of Ingram’s shipmate, Miles Philips. After being marooned with Ingram, Philips headed west and south with the majority of the castaways. He confirmed that Ingram, Twide, and Browne went north, and Philips’s account was just as miraculous as Ingram’s; he twice evaded the Spanish, then gained passage to Spain, and again escaped capture to return to England in 1582. His story lacked the fanciful details provided by Ingram, which made it more plausible, but it was incredible nonetheless.¹⁴⁷ Another of their

¹⁴⁴ Mackenthun, *Metaphors of Dispossession*, 49-51, 139.

¹⁴⁵ See Peckham, *Trve Reporte*, D4v; Dee, *Diary*, 16-17; BL, Cotton MS Augustus I.i.1; Julian Roberts, “Additions and Corrections to ‘John Dee’s Library Catalogue’” in *Dee: Interdisciplinary Studies*, ed. Clucas, 336; Mackenthun, *Metaphors of Dispossession*, 25-26, 29.

¹⁴⁶ Cartier, *shorte narration*, D2r.

¹⁴⁷ Hakluyt, *Principal Navigations* (1600), vol. 3, 469-87.

crewmembers, Job Hortop, published his own account of his travels after being cast ashore in 1567. He endured Native American attacks, imprisonment, and the Spanish Inquisition before reaching England in 1590. In addition to his extravagant descriptions of sharks, alligators, and tigers, Hortop provided a “*description of a man that appeared in the Sea : and also of a huge Giant brought from China to the King of Spaine.*” His work was probably popular, since it was printed twice in 1591.¹⁴⁸

Fantastic accounts like those of Hortop, Philips, and Ingram were common and quite popular in the early modern era. Apocryphal works like Sir John Mandeville’s *Travels* were reprinted numerous times into the seventeenth century. The lines between truth and fiction and between exaggeration and outright lie were blurry in these texts. Ingram and his associates probably made the journeys that they purported to, but it was easy to misinterpret and to embellish details about unfamiliar flora and fauna, especially while being interrogated by powerful men like Walsingham and Gilbert. The Ingram manuscripts contain a number of questionable details, but they also offer important information about Gilbert’s interest in Norumbega and what he expected to find there.

¹⁴⁸ Job Hortop, *The Trauailes of an english man. containing his Svndrie Calamities indured by the space of twentie and odd yeres in his absence from this natiue Countrie; wherein is truly decyphered the sundrie shapes of wilde Beasts, Birds, Fishes, Foules, rootes, plants, &c. With the description of a man that appeared in the Sea : and also of a huge Giant brought from China to the King of Spaine* (London: T. Scarlet, 1591); Job Hortop, *The Rare Trauailes of Iob Hortop, and Englishman, who was not heard of in three and twentie yeeres space. Wherin is declared the dangers he escaped in his voiage to Gynnie, where after hee was set on shoare in a wildernes neere to Mexico , hee endured much slauerie and bondage in the Spanish Galley. Wherein he discouereth many strange and wonderfull things seene in the time of his trauaile, as well concerning wilde and sauage people, as also of sundrie monstrous beasts, fishes and foules, and also trees of wonderful forme and qualitie* (London: for William Wright, 1591); see Hakluyt, *Principal Navigations* (1600), vol. 3, 487-95.

Despite obvious discrepancies in Ingram's account, it became a significant source on Norumbega for members of Gilbert's circle. When Peckham promoted his follow-up voyage to Gilbert's projected colony in his 1583 *true report*, he cited Ingram's book numerous times.¹⁴⁹ Hakluyt used the material in his 1584 "Discourse on Western Planting," which was written to convince Elizabeth of the need to support Raleigh in colonizing North America. According to Hakluyt, Ingram had confirmed, in writing, the existence of a passage to Cathay "on the backside of Hochelaga" (Montreal, Quebec).¹⁵⁰ Hakluyt the elder's "Inducements to the Lykinge of the Voyage" from the same year probably used the Ingram manuscript as a source too, since they are bound together.¹⁵¹ Hakluyt omitted the Ingram material and Mandeville's *Travels* from the second edition of his *Principal Navigations*, but he never mentioned why. His successor Samuel Purchas believed that it was out of "some incredibilities of his (Ingram's) reports...the reward of lying being not to be beleueed in truths."¹⁵² After the turn of the seventeenth century, English writers rarely cited Ingram as a way to advocate colonization.

Although it is impossible to tell if Ingram's book attracted subscribers to the expedition, Gilbert used his travels to persuade Maurice Browne and his associate Smith

¹⁴⁹ Peckham, *Trve Reporte*, B4r, C3v, D4v, E2r, E4r.

¹⁵⁰ Hakluyt, *Western Planting*, 87.

¹⁵¹ Ingram's travels are BL, Sloane MS 1447, ff. 1r-11v, followed by Hakluyt's "Inducements" at 12r-15v.

¹⁵² Samuel Purchas, *Pvrchas his Pilgrimes In fiue bookes. The first, contayning the voyages and peregrinations made by ancient kings, patriarkes, apostles, philosophers, and others, to and thorow the remoter parts of the knowne world: enquiries also of languages and religions, especially of the moderne diuersified professions of Christianitie. The second, a description of all the circum-nauigations of the globe. The third, nauigations and voyages of English-men, amongst the coasts of Africa. The fourth, English voyages beyond the East Indies, to the ilands of Iapan, China, Cauchinchina, the Philippinae with others. The fifth, nauigations, voyages, traffiques, discoueries, of the English nation in the easterne parts of the world*, pt. 4, bk. 6 (London: William Stansby, 1625), 1179.

to join him. Gilbert began searching for investors and crewmembers after the printing of *De Navigatione* and *Divers Voyages*, and he provided the men with intricate details about Norumbega as provided to him by “Davy Ingram with two more in his company.” He told them that Ingram had passed over a river more than twenty leagues wide, which Native Americans crossed in their “*Canoas*.” Ingram spent considerable time north of this river, which Browne surmised to be the River May, and he found more wealth in the area than anywhere else during his journey. Perhaps because Ingram promised to bring Gilbert to the land, “upon ye losse of his lyfve,” Browne joined on as messenger to report back to the queen.¹⁵³ The success of Ingram’s account in persuading Browne to join may explain why Gilbert published his travels the following year.

A man of his word, Ingram did, in fact, accompany Gilbert on his voyage to North America. After the expedition’s conclusion, Peckham interviewed him for his own book and reported that “This Daud Ingram was in this last iourney with sir Humfrey and is very desirous to be imployed hether againe.”¹⁵⁴ Whether by luck or sheer will, Ingram survived two transatlantic voyages that claimed the lives of hundreds of other English sailors, and after Gilbert’s voyage he again disappeared into obscurity. Even though he staked his life on the verity of his account, its accuracy is fairly immaterial. Ingram’s interrogation provided Gilbert and Hakluyt with enough information to compose a worthwhile narrative about the journey of the first Englishman to pass through Norumbega. The book supplemented Gilbert’s already profuse promotional literature and provided him with another opportunity to attract men and capital for his voyage.

¹⁵³ Maurice Browne to John Thynne, August 20, 1582, in Quinn and Cheshire, ed. and trans., in *New found Land*, 193-95.

¹⁵⁴ Peckham, *Trve Reporte*, C3v.

6. Christopher Carleill's *breelf and sommarie discourse*: Appeals to the Muscovy
Company and to London Merchants

Gilbert's advertisements gave him nearly enough money, men, and materials to set sail by early 1583, but he required additional funding to ensure that he would have a well-equipped voyage that could establish a thriving colony. Fortunately, Christopher Carleill had designs for his own voyage to North America, and he was willing to assist Gilbert. Carleill was the step-son of Gilbert's most important patron, Francis Walsingham, whose influence had helped him gain command of the land forces for the 1582 Fenton expedition. Like Frobisher and Bingham, Carleill had a falling out with some of Fenton's assistants, especially John Hawkins, and by April 1582 he had dropped out of the voyage as well.¹⁵⁵ To fill the time that he had expected to be at sea, the thirty-year-old wrote a persuasive document advocating North American colonization entitled *A breelf and sommarie discourse vpon the entended Voyage to the hethermoste partes of America*. The concise tract eventually became influential in securing last minute funds for Gilbert's expedition.¹⁵⁶

Scholars have long debated the objective of Carleill's work. Both Gilbert's biographer, David Quinn, and Carleill's biographer, Rachel Lloyd, initially hypothesized that Carleill and Walsingham intended to double-cross Gilbert and gain investments to set

¹⁵⁵ BL, Cotton MS Otho E. VIII, ff. 127r, 128r-143r, 144r-v, 173r; see E.G.R. Taylor, ed., *The Troublesome Voyage of Captain Edward Fenton, 1582-1583* (Cambridge: Cambridge University Press, 1959), 154.

¹⁵⁶ Brief analyses of Carleill's book include Appleby, "War, Politics, Colonization," 63; Parker, *Books to Build*, 111-15.

up their own colony in Norumbega.¹⁵⁷ Quinn later revised his thesis, suggesting that Carleill and Walsingham planned to follow Gilbert to North America. One of the only other historians to speak of Carleill, Kenneth R. Andrews, regarded his relationship to the 1583 expedition as somewhat confusing.¹⁵⁸ Gilbert certainly would have protested Carleill's voyage to Norumbega due to stipulations in his 1578 letters patent, and because they were interested in the same area, it made sense to collaborate.¹⁵⁹ Examining Carleill's book on its own does not prove that he wrote in support of the expedition, but his preparatory manuscripts verify that he and Walsingham were behind Gilbert all along.

Carleill's early life resembled Gilbert's in various respects. Rather than obtaining his humanist education at Eton and Oxford, Carleill matriculated at Cambridge, where he received praise for the "noble mind" that he attained through "learning and study."¹⁶⁰ Perpetually in debt and temperamental in behavior, he also fought in Ireland following Gilbert's death. He began aiding Dutch Protestants in 1573 during their rebellion against Spain, while Gilbert had led a contingent to the Low Countries with the same objective the previous year. Both men were injured in the eye during their service.¹⁶¹ Together with Peckham and Sir Richard Grenville, Gilbert and Carleill directed a 1574 scheme to

¹⁵⁷ Lloyd, *Elizabethan Adventurer*, 80-82; Quinn, ed., *Voyages of Gilbert*, vol. 1, 76-81, 94-95; see Patrick McGrath, "Bristol and America, 1480-1631," in *Westward Enterprise*, 95-96.

¹⁵⁸ Quinn and Cheshire, ed. and trans., *New found Land*, 204 fn 7; Hakluyt, *Western Planting*, xvi; Andrews, *Trade, Plunder and Settlement*, 193-99.

¹⁵⁹ Raleigh protested Bartholomew Gosnold's incursion into his territory nearly two decades after he received letters patent from Elizabeth, and it makes sense that Gilbert would have acted similarly. See Raleigh to Sir Robert Cecil, August 21, 1602, in Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 347.

¹⁶⁰ Blandie, *The picture of pollicy*, G4v.

¹⁶¹ TNA, SP 63/29, ff. 13r, 133r; BL, Lans. MS 113, f. 25r.

colonize in the Americas that probably never materialized.¹⁶² Carleill's first significant naval command came in early 1582, when he successfully escorted eleven vessels to Russia for the Muscovy Company in order to avoid confrontation with the Danish, who protested the trade. He may have shared Gilbert's interest in geography too, since he was well acquainted with Abraham Ortelius.¹⁶³

Carleill's promotional tract, dated April 1583, appeared in print two months prior to Gilbert's departure. Again, Hakluyt may have helped prepare the work, which has only been reproduced in a few edited collections.¹⁶⁴ The English Short Title Catalogue lists three known copies of the book; the two examples at the Westminster Abbey and Dulwich College Libraries are titled *A breef and sommarie discourse vpon the entended Voyage to the hethermoste partes of America*. The other extant copy at the John Carter Brown Library was printed without a title page, and the recto of the first leaf contains the half-page title, *A discourse vpon the entended Voyage to the hethermoste partes of America: written by Captain Carleill*.¹⁶⁵ Although the few extant copies of the work

¹⁶² See TNA, SP 12/95, ff. 136r-142v.

¹⁶³ TNA, SP 83/15, f. 114r. Ortelius wished the young soldier "good affection."

¹⁶⁴ See Mancall, *Hakluyt's Promise*, 108; D.B. and A.M. Quinn, "A Hakluyt Chronology," 277-78; reprints include Hakluyt, *Principal Navigations*, 718-23 and (1600), vol. 3, 182-87; Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 27-34.

¹⁶⁵ The Dulwich copy is titled *A breef and sommarie discourse vpon the entended voyage to the hethermoste partes of America: Written by Captaine Carleill in Aprill 1583. for the better inducement to satisfie suche marchauntes of the Moscouian Companie and others, as in disburcyng their money towards the furniture of the present charge: doe demaunde forthwith a present returne of gaine: albeit their saied perticuler disbursements are required but in verie slender sommes: The highest beeyng twentie and fiue pounce. The second at twelve pound ten shillynges. And y[e] lowest at sixe pound fiue shillinges*. The other version held by the John Carter Brown Library (D583 C278d) is titled *A discourse vpon the entended Voyage to the hethermoste partes of America: written by Captaine Carleill, for the better inducement to satisfie suche Marchauntes, as in disburcing their money towards the furniture of the present charge : doe demaunde forthwith a present*

suggest otherwise, the second printing indicates that the book was fairly popular. Quinn believed that the Brown copy, which lacks a publication date, was printed in 1584. Carleill indicated in the text that he authored both editions in 1583, however, and additional evidence proves that he wrote them to support Gilbert's voyage.¹⁶⁶

The full title of the Dulwich version clarifies Carleill's purpose, since he wrote it, at least partially, "*for the better inducement to satisfie suche Marchauntes of the Moscovian Companie and others.*" In the title, he asked the merchants to invest for a voyage to America in the following increments: twenty-five pounds; twelve pounds, ten shillings; and five pounds, five shillings. At the conclusion of his book, Carleill included an agreement that he had made with the Muscovy Company merchants on May 9, 1583.¹⁶⁷ Gilbert had been at loggerheads with the Russia merchants for nearly two decades as of 1583, because they had successfully protested his attempt to discover the Northwest Passage in 1565.¹⁶⁸ Gilbert maintained his grudge against them as he prepared his expedition, since he went out of his way in November 1582 to forbid the associates at his colony from trading with "the nowe Marchantes of the Moscovy company," their children, or their issue.¹⁶⁹

Just a few months later, however, Gilbert changed his tune and sought to utilize the company's resources to benefit his voyage. Carleill's close ties to the Muscovy

returne of gaine : albeit their saied perticuler disburcementes are in such slender sommes, as are not worth the speaking of. The text begins at the top of the recto of leaf one of the Dulwich copy, so no half-title page is present. Thus, it makes sense that the Brown version was printed without a full title page.

¹⁶⁶ Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 182; on the date of publication, see B2v of the Brown copy.

¹⁶⁷ A manuscript of the agreement is BL, Lans. MS 37, ff. 164r-165r.

¹⁶⁸ TNA, SP 12/42. ff. 16r-18v, 53r-55v.

¹⁶⁹ Gilbert's agreement with his Merchant Adventurers is reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 2, 323.

Company made him the obvious choice to appeal to them. His grandfather, Sir George Barne, co-founded the company in the 1550s, and his uncle of the same name was governor in 1580 and 1583. Walsingham was in the company too, and Carleill had ties to member Christopher Hoddesdon.¹⁷⁰ Carleill may have set out to write a document that would convince the merchants to support his voyage, but after realizing that he could not colonize on his own without letters patent, he joined Gilbert.

Carleill set himself apart from Gilbert's other propagandists by crafting his own unique thesis, in plain English, on the necessity of colonizing the Norumbega region. His specificity further distinguished the work from Gilbert's other promotional tracts. Lloyd befittingly called his book "a fine performance, clear and convincing with no frills" that put forth a "new colonial policy, outward-looking, challenging Spain."¹⁷¹ Carleill displayed a superb comprehension of European trade relations, and he argued that the need for a more secure source of commerce justified colonizing North America. Whereas Gilbert's other works cast a broad net in order to catch as many investors as possible, Carleill had a very specific set of investors in mind, and he catered his work to them. Rather than speculating that Norumbega might contain all commodities known to man, he focused on a few specific goods desirable in England. His straightforward, compelling text cast doubt on the viability of England's trade with parts of Africa, Asia, and Europe.

Carleill believed that competition with Dutch traders would prevent England from fully controlling the Russian trade, and even worse, sea ice only allowed for a single

¹⁷⁰ TNA, SP 83/13, f. 68r. In October 1580, Hoddesdon referred to Carleill as "my brother Carleil."; see also Lloyd, *Elizabethan Adventurer*, 63.

¹⁷¹ Lloyd, *Elizabethan Adventurer*, 81.

voyage to Muscovy each year. Customs fees further decreased profits.¹⁷² This point is particularly astute; England's Muscovy merchants traditionally came ashore at either the port of St. Nicholas in the far north of Russia or the port of Narva, followed by an overland journey to Moscow. Sweden captured Narva in 1581 during the Livonian War, forcing merchants to venture north to St. Nicholas, which brought them into conflict with the Dutch, whose king claimed sovereignty in the area. That same year, some English traders engaged the Dutch in battle when King Frederick II attempted to impose a toll on foreigners. In early 1582, Frederick ordered all English merchants to halt trade via the northern cape to Russia.¹⁷³ He granted the Muscovy merchants certain privileges, like the ability to sail to St. Nicholas, but they had to pay him a yearly fee of 100 Dutch rosenobles and they could not trade in Norway or Iceland. The king also forbade them from providing the Muscovites with any war materials due to the potential for the outbreak of war between the Dutch and the Muscovites.¹⁷⁴ The unstable situation in the North Sea prompted English merchants to search for a new source of trade. In 1580, the Muscovy Company sponsored a search for the Northeast Passage led by Arthur Pett and Charles Jackman, for which Hakluyt and Dee provided instructions. Their attempt failed miserably, and Carleill intended to sway these merchants to put their resources toward a voyage to North America instead.¹⁷⁵

Politico-religious tensions also diminished the appeal of trading in the Turkish Empire or investing in the recently established Levant Company. English seamen had to

¹⁷² Carleill, *breief and sommarie discourse*, A1v-A2r.

¹⁷³ BL, Add. MS 48001, ff. 75r-76r.

¹⁷⁴ BL, Cotton MS Nero B. III, ff. 184r, 191r-192r, 194v-197v, 198r-199v; TNA, SP 75/1, f. 83r.

¹⁷⁵ Lloyd, *Elizabethan Adventurer*, 63.

sail through the territories of several rival states simply to reach Turkish merchants, the “professed and o[b]stinate Enemy of Christ” whose Islamic belief system, wrote Carleill, posed a serious threat to Christian Europe during the late sixteenth century. Continuing that trade would only gain the ire of England’s Catholic enemies. Commerce with Italians required English merchants to pay high customs fees, and they had to traverse the same perilous trade route to reach the Apennine Peninsula. Additionally, Barbary corsairs often captured English merchantmen in the Mediterranean and demanded exorbitant ransoms for their return, so the Barbary trade posed similar problems. In his *Discourse of Western Planting*, Hakluyt similarly argued that the Barbary, Russia, and Turkey trades had “growen beggerly,” which indicates that he either helped with Carleill’s book or copied ideas from him.¹⁷⁶ Though neither author mentioned it, the Merchant Adventurers also had a falling out with Hamburg in 1578, and the city expelled them. The Eastland Company faced their own problems with the Prussian Hanse after being incorporated in 1579.

Carleill pointed out that some Englishmen chose to do business with the Spanish and Portuguese, but who could trade with nations whose merchants followed such “a detestable and most wicked doctrine”?¹⁷⁷ The author answered his own rhetorical question with a simple and candid response: merchants could solve England’s trading woes and find better trading partners by sailing to forty degrees north latitude in North America, the precise location that Gilbert planned to settle. In less than four months’ time, English traders could sail to the area, deal their wares for valuable American commodities, and return home with exotic items. A single ocean current (the East

¹⁷⁶ Hakluyt, *Western Planting*, 12-15.

¹⁷⁷ Carleill, *breef and sommarie discourse*, A2r-v.

Greenland current flowing west and the Gulf Stream going east) propelled vessels to and from the region, rather than the multiple currents of other trade routes. No great landmasses posed threats for shipwreck in the Atlantic either, nor did rival European sailors abound in the area. England's close proximity to Norumbega gave it another advantage, even if Carleill over-optimistically suggested that the voyage could be undertaken year-round. Perhaps best of all, every émigré to North America would enjoy religious autonomy, an increasingly precious freedom in religiously divided Post-Reformation Europe.¹⁷⁸

Of course it would take time for commerce with Native Americans to match the well-established Russia trade, which by 1582 had had three decades to mature. Yet Norumbega's location meant that goods from southern regions of the Americas were also within reach, which could not be said of the Muscovy trade. Much like Hakluyt, Carleill estimated that the area contained an affluence of resources, including furs, fish, and shipping materials like pitch, tar, and hemp. North America represented a vent for English cloth as well, especially in the colder northern region. Since Norumbega's latitude paralleled Spain, Italy, and Greece, Carleill surmised that olives would flourish there. He was even more sanguine in suggesting that Native Americans would cultivate them and would serve as the colonists' "Artificers and laboring People" in exchange for "trifflinge things." He could have picked up this prejudice from any number of texts, but he probably gleaned it from Florio's translation, which he referenced elsewhere in his book. Norumbega's Native Americans would know where to find salt for curing fish, wrote Carleill, and contact with English settlers would eventually "civilize" them. An

¹⁷⁸ Carleill, *breief and sommarie discourse*, A3r.

English presence might even dissuade attacks by their enemies, and by familiarizing themselves with local groups, English colonists could learn the location of the Northwest Passage.¹⁷⁹

Carleill's confidence waned in his discussion of North America's potential gold and silver reserves. He felt that "[w]hat minerall matter may fall out to be founde is a thing least in suspence." Frobisher had exaggerated North America's potential mineral wealth to gain investments for his final two expeditions, but Carleill felt that additional exploration was necessary to determine if minerals could support English colonies. He assumed that merchants and prospective colonists would object to paying for transportation costs and to funding the establishment of the colony, but by the second voyage they would begin to see a monetary return on their investments. To conclude his work, Carleill deemed the expedition a noble endeavor that sought to bring the "savedge peple to christianity and civilitie," and, like Gilbert and Hakluyt, he assumed that the colony would provide a source of income for England's poor.¹⁸⁰

Almost immediately, Carleill's book became a successful advertising piece for the expedition. A close examination of the three manuscript versions of his tract shows that they helped secure investments for Gilbert, and it sheds light on the efforts behind Elizabethan printed texts. The copy of Carleill's book at Dulwich strictly follows two rough drafts in the National Archives, even copying their marginalia.¹⁸¹ Another damaged draft in the Burghley Papers at the British Library differs slightly from the

¹⁷⁹ Carleill, *breef and sommarie discourse*, A3r-A4r.

¹⁸⁰ Carleill, *breef and sommarie discourse*, A4r-B3r.

¹⁸¹ TNA, SP 12/155, ff. 160r-165v, and a partial version at ff. 166r-168v. For a collated version of these manuscripts and the two versions printed by Hakluyt in his editions of *Principal Navigations*, see Quinn, ed., *Voyages of Gilbert*, vol. 2, 351-64.

others.¹⁸² The Burghley manuscript and the long version at the National Archives appear to have been written in a different hand, which leads to a number of possible conclusions; multiple individuals may have helped with the book. One of the earlier manuscripts may have been copied. Carleill may have used a ghostwriter, as Gilbert often did, due to his poor hand writing. None of the manuscript hands match samples from Carleill's other handwriting either.¹⁸³

Differences between the two complete manuscripts confirm that Carleill wrote at least two versions of his tract to gain investments from the Muscovy Company on the one hand and London merchants and residents on the other. Aside from a few minor discrepancies between the two, the only major difference comes at the end of the manuscripts. The final paragraph of the British Library version, which is directed at London's citizens, ends thusly:

And so as one who beeing borne of th[is] citie having many of my verie good frends amongst you both by kyndred as otherwise, and one who was never touched with any dishonest or indirect meanyng : I presume to wishe and perswade you to some better taking of this matter to harte as a thing which I do verely thinck will tourne to your greater and more assured comoditie then you receave of any other voiage as yet frequented of so shorte an so saulf a course as this hath/¹⁸⁴

¹⁸² BL, Lans. MS 100, ff. 106r-111v; Differences from the TNA long version are generally minor. Marginalia in a different hand also exhibits small differences between the two, and the marginalia of each appears to be in the same hand.

¹⁸³ Examples of Carleill's writing from 1579 at TNA, SP 83/21, f. 1r, and from 1584 at TNA, SP 63/111, f. 151r, do not match any of the manuscripts for his discourse. Quinn felt that the two National Archives manuscripts may have been in Carleill's hand, and they were certainly written in the same hand and signed in a different hand, though the same for each one. Hakluyt's reprint closely followed the longer MS version from the National Archives, with additions made from the shorter version. See Quinn, ed., *Voyages of Gilbert*, vol. 2, 351.

¹⁸⁴ BL, Lans. MS 100, f. 110r; The transcription of this manuscript at the John Carter Brown Library differs slightly from my own. See JCB, MS 1-SIZE Codex Eng 105, no. 4, pg. 26.

Carleill wrote the other version to encourage Muscovy merchants to join him, so it concludes somewhat differently:

And so as one who was never touched with any indirect meanyng I presume to wishe and perswade you to some better taking of this matter to harte as a thing which I do verelie thinck will tourne to your greater and more assured comoditie then you receave by any other voiadge as yet frequented of so shorte and so saulf a corse as this hath. dealing heren ~~perly~~ [sic] no otherwise with you for your severall smale somes then I do with my self both for more of myne owne then is required of any one of yow besides the hazard and travaile of my person and the totall Imployment of my poore credit which I thanck god hath hetherto passed clere and unspotted in matters of greater Importaunce and Difficultie then is like to fall out in this betwene you and me/.¹⁸⁵

The manuscript titles further elucidate Carleill's intentions. The British Library title, "A discourse upon ye voyage to ye hethermoste partes of America written by Capten Carleill to ye citizens of London," clearly reveals his intended audience. Carleill's family hailed from London, where he was raised, which explains why he claimed to be "of this city" in his manuscript.¹⁸⁶ The National Archives manuscript is labeled as a "Discourse upon ye intended voyage to ye hethermoste partes of America written for ye bettar instruction of ye merchants in ye same by capten Carleill." The appended version, which lacks several passages, has a title that is partially cut off and reads "hethermoste partes of America."¹⁸⁷ Carleill wrote these two manuscripts to acquire funding from the Muscovy merchants, so he altered his conclusion to appeal to them.

The two unique printed versions of Carleill's text have even fewer differences between them, but they prove that he wrote one version for the Muscovy Company and

¹⁸⁵ TNA, SP 12/155, f. 165r.

¹⁸⁶ Carleill had debts in London as early as December 1577. See TNA, SP 46/31, f. 118r.

¹⁸⁷ BL Lans. MS 100, f. 111v; TNA 12/155, ff. 165v, 168v.

another for non-members. The title of the Dulwich copy clarifies that Carleill aimed to “*satisfie suche Marchauntes of the Moscouian Companie*” with his book, but in the Brown example he only sought to “*satisfie suche Marchauntes*” to invest money for the voyage. As for the text itself, there are numerous spelling differences throughout the two copies, but they contain only one substantive textual difference; in the Dulwich copy, Carleill made sure to point out that trade to the Americas was the only subject that he wished to “entermeddle [with] at this tyme,” and he reminded his audience that he had written his text for “mē[n] of such like faculty” as himself. In the Brown copy, which did not have Muscovy merchants as its intended audience, he simply eliminated these references.¹⁸⁸

Neither the manuscripts nor the printed versions provide concrete information about Carleill’s intentions vis-à-vis Gilbert’s expedition. He never mentions Gilbert, though neither did Hakluyt or Florio in their promotional tracts. Even though Carleill was mute about the expedition, Gilbert received sizable investments as a result of his books and manuscripts. Amidst his preparations in late April or early May, Maurice Browne, who was busy gathering supplies for himself and Gilbert, wrote that “In A present supply divers of the cheife marchauntes of London, and the marchauntes of Bristowe doo joyne in consort, and doth send fyve sayle more of good shipes with

¹⁸⁸ Carleill, *breef and sommarie discourse*, B2r (Blv of the Brown copy); Most of the differences between the copies amount to spelling variations, such as “way” versus “waie.” The only additional textual variation is that Carleill changed “long a pacience” to “so long a pacience.” The header on the Brown copy is “A discoverie of America,” while the Dulwich copy is headed “Captaine Carleills discourse vpon his entended Voyage.” The printed and hand-written marginalia of the Dulwich copy match the marginalia of the manuscript versions of the text, but the Brown copy lacks these portions.

provision and men to Sir Humfrey.”¹⁸⁹ The British Library manuscript directed at the merchants is dated May 9, 1583, but Carleill certainly dispersed it earlier. Either that, or he and his associates distributed or read his printed work to London’s primary merchants, which convinced them to invest in the expedition.

Although Carleill did not write his tract specifically for Bristol’s merchants, it apparently convinced them to support Gilbert too. Merchant and Mayor of Bristol Thomas Aldworth considered investing with Gilbert in November 1582.¹⁹⁰ In March 1583, Hakluyt and Thomas Steventon travelled to Bristol and presented Aldworth with a letter from Walsingham. Steventon was there on Carleill’s behalf, since he appealed to the cities of Chester and Shrewsbury for Carleill the following year.¹⁹¹ Hakluyt represented Gilbert. Bristol’s merchants convened, and after “some good light [was] given by M. Hakluyt unto them that were ignorant of the Countrey and enterprise,” they decided to invest 1000 marks (roughly £667). If insufficient, the merchants agreed to put forth a sixty-ton ship and a forty-ton bark to be left in North America under the command of Carleill, of whom they had “heard much good.” Steventon and an associate of the merchants would captain the other ship.¹⁹² Hakluyt and Steventon carried Gilbert’s propaganda with them to Bristol, and they probably included Carleill’s work among their papers.

The book also secured an investment from the Muscovy merchants, even though they were at odds with Gilbert and lost a large sum of money in 1583 as a result of

¹⁸⁹ Browne to John Thynne, between April 25 and May 3, 1583, in Quinn and Cheshire, ed. and trans., *New Found Land*, 204.

¹⁹⁰ McGrath, “Bristol and America,” 95.

¹⁹¹ LOC, DBQ, Box 71, Folder 4.

¹⁹² Hakluyt, *Principal Navigations*, 718.

Fenton's failed expedition.¹⁹³ Carleill printed their response to his overture at the conclusion of his text as a way to drum up additional support. The Muscovy committee included William Borough, who provided scientific advice to Gilbert in 1582, as well as Carleill's old friends Hoddesdon and William Towerson. They estimated that an expedition to Norumbega would require assets of at least £4000, £1000 (ie 1000 marks) of which had been "verie readelie offered by the Cittie of Bristoll."¹⁹⁴ The other £3000, according to the Muscovy committee, would be furnished by London merchants, which explains why Carleill directed one of his tracts to them.¹⁹⁵ The Muscovy merchants granted the expedition use of some ships, and they held Carleill responsible for keeping them safe at Norumbega. Their agreement included a provision forbidding any Englishmen "or any other to enhabite or trafficque within 200. leagues any waie of the place where the Generall [Gilbert] shall have first settle his beinge and residence."¹⁹⁶ The 200 league sphere of influence and the other trade limits imposed by the merchants echoed Gilbert's letters patent.

The committee believed that the best way to proceed would be to leave 100 men at the colony for one year to determine Norumbega's commodities and the lay of the land. Gilbert initially drew up similar calculations in 1582, though he planned to leave 50 men for a year and a half to find resources.¹⁹⁷ In 1583, approximately 260 men accompanied Gilbert, so he must have revised his plans to leave about 100 of them through the winter. The Muscovy committee believed that Norumbega contained an

¹⁹³ See Madox, *Diary*, 16, 21.

¹⁹⁴ BL, Lans. MS 37, f. 164r.

¹⁹⁵ BL, Lans. MS 37, f. 164r.

¹⁹⁶ BL, Lans. MS 37, f. 164v.

¹⁹⁷ BL, Add. MS 38823, f. 8v.

affluence of “savadge people of a mylde and tractable disposition,” which indicates that Hakluyt the elder may have spoken to them too. He wrote that Native Americans between 35 and 45 degrees north were “well favored and perportioned of bodye, gentle ... pleasant ... desirus of trade and societie.”¹⁹⁸ All parties agreed upon the fertility of the land, but before investing, the merchants wanted Carleill to obtain a privilege from Elizabeth. No evidence suggests that he was able to do so. The company made some other significant demands as well, such as requesting that they receive one half of all lands and that “the first adventurers” (Gilbert’s present investors) get the remainder. Of course, one fifth of all commodities would be earmarked for Elizabeth, but she had already demanded that portion from Gilbert in his patent. The merchants agreed that Gilbert could disperse these goods at his discretion, but their demands were too great.¹⁹⁹ The Muscovy Company may have invested in the expedition, but considering their excessive requests and their previous rift with Gilbert, he probably rebuffed them. In spite of this apparent setback, Carleill’s book had already secured a few substantial investments that allowed Gilbert to sail for Norumbega in June 1583.²⁰⁰

7. Sir George Peckham’s *true report*: Seeking a Follow-up to the Expedition

¹⁹⁸ BL, Cotton MS Otho E. VIII, f. 167r.

¹⁹⁹ BL, Lans. MS 37, f. 164v.

²⁰⁰ Carleill’s *discourse* created considerable interest in Gilbert’s voyage, but it had less of an impact on Carleill’s own expedition the following year. He kept his hopes alive for his own expedition to the Norumbega region, and between February and April of 1584, he attempted to secure investments from Chester and Shrewsbury. He reissued the book during this time, but there is no indication that Walsingham was behind him, even if Thomas Steventon was. Carleill did not have much success getting money. See LOC, DBQ, Box 71, Folder 4.

Only one of the five vessels that comprised Gilbert's expedition made the entire journey from England to Sable Island and back again.²⁰¹ In late September 1583, Edward Hayes's *Golden Hinde* limped back to England, where the wealthy Catholic Sir George Peckham was anxiously awaiting the expedition's arrival. With Hakluyt in Paris gathering intelligence for the Queen and with Dee just beginning his travels on the continent, Peckham took over as the primary promoter in Gilbert's circle. He quickly interviewed Hayes about the expedition, and at that point neither man was willing to accept that Gilbert had died. Instead, they anxiously awaited his arrival and resumed the promotional process that had only slowed for a brief duration. They expected to return to North America to create the colony that Gilbert had blueprinted.²⁰²

Peckham and Gilbert had been collaborating since at least 1574, when they petitioned Elizabeth for permission for a westward voyage of discovery.²⁰³ Peckham again supported Gilbert during his mutinous 1578 voyage. Two years later, as Gilbert began preparing for his final expedition, Peckham, who had become sheriff of Buckinghamshire, was prevented from assisting the endeavor. That year, he had provided money to Maurice Pickering, Keeper of Gatehouse Prison in Westminster, to help recusants confined there.²⁰⁴ These donations were frowned upon by Elizabeth's government, and Peckham was summarily accused of harboring the notorious Edmund

²⁰¹ The *Swallow* made it to Newfoundland, but Gilbert sent it home with disgruntled and ill sailors. It returned safely to England.

²⁰² On Peckham's *Trve Reporte*, see Mancall, ed., *Envisioning America*, 14-15, 62-63; Parker, *Books to Build*, 112-14; Gary B. Nash, *Red, White, and Black: The Peoples of Early North America*, 4th ed. (Upper Saddle River, NJ: Prentice-Hall, 2000), 51-53.

²⁰³ TNA, SP 12/95, ff. 136r-142v.

²⁰⁴ TNA, SP 12/144, ff. 107r-110v.

Campion and other Jesuits. Authorities searched both his Buckinghamshire and London homes, arrested his wife, and placed Peckham in the Tower.²⁰⁵

Peckham was not released until March 1581, and he quickly reinserted himself into Gilbert's project. In April 1582, Walsingham, who certainly did not need any intelligence on the voyage, received reports that English Catholics had been discussing Gilbert's expedition and that Peckham and Gerrard intended to sail with him to North America.²⁰⁶ Around that time, Peckham invested an unknown sum of money in the voyage, which prompted Gilbert to grant him 1.5 million acres of Norumbega's land, some of which Peckham sold off to others.²⁰⁷ In June, he and Gerrard unsuccessfully appealed to Walsingham for permission to leave England, because the ever parsimonious Elizabeth wanted them to remain at home to pay their required recusancy fines. The 1581 Act of Obedience levied heavy fines (20£ per month) or imprisonment on Catholics who did not attend the Anglican Church four times per year or who attended Catholic Mass. Peckham and Gerrard were wealthy men, so their absence represented a fairly substantial loss for Elizabeth's coffers.²⁰⁸ Both men remained confident that they would be permitted to leave, however, and they met with Dee to ensure that Gilbert's Norumbega did not belong to Spain or Portugal.²⁰⁹ By December 1582, Peckham and his associates were prepping a number of vessels to follow Gilbert, but Elizabeth prevented

²⁰⁵ TNA, PC 2/13, ff. 261, 269, 273, 303, 323.

