MULTIPLE MIDDLES

MAPS FROM EARLY MODERN TIMES

ESSAYS TO ACCOMPANY THE EXHIBITION

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ESSAYS TO ACCOMPANY THE EXHIBITION

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This publication is developed to offer research information complementing the exhibition *Multiple Middles: Maps from Early Modern Times*, at the University of Delaware. Six curatorial graduate students—Rachel Allen, Emily Beeber, Maria Carrillo Marquina, Yoo Jin Choi, Thomas Price and Dakota Stevens—worked with me, Robert Mintz (Asian Art Museum, San Francisco, CA) and James Lin (Fitzwilliam Museum, Cambridge, UK) to develop the exhibition theme, content, and display sequences. Dustin Frohlich and Alexander Johnston (U.Delaware, Special Collections) are the curators who realized and completed the installations of both the online and physical versions of the exhibition. They also assisted with the design and publication of this catalog.

The exhibition was launched in February 2022. Among the prized objects included in the display are early sixteenth-century renditions of Claudius Ptolemy's *Geographia*, a handsome collection of seventeenth-century maps by renowned Dutch and Flemish cartographers, the earliest editions of Kircher's *China Illustrata* and the first English translation of *Atlas Chinensis* from 1671. Essays in this collection examine thirteen maps or atlases, spanning approximately two centuries, from the aforementioned 1511 edition of Ptolemy's *Geographia* to the English rendition of *Atlas Chinensis* published in 1671. The thirteenth essay on *Mercurio Geografica* published in 1682 did not appear in the online version of the exhibition, but it is included in the physical exhibition to complete the exhibition's context and space, allowing the Special Collections to display maps produced by different sectors in early modern Europe.

The existing collection of rare maps and atlases at the University of Delaware has mainly concentrated on Europe and the Americas, due to the university's traditional strengths. Accordingly, within the timeframe for this project, all maps on the exhibition's display are European in origin. However, each essay will reveal to readers its author's commitment to diversify the otherwise European focus by developing and presenting critical analyses through the lens of transcultural studies, whether by interrogating the existing historiography of a map or by challenging preestablished concepts of the region that a map represents and thus calling into question our hitherto understanding of cartographic representations commonly practiced in the sixteenth and seventeenth centuries.

The exhibition's introductory panel begins with a deceptively simple question: "How do you read maps?" As exhibition visitors might have already gathered, just as readers of this collection of essays surely will, a map cannot be readily read as firm evidence of facts, but

rather as a representation of negotiated knowledge produced in a specific time to serve a specific group of audience. Information embedded in maps is therefore often politically charged, sometimes intentionally and sometimes as a body of knowledge inherited from generations of mapmakers. Consequently, to engage with a map requires a conscious mind to recognize it as a performative tool whose text and image combine to represent a set of information. Our recognition of visual information on a map is mediated by the textual information on the map's inscriptions, and vice versa. Moreover, both forms of information are also subject to the surrounding index of each map, be it politically driven (such as a conquest or colonization) or economically driven (such as trade routes or a map's marketability), or as a result of following or resisting a tradition of knowledge production, notably the Ptolemian tradition and the Copernican Revolution. Not surprisingly, at times when textual and visual representations do not conform to each other, such moments necessitate the need for a redefining and re-balancing of information—facts become folklores, visual evidence is economic propaganda, while representations of monsters are actually warning signs of real maritime dangers. These conditions prompt the need for a constant re-balancing of formalist and textualist analyses whenever one interprets a map.

Simply put, a critical examination of a map is an excellent pedagogical tool to train our analytical skills and the ability to observe. Maps are works on paper whose visual and textual data might convince viewers to mistake them for unnegotiated products informed by sciences, while they are in actuality products created by humans to instruct our own perceptions of the shape of the world.

This collection of essays is published as part of the opening of the exhibition at the Special Collections of the University of Delaware in February 2022. The exhibition's opening marks both an end and a new beginning. It successfully concludes our three-year collaboration, launched at the instigation of Janis Tomlinson and Timothy Murray, between the Department of Art History and the University Library's Special Collections, Media Center, and Digital Scholarship Division to promote the University of Delaware's collections of rare maps. Alexander Johnson, Dustin Frohlich, Jessica Barth, and Paige Morgan are wonderful collaborators. Each semester, they assisted me as we brought out a set of rare maps and introduced students to interdisciplinary research methods that pursued historical studies through an integrated method of visual and textual analysis, making the best use of recent scholarship in the history of cartography, archival research, and digital scholarship. At the conclusion of each seminar, students completed both research papers and educational videos, the former to satisfy their academic requirements and the latter to hone their skills in public scholarship. Videos are stored on the university's wordpress site of critical cartography, and a selection of research papers are included in this collection of essays. Curators and specialists of the Library of Congress, notably the late Ed Redmond and John Hessler, offered resources for us to cross-reference.

From the conclusion of the seminars came this exhibition. The support of each and every contributor is significant and critical. This also includes individuals whose names may not appear in this catalog, as well as those who have chosen to assist or contribute anonymously. Thank you.

The University of Delaware is a public entity and our priority is clear: to offer educational service to all. Therefore, it is the responsibility of the university's faculty and staff to introduce research materials and make them digestible to the general public. This three-year project and the exhibition were developed following those very principles.

Vimalin Rujivacharakul
February 28, 2022

A MODERN PTOLEMY

BERNARDUS SYLVANUS'S 1511 WORLD MAP

THOMAS H. PRICE

Geographic knowledge of the Americas was still taking shape in the early 1510s. Almost two decades had passed since European explorers struck land, first in the Caribbean and later along the coasts of Central and South America. Seeking resources and riches, European countries quickly established colonies in this "new" world. The budding global powers of Spain and Portugal signed the Treaty of Tordesillas in 1494, bifurcating the continent and dividing the newly reached land—and effectively the rest of the world—between them. Yet the extent of this landmass and its relation to Asia, which was thought to be significantly closer to Europe at the time, were not yet clear. Bernardus Sylvanus (1465- ?) instills this sense of newness in his pseudo-Ptolemaic world map from 1511, balancing a rapidly expanding globe with the comparative dearth of locally specific geography.

While individual elements of Sylvanus's map are new, the tradition he was drawing upon was certainly not. Sylvanus's *World Map* appears on the final pages of his 1511 edition of Claudius Ptolemy's (85-165) *Geographia (Geography)* which he substantively edited (fig.1.1).[1] Originally written by the Greek-Egyptian scholar Claudius Ptolemy in the first century CE, the *Geographia* is predominantly a mathematical treatise. In the relatively short volume, Ptolemy drew upon his prior astronomical work in his *Almagest* to devise a system for accurately mapping the globe. Revising the work of previous geographers, Ptolemy developed a system of latitudinal and longitudinal—horizontal and vertical—lines that cross the earth at strictly regulated intervals.[2] Using astronomical calculations, a revised system for precisely locating different points on the Earth was devised. A vast list of these coordinates accompanied the theoretical text of the *Geographia*, allowing a potential reader to create a map of any portion of the world. These developments not only significantly increased the accuracy of maps but also effectively created a structure in which new geographic data could be used to create a more precise work.[3]

While representations of the entire globe were still speculative in the early sixteenth century, geographical knowledge had expanded far beyond the information available to Ptolemy. Sylvanus remedied this issue by adding an additional map to the end of the volume, supplementing the classical author's work with more recent observations gathered largely from overseas exploration. Numerous adjustments can be seen throughout the new world map.[4] The continent of

Africa, for example, displays a number of updated elements: the southern tip of the continent has been included, and the northwestern shore has been rounded, no longer forming a right angle at the Strait of Gibraltar. Other more subtle changes have been made as well. Great Britain, normally depicted with a significant easterly appendage on the Scottish coast, has been slimmed into a more regular rectangle.[5] A greater number of islands now also appear off the southern coast of Asia, accompanied by a depiction of Japan.[6] The most significant adjustment, though, is to the map itself.

While there are no records of the physical maps that Ptolemy might have created, the *Geographia* explains two methods of rendering world maps, both of which utilize curving forms. The second projection, which proved to be the more influential, used a system of concentric arcs to preserve the ratio of latitudinal and longitudinal dimensions across the map, limiting the relative distortion created by flattening a sphere onto a two-dimensional surface.[7] Ptolemy's second projection only adjusts for an image depicting 180 degrees of the globe, though, half the circumference of the Earth. While Ptolemy and his contemporaries knew that the Earth was spherical, vast sections remained unknown at the time, so a world map only represented the "inhabited" world, or *oikoumene*.[8] The addition of the Americas to the European conception of the globe caused significant issues for cartographers, and effectively demanded the creation of a new projection.