²⁰⁶ TNA, SP 12/153, f. 23r.

²⁰⁷ TNA, SP 12/161, f.117r. Peckham granted 30,000 acres of his land to Sidney in July 1583; see Peckham's agreements in Quinn, ed., *Voyages of Gilbert*, vol. 2, 245-54, 256-60, 341-46, 369-73, 376-78.

²⁰⁸ Peckham and Gerrard to Walsingham, in Quinn, ed., *Voyages of Gilbert*, vol. 2, 255-56; LOC, DBQ, Box 102, Folder 10.

²⁰⁹ Dee, *Diary*, 16.

them from leaving when the main fleet departed in June 1583.²¹⁰ Gilbert expected Peckham to lead a follow-up voyage once he was permitted to leave England, and he sent his first letter from Newfoundland to Peckham. In the letter, Gilbert reported that he had claimed North America for England, thus clearing the path for Peckham's supporting expedition.²¹¹

Peckham wrote his *Trve Reporte, Of the late discoueries, and possession, taken in the right of the Crowne of Englande, of the New found Landes* to bring Gilbert's recent findings to light and to gain permission and backing for a return expedition to establish a colony at Norumbega. Unsurprisingly, he dedicated his book to Walsingham, who had up to that point "beene a principall Patron" of England's westward expansion.²¹² Like Carleill, Florio, and Hakluyt, Peckham's humanist education shined through in his book, which he finished in November 1583 while studying at Oxford. He attempted to flatter Walsingham by suggesting that the Secretary of State would attain the renown that Archimedes had amongst the Syracusans if he would just support the "*Westerne Discoueries*," which were sure to be profitable. He compares himself to blind Oedipus, the tragic hero of Greek mythology who was given unconditional support by the sage Athenian King Theseus (Walsingham).²¹³ Peckham established the verity of his book by confirming that he had read a number of travel narratives in preparing it, including Pietro Martire d'Anghiera's *Decades of the New World* and *History of Travayle in the VVest and East Indies*, Francisco López de Gómara's *pleasant historie of the conquest of the*

²¹⁰ Maurice Browne to John Thynne, December 19, 1582, in Quinn and Cheshire, ed. and trans., *New Found Land*, 202.

²¹¹ Gilbert to Peckham, August 8, 1583, in Purchas, *Purchas his pilgrimes*, vol. 3, 808.

²¹² Peckham, *Trve Reporte*, *1v.

²¹³ For a similar interpretation of this passage, see Miller, *Invested with Meaning*, 97-98.

VVeast India, and Agustín de Zárate's *Discouerie and conquest of the prouinces of Peru*.²¹⁴ By continually citing the Bible, especially the book of Daniel, Peckham showed his audience that noble, religious intentions impelled him to colonize.

The book's commendatory verses read like a who's who of Elizabethan exploration and colonization; Bingham, Drake, Frobisher, and John Hawkins all submitted brief poems that attested to the significance of Peckham's text and agenda. Gilbert's longtime associate and fellow soldier William Pelham wrote a verse, as did Anthony Parkhurst, a colonization advocate and merchant who had provided intelligence to Gilbert in 1578. The notable Elizabethan poet Matthew Roydon, who was a friend of Philip Sidney and a recent Oxford graduate, contributed to Peckham's work as well.²¹⁵ John Astley (Ashley), a London merchant taylor and master of the Queen's Jewels and Plate who had previously done business with Gilbert and had provided him with trinkets for his colony, also wrote approvingly of the book.²¹⁶ Peckham used Gilbert's connections to make a case for additional attempts at colonizing Norumbega.

Peckham based his book upon the recollections of Hayes, who claimed that North America was ripe for colonization. He boasted that Newfoundland was warmer than England during August and had plentiful stores of game, fowl, and fresh and salt water fish, which sharply contrasted with Parmenius's initial impression of the land. Since Gilbert had already established laws and taken possession of the land, which seemed increasingly pleasant as he sailed south, potential colonists need not worry about rival

²¹⁴ Peckham, *Trve Reporte*, B4v.

²¹⁵ On Parkhurst, see his letter to Hakluyt the elder, 1578, in Taylor, ed., *Writings of Hakluyts*, 127-34.

²¹⁶ LOC, DBQ, Box 154, Folder 5; Parker, *Books to Build*, 112; Captain John Chester and merchant Arthur Hawkins also submitted verses for the book.

claimants. Although Peckham lamented that “of sir Humfrey as yet, we heare no certaine newes,” he left the possibility that Gilbert might reappear and take over where he had left off.²¹⁷ Peckham deemed Gilbert “a right noble and valiant Captaine,” who, like the famed general Themistocles had done for the Athenians, ensured the prosperity of the English people through his colonizing voyage.

Through such rhetoric, Peckham hoped to recruit men to work at the colony that Gilbert had claimed but had failed to settle. Located between 30 and 60 degrees north, the region was closer to England than it was to Spain or France, and it had a temperate climate and plentiful commodities. Colonists could expect to find mineral wealth as the Spanish had done, and Peckham intended to nobly convert Native Americans, though he did not specify whether they would practice Catholicism or Protestantism. Peckham clarified that his voyage “for trade, traficke, and planting, in *America*,” would promote “the lawfull enlargement of her Maiesties dominions.” Indeed, the law of nations that was firmly established in the Bible and still practiced during the sixteenth century gave English merchants the right to trade with “sauages.” Peckham argued that commerce and colonization alone would Christianize Native Americans, and he suggested that English colonists earn their trust by allying with friendly groups against the cannibals that Ingram had encountered. Despite the immensity of North America, Native Americans did not appreciate the land and only harvested naturally occurring crops, which, according to Peckham, forfeited their territorial rights. By planting produce, establishing forts, and using violence to counteract violence, the colonists would surely succeed. Much like

²¹⁷ Peckham, *Trve Reporte*, B1r-B3r.

Carleill, Peckham believed that the colonization of North America would be fairly easy and quite beneficial to English colonists, Native Americans, and England in general.²¹⁸

Just as Hakluyt had done a year earlier, Peckham took great lengths to establish England's lawful title to North America. He asserted that Madoc's voyage in 1170 gave England rights to the land by prior discovery. Ingram confirmed that he had heard Welsh terms during his trek across Norumbega, including "Pengwyn" (penguin) and "Gaynethes," a type of fruit. Citing Madoc's discovery, Martire's *Decades*, and the Cabot voyages, Peckham asserted that all territory from Florida to 63 degrees north rightfully belonged to England.²¹⁹

Once Peckham was able to firmly establish his colony, he felt that England would immediately reap the benefits. Without the safety provided by a colonial foothold, English fishermen feared to venture south along the North American coastline in search of their catch. Rather than fishing for just two months, they would be able to stay at the fishing grounds year round, using the colony as their base. Trade would also flourish. According to Peckham, it was well established that as soon as Native Americans had "but a little to taste of ciuilitie" in the form of shirts, caps, and other garments, they would demand more. The new source of commerce would reinvigorate England's languishing economy and provide jobs for the countless unemployed wool workers and idle men, women, and children. For men unskilled in arts or sciences, Peckham suggested jobs in husbandry, whaling, fishing, and mining. In addition to improving the English navy, colonization might provide the impetus to finally discover the Northwest Passage. For

²¹⁸ Peckham, *Trve Reporte*, C1r-C3v.

²¹⁹ Peckham, *Trve Reporte*, D4r-E1r.

additional information on the matter, Peckham directed his readers to Hakluyt's recently printed *Divers Voyages*.²²⁰

Peckham devoted an entire chapter to outlining the projected social composition of his colony. He hoped to attract noblemen and gentlemen on the one hand and merchants on the other. Each group would comprise one society at the colony, though the two societies would be permitted to trade with one another. Norumbega's temperate climate, fertile soil, and ample game for hunting suited the nobility and their dependents, while Peckham enticed merchant investors by citing an extensive list of North America's merchantable commodities. It ranged from grapes and maize to gold and pearls, which, according to Verrazano, Native Americans willingly traded for mere trifles. The plentiful "Buffe" were of particular interests, as John Walker had sold more than two hundred of their eighteen-foot-long hides for forty shillings a piece in France.²²¹ The region's many wide, deep rivers created an ideal environment for transporting goods, and the short voyage meant that vessels could return to England two or three times annually. Peckham had even heard rumors that a 70-ton French ship took part in a clandestine, lucrative trade at Norumbega. As a final plea to investors, he copied a proverb that Carleill had used in his book, "*Nothing venture, Nothing haue*."²²²

Peckham believed that English citizens could colonize without the governmental assistance that Iberian colonies relied upon, since their large merchant fleet had experience sailing to Newfoundland and would transport colonists for a nominal fee. A single wind took vessels from England to North America in less than forty days, and the

²²⁰ Peckham, *Trve Reporte*, E1v-E3r.

²²¹ Peckham, *Trve Reporte*, E4v-F1r.

²²² Peckham, *Trve Reporte*, F1v-F2r.

return voyage lasted no more than three weeks. Colonists could expect moderate temperatures and little chance of encountering England's enemies in the North Atlantic. Upon landing, England's notable archers, artillery, and armor would give the colonists an important advantage over Native Americans, who would be defeated as they had been by Vasco Núñez de Balboa, Hernán Cortés, and Francisco Pizarro. Peckham hoped to simultaneously benefit "the Sauages" by bringing them Christianity, science, and husbandry.²²³

Peckham ended his book by printing articles agreed upon between Gilbert and his colonists that pertained to their benefits as per their monetary investments. Gilbert separated potential investors into associates, who invested at least £100, assistants (£50), adventurers in the first degree (£25), and second degree adventurers (£12, 10s). Anyone who had already invested with Gilbert automatically gained trading rights, and individuals willing to travel to the colony in person earned double the reward. Associates, along with their heirs, assigns, and servants, received seven years of trading rights and 16,000 acres of farmland for their investment. Gilbert and Peckham essentially planned to transport English society across the Atlantic, since each assistant would hold court, enforce laws, and pay taxes. These monies would fund colonial expenses like building forts, churches, and ships, and, owing to Gilbert's past, would provide a pension to war veterans. Assistants had the same rights and responsibilities over 8000 acres, while first class adventurers controlled 4000 acres and second class colonists oversaw 2000 acres.²²⁴

²²³ Peckham, *Trve Reporte*, F2v-G2v.

²²⁴ Peckham, *Trve Reporte*, I1r-I3r

Unlike Gilbert, who used a number of texts to advertise his expedition, Peckham apparently did not gain large investments or subscribers from his book. He attempted to lead an expedition to Norumbega in 1584, but he failed to leave England. Despite this failure, his work had many of the hallmarks of Gilbert's other texts. Peckham consistently referenced the books of Spanish explorers like Cortés and Pizarro, and he also copied, though rarely cited, the recent texts of Carleill, Hakluyt, and Ingram. His work focused on North America's commodities and downplayed the difficulty of transatlantic voyages and other potential hardships. Peckham believed that English colonization would bring civility to Native Americans, who were mostly friendly and posed little threat to English colonists. His book provided a summation of Gilbert's plans, and it represented a final, futile attempt to realize Gilbert's objectives.

8. Conclusion

In September 1583, when Edward Hayes was still making his way back to England to report on the voyage, Hakluyt presented Elizabeth with "a couple of bookes of myne in wryting, one in Latin upon Arystotles politicks, the other in English concerning Mr Rawley's voyage."²²⁵ The latter work, known as "A Discourse of Western Planting," encapsulated much of the Gilbert scholarship into a single manuscript proposition in support of Raleigh's projected expedition. Hakluyt contended that the multiplicity of North American commodities would replace England's decaying commerce with Europe. The colony would employ idle men, and it would promote the

²²⁵ See Armitage, *Ideological Origins*, 74-77; quote at 72; Hakluyt presented the final version of his tract to Elizabeth on October 5, 1584. See Hakluyt, *Western Planting*, xxi.

spread of Protestantism and strengthen the English Navy.²²⁶ Hakluyt's work helped convince Elizabeth to transfer Gilbert's patent to his half-brother in March 1584, and Raleigh, whose main expedition departed the following year, did not issue a single printed advertisement to attract investors. His personal wealth and the support of his affluent friends made such promotional literature unnecessary.

Before Gilbert issued his first wave of publications in 1582, his monetary investments for his final voyage amounted to very little. Aside from some "comodities of smale price" put forth by three or four of his associates that equaled less than £100, nearly all of Gilbert's funds had come out of his own pocket.²²⁷ His fortunes changed once Hakluyt and Parmenius published their works in mid-1582. Courtiers and nobles began investing their labor and money, even if it was too late to leave that year. No evidence provides insight concerning the effectiveness of Florio's translation or Ingram's tract, but it is clear that Carleill's work and *Divers Voyages* in conjunction with *De Navigatione* convinced several merchants, trading companies, and others to support Gilbert. The printing of Ingram's tract and the reissuing of Parmenius's poem the following year reminded English readers that Gilbert intended to leave for Norumbega that summer. Carleill's book attracted more investors to the expedition than any other work, as the Muscovy Company, a group of Bristol merchants, and citizens of London ostensibly put forth money and materials in part due to his text. The success of his book may explain why it was the last propaganda printed for the voyage, since the monetary and material investments that it procured finally allowed Gilbert to sail for Norumbega.

²²⁶ Hakluyt, *Western Planting*, 34-37.

²²⁷ Maurice Browne to John Thynne, August 20, 1582, in Quinn and Cheshire, ed. and trans., *New Found Land*, 194.

Just because Gilbert issued an array of variant printed materials to draw interest in his venture, that does not mean that the texts were haphazard or sparsely researched. Gilbert's circle relied upon interviews and meticulous editing to write the book attributed to Ingram, while Carleill primarily used his own experiences and connections in authoring his succinct text. Parmenius used his humanist upbringing to create his epic Latin poem, and Florio put his Italian language skills to work in translating Ramusio's text into English. Hakluyt assisted many of these men and went far afield collecting manuscript and printed sources to complete his own book. The authors often cited one another, and their texts complemented each another. Their works span various genres from poetry to travel writing, and this deliberate diversity sought to appeal to a specific audience, while simultaneously attracting a range of investors.

Indeed, Gilbert's promoters appealed to an assortment of readers by presenting numerous reasons in favor of North American colonization. North America was a land of diverse and plentiful commodities inhabited by friendly Native Americans in need of English cloth and other goods. The indigenous population presented an opportunity for English colonists to begin Christianizing the world like their Iberian counterparts, and the transatlantic voyage was short and easy. The navy would be enlarged through colonization, as would the English fishing fleet. The land could serve as a penal colony for England's criminals, and Gilbert did not need royal aid to succeed. The authors assured potential investors and colonists that there was no need to fear reprisals from Spain, as England held territorial rights to Norumbega by prior discovery. England's increasing levels of vagrancy and unemployment were reason enough for the unemployed to seek work in North America. The religious persecution of non-conformists at home

provided Catholics with the impetus to emigrate to Gilbert's colony to enjoy religious freedom there.

Gilbert's promotional works represent sixty percent (six out of ten) of all texts printed in England between 1582 and 1583 that discuss the Americas.²²⁸ The other four books were translations of foreign accounts, but five of Gilbert's tracts (three in English and two in Latin) were original texts, which is what makes them so significant. His authors made foreign and domestic accounts of Norumbega available in English, whereas nearly every previous work in the canon appeared in French, Italian, or Spanish. England lacked the nautical history of these realms, so translating their voyages into the vernacular gave English readers a glimpse of North America. Gilbert's texts also proved that Englishmen, rather than foreigners alone, had an interest in American exploration and colonization.²²⁹ His only translated texts by Florio and Hakluyt included prefaces by the translators, who similarly issued calls to action for potential colonizers. By flooding the market with texts that promoted colonization, Gilbert gave himself the best chance of gaining subscribers, and his circle espoused the virtues of colonization for the next generation of English expansionists.

²²⁸ The books are Hakluyt, *Divers Voyages*; Parmenius, *De Navigatione* (1582); Fernão Lopes de Castanheda, *The first booke of the Historie of the discoverie and conquest of the East Indies ... Set foorth in that Portingale language*, trans. Nicholas Lichfield (London: Thomas East, 1582); Alvaro de Bazán, *A discourse of that which happened in the battell fought between the two navies of Spaine and Portugall at the islands of Azores* (London: Thomas Purfoote, 1583?); Parmenius, *De Navigatione* (1583); Ingram, *Travels*; Carleill, *breef discourse*; Peckham, *Trve Reporte*; Las Casas, *Spanish colonie*; Phillippe de Marnix, *A pithie and most earnest exhortation, concerning the estate of Christiandome* (Antwerp [i.e., London: R. Waldegrave], 1583); see John Alden and Dennis C. Landis, *European Americana: A Chronological Guide to Works Printed in Europe Relating to the Americas, 1493-1776*, vol. 1: *1493-1600* (New York: Readex Books, 1980), 165-76.

²²⁹ On this topic, see Sherman, "Politics of Translation," 206-7.

Chapter Three

“he shewed us the card of the whole cuntry”: The Cartography of Gilbert’s Expedition

Lett Bavin carry with him good store of parchments, Paper Ryall, Quills, and Inck, black powder to make yncke, and of all sortes of colours to drawe all thinges to life, gumme, pensyll, a stone to grinde colours, mouth glue, black leade, 2. payers of brazen compasses, and other Instruments to to [sic] drawe cardes and plottes.

- Instructions for Thomas Bavin, 1582¹

1. Introduction

The recent publication of the highly anticipated third installment of *The History of Cartography* series provided more than two thousand pages of commentary on European Renaissance mapmaking and covered a broad spectrum of topics from most parts of the continent. Several chapters in the two-part volume highlight the intersection of English cartography and the Age of Discovery, and collectively the authors give the impression that the so-called European cartographic revolution was lost on sixteenth century English explorers, who were hesitant to utilize maps, a relatively new phenomenon in Northern Europe. Sarah Tyacke’s thorough analysis of English chart production makes it clear that the English made few sea charts prior to 1585, leading her to conclude that “[m]ariners distrusted them, and their reluctance to use charts at all, of any sort, continued until at least the 1580s.” Felipe Fernández-Armesto unequivocally states that until the early seventeenth century European explorers “used few maps and made fewer.”²

¹ BL, Add. MS 38823, f. 3v.

² Sarah Tyacke, “Chartmaking in England and Its Context,” in *The History of Cartography*, ed. J.B. Harley, David Woodward, and G. Malcolm Lewis, vol. 3, part 2

In this chapter I want to challenge these assertions and put forth an alternative interpretation of early modern mapping by examining the maps and charts that Gilbert utilized during his final expedition. Between 1580 and 1583, at a time when almost no English charts of the Western Hemisphere existed, Gilbert and his supporters produced or reproduced at least five distinct printed and manuscript maps of the region, each of which formed an integral component of their colonizing project. First, in order to gain permission to colonize, Gilbert's circle used maps to prove to Queen Elizabeth I and her advisors that England held land rights to much of North America. Their promotional maps to gain funding for the expedition made Norumbega visible to both literate and non-literate audiences, and the group devised a sea chart to safely reach their destination. Finally, they drew up meticulous plans to use the latest cartographic advances in drafting several more maps in the North Atlantic and in North America, which would demonstrate their control of the land and facilitate return voyages to their colony. Their implementation of mapping represents a noteworthy progression in the cartography paradigm and in the history of colonization, as maps became less symbolic and more functional to meet the diverse needs associated with overseas settlement.

In recent years scholars spanning multiple disciplines have reassessed early modern maps as discourses of knowledge and power, and my study of Gilbert's maps adds to this burgeoning dialogue.³ Focusing primarily on their projections, their

(Chicago: University of Chicago Press, 2007), 1722; Felipe Fernández-Armesto, "Maps and Exploration in the Sixteenth and Early Seventeenth Centuries," in *History of Cartography*, vol. 3, part 1, 738.

³ Harley, "Maps, knowledge, and power," 295; Richard Helgerson, *Forms of Nationhood: The Elizabethan Writing of England* (Chicago: University of Chicago Press, 1992), 111-16; Arthur Jay Klinghoffer, *The Power of Projections: How Maps Reflect Global Politics and History* (Westport, CT.: Praeger, 2006), 28-32; Rhonda Lemke Sanford, *Maps and*

toponymy, and the motif of empty space, I show that Gilbert's cartographers represented the same geographic region (England to Norumbega) in variant ways to persuade their respective audiences to visualize it from a point of view that suited Gilbert's objectives. Hermeneutic and semiotic analyses of each map yield a fuller understanding of their intended meaning by viewing the maps as texts and placing them in their historical context. Building upon the foundational principles of Benedict Anderson, Henri Lefebvre, and Michel de Certeau, the latter of whom concluded that "the map ... colonizes space,"⁴ I also elucidate how Gilbert's coterie used maps and mapping as signifiers of authority within the colonial milieu. By carefully charting minute features of Norumbega, Gilbert intended to assert his control there and make his supremacy known to Elizabeth. For the first time in England's history, North America became an area to be appropriated, not bypassed, and cartography played a significant part in this transformation.

Gilbert's map use, then, serves as a case study illustrating the complexity of and research behind England's earliest colonizing voyages. Historians often view late Tudor exploration as a period characterized by trial-and-error, but these excursions are more aptly depicted as well prepared voyages. By 1583 Gilbert's expedition was three years in the making, and he recruited map makers who were among the most skilled practitioners

Memory in Early Modern England: A Sense of Place (Houndmills, UK: Palgrave Macmillan, 2002), 18-19; John Rennie Short, *Making Space: Revisioning the World, 1475-1600* (Syracuse: Syracuse University Press, 2004), 71; D.K. Smith, *The Cartographic Imagination in Early Modern England: Re-writing the World in Marlowe, Spenser, Raleigh and Marvell* (Aldershot, UK: Ashgate, 2008), 9-11.

⁴ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 1993), 170-78; Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Oxford, UK: Blackwell, 1991), 26, 31, 84-85; Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1984), 115-30, quotation at 121.

in Elizabethan England. Dee, the renowned mathematician and sometimes cartographer; Simão Fernandes, the Portuguese émigré with more sailing experience than any Englishman; and Michael Lok, the map collector and well-travelled merchant adventurer, all conducted substantial research in creating maps to support the expedition. Hakluyt, the consummate colonization propagandist in the early stages of his career, authored his first book, which included two maps, to promote the voyage as well. By consulting the most up-to-date atlases, navigation books, and almanacs while composing their maps and their instructions for the voyage, these experts offered Gilbert the best chance of establishing his colony.

As England's first attempt at colonization beyond Britain, Gilbert and his company had no blueprint to follow and yet their map use was widespread and inventive, which shows that England's earliest expansionists perceived the usefulness of maps. Although Elizabethan colonizers in Ireland mapped the island beginning in the late 1560s, Norumbega was a largely unknown region across a vast ocean.⁵ Therefore, determining its location prior to the voyage required more research and better resources, but Gilbert's circle designed maps that fulfilled their navigational and promotional purposes. They assigned cartography a prominent place in their expedition and proved that maps could serve various purposes during both the preparation phase and execution of a colonizing voyage.

2. John Dee's Manuscript Maps: Envisioning an Anglo-North America

⁵ See J. H. Andrews, "Colonial Cartography in a European Setting: The Case of Tudor Ireland," in *History of Cartography*, vol. 3, part 2, 1670-83; Peter Barber, "Was Elizabeth I Interested in Maps – and Did It Matter?," *Transactions of the Royal Historical Society* 14, Sixth Series (2004): 188-89, 194.

Decades ago George Parks proclaimed that two charts made by John Dee in the 1580s marked the advent of modern English cartography, and Robert Baldwin has recently echoed this sentiment in calling them “state-of-the art geographical and political statements.”⁶ Gilbert’s biographer David B. Quinn found the maps perplexing, and their exact purpose and relationship to the 1583 expedition remain ambiguous.⁷ Thorough analyses of the maps and the contexts under which they were created, however, suggest that Dee made them specifically to support the voyage. He crafted the first map in late 1580 to decisively prove England’s claim to Norumbega and consequently to gain Elizabeth’s approval for the voyage. Three years later and after extensive research he made a second chart to guide Gilbert’s fleet across the Atlantic.

Dee’s immense library and assiduously documented associations with several of sixteenth-century Europe’s most prominent cartographers and geographers qualified him to draw maps.⁸ Intent on applying mathematics to resolve navigational problems, Dee’s

⁶ George Parks, *Richard Hakluyt and the English Voyages* (New York: American Geographical Society, 1928), 184; Robert Baldwin, “John Dee’s Interest in the Application of Natural Science, Mathematics and Law to English Naval Affairs,” in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas (Dordrecht: Springer, 2006), 105; see Ken MacMillan, “Sovereignty ‘More Plainly Described’: Early English Maps of North America, 1580-1625,” *Journal of British Studies* 42.4 (2003): 419-22; Richard I. Ruggles, “The Cartographic Lure of the Northwest Passage: Its Real and Imaginary Geography,” in *Meta Incognita*, ed. Symons, Alsford, and Kitzan, vol. 1, 218-30.

⁷ Quinn, ed., *Voyages of Gilbert*, vol. 1, 67; see David B. Quinn, *European Approaches to North America, 1450-1640* (Aldershot, UK: Ashgate, 1998), 50-51; E.G.R. Taylor, *Tudor Geography, 1485-1583* (London: Methuen, 1930), 134-35.

⁸ Klinghoffer, *Power of Projections*, 78; Short, *Making Space*, 42-43, 59-66; Glyn Parry, *The Arch Conjuror of England: John Dee* (New Haven, CT: Yale University Press, 2011), 17-24; William H. Sherman, “Putting the British Seas on the Map: John Dee’s Imperial Cartography,” *Cartographica* 35.3-4 (1998): 2; Beth Hamilton Aycock, “Edging Toward Empire: John Dee, Richard Hakluyt, Humphrey Gilbert, and the Beginning of the

“Tables Gubernautikes” for finding latitudes and longitudes comprised the majority of his “Brytish Complement of the perfect Art of Navigation” (1576), which he wrote for the queen. He used these calculations to create charts, including a figural map depicting an anthropomorphic Britain as Elizabeth with crown and sword.⁹ His expertise also made him an indispensable resource for English explorers; Sebastian Cabot, Richard Chancellor, Hugh Willoughby, Stephen Borough, and Martin Frobisher all consulted Dee prior to their voyages.¹⁰ In 1580 alone he furnished the Muscovy Company explorers Arthur Pet and Charles Jackman with a sketch of the opening of the Northeast Passage, a set of charts for their voyage, and a circumpolar hydrographical chart that still resides in the Burghley collection at Stamford.¹¹

That year Dee also created the earliest and least referenced map relating to Gilbert’s expedition (fig. 2). Based upon its date and composition, several scholars have

British Empire in the Elizabethan Era” (MA thesis, Tarleton State University, 2005), 12; on Dee’s domestic connections, see Lesley B. Cormack, *Charting an Empire: Geography at the English Universities, 1580-1620* (Chicago: University of Chicago Press, 1997), 124-28; on his library, see Roberts and Watson, eds., *Library Catalogue*.

⁹ BL, Cotton MS Vitellius C. VII, f. 8r; see Robert Baldwin, “Colonial Cartography under the Tudor and Early Stuart Monarchies, ca. 1480-ca. 1640,” in *History of Cartography*, vol. 3, part 2, 1760; Bernhard Klein, “Mapping the Waters: sea charts, navigation, and Camões’s *Os Lusíadas*,” *Renaissance Studies* 25.2 (2011): 244.

¹⁰ Dee, *Limits of Empire*, 5, 39, 127n4; Sherman, “Dee’s Cartography,” 3; Baldwin, “Dee’s Interest,” 97-99.

¹¹ BL, Cotton MS Otho E. VIII, f. 78r (sketch). The charts are mentioned at BL, Lansdowne MS 122, f. 30r. The hydrological chart, HHA Maps 69-70, no. 124, is listed at BL Cotton MS Vitellius C. VII, f. 8v.



FIGURE 2. Segment of eastern North America from John Dee, “Ioannis Dee, Anno 1580,” 1580. British Library, Cotton MS Augustus, I.i.1. From Quinn, ed., *Voyages of Gilbert*, vol. 2, insert in back cover.

hypothesized that Dee made it to promote English expansion, and an examination of its contents clarifies how Dee molded it to support Gilbert’s expedition.¹² Dee drew the vellum map amid Gilbert’s preliminary preparations and titled it “Atlantis (named the West Indies in the ordinary way) to correct a representation as still is made common.” It

¹² BL, Cotton MS Augustus, I.i.1; see David I. Bower, “The Unusual Projection for One of John Dee’s Maps of 1580,” *Cartographic Journal* 49 (February 2012): 55-61; Baldwin, “Dee’s Interest,” 100; William H. Sherman, “John Dee’s Role in Martin Frobisher’s Northwest Enterprise,” in *Meta Incognita*, vol. 1, 284; Ruggles, “Cartographic Lure,” 218-19; Ganong, *Crucial Maps*, 113-14, 449; Taylor, *Tudor Geography*, 122; MacMillan, *Sovereignty and Possession*, 153-55; Barber, “Elizabeth and Maps,” 191.

is doubtlessly the same map that Dee presented to Elizabeth, Secretary of State Sir Francis Walsingham, and William Cecil, Lord Burghley, on October 3, 1580.¹³ Gilbert had shown his appreciation to Dee a few weeks earlier by granting him all lands in North America above fifty degrees north latitude, which includes most of Canada and rights to the Northwest Passage.¹⁴ Dee's map clearly served as an endorsement for colonization, since the reverse lists a dozen British claims to North America that span from the apocryphal explorations of King Arthur in the sixth century to Frobisher's second voyage in 1577. The map face displayed Gilbert's intended destination, and the verso affirmed England's lawful entitlement to that area. Accordingly, Elizabeth and her primary advisors could easily hand the map to individuals at court, Members of Parliament, or Privy Counselors to advertise the voyage and Gilbert's right to colonize Norumbega.

Dee's use of primarily Spanish and Portuguese nomenclature indicates the map's provenance, and he likely consulted Portuguese sea charts while making it.¹⁵ Dee included various details from Gerardus Mercator's famous 1569 world map, even copying verbatim the cartographer's invention of the phantom island Groclant: "*Groclant Insula cuius Incolae Suedi sunt Origine*" (the Island Groclant whose inhabitants are Swedes by descent). He also incorporated in the North Atlantic features of the spurious 1558 map of the Venetian brothers Nicolò and Antonio Zeno. Dee mapped Frobisher's Meta Incognita and his other recent findings but only mentioned the explorer's first two

¹³ BL, Cotton MS Vitellius C. VII, f. 8v: Dee lists the map as "Atlantidis, (Vulgariter Indiae Occidentalis nominatae), emendatio descriptio quàm adhuc est divulgata - A° 1580." He preferred the term Atlantis over America or the West Indies; see Dee, *Diary*, 9; in agreement that these were the same maps, see Clulee, *Dee's Natural Philosophy*, 292n59; Quinn, *European Approaches*, 50; Ruggles, "Cartographic Lure," 253n113.

¹⁴ Dee, *Diary*, 8; The ambiguity of Gilbert's 1578 letters patent allowed for such a gift.

¹⁵ Ruggles, "Cartographic Lure," 219; Ganong, *Crucial Maps*, 450.

voyages on the reverse so as not to remind the queen of Frobisher's ignominious failure in 1578, which squandered her £4,000 investment. Instead, Dee condensed parts of his own "famous and Ryche Discoveries" (1577) and "Her Maiesties Title Royall, to many forayn Cuntries" (1578).¹⁶ Citing *jure gentium*, *civilis*, and *divino* (law of nations, civil law, and divine law), Dee professed England's claim to all American territory north of Florida. Such details imply that Dee made the map to prove England's claim to Norumbega and to seek Elizabeth's support for Gilbert's expedition. Either that, or he presented it to the queen to encourage her to reinstate Gilbert's letters patent, which she had revoked after his 1578 expedition resorted to piracy.¹⁷

The map's layout corroborates these theories. It encompasses the north half of the western hemisphere and has a fairly clear focus. Rather than placing Europe or the Atlantic at the center of his map like other European cartographers, Dee emphasized Gilbert's "NOROMBEGA" as its focal point. As Rhonda Lemke Sanford and other scholars have made evident, even "the most rudimentary maps privilege the center."¹⁸ Cartographers placed salient locations at the middle of their maps, where a reader's gaze typically gravitated. Just as Medieval Jerusalem-centered maps reflected their makers' reverence for that city, Dee's map gave Norumbega precedence over all other locations.

¹⁶ BL, Cotton MS Vitellius, C. VII, ff. 26r-269v; BL, Add. MS 59681, ff. 13r-21v; see BL, Cotton MS Vitellius, C. VII, f. 8r; LOC, DBQ, Box 72 Folder 4; Dee, *Diary*, 9; Taylor, *Tudor Geography*, 122, 134-35.

¹⁷ TNA, PC 2/12, f. 461r. The revocation of Gilbert's patent occurred on or before April 26, 1579.

¹⁸ Sanford, *Maps and Memory*, 4-9: quotation at 4; John Gillies, *Shakespeare and the geography of difference* (Cambridge: Cambridge University Press, 1994), 62. Harley, "Maps and power," 289-90; Cormack, *Charting an Empire*, 7-10; Jerry Brotton, *Trading Territories: Mapping the Early Modern World* (Ithaca, NY: Cornell University Press, 1997), 19, 29.

On Dee's map the territory of Norumbega stretches from the coast at forty-two degrees north to forty-five degrees near the confluence of two rivers, which converge as the "*Rio de Gamas*." Portuguese explorer Estêvão Gomes assigned this name to Maine's Penobscot River on account of the plentiful deer that he viewed on its banks during his search for the Northwest Passage in 1525.¹⁹ Dee mistook the Penobscot for the Providence River, which feeds Narragansett Bay, Gilbert's projected terminus. Gilbert chose to colonize the Narragansett after speaking with Richard Hakluyt the elder, who suggested that he settle on an island within a bay at the mouth of a navigable river in order to expedite Anglo-Native American trade.²⁰ Gilbert had also read André Thévet's *La cosmographie universelle*, in which the French cosmographer depicted the Norumbega River as an ideal location for a colony. He noted that large groups of indigenous peoples welcomed the French explorers who built a fort near the river, which empties into the Atlantic at forty-two degrees north.²¹ Rivers also provided water for drinking, bathing, and waste removal, along with a ready supply of food, and because commerce was Gilbert's primary objective, he resolved to settle near a Native American community. Accordingly, Dee placed the city of Norumbega tantalizingly close to Gilbert's desired colony site on the Rio de Gamas at forty-two and 1/2 degrees north. He copied the city's placement, the placement of Claudia (Block) Island, and the various

¹⁹ McManis, *European Impressions*, 17-20.

²⁰ Hakluyt, *Divers Voyages*, K1r, K3v.

²¹ Thévet, *la cosmographie vniverselle*, vol. 2, ff. 1008v, 1024v; BL, Add. MS 38823, fol. 7r.

islands near the river's mouth from the maps of Mercator, Abraham Ortelius, and Thévet.²²

Mercator and Ortelius had simply labeled the river with the blanket term "Rio Grande," however, and Dee's Norumbega region and North American continent in general are more accurate than the maps of his contemporaries. He also eliminated most of the phantom islands from the North Atlantic commonly found on sixteenth-century maps. Cartographers preferred to label all potential islands on their charts to prevent shipwreck, and their number rapidly increased as each map maker copied non-existent islands from their various source maps.²³ Dee, on the other hand, wanted to show Elizabeth and her advisors that no geographical obstacles impeded travel between England and Norumbega. Additionally, he drew a truer North American coastline than his peers and plotted lines of latitude and longitude. Following the precedent of earlier chart makers, who used red ink to distinguish noteworthy landmarks, Dee chose red for points of reference like Cape Breton, Nova Scotia; Cape Race, Newfoundland; and other locations between England and Gilbert's projected colony.²⁴ Medieval writers had set off saints' days, feasts, and other "red letter days" in their books of hours using *rubrica*, or red ochre, and the practice of using red as a marker of distinction continued into the early modern period in works ranging from manuscripts to the Book of Common Prayer.

To denote the significance of the forty-fifth northern parallel, Dee also drew it in red ink rather than black like the other latitudes. Dee had specified in his 1578 "Brytanici

²² André Thévet, *Le Nouveau Monde Descouvert et Illustre de Nostre Temps* in Thévet, *la cosmographie vniverselle*, insert at f. 936v; Abraham Ortelius, *Theatrum Orbis Terrarum* (Antwerp: Gilles Coppens de Diest, 1570), 1-2; Nicholas Crane, *Mercator: The Man who Mapped the Planet* (New York: Henry Holt, 2003), 231-37, plate section 1: 4 and 5.

²³ See Fernández-Armesto, "Maps and Exploration," 741.

²⁴ See Klein, "Mapping the Waters," 234.