Sylvanus's *World Map* bears the traces of fundamental adjustment, as the Italian cartographer sought a way to widen the horizon and add additional longitudes while also retaining the equal measurement of areas. To achieve this, Sylvanus curved the ends of the map outward so that the equator is almost a 180° semicircle. The corresponding latitudes curve increasingly tightly towards the north, converging in a small semicircle around the Arctic.[9] The resulting image is quite different than Ptolemy's second projection, which Sylvanus also included in his edition of the *Geographia* (fig.1.2). While the two maps share certain visual characteristics, including the bulbous forms of mountains, they structure the world in different terms. In his later cartographic addition, Sylvanus attempts to resolve an expanding globe into a single image.

This metaphorical enfolding of space was a significant conceptual issue during the early modern period. While Ptolemy's *Geographia* was only reintroduced to Europe in the late thirteenth century, the three-continental system, consisting of Europe, Africa, and Asia, had already been firmly ensconced since the Medieval era.[10] Entering into the Renaissance, then, this tripartite structure was the conceptual basis for geographic considerations of the globe. Reports of land across the Atlantic Ocean proved both a cartographic and

intellectual challenge that took the better part of the next century to be fully accepted.[11]

In his updated version of the *Geographia*, Sylvanus takes up this challenge, reconciling Ptolemy's foundational text with the addition of a fourth continent. The similarities and differences between Ptolemy's second projection and Sylvanus' *World Map* are thus quite significant, not just for their accuracy, but also for the cartographer's apparent attempt to expand the *oikoumene*. Ptolemy's map is essentially preserved in Sylvanus' map at the center of the new *World Map* with South America, or *Terra sanctae crucis* (*Land of the Holy Cross*) emerging along the periphery. The classical model is not revolutionized here, but carefully added to.

Sylvanus followed a similar rhetorical strategy in the rest of the volume. Unlike other editors of the *Geographia*, Sylvanus textually combined new information with the old edition, for example, listings of city locations with more exact data.[12] This can be seen in the more traditional Ptolemaic maps, as well. The rounded edge of Africa and rectangular shape of Great Britain appear in the second projection map, showing that Sylvanus edited the ostensibly older view of the world.

The 1511 edition of the *Geographia* stands out as a unique effort to integrate historic and contemporaneous knowledge. Later editions of the text, which were routinely published until the early seventeenth century, did not take up Sylvanus' method; instead, they preserved the *Geographia*'s original chapters and traditional twenty-six regional maps before adding additional contemporary maps at the end of the work.[13] By combining, rather than juxtaposing, the two elements of old and new knowledge, Sylvanus captured the temporality of a shifting world. The traditional *oikoumene* and Mediterranean-centered world still stand at the center of the *World Map*. At the same time, America emerges along the western border, forcing the outward extension of the world. Its surface largely unadorned, the new fourth continent portends future expansion beyond the borders of Europe and a new Atlantic-focused maritime economy.[14]

Figure 1.1. Bernardus Sylvanus (active 1480s–1510s), *World Map*, in *Geographia by Claudius Ptolemy*, Venice, 1511, print, 16 1/2 x 22 1/2 in. (41.9 x 57.2 cm), University of Delaware Library, Special Collections, FOLIO+ G1001 .P84.

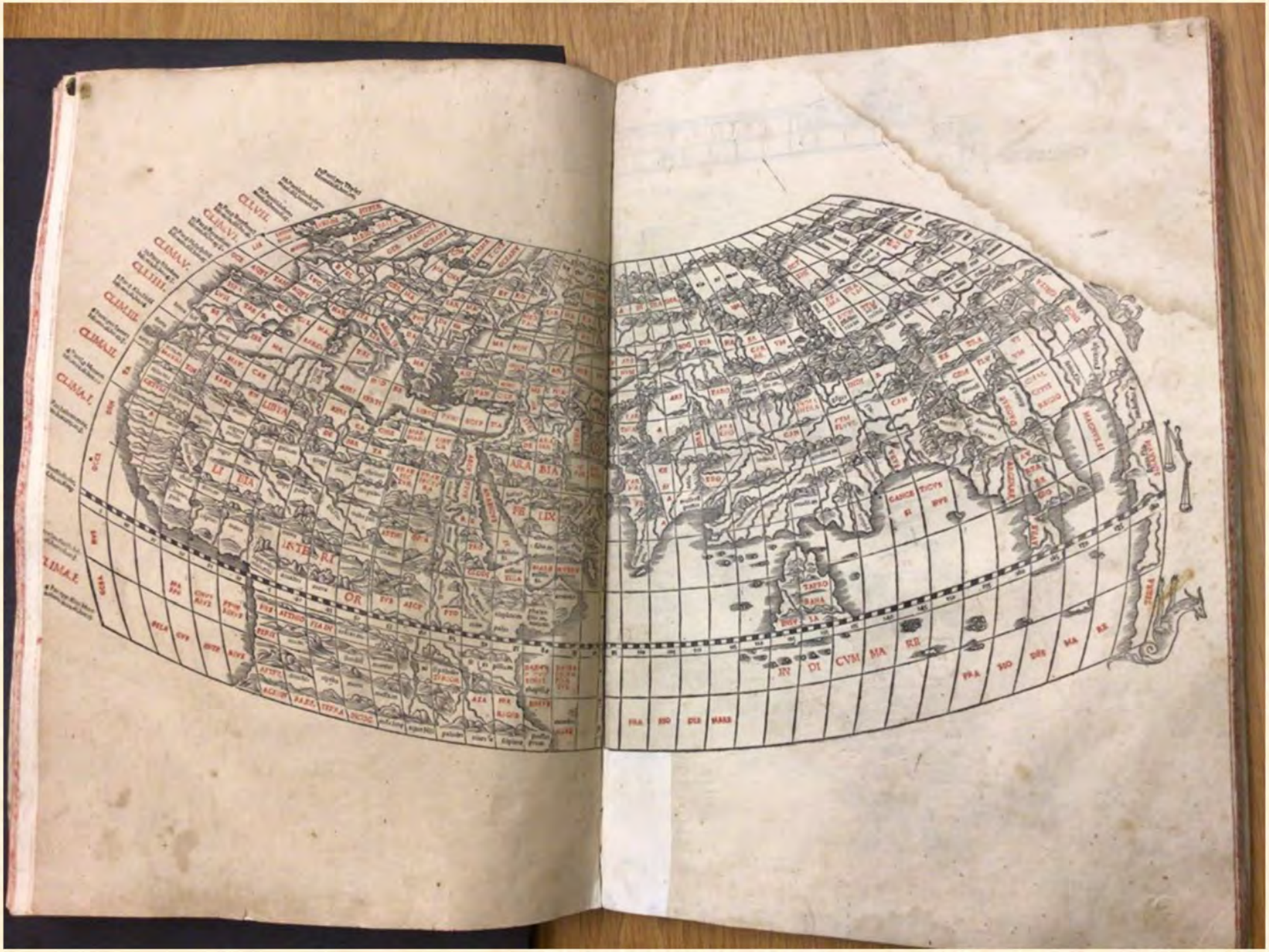

Figure 1.2. Bernardus Sylvanus (active 1480s–1510s), World Map (Second Ptolemaic Projection), in *Geographia by Claudius Ptolemy*, Venice, 1511, print, 16 1/2 x 22 1/2 in. (41.9 x 57.2 cm), University of Delaware Library, Special Collections, FOLIO+ G1001 .P84.

NOTES:

[1] Sylvanus used Jacobus Angelus's 1406 Latin translation of the Greek text

[2] J. Lennert Berggren and Alexander Jones, Introduction to *Ptolemy's Geography: An Annotated Translation of the Theoretical Chapters* (Princeton and Oxford: Princeton University Press, 2000), 37.

[3] Lucia Nuti, "The World Map as an Emblem: Abraham Ortelius and the Stoic Contemplation," *Imago Mundi* 55 (2003): 39.

[4] Robert W. Karrow, Jr. notes some of these changes, as well as those to other maps in the book not discussed in this paper. Robert W. Karrow, Jr., "Bernardus Sylvanus," in *Mapmakers of the Sixteenth Century and their Maps: Bio-Bibliographies of the Cartographers of Abraham Ortelius, 1570* (Chicago: Speculum Orbis Press for The Newberry Library, 1993): 524.