Imperii Limites” (Limits of the British Empire) that the Iberians, despite the Treaty of Tordesillas, had no lawful claim to land north of forty-five degrees, or approximately the northern border of Spain by his reckoning.²⁵ The elder Hakluyt posited that this parallel marked the northernmost barrier of greatest habitability in the Americas as well, and a few crewmen from Sir Francis Drake’s circumnavigation notified Gilbert that the most productive land during their travels was located at forty-five degrees north.²⁶ Since Gilbert’s 1578 letters patent from Elizabeth stipulated that he colonize lands “not actually possessed of any Christian prince or people,” the precise location of his colony was critical. Dee even plagiarized the patent in his “Brytanici,” which he wrote for the queen. In it he presented a case for settling “wher no Christian prince hath presentlie possession or iurisdiction,” which underscored that he expected to colonize north of Spanish towns in North America.²⁷

Dee left the largely unexplored North American interior almost completely unmarked on his map, effectively distinguishing it as *terra nullius* that was not subject to the sovereignty of a European nation and that invited English colonies like Gilbert’s. Since vacant space on early modern maps implied that territorial claims could be made in that area, Dee was building a case for expansion. In opposition to the “negative emptiness” of medieval *mappæmundi*, which illuminated cartographers’ geographic ignorance, his continent embodied a “positive emptiness” primed for settlers. In the words of D.K. Smith, cartographic renderings like Dee’s “imaginatively inhabited” the

²⁵ Dee, *Limits of Empire*, 92-93.

²⁶ BL, Cotton MS Otho E. VIII, f. 167r; Hakluyt, *Divers Voyages*, K1r-K2r; BL, Add. MS 38823, ff. 7v-8r; Hakluyt the younger reiterated that King Philip II forbid his navigators from sailing north of forty-five degrees. See his *Western Planting*, 86-87.

²⁷ Dee, *Limits of Empire*, 18-23, 52; Gilbert’s patent is reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 1, 188-94.

land with potential English colonizers.²⁸ Dee hoped to appeal to Elizabeth and her counselors by depicting North America as the ideal location to accommodate England's growing population, which, according to Hakluyt and other English expansionists, had surpassed the carrying capacity of the land. Dee's map also enlarged the Elizabethan "Paper Empire" that, until the Stuart era, existed only in theory.²⁹ There was no longer a need, as in the recent past, to depict the known ecumene, so Dee's map and the rest of Gilbert's maps were more territorially focused. They displayed England in relation to Norumbega, which helped transform the spatial relationship of Europe and North America "from a state of separation to one of proximity."³⁰

Taken together, these points suggest that Dee sought to validate Britain's legal claim to North America through his map and its corresponding text. His extensive list of British voyages to the region supplemented his visual representation of Norumbega. Summarizing substantial historical and geographical information on a single sheet allowed him to convey details that otherwise would have filled several pages. Such a format accelerated the transmission of the map's content to interested readers and helped them envision Gilbert's proposed expedition and colony. It cannot be proven that it was Dee's work which convinced Elizabeth to reinstate Gilbert's patent and allow him to prepare for Norumbega, since she apparently had little interest in maps.³¹ It is clear,

²⁸ Smith, *Cartographic Imagination*, 8; see Ricardo Padrón, *The Spacious Word: Cartography, Literature, and Empire in Early Modern Spain* (Chicago: University of Chicago Press, 2004), 35-38.

²⁹ Klinghoffer, *Power of Projections*, 79; Bernhard Klein, *Maps and the Writing of Space in Early Modern England and Ireland* (Houndmills, UK: Palgrave, 2001), 6; "Paper Empire" was coined by Baldwin, "Colonial Cartography," 1757.

³⁰ Quoted in Smith, *Cartographic Imagination*, 65.

³¹ See Baldwin, "Colonial Cartography," 1779; Barber, "Elizabeth and Maps."

however, that Dee and Gilbert deemed the map sufficient proof of England's legal right to colonize Norumbega.

Considering the map's intended audience and its significance to the expedition, Gilbert and Dee wanted it to be as accurate a representation of North America as possible. Gilbert ensured that his geographical expert Dee had detailed information at his disposal by obtaining a first-hand cartographic depiction of Norumbega (fig. 3).³² In 1580 Simão Fernandes finished a chart, that one of Dee's servants copied and then presented to Dee at his Mortlake residence. It differs considerably from either of the maps that Dee made for the voyage, because it served a different purpose. Like Dee, Fernandes possessed the knowledge to create a true illustration of the Atlantic, but his ability came from experience at sea rather than mathematical prowess. He was renowned for his talents of riding a ship at anchor and navigating in the open seas, two skills that few of his contemporaries in England possessed.³³ As early as the 1570s, by which time he had been to Brazil and the east coast of North America with the Spanish, Fernandes was well known in England for his navigational skill. The notorious Welsh pirate John Callice travelled to London specifically to request that Fernandes serve as his pilot for an expedition to the West Indies, and Fernandes also sailed from England to the Canaries and back again in a small vessel with a crew of nine or ten.³⁴

³² BL, Cotton Roll, XIII, 48.

³³ Madox, *Diary*, 192.

³⁴ TNA, SP 12/112, f. 12r; LOC, DBQ, Box 116, Folder 3; on Fernandes, see Olivia A. Isil, "Simon Fernandez, Master Mariner and Roanoke Assistant: A New Look at an Old Villain," in *Searching for the Roanoke Colonies: An Interdisciplinary Collection*, ed. E. Thomson Shields Jr. and Charles R. Ewen (Raleigh: Office of Archives and History, North Carolina Department of Cultural Resources, 2003), 66-81.

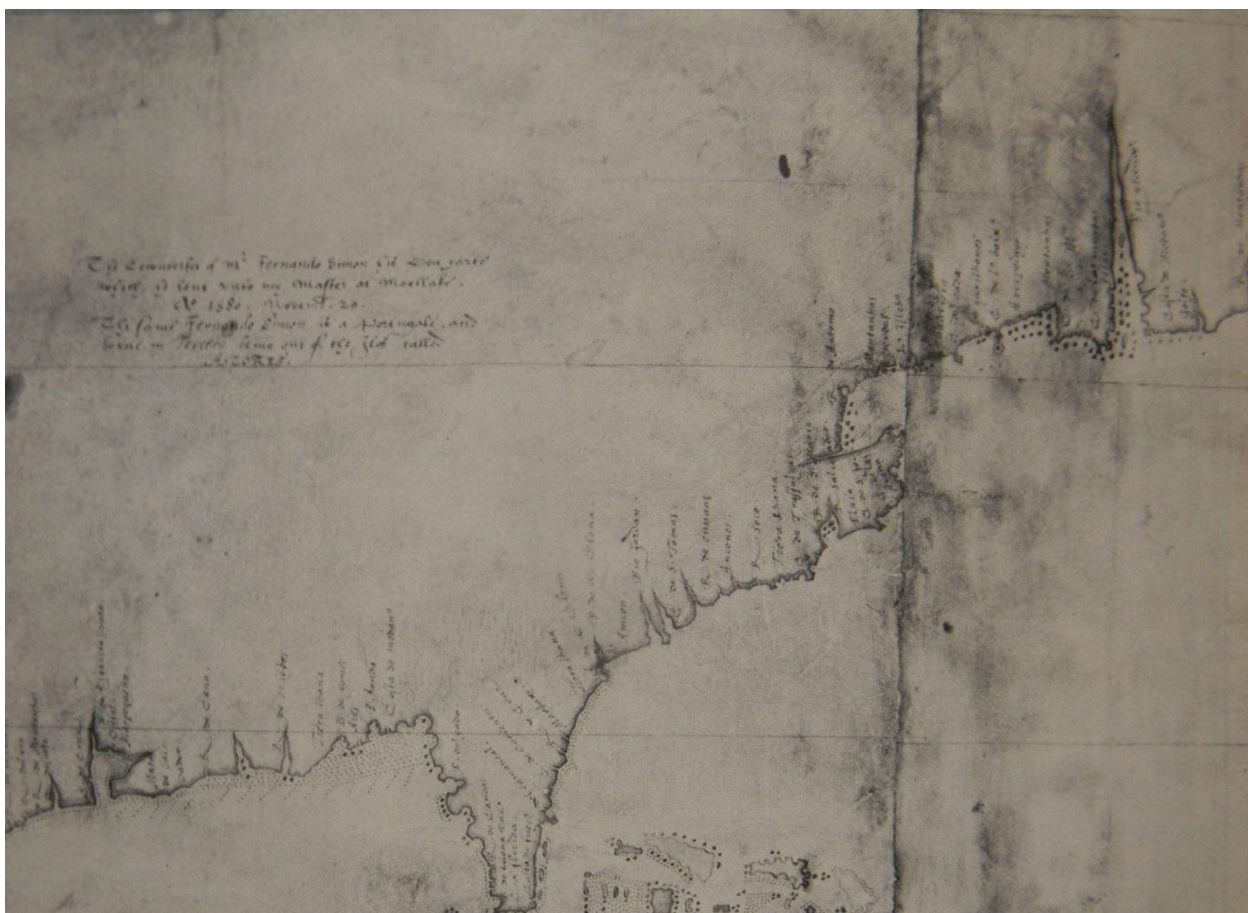


FIGURE 3. Segment of eastern North America from Simão Fernandes, “The Cownterfet of Mr. Fernando Simon his Sea carte which he lent unto my Master at Mortlake. Ao. 1580. Novemb. 20. The same Fernando Simon is a Portugale, and borne in Tercera being one of the Iles called AZORES,” 1580. British Library, Cotton Roll, XIII, 48. From Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, plate no. 89.

Knowledge of this voyage persuaded Gilbert to employ Fernandes as the pilot for his 1578 expedition. Fernandes should have been hanged for pirating, but, much to the disgust of his victims, he was released from prison by Walsingham, one of the main promoters of Gilbert’s expeditions. The voyage deteriorated after Henry Knollys deserted the fleet and turned to piracy, but Fernandes guided the *Falcon* past the Canaries and into the open Atlantic before being forced to return to England.³⁵ Fernandes’s talents

³⁵ TNA, SP 89/1, f. 10r; TNA, PC 2/11, f. 115r; LOC, DBQ, Box 77, Folder 3.

prompted Raleigh to hire him as pilot for his Roanoke voyages, as did Edward Fenton for his 1582 expedition to Asia.

When Gilbert devised a reconnaissance mission to Norumbega, Fernandes was the obvious choice to lead it. On 7 April 1580, Gilbert entered into a bond of good behavior in the High Court of Admiralty for £500 for Fernandes's ten-man crew, who sailed aboard Gilbert's eight-ton frigate *Squirrel*.³⁶ The small company assembled at Dartmouth on the River Dart just a few miles downriver from Gilbert's home at Greenway. Almost nothing is known of their route, but Fernandes and his crew eventually reached Norumbega, where they found abundant commodities, large animal hides, and round Native American homes. They completed their mission in the remarkably quick time of three months and were back in Dartmouth by November at the latest.³⁷

Fernandes filled in some details on his chart during his numerous voyages and from other Portuguese or Spanish maps. He completed the rest of it during his 1580 reconnaissance mission, since he immediately visited Dee upon his arrival in London to reveal his new findings.³⁸ Like Dee's map, the copy of Fernandes's chart contains very detailed outlines of North, Central, and South America from latitude sixty-eight north to thirty-six south, and the similar North American coastal contours of each map confirm that Dee used Fernandes's chart as a source. The complete Caribbean and West African coastline suggest knowledge of Portuguese exploration or perhaps Fernandes' own

³⁶ The bond is reprinted in Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 211-12.

³⁷ TNA, SP 12/175, f. 163r; LOC, DBQ, Box 102, Folder 17; BL, Cotton Roll, XIII, 48.

³⁸ BL, Cotton Roll, XIII, 48; see Fernández-Armesto, "Maps and Exploration," 753; Tyacke, "Chartmaking in England," 1730.

broader travels. He chose the universal label “Rio Grande” for the Rio de Gamas and, like Dee, he included several islands in its mouth at forty-two degrees north latitude. Consequently, he referred to the adjoining region with the exonym “*C. de las muitas islas*” (Cape of many islands) instead of Norumbega, mixing his native Portuguese (*muitas*) with the Spanish that he had acquired.³⁹ The Narragansett Bay archipelago with its more than thirty islands is among the few estuaries on the Atlantic coast that match Fernandes’s description. He also revealed his familiarity with the area by making it apparent that sands were present in the vicinity of Sable Island to the southeast of Cape Breton. Fernandes placed the majority of his labels on the eastern coast of North America, the focal point of his chart, but it was not a promotional piece like Dee’s map.

Fernandes made his sea chart for sailors and utilized geographical findings that he had collected over many years, which provided Dee with substantial information with which to draft his map. That Gilbert sought out one of Elizabethan England’s most experienced navigators to undertake the voyage to map Norumbega reveals his high regard for cartography and its multiple uses. Norumbega remained *terra incognita* into the seventeenth century, so Gilbert needed a reliable account of the region to present to Dee, his primary cartographer. Rather than providing a written report, Fernandes produced a map as evidence of North America’s geography.

The maps of Fernandes and Dee helped Gilbert get his project off the ground, but he still required a sea chart of his potential course, as the most up-to-date navigational

³⁹ “*C. de las muitas islas*,” “*C. de Muchas Islas*,” and variants were common labels for the western coast of the Narragansett or Penobscot Bays following Gomes’s 1525 voyage. On Dee’s 1580 map, for instance, he placed the “*C de lagus Islas*” to the west of the Narragansett.

manuals suggested that mariners use one.⁴⁰ In known European waters, pilots relied upon a number of simple navigational tools like rutters, compasses, and cross-staffs in addition to the location of various reference points that they became familiar with while at sea. For transoceanic voyages during which land remained out of view for weeks, sea charts were more useful, though far from standard.⁴¹ Gilbert hired crewmen like Richard Clarke, who had piloted around Newfoundland, but navigators with experience maneuvering in the waters near Norumbega were at a premium. The only men in England known to have navigated there, Fernandes and John Walker, were both unavailable, as they sailed with Fenton in 1582. Norumbega's poorly defined location (or absence) on late sixteenth-century maps further complicated matters.⁴²

In light of his limited resources, Gilbert commissioned Dee to create a guide chart for the voyage to ensure safe passage to Norumbega. As chief consultant for Frobisher's first voyage in search of the Northwest Passage, Dee had instructed the explorer to carry several printed guide maps, including Mercator's chart and Thévet's 1575 *La*

⁴⁰ Pedro de Medina, *The Arte of Nauigation wherein is contained all the rules, declarations, secretes, & aduises, which for good Nauigation are necessarie*, trans. John Frampton, bk. 3 (London: Thomas Dawson, 1581), D4v; William Bourne, *A Regiment for the Sea, Containing very necessary matters, for all sorts of Sea-men and Trauailers, as Masters of ships, Pilots, Mariners & Marchaunts* (London: Thomas East, 1580), O3v-P1v; Cortés, *Arte of Nauigation*, G8r-H5v; Borough, *Discovrs of Cumpas*, *3r.

⁴¹ See Klein, "Mapping the Waters," 231-32; Ulrich Kinzel, "Orientation as a Paradigm of maritime Modernity," in *Fictions of the Sea: Critical perspectives on the ocean in British literature and culture*, ed. Bernhard Klein (Aldershot, UK: Ashgate, 2002), 30-34; Tyacke, "Chartmaking in England," 1722.

⁴² Seaver, "Norumbega and Cartography," 50-55; McKown, "Imagining 'An Other England,'" 6-7; Walsingham needed Fernandes's expertise for Fenton's expedition, which had more significant national ramifications than Gilbert's voyage; in 1527 John Rut led an expedition for King Henry VIII to find the Northwest Passage, and he sailed from Labrador south to Florida. It was reported by the Spanish that Rut was in search of "Noruega" (Spanish for Norway), which could be a bastardization of Norumbega, but this is unlikely as Henry had little interest in North America.

cosmographie universelle with its assortment of maps, but the crew had no guide for northern seas.⁴³ Frobisher's crew had no guide for northern seas, however: William Borough devised a rudimentary sea chart in 1576, but Christopher Hall simply used it to indicate compass variation and to draw crude sketches of Frobisher's discoveries.⁴⁴ Of the fifteen extant English manuscript marine representations and charts made prior to 1583, only the Borough chart and Dee's two maps depict North America.⁴⁵ Italian, Portuguese, and Spanish portolan charts of the Mediterranean began appearing in the thirteenth century, but Dee was the first to create a guide chart specifically for an English voyage.

Entitled "Sr Humfray Gylbert knight his charte" (fig. 4), Dee did not sign the map but instead included three versions of his monad or glyph, which he had described at length in his 1564 *Monas Hyroglyphica*.⁴⁶ Gilbert had his own personal emblem, which can be seen on two extant portraits (fig. 5), and this likely accounts for the map's symbolism. Gilbert's earliest documented association with Dee dates from 1567, when

⁴³ Baldwin, "Dee's Interest," 99.

⁴⁴ HHA, CP, Map 1/69; see Ruggles, "Cartographic Lure," 210-12, 216; Waters, *Art of Navigation*, 528-29.

⁴⁵ Tyacke, "Chartmaking in England," 1748-49.

⁴⁶ Free Library of Philadelphia, Rare Books Division, Elkins Americana, no. 42; The "wizard earl," Henry Percy, ninth earl of Northumberland, once owned the map, but little else is known about its provenance. See Fernández-Armesto, "Maps and Exploration," 742; Ganong, *Crucial Maps*, 453; John Dee, *Monas Hieroglyphica*, *Ioannis Dee, Londinensis, Maximilianvm, Dei Gratia Romanorvm, Bohemiæ et Hvngariæ Regem Sapientissimvm* (Antwerp: Guillaume Silvius, 1564), C4r-G4r; Stephen Clucas, "Pythagorean Number Symbolism, Alchemy, and the Disciplina Noua of John Dee's *Monas Hieroglyphica*," *Aries* 10.2 (2010): 149-67.



FIGURE 5. Robert Boissard, *S^r Humphry Gilbert knight*, ca. 1590-1603. National Portrait Gallery, D20541. From <http://www.npg.org.uk>. Gilbert's symbol is in the upper right corner of the image.

(T S made it).⁴⁸ These initials may signify that Thomas Seckford sponsored Dee's work, as he knew Gilbert and had financed many other cartographic pieces. Regardless of T.S.'s identity, the initials prove that multiple individuals had a hand in devising Dee's chart.⁴⁹

Dee focused on the region that Gilbert resolved to settle, and his stereographic projection chart displays the entire Northern Hemisphere beyond the Tropic of Cancer. Following the example set by John Cabot, who believed that he had landed on an island in 1497, Dee depicted Norumbega as such. By including an expansive Northwest Passage and by placing Giovanni da Verrazano's strait across the North American continent, he offered two potential routes, from Norumbega or England, to Cathay and Japan. Verrazano believed that he had found a passage to Asia when he explored the Outer Banks of North Carolina in 1524, and Dee was familiar with Lok's map of

⁴⁸ Ruggles, "Cartographic Lure," 254n125, suggests that the initials refer to Dee's apprentice, but other sources are largely silent on the subject; Tyacke, "Chartmaking in England," 1749, gives T.S. as the cartographer.

⁴⁹ Initials alone are not enough to prove that Seckford was involved in creating Dee's map, but his assistance is quite possible. Under Seckford's patronage, Christopher Saxton completed the first national atlas of England between 1574 and 1579. Seckford's arms adorn many of these maps, so it would make sense that Dee would acknowledge his financial assistance. Both topographer William Harrison and chronicler Raphael Holinshed mentioned Seckford's prominent role in "procuring the charts" for Holinshed's famous *Chronicles*, and he knew fellow cartography enthusiast William Cecil from at least the early 1540s (see Helgerson, *Forms of Nationhood*, 108-11; Peter Barber, "England II: Monarchs, Ministers, and Maps, 1550-1625," in *Monarchs, Ministers and Maps: The Emergence of Cartography as a Tool of Government in Early Modern Europe*, ed. David Buisseret [Chicago: University of Chicago Press, 1992], 64). During the 1570s, Gilbert spent time in Ireland with Seckford and his brother Sir Henry, who served jointly as victuallers of the realm of Ireland for the decade ending in 1582 (see TNA, SP 63/41, f. 253r; 63/43, f. 119r; 63/44, f. 71r). Walsingham even wrote Seckford just four days before Gilbert's expedition departed to ask for an injunction to have the creditors of one of Gilbert's primary financiers silenced (see TNA, SP 15/28/1, f. 25r; Maurice Browne to John Thynne, 1 November and 17 December 1582, in Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 249-51).

Verrazano's discoveries that showed the supposed strait.⁵⁰ Dee's chart accentuates the North Atlantic more so than Norumbega and presents the ocean as an obstruction-free conduit between England and North America.

In his personal papers Dee refers to his map as "A Geographical and Hydrographical Representation of the Northern Hemisphere: Differing a long way off from commonly known Charts: given away as a present to certain Englishmen undertaking the sailing towards the Northerly Shores of the Atlantic, in the year 1583."⁵¹ These differences could allude to any number of Dee's innovations, such as his map's novel projection, Dee's removal of the numerous fantasy islands commonly placed on other maps, and, most prominently, his widening of the North Atlantic vis-à-vis Mercator and Ortelius. Dee knew the Flemish cartographers, studied their map, and owed some of his cartographic skill to them, but he considered it "an offense against manifest truth to have fixed so small a space" between London and North America.⁵² Both Mercator's 1569 and Ortelius's 1564 world maps have had an enduring cartographic legacy, but Dee's criticism was not without merit. Ortelius established the distance from England's western tip to Newfoundland at approximately thirty-seven degrees, and Mercator placed

⁵⁰ See Klinghoffer, *Power of Projections*, 68-69; Hakluyt, *Divers Voyages*, ¶2r; on Lok's map, see BL, Cotton MS Otho E. VIII, f. 41r-v; TNA, SP 12/119, ff. 67r-68r.

⁵¹ BL, Cotton MS Vitellius C. VII, f. 8v: Dee lists the map as "Hemisphærij Borealis Geographica atque Hydrographica descriptio: Longè a vulgatis Chartis diuersa: Anglis quibusdā, versus Atlantidis septentrionalia litora, Navigationem instituentibus, dono data, A° 1583." Scholars in agreement that this title refers to the Philadelphia chart include David B. Quinn, "The Northwest Passage in Theory and Practice," in *North American Exploration*, ed. John Logan Allen, vol. 1 (Lincoln: University of Nebraska Press, 1997), 322; Baldwin, "Dee's Interest," 105; Taylor, *Tudor Geography*, 190; see also Parry, *Arch Conjuror*, 152-53.

⁵² Dee, *Limits of Empire*, 83-87; see BL, Cotton MS Vitellius C. VII, ff. 3r, 265v-269v; Dee also criticized anyone who considered Mercator "the only and true Author of those *Aphorismes* (concise scientific definitions)." See Dee, *General and Rare Memorials*, ¶1v.

it at forty degrees. Forty-seven degrees actually separate the two locations, and Dee underestimated this expanse by just one or two degrees on his guide chart.⁵³

Dee further improved upon existing charts by making use of the “paradoxal compass” map projection that he had invented in the 1550s for the Muscovy Company, which wanted an effective means of traversing the Norwegian and Barents Seas.⁵⁴

Mercator similarly attempted to aid sailors in 1569 by devising the rectangular grid projection that still bears his name. His chart let sailors navigate with a constant bearing along straight rhumb lines that by definition intersect all meridians at the same angle.⁵⁵

Yet Dee recommended that navigators discard Mercator’s maps due to their exaggerated polar regions and only use hydrographical charts lacking parallel meridians.⁵⁶ Gilbert likewise perceived the insufficiencies of standard cylindrical projection maps like those of Ortelius, which showed uniform degrees of longitude irrespective of their latitude. He sought to “amende the errorrs of usuall sea cardes” by designing “a Spherical instrument, with a compasse of variation, for the perfect knowing of the longitude.”⁵⁷ Gilbert and Dee both recognized that replicating the globe on a two-dimensional, rectangular planisphere increasingly skewed longitudes towards the poles and hindered navigation at

⁵³ Free Library of Philadelphia, Rare Book Division, Elkins Americana, no. 42; Ortelius, *Theatrum*, 1-2; Crane, *Mercator*, plate section 1: 4 and 5.

⁵⁴ Similar projections were used by Dee’s predecessors and by his contemporaries. See Bower, “Unusual Projection,” 56.

⁵⁵ Mercator titled his map *Nova et aucta orbis terræ descriptio ad usum navigantium emendatè accommodata*, or *A New and Augmented Representation of the Lands of the Earth, Amended for the use of Navigation*; see Dee, *General and Rare Memorials*, A1^r; Dee, “Mathematicall Præface,” d4r; Brotton, *Trading Territories*, 161-69.

⁵⁶ Dee, “Mathematicall Præface,” d4r.

⁵⁷ Gilbert, *discourse of Cataia*, B1r-B3v, C1r, D3r, F3r-v, I1r; Gilbert’s advisor William Borough and expert navigator William Bourne noted the same problem. See Borough, *Discovrs of Cumpas*, F3r-v; Bourne, *Regiment for Sea*, O1v; see also MacMillan, “Sovereignty Described,” 416; Klein, “Mapping the Waters,” 231-32.

latitudes numerically greater than either forty degrees north or south. Accordingly, Dee centered his gnomonic projection guide chart at the geographic North Pole to portray northern waters more precisely, which also converted the straight loxodromes and latitudinal parallels of Mercator maps into spiraled rhumb lines and latitudes of concentric circles. Although azimuthal polar charts compressed equatorial distances and obliged navigators to periodically change their bearings, Dee and Gilbert realized that this projection was best for depicting large geographic spaces and for navigating at high latitudes.⁵⁸

Such features imply that Dee created his chart as a guide for Gilbert's voyage, and it would not have served as a promotional piece, as some scholars have suggested.⁵⁹ His projection showed that the England-to-Cathay voyage was equidistant via the Northwest or Northeast Passages, which would have hardly compelled investors to support Gilbert instead of the well-established Russia Company and their monopoly on the eastern route. Dee also did not mention the recent discoveries of Frobisher or Drake, and the map's compact size made it ideal for the confines of a ship. It lacks the decoration of standard presentation copies and contains far fewer labels than other maps associated with the expedition, so investors would have recognized few familiar names. Dee labeled reference points like the main capes of Western Europe and listed a few erroneous North American places typically found on early modern maps, but much of the chart is empty

⁵⁸ See Parry, *Arch Conjuror*, 24; Cormack, *Charting an Empire*, 98-99; Waters, *Art of Navigation*, 210; John Davis, *The Seamans Secrets, Deuided into 2. Partes, wherein is taught the three kindes of Sayling, Horizontall, Paradoxall, and sayling vpon a great Circle* (London: Thomas Dawson, 1595), G1r-K3r; Eric H. Ash, "Navigation Techniques and Practice in the Renaissance," in *History of Cartography*, vol. 3, part 1, 520-22.

⁵⁹ See MacMillan, *Sovereignty and Possession*, 155; Quinn, "Northwest Passage," 322; Quinn, ed., *Voyages of Gilbert*, vol. 1, 67-71.

space. Such a void means that the chart may never have left England, for as Bernhard Klein has shown, sea charts were ephemeral and only reached a state of completion after the inclusion of new material at the voyage's destination.⁶⁰

A last minute agreement between Gilbert and his primary investor Sir George Peckham confirms that Dee designed the chart as a guide, and it elucidates how maps functioned alongside other colonization documents. Three months prior to his departure, Gilbert sold a portion of Norumbega to Peckham and his son to acquire resources for the voyage. He granted Peckham 1.5 million acres of land near the mouth of the Dee (Providence) River, which, at "about fortye twoo degrees," emptied into a large bay that contained five islands known as the Cinque Isles.⁶¹ The bay, Verrazano's Refugio (Narragansett Bay), and its five small islands are indicated on Dee's map to the north of Claudia (Block) Island at forty-two degrees. Gilbert and Peckham fashioned their agreement to correspond with Dee, whose chart functioned like an estate plot by dividing up the territory before the voyage ever left England's shores. Like similar maps of uncharted lands, it "acted on a quasi-legal basis as substantiation for overseas territorial

⁶⁰ Klein, "Mapping the Waters," 239-42; Aycock, "Edging Toward Empire," 95; and Quinn, ed., *Voyages of Gilbert*, vol. 1, 67, agree that the map's survival means that it was not used on the voyage, but Dee's chart could have returned to England on a number of occasions; the map could have been aboard Raleigh's *Bark Raleigh*, which returned to port after two days at sea. Once the expedition reconvened at Newfoundland, Gilbert sent some disgruntled crewmen back to England aboard the *Swallow*, and they may have carried it too. Gilbert was not aboard the *Delight* when it sank and may have kept the map with him aboard the *Golden Hinde*. He chose to sail on his trusty *Squirrel* during the return voyage and would not have needed the map, which could have remained on the *Hinde* and thus returned to England.

⁶¹ The agreement, dated February 28, 1583, is reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 2, 342-43.

claims,”⁶² and it proved to those unassociated with the expedition that Gilbert had the legal right to claim Norumbega.

The instructions for specialists among Gilbert’s expedition and the agreed-upon rendezvous points listed by Edward Hayes in the lone surviving account of the expedition shed additional light on the chart. Gilbert’s copious directions for the voyage name only five locations north of Florida; in addition to mentioning Norumbega itself, he warned the ships’ masters to be especially careful when sailing near “Claudini and Saint Johns Isles” and advised pilots setting forth from Cape Breton to sail two leagues to find “the Isle of Sabla.”⁶³ Hayes reported that the captains of Gilbert’s five vessels agreed to reconvene at Cape Race if separated, and, failing that, to meet at Cape Breton. Inclement weather forced them to reassemble at St. John’s, Newfoundland, instead, after which they proceeded to Cape Race. Following eight additional days of difficult sailing in poor conditions, Hayes reported that the fleet headed for “the Island of Sabla” and “Cape Briton.” During their search for the island, Gilbert’s largest vessel, the *Delight*, broke apart and sank due to heavy rain and inadequate watch-keeping. According to the ship’s master Richard Clarke, who had been to the region before, the *Delight* grounded on the sand banks encircling Sable Island.⁶⁴

Dee included all of the abovementioned locations on his map, and he labeled all but one of them. He drew an appropriately shaped but misoriented and unnamed St. John’s (Prince Edward) Island, and he labeled Cape Breton, Cape Race, Claudia Island,

⁶² Klinghoffer, *Power of Projections*, 55.

⁶³ BL, Add. MS 38823, f. 3r.

⁶⁴ Hayes, “report of Gilbert,” 684, 690-91; Richard Clarke, “A relation of Richard Clarke of Weymouth, master of the shippe called the Delight, going for the discouerie of Norumbega with Sir Humfrey Gilbert 1583,” in *Principal Navigations*, 700.

and Sable Island. Aside from Belle Isle, these are the only landmarks that Dee placed in the region, and he was the first cartographer to label Sable Island with that name.⁶⁵ He evidently designed his map to correspond with Gilbert's instructions regarding the expedition's anticipated course.

Hayes' report, Gilbert's instructions, and Dee's map all suggest that Gilbert directed his course for Sable Island, but this choice is a peculiar one. A generic, misplaced version of the island first appeared as "Isola della Rena" ("Island of Sand") on Hieronimo da Verrazano's 1529 map of Northeastern Canada (fig. 6), but thereafter it largely disappeared from the cartographic record.⁶⁶ Finding the island, which is less than one mile wide and thirteen square miles in area, would have been difficult for the best navigators. Located nearly 200 miles from the continent, it has a fairly barren landscape with no prominent landmarks to see from a distance. Persistent, thick fogs and submerged sand banks encompassing the island further complicate navigation in the area, and the more than 350 documented shipwrecks that have occurred around Sable Island have earned it the nickname "Graveyard of the Atlantic."⁶⁷

Clarke and Gilbert were cognizant of the risks associated with navigating near Sable Island or in any uncharted waters, but their need for provisions required them to locate it. They only stopped at Newfoundland to buy fish, wine, and other essentials, and Gilbert stayed briefly to assert his claim to the land in case he failed to reach Norumbega,

⁶⁵ Dee's labels are "c: race," "claudia," "I Sablō," "c. britō," and "bel ile." The curious settlement "stannata" near Cape Breton is the only other place named in the region.

⁶⁶ Hieronimo da Verrazano, "untitled map," in Ramusio, *Terzo volume delle navigationi e viaggi*, 353-54.

⁶⁷ Marq de Villiers and Sheila Hirtle, *Sable Island: The Strange Origins and Curious History of a Dune Adrift in the Atlantic* (New York: Walker, 2004), 1-22.



FIGURE 6. Hieronimo da Verrazano, untitled map, 1529. In Giovanni Batista Ramusio, *Terze volume della navigationi e viaggi nel qualsi contengono le navigationi al mondonuovo* (Venice: Tommaso Giunti, 1556), 353-354. From Google Images.

or if it proved unproductive.⁶⁸ His patent was set to expire in 1584, so Newfoundland became his failsafe. In his instructions, Gilbert ordered his pilots to “finde the Isle of Sabla which is very full of cattell and swyne which may supplye your wantes with greate gaine.” Portuguese sailors had placed these animals on the island during the 1550s to serve as fresh meat for subsequent voyages to North America. A Portuguese at St. John’s corroborated the presence of livestock at the island, and the withdrawal of Raleigh’s 240-ton cargo ship *Bark Raleigh* just three days into the voyage made locating it all the more

⁶⁸ BL, Add. MS 38823, f. 8v; LOC, DBQ, Box 79, Folder 7; Box 120, Folder 5; Pope, *Fish into Wine*, 48.

pressing.⁶⁹ The leaders of the expedition realized that their colony needed these animals to survive the winter, so Dee created a map to guide them to the secluded island. His placements of Sable Island at forty-four degrees north and Claudia Island directly south of Narragansett Bay at forty-one degrees north are extremely accurate. Cape Breton's latitude is also very precise, while the longitudes of the cape and islands are within one or two degrees of their true locations in relation to England. Even the relative shapes, though not the orientations, of Sable and Claudia Islands are quite accurate.

Dee must have consulted credible authorities to so accurately place Norumbega and its environs, and considering that just a handful of Europeans had been there, it is surprising how many sources were available to him. He had access to Gilbert's interrogations of Fernandes, Walker, and David Ingram, the only Englishmen known to have reached the area.⁷⁰ English fishermen had been visiting the Grand Banks for nearly a century as of 1580, by which time they may have reached as far west as Maine. Gilbert counted fishermen like Clarke and Anthony Parkhurst among his crewmen and investors.⁷¹ English pirates, another potential source for Dee, began pushing northward from the West Indies along the North American coast during their search for the Spanish treasure fleets, reaching Santa Elena (South Carolina) and areas farther northward by the

⁶⁹ BL, Add. MS 38823, f. 3r; Hayes, "report of Gilbert," 691; de Villiers and Hirtle, *Sable Island*, 17-22; Samuel de Champlain confirmed that Iberians had left cattle and pigs on the island around 1553. See Champlain, *Narrative of a Voyage to the West Indies and Mexico in the Years 1599-1602*, ed. Norton Shaw, trans. Alice Wilmere (London: Hakluyt Society, 1859), ii-iii.

⁷⁰ BL, Cotton Roll XIII, 48; BL, Sloane MS 1447, ff. 1r-15v; TNA, SP 12/175, f. 163r-v; Dee, *Diary*, 17; BL, Add. MS 48151, ff. 164v, 165v-166r.

⁷¹ In 1578, Parkhurst provided Hakluyt the elder with intelligence on Newfoundland, including information on the mineral wealth at St. John's that may have impelled Gilbert to search there. See Parkhurst to Hakluyt the elder, 1578, in Taylor, ed., *Writings of Hakluyts*, vol. 1, 133; Hayes, "report of Gilbert," 689-90.

late sixteenth century.⁷² These corsairs were sailing directly to Newfoundland to find plunder by 1580, and Clarke's attack on the island in 1582 prompted fishermen to briefly prevent Gilbert from entering St. John's the following year. Clarke even warned Gilbert that "unknowen sands lay off a great way from " Sable Island, and Dee would have spoken with him during their preparations.⁷³ Dee's sources also probably included the Portuguese, who were a common enemy of Spain following King Philip II's annexation of Portugal in 1580. That year Hakluyt interviewed Portuguese Ambassador Don Antonio de Castilio, and Dee may have done the same to gain intelligence about the Americas.⁷⁴

Dee's former student and expert cartographer William Borough, who helped write Gilbert's instructions for the expedition in 1582 and by that time had known Dee for three decades, probably provided geographical intelligence for the map as well.⁷⁵ A 1579 rutter authored by Borough and his brother Stephen reveals their familiarity with Atlantic Canada, as they cautioned that three leagues from the mainland "[a]t cape race begyneth The sand called Knocke John." The book also supplied accurate estimations of the winds and currents from northern Newfoundland to the cape and points southward.⁷⁶ In

⁷² Accounts of English corsairs spreading northward include NL, Ayer MS 1236, 88. A.G.I. 54-1-15, f. 1r; NL Ayer MS 432 I/4. 2-5-4/12, f. 1r; see LOC, DBQ, Box 120, Folder 10.

⁷³ TNA, SP 12/151, f. 86r; 78/10, f. 120r; Clarke, "relation of Gilbert," 700; see Quinn, Quinn, and Hillier, eds., *New American World*, vol. 4, 13-20.

⁷⁴ Hakluyt, *Divers Voyages*, n.p., ¶5; See Taylor, ed., *Writings of Hakluyts*, vol. 1, 174-76.