[5] For an in depth look Ptolemaic maps of the British Isles, see Arthur L. Kelly, "Maps of the British Isles, England and Wales, and Ireland: New Plates, States, Variants, and Derivatives," in Marcel van den Broecke, Peter van der Krogt, and Peter Meurer ed., *Abraham Ortelius and the First Atlas: Essays Commemorating the Quadricentennial of his Death 1598-1998*, 221–38. (Houten, Utrecht: HES Publishers, 1998).

[6] Japan appears off the unrendered coast of Asia, oriented vertically, and labeled "Zampagv Ins."

[7] Berggren and Jones, Introduction to *Ptolemy's Geography,* 37. Ptolemy's first projection shortens the length of the southernmost parallel to avoid significant distortions. This causes the map to turn in at the bottom instead of continuing the natural curvature of the projection. Berggren and Jones, Introduction to *Ptolemy's Geography*, 36.

[8] J. L. Berggren, "Ptolemy's Maps of Earth and the Heavens: A New Interpretation," *Archive for History of Exact Sciences* 43, no. 2 (1991): 133.

[9] This sinusoidal model has been referred to as both a "cordiform" and "pseudo-cordiform" map. Ruth Watson recounts the used and misuse of these terms in her article "Cordiform Maps since the Sixteenth Century," and convincingly argues that the term does not and should not apply to Sylvanus's map. Ruth Watson, "Cordiform Maps since the Sixteenth Century: The Legacy of Nineteenth-Century Classificatory Systems," *Imago Mundi* 60, no. 2 (2008): 182–94.

[10] Martin W. Lewis and Kären E. Wigen, "The Architecture of Continents," in *The Myth of Continents: A Critique of Metageography* (Berkeley and Los Angeles: University of California Press, 1997), 24. The conceptualization of continents dates back to the Greco-Roman period, with philosophers like Ptolemy dividing the world into three primary continents.

[11] Lewis and Wigen, "The Architecture of Continents," 25.

[12] Karrow, Jr., "Bernardus Sylvanus," 522.

[13] For an account of the fifteenth to eighteenth-century editions of the *Geographia*, see Henry N. Stevens, *Ptolemy's Geographia: A Brief Account of all the Printed Editions down to 1730*, 2nd edition (London: Henry Stevens, Son and Stiles, 1908).

[14] William Boelhower, "Cartographic Practices: Depicting the *Mundus Novus* and the New Oceanic Order," *The Yearbook of English Studies* 46 (2016): 35.

NORTH BY NORTHEAST

ABRAHAM ORTELIUS AND THE NEW ROUTE TO CHINA

THOMAS H. PRICE

Broad concentric rings delineating the horizontal latitudes narrow toward the top of Abraham Ortelius's (1527-1598) *Asiae nova descriptio* (trans. *New description of Asia*), converging upon a single word: SEPTENTRIO (The Northern Regions). From there, the vast continent of Asia stretches outward (fig.1). The third map in Ortelius's monumental atlas, the *Theatrum orbis terrarum* (trans. *Theater of the World*, 1570), *Asiae nova descriptio* introduces the reader to Asia, familiarizing them with its overall structure before presenting various regional maps later in the volume.[1] Its depiction, then, is both specific and general, contingent and individual, intended to provide a comprehensive view of the region while simultaneously suggesting its position within the broader world. Using this structure, Ortelius proposes speculative geographic relationships with Western Europe, connecting the seen and the unseen landmasses through an imagined northern route.

Born in Antwerp in 1527, Ortelius was a prominent sixteenth-century cartographer. The son of a well-to-do businessman, he began his education in Greek and Latin at a relatively young age.[2] Yet his subsequent ascension to prominence as a cartographer is circuitous. After his father's untimely death, Ortelius began his career by hand-coloring engraved maps, later opening his own book and antiquities shop.[3] His familiarity with a wide variety of literary sources shaped his approach to mapmaking. While not known for being the most scientifically innovative cartographer like Gerardus Mercator (1512-1594), nor was he known for possessing a rigorous knowledge of mathematics and astronomy like Gemma Frisius (1508-1555), Ortelius revolutionized the field by making cartography available to a wide audience.[4] His atlas, the first of its kind, gave upper-middle class buyers access to an image of the whole world.

Begun by at least the mid-1560s, the *Theatrum* was both a cartographic and bibliographic project. While some new maps were created specifically for the atlas, the majority were borrowed from other mapmakers across Europe. The result was a compendium of knowledge, gathered from a wide variety of sources and presented with informational texts accompanying each image. While maps, often of different sizes, previously had to be purchased individually, Ortelius combined and resized all of them to fit within a single volume.[5]

Ortelius's instinctive borrowing also extended to his own map design. A mere three years earlier in 1567, Ortelius produced a wall map of the continent of Asia, *Asiae orbis partium maximae nova descriptio*.[6] The two images are remarkably similar, suggesting that Ortelius only made minor adjustments for the new atlas. The most significant, obviously, is the size, which was reduced from almost three by five feet. The net result is a fairly substantive loss of information and decorative detail, such as the numerous cities in the modern Middle East. A slight change in the scale and shape of the projection is noticeable as well. While the two maps are similarly structured, the 1567 wall map is less dramatically curved and encompasses a slightly broader area. The Mediterranean Sea extends all the way to the southern edge of Italy, which has been cut off in the later work, for example.

Unsurprisingly, Ortelius's 1567 wall map was itself an amalgamation. The cartographer drew heavily from Giacomo Gastaldi's 1561 map of East Asia.[7] While only a few mountains are preserved in *Asiae nova descriptio*, the detailed river system through China and intricately rendered coastline closely resembles the earlier artist's work.[8] Ortelius's representation of Russia was also influenced by Anthony Jenkinson, who created a map of western Russia in 1562.[9]

This geographical stretch from southern Asia to the northern reaches of Russia in Ortelius' *Asiae nova descriptio* marks a distinct departure from previous representations of Asia the continent, including that on Gastaldi's map of 1561. While some scholars have essentially dismissed the importance of this cartographic expansion since much of Siberia remained vaguely rendered at best, it represents a noteworthy shift in perspective.[10] Despite the dearth of information about this region, Ortelius's map contends that it is significant. Indeed, the speculative quality of northern Russia and the Arctic only reinforces the importance of this location, was it was a site of ongoing exploration.

Interest in northern Russia was geographic and economic. After Spain and Portugal's global expansion and establishment of overseas trade networks, northern European countries wanted to institute their own connections to the Far East. The two Iberian countries effectively controlled the maritime trade routes, however, cutting them off. As a result, both England and Belgium sought alternative paths to China, one of which was a speculative route between the Arctic and northern Russia.[11] While inhospitable and virtually unnavigable—several mid-late sixteenth-century expeditions failed to go farther than Novaya Zemlya—the hope for the Northeast Passage remained alive.

An active cartographer with a wide circle of contacts, Ortelius was close to several individuals

interested in this Arctic connection. One of these was Gillis Hooftman (1521-1581), an exceedingly prominent merchant involved with the creation of the *Theatrum* who would certainly have benefitted from new trade routes.[12] More concretely, Ortelius was close to Gerardus Mercator, the renowned cartographer and, through him, John Dee, an English polymath and proponent of the Northeast Passage who took part in planning the 1553 Hugh Willoughby expedition.[13] Ortelius's intellectual context, then, was arguably steeped in this desire to find a northerly route to China.

Staking a claim in this argument, Ortelius kept the passage to Asia open in *Asiae nova descriptio*, leaving just enough space to sail around the northern tip of Russia. In this regard, Ortelius followed the lead of Mercator's 1569 world map.[14] While partially obscured by a text cartouche, Mercator's map leaves a wide channel between the fictionalized lands of the Arctic and northern Europe and Russia, providing the physical and metaphorical space for a sea route to exist. Notably, Ortelius's world map for the 1570 atlas, *Typus orbis terrarum*, closely follows Mercator's version, particularly with the polar regions.[15]

Like his fellow cartographer, Ortelius makes his own speculation in *Asiae nova descriptio*. The Barents Sea and northern Scandinavia lie just barely beyond the border of this map, theoretically connected by open water. *Asiae nova descriptio* picks the voyage up from there, continuing the theoretical journey beyond the point any expedition had yet reached. While otherwise "a worrying borderless concern on maps," as the art historian Christopher Heuer has described the Arctic, "an incomplete geography," Ortelius gives form to the Far North.[16] In this cartographic flight of fancy—the northern coast of Russia is largely an invention—Ortelius adds another telling detail.[17] Between two large jutting peninsulas, an arctic bay descends into a wide river. From this convenient point, one can sail across Siberia and through the complex river system of China, all the way south to the Indian Ocean.