⁷⁵ E.G.R. Taylor, "Instructions to a colonial surveyor in 1582," *Mariner's Mirror* 37.1 (1951): 48-62, and Robert Baldwin, "William Borough," in *The Oxford Dictionary of National Biography*, ed. H.C.G. Matthew and Brian Harrison, vol. 6 (Oxford: Oxford University Press, 2004), 670-72, agree that Borough helped write Gilbert's instructions (BL, Add. MS 38823, ff. 1r-8v).

⁷⁶ BL, Harley MS 167, f. 69r.

Borough's 1581 *Discourse on the Variation of the Compass*, which Gilbert used in preparing his voyage, the author justly criticized cartographers, who generally situated Cape Race directly west of the Isles of Scilly. Borough placed the islands at fifty degrees north and the cape at forty-six and $1/3$ degrees, which are exact readings for their locations.⁷⁷ Dee's chart depicted Cape Race at the same latitude and the Scillies at precisely fifty degrees as well. Capitalizing upon the research of Borough and others helped Dee create a highly functional chart for voyages from Europe to eastern Canada, which was a fitting guide for Gilbert's expedition.

Since Dee's map prominently displayed the expedition's projected route and destination, Gilbert considered it vital to his success and took steps to protect it from Spanish spies and untrustworthy members of his own crew. He learned the importance of concealing his plans during his 1578 expedition, when Spanish Ambassador Don Bernardino de Mendoza infiltrated his crew with a spy and received accurate reports of his preparations and intentions.⁷⁸ Philip II regularly defended his American colonies from unwanted intruders, and he strove to block England's efforts at westward expansion. Mendoza's threats to Catholic investors in 1582 eliminated some of Gilbert's most significant financiers, and he employed spies in 1583 as well. One of his English agents, the rebellious Catholic aristocrat Henry Howard, Earl of Northampton, invested a new, 120-ton ship for Gilbert's expedition in April but quickly withdrew, which was probably

⁷⁷ Borough, *Discovrs of Cumpas*, F2v.

⁷⁸ See the letters from Mendoza to Philip and Gabriel de Zayas between May 8, 1578 and February 26, 1579 in Quinn, ed., *Voyages of Gilbert*, vol. 1, 186-94, 219. In 1578, Mendoza also sent a spy with Frobisher, who may have been the English assayer Robert Denham. See McDermott, ed., *Third Voyage of Frobisher*, x, 249-52.

a ploy to gain intelligence about the mission.⁷⁹ Mendoza must have implanted at least one agent among the crew, however, because he provided Philip II with fairly accurate reports throughout Gilbert's preparations.⁸⁰

Such subterfuge by Spanish emissaries in London and the lack of discipline during his first expedition made Gilbert extremely protective of any documents indicating his proposed course, as exemplified by the detailed instructions that he left with his twelve officers. One set sealed with yellow wax was not to be opened until they reached the Atlantic, while the red wax on another set of instructions would only be broken at Norumbega. Gilbert also left explicit orders to safeguard several documents significant to his expedition, including his letters patent, his grant to the town of Southampton for their investments, and "the Sea Carde" (Dee's chart). He ordered them to be secured in an iron chest with three locks, and he provided keys to three prominent Southampton merchants until the leaders of the voyage were determined.⁸¹

Enclosing Dee's map with the letters patent and the Southampton grant shows that Gilbert regarded it as an important element of his expedition. His patent gave him royal authority to colonize Norumbega and provided a safeguard against anyone who might question the legality of his claim. His agreement with the Southampton merchants assured him the equipment and financial means to finally set sail. Without either of these

⁷⁹ Maurice Browne to John Thynne, April or May 1583, in Quinn, Quinn, and Hiller, eds., *New American World*, vol. 3, 251-52; see Pauline Croft, "Henry Howard," in *ODNB*, vol. 28, 366-67.

⁸⁰ See, for example, the various letters from Mendoza to Philip between January 9, 1581 and May 6, 1583, in Quinn, ed., *Voyages of Gilbert*, vol. 2, 240-365.

⁸¹ Gilbert's instructions, dated December 12, 1582, are reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 2, 334-35. Each ship carried two additional scrolls containing watch words, which were only to be opened after passing Ireland to prevent crewmen from divulging the words while on land. See Hayes, "report of Gilbert," 683.

documents his voyage would have been impossible. Dee's chart carried equal weight, because it served as a simple guide to Norumbega, and it reinforced his entitlement to the area. Taking the time and effort to procure and protect his maps affirms that Gilbert considered them integral components of his enterprise.

3. Richard Hakluyt's Printed Maps: Promoting the Colonization of North America

Manuscript maps sufficed as guides or to appeal to a limited group like Elizabeth and her council, but Gilbert's circle required printed maps to reach a broader audience and acquire funding. Lacking the state sponsorship of their Iberian counterparts, English explorers occasionally relied upon promotional literature to win over potential investors. Gilbert's coterie printed various advertisements between 1580 and 1583 and in so doing made a case for using printed maps to endorse colonization. Gilbert had helped spearhead the use of promotional maps in 1576, when he allowed his *discourse* to be printed. His succinct book was issued to attract investors to Frobisher's first expedition, and it contained the earliest English printed world map (fig. 7). The map's heart-shaped configuration derived from Ortelius's 1570 world map, and Gilbert filled in details using an unknown Spanish chart, Sebastian Cabot's world map in Elizabeth's Whitehall gallery, and other early modern globes and maps. With a clear Northwest Passage but no visible passage to the northeast, the map reinforced his book's thesis and served as a reference for locations mentioned in the text. The book received favorable endorsements from other Elizabethan expansionists, including Dee, Lok, poet George Gascoigne, and

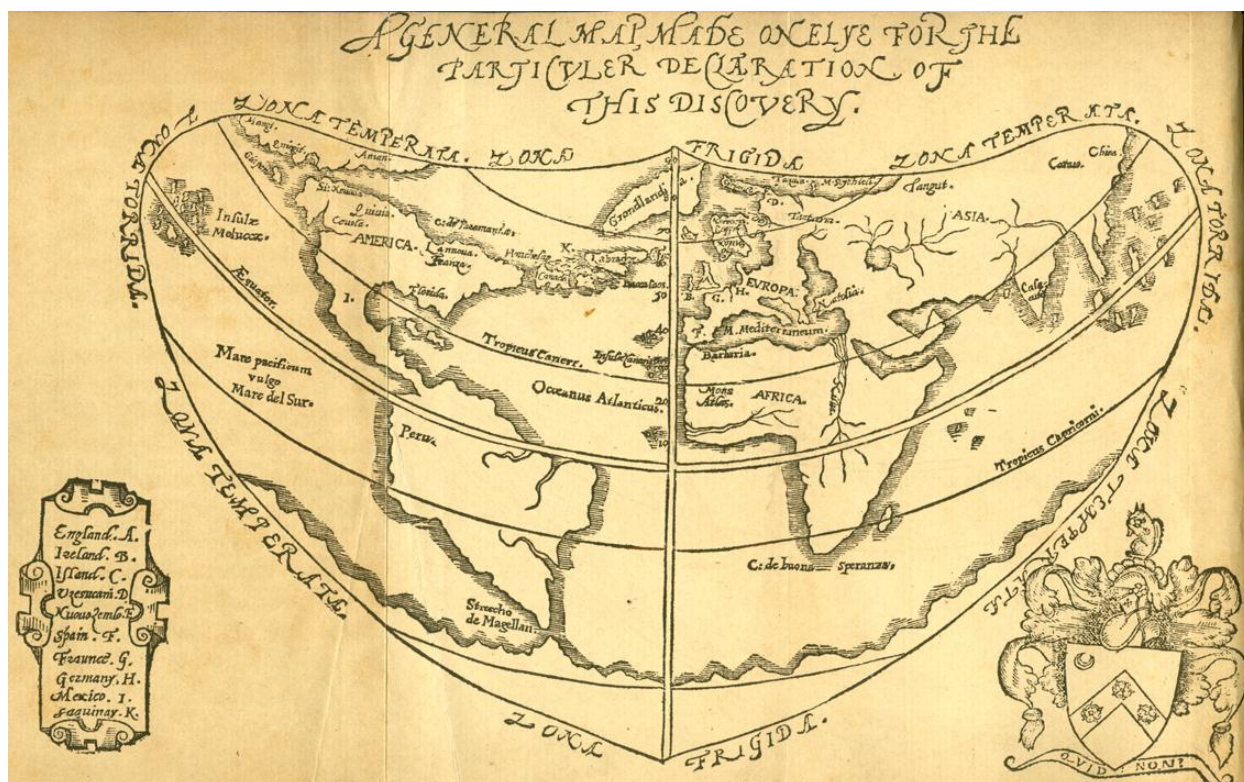


FIGURE 7. Humphrey Gilbert, “A General Map made onelye for the Particvler Declaration of this Discovery.” In Gilbert, *A Discovrse Of a Discouerie*. From Google Images.

mathematician William Bourne, and it convinced Gilbert that promotional maps were valuable.⁸²

When Gilbert needed to advertise his own expedition, he turned to Hakluyt, who printed his first publication, *Divers Voyages*, to attract investors for Gilbert. As mentioned in chapter one, the concise quarto book appeared concurrently with Hungarian scholar Stephen Parmenius’s *De Navigatione*, a Latin poem directed at Gilbert’s humanist associates. Hakluyt wrote his book for the nobility and the merchant class, and

⁸² Gilbert, *discourse of Cataia*, ¶¶¶¶1r, ¶¶2v; Dee, *General and Rare Memorials*, 2; BL, Cotton MS Otho E. VIII, f. 44v; John L. Allen, “The Indrawing Sea: Imagination and Experience in the Search for the Northwest Passage, 1497-1632,” in *American Beginnings: Exploration, Culture, and Cartography in the Land of Norumbega*, ed. Emerson W. Baker et al. (Lincoln: University of Nebraska Press, 1994), 28.

he translated or transcribed several documents concerning North America's eastern coast. The first two sections of the book conclude with maps, which Hakluyt deemed necessary in displaying North America and the probable track of the voyage. His later books rarely contained maps, so he may have included them due to Gilbert's insistence. They are the only visual aids in the text, and Hakluyt used cartographic materials in his research as well, since the book opens with a chronological listing of "late writers of Geographie" that includes Mercator (1541), Ortelius (1564), Thévet (1575), and Gilbert (1576).

Gilbert had used printed works to gain support for his first expedition, but none of them included cartographic materials.⁸³ Even though printed maps were new to England, as 85 percent of early modern English printed maps were completed after 1590, enclosing maps within books became more practical as the merchant class's cartographic literacy developed.⁸⁴ Therefore, Hakluyt recruited Lok, the main promoter and organizer of Frobisher's voyages and an acquaintance of Gilbert, to make a map for *Divers Voyages*.⁸⁵ Lok's woodcut map is his only confirmed association with the project and his only known cartographic output, but he had extensive geographical knowledge. Prior to his involvement with Frobisher, Lok led several trading missions around Europe and Asia, and by the late 1570s he had amassed a large collection of maps and navigational books.⁸⁶

⁸³ These include Bucke, *Praier for Gilberte* (non-extant); Churchyard, *discourse of entertainment*, H2^r-K3^v; Fernández de Enciso, *description of Weast India*; Gilbert is the dedicatee of the latter work, as he intended to reach North America via the Caribbean.

⁸⁴ Laurence Worms, "The London Map Trade to 1640," in *History of Cartography*, vol. 3, part 2, 1693.

⁸⁵ Lok knew Gilbert from at least 1576. See BL, Cotton MS Otho E. VIII, f. 41r-v; Sherman, "Dee and Frobisher," 286; Lok may have played a large role in *Divers Voyages*. See Taylor, ed., *Writings of Hakluyts*, vol. 1, 25-26.

⁸⁶ TNA, SP 12/119, ff. 67v-68r.

Lok's polar map lacks the intricacy of Dee's maps or the Fernandes chart, in part because the English crown did not want to disclose any new geographic details regarding North America. The Privy Council forbade members of the Frobisher and Drake expeditions from publishing books or maps about their new findings out of fear that they would leak to England's rivals, so Lok had to be careful about what he printed.⁸⁷ Furthermore, early woodcut maps were inevitably basic due to the rigors of creating them. A professional block cutter had to transfer Lok's image from paper onto wood planks by painstakingly carving away sections to leave a raised surface, which was then covered in ink and pressed onto paper. The process was time consuming, arduous, and expensive, so Gilbert and Hakluyt must have felt strongly about the persuasive power of such maps.⁸⁸

Lok essentially created an early modern locator map by displaying Gilbert's general destination in relation to England, which he hoped would reinforce Hakluyt's text to secure investments and to attract colonists. Lok needed only to show notable places and to provide reference points for locations mentioned in the book, while making North America seem worthwhile. Richard D'Abate posited that Lok's map presents Norumbega as a mirror image of England, since both appear as islands adjacent to a large continent. Lok wanted his audience to have no difficulty envisioning a new life at Gilbert's Norumbega colony. While Dee made sure to depict a wider, more accurate Atlantic, Lok longitudinally truncated it in hopes that the close proximity of England and

⁸⁷ See MacMillan, *Sovereignty and Possession*, 155-77; Klinghoffer, *Power of Projections*, 30; Baldwin, "Colonial Cartography," 1760; Wallis, "Cartography of Drake," 133-37.

⁸⁸ Roper, "Paper Conquests," 43.

Northeast America would appeal to investors.⁸⁹ A quicker sea passage presented fewer chances of encountering storms and increased the probability of making multiple trading voyages each year between Gilbert's colony and the metropole.

Yet Lok's map also resembles Dee's guide chart in various respects, and the two may have collaborated on them.⁹⁰ Both placed Norumbega at or near the center of their maps to focus their readers' attention, leaving England barely visible on the periphery. These configurations contrasted with most early modern world maps that exaggerated Europe's size and placed it near the map's middle. Both cartographers also depicted Claudia and the Bay of Refugio with its five small islands, though Lok mistakenly placed various phantom islands in the Atlantic. He displayed England's claim to Norumbega on the map by referencing John Cabot's discovery of the island with "J. Gabot. 1497" printed in large script below "Jac[ques]. Cartier 1535" (fig. 8). He left no doubt that Cabot's voyage and thus England's right to Norumbega predated Cartier's exploration of, and France's claim to, the region. Lok further reinforced this assertion by showing Frobisher's recent discoveries in the North Atlantic.

⁸⁹ Richard D'Abate, "On the Meaning of a Name: 'Norumbega' and the Representation of North America," in *American Beginnings*, ed. Emerson W. Baker et al., 84; Ruggles, "Cartographic Lure," 228-31.

⁹⁰ Dee had access to Lok's extensive map collection from 1576. See BL, Cotton MS Otho E. VIII, f. 41r-v; TNA, SP 12/119, ff. 67v-68r; in addition to working together for the Muscovy and Cathay Companies, Lok also visited Dee's Mortlake home. See Dee, *Diary*, 8.



FIGURE 8. Segment of eastern North America from Michael Lok, “Illvstri viro, Domino Philippo Sidnæo Michael Lok Civis Londinensis Hanc Chartam Dedicabat: .1582.” In Hakluyt, *Divers Voyages*. From Google Images.

Much like Dee’s 1583 map, Lok displayed North America and Western Europe via a cordiform projection and included a prominent Verrazano’s Strait across North America. Both men copied this strait from a map on parchment owned by Lok that was made by Giovanni da Verrazano for Henry VIII.⁹¹ Just as American interventionists used polar maps during World War II to accentuate Europe’s proximity to the United States,

⁹¹ Hakluyt, *Divers Voyages*, ¶12r; Hakluyt, *Western Planting*, 84–85, alludes to the map and globe of similar composition in the Queen’s gallery at Westminster; A manuscript map on parchment by Verrazano’s brother Hieronimo from 1529 remains extant at the Biblioteca Apostolica Vaticana.

Lok chose this projection to solicit investments by highlighting Norumbega's closeness to England.⁹² Rather than negating Hakluyt's intent by endorsing exploration of the Northwest Passage, as has been suggested by a few scholars, the map actually magnified the mercantile potential of a Norumbega colony.⁹³ Lok showed that adventurers could reach the riches of Cathay from the colony by passing through Frobisher's Meta Incognita or Verrazano's Strait. He anticipated that this type of speculative cartography depicting undiscovered lands would appeal to the merchant class, which often represented the majority of joint-stock shareholders.

Hakluyt also reproduced Thorne's 1527 world map in his book. He acquired the original map and some of Thorne's papers from London author Cyprian Lucar, whose father Emanuel had been an apprentice to Thorne.⁹⁴ The simplistic map makes England appear disproportionately close to the eastern shore of North America, which is claimed as "Land here first discovered by the English," but Hakluyt included it for a different reason. He explained that the map "may seeme rude" to late sixteenth century observers, but the Thorne material in the book "coulede not well be understood without" it. Hakluyt condoned its deficiencies on account of that generation's inadequate grasp on cosmography, while his inclusion of the map is emblematic of his high regard for

⁹² Klinghoffer, *Power of Projections*, 103-4.

⁹³ Payne, *Hakluyt guide*, 29; R.A. Skelton, "Hakluyt's maps" in *Hakluyt Handbook*, vol. 1, ed. Quinn, 65; Quinn, *Hakluyt, editor*, vol. 1, 26; Derek Hayes, *Historical Atlas of the Pacific Northwest, Maps of Exploration and Discovery: British Columbia, Washington, Oregon, Alaska, Yukon* (Seattle: Sasquatch Books, 1999), 14; Seymour I. Schwartz, *The Mismapping of America* (Rochester, NY: University of Rochester Press, 2003), 73; Baldwin, "Colonial Cartography, 1762; see Roper, "Paper Conquests," 122, 125-26.

⁹⁴ Dee saw the map too. See Lucar's note "To Mr. John Dee, 1577," at BL, Cotton MS Vitellius C. VII, f. 344r; Lucar's papers on Thorne include BL, Lans. MS 100, ff. 65r-80v, and BL Cotton MS Vitellius C. VII, ff. 329r-341v. See also HHA, CP 245/5; Hakluyt, Dee, Lok, and Cecil all had copies of some of Thorne's papers and potentially the map. See Baldwin, "Dee's Interest," 113, 128n71; Quinn, "Northwest Passage," 303.

cartography as an advertising tool.⁹⁵ Though admittedly out of date, Thorne's map served as a point of reference and as an historical text in its own right. Now, readers could view both the oldest and most recent English maps of the Americas in the same book, which provided visual evidence of English cartography's maturation and of English map-makers' growing comprehension of geography. More obviously, the woodcut map served as proof of an Englishman who had been willing to explore North America, and it had the added bonus of helping readers conceptualize England-to-Norumbega navigation.

Gilbert and his supporters also successfully promoted the expedition by bringing their maps directly to potential investors. In August 1582, colonization advocate Maurice Browne consulted a man "of excellent knowlegd and expearience in navigatione and in Cosmographie," who almost certainly refers to Dee. After discussing the accuracy of a map of Portuguese provenance dating from the mid-sixteenth century, the man promised to show Browne "one of the newest cardes" of "the north west part of America with the portes and Ilandes lying alongst that cost [coast]," which was in reference to either Lok's recently printed map or Dee's 1580 chart.⁹⁶ As already mentioned, one of the surviving copies of *Divers Voyages* is owned by the ancestor's of Browne's friend John Thynne, and because the book lacks both maps, they may have been taken out and used by Gilbert to persuade Browne and Thynne to support him.⁹⁷

⁹⁵ Hakluyt, *Divers Voyages*, n.p; see Roper, "Paper Conquests," 122.

⁹⁶ Maurice Browne to John Thynne, July 6, 1582, in Quinn and Cheshire, ed. and trans., *New Found Land*, 189-91; Browne's expert was certainly Dee, since the man found no errors on the Portuguese map aside from the north part of America, an area that he had mapped several times. Dee made it clear that the northern region had to be guesswork, because years earlier Spain had forbidden its sailors from going beyond an unspecified northern degree. Dee had used the same line of argument to convince Elizabeth of her right to all of America north of forty-five degrees north.

⁹⁷ Quinn, ed. *Hakluyt, editor*, 33-34; Neville-Sington and Payne, *Census of Hakluyt*, 28.

During the summer of 1582 Gilbert also invited Browne to his London home, where for two nights they discussed the impending voyage. As a trusted friend of Walsingham, one of the queen's top advisors, Browne would have been ideal to chronicle the expedition for Elizabeth. After using the experiences of Ingram and Fernandes to persuade Browne to join his crew, Gilbert displayed his letters patent from the queen and his most compelling document, "the card of the whole cuntry," Dee's 1580 chart. Browne's meeting with Gilbert convinced him to sign on as voyage chronicler, and Thynne invested as a result of the meeting too.⁹⁸

Regardless of the maps' influence on Thynne or Browne, their presence in Hakluyt's book shows that Gilbert's circle prized maps for their promotional value. Gilbert would have saved much-needed capital for his cash-strapped voyage by omitting the maps, but they were the easiest way to present the still-disputed geography of North America. As J.B. Harley rightfully contended, "Insofar as maps were used in colonial promotion, and lands claimed on paper before they were effectively occupied, maps anticipated empire."⁹⁹ Gilbert failed to establish a presence at Norumbega, but the maps in *Divers Voyages* served as useful propaganda for his expedition by depicting the region as if he already had control there.

4. Thomas Bavin's Mapmaking: Claiming North America for England

⁹⁸ Hayes, "report of Gilbert," 684; Browne to Thynne, August 20, 1582, in Quinn and Cheshire, *New Found Land*, 194-95, also 40, 46.

⁹⁹ Harley, "Maps and power," 312.

Having used maps to gain permission for the expedition, to guide it across the Atlantic, and to fund it, Gilbert's final use for maps would take place at Norumbega. He and his associates still needed to send a detailed report of the country to investors remaining in England. Doing so would reinforce their claim to the land and its commodities as stipulated in Gilbert's letters patent. Rather than compiling a simple list, however, Gilbert intended to plot trade goods and geographic features on a series of maps.¹⁰⁰ An exhaustive map of eastern North America would grant him unprecedented knowledge of the land and thus enhance his authority, while systematically charting the voyage would simplify return trips to the colony. Moreover, Elizabeth and Walsingham had promised to send Gilbert additional men, ships, and other materials to firmly establish his colony after receiving news of his landing and Norumbega's resources.¹⁰¹ An in-depth description of the country might have even convinced reluctant investors to provide resources that Gilbert still needed to plant his settlement, so he planned to map not only the Norumbega region but also the location of specific commodities therein.

This was not the first time that Gilbert attested to the importance of mapping. In his proposal to Elizabeth for establishing an academy to instruct her wards (ca. 1570), he called for two mathematicians: one to instruct on military matters and another to teach cosmography, astronomy, navigation, and the drawing of maps and sea charts. By

¹⁰⁰ On mapping and English colonization, see Christopher Tomlins, "The Legal Cartography of Colonization, the Legal Polyphony of Settlement: English Intrusions on the American Mainland in the Seventeenth Century," *Law & Social Inquiry* 26.2 (2001): 324-28; Benjamin Schmidt, "Mapping an empire: Cartographic and Colonial Rivalry in Seventeenth-Century Dutch and English North America," *William and Mary Quarterly* 54.3, Third Series (1997): 549-78; Mark Koch, "Ruling the World: The Cartographic Gaze in Elizabethan Accounts of the New World," *Early Modern Literary Studies* 4.2, Special Issue 3 (1998): 11.1-39. <http://purl.oclc.org/emls/04-2/kochruli.htm>.

¹⁰¹ Maurice Browne to John Thynne, July 6, 1582, in Quinn and Cheshire, *New Found Land*, 194.

studying the axioms of measurement, proportion, and perspective, his pupils would be able “to take by view of eye the platte of any thinge.”¹⁰² Approximately a dozen years later in June 1582, he and Peckham blueprinted a reconnaissance mission to be led by Frobisher, Richard Bingham, and other prominent seamen, who would list Norumbega’s commodities and make “mappes cardes observacions and notes” prior to the arrival of the main expedition.¹⁰³ The mission never sailed, but Gilbert’s circle created more-detailed instructions for mapping Norumbega the same year.

The expedition leaders recruited numerous individuals capable of mapping “the perticuler place where every suche thinge shal be founde,” including the locations and elevations of islands, which would clarify the environs of Gilbert’s colony and help prevent shipwreck. They requested that all commodities, metals, flora, and fauna be mapped and described precisely, showing Gilbert’s debt to medieval cartographers, who included such visual representations on their maps. Charting the positions of ship-making materials, salt for curing, fish, havens, and navigable rivers were of the utmost concern, because they would help the colony thrive. The group solicited maps of the River of Norumbega, Gilbert’s intended destination, and they wanted to know where ships could land near it, if it was navigable, and if its mouth could be defended, since Gilbert planned to construct a fort there. Their interest in the region’s Native Americans mainly pertained to trade, as they hoped to exchange English cloth for products desirable in Europe. Gilbert intended to map different language groups and diagram what

¹⁰² BL, Lans. MS 98, f. 4r.

¹⁰³ The instructions are reprinted in Quinn, ed., *Voyages of Gilbert*, vol. 2, 257-60.

commodities each group required and possessed. Charting the territories, alliances, and enemies of each ruler would also benefit English colonizers if conflicts arose.¹⁰⁴

Gilbert and his supporters reserved the most comprehensive instructions for specialist Thomas Bavin, who would carry out the bulk of the mapping and surveying.¹⁰⁵ Not only would Bavin “drawe to lief” all beasts and plants alien to England, but he would also map the locations of oysters, muscles, shell fish, sheep, and hogs, presumably to guarantee a food source. He would chart hills, woods, and the positions and depths of rivers, while his instructions indicated that there was “never so smale an Island or thing” unworthy of mapping. He was also to differentiate the species of tree within each mapped forest to create more discursive maps and to locate timber for supplementing England’s dwindling supply. Gilbert was adamant that Bavin be prepared to map at all times, and he instructed him to carry ink, quills, paper, parchment, writing tablets, and black powder to make ink. Bavin would distinguish territories on his maps using alternating hues, since his equipment included various pigments, pencils, a stone to grind

¹⁰⁴ BL, Add. MS 38823, f. 1r-v.

¹⁰⁵ Bavin has heretofore been unidentified, though David Quinn hinted that he may have been the son of Thomas Bavand of Liverpool or of the Chester family of that name (Quinn, Quinn, and Hillier, eds., *New Found World*, vol. 3, 239). Because Bavand (Bavan, Bavard), a well-known merchant and one time mayor of Liverpool, was involved in military operations in Ireland and knew government officials, including Lord Burghley, Sir Edward Fitton and Sir Nicholas Malby, it was more likely he than his son who went with Gilbert. His letters display superb penmanship but provide few clues about his reputation as a surveyor or cartographer. Like John White, he was probably an artist, since he was instructed to complete a number of paintings, and at the time art and cartography overlapped. On Bavin’s instructions, see Taylor, “Instructions to a surveyor,” 48-62; Waters, *Art of Navigation*, 538-40; Sloan et al., *A New World*, 42-44; LOC, DBQ, Box 71, Folder 6; Box 79 Folder 7; on his governmental associations, see TNA, SP 63/59, ff. 113r-14v; TNA, PC 2/12, f. 62r; on his mercantile connections, see TNA, SP 63/76, f. 146r; 63/77, f. 112r; 63/78, ff. 21r, 45r-v, 81r, 149r, 151r; 63/79, ff. 11r-14r, 40r, 43r.

colors, black lead for drawing, and other instruments and materials “to drawe cards and plotts.”¹⁰⁶

To ensure the accuracy of all maps and sea charts, Gilbert assigned Bavin numerous assistants, including one to mark latitudes and another to double check each of Bavin’s reckonings. An additional crewmember would attend to him with a universal dial, a cross-staff, a sailing compass, and an ephemeris, and his final aide would attend to him with “an Instrument for the variation of the Compass and with the Instrument for the Declynation of the nedle.” Gilbert reiterated that Bavin himself should determine the compass variation and needle declination “in every destinct place and elevacion.”¹⁰⁷ Borough and instrument maker Robert Norman invented these navigational and surveying aids, and they explained their usage in books that appeared together in 1581: Borough’s *Discourse* and Norman’s *New Attractive, Containing a short discourse of the Magnes or Lodestone*. Together with Dee, these experienced navigators produced nine of the fifteen extant English sea charts of overseas territories dating from before 1583, and their books provided great insight on improving such charts.¹⁰⁸

Norman found that the magnetized needle of a vertically aligned compass attached to a free moving pivot pointed approximately seventy-two degrees below the horizon in London. By measuring the angular distance between the horizon and needle, Norman determined the dip, or magnetic inclination, at a given location. He postulated that finding the magnetic dip at different places would allow navigators to determine latitudes and longitudes, and because his instrument did not rely upon the sun, the

¹⁰⁶ BL, Add. MS 38823, ff. 3v-5v.

¹⁰⁷ BL, Add. MS 38823, ff. 1v-2r, 3v.

¹⁰⁸ Tyacke, “Chartmaking in England,” 1748-49.

measurements could be taken any time.¹⁰⁹ For Gilbert, the instrument represented a crucial development in his effort to create more-precise maps and sea charts, as the inability to accurately measure longitude constituted the single most pressing problem facing Renaissance navigators and chart makers. If Norman's device functioned as advertised, Gilbert could finally put an end to speculation about the Atlantic's breadth.

Borough opened his text by echoing his mentor Dee. Both men advised English navigators to make their own charts and discard Iberian ones made by cartographers who had not viewed firsthand the areas on their maps. Borough blamed poor navigators rather than poor cartographers for defective maps that misplaced everything from rocks to rivers to bays. While he acknowledged the significance of Ortelius's *Theatrum* in bringing together an assortment of charts, he considered many maps inadequate, singling out the 1580 world map of French intellectual Guillaume Postel. Despite Postel's avowed brilliance, he had not been to the places that he mapped, namely the North Pole, and instead trusted "fonde dreames, and fantasticall inscriptions" as credible sources.¹¹⁰

Although Norman deemed variation (the deviation of a magnetic compass needle from geographic north) too unreliable to improve navigation or mapmaking, Borough held it responsible for sea chart errors and felt that measuring variation would improve them. He determined that many maps contained distorted coastlines and grossly inaccurate latitudes and longitudes for the Mediterranean Basin, the North Atlantic, and the Baltic Rim, among other places, because their makers did not account for variation. Mercator had largely corrected latitudinal defects in 1569, but his map, while helpful for

¹⁰⁹ Norman, *new Attractive*, C3v-D1v.

¹¹⁰ Borough, *Discovrs of Cumpas*, *4r-A1r. Borough was probably referring to Postel's woodcut polar planisphere *Polo Aptata Nova Charta Universi Auth. Guil. Postello* (Paris, 1581), now at the *Bibliothèque Nationale* in Paris.

individuals who remained on land, did not take variation into consideration and was therefore not as useful for navigators as Mercator suggested. Iberian navigators had long speculated that regularly cataloguing variation would permit longitudinal measurements, because they knew that it varied by geographic location but simply assumed that it changed consistently and remained constant over time at a given place.¹¹¹ Following their lead, Borough affixed a gnomon to a standard sea compass, so that when the compass bearing was checked at noon, the shadow cast by the gnomon would show geometric north. The angular distance between geometric and true north could be recorded to track variation and to potentially determine longitude. Borough believed that his instrument was best for navigation from England “West wardes to *Meta Incognita*, *New foundland*, *Florida*, and that part of the coast of *America*,” because his experience showed that the variation remained stable when sailing this course.¹¹²

Gilbert’s circle asked Bavin to regularly measure his variation and declination at sea and to mark it on his charts. Calculations from Borough’s and Norman’s instruments would allow Bavin to continuously catalogue his latitude and longitude at sea and on land to assemble a series of detailed maps depicting the entire eastern seaboard. Gilbert initially planned to sail north from Florida to Cape Breton and then retrace his path back to Norumbega, mapping coastlines, rivers, and islands along the way. Each inlet needed to be explored, because Europe’s incomplete understanding of North American geography meant that every bay represented a potential opening to the Northwest Passage

¹¹¹ Norman, *new Attractiue*, E3r-E4r; Borough, *Discovrs of Cumpas*, F2r-F3v; Lesley B. Cormack, “Mathematics and Empire: The Military Impulse and the Scientific Revolution,” in *The Heirs of Archimedes: Science and the Art of War through the Age of Enlightenment*, ed. Brett D. Steele and Tamera Dorland (Cambridge, MA: Massachusetts Institute of Technology Press, 2005), 189.

¹¹² Borough, *Discovrs of Cumpas*, *2r, G3r.

and Asia's wealth. When mapping the coast, Gilbert specified that Bavin mark each map with an uppercase letter (*A*, *B*, *C*, and so on) so as not to confuse the label with latitude readings. As the colonists made their way farther inland, Bavin would label each map with double letters (*AA*, *BB*, *CC*, etc.) to ensure that he could join them together in the correct order once he completed his duties.¹¹³

To simplify this task, Gilbert's circle earmarked for Bavin a store of royal paper, which, along with imperial paper, was the most expensive types of paper available at the time and was therefore rarely used prior to the eighteenth century. Noted for its large size and fine quality, royal paper was used for royal decrees and other important documents, so Gilbert planned to buy some reams of it to create large, durable maps that required minimal stitching.¹¹⁴ Bavin was instructed to make "plattes of the cuntrye" on these large sheets and then divide each map "according to the biggnes of the Table," meaning that he would cut the paper to the size of his wooden geometrical (plain or plane) table. The geometrical table was among the most important of sixteenth century surveying tools, and similar devices are still used today. It consisted of a simple table on a tripod that could be leveled, along with a top frame that held paper taut and in position on the tabletop. Once the paper was secured, the surveyor aligned the table to magnetic

¹¹³ BL, Add. MS 38823, ff. 3v-5v.

¹¹⁴ In 1604, a ream of brown paper cost one shilling and a ream of royal paper cost nearly seven times as much at 6s. 8d. Royal paper measured approximately 440x600mm and imperial paper was about 700x500mm. Paper could not be much larger than that, as it was made by shaking a tray of the paper's length, and an average man's reach was 700mm. See Mark Bland, *A Guide to Early Printed Books and Manuscripts* (Chichester, UK: Wiley-Blackwell, 2010), 30-31.

north with a compass and used its alidade or sighting rule and its distance scales to take angular measurements and distances.¹¹⁵

Borough commented that “the Topographicall Instrument” (the plain table) was necessary “for taking of distances, and making descriptions vpon the land.” By correctly using the table, a compass, an astrolabe, a cross staff, and his instrument for the variation, mariners could make a “description in platt of the coastes and countries, and of the Banckes, Rockes, and Sholdes in the Sea, with the deapthes.”¹¹⁶ Hakluyt’s associate Cyprian Lucar provided instructions and illustrations for mapping with the table in his *Lucarsolace* (1590), and because the text included the names and locations of some vendors around London who sold the apparatus and its accoutrements, they must have been fairly common at the time.¹¹⁷ By making use of Gilbert’s maneuverable pinnaces near the coast and standard surveying practices on land, Bavin could determine the location of and space between two points on a baseline. Using the angles created by these positions and a third point on land, he could calculate the distance to that point and thus map the triangular-shaped area. By continually repeating these few, simple steps, Bavin would produce “sondrye particuler cards of .4. shetes of paper Royall” measuring upwards of eleven square feet in area. Gilbert provided two varieties of binding material to fuse the sheets together: mouth glue, a type of viscid adhesive made from sugar that formed a secure bond when moistened by the tongue, and a simple gum composed of tree

¹¹⁵ Gerard L’Estrange Turner, *Scientific Instruments, 1500-1900: An Introduction* (London: Philip Wilson, 1998), 43-44

¹¹⁶ Borough, *Discovrs of Cumpas*, *3r-*4r.

¹¹⁷ Cyprian Lvcар, *A Treatise Named Lvcарsolace Devided into Fovver Bookes, which in part are collected out of diuerse authors in diuerse languages, and in part deuised by Cyprian Lvcар Gentleman* (London: Richard Field, 1590), 9-20, 42-45.

sap.¹¹⁸ Although Gilbert had to expend more of his limited resources to acquire surveying tools, expensive paper, and binding materials, they would allow for exceptional detail and precision on Bavin's maps.

Gilbert's efforts would have been in vain if investors, Elizabeth, and Privy Counselors were unable to interpret the content of each map, so his circle devised England's first verifiable legend of cartographic symbols to systematically display Norumbega's features (fig. 9). It included marks for woods, hills, rocks, and the presence of channels, shelves, and rocks in rivers. Bavin would indicate the latitude and longitude of notable locations, the depths of water in fathoms, and land distances in feet, all of which would be verified by his assistants. The legend even contained specific symbols for indicating variation, declination, and rectified compass readings based upon Borough's and Norman's instruments. Gilbert insisted that Bavin maintain the same scale on each map to promote uniformity and that he save time by only drawing lines of latitude and longitude when all of his maps were complete.¹¹⁹

Meticulously plotting Norumbega's features would have made it clear to anyone viewing the maps that Gilbert held authority there, as such exactness "codifies

¹¹⁸ BL, Add. MS 38823, ff. 3v, 5r; LE Turner, *Scientific Instruments*, 43-44; Moran, "Renaissance Surveying Techniques," 163; on the triangulation mapping method, see Valentine Leigh. *The Moste Profitable and commendable Science, of Surveiyng of Landes, Tenementes, and Herditamentes: drawen and collected by the industrie of Valentine Leigh. Whereunto is also annexed by the same auctor, a right necessarie treatise, of the measuryng of all kindes of Landes, be it Meadowe, Pasture, Errable, Woodde, Hill, or Dale, and that aswell by certaine easie, and compendious Rules, as also by an exacte and beneficiall Table, purposely drawen and deuised for that behalfe. Newly Imprinted and corrected* (London: Andrewe Maunsell, 1578), O3r-P2r; Lvcarr, *Lvcarsolace*, 9-20, 50; Sloan et al., *A New World*, 104-5.

¹¹⁹ BL, Add. MS 38823, ff. 3v-5v.

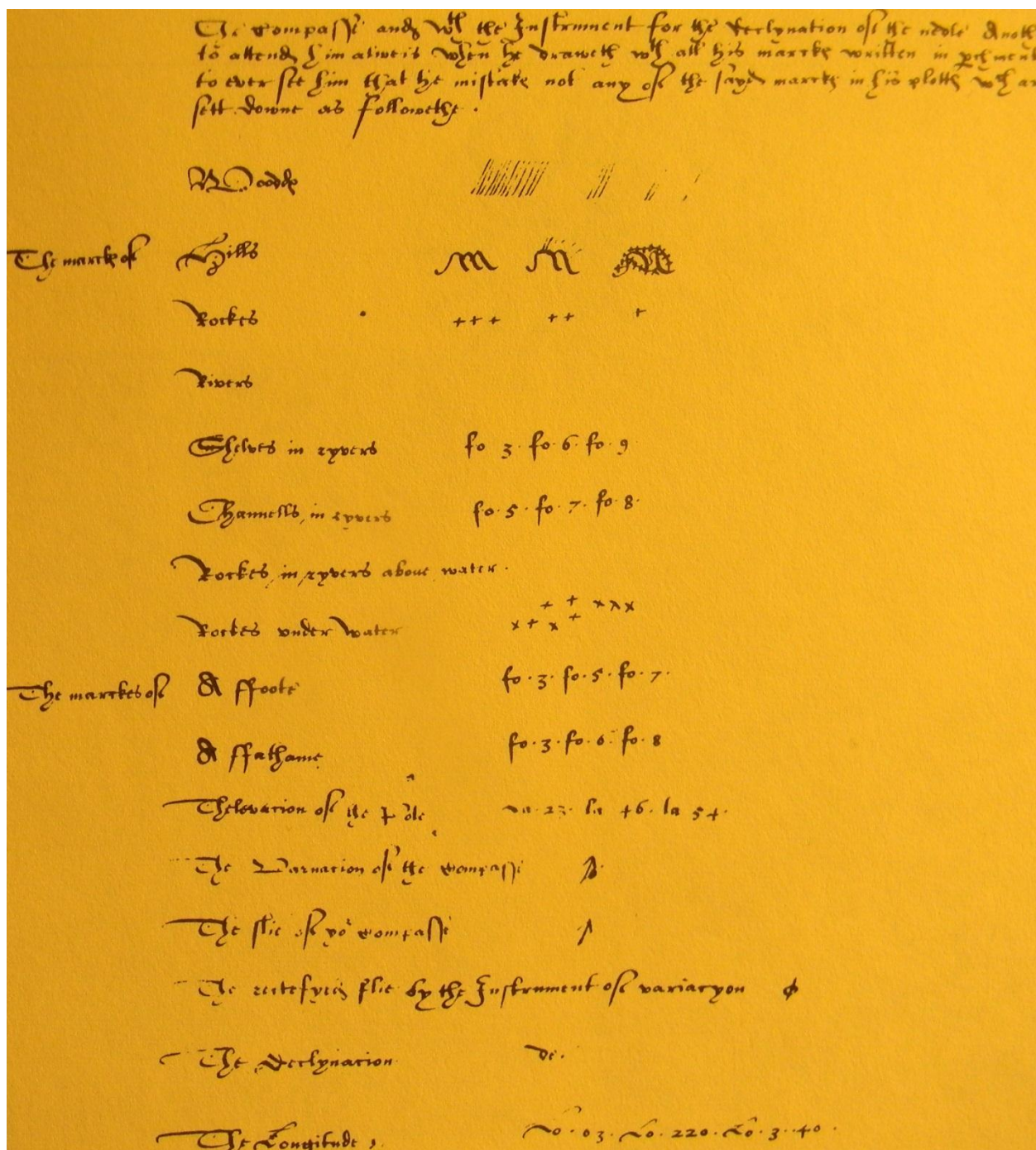


FIGURE 9. Anonymous legend of map symbols in "Instructions for an expedition," 1582. London, British Library, Additional MS 38823, f. 2r. From Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, plate no. 111a.

domination.”¹²⁰ Matthew H. Edney opens his study of mapping the British Empire in India with the observation that “[i]mperialism and mapmaking intersect in the most basic manner. Both are fundamentally concerned with territory and knowledge.”¹²¹ Much like cartographers attempted to assert their authority by ascribing new toponyms to mapped territories, they sought to convey their knowledge of, and thus control over, that area by scrupulously surveying it. As Lesley Cormack has noted, English expansionists held an assumption that North America could be mathematically measured and named, and therefore possessed and controlled.¹²² Bavin’s mapping comprised the initial steps in this process, and he and Gilbert believed that they had better skills to map the land than indigenous peoples or other Europeans. They thought that this made them more fit to exploit the region. Gilbert’s maps would strengthen his claim to Norumbega and provide his supporters in England with a comprehensive view of the colony and its hinterland.

In August 1583, Bavin began crafting his grand map of the Atlantic coast at Newfoundland rather than Florida, because Gilbert’s dearth of provisions and the lateness of the sailing season forced him to take the quicker northern route across the Atlantic. At St. John’s, Bavin and other crewmen “observed the eleuation of the pole, and drewe plattes of the countrey exactly graded” with latitude and longitude.¹²³ Hayes reported that the mapping continued at sea between Cape Race and Sable Island, so that “thereby the flats and dangers may be inserted in sea Cards, for warning to others that may follow

¹²⁰ Bruce McLeod, *The Geography of Empire in English Literature, 1580-1745* (Cambridge: Cambridge University Press, 1999), 229-33, quotation at 232; see Klinghoffer, *Power of Projections*, 32.

¹²¹ Matthew H. Edney, *Mapping and Empire: The Geographical Construction of British India, 1765-1843* (Chicago: University of Chicago Press, 1997), 1.

¹²² Cormack, *Charting an Empire*, 7-16.

¹²³ Hayes, “report of Gilbert,” 688.

the same course hereafter.”¹²⁴ Gilbert clearly wanted his maps to benefit supporting voyages for his colony and perhaps ensuing English colonizing ventures. Unfortunately, Bavin’s maps were amongst the “cards and plots...drawing [drawn], with the due gradation of the harbors, bays, & capes” that perished with the *Delight*, along with Gilbert’s books and notes, which grieved him even more than the loss of his ship and eighty crewmen.¹²⁵ The tragedy prompted Gilbert to abandon the expedition, and other maps may have gone down with him when his *Squirrel* capsized north of the Azores.

5. Conclusion

On May 3, 2012, researchers from North Carolina’s First Colony Foundation and the British Museum in London announced the discovery of two previously hidden images on the late sixteenth century “La Virginea Pars” map (fig. 10) of Walter Raleigh’s Roanoke Colony. Using a variety of non-destructive, transmitted light techniques, a team of conservationists, curators, and scientists determined that a patch near the bottom of the map hides a portion of the coast that was redrawn. The other patch covers a red and blue, four-sided *trace italienne* (star fort) at the fork of the Chowan and Roanoke Rivers. The fort may have been the destination of Roanoke’s famed “Lost Colonists,” who were last seen in 1587, and further examination of the map could provide clues to solving one of

¹²⁴ Hayes, “report of Gilbert,” 691. By flats and dangers, Hayes probably meant shallows, shoals, and other impediments.

¹²⁵ Hayes, “report of Gilbert,” 688-93.



FIGURE 10. John White and Thomas Hariot, "La Virginia Pars," 1587. British Museum, Department of Prints and Drawings, 1906, 0509.1.3. From Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, plate no. 94.

the great mysteries of English colonization history.¹²⁶

Raleigh learned much about colonization while sailing on the expeditions of his elder half-brother, and Gilbert's legacy lived on at Raleigh's Roanoke colony in a number of ways, from its location at the mid-latitudes of North America to the thorough ethnographic studies of Algonquian culture conducted by Thomas Hariot. In place of Bavin, Raleigh enlisted Hariot and John White to map his new colony. Within weeks of their landing in September 1585, they made a preliminary sketch of the Roanoke region, the earliest extant map completed in the Americas by an Englishman.¹²⁷ Over the next two years the duo created the "La Virginea Pars" map and a detailed map of the eastern coastline. The latter displays Raleigh's ships off of the coast, and the cartographers distended the Roanoke region to magnify Raleigh's colony, much as Lok had narrowed the Atlantic to make North America more attractive. In the extreme northeastern corner of their map, Hariot and White included Gilbert's "Noram[bega]," which is cut off by the map's edge. The other map is an exceptionally exact depiction of Roanoke and its surroundings, complete with a scale of leagues, indications of shoals, and several Native American place names. The amended coastline epitomizes the cartographers' concern for accuracy, and seven of Raleigh's ships, his arms, and the royal arms firmly established

¹²⁶ British Museum (hereafter BM), Department of Prints and Drawings (hereafter DPD), 1906,0509.1.3; Janet Ambers, et al. "Examination of patches on a map of the east coast of North American by John White ("La Virginea Pars"; 1906,0509.1.3)," The British Museum Department of Conservation and Scientific Research (CSR Analytical Request No. AR2012-21). http://www.britishmuseum.org/csrmellonpdfs/AR2012-21_u.pdf.

¹²⁷ TNA, MPG 1/584.

ownership of the land.¹²⁸ Just as Gilbert had intended, Raleigh's maps supported his claim to the area and advertised his colony to the English public.

When Gilbert began preparing his expedition in 1580, England controlled no territory beyond the British Isles and North America remained a largely unknown land. Within fifty years thousands of English people had ventured west, and maps played a significant role in this exodus. For Raleigh, maps made his colony known in England and supported his authority in the region. Through the early seventeenth century, Jamestown investors issued an array of promotional works that contained maps, which supplemented each text and served as visual proof of the colony's success.¹²⁹ Gilbert helped engender this chain of advances in map usage, though he was hardly alone in improving England's map consciousness. Gilbert, Dee, Hakluyt, and their associates were taking part in a far-reaching transition that expanded well beyond a single expedition, as English cartography rapidly advanced at the end of the sixteenth century.¹³⁰

Yet their specific actions broadened the functions of maps and revived England's endeavor to colonize the Americas. No longer would explorers rely solely upon foreign

¹²⁸ BM, DPD, 1906, 0509.1.3; BM, DPD, 1906, 0509.1.2; see Paul Hulton, *America 1585: The Complete Drawings of John White* (Chapel Hill, UK, and London: University of North Carolina Press and British Museum Publications, 1984), 9, 33; Baldwin, "Colonial Cartography," 1765-66; Sloan, *A New World*, 96-97, 104-5.

¹²⁹ John Smith, *A Map of Virginia. With A Description of the Covntrey, the Commodities, People, Government and Religion* (Oxford: Joseph Barnes, 1612), *4v-*5v; John Smith, *The Generall Historie of Virginia, New-England and the Summer Isles with the names of the Adventurers, Planters, and Governours from their first beginning An: 1584 to this present 1624* (London: Iohn Dawson and Iohn Haviland, 1624), 21-22, 40-41, 102-3.

¹³⁰ See Catherine Delano-Smith and Roger J.P. Kain, *English Maps: A History* (Toronto: University of Toronto Press, 1999), 49-111; P.D.A. Harvey, *Maps in Tudor England* (Chicago: University of Chicago Press, 1993); Sarah Tyacke, ed., *English Map-Making: 1500-1650* (London: British Library, 1983); Baldwin, "Colonial Cartography"; Barber, "Monarchs, Ministers, and Maps"; Helgerson, *Forms of Nationhood*, 107-47; Gillies, *Shakespeare and geography*; Klein, *Maps and Space*; Sanford, *Maps and Memory*; Smith, *Cartographic Imagination*.

charts to direct their voyages. The expedition's premature attempt to use navigational instruments to improve mapping also foreshadowed the cartographic advances of the next century. Gilbert's promotional maps presented North America as the ideal land to accommodate the English expansion that soon followed. He showed the versatility of maps in their ability to convey vital information back to England and to solicit the support of investors and the crown. That Gilbert failed to establish his colony makes it easy to discount his expedition, but he clearly helped establish cartography as a fundamental component of colonization.

Chapter Four

“a man noted of not good happ by sea”: The Nautical Science of Gilbert’s Expedition

How beneficiall the Art and exercise of Nauigation is to this Realme, there is no man so simple but sees, by meanes whereof we beeyng seclused and diuided from the rest of the worlde, are not withstandyng as it were Citizens of the worlde, walking through euery corner, and round about the same, and enioiying all the commodities of the worlde.

-Robert Norman, 1581¹

Introduction

Four months prior to his departure in February 1583, Gilbert wrote to the primary patron for his voyages, Secretary of State Sir Francis Walsingham. Gilbert explained that adverse weather had caused his extended delays, and he protested Elizabeth’s attempt to prevent him from sailing with the expedition. As a faithful subject who acted for the benefit of England and the honor of its queen, wrote Gilbert, he had called off his first expedition rather than pirate with his mutinous crew. Now, contrary winds brought about by God alone prevented him from sailing, and Gilbert reminded Walsingham that Elizabeth would receive one fifth of all precious metals acquired during the expedition. He took great offense that the Queen had called him “a man noted of not good happ (fortune) by sea,” and he professed that “[y]ff the dowbte bee my wante of skill to

¹ Norman, *newe Attractiue*, A3r.

execute the same (the voyage) I will offer my selfe to bee opposed, by all the best navigatoures, and Cosmographes within this realme.”²

Even though the brash explorer was willing to pit himself against the best navigators in England, Gilbert lacked the nautical experience of more famous Elizabethan seamen like Sir Francis Drake and Sir Martin Frobisher. Moreover, boasting to be the best navigator in late Tudor England was not as impressive as it sounds; English mariners lagged well behind their Spanish, Portuguese, Dutch, and French counterparts in terms of sailing prowess. By 1580, only a handful of English captains not involved in the Newfoundland or Iceland fisheries had ventured into the open Atlantic, while the Iberians had been making transatlantic passages for nearly a century. Gilbert had sailed throughout the English Channel and the Irish and Celtic Seas during his lengthy military career, but these were known waters. Navigating safely across the turbulent Atlantic to uncharted shores required more precise knowledge of ocean currents, winds, and North American geography.

In light of the challenges presented by transoceanic travel, Gilbert and his supporters sought out the most up-to-date navigational texts, instruments, and techniques to help them reach Norumbega. Much as university trained experts like John Dee and Richard Hakluyt proved instrumental in promoting the expedition, the research and sailing experience of accomplished explorers like William Borough and Robert Norman provided Gilbert’s circle with the tools to sail across the often unpredictable North Atlantic. Their texts explained variant ways to determine one’s position at sea, and the navigational manuals of mathematician William Bourne offered novel methods for

² TNA, SP 12/158, f. 162r-v.

determining longitude. These men had the practical nautical expertise that Gilbert lacked, and together with the first-hand knowledge of North America provided by Simão Fernandes, John Walker, and Anthony Parkhurst, they supplied Gilbert's crew with crucial information for their transatlantic voyage.

The standard historical analysis of early modern English nautical science remains David Waters's wide-ranging and groundbreaking study, *The Art of Navigation in Elizabethan and Early Stuart Times*. In the fifty-five years since Waters published his book, scholars have expanded upon his research to create a relatively clear picture of how Elizabethans navigated the open seas.³ Eric Ash has posited that the "development of navigational technologies founded upon mathematics and astronomy" was the single

³ Rodger, "Atlantic Seafaring," 71-86; Ash, "Navigation Techniques and Practice," 509-27; Seymour, *Transformation of North Atlantic*, 37-58; Bradley, *British Maritime Enterprise*, 8-20; J.H. Andrews, *Maps in Those Days: Cartographic Methods Before 1850* (Dublin: Four Courts Press, 2009), 85-121; W.F.J. Mörzner Bruyns, *Sextants at Greenwich: A Catalogue of the Mariner's Quadrants, Mariner's Astrolabes, Cross-staffs, Backstaffs, Octants, Sextants, Quintants, Reflecting Circles, and Artificial Horizons in the National Maritime Museum, Greenwich* (Oxford: Oxford University Press and the National Maritime Museum, 2009), 3-7; Lawrence C. Wroth, *The Way of a Ship: An Essay on the Literature of Navigation Science along with Some American Contributions to the Art of Navigation, 1519-1802*, ed. John B. Hattendorf (Providence: John Carter Brown Library, 2011), 27-104; E.G.R. Taylor, *The Haven-Finding Art: The History of Navigation from Odysseus to Captain Cook* (London: Hollis & Carter, 1956); See Deborah E. Harkness, *The Jewel House: Elizabethan London and the Scientific Revolution* (New Haven, CT, and London: Yale University Press, 2007), 97-141; Iberian Navigational advances are also well covered. See María M. Portuondo, *Secret Science: Spanish Cosmography and the New World* (Chicago: Chicago University Press, 2009); Alison Sandman, "Controlling Knowledge: Navigation, Cartography, and Secrecy in the Early Modern Spanish Atlantic," in *Science and Empire in the Atlantic World*, ed. James Delbourgo and Nicholas Dew (New York: Routledge, 2008), 31-51; William Eamon and Victor Navarro Brotóns, eds., *Beyond the Black Legend: Spain and the Scientific Revolution/ Mas allá de la Leyenda Negra: España y la Revolución Científica* (Valencia: Soler, 2007); Daniela Bleichmar et al., eds., *Science in the Spanish and Portuguese Empires, 1500-1800* (Stanford, CA: Stanford University Press, 2009); Jorge Cañizares-Esguerra, *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World* (Stanford, CA: Stanford University Press, 2006).

most important advancement that allowed English navigators to break free from minor bodies of water like the Bay of Biscay, the English Channel, and the North Sea to venture across vast oceans.⁴ For most of the sixteenth century, English pilots were confined to waters in which they had sailed before. Their empirical knowledge of coastlines, shoals, and winds in the seas around Western Europe were of no use in the waters near North America, but by 1570 new, scientific nautical practices permitted mariners to navigate seas that they had never encountered before. Their sailing instruments and techniques are fairly well defined, and yet the processes by which navigators experimented with new apparatuses and transformed theoretical concepts into applied procedure remain relatively unclear.⁵ Examining the instructions for Gilbert's voyage makes evident some of the texts that he and his supporters read in preparation for their sea passage. In turn, this analysis creates a clearer picture of the groundwork for the expedition and similar voyages. Just a sampling of Gilbert's sources can be ascertained using this method, but it is obvious that his circle read through a large amount of material in the months before the voyage left England.

Owing to Gilbert's failures in 1578 and 1583, and due to an apparent lack of evidence, scholars often regard him as a poor navigator and view the shipwrecks that ended his final voyage as the predictable outcome for a Gilbert-led expedition. Beginning with his own chief navigator Richard Clarke, who blamed Gilbert for the

⁴ Eric H. Ash, *Power, Knowledge, and Expertise in Elizabethan England* (Baltimore and London: Johns Hopkins University Press, 2004), 89.

⁵ Works that broach this topic include Robert D. Hicks, *Voyage to Jamestown: Practical Navigation in the Age of Discovery* (Annapolis, MD: Naval Institute Press, 2011); Scammell, *Ships, Oceans and Empire*, essay 4, 357-76.

wreck of the *Delight* in 1583, print has not been kind to the sea captain.⁶ Shifting my focus from Gilbert's personal navigational abilities to the accumulated knowledge of his group provides appreciably more information about the state of navigational science in Tudor England. Taking after Susan Rose's scholarship, I contend that Gilbert and his supporters began employing a more scientific approach to seamanship. Previous English explorers relied almost singularly upon their personal naval experience, but Gilbert's circle advanced the use of mathematical estimations and astronomy for navigation, which foreshadowed the scientific advances of the following century. Although Gilbert's crew was operating quite early during this transition phase, they planned to utilize the latest navigational devices and techniques during their voyage. Gilbert and his contemporaries had available a number of printed navigational manuals, and my study examines some of the many texts and manuscripts that they probably consulted.⁷ The new navigational methods were hardly straightforward and were often tedious, leading Rose to admire the Elizabethan navigators who absorbed the extensive information required to master the techniques.⁸ Gilbert's research failed to save his crew from shipwreck, but he and his supporters attained a thorough command of transatlantic travel.

2. The Navigational Literature of Gilbert's Circle

⁶ Clarke, "relation of Clarke," 700; see Taylor, *Haven-Finding Art*, 208.

⁷ Susan Rose, "Mathematics and the Art of Navigation: The Advance of Scientific Seamanship in Elizabethan England," *Transactions of the Royal Historical Society* 14, Sixth Series (2004): 175-84.

⁸ Rose, "Mathematics," 181.

Gilbert's most important supplier of nautical information was undoubtedly John Dee, whose knowledge and personal library (*Bibliotheca Mortlacensis*) set him apart as England's best source for navigational information. Gilbert, the Hakluyts, Ingram, Peckham, and other members of the expedition visited Dee numerous times between 1580 and 1583, and though Dee rarely recorded the nature of their talks, his writings and expertise indicate that navigation was probably among their discussion topics.⁹ William Sherman has shown that Dee's home, which the great mathematician christened "the Mortlake hospice for wandering philosophers," functioned as a laboratory, a museum, an academy, and an "early modern think tank" all rolled into one. Scholars from around England and other parts of Europe frequented Mortlake to consult Dee and his texts and to use his instruments.¹⁰ His collection included compasses, clocks, loadstones, Mercator's terrestrial and celestial globes, and England's first brass astronomer's staff.¹¹

By the early 1580s, Dee had accumulated one of the largest libraries in Europe, both in terms of the diversity and the breadth of his books and manuscripts, which numbered far greater than the libraries at Oxford or his alma mater, Cambridge.¹² When Dee catalogued his library in 1583, he owned 4000 books, which, he estimated, were worth more than £2000.¹³ The list that he compiled had only one special section: "Historici libri ad navigationem pertinetes. Compacti" (History books pertaining to navigation. Compacted), which comprised thirty-three books that he used for instructing

⁹ Dee, *Diary*, 3-17.

¹⁰ William H. Sherman, "The place of reading in the English Renaissance: John Dee revisited," in *The practice and representation of reading in England*, ed. James Raven, Helen Small, and Naomi Tadmor (Cambridge: Cambridge University Press, 1996), 62-76, quote at 67.

¹¹ BL, Cotton MS Vitellius C. VII, ff. 3r, 9r-10r.

¹² See French, *Dee Magus*, 44-45.

¹³ BL, Cotton MS Vitellius C. VII, f. 9r.

English navigators.¹⁴ The texts included Gilbert's *discourse*, a book that Dee regarded highly and which was among the select few of his works that he took on his continental travels in 1583.¹⁵ The section also contained Florio's translation of Cartier (1320), George Best's account of Frobisher's voyages (1319), and Hernán Cortés's 1524 account New Spain (1302). In addition to this subset, Dee named other navigational manuscripts and books throughout his catalogue, many of which could have provided Gilbert with significant information on navigating the North Atlantic. Among the most noteworthy were William Bourne's 1578 *Treasure for Travellers* (1689), works by Ortelius and Mercator (211, 213), and several tracts by Thévet (238, 346, 1096).

Uncovering details about Gilbert's personal library is more difficult, but he clearly owned several maps and books, including some navigational texts. Gilbert's contemporary John Hooker wrote at length about the navigator's "excellent and readie wit," recalling that Gilbert immediately resumed his "studies pertaining to the state of gouvernement, and to nauigations" after he returned from Ireland in the late 1560s. According to Hooker, Gilbert "had a great delight in the studie of cosmographie, and especiallie in nauigations; and finding out by his studies, certeine nations and vnknowne lands, which being found, might redound to the great benefit of his countrie."¹⁶ Another of his contemporaries, William Camden, called Gilbert "a man acute and deliberate, esteemed industrious both in Peace and Warre."¹⁷

¹⁴ Roberts and Watson, eds., *Dee's Catalogue*, 69-71 (nos. 1301-1333). The numbered books in my text correspond with Roberts and Watson's numbering system.

¹⁵ Roberts and Watson, eds., *Dee's Catalogue*, no. 1318, and pg. 49.

¹⁶ Holinshed and Hooker, *Second volume of Chronicles*, bk. 2, 133.

¹⁷ Camden, *Annales*, bk. 3, 44.

Gilbert put his studies to use in penning his 1566 *discourse*, and a number of English writers commented upon its erudition after it was printed in 1576. Thomas Churchyard referred to Gilbert as “a verie wise and learned Gentleman,” and Richard Willes called him “a learned and valiant Knyght.”¹⁸ When he set out to write his *discourse*, Gilbert “perused & diligently scanned the descriptions of *Europe, Asia, Afrike*,” and he studied “Mappes, Globes, Cosmographicall tables, and discourses.”¹⁹ Whilst completing his little book, he engaged in a debate before the Queen with Anthony Jenkinson. Gilbert cited various accounts in advocating the existence of a Northwest Passage, while Jenkinson argued that a Northeast Passage was more likely.²⁰

Gilbert’s blueprint for an academy for wards made it clear that he wanted English boys to learn about shipbuilding, navigation, mathematics, and cartography. He also believed that they should receive training in the traditional humanities, and he apparently read numerous texts on his own.²¹ In 1575, Gilbert invited George Gascoigne into the study of his Limehouse home, where he showed him “sundrie profitable and verie cōmendable exercises...perfected painefully with his owne penne.” These works included the manuscript for Gilbert’s *discourse* and perhaps other navigational and cosmographical texts.²² That year, Gilbert, Sir Arthur Basset, and Dr. Richard Tremayne

¹⁸ Churchyard, *Prayse and Reporte*, B3r; Martyr, *History of Trauayle*, trans. Eden and VVilles, 231; see Bartholomaeus Anglicus, *Batman vppon Bartholome his booke De Proprietatibus Rerum, Newly corrected, enlarged and amended: with such Additions as are requisite, vnto euery seuerall Booke: Taken foorth of the most approued Authors, the like heretofore not translated in English. Profitable for all Estates, as well for the benefite of the Mind as the Bodie* (London: Thomas East, 1582), 232v; Enciso, *Description of Weast India*, A2r.

¹⁹ Gilbert, *Discourse*, B1r, C1r.

²⁰ TNA, SP 12/36, ff. 134r-135r; 12/41, f. 3r; 12/42, ff. 16r, 18r-v, 53r.

²¹ BL, Lans. MS 98, ff. 1r-7v.

²² Gilbert, *Discourse*, ¶¶1v-¶¶2r.

received word of the return of some books that the three men had loaned to the Cardinal and eventual King of Portugal, Henry the Chaste.²³ The nature of the texts was not disclosed, but Gilbert apparently was circulating his books years prior to his voyages.

As Gilbert began preparing for final his expedition in April 1580, he again attempted to retrieve some of his books. He had spent much of the previous year in Ireland trying to capture the military leader James Fitzmaurice Fitzgerald, and some of his books remained there aboard his ship *Relief*, which was still being used against the Irish.²⁴ Gilbert petitioned the Privy Council for the return of his ship and its cargo, but by mid-1581 he was still seeking £575 from the government as recompense for his service.²⁵ He obviously needed the ship for his upcoming voyage. Additionally, one “Frier,” the ship’s master, retained “certaine bookes of navigacyon and [books by] other Sea ryters” that belonged to Gilbert. Frier had written two of the said works, which were practical navigational texts, but Gilbert claimed them and the others as his own. Thomas Wilson, one of Elizabeth’s top two principal secretaries and “the very frind” of Gilbert, enlisted sea captain Augustine Clarke to confiscate the works.²⁶ Wilson endowed Clarke with the authority to arrest Frier if he resisted. Once Clarke seized the books, he was not to let

²³ TNA, PC 2/10, f. 379. Only Gilbert is mentioned by name, but his associates were certainly Sir Arthur Basset (1540-1586) of Tehidy, UMBERLEIGH, and Heaton Court. The “mr Doctor Tremaine” refers to Dr. Richard Tremayne, fellow of Devonshire and a Grenville relative. The recipient could only have been Henry, as he is referred to as the Portuguese King’s uncle, referring to King Sebastian “the Desired,” the grand-nephew of Henry. Richard’s brother Edmund, clerk of the Privy Council wrote to Lord Burghley concerning Gilbert’s first voyage, so the families were probably connected. For Edmund’s letter, see Quinn, Quinn, and Hillier eds., *New American World*, vol. 3, 193.

²⁴ TNA, SP 12/132, f. 59r; TNA, SP, 63/71, f. 11r.

²⁵ TNA, SP 12/149, f. 154r; TNA, SP 63/69, f. 138r-v.

²⁶ Clarke is an obscure figure, who sailed with Thomas Seckford’s brother Henry, a known pirate. See Seckford’s letter to Clarke on February 5, 1579 in BL, Lans. MS 44, f. 44r; Wilson, like Gilbert, matriculated at Eton.

Frier “or any other have the use or sight of them.”²⁷ These texts clearly contained vital navigational information that Gilbert needed for his voyage and that he intended to keep secret.

Frier’s identity may help explain why Gilbert held the information in his books with such high regard. Lisbon merchant Peter Frier (Fryer, Freire) and his brother Barnard Luis Frier of London were prominent late sixteenth century merchants who traded throughout western Europe and beyond. As early as 1569, the brothers received the support of English merchants trading into Spain, who petitioned the Privy Council for permission for the brothers to “enjoy all suche debts, gooddes, and merchandizes as they have here in England.” Thirty-one prominent merchants, whom the brothers had helped in various ways, signed the petition, so by this early date they already had gained the loyalty of their counterparts in England.²⁸ In light of Frier’s extensive sailing experience, it makes sense that Gilbert would have worked so diligently to recover his navigational texts.

Over the course of their careers, navigators like Gilbert amassed an assortment of navigational books and often wrote their own texts to serve as the basis for their voyages. Most of these works were standard enough, but as the Frier case shows, other books contained information that could compromise a voyage or even threaten national security. Between Gilbert, Dee, Hakluyt, and their associates, the members of the expedition had a number of navigational resources at their disposal. Books and manuscripts provided them with vital information about crossing the Atlantic, since few men in England had sailing experience beyond the waters of Europe. As Gilbert and his supporters began

²⁷ BL, Lans. MS 144, f. 384r.

²⁸ TNA, SP 15/14, f. 149r.

preparing their voyage in 1580, English authors were busy preparing and printing a number of texts that would help shape the course of Gilbert's expedition.

3. Robert Norman's *newe Attractiue* and William Borough's *Discovrs of the Cumpas*:

New Navigational Texts and Instruments

At the National Archives of the United Kingdom, there is an intriguing document from 1580 describing an instrument that purports to find latitude and longitude at any time at sea or on land using the sun or stars. The anonymous author attests to the ease of navigation in a northerly or southerly direction but reminds his audience that the great difficulty of gauging longitude had confounded "seafaring philosophers, cosmographers and Astronomers" for a century. He claims that through lengthy study, immense hardships, and great costs, a man had devised an instrument to determine accurate longitude, as well as latitude. Even if a pilot "had ben carelesse and slepte all his voyadge," the device allowed longitude to be accurately discerned for inclusion on sea charts. Indeed, the writer boasts that the tool would correct current maps, many of which erred in their coordinates by four degrees or more. It also would be a boon to navies and ocean crossing fleets, which, after separating in the open sea, needed to know their longitude in order to reassemble. The inventor flattered his audience by calling English sailors "the onelie great navigatours of the worlde." He intended to present the device to Elizabeth and her council, and he agreed to instruct them and others in its use.²⁹

²⁹ TNA, SP 12/146, f. 118r.

As the only Elizabethan known to have devised a mechanism for finding longitude, Robert Norman was probably responsible for the above document. Of unknown origins, Norman spent two decades at sea learning the art of navigation before coming to the attention of experienced pilot William Borough and settling down in the late 1570s as an instrument maker and self-styled “hydrographer.”³⁰ Since Borough probably co-authored the instructions for Gilbert’s expedition, he may have been responsible for enlightening Gilbert and his circle about Norman’s work. Additionally, Norman’s workshop at Ratcliff, which is just east of London on the Thames, was adjacent to the great science center of Limehouse. Gilbert and his wife Anne lived there from 1573 to 1578 and intermittently thereafter in order to be near the docks and the shipbuilding district.³¹ At his workshop, Norman fabricated both standard and variation compasses, including the twelve that he sold to Frobisher for 2£ 8s for his 1578 voyage.³²

Norman’s first printed work appeared on May 27, 1581. He wrote an editor’s dedication to Francis Drake for Robert Jean de Cartigny’s *Voyage du chevalier errant*, which was translated by Southampton merchant William Goodyear and titled *The voyage of the wandering knight*.³³ Norman knew Dutch navigational techniques quite well, as

³⁰ Norman, *newe Attractiue*, E3v; Rom Harré, *Great Science Experiments: Twenty Experiments that Changed our View of the World* (Oxford, UK: Phaidon, 1981; reprint 2002), 49-50; Alan Gurney, *Compass: A Story of Exploration and Innovation* (New York: W.W. Norton, 2004), 60-65; Taylor, *Tudor Geography*, 42; Norman may have spent time at Seville, the great European navigation center, but this can not be substantiated by any source.

³¹ On Lime Street and Limehouse, see Harkness, *Jewel House*, 15-56; on Gilbert’s homes, see Helen Hill Miller, *Captains from Devon: The Great Elizabethan Seafarers who Won the Oceans for England* (Chapel Hill: Algonquin Books, 1985), 58.

³² HL, MS 715, f. 10r.

³³ Jean de Cartigny, *The Voyage of the wandering Knight. Devised by Iohn Carthenie, a Frenchman*, trans. William Goodyear (London: Thomas East, 1581). It was reprinted often.

evidenced by his translation of Dutch engraver Cornelis Antoniszoon's popular *safeguard of Sailers*. The book included a few of Norman's own additions, detailed instructions for coastal navigation, and the first illustrations of a coastline from a pilot's perspective.³⁴

Like Borough and Dee, Norman also dabbled in cartography. His map of the Northeastern Atlantic from the Azores to Beachy Head reveals his precise knowledge of the area, and he probably made an extant map of Ireland's southwestern coast as well. In 1580, Norman meticulously mapped prominent sandbars and other hazards in the Greater Thames Estuary to prevent shipwrecks in this dangerous tideway.³⁵

Once Norman took up instrument making as his primary occupation, he had to compete with a well-established group of English and foreign craftsmen based in London. Among the most prominent of these instrument makers was Humfrey Cole, a sometimes cartographer, goldsmith, and die sinker who took part in all three Frobisher voyages. For the 1576 expedition, he provided various instruments, such as an astrolabe, an astronomer's ring, a cross-staff, a holometer, a meridian compass, and a universal dial.

³⁴ See Cornelis Antoniszoon, *The safeguard of Sailers, or great Rutter, Containing the Courses, Distances, Depthes, Soundings, Floudes and Ebbes, with the markes for the entring of sundrie Harboroughs, both of England, Fraunce, Spaine, Ireland, Flaunders, and the Soundes of Denmarke, with other necessarie Rules of common Nauigation*, trans. Robert Norman (London: Iohn Windet and Thomas Iudson, 1584). It was reprinted in 1587, 1590, 1600, 1605, 1612, 1632, 1640, 1656, and 1671.

³⁵ The northeast Atlantic map (1581) is at the Burghley House in Stamford, Lincolnshire; the Ireland map (ca. 1580-83) is BL, Cotton MS Augustus I.ii.27; the Thames map is HHA, CP Maps II/37a; see J.A. Bennett, "Robert Norman," in *ODNB*, vol. 41, 22-23; Waters, *Art of Navigation*, 153-56; Tyacke, "Chartmaking in England, 1738-39, 1748-49; Norman's chart of the Thames resembles the one created by Borough for the Frobisher expedition four years earlier. Norman may have drawn it for Gilbert, who made use of several other maps for the voyage and initially intended to embark from London. The outer Thames estuary was the most dangerous area of the voyage aside from the American coast. Gilbert also owned the Manor of Minster on the Isle of Sheppey, which was portrayed on the map, but it would have helped the navy or any merchants, adventurers, or other seamen. See TNA, SP 12/158, f. 148r; TNA, PC 2/13, f. 534.