Figure 2.1. Abraham Ortelius (1527–1598), *Asiae nova descriptio*, in *Theatrum orbis terrarum*, 1964 facsimile of 1570 original print, 16 1/2 x 25 in. (41.9 x 63.5 cm.), University of Delaware Library, Special Collections, FOLIO+ G1006 .T5 1570a.

NOTES:

[1] Sixteenth-century cartographers considered the world to be broken into four continents: Europe, Africa, Asia, and America. For more on changing Western perceptions of the continents over time, see Martin W. Lewis and Kären E. Wigen, "The Architecture of Continents," in *The Myth of Continents: A Critique of Metageography* (Berkeley and Los Angeles: University of California Press, 1997), 21–46.

[2] Leon Voet, "Abraham Ortelius and his World," in *Abraham Ortelius and the First Atlas: Essays Commemorating the Quadricentennial of his Death*, ed. Marcel van den Broecke, Peter van der Krogt, and Peter Meurer (Houten, Utrecht: HES Publishers, 1998), 15.

[3] Voet, "Abraham Ortelius and his World," Ibid.

[4] Voet, "Abraham Ortelius and his World " 16.

[5] Ortelius was also a generous scholar. He gave credit for the works that he used (theft of images or plates was common during the sixteenth and seventeenth centuries, before the invention of copyright laws), and laboriously cited all of the cartographers who influenced his work in the beginning of the *Theatrum*.

[6] Paul Binding, *Imagined Corners: Exploring the World's First Atlas* (London: Headline Books Publishing, 2003), 247. The only extant copy is at the Universitätsbibliothek Basel, and unfortunately only the upper half of the map remains.

[7] Robert W. Karrow, Jr., *Mapmakers of the Sixteenth Century and their Maps: Bio-Bibliographies of the Cartographers of Abraham Ortelius, 1570* (Chicago: Speculum Orbis Press for The Newberry Library, 1993), 3.

[8] Binding, *Imagined Corners*, 247.

[9] Peter H. Meurer, *Fontes Cartographici Orteliani: Das 'Theatrum Orbis Terrarum' von Abraham Ortelius und seine Kartenquellen* (Weinheim, DE: VCH, 1991), 21.

[10] Günter Schilder, for example, states that "the northern coastline is also drawn on completely unfounded data . . ." Günter Schilder, "The Wall Maps by Abraham Ortelius," in *Abraham Ortelius and the First Atlas: Essays Commemorating the Quadricentennial of his Death*, ed. Marcel van den Broecke, Peter van der Krogt, and Peter Meurer (Houten, Utrecht: HES Publishers, 1998), 114. Scholars studying Early Modern understandings and representations of the far north have noted the importance of such cartographic representations, even when speculative. See, for example: Charles Officer and Jake Page, *A Fabulous Kingdom: The Exploration of the Artic*, 2nd Edition (New York: Oxford University Press, 2012).

[11] Marijke Spies, *Arctic Routes to Fabled Lands: Olivier Brunel and the Passage to China and Cathay in the Sixteenth Century*, trans. Myra Heerspink Scholz (Amsterdam: Amsterdam University Press, 1997), 49–50.

[12] Spies, *Arctic Routes*, 67.

[13] Helen Wallis, "England's Search for the Northern Passages in the Sixteenth and Seventeenth Centuries," *Arctic* 37, no. 4 (Dec., 1984): 455.

[14] Shirley, "The World Maps in the *Theatrum*," in *Abraham Ortelius and the First Atlas: Essays Commemorating the Quadricentennial of his Death*, ed. Marcel van den Broecke, Peter van der Krogt, and Peter Meurer (Houten, Utrecht: HES Publishers, 1998), 176.

[15] Shirley, "The World Maps," 178.

[16] Christopher P. Heuer, "Chapter Three: 'A Strange Quantity of Ice,'" in *Into the White: The Renaissance Arctic at the End of the Image* (New York: Zone Books, 2019), 77.

[17] Schilder, "The Walls Maps," 114.

AN EXPRESSION OF THE UNKNOWN

OR HOW TO DISTRACT A WHALE

DAKOTA STEVENS

"The sea never changes, and its works, for all the talk of men, are wrapped in mystery"
~ Joseph Conrad