Upon Frobisher's return, Cole repaired his tools so that they could be used during the second voyage, and he helped assay the fool's gold that Frobisher brought to England on his final voyage.³⁶ As a way to expand his clientele, Cole printed an advertisement in *A Discoverie of sundrie errors ... committed by Landemeaters* written by English surveyor Edward Worsop. The author made it known that he had drawn all of the illustrations in his book according to calculations derived from Cole's tools. Worsop concluded his text by directing his audience to purchase Cole's "[s]cales, compasses, and sundry sorts of Geometricall instruments in metall" at several locations around London in order to fully comprehend his work and to take their own measurements.³⁷

If Norman wished to contend with experienced instrument makers like Cole, he needed to create and subsequently advertise devices that would improve navigation. Norman's various types of compasses and his instrument to determine longitude would have benefitted any early modern navigator. He also devised an improved loadstone, the mineral that magnetized the iron needle within a magnetic compass. Operative loadstones were among a navigator's most valuable tools, and because the magnetic

³⁶ Silke Ackermann, "Humfrey Cole," in *ODNB*, vol. 12, 517; E.G.R. Taylor, *The Mathematical Practitioners of Tudor & Stuart England* (Cambridge: Cambridge University Press for the Institute of Navigation, 1954), 35; Cole also created a map of Palestine in 1572 to display his engraving skills for Lord Burghley.

³⁷ Edward Worsop, *A Discoverie of sundrie errors and faults daily committed by Landemeaters, ignorant of Arithmetike and Geometrie, to the damage, and preiudice of many her Maiesties subiects, with manifest proofed that none ought to be admitted to that function, but the learned practisoners of those Sciences* (London: Henrie Middleton, 1582), A4v. Cole's instruments were sold at his home near St. Pauls, John Bull's at the Exchange gate, John Reades's in Hosier Lane, James Lockerson's at Dow-gate, and John Reynolds's at Tower Hill.

attraction of the soft metal in a compass degraded over time, seamen required multiple stones for lengthy voyages.³⁸

As a way to entice buyers, Norman offered numerous demonstrations of his devices, and he also advertised them in print. Richard Madox and London surveyor Cyprian Lucar walked to Norman's workshop in 1580 to see a demonstration of his new magnetic dipping needle.³⁹ On February 19, 1582, Madox returned to Ratcliff with George Torporley, and Norman showed them "how the strength of his lodestone was increased."⁴⁰ Madox may have used these instruments just months later, when he served as chaplain and as one of the eight assistants for Fenton's voyage.⁴¹ Whether by Norman's suggestion or not, his instruments also received praise from William Bourne in his *Regiment for the Sea*, one of the most influential and widely printed navigational books of the Elizabethan era. Bourne commented that Norman had developed an indispensable navigational device set within a compass that allowed pilots to find compass variation by lining up due north with the direction that their ship was listing. He claimed that Norman's compass corrected the navigational problems typically caused by magnetic variation.⁴²

In 1581, Norman advertised his instruments in his own publication, *The Newe Attractive, Containyng a short discourse of the magnes or lodestone, and amongst other his vertues, of a newe discovered secret and subtil propertie, concerning the declinyng of the needle, touched therewith under the plaine of the horizon*. The title is a clever double

³⁸ See David W. Waters, "Elizabethan Navigation," in *Famous Voyage*, ed. Thrower, 17.

³⁹ Anita McConnell, "Cyprian Lucar," in *ODNB*, vol. 34, 662.

⁴⁰ Madox, *Diary*, 87.

⁴¹ John Bennell, "Richard Madox," in *ODNB*, vol. 36, 97.

⁴² Bourne, *Regiment for the Sea*, H4r, S3r; on Bourne, See Ash, *Power and Expertise*, 142-53.

entendre describing his text as literally drawing in, while emphasizing the magnetic attraction of his invention. Dubbed “one of the first truly scientific books ever published in England”⁴³ and “in a class by itself” as “the first original English work on the magnetic compass,”⁴⁴ Norman’s book presented mariners with a number of ways to improve navigation. The text’s popularity warranted reprints in 1585, 1592, 1596, and several years throughout the seventeenth century. The final early modern edition appeared in 1737 at about the same time that the first instrument to accurately measure longitude, the marine chronometer, was invented.⁴⁵ Gilbert’s coterie was very familiar with the text, and Norman’s writing affected how Gilbert planned to navigate the Atlantic.

Norman dedicated his book to Borough, who had encouraged him to pursue the declining of the needle, and though he cited Archimedes and Pythagoras in the epistle dedicatory, he still referred to himself as “an unlearned Mechanician” rather than a “learned Mathematician.”⁴⁶ Despite his lack of education, Norman’s text was the result of “sundrie experiments” which he had completed after framing “a Theorik with Hypotheses.”⁴⁷ Thus, his work constituted an important step in the origination of the scientific method. He believed that carefully observing the declining of the compass

⁴³ Waters, *Art of Navigation*, 153.

⁴⁴ Taylor, *Tudor Geography*, 42.

⁴⁵ The first edition probably had a fairly small print run, since only seven copies are known to exist. Dee did not list the book in his library catalogue but still may have owned it, since he named very few works in general printed in 1581 and 1582. Norman wrote approvingly of Dee’s *Euclid* in his book, and Dee normally owned all works that credited him. See Roberts and Watson, eds., *Dee’s Catalogue*, 34; Norman, *newe Attractiue*, B2r; Dee, “Mathematical Preface,” D4v.

⁴⁶ Norman, *newe Attractiue*, A2r-v.

⁴⁷ Norman, *newe Attractiue*, A3r.

needle toward the horizon would allow him to improve navigation, a theory that several of his mathematically-minded associates had corroborated.⁴⁸

In his text, Norman went out of his way to rebuke Thomas Digges, who in 1576 had written that mariners had as good a chance of determining longitude at sea as an ox had of flying between two mountain tops. In his *Prognostication euerlastinge*, Digges singled out the renowned Sebastian Cabot of all people, arguing that only university educated mathematicians like himself, as opposed to experienced seamen like Cabot, were qualified to make navigational hypotheses. He did not trust the calculations made by the “homelye instrumentes” of navigators, and he promised to devise a method of finding longitude that used eclipses.⁴⁹

Norman did not mention Digges by name in his text, because his lower social status in relation to Digges made such insults ill-advised. Still, his readers would have recognized the affront, since he denigrated those “learned in the Mathematicalls,” who felt that determining longitude was beyond the comprehension of a “Mechanicia[n] or

⁴⁸ Norman, *newe Attractiue*, A3v-B1r; Other works on the loadstone include Jean Taisnier, *A very necessarie and profitable Booke concerning Nauigation, compiled in Latin by Ioannes Taisnieri, a publike professor in Rome, Ferrara, & other Uniuersities in Italie of the Mathematicalles, named a treatise of continuall Motions*, trans. Richarde Eden (London: Richarde Iugge, 1584?), esp. *6r-A4r.

⁴⁹ Leonard and Thomas Digges, *A Prognostication euerlastinge of right good effecte fruitfully augmented by the auctour, contayning plaine, briefe, pleasaunt, chosen rules to iudge the weather by the Sunne, Moone, Starres, Comets, Rainebow, Thunder, Cloudes, with other extraordinary tokens, not omitting the Aspects of Planets, vvith a briefe iudgement for euer, of Plenty, Lacke, Sickenes, Dearth, VVarres &c. opening also many naturall causes vvorthy to be knowven. To these and other now at the last, are ioyned diuers Generall, pleasaunt tables, vvith manye compendious Rules, easye to be had in memory, manifolde vvayes profitable to al men of vnderstanding. Published by Leonard Digges Gentleman. Lately corrected and augmented by Thomas Digges his sonne* (London: Thomas Marsh, 1576), O4r-P1r.

Mariner” untrained in geometry and arithmetic.⁵⁰ Speaking directly to Digges, Norman bade “the learned to use modestie in publishing their concertes” instead of condemning men who dared to experiment in navigation. Norman vilified Digges for “promising muche and performyng little or nothing at all.” University educated men had knowledge of Latin and Greek, wrote Norman, but he and other seamen had the navigational experience to amend nautical science. Additionally, Norman indicated that works such as the English translation of Euclid’s *Elements*, Robert Record’s books on arithmetic, and other texts in English and “Vulgar languages” made important information available to uneducated mariners.⁵¹

Norman opened his book by describing the varieties and properties of the loadstone.⁵² He ascribed it magical properties and showed that magnetic attraction and repulsion were displayed by putting the stone in water. He cited the famed Martin Cortez’s *Arte de navigar* when discussing opinions on the magnetic pole, refuting the Spaniard’s claim that it lay “beyond the poles of the worlde, without all the moueable heauens.” He also repudiated Pedro de Medina, who blamed variation on navigators who attached wires to the fly of the compass. Nor did Norman believe his contemporaries who claimed that great rocks at the poles attracted the needle. For a self-described

⁵⁰ Norman, *newe Attractiue*, B1r-v; Stephen Johnston, “Making Mathematical Practice: Gentlemen, Practitioners, and Artisans in Elizabethan England” (PhD thesis, Cambridge University, 1994), 175-177.

⁵¹ Norman, *new Attractiue*, B2r; Record authored many books during the 1560s and 1570s, including *The ground of arts, teaching the perfect worke and practice of arithmetike tables of xc., xc., xc.* (London: R. Wolfe, 1573).

⁵² Norman’s poem was later printed on its own. See Norman, *The Magnes or Loadstones Challenge* (S.I. : s.n., 1585?).

uneducated navigator, Norman certainly knew much about the primary navigational texts of his day.⁵³

Norman conducted various experiments prior to printing his book, and he perceived that the magnetized needle of a vertically aligned compass did not show true north when attached to a free moving pivot. In and around England, it always pointed slightly to the east of north, a variation that he termed the dip or declination and which obviously hindered navigation. The dip is actually the gravitational pull toward earth's core, and Norman wanted to use it to find longitude.⁵⁴ Chinese polymath Shen Kuo was the first known person to recognize magnetic dip in 1088, but his findings did not reach Europe. In 1544, George Hartman became the first European to observe the dip, but his discoveries remained in manuscript and did not spread far afield. When Norman printed his work, English readers were introduced to magnetic declination for the first time.

Around 1580, Norman acquainted himself with some unnamed experts (probably including Borough), who encouraged him to make an instrument to discover the angle of the declining of the needle. Many experienced navigators felt that understanding magnetic declination would foster navigational improvements, and Norman decided to analytically measure the phenomenon by affixing a magnetized needle on a vertical plane, which would display the extent of the variation (fig. 11). By measuring the angular distance between the horizon and the needle, Norman could determine the dip at a given location. He postulated that finding the magnetic dip at different places would facilitate the measurement of latitudes and longitudes, and because his instrument did not

⁵³ Norman, *new Attractiue*, C3r-C4r.

⁵⁴ Cormack, "Mathematics and Empire," 190.

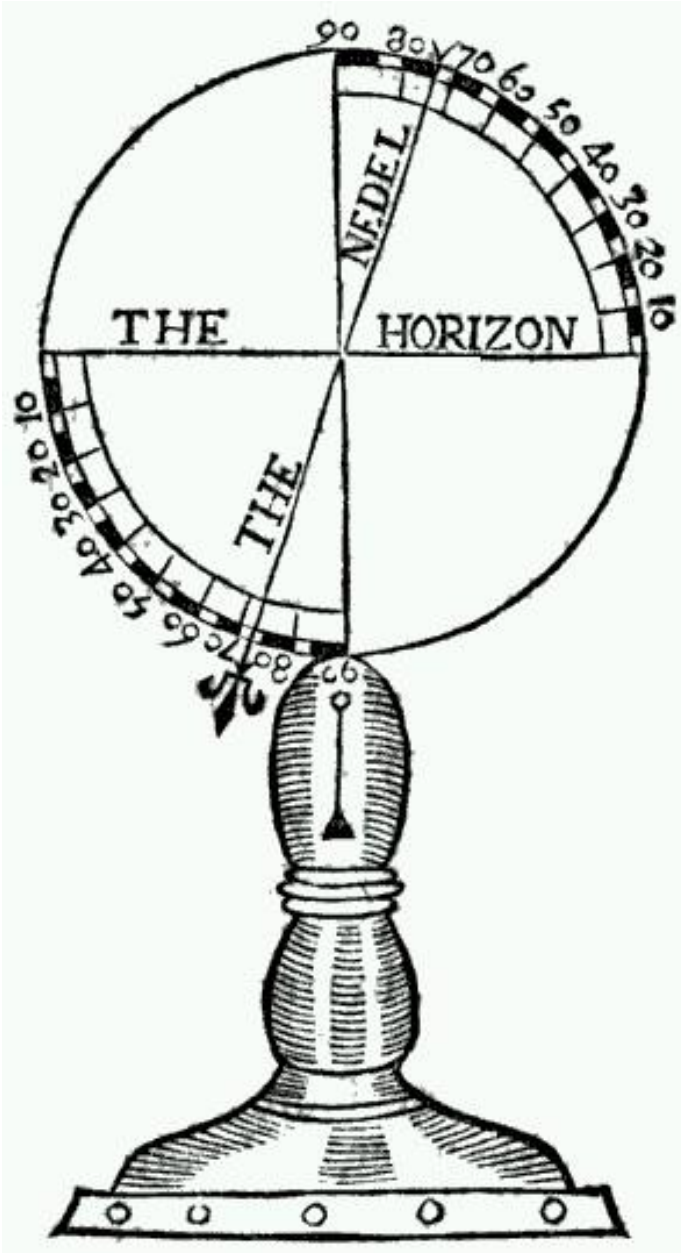


FIGURE11: Robert Norman's "Dip Circle." In Norman, *newe Attractiue* (1581), D1v. From Wikimedia Commons.

rely upon the sun, navigators could take the measurements at any time.⁵⁵ Using his instrument, Norman found London's declination to be 71 degrees, 50 minutes below the horizon.

Norman conducted an additional experiment to reveal declination for unconvinced observers. He placed a small metal spike through a cork and submerged it in a clear glass filled with water (fig. 12). After magnetizing the metal piece with a loadstone and putting it back in the water, the declination was clearly visible, as the spike pointed in different directions. Norman proved that the magnetic power was in the loadstone, rather than the earth or the needle, since the cork neither sank nor floated to the top of the receptacle. The experiment again refuted Cortez, who felt that the heavens or the atmosphere caused the pull, and Norman suggested that the stone's power originated with God.⁵⁶

Norman lamented that so many educated mathematicians believed that magnetic variation remained constant irrespective of location, because they "more followed their books then experience in that matter." Compass variation is the angle between geographic and magnetic meridians at any point on earth. A magnetic compass shows the magnetic north pole, which is located hundreds of miles from the geographic north pole and moves every year due to the magnetism of the earth's core. It was thought by some that measuring the angle would determine longitude. Unlike declination, Norman did not find variation useful for navigation, because it seemed so erratic. He cited the voyage from England's westernmost point, the Isles of Scilly, to Newfoundland as an

⁵⁵ Norman, *newe Attractiue*, B2v-D1v.

⁵⁶ Norman, *newe Attractiue*, D3r-E2r.

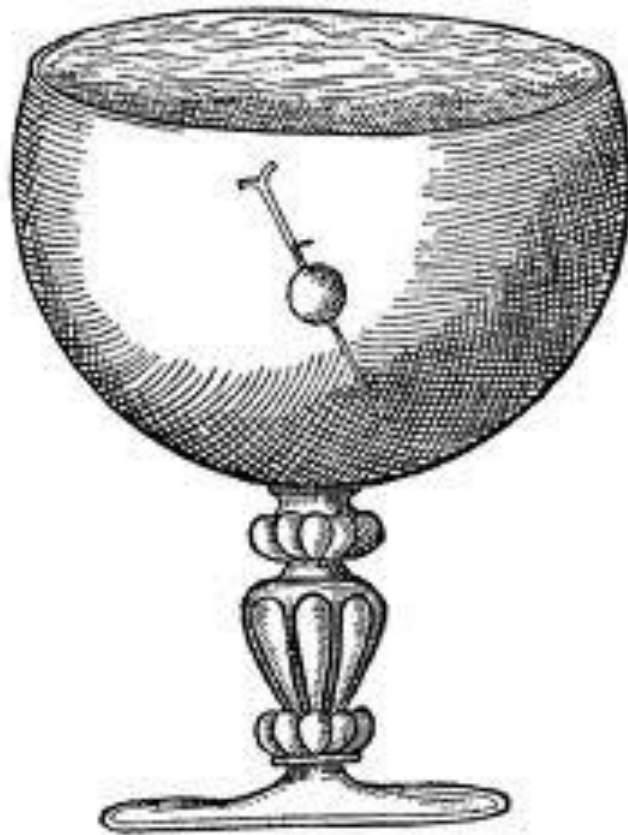


FIGURE 12. Robert Norman's "Floating Cork Experiment." In Norman, *new Attractive* (1581), D3v. From Google Images.

example. Norman estimated that the journey covered less than 600 leagues, a very accurate measurement, and the variation fluctuated significantly as one travelled westward.

Variation also changed as one sailed westward from England to Frobisher's Meta Incognita or eastward toward the North Cape and Viagatz in Russia. Not only were there no reliable instruments to measure variation, but it also pointed both to the east and to the west of north, depending upon one's position on earth. According to Norman, ancient geographers postulated that the compass variation and declination aligned at São Miguel in the Azores, though he believed that differences between variant compasses meant that

the two actually coincided 100 or 120 leagues north of the island.⁵⁷ Norman described five types of compasses, and because different map (such as Levant maps) were made to correspond to a specific compass type and each compass showed differing variation, he argued that navigators needed to use maps that corresponded to their specific compasses.⁵⁸ Norman estimated London's latitude to be 51 degrees, 32 minutes, which is the precise location of the city. He guessed that compass variation became swifter as one traveled north and found it to be eleven degrees, fifteen minutes at London. Thomas Digges gave the same figure for London in 1571, and Frobisher's crewman Christopher Hall gave this exact variation in 1576 for Gravesend.⁵⁹

William Borough's *A Discovrs of the Variation of the Cumpas, or Magneticall Needle*, which has been called "one of the first scientific books published in England,"⁶⁰ was appended to Norman's *newe Attractiue*, and his book also influenced Gilbert's expedition. Like Norman, Borough had considerable nautical experience, having sailed with his brother Stephen, who studied at Spain's renowned *Casa de la Contratación* and at the behest of the Muscovy Company searched for the Northeast Passage in 1556. That year, Stephen became the first Englishman to observe compass variation at sea, and their father John Aborough also knew Iberian navigational practices.⁶¹ As a boy, William began sailing with his uncle and his brother, and by the time that he was a teenager, he had already navigated to Russia. Dee instructed him in the use of sea charts during the

⁵⁷ Norman, *newe Attractiue*, E3r-E4r.

⁵⁸ Norman, *newe Attractiue*, E4v-F1r.

⁵⁹ Norman, *newe Attractiue*, E4r-v; Taylor, *Mathematical Practitioners*, 38.

⁶⁰ John B. Hattendorf, "The Boundless Deep...": *The European Conquest of the Oceans, 1450-1840* (Providence: John Carter Brown Library, 2003), 21.

⁶¹ Hakluyt knew of the voyage, which he mentioned in his 1584 *Discourse on Western Planting*, 111; on Stephen Borough, see Ash, *Power and Expertise*, 113-24.

1560s, and the two worked together on instructions for Pett and Jackman's search for the Northeast Passage in 1580. Borough made several maps during his lifetime, and he served as a consultant for the Frobisher voyages, providing navigational instruments such as his cross-staff and astrolabe, as well as his ship *Judith*.⁶² He was a Devon native like the Gilberts and was born in Northam one or two years before Humphrey.⁶³ In 1580, he became comptroller of the queen's ships, and between 1579 and 1583 he helped rebuild Dover harbor along with Digges, Drake, Hakluyt, and William Winter.⁶⁴

While Norman believed that navigators placed too much emphasis on compass variation, Borough considered it the key to finding longitude and felt that it was "the cause of many errors and imperfections in Nauigation" and on sea charts.⁶⁵ In this way, his book nicely supplemented Norman's work that appeared with it.⁶⁶ Borough also was responding to Digges, who had written five years earlier that variation was "no question for grosse mariners to meddle with, no more then the fyndinge of the Longitude."⁶⁷ Borough aimed to "practically and mathematically" explain compass variation for "bothe the vulgar, and also the learned sort," so it was an ideal text for the non-mathematically inclined members of Gilbert's circle. Borough offered the tools to determine variation anywhere and at any time, and he called for the regular observation of variation over an

⁶² HL, MS 715, f. 8v; BL, Cotton MS Otho E. VIII, f. 42; see Dee, *General and Rare Memorials*, E3r.

⁶³ Baldwin, "Borough," 670-72; Johnston, "Mathematical Practice," 177-78.

⁶⁴ TNA, SP 12/162, f. 147; TNA, SP 12/160, f. 5; TNA, SP 12/158, ff. 166r-167r; TNA, PC 2/13, f. 143; See Eric H. Ash, "'A Perfect and Absolute Work': Expertise, Authority, and the Rebuilding of Dover Harbor, 1579-1583," *Technology and Culture* 41, no. 2 (April 2000): 239-68.

⁶⁵ On variation, see Hicks, *Voyage to Jamestown*, 91-92; on Borough's book, see Ash, *Power and Expertise*, 153-57.

⁶⁶ Borough's book also appeared on its own. See, for example, the copy at the John Carter Brown Library (D581 B736d).

⁶⁷ Digges and Digges, *Prognostication euerlastinge*, O4r.

extended period to better understand it.⁶⁸ Gilbert himself claimed to have devised “a sphericall Instrument, with a Compasse of variation,” but he provided no evidence of having used it.⁶⁹ Both navigators believed that determining variation at various points could improve navigation, and Norman constructed the two types of variation compasses that Borough advertised in his book.⁷⁰

In the twelve chapters comprising his book, Borough crafted a usable guide for navigators and covered subjects such as compass use and finding elevations. His text includes many calculations dating from 1580 that common sailors would have had difficulty comprehending, but it offers a host of other useful information. Borough proposed that all navigators and surveyors needed to own astrolabes, compasses, cross-staffs, sea charts, plain tables, and his instrument for the variation. Like Gilbert, he called for all sailors to be educated in subjects ranging from Arithmetic to Architecture to ensure that they could properly use their instruments and make accurate maps.⁷¹ Borough must have spent some time at the Newfoundland fishery during his twenty years of sailing experience or spoken with Grand Banks fishermen, because he alleged that many sea charts and manuals promoting transatlantic trade erred in locating the island. They placed the Isles of Scilly directly east of Cape Race, Newfoundland, an error resulting from sea compass navigation, which did not account for compass variation. Some

⁶⁸ Borough, *Discovrs of Cumpas*, *2r-v; Cormack, “Mathematics and Empire,” 190.

⁶⁹ Gilbert, *discourse on Cataia*, D3r, F3r-v, I1r; see Giorgio Mangani, “Ortelius and the Hermetic Meaning of the Cordiform Projection,” *Imago Mundi* 50 (1998): 59-83; MacMillan, “Sovereignty Described,” 416.

⁷⁰ On Borough’s illustration of the variation compass, he included “R.N.” to make it clear that Norman had made it. See Borough, *Discovrs of Cumpas*, B1v.

⁷¹ Borough, *Discovrs of Cumpas*, *3r-A1v. According to Borough, globes were also useful for navigation, but they were unfit for shipboard use; see Taylor, *Mathematical Practitioners*, 38.

cartographers attempted to correct the problem by including multiple latitude indicators on their maps, but, as Borough contended, these maps did little to aid navigation.

Fishermen who used them ended up fifty leagues or more north of their destination, for the Isles are north of Cape Race at 50 degrees latitude. Their actual position is just south of 50 degrees, and Borough placed Cape Race at $46 \frac{1}{3}$ degrees north latitude, almost an exact reading for the point, which lies at 46 degrees, 39 minutes. His precise knowledge of the area certainly appealed to Gilbert, who decided to re-provision at Newfoundland before heading to Norumbega.

Borough had sailed to Russian ports like St. Nicholas, Narva, and Livonia too, but he complained that charts made for voyages to those areas contained distorted coastlines. Rather than contracting towards one another near the north pole, the meridians on these maps actually expanded away from each other in northern regions.⁷² Like his mentor Dee, Borough considered Mercator the greatest cosmographer of their age, but both men found problems with Mercator's famous 1569 world map. By failing to account for variation, Mercator misrepresented polar latitudes on his map, a problem that Gilbert had attempted to correct in 1566. The map may have sufficed for cosmographers on land, even if Mercator's depiction of Northern Europe was inaccurate, but Borough could not recommend it for navigators at sea.⁷³ He also used his knowledge of the variation to correct several inaccuracies on the map of Gilbert's longtime associate Anthony Jenkinson. It portrayed Persia and Boghar, but Borough drafted an improved map that included Russia and Muscovy, which he apparently presented to Elizabeth in 1578. Borough scoffed at cartographers who placed wires on their compasses to get a more

⁷² Borough, *Discovrs of Cumpas*, F2v-F3r.

⁷³ Borough, *Discovrs of Cumpas*, F3r-v.

precise reading, and he suggested that navigators use a single type of compass when mapping and indicate which type they used to avoid confusion.

Borough was also well read like his protégé Norman, and he buttressed his claims by refuting famous navigational manuals, such as the 1581 *Instruction nouvelle* written by Flemish mathematician and instrument maker Michel Coignet. Coignet advised sailors to use his nautical hemisphere to find time, the elevation of the pole, and even longitude. Borough recognized that Coignet's instrument was too complex to function on a ship, and, like similar devices, it did not account for variation.⁷⁴ Throughout Borough's book, he cited and sometimes rebutted great thinkers like Euclid and Copernicus in addition to writers on navigation and mathematics, including Portuguese Pedro Nunes, German Erasmus Reinhold, German Regiomontanus, and Austrian Georg Joachim Rheticus.⁷⁵

By the late sixteenth century, a number of navigators had discovered that their compass needles did not show true north, and some, like Borough, thought that this variation could be used to find longitude. European seafarers probably observed variation as early as the mid-fifteenth century, and Columbus noticed it during his first transatlantic voyage. On September 13, 1492, a week after leaving the Canaries, Columbus found that his compass varied to the west of north at night and to the east of north in the morning. Two weeks later, the needle pointed east of north at night, but true north in the morning.⁷⁶ By 1535, some Portuguese navigators postulated that consistently

⁷⁴ See Michiel Coignet, *Instruction nouvelle des poincts plus excellents & necessaires, touchant l'art de naviguer* (Antwerp: Henry Hendrix, 1581).

⁷⁵ Borough, *Discovrs of Cumpas*, C1v, C3v, D2v-D4r, E3r-F1v, F3v-G2v.

⁷⁶ Christopher Columbus, *The Four Voyages of Christopher Columbus, Being his own log-book, letters and dispatches with connecting narrative drawn from the Life of the*

measuring variation would show longitude, as they recognized that it varied from place to place but simply assumed that it varied consistently with geographical location and remained constant over time at a given location.⁷⁷

Despite these early observations, no early modern navigator had a reliable means of tracking variation at sea. Borough sought to correct this inadequacy, and together with Norman he invented a simple device to measure variation. The device consisted of a board with a compass built into it. An upright post with a string hanging from its top and a plumb-bob on the other side displayed the shadow cast by the sun. Once the shadow given by the gnomon aligned directly in a north-south direction, it was noon. An assistant then observed the altitude of the sun with a cross-staff or astrolabe, and the variation was calculated.⁷⁸ Navigators had to record their variation several times before noon and again after noon when the sun was at the same altitude as their morning calculations. Since placing the needle upon the south/north line revealed degrees of longitude by the shadow that the sun cast on the base of the instrument, it could only be used during daylight.

Borough suggested that his instrument was best for navigation from England “West wardes to *Meta Incognita*, *New foundland*, *Florida*, and that part of the coast of *America*,” because his experience showed that the variation remained constant when sailing this course. He was so convinced of the variation’s regularity towards the west, that he promised to devote an entire volume to the subject and attach it to a revised

Admiral by his son Hernando Colon and other contemporary historians, ed. J.M. Cohen (London: Penguin, 1969), 42, 48.

⁷⁷ Cormack, “Mathematics and Empire,” 189; Waters, “Elizabethan Navigation,” 22; Taylor, *Haven-Finding Art*, 204-6.

⁷⁸ Waters, *Art of Navigation*, 158; see Hicks, *Voyage to Jamestown*, 91-93; Ash, *Power and Expertise*, 114-15.

hydrographical chart for “the generall commoditie of all suche as shall trauaile that waies.”⁷⁹ His stance probably originated with Frobisher’s 1576 voyage to present-day Canada, when Borough created a sea chart to map variation. Frobisher or Christopher Hall apparently drew arrows on the map during their voyage to indicate the amount of observed variation at each point.⁸⁰ Borough concluded with an advertisement stating that all of the instruments mentioned in his book could be purchased at Norman’s house in Ratcliff. With Ratcliff so close to Gilbert’s home and due to the advantages that Borough’s instrument represented, it is no wonder that Gilbert drew up plans to use the device during his expedition.

Borough may have helped draw up the instructions for Gilbert’s expedition, and Gilbert’s circle was obviously familiar with his text and Norman’s book.⁸¹ Gilbert’s instructions make it clear that his experts wanted their specialist Bavin to have the best tools at his disposal for taking measurements during the voyage. They assigned him an assistant to attend to him with pens, ink, black lead pencils, and paper to note latitude. Another assistant would follow Bavin with a universal dial, a cross-staff, and a sailing compass, and Gilbert’s consultants earmarked for him a pair of writing tables and an assistant to attend to him with ephemerides or similar tables. Such instruments would permit Bavin to closely to observe latitude, but they also were necessary to use

⁷⁹ Borough, *Discovrs of Cumpas*, G3r-v.

⁸⁰ HHA, CP Map 1/69; see Ruggles, “Cartographic Lure,” 210-12, 216; Waters, *Art of Navigation*, 528-29.

⁸¹ See BL, Add. MS 38823, ff. 1r-8v; Taylor, “Instructions to surveyor,” 48-62; Baldwin, “Borough,” 670-72; Taylor, *Mathematical Practitioners*, 39. Borough reiterated that navigators should map rocks near coastlines, as he would suggest in Gilbert’s instructions the following year. He felt that poor navigators rather than poor cartographers were responsible for defective maps and their misplaced bays and rocks, which may explain why Gilbert was so concerned with mapping rocks.

Borough's and Norman's instruments to their desired effects.⁸² Bavin would be responsible for carrying Borough's instrument for the variation of the compass and Norman's instrument for the declining of the needle. They would be used to note the declination and variation at every place and elevation throughout the voyage. In case Bavin could not complete the work on his own, Gilbert assigned him an assistant to attend to him at all times with Norman's and Borough's instruments and another to ensure that he did not make any mistakes on his calculations or on his sea charts.⁸³

The authors of Gilbert's instructions ordered Bavin and the expedition's other specialists to use their universal dials to determine noon. Subsequently, they would find their variation by noting the difference between their compass readings and the rectified compass reading given by Borough's instrument. The variance was to be indicated at their precise location on their sea cards "by drawing A dowble flye [and] noting also the juste observaion of the same pole in the same place."⁸⁴ Gilbert's circle devised a symbol for "The rectefied flye by the instrument of variacion" that was among the cartographic symbols that they drew up for Bavin in their instructions. They asked Bavin to determine the fleet's variation each day and to indicate it on his charts and maps.⁸⁵

The great value of Borough's and Norman's instruments is that they offered ways to measure longitude that surpassed the effectiveness of dead reckoning, the most common navigational practice of the era. Dead reckoning required navigators to use their speed and course steered (usually during thirty minute intervals) to determine their

⁸² BL, Add. MS 38823, ff. 1v-2r, 3v. Ephemerides show the position of astronomical bodies by date and time. The ones that Gilbert proposed to take were probably of German origin and based upon those by Regiomontanus. See LOC, DBQ, Box 79, Folder 7.

⁸³ BL, Add. MS 38823, ff. 1v-2r, 3v.

⁸⁴ BL, Add. MS 38823, f. 4r.

⁸⁵ BL, Add. MS 38823, ff. 1v-2r, 3v.

location via previously calculated positions. The magnetic compass showed relative direction steered. Compasses of the day had thirty-two directional indicators attached directly on top of the magnetized, oval shaped needle within the compass box, so that the card itself rather than just the needle pivoted to indicate direction. A fleur-de-lis marked north and a cross in recognition of Jerusalem indicated east, the city's direction from Europe. As Borough showed, standard compasses did not account for variation and were therefore inaccurate.

The log and line were used to estimate distance traveled. A circular, wooden float attached to a weighted lead was itself fastened to a long line with knots at roughly forty-eight feet intervals. The other end was affixed to a reel, and the float was thrown overboard. Sailors then counted the number of knots that were unreeled within a thirty second time frame using notoriously imprecise sand glasses, which allowed speed in knots to be calculated. The current and leeway complicated these measurements, however, and distances were rarely taken with any great accuracy.⁸⁶

Borough's and Norman's instruments would have made dead reckoning obsolete, and they represented a significant breakthrough for Gilbert and other navigators undertaking lengthy transoceanic voyages. They formed a crucial development in Gilbert's effort to create more precise sea charts and to successfully navigate unknown waters. If Norman's device functioned as advertised, Gilbert could finally put an end to speculation about the Atlantic's breadth. Not only would measuring the variation and declination benefit his initial voyage, but subsequent voyagers to the colony or elsewhere in the Americas could also use his findings to ensure safe passage across the Atlantic.

⁸⁶ See Gurney, *Compass*, 21-24; Hicks, *Voyage to Jamestown*, 50-51.

Unfortunately for Gilbert, faults in Borough's and Norman's reasoning made their instruments insufficient. Borough failed to realize that variation fluctuated by both time and place, making it unsatisfactory for finding longitude. Only in 1634 was it determined that variation changed over time at any given location. Moreover, Borough noted that his instrument needed to be placed on a stool or some other flat object to work properly. Navigators would have been hard pressed to locate North Atlantic waters so calm that the listing of the ship would not affect the instrument.⁸⁷ Similarly, Norman did not recognize that the earth's magnetic field passes through its center, exits at the poles, and flows around the earth to re-enter at the opposite pole. Hence, the field only runs parallel to the earth's surface at the poles, so measuring the dip is not useful for finding longitude either. The theoretical limitations of these instruments made their practical application ineffectual, but Gilbert's attempt to use them reveals his familiarity with and appreciation for the latest navigational texts and instruments.

4. Navigating to the Minute: England's first attempt to determine Longitude at Sea

In her recent study of navigation, imperialism, and the Scientific Revolution in England, Lesley B. Cormack identified the determining of longitude at sea and the successful navigating of northern waters as the two most pressing problems that faced Elizabethan mathematical geographers.⁸⁸ It was not until the eighteenth century that

⁸⁷ Borough, *Discovrs of Cumpas*, B2r; Cormack, "Mathematics and Empire," 189-91.

⁸⁸ Cormack, "Mathematics and Empire," 188-89; in agreement, see Padrón, *Spacious Word*, 72; Sebastian Cabot was obsessed with finding an effective way of determining

these obstacles were overcome, but Gilbert's circle recognized the importance of solving them and took great lengths in doing so. As shown in chapter three, Dee attempted to improve navigation at high latitudes by creating two polar projection maps for Gilbert that eliminated the distorted northern coastlines and oceans of standard charts. Gilbert and his supporters also planned to continuously determine their longitude using Borough's and Norman's instruments en route to Norumbega. Their devices were extremely new, however, and had not been used before, so Gilbert and his followers devised an alternative method of finding latitude that would ensure accurate calculations.

Dee's one-time tutor, the Dutch mathematician Gemma Frisius, proposed in 1530 that finding longitude at sea could be accomplished by determining the difference in time between two localities. Experienced Elizabethan navigators such as Borough and Bourne similarly recognized that the key to determining longitude at sea was accurate time keeping. Noon occurs at all points along a given meridian at the same time: when the sun is directly overhead. Knowledge that the earth rotates fifteen degrees each hour (a change of one degree in longitude every four minutes) means that the longitude of a position at sea can be found relative to a point on land, so long as time is known *in situ* in relation to one's place of departure. Time keeping had to be exceptionally precise for this approach to work. For example, Gilbert could expect the North Atlantic voyage from England to Norumbega to last approximately six weeks, depending upon winds, currents, and weather conditions. In order to calculate his longitude to within $\frac{1}{2}$ of a degree at the

longitude, and on his deathbed he confessed to Richard Eden that by divine revelation he had found out how to do so. See Taisnier, *Booke concerning Nauigation*, *3r.

North American coast, his time keepers could only err by two minutes for the entire journey, or approximately three seconds per day.⁸⁹

In light of the precision required for such a plan to reach fruition, Gilbert and his experts needed to find an improved method of keeping time at sea. Standard thirty-minute marine sand glasses sufficed for the ship's watch and most daily requirements, but the ship's listing, the sand's texture, and even condensation caused by humidity affected the sand flow and made hourglasses insufficient for accurately measuring the passage of time.⁹⁰ Additionally, they needed to be turned every half of an hour, meaning that watch keepers had forty-eight opportunities each day to flip the glass too early or too late. Crewmen sometimes prematurely turned the glass, or "swallowed the sand," to shorten their watch, which further diminished accuracy.

The only other readily available shipboard time-keeping devices, astrolabes and similar sun dial instruments, could provide sailors with approximate times via the altitude of the Pole Star or the sun, but they were useless under overcast skies. In the notoriously foggy and misty waters of the North Atlantic, Gilbert could not expect to use astrolabes with any regularity. Moreover, the constant motion of a ship made it impossible to read the shadow cast by the gnomon on all sun dial devices except for the equinoctial ring dial, which was hung from a ring but still needed the sun's rays to function. Any attempt to keep accurate time faced on land also faced serious obstacles during the late sixteenth century. Most pendulum clocks of the period lacked a minute hand, and some lost as much as an hour's worth of time each day. The best clocks remained relatively true, but

⁸⁹ Waters, *Art of Navigation*, 58; Cormack, "Mathematics and Empire," 189.

⁹⁰ During Gilbert's first voyage, he had at least six "running glasses" or hourglasses aboard the *Falcon*, a ship that he co-owned with William Hawkins. See LOC, DBQ, Box 77, Folder 3.

their heavy weight-driven mechanisms made them unsuitable for shipboard use. Any pendulum clocks had to remain on land, since the listing of a ship rendered them useless.⁹¹

In order to measure time and consequently longitude, Gilbert would have to utilize another device that had only recently arrived in England, the highly portable and intermittently accurate watches of early modern Europe. England's first verifiable watch did not appear until the 1570s, making them quite difficult to come by. Although most watches had to be wound a few times each day, lacked a minute hand, and could lose up to fifteen minutes per day, their compact size made them perfect for shipboard use. The finest watches originated in Flanders, but Gilbert had a number of watchmakers to choose from near his home on the Thames. Among the French, Flemish, and English clock, compass, and mathematical instrument makers in London were Thomas Hearne, Israel Francis, John Read, and Christopher Pane. Robert Grinkin specialized in watch-making, and Gilbert was familiar with the St. Botolph's Aldgate parish, where most of these craftsmen worked.⁹² In April 1582, Borough's associate from the Dover Harbor works, mathematician Thomas Bedwell, reported that he could provide the Privy Council with a water clock that functioned continually without setting. He boasted that his device would become "the best instrument for fynding longitudes in long jorneyes by Sea that hath bene

⁹¹ Jean Randier, *Marine Navigation Instruments*, trans. John E Powell (London: John Murray, 1980), 134-65; Waters, *Art of Navigation*, 30-31; Clocks were common enough during the sixteenth century, as Henry VIII had a large collection of them during his rule and even employed Nicholas Urseau as his personal clockmaker. See TNA, SP 1/466, ff. 1r-2r; Harkness, *Jewel House*, 128; In 1570 Dee argued that precise time could be found using the sun, moon, stars, and an equinoctial dial. He believed that the same could be found under cloudy skies using weight, water, and spring driven mechanisms, but he did not elaborate on the devices. See Dee, "Mathematical Preface," d2r.

⁹² Harkness, *Jewel House*, 125-29; Taylor, *Haven-Finding Art*, 203-4.

invented.”⁹³ Gilbert prepared his voyage amidst these advancements, and he was determined to use them to benefit his expedition.

Watches remained fairly rare into the late seventeenth century, but, according to John Dee, the watches created by a few skilled English instrument makers could meet Gilbert’s needs.⁹⁴ In 1570, Dee suggested that a navigator own compasses, charts, and half hour, hour, and three hour sandglasses, but he also felt that they needed “Clockes with spryng.”⁹⁵ Dee made it clear that some rather sophisticated watches existed during the late sixteenth century. When he created an exhaustive list of the contents of his recently ransacked library to prove how much he had done for England and lost in the process, he simultaneously provided a sense of a watch’s value in early modern England. Amongst a large assortment of navigational instruments that he owned, Dee offered a particularly lengthy description of “an excellent watch klok.” Hand crafted by “one Dibbley, a notable workman (long syns dead),” it had been stolen after Dee left England for the continent in 1583. He must have purchased it much earlier, as the watchmaker had been deceased for some time, which suggests that watch construction methods rapidly improved in England. What made this particular watch so valuable was that it accurately displayed both minutes and seconds, meaning that it was “not to fayle the 360th part of an howr.”⁹⁶ At that time, a watch with second and minute hands that functioned “great, more then vulgar” must have been quite unusual on the continent and exceedingly rare in England. It is no wonder that Dee took great lengths to describe it in

⁹³ TNA, SP 12/153, f. 44r.

⁹⁴ Waters, *Art of Navigation*, 58. The first recorded watch with a minute hand was built for astronomer Tycho Brahe in 1577, but, as Dee showed, even more advanced watches existed at the time.

⁹⁵ Dee, “Mathematicall Præface,” d4v.

⁹⁶ BL, Cotton MS Vitellius C. VII, ff. 9r, 10r.

seeking aid from Elizabeth. If the perpetually indebted Dee could get his hands on such a watch, Gilbert certainly could have done so as well.

In consideration of the advancements in portable time keeping devices that happened at the end of the sixteenth century, English navigators began to experiment with them on transoceanic voyages. Frobisher and his benefactors bought two clocks complete with dials and cases during the lead up to the 1578 voyage, but they left no evidence of their intentions, what type of clocks they had purchased, or if they even used them.⁹⁷ Thomas Hariot boasted that Roanoke's Algonquians marveled at the English colonists' "spring clocks that seeme to goe of themselues," but the mathematician did not indicate why he brought timepieces to North America.⁹⁸

Gilbert's 1582 instructions offer appreciably more evidence concerning his plans to utilize multiple watches during his expedition. He and his experts allotted their primary specialist Bavin "A flate watche clock, which doth shewe and devide the howers by the minute, and suche a one as will runne .24. howirs or .40. howers without any winding up." Such a watch clock probably refers to a transitional timepiece sized between a standard clock and watch. William Bourne attested to the prevalence of such watches in 1578. He suggested that these types of spring driven watches and "small clockes...be vused in tablets (ornamental jewellery) to hang about mens neckes," and they were even constructed to makes noises and motions on the hour to entertain "the simple

⁹⁷ HL, MS 715, ff. 9v-10r.

⁹⁸ Thomas Hariot, *A briefe and true report of the new found land of Virginia* (London: R. Robinson, 1588), E4r.

people.”⁹⁹ Bavin would have hung his watch on a chain around his neck or attached it to his clothing. Gilbert and his supporters clearly hoped to use the watch extensively for an extended period of time, as they specified that it have gilded or silver wheels to prevent the device from rusting.¹⁰⁰ They intended to have at least three watches made in this fashion, which, along with their universal dial and the aforementioned instruments devised by Norman and Borough, would allow Bavin and his assistants to “observe the longitude of every place both by Sea and land.”¹⁰¹ Having three watches meant that they would not lose time due to winding, since one could simply be replaced after it met its time limit. Thus, Bavin could calculate the ships’ longitude during the voyage using the time and distance travelled in relation to their embarkation point in England.

To ensure that these methods for determining longitude were accurate, Gilbert’s circle devised yet another inventive way to find their position via the projected solar eclipse of June 19, 1582. The drawbacks of Frisius’s horological technique for finding longitude convinced Gilbert to utilize the only available alternative way of measuring it. By observing a celestial event and comparing one’s local time with the time that it occurred at a far away reference point, longitude could be discerned.¹⁰² Gilbert instructed Bavin to begin keeping time on June 15th by determining solar noon with a simple

⁹⁹ William Bourne, *Inuentions or Deuises. Very necessary for all Generalles and Capitaines, or Leaders of men, as wel by Sea as by Land: Written by William Bourne. An. 1578* (London: T. Orwin, 1590), 98-99.

¹⁰⁰ BL, Add. MS 38823, f. 3v.

¹⁰¹ BL, Add. MS 38823, f. 3v; Scholars have suggested that the plan to use three watches to gauge longitude would be executed independently of the plan to observe the eclipse to determine longitude. See LOC, DBQ, Box 79, Folder 7.

¹⁰² David S. Landes, “Finding the Point at Sea,” in *The Quest for Longitude: The Proceedings of the Longitude Symposium Harvard University, Cambridge, Massachusetts November 4-6, 1993*, ed. J.H. Andrewes (Shenzhen, China: Collection of Historical Scientific Instruments, 1996), 23-28.

universal equinoctial dial. This transportable type of armillary sundial worked during daylight at most latitudes, though it functioned best between 20 and 75 degrees north or south. The sun's rays shined through a small slit on the device and indicated time on the ring. Bourne had commented just two years earlier that he knew of no English mariners who used equinoctial dials on account of the high cost in making them.¹⁰³ Gilbert strove for navigational precision and spared no expense to provide his pilots with the latest sea instruments for taking measurements.

After using his equinoctial dial to determine time on June 15th, Bavin was to continually synchronize his watches over the ensuing days to match the time given on the dial. By observing "the Juste mynute of the hower of the day when the eclipse of the Sonne" occurred, he would know his present time in the Atlantic to within a minute. Since an English almanac had predicted that the eclipse would appear in London at 4:05 am on June 19th, Bavin could use his calculation of the eclipse's occurrence to determine his longitude respective to the city.¹⁰⁴ To further improve the accuracy of Bavin's observations, Gilbert instructed him to verify his findings by taking the elevation, the compass variation, and the compass declination. All of these calculations, along with his figures for latitude, were to be checked against the Captain's journal. These initial measurements would serve as the foundation to estimate future longitudes at sea and on

¹⁰³ Bourne, *Regiment of the Sea*, R1v.

¹⁰⁴ The phrase "use (us) at London" shows that some of Gilbert's experts did not intend to go to Norumbega, and it was probably Borough and perhaps Hakluyt the Elder who helped write the instructions. See LOC, DBQ, Box 79 Folder 7; Taylor, "Instructions to surveyor," 48-62.

land, and Gilbert even asked Bavin to paint an image of the eclipse on his sea chart in the exact location that it was observed.¹⁰⁵

Even if Gilbert had been able to sail in 1582, his plan to determine longitude by means of the eclipse probably would have failed. His experts made a poor choice in deciding which almanac to consult for the projected date and time of the eclipse's occurrence in London. They should have used the 1581 almanac written by William Bourne, who made a remarkably accurate calculation of when it would take place (5:18 am on June 20th) and correctly predicted that the eclipse would be "but small."¹⁰⁶ Instead, Gilbert's men must have read the 1582 almanac of astronomy student Evans Lloyd, who conjectured that the eclipse would occur in London at precisely 4:05 am on June 19th.¹⁰⁷ His estimate erred by exactly twenty-four hours, since the eclipse was viewable in London beginning at 4:05 am on the 20th, and it ended at 4:33 am.

As Bourne predicted, the eclipse was rather faint in London, as the moon blocked out just a sliver of the sun's rays. It was viewable in Cardiff and seen at Cambridge just

¹⁰⁵ BL, Add. MS 38823, f. 4r.

¹⁰⁶ William Bourne, *An Almanacke and Prognostication for x. yeeres, beginning at the yeere of our Lord 1581. and ending the yeere 1590. being calculated for the Meridian of London. Wherein is set downe the change, quarters, and fulles of the Moone, with the Eclipses that doe happen in the said x. yeeres: And also, according vnto the accustomed manner, the iudgement of the weather, and the moueable feastes, with diuers other necessary matters, before this time in no Almanacke and Prognostication* (London: Richard Watkins and Iames Robertes, 1581), C4v; Other almanacs for that year include Thomas Buckminster, *A prognostication made for the Yeere of Ovr Lord God M.D.LXXXII. Conteyning meete matter for such a worke: gathered out of learned Authors, and set downe to profite such as lacke the knowledge thereof* (London: Richard Watkins and Iames Robertes, 1582).

¹⁰⁷ Evans Lloyd, *A briefe Prognostication for this yeere of our Lorde. M.D.LXXXII. Wherein is shewed the inclination of the foure quarters of the yeere, and the diseases incident to the same.* (London: Richard Watkins and Iames Robertes, 1582), C1v; see Bernard Capp, *English Almanacs 1500-1800: Astrology and the Popular Press* (Ithaca, NY: Cornell University Press, 1979), 319, 369.

after 5:00 am, but Edinburgh was too far north to witness it.¹⁰⁸ Moreover, a modern ephemeris indicates that the eclipse was only viewable in the extreme northeastern Atlantic. Gilbert presumably intended to observe it quite early during his voyage, since he hoped to determine successive longitudes based upon the eclipse, but he would have had a very short window in which to operate. The only other suitable eclipse from that year, a lunar eclipse on July 5th, was not viewable in much of England or in the north Atlantic, and it took place too late in the sailing season to be of any use. The year 1583 lacked useable eclipses too. As the only total solar eclipse in 1582, the June 20th eclipse presented the best chance for Gilbert to implement his plan. Unfortunately, adverse sailing conditions prevented him from leaving England in time to view it.¹⁰⁹

Just as Gilbert's circle turned to a printed almanac to discover when the eclipse would take place in 1582, they probably got the idea of using an eclipse to determine longitude from a written text, or at the very least from consultations with navigational experts. In *The Cosmographical Glasse*, a book that Frobisher took to Meta Incognita at the urging of Dee, physician William Cuningham reported that the mythical Arteus had predicted the date and time of various lunar eclipses, which ancient sailors considered the surest way to find longitude. Modern navigators, wrote Cuningham, simply needed to use their dials, clocks, or a fixed star to record the precise time that the lunar eclipse

¹⁰⁸ See Richard Harvey, *An Astrological Discourse vpon the great and notable Coniunction of the tvvo superiour Planets, Satvrne & Ivpiter, which shall happen the 28. Day of April, 1583. With a briefe Declaration of the effectes, which the late Eclipse of the Sunne 1582. is yet heereafter to woorke. Written newly by Richard Harvey: partely, to supplie that is wanting in cōmon Prognostications : and partely by prædiction of mischiefes ensuing, either to breed some endeuour of preuention by foresight, so farre as lyeth in vs: or at leastwise, to arme vs with pacience beforehande. Seene and allowed* (London: Henrie Bynneman, 1583), 56.

¹⁰⁹ Darren Beard, "A millennium of British solar eclipses (1501-2500 AD)," *Journal of the British Astronomical Association* 111, no. 22 (2001): 89.

began, which could then be compared to the ephemerides that he included in his book. If the time did not agree with his ephemerides, then the navigator needed to convert the difference of minutes and seconds of time into degrees and minutes of longitude, for which he included additional tables. Cuningham knew that one hour equals fifteen degrees on longitude, and he calculated lesser distances and times accordingly.¹¹⁰

Similarly, Bourne offered comprehensive instructions for using an eclipse to determine longitude in the 1580 edition of *The Regiment for the Sea*, and their relation to Gilbert's expedition warrants a lengthy quotation:

And now to get the Longitude, you may do it at the time of the Eclipse of the Moone, for that the Eclipses of the Moone be generall, so that she being about your horizon in any place upon the superficial parts of the earth, or sea, considering (as I sayd before) by your Almanacke, at that tyme when the Eclipse should happen, the very houre and minute, knowing also the place that your Almanacke was made for : that done accordinge to this rule, with a precise instrument you shall take the alteration of the tyme with the houre and minute of the Eclipse.

Bourne clarified in the margin that "The Longitude is not to be gotten w[ith] instruments of the sea," which left his eclipse method as only option for pinpointing one's coordinates.¹¹¹ Borough likewise suggested in his *Discovrs* that if navigators had use of "a portable Clocke that would continue true of space of 40. or 50. houres together," they might be able to determine the longitudinal distance between two locations at a given latitude within that time frame. He did

¹¹⁰ VVilliam Cuningham. *The Cosmographical Glasse, conteinyng the pleasant Principles of Cosmographie, Geographie, Hydrographie, or Nauigation* (London: Iohn Day, 1559), 103, quotation at 97.

¹¹¹ Bourne, *Regiment for the Sea*, N1v-N2r.

not feel, however, that the instruments of the period were capable of reaching the level of precision required for the method to work.¹¹²

The most intriguing potential source of inspiration for Gilbert's plan is a Spanish questionnaire issued multiple times during the late sixteenth century. Spanish chronicler and cosmographer of the West Indies, Juan López de Velasco, may have authored the surveys, the first of which was issued in 1577. He requested that colonial officials in the Americas measure the latitude of various terrestrial positions and record the occurrence of two eclipses that were to take place that year.¹¹³ Velasco invented a device similar to an astrolabe for the expressed purpose of observing the eclipse.

King Philip II, Velasco, and the King's other cosmographers distributed instructions for viewing the 1582 eclipse too. They incorrectly predicted that a *lunar* eclipse would occur after midnight (*despues de media noche*) on June 19th in Spain and sometime after nightfall (*despues de anohecer, mas o menos*) in the Americas. The report concluded that the approximate longitude of locations in the Americas could be determined using the distance of time between the occurrence of the eclipse in Spain and in the Americas. Velasco gave explicit instructions on the proper method of viewing the eclipse, and, like Gilbert, he instructed colonial officials in Spanish America to begin their observations a day or two before the eclipse was to begin. Spanish colonists certainly were surprised to see a solar eclipse rather than the lunar one that was predicted.

¹¹² Borough, *Discovrs of Cumpas*, D1v-D2r.

¹¹³ Padrón, *Spacious Word*, 64-65; Clinton R. Edwards, "Mapping by questionnaire: an early Spanish attempt to determine New World geographical positions" *Imago Mundi* 23 (1969): 17-28; the 1577 questionnaire was part of a larger attempt by the Spanish government to survey their territories in the Western Hemisphere. See, for example, the anonymous *Instructiõ, y memoria, de las relaciones que se han de hazer, para la descripcion de las Indias, que Su Magestad manda hazer, para el buen gouierno y ennoblecimiento dellas* (Madrid?, 1577).

Considering Velasco's usual accuracy and the immense resources that he had available at the *Casa de la Contratación*, it is surprising that Gilbert's sources served him better.¹¹⁴

Velasco instructed his officials to measure an eclipse that was to occur on May 10, 1584, as well, yet no evidence suggests that these experiments succeeded in attaining latitudes or longitudes of cities and towns in New Spain.¹¹⁵

Although Gilbert and his specialists never got the chance to view the eclipse, the Fenton expedition clearly intended to observe it too. On the morning of June 20th, as the ships crossed the Tropic of Cancer on their way towards South America, Madox recorded that "ther was an eclipse of the sone in the mornynge but thro the foggy haze which is hear muche we saw yt not."¹¹⁶ He must have known that the eclipse was going to take place, since fog entirely obscured his view of the sun. Celestial navigation was hardly new during the late sixteenth century, as both Columbus and Vespucci had experimented with it. Columbus attempted to use a lunar eclipse to find the time difference from a calculated table, and while stranded on Jamaica he used German astronomer Regiomontanus' ephemerides to predict an eclipse to convince local Caribs to provide him with food. Galileo used the eclipses of Jupiter's four primary satellites to find longitude on land, but Gilbert was the first recorded person to use nautical astronomy in

¹¹⁴ Anon., *Instruccion para la obseruacion del eclypse de la Luna, y cantidad de las sombras, que su Magestad manda hazer el año de mil y quinientos y ochenta y dos, en las ciudades y pueblos de Españoles de las Indias: para verificar la longitud, y altura dellos, que aunque pudiera auer otros medios Mathematicos para ello, se an elegido por mas faciles los que se siguen* (Madrid?: 1582), 1r-v. See Portuondo, *Secret Science*, 236.

¹¹⁵ See Luisa Rodríguez Sala, ed., *El Eclipse de Luna Misión Científica de Felipe II en Nueva España* (Huelva, Spain: Universidad de Huelva, 1998); Vargas Rea, ed., *Instrucción para la observacion de los Eclipses de Luna* (México: Biblioteca de Historiadores Mexicanos, 1953); Padrón, *Spacious Word*, 72; Only a few of the responses from colonial officials are extant.

¹¹⁶ Madox, *Diary*, 146; Chaplain John Walker corroborated that they passed the tropic of cancer that morning, though he did not mention the eclipse. See Madox, *Diary*, 298.

an attempt to solve the great problem of Renaissance navigation.¹¹⁷ Even if he failed in this endeavor, the variant texts that Gilbert consulted gave him an excellent chance of successfully measuring longitude at sea.

5. Navigation in Theory: To Africa, the Caribbean, and Norumbega

Before departing for Norumbega in 1583, the final subject of discussion among Gilbert's crew hinged upon the best route to safely reach their destination. Theoretically, they could have sailed in a straight line from England to their projected terminus, but the westerlies in the North Atlantic prevented such a direct path. The majority of Elizabethan oceangoing vessels, including those in Gilbert's fleet, were three-masted and square-rigged, meaning that they sailed very well to windward but poorly against the wind. Additionally, the preferred navigational method among late sixteenth century mariners, "latitude sailing," made this route impossible. Navigators found a desired latitude and headed directly east or west to a landmass, after which they altered their course and sailed either north or south to their destination. Since Gilbert's target was approximately ten degrees south of England, he could not take the shortest route to North America. Fortunately, by the late sixteenth century, there were a few well established routes between Western Europe and the Americas that gave Gilbert some leeway for the course of his voyage.

The first option, wrote Edward Hayes, was to sail south along the European and African coasts, then west to the Caribbean, and finally north to Norumbega along the

¹¹⁷ Albert Van Helden, "Longitude and the Satellites of Jupiter," in *Quest for Longitude*, ed. Andrewes, 88-92; Cormack, "Mathematics and Empire," 189.

North American coastline. The route took advantage of the largely clockwise motion of North Atlantic winds. It followed the Canary Current southward to meet the North Equatorial Current, which took vessels to the Caribbean. Catching the powerful Gulf Stream thereafter brought ships from Florida to Newfoundland. The first legs of this course were well established among Spanish sailors and English pirates, but the voyage from the Caribbean to Norumbega had never been attempted by an English navigator. Even worse, the return crossing from the Caribbean typically lasted about fourteen weeks, while the outgoing voyage took even longer.¹¹⁸ Gilbert would have expected a much lengthier return voyage, as he planned to penetrate each inlet while sailing north along the Atlantic coastline. The high probability of scant winds in the North Atlantic further imperiled the crew on an already long and dangerous trek. When Raleigh sailed for Guiana in 1595, he complained that the voyage from the Canaries to Trinidad, which normally lasted fifteen to twenty days, took him six weeks to complete due to calm winds.¹¹⁹ Despite the obvious risks of sailing south, Gilbert initially elected to take this course.

The simpler alternative was to head almost directly west and then sail south to Newfoundland, which was the shortest voyage to the Americas from Western Europe. Norumbega was just a few days to the southwest of the island. The westerlies represented the prime deterrent to this route, as both the prevailing winds and the North Atlantic Drift favored west-to-east travel in the North Atlantic. Even with these barriers, the course was still much quicker than the southern option. The outbound voyage from

¹¹⁸ Thornton, *Cultural History of Atlantic*, 10-15; Ian K. Steele, *The English Atlantic, 1675-1740: An Exploration of Communication and Community* (New York and Oxford: Oxford University Press, 1986), 247.

¹¹⁹ HL, MS 36836, pg. 102.

England to Newfoundland lasted an average of just five weeks, although it could take much longer without advantageous sailing conditions. Favorable winds sometimes shortened the return voyage to just three weeks, and Walker boasted to Gilbert that he had returned to England from Norumbega in just seventeen days.¹²⁰ Both Fernandes in 1580 and John Cabot in 1497 had made quick passages to North America, so Gilbert presumably believed that he could do the same.¹²¹ Regardless of the route's benefits, Hayes considered the southern track preferable, because the Gulf Stream would ease coastal exploration by propelling Gilbert's ships north from Florida to Cape Breton. Furthermore, it made sense to winter farther south along the coast in more moderate climates. The expedition did not depart until June, so the southern route presented Gilbert's crew with the best chance of wintering in warmer areas.¹²²

Another member of Gilbert's circle, Christopher Carleill, advocated the northern route, however, due in large part to its simplicity. A single, fairly reliable ocean current (the East Greenland current) took vessels from England to North America. On the return trip, a single and equally reliable current (the Gulf Stream) brought ships back to England. Most voyages from England, wrote Carleill, utilized a number of currents that navigators needed to be aware of. Additionally, transatlantic voyagers from England did not have to worry about encountering undocumented landmasses that would cause shipwreck, and mariners from rival European realms rarely ventured into the North

¹²⁰ TNA, CO 1/1, f. 10r.

¹²¹ Steele, *English Atlantic*, 79, 274-75.

¹²² The option that Hayes did not mention was to sail northwest from western England or Ireland toward Iceland to catch the polar easterlies, and then use the Greenland, Irminger, and Labrador currents to approach Newfoundland from the northeast, a route that largely avoided the westerlies. See Steele, *English Atlantic*, 79.

Atlantic. The rapidity of the voyage further limited the chance of mishaps, even if Carleill incorrectly suggested that it could be completed year-round.¹²³

Two of the most conspicuous hindrances to the northern course were that few English explorers had traversed it or had written about it. The South and Central Atlantic were much better understood due to the translated works of Iberian navigators. Spanish and Portuguese sailors documented many of their hundreds of voyages throughout the Southern Hemisphere. Their navigational schools, the *Casa de la Contratación* at Seville and the *Casa da India* at Lisbon, kept records of these trips. England lacked a central navigational agency, and few individuals aside from English fishermen sufficiently understood the ins and outs of crossing the North Atlantic at high latitudes.¹²⁴

Hayes catalogued several other impediments to the northern route. A possible quick and early onset of winter might prevent Gilbert's fleet from reaching North America at all, while continual fog, mist, and potentially violent storms customarily hindered travel in the North Atlantic. In 1573, Gilbert's friend Richard Grenville advised against sailing in the North Atlantic due to the potential of encountering fog, mist, or sea ice, and explorers and fishermen alike recognized that these waters were among the most treacherous that any Englishman had ever sailed.¹²⁵ Perhaps the greatest obstacle, contended Hayes, was the "contrariety of currents descending from the cape of Florida unto cape Briton and cape Rase" that accompanied the Gulf Stream.

Gilbert first described the Gulf Stream in 1566, when he stated that the north Atlantic "runneth by nature circularly, from the *East* to the *VWest*, following the *Diurnal*

¹²³ Carleill, *breef and sommarie discourse*, A3r.

¹²⁴ Chaplin, "Atlantic Ocean Meanings," 42.

¹²⁵ BL, Lans. MS 100, ff. 52r-53v.

motion of Primum Mobile.” The geocentric model of Ptolemaic Theory held that the primum mobile (First Mover) was the tenth concentric sphere located beyond the planets. It was believed to revolve from east to west every twenty-four hours and thus to cause all other spheres, including the earth, to revolve with it. Despite Gilbert’s antiquated notions of the cosmos, he realized that some force caused North Atlantic currents to run “all along the *Easterne* coasts of *America*, *Northvvardes*.” The current was extraordinarily swift, and, as Cartier had discovered during the 1530s, it maintained its speed beyond Newfoundland.¹²⁶ Even if diurnal motion, the viewable circular movement of stars at night around the two celestial poles caused by the earth’s rotation, was not responsible for ocean currents, Gilbert obviously recognized how the currents moved in the North Atlantic. He and Hayes realized that the Gulf Stream significantly slowed southward sailing along the North American coastline, and it potentially could force the expedition to winter in frigid northern regions.

Hayes’s report of the voyage confirms that Gilbert’s circle perceived the risks associated with sailing across the North Atlantic, so they wrote instructions for taking the southern route. They understood much about ocean currents in the North Atlantic and on the North American coast, even though only a few English sailors had entered the waters around Norumbega. Gilbert’s experts were aware of Central Atlantic currents as well.

¹²⁶ Gilbert, *discourse of Cataia*, C3r-C4r; see Waters, *Art of Navigation*, 41-42; The primum mobile was commonly cited by authors to explain the movement of celestial bodies. See John Blagrove, *The Mathematical Iewel, Shewing the making, and most excellent vse of a singuler Instrument so called: in that it performeth with wonderfull dexteritie, whatsoeuer is to be done, either by Quadrant, Ship, Circle, Cylinder, Ring, Dyall, Horoscope, Astrolabe, Sphere, Globe, or any such like heretofore deuised: yea or by most Tables commonly extant: and that generally to all places from Pole to Pole ...* (London: Walter Venge, 1585), 9; It was also used to explain ocean currents. See Taisnier, *Booke concerning Nauigation*, B1r, B3r.

According to his instructions, Gilbert initially intended to pick up the Canary Current “about .30 or 40. leages (104-138 miles) to the Southward of the elevacion of the Canaries.” He planned to provide each ship’s master with a note indicating where to meet should they separate before reaching this location. Deemed their “ordynary bayse,” the rendezvous point was either located just off the coast of Cape Bojador in Western Sahara, Africa, or on the continent itself.

Portuguese navigators had been visiting the Cape for perhaps two hundred years by 1582. They had placed it on several sea charts, because, until 1434, it constituted their *non plus ultra* (nothing further beyond) or southernmost point of exploration. English merchants had been visiting West Africa for about fifty years by 1582, and Gilbert’s supporters could have obtained some knowledge of the area from other English sailors. Many voyagers watered in Sierra Leone, and English merchants were well entrenched in the trade to Brazil. John Hawkins used the Canaries as a base and as a watering station before heading to Africa in 1567, and by 1580, English and Italian merchants jointly controlled São Vicente Island in the Cape Verde Archipelago.¹²⁷ One of the books that members of Gilbert’s circle were familiar with, Peter Martyr’s *The History of Trauayle in the VWest and East Indies* (1577), included considerable information concerning Spanish voyages to the West Indies via the Canaries. Martyr reported that the Spaniards’ first stop after leaving Seville was the Canary Islands, where they picked up fresh water, fuel,

¹²⁷ Sir John Hawkins, *A true declaration of the troublesome voyage of M. John Haukins to the parties of Guynea and the west Indies, in the pearts of our Lord 1567. and 1568* (London: Thomas Purfoote, 1569), A2v; Hakluyt, *Western Planting*, 133.

beef, and cheese.¹²⁸ Gilbert probably had similar intentions there, as he eventually utilized Newfoundland and Sable Island in a similar fashion.

Gilbert originally planned to stop at the Canary (or Fortunate) Islands during his 1578 voyage, and one of his ships sailed there to purchase provisions. Gilbert intended to reach North America via the Caribbean during his first expedition, but desertion and poor weather ruined his attempt. The only ship among Gilbert's vast fleet to make it beyond Ireland, the eighty-ton *Falcon* commanded by Raleigh and piloted by Fernandes, sailed south after fixing leaks and resupplying in Ireland, the Isles of Scilly, and the Canaries. In 1580, Raleigh testified before the Court of Chancery that he and Fernandes had taken on fifteen tons of much needed Canary Wine and some meat "at the graund Canaries," for they were nearly out of food and drink at the time.¹²⁹ Exactly how far they sailed beyond the islands is unknown, but they apparently had a skirmish at sea before returning to England early in 1579. Had they been able to continue westward, Raleigh and Fernandes ostensibly would have reprovisioned in the Caribbean before heading north along the North American coast.¹³⁰

Gilbert had an additional motive for using a base directly south of the Canaries as his final port-of-call in the Western Hemisphere. A number of sixteenth century navigators and humanists followed the example set by Ptolemy in selecting the islands' longitude as the Prime Meridian. The pseudonymous English author D.P. wrote that "ancient geographers" had used a line extending from both poles through the Canaries as

¹²⁸ Martire, *History of Trauayle*, 187r; see BL, Add. MS 38823, f. 6r.

¹²⁹ LOC, DBQ, Box 77, Folder 3.

¹³⁰ Quinn, Quinn, and Hillier, eds., *New American World*, vol. 3, 181.

their “western line,” a conviction seconded by William Cuninghame.¹³¹ Mercator initially placed zero longitude at the islands as well, though later in his career he moved it to Cape Verde or Corvo in the Azores to account for magnetic variation.¹³² Lok located the meridian at the Canaries on his 1582 map for Gilbert, and that year Fenton estimated both the declination and the variation to be zero just southeast of the Islands.¹³³

Gilbert’s circle could have utilized any number of these texts or maps during their preparations, and they certainly used Bourne’s popular *Regiment for the Sea*, a text that Dee owned and which was dedicated to William Winter, a member of Gilbert’s crew. Like many of his contemporaries, Bourne cited Ptolemy in his belief that the Canaries marked zero longitude. By using them as the starting point for westward travel, navigators met degrees one, two, and so on.¹³⁴ Standard navigational instruments sufficed to find latitudes, but Bourne contended that these same tools were insufficient for finding longitudes. In chapter seventeen of his text, he provided a method for making maps of any country with accurate latitudes and longitudes. Navigators needed to “measure the longitude from the Meridian of the Canarie Ilands” in order to determine “the number of the degrees” and “the iust longitude in a whole region or countrey.”¹³⁵

¹³¹ D.P., *Certaine brief and necessarie rules of Geographie, seruing for the vnderstanding of Chartes and Mappes* (London: Henry Binneman, 1573), A3v; Cuninghame, *Cosmographical Glasse*, 58.

¹³² Klinghoffer, *Power of Projections*, 77; Borough also felt that magnetic variation was nil near the Azores, which he deemed “the beginnyng of longitudes.” He reckoned that it was just to the east of the islands. See Borough, *Discovrs of Cumpas*, E3v.

¹³³ Taylor, ed., *Troublesome Voyage*, 90; apparently by the 1580s it was well established that the Canaries marked the Prime Meridian for measuring longitude. In addition to the abovementioned books, see Blagrove, *Mathematical Iewel*, 10.

¹³⁴ Bourne, *Regiment for the Sea*, B1v.

¹³⁵ Bourne, *A booke called the Treasure for traueilers, deuided into fiue Bookes or partes, contaynyng very necessary matters, for all sortes of Trauailers, eyther by Sea or Lande* (London: Thomas Woodcocke, 1578), H2v.

Bourne also claimed that European navigators had decided to use the breadth of degrees of longitude at the Canaries as the standard for all longitudinal measurements. As one travels north or south from the equator, the distance between degrees of longitude truncates until it becomes nil at the poles, so having a standard longitudinal distance is imperative. If Gilbert wished to accurately measure longitude, declination, and variation during his voyage, he needed to begin making his calculations at the Canaries. His crew would use these initial measurements to determine the ships' position for the remainder of the voyage.¹³⁶

Right up until June 1583, Gilbert intended to sail south to the Canaries, west to Florida, and north to Cape Breton, before finally retracing his path southwest to Norumbega. He planned to stop at a base south of the Canaries to get his bearings and to collect provisions before sailing westward. Gilbert's crew would calculate and map longitude using the Canaries as their keystone, and the fleet would pick up the same Trade Winds that English corsairs relied upon to reach the Caribbean. By 1582, European navigators had been using the slow moving, year round North Equatorial Current to sail to the Caribbean for nearly a century, so the path was well established for Gilbert.¹³⁷

¹³⁶ Gilbert's experts could have learned about the meridian from any number of the above texts, but locating the Canaries and points southward would be a different matter. Borough had ample intelligence about the islands and may have planned to help Gilbert find them. The manuscript navigational manual that he compiled with his brother Stephen gave sailing distances between the Canaries and significant landmarks on Europe's western coastline, including Cape St. Vincent at Portugal's southwestern tip and the Berlengas Islands off of Central Portugal. The Borough brothers also listed the latitude of the Grand Canary at 27 degrees, 30 minutes, which is just a few minutes south of its true location. See BL, Harley MS 167, ff. 58v-59r.

¹³⁷ On the islands, see Barbara Sebek, "Canary, Bristoles, Londres, Ingleses: English Traders in the Canaries in the Sixteenth and Seventeenth Centuries," in *A Companion to*

As per his 1577 discourse for Elizabeth, Gilbert may have had an ulterior motive for sailing to the Canaries. The Spanish treasure fleet typically anchored at the Islands during the summer on its return voyage from Panama, and Gilbert outlined specific plans for using an island base to attack the Spanish fleet.¹³⁸ Once Gilbert's vessels reached the Caribbean, they could acquire additional provisions before catching the Gulf Stream to propel them along the North American coastline to Norumbega. Gilbert provided in-depth instructions to accumulate information about the North American coast. He planned to settle on the River of Norumbega all along, but he also wanted detailed information about the surrounding countryside to get a better idea of the region's commodities and its geographic composition.

Gilbert asked his pilots to probe "every place that openith into the land though yt seme never to litle," or else they might overlook the best anchorages. He cited Dartmouth, England, and Cork, Bearhaven Harbor, Baltimore, and Castle Haven in southern Ireland as examples of deceptive ports that appear small from the sea but are actually excellent for harboring large ships.¹³⁹ Gilbert's home was just a few miles upriver from Dartmouth, and he had spent years in southern Ireland during the 1560s and the 1570s. In plans with Warham St. Leger, Richard Grenville, and others to utilize fishing grounds in Ireland, Gilbert had singled out Bearhaven and Baltimore as harbors that he wished to colonize.¹⁴⁰ Finding similar ports in North America was of the utmost concern, as they afforded protection from the open sea. Accordingly, Gilbert's experts

the Global Renaissance: English Literature and Culture in the Era of Expansion, ed. Jyotsna G. Singh (Chichester, UK, and Malden, MA: Wiley-Blackwell, 2009), 279-93.

¹³⁸ See Probasco, "Elizabeth, Gilbert, and Conflict," 119-35.

¹³⁹ BL, Add. MS 38823, ff. 2v-3r.

¹⁴⁰ TNA, SP 63/26, ff. 81r-82r.

designated an individual to take note of all bays and other landing places along the coast, focusing specifically on whether or not they could accommodate large ships. They designated another assistant to record the prevailing winds and yet another individual to document the elevation, size, and havens of all islands that they passed by.

Rivers were of equal importance for colonizers, as they served as conduits for trade into the interior and offered a reliable source of fresh water. As shown in chapter one, Hakluyt the elder made it clear to Gilbert that he needed to settle on a river. He suggested that Gilbert settle in a bay at a river's mouth, which would provide protection from one's enemies at sea and a route to trade English commodities for Native American goods located farther inland.¹⁴¹ Colonists also needed water for washing, bathing, irrigating, flushing away waste, cooling, and driving waterwheels. Fresh water fish provided energy that required minimal labor or expertise on the part of the fisherman.¹⁴²

Due to the advantages represented by rivers, Gilbert's experts provided instructions for the crewmen to use their pinnaces and other small craft to search out all "ryvers bayes and havens" as far as they remained navigable into the North American interior. At each river, they planned to catch fish, trade, and "learne of the Inhabitants how much farther every ryver shall extend yt self." Gilbert wanted to know their depths, direction of flow, breadths, and the locations of rocks and other dangers, while he asked his crewmen to estimate the burden and number of ships that each river could accommodate. Gilbert also planned to locate fishing banks and to record their depths,

¹⁴¹ Hakluyt, *Divers Voyages*, R1r-R3v.

¹⁴² Jonathan Scott, *When the Waves Ruled Britannia: Geography and Political Identities, 1500-1800* (Cambridge: Cambridge University Press, 2011), 29; on the importance of rivers in England, see Andrew McRae, *Literature and Domestic Travel in Early Modern England* (Cambridge: Cambridge University Press, 2009), 21-66.

elevations, and distance from shore, so that he could locate them at a later date. As already noted, this information would allow Bavin to map the entire Atlantic coast of North America from Florida to Newfoundland.¹⁴³ After Gilbert had “perfectly discovered all the coste [coast],” he intended to turn south and head for Norumbega to plant his colony.

6. Navigation in Practice: To Newfoundland, Sable Island, and Norumbega

In spite of Gilbert’s extensive planning, unfavorable circumstances forced him to abandon his original plans and take the northern route in 1583. He and his supporters clearly had conducted sufficient research on the southern route, and yet they also had enough knowledge of the northern voyage to make it a viable option. Not only was Newfoundland much easier to reach than the Caribbean, but English seamen had nearly a century of navigational experience in the area. Fisherman had been sailing to the Grand Banks since the late fifteenth century, and the European fishery employed more individuals than any profession outside of agriculture.¹⁴⁴ Newfoundland became so heavily traversed by the early 1580s that pirates began sailing directly to the island to catch prizes. Southampton pirate Henry Witteredge attacked a Portuguese vessel near Newfoundland in 1581, and he returned to Bristol with its cargo of fish and train oil.¹⁴⁵ Two years later, an English pirate “retourning from Terra Florida and newe lande” stole a

¹⁴³ BL, Add. MS 38823, ff. 1r-3v.

¹⁴⁴ Jones, “Cabot and America,” 236-37; Margaret R. Conrad and James K. Hiller, *Atlantic Canada; A Concise History* (Oxford: Oxford University Press, 2006), 27.

¹⁴⁵ TNA, SP 12/151, f. 86r.

ship worth 2000 crowns and brought it to Poole. A ship of Dieppe was robbed at Newfoundland by English pirates the same year.¹⁴⁶

The extended weather delays that had kept Gilbert's assembled crew at port for nearly a year had diminished their provisions and supplies, so the longer southern route would jeopardize the men's health and would possibly prevent the expedition from wintering at the colony at all. The northern course also brought the voyagers to Newfoundland, where they could find fishermen happy to trade or sell their season's annual catch. It was common knowledge among sailors that British and French fishermen typically left for the Grand Banks in March or April and returned in July or August, so many of them would still be at Newfoundland when Gilbert arrived.¹⁴⁷ After reprovisioning, his fleet planned to head southward to more temperate climates "and follow still the Sunne," meaning that they would use their astrolabes and other instruments to find their latitude. Gilbert's need for provisions and the lateness of the sailing season convinced the expedition leaders to ignore various objections and take "the trade way unto Newfoundland."¹⁴⁸

One of the most knowledgeable Englishmen concerning the Newfoundland trade was Anthony Parkhurst, whom Gilbert consulted prior to his expeditions. A Bristol merchant who had been on Hawkins' second slaving voyage to Africa, Parkhurst made

¹⁴⁶ TNA, SP 78/10, f. 120r.

¹⁴⁷ Robert Hitchcock, *A Pollitique Platt for the honour of the Prince, the greateprofite of the publique state, relief of the poore, preseruacion of the riche, reformation of roges and idle persones, and the wealthe of thousandes that knowes not howe to liue. Written for an Newyeres gift to Englande, and the inhabitantes thereof* (London: Ihon Kyngston, 1580), A4r, C2r, D3r, F1r; Hayes, "report of Gilbert," 685; The Spanish treasure fleets typically followed the same schedule, leaving in May and returning in August. See JCB, Codex Sp 7 – 1 SIZE, map insert at 1v-2r.

¹⁴⁸ Hayes, "report of Gilbert," 682-83.

three successful fishing expeditions to Newfoundland between 1574 and 1577.¹⁴⁹ In 1578, he provided information about the ships that frequented the island to Hakluyt the elder, who was working on Gilbert's behalf. Parkhurst claimed to know more about the northwest Atlantic region than any Englishman, which was probably accurate, as he had spoken with English, French, and Portuguese fishermen at Newfoundland and done his own explorations there. He reported that there were "certaine Mines of iron and copper in S. Johns" (Prince Edward Island). He also told Hakluyt that "if you and your friend [Gilbert] shall thinke me a man sufficient and of credite," he would be happy to accompany them with some of his ships and sailors to eastern North America.¹⁵⁰

Parkhurst's precise role in Gilbert's first expedition remains unclear, but in 1583 he was listed among the crewmen. He wrote a commendatory verse for Peckham's 1583 *true report* as well, showing his continued interest in the project even after Gilbert's disappearance.

Gilbert also probably had access to a manuscript navigational manual compiled by Stephen and William Borough, and an examination of the work offers a sense of the appreciable information that England had acquired about Newfoundland and points westward by 1581. Derived from the brothers' navigational experiences and from their translations of Spanish rutters, the book gives precise details regarding the currents near Newfoundland. The Borough brothers provided an accurate description of the Labrador Current, which flows south at Cape Bonaventure in northeastern Newfoundland and maintains a similar course to Cape Race. At the Cape, the current begins to push ships

¹⁴⁹ Conrad and Hiller, *Atlantic Canada*, 29.

¹⁵⁰ Parkhurst to Hakluyt the elder, November 13, 1578, in *Principal Navigations*, 674-77; see also Parkhurst to Hakluyt, lawyer, 1578, in Taylor, ed., *Writings of Hakluyts*, vol. 1, 33-34.

westward into the “Knocke John” Sands, a navigational hazard originating three leagues south of Cape Race that extends all the way to the Cross Islands off of Lunenburg, Nova Scotia. The brothers reported that at certain points the sea depth equals just four or five fathoms, so Gilbert had to be careful when navigating these treacherous waters.¹⁵¹

After accumulating information about the Northwest Atlantic and acquiring the necessary materials for his voyage, Gilbert finally found satisfactory sailing conditions in June 1583.¹⁵² The last point of assemblage for his crew was Cawsand Bay, a small inlet just south of Plymouth, the westernmost major port in England. Cawsand Bay opens to the east into Plymouth Sound, so it provided protection from the storms and western winds that had been battering Gilbert’s fleet for several months. It was also sufficiently isolated to discourage desertion, and by assembling so far to the west, Gilbert would not have to immediately contend with the western and southwestern winds that blew into the Channel most of the year. Such advantages made Cawsand Bay a popular point of departure for transatlantic voyages, as the Red Dragon anchored there during the summer 1586 before sailing for the South Seas. Drake sailed from Plymouth during his circumnavigation, as did Raleigh’s 1585 Roanoke and 1595 Guiana voyages. Gilbert was fully aware of the benefits offered by the Bay.¹⁵³

¹⁵¹ BL, Harley MS 167, f. 69v.

¹⁵² Writers and no doubt sailors knew of the semi-diurnal tide that created two low tides and two high tides each day. See Taisnier, *Booke concerning Nauigation*, B1r-C8v.

¹⁵³ HL, MS 1648, ff. 6r-8r; see Pierre Garcie, *The Rutter of the Sea with the Hauens / Rodes, Soudnings, Kennings, Windes, Floods, and Ebbes / daungers and coastes of diuers regions with the lawes of the Ile of Auleron, and ye iudgements of the Sea. With a Rutter of the North added to the same* (London: William Copland, 1567?), B3r.

After issuing eleven orders for the safety of his fleet, Gilbert departed on June 11th.¹⁵⁴ His pilots set their course for the Isles of Scilly, a perilous archipelago at about 50 degrees north latitude noted for the many shipwrecks that had occurred there since the Middle Ages.¹⁵⁵ Within the first three days of the voyage, the ships began their descent from the Scillies to reach approximately 48 degrees latitude. By this point, the *Bark Raleigh* had already retreated to Plymouth, and for the next two weeks the remaining ships encountered the constant rain, fog, and unfavorable winds that so often hindered navigation in the North Atlantic. Winds essentially dictated their course during this period, and Hayes reported that his *Golden Hinde* alternated between sailing westward and southwestward, which were the quickest routes to Newfoundland.

Upon reaching 43 or 44 degrees north latitude, the ships planned to alter their course, because prevailing winds in the North Atlantic pushed vessels southward during June and July. Hayes' wind readings were quite accurate, since the fleet would be fighting a west wind once they reached the midway point to Newfoundland. Altering their course at 43 or 44 degrees would take them to more favorable north winds, which were better for sailing westward. If the ships ventured to 40 or even 42 degrees north, the winds remained largely westerly, so Hayes knew what he was talking about. After reaching their desired latitude, the ships intended to "take traverse" by sailing for short distances with their compass and marking their position on the traverse board to record how far and in what direction they had travelled. Gilbert hoped to stay between 45 and 47 degrees with the ideal course straddling the 46th parallel, the approximate latitude of

¹⁵⁴ Hayes, "report of Gilbert," 683.

¹⁵⁵ The environs of the Scillies, including the soundings, were well understood by both the English and French by the 1560s at the latest. See Garcie, *Rutter of the Sea*, B2r-B8v.

Cape Race. He was adamant that his pilots “by no means” sail north of 47 degrees out of fear that they would encounter ice bergs and frigid temperatures in the North Atlantic.

Even at more southerly latitudes, however, the weather did not cooperate with Gilbert’s plans. Consistent west to northwest winds drove the fleet south to roughly 41 degrees north latitude, as Gilbert confronted the westerlies that he so dearly wished to avoid. The contrary winds forced Gilbert to make lengthy traverses, which prolonged the voyage and made shipboard work more arduous. At their southernmost point, the fleet probably came to within a few hundred miles of the Azores, but more favorable winds finally guided the *Golden Hinde* and the other ships in the opposite direction.

Parmenius reported that the fleet deliberately sailed so far south to pick up southerly winds, and it did not take long for their plans to reach fruition. By July 27th, Hayes estimated his latitude to be approximately 50 degrees north, and he met the mountains of ice that Gilbert had warned of at latitudes north of 47 degrees. Gilbert was wise to advise against sailing at these high latitudes, and Hayes was lucky to have escaped from the so-called “Iceberg Alley” during the late summer without hitting a chunk of ice that had broken away from glaciers over the past few months. Hayes spotted land at about 51 degrees north, the highest latitude reached by the *Golden Hinde*, and soon thereafter the ship passed by the small Island of Penguins (Funk Island). Parmenius recalled that Funk Island was spotted on August 1st, and he estimated its latitude at 50 degrees north, less than a quarter of a degree from its true latitude. Parmenius had learned that prevailing winds pushed vessels almost directly west toward Newfoundland during the summer, so the ship’s pilot carefully navigated southward.

Prior to departing England, Gilbert had instructed his fleet to gather at Fermeuse or Renewes in Newfoundland. They are the closest deep-water ports to Cape Race, which does not have a quality harbor of its own. He planned to remain at either of the harbors for ten days to “leave marks” of his accomplishment and then sail to Norumbega.¹⁵⁶ Gilbert’s circle had clearly conducted some research on Newfoundland, as they intended to harbor at Renewes or Fermeuse, the two southernmost fishing ports in eastern Newfoundland.¹⁵⁷ Richard Clarke, Master of the *Delight*, had attacked these ports the previous summer, so he knew them quite well. By 1582, Clarke had been trading in European waters for at least a decade, having travelled to Norway and various other locations.¹⁵⁸ He led the assault at Newfoundland with the 200 ton *Susan Fortune* owned by Henry Oughtred and the 60 ton *Popinjay* under the command of Henry Tayler. As captain and master of the *Susan Fortune*, Clarke first went to Fermeuse, but the Portuguese fishing fleet based at the port retreated south to Renewes. Clarke wisely kept his ship a safe distance from Renewes over fear that it was too large to enter the port. In its stead, he sent in the *Popinjay*, which took three Portuguese ships without much resistance. Clarke took the vessels back to Fermeuse to pillage them, and he returned to England with one of the ships and its cargo of train oil and 200,000 fish. Clarke may have modeled his assault after Gilbert’s 1577 proposals on attacking Iberian fishermen at the island, and it is no wonder that Gilbert made Clarke master of his flagship in 1583.¹⁵⁹

¹⁵⁶ Hayes, “report of Gilbert,” 684.

¹⁵⁷ Hayes, “report of Gilbert,” 684; Both Fermeuse and Renewes remain at the same location to this day, although the latter has merged with another town and is known as Renewes-Cappahayden.

¹⁵⁸ Clarke, “relation of Clarke,” 701.

¹⁵⁹ See Probasco, “Elizabeth, Gilbert, and Conflict,” 119-35.

Clarke had ample sailing experience in the area, and it was certainly by his suggestion that Gilbert decided to sail for Fermeuse and Renewes.

Hayes set his course for these ports as his *Golden Hinde* sailed south along the coasts of Labrador and Newfoundland in August 1583, and he encountered the *Swallow* during the trip. As the two vessels made their way southward, their crews spotted the frigate *Squirrel* waiting at St. John's, Newfoundland. Rather than continuing onward, the captains decided to stop there and wait for the *Delight*, which soon arrived. With Gilbert at the helm, the *Delight* unceremoniously scraped one of the rocky outcroppings on the edge of The Narrows at the port's entrance, but fishermen in the harbor quickly came to his aid. Parmenius accurately placed the port at between 47 and 48 degrees latitude. Hayes located St. John's at 47 degrees, 40 minutes (47.67), which is essentially an exact estimate.¹⁶⁰ Only four crewmembers had died during the crossing; two men on the *Delight* succumbed to sickness, and two pirates from the *Golden Hinde* drowned while attempting to board a fishing vessel. Gilbert found a number of English ships and about twenty Iberian vessels at the port.¹⁶¹

As he had intended, Gilbert remained at St. John's for ten days. After reprovisioning, conducting some minor explorations, and taking part in a formal ceremony of possession, he continued southward toward his destination. According to Hayes, Gilbert knew where to find Cape Race, which was indicated by a rock that rises out of the sea, a landmark still seen today. Hayes's placed Cape Race at 46 degrees, 25 minutes (46.42 degrees), which is approximately two tenths of a degree off.¹⁶² After

¹⁶⁰ Hayes, "report of Gilbert," 690.

¹⁶¹ Parmenius to Hakluyt, August 6, 1583, in *Principal Navigations*, 698.

¹⁶² Hayes, "report of Gilbert," 688-90.

passing Cape Race, the ships rounded Newfoundland's southeastern coast into Trepassey Bay and soon reached the Avalon Peninsula's southwestern tip, Cape Pine. Hayes knew enough about Newfoundland's geography to indicate that the vessels would enter Placentia Bay if they continued travelling to the northwest. Gilbert's destination lay to the southwest, however, and he directed his course in that direction.

For the following eight days, no one on any of the ships sighted land. Poor weather limited visibility, and it was also safer to sail at a distance from the coast. Hayes provided few details about this leg of the voyage, though he believed that the fleet covered only 87 leagues during its journey from Cape Race to Cape Breton. When the crew of the *Golden Hinde* found sand just 35 fathoms deep on August 27th, Hayes estimated that they were at 44 degrees north latitude, the same latitude as Sable Island. Two days later, the *Delight* hit ground and sank. Two sets of reckonings for this eight day voyage by fishermen William Cox and John Paul placed the wreck somewhere between Sable Island and Cape Breton, but the descriptions of the voyage offered by Hayes and Clarke make Sable Island the more likely location for the wreck. Hayes customarily gave quite accurate measurements, and though he underestimated Sable Island's distance from Cape Breton, it is difficult to discount his report.¹⁶³

Clarke knew about the sands at Sable Island and worried that his ship would hit them or the island itself, which is precisely what occurred. In his instructions, Gilbert cautioned his pilots to remain at least a kenne (six or nine leagues; 20 miles; or roughly the distance at which headlands become visible from a ship's deck) from the coast. He specifically warned them to keep their distance from land when searching for Block

¹⁶³ See Peckham, *True Report*, E1v.

Island and Prince Edward Island, but the dense fog that they experienced was too much to overcome.¹⁶⁴ It took some time for the *Delight* to go down, but Gilbert would not risk the lives of his remaining crewmen to search for survivors. Clarke managed to save fifteen men with a ship's boat that he had constructed at Newfoundland. Remarkably, the castaways used a single oar to paddle to southern Newfoundland over the course of seven days, and they hitched a ride back to Europe on a Basque whaler.

Clarke provided his version of the *Delight*'s demise to Hakluyt, who included the account in his *Principal Navigations*. Clarke alleged that Gilbert was eager to reach Sable Island, and just twenty leagues from the island the two men had had a dispute about their course. Clarke wanted to sail south by southwest into the south winds battering the fleet, and he reminded Gilbert that "unknowen sands lay off a great way from the land" of Sable Island. Contrarily, Gilbert ordered his pilots to head west by northwest, but Clarke persisted that the island was less than fifteen leagues away in that direction. The ships would surely strike ground if they followed Gilbert's proposed course.

Hakluyt made his opinion of Clarke known in the margin of Hayes's account of Gilbert's voyage. He believed that Clarke had "untruely" commanded Gilbert to sail to the south. For his own part, Gilbert claimed that Clarke's "reckoning was vntrue," so he continued on the course that he felt would take him to the Sable Island. It was at or very near the island where the *Delight* struck ground at 7:00 am on August 29.¹⁶⁵ Regardless of who was at fault for the wreck, Gilbert obviously knew where to find Sable Island. He and his crew simply did not possess the skills to cope with the storms and fogs that had

¹⁶⁴ BL, Add. MS 38823, f. 3r; See Bourne, *Regiment for Sea*, M4v.

¹⁶⁵ Clarke, "relation of Clarke," 700.

persisted for more than a week. The conditions prevented them from seeing land or using the sun and stars to determine their position, which made disaster inevitable.

Had the *Delight* made it beyond Sable Island, Gilbert would have held true to his original plans. Once the voyagers had arrived at their destination, wrote Hayes, they “intended without delay (by Gods permission) to proceed into the South” and reconnoiter every river and bay that they encountered.¹⁶⁶ Whether he reached Norumbega from the south or the north, Gilbert planned to explore every marine opening into the interior. In fact, upon leaving Newfoundland, he sailed in his small, maneuverable frigate *Squirrel* for that specific reason, since the vessel could reach places that the larger ships could not. The *Squirrel* and the *Golden Hinde* continued east by southeast for another two days after the wreck of the *Delight*, until Gilbert yielded to the pleas of his crew and decided to head back to England. It took them just two days to reach Cape Race, a passage that had taken ten days to complete in the opposite direction. The ships continued northward to the approximate latitude of England and thereafter sailed directly east for home.¹⁶⁷

As for Gilbert’s decision to make the inbound voyage on his eight-ton frigate *Squirrel* rather than on the much larger and more seaworthy *Golden Hinde*, this was a simple act of impetuosity that cost the navigator his life. Gilbert probably felt assured of his safety, because Fernandes had piloted the *Squirrel* from Dartmouth to Norumbega and back again in record time in 1580. Fernandes’s voyage should be regarded as one of the great feats of early modern naval history, however, as the ship had a smaller burden than the pinnaces that mariners typically used for coastal exploration or to ferry between larger vessels. Gilbert further diminished the *Squirrel*’s seaworthiness by overloading it

¹⁶⁶ Hayes, “reporte of Gilbert,” 683.

¹⁶⁷ Hayes, “reporte of Gilbert,” 690-94.

“with fights, nettings, and small artillerie, too cumbersome for so small a boate, that was to passe through the Ocean sea.”¹⁶⁸ Hayes and the rest of the crew pleaded with Gilbert to sail on the larger *Golden Hinde*, as storms were quite common in the North Atlantic during the late summer. Gilbert replied that he would not forsake his reliable frigate or the crew with whom he had endured so many tempests and other perils. It is rather astonishing that the *Squirrel* endured its first transatlantic voyage, and neither Gilbert nor any other navigator of the era could have prevented it from capsizing in the storm that hit north of the Azores in September 1583.¹⁶⁹

7. Conclusion

Approximately one year after the conclusion of Gilbert’s expedition, William Borough and William Winter coauthored an address to establish the importance of the English fishing fleet in expanding the navy and in training sailors. They admitted that merchant voyages produced “the perfect maryners and best seamen in knowledge,” but these dangerous treks also claimed the lives of many skilled sailors. Recent expeditions bound for Brazil, the Mediterranean, and Spain had met shipwreck, not unlike the expedition of “Sr umphrey Gilbert” and comparable voyages of discovery “Thus we see by experience,” wrote two of Elizabethan England’s most experienced navigators, “that as marchant voyages & longe voiaiges for discouery, etc. doe brede maryners to

¹⁶⁸ Hayes, “reporte of Gilbert,” 695.

¹⁶⁹ On Gilbert’s death, see Steve Mentz, “Hakluyt’s Oceans: Maritime Rhetoric in *The Principal Navigations*,” in *Hakluyt and Travel Writing*, ed. Carey and Jowitt, 290-92.

profeccion in knowledge, soe doe they rather diminish the number [of mariners] then increase them.”¹⁷⁰

The same year that Borough and Winter wrote their treatise, Hakluyt similarly lamented that “grosse and insufficiente felowes” untrained in navigation had caused the wreck of the *Delight* and the death of one hundred men. He used the disaster as an overture to Elizabeth to better equip mariners with the tools to undertake long and perilous transoceanic voyages.¹⁷¹ Gilbert and his supporters certainly had the navigational prowess for their Atlantic crossing. Borough, Winter, and other English nautical experts played a part in preparing the expedition, and Gilbert’s circle read the latest navigational manuals during their preparations. In 1583, no known Englishman had sailed from Newfoundland to Norumbega or from Florida to Norumbega, so Gilbert’s voyage was a dangerous enterprise. As Hakluyt, Winter, and Borough made evident, expeditions like Gilbert’s that sought out new markets or new lands sufficiently trained mariners. They also required great navigational skill and were therefore risky. On paper, Gilbert’s through plans seemed relatively foolproof, but sailing in the unpredictable North Atlantic, especially near Sable Island, was difficult for the best of early modern navigators. The expedition would have ended much differently had Gilbert taken his chances with his low food stores and avoided the island altogether. Raleigh’s desertion three days into the voyage with the brunt of the provisions proved to be one of the most significant barriers to Gilbert’s success.

It may seem presumptuous to suggest that a voyage which ended with two shipwrecks made noteworthy navigational advancements, and yet Gilbert’s circle was

¹⁷⁰ Folger, MS V.b.303, pgs. 15-16.

¹⁷¹ Hakluyt, *Western Planting*, 68-69.

innovative and their nautical estimations were accurate. Delays prevented them from viewing the 1582 eclipse, but their plan to use celestial bodies to measure longitude sheds light on their research and on their thorough comprehension of nautical astronomy. Gilbert and his supporters possessed various navigational texts and read many of the latest nautical works to give themselves the best chance of success. By consulting numerous manuscript and printed works and by recruiting a number of experienced mariners, Gilbert obtained a very accurate understanding of currents and winds in both the North and Central Atlantic. His voyage was so well researched, in fact, that he felt confident in taking both the shorter northern route to Newfoundland and the much longer one via the Canary Islands and the Caribbean. Gilbert's expedition is often remembered for the shipwrecks that led to its demise, but these disasters were largely the result of conditions that Gilbert could not account for in his thorough preparations.

Conclusion

“And nevermore, on sea or shore, Should Sir Humphrey see the light”

Eastward from Campobello
 Sir Humphrey Gilbert sailed;
 Three days or more seaward he bore,
 Then, alas! The land-wind failed.

Alas! the land-wind failed,
 And ice-cold grew the night;
 And nevermore, on sea or shore,
 Should Sir Humphrey see the light.

-Henry Wadsworth Longfellow, ca. 1848¹

A few weeks before Gilbert departed on his final voyage, Raleigh gave him a letter that relayed a message from Elizabeth.² Using words that were similar to an earlier dispatch that she had sent to him via Walsingham, she wished Gilbert as “great good hap and safty as if her sealf were ther in parson.” She only asked that he leave her a portrait by which to remember him.³ As a “token of her especiall good favore” and of her renewed support for the expedition, Elizabeth also presented Gilbert with “A very excellent Jewell” similar to “the Drake Jewel” that she had given to Francis Drake

¹ Henry Wadsworth Longfellow, “Sir Humphrey Gilbert,” in Henry Wadsworth Longfellow, *Poems and Other Writings*, ed. J.D. McClatchy (New York: Library of America and Penguin Putnam, 2000), 130.

² Elizabeth relayed a similar message to Dee via Raleigh on April 18, 1583, that imparted the queen’s good disposition toward him. While riding on horseback by Mortlake on her way from Richmond to Greenwich that day, the Queen requested a kiss from Dee on her right hand, and told him “*quod defertur non aufertur*” (That which is deferred is not withdrawn). Like Gilbert, Dee was set to depart to foreign lands, only he was going to the European continent. Elizabeth made sure to wish him well prior to his departure. See Dee, *Diary*, 20.

³ TNA, SP 9/55/12, f. 1r.

following his circumnavigation.⁴ Gilbert's piece depicted Elizabeth grasping a golden anchor, which was set with twenty-nine diamonds and two pearls at either end. On the Queen's breast was a large diamond, while a ruby adorned the crown atop her head. The ornate pendant hung from two rose-shaped chains enmeshed with gold and silver, which themselves were set with rubies and diamonds. The back of the anchor was inscribed with a personal message from Elizabeth to Gilbert: "*Tuemur sub sacra ancora*" - We are protected under the sacred anchor.⁵ The Boleyn-Tudor anchor, an embodiment of the family's commitment to the English people, relayed that, after considerable reflection, the Queen had finally consented to Gilbert's venture.⁶

Raleigh and Gilbert expended considerable time and effort in attempting to persuade Elizabeth to permit and subsequently to help bankroll their voyage, but she was only willing to offer Gilbert a token of her support. Always parsimonious, the queen wisely delayed any investment on her part until Gilbert returned to England with proof that Norumbega's commodities warranted her interest. Unlike monarchs in Spain or France, Elizabeth normally abstained from financing risky exploratory or colonizing ventures that would not earn her a quick profit, and her squandered investments from English overseas voyages during the 1560s and the 1570s remained fresh in her memory in 1583. With Anglo-Spanish tensions on the verge of deteriorating into full fledged war, Elizabeth chose not to support an expedition that might further alienate her rivals.

⁴ Like the jewel presented to Gilbert, the "Drake Jewel" also contained a portrait of Elizabeth by Nicholas Hilliard. It remains extant at the Victoria & Albert Museum, and based upon Browne's description of Gilbert's jewel, the two were quite similar.

⁵ Maurice Browne to John Thynne, April 25 to May 3, 1583 in *New Found Land*, ed. and trans. Quinn and Cheshire, 205. My translation of the Latin inscription is not literal, but it is probably closer to Elizabeth's intended meaning.

⁶ Chaplin, *Subject Matter*, 60.

The Queen's marginal interest in Gilbert's voyage gave it a different character than the majority of previous English or continental voyages of discovery. Gilbert and his associates did not have the use of Crown money, intelligence, or other resources, so they had to conduct research and fund raise with printed promotions. Getting to Norumbega presented a distinct set of challenges, since voyages beyond Newfoundland were nearly unheard of at the time. Just a few Englishmen had ever seen the land, and information about its potential for supporting a colony was only available in scattered reports in several languages. Gilbert had available hardly any English voyages to use as examples, and no Englishman had yet to colonize beyond the British Isles.

Gilbert overcame such obstacles by recruiting a diverse group of supporters to complete tasks that suited their interests and abilities. The number of experts whom Gilbert personally consulted or whose works he and his associates read is quite extensive: Bavin, Dee, and Hakluyt; Borough, Bourne, and Norman; Fernandes, Ingram, and Walker; Martire, Thévet, and Verrazano; King Arthur, Prince Madoc, and Saint Brendan; members of the Drake, Fenton, and Frobisher voyages. Much of Gilbert's dealings were not recorded, so many of the individuals whom he conferred with have remained nameless and many of the sources that he used were never identified.

Even with such sparing evidence, a number of significant conclusions can be drawn by studying the preparations for his voyage. One of the most palpable historiographical contributions of my project is bringing to light the great extent that Gilbert and his supporters utilized print. It should come as no surprise that a group of well educated humanists read through manuscript and printed sources to familiarize themselves with overseas colonization. The diversity and scope of their sources,

however, was unanticipated. The known French, Italian, and Spanish travel anthologies, pseudo-scientific texts, almanacs, governmental records, and family papers that they consulted probably represent just a sampling of their source texts.

Printed works shaped the course of Gilbert's preparations more than anything else. Gilbert chose his destination on account of previous explorers who recorded the wealth of Norumbega in their travel narratives. Printed pamphlets helped Gilbert attract subscribers by introducing England's readers to North America and to the benefits of colonization. Reading up on oceanic travel and on the latest navigational tools and techniques gave Gilbert and his crewmen a clear understanding of transatlantic navigation. Even though relatively few sources on North America were accessible in Elizabethan England, Gilbert and his supporters consulted the majority of those available, and they printed several of their own. Print culture benefitted Gilbert's voyage in many ways, and as the number of texts greatly increased during the seventeenth century, print became even more important for the English colonizers who followed Gilbert across the North Atlantic.

The Elizabethan Scientific Revolution also assisted Gilbert in his quest to colonize North America. Magnetic variation had confounded transatlantic voyagers since Columbus's watershed voyage in 1492, and after reading Borough's recently printed text, Gilbert sought to catalogue variation to pinpoint his coordinates and to aid future England-to-North America voyages. Magnetic inclination made compasses quite inaccurate, and Gilbert used Norman's book to devise a plan for measuring the magnetic dip to improve navigation. Ephemerides and almanacs that could accurately predict eclipses were relatively new to England too, and they represented an improved method of

measuring longitude, a problem that faced all early modern oceanic navigators. Dee improved upon previous maps of the North Atlantic by utilizing a projection for his guide chart that accurately portrayed northern latitudes at the expense of regions near the equator, where Gilbert would not be travelling. Gilbert's instructions for mapping and surveying the colony showed that he would spare no expense and use the latest tools in creating a true representation of his colony.

Yet for all of his preliminary reading, Gilbert's sources regularly betrayed him. His vision was only as good as the sources on which he relied, and some of them were based in myth and in faulty scientific reasoning. Dee plotted locations like Cape Race and Sable Island with great accuracy on his guide map, but his depiction of Norumbega as an island was based upon a combination of inaccurate sources and wishful thinking. The eclipse that Gilbert hoped to use to determine his longitude took place exactly twenty-four hours after his almanac predicted, and it would not have been visible in the North Atlantic anyway. Borough and Norman devised strategies to improve deep sea navigation that were used for decades, but their antiquated understanding of geomagnetism made their instruments ineffective in meeting Gilbert's demands. The idealized picture of European-Native American interaction as presented by Verrazano did not correspond with the relationships that English colonizers forged in North America during the seventeenth century. Had he reached Norumbega, Gilbert probably would not have found trade partners willing to exchange valuable commodities for English cloth and trifles like toys and bells.

Gilbert may not have planted his colony, but his expedition had reverberations well into the seventeenth century. Elizabeth transferred Gilbert's letters patent to Raleigh

on March 25, 1584, and his Roanoke colony was modeled upon Gilbert's blueprint. Both men devised thorough plans to map and survey North America's eastern coast, and each intended to draw animals and plants unknown in Europe. England's war with Spain that began in 1585 was the death knell for Raleigh's colony, but he and Gilbert's son John made two additional voyages in 1595 and in 1596 to Guiana and to Cádiz respectively.

Additional direct offshoots of Gilbert's venture were John Davis's three voyages in search of the Northwest Passage between 1585 and 1587. Gilbert's younger brother Adrian received letters patent on February 6, 1584, and together with Dee and Davis, he had intended to use Gilbert's colony as a re-provisioning station during their search for the Passage. Dee abandoned the project in 1583 in favor of his continental travels, and Davis made some noteworthy discoveries during his expedition, including the Gilbert Sound on western Newfoundland named for Sir Humphrey.

Other members of Gilbert's voyage maintained their interest in colonization too. After reporting on the 1583 voyage for Hakluyt, Hayes authored two documents in 1585 and in 1586 to convince Lord Burghley and others to colonize Newfoundland. By the 1590s, he turned his focus to the New England region, and one of his proposals for colonizing was included in John Brereton's 1602 *Briefe and True Relation*. Carleill attracted some modicum interest for his continuing plans to settle Norumbega, but his 1584 voyage only made it as far as Ireland before returning to England. Peckham's *True Report* did not have the impact that the author had hoped for either. It did not trump up enough support for a return voyage to North America, and Peckham again was arrested for his Catholic beliefs in 1584.

Gilbert had instituted the first plan for English Catholics to avoid persecution by settling in North America. Peckham and Thomas Gerrard saw Gilbert's colony as a refuge from the harsh recusancy laws instituted in England in 1581, but Elizabeth prevented them from leaving. In 1605, George Waymouth was directed to find a site suitable to settle English Roman Catholics, and he had the region between Cape Cod and the Chesapeake Bay as its destination. Waymouth only reached as far as Maine before returning to England with timber from the same tree species that Gilbert had expected to find at Norumbega. A group of Puritan Separatists from London also unsuccessfully settled the Magdalen Islands in the Gulf of St. Lawrence in 1597, and it was not until 1620 with the successful founding of the Plymouth Colony that North America became a safe haven for various English religious non-conformists.

Despite the failings of Gilbert's supporters, English interest in colonizing Norumbega remained strong. Perhaps at the suggestion of Edward Hayes, in 1602 Bartholomew Gosnold, Bartholomew Gilbert, and Gabriel Archer (one of Gilbert's in-laws) sailed for Verrazano's *Refugio*. Archer oversaw the building of a trading post in the Elizabeth Islands just east of the Narragansett Bay, and the small crew returned to England with valuable timber. Martin Pring, who was backed by Hakluyt, led a follow-up voyage to the region the following year. He too returned to England with timber, and he commented upon the region's fertile soil, ample fish stocks, and large variety of trees. He made a second trip to Norumbega in 1606, the same year that Sir Henry Challon led a similar failed expedition to the area.⁷

⁷ Peter H. Morrison, "Architecture of the Popham Colony, 1607-1608: An Archaeological Portrait of English Building Practice at the Moment of Settlement," (MA thesis, University of Maine, 2002), 2-4.

Peace with Spain in 1604 had brought about renewed colonization attempts, and though the London Company established the more famous colony at Jamestown in 1607, Gilbert's son Raleigh Gilbert led the Plymouth Company (unrelated to the 1620 Plymouth Colony) that established the Popham (Sagadahoc) Colony at the mouth of the Kennebec River in modern day Maine that same year. He and seven other grantees received letters patent that essentially copied Gilbert's patent from 1578, and Raleigh Gilbert used his father's grant to establish his authority at the colony. He found various tree species in the region and used them to construct the star shaped Fort St. George and the first ship built in the Americas by an Englishman. The colonists made contact with Abenaki traders, but establishing commerce was not as easy as Gilbert had predicted. After his elder brother John died, Raleigh Gilbert returned to England to claim his inheritance, Compton Castle, in Devon. He retained his interest in colonization and was a member of the council for establishing the Plymouth Colony in 1620.

Sir Humphrey Gilbert and his associates devised elaborate colonization plans that affected where and how England's first colonizers established their settlements. Gilbert was the first English person to show an interest in colonizing the temperate climates of the eastern coast of North America, whereas his predecessors focused only on trade in Europe and in Asia. Through relatively intensive research, his circle determined that Norumbega, and more specifically the Narragansett Bay, was the ideal location for a colony. It is no coincidence that the region then known as Norumbega was declared "New England" in the 1620 charter for the Virginia Company of Plymouth. English colonists flocked to the area throughout the seventeenth century and proved the accuracy

of Gilbert's vision in finding a productive land to serve the colonists and the metropole.

The research of Gilbert and his supporters helped bring about this chain of events in creating a "New England" across the Atlantic.

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Folder 17: "Some Early Visitors to New England before 1608."

Box 116, Folder 3: "Simao Fernandes, A Portuguese Pilot in the English Service, circa 1578-88" in Actas, Congresso Internacional de Historia Descobrimientos.

Box 120, Folder 5: "Stephen Parmenius of Buda: The First Hungarian in North America," in New Hungarian Quarterly.

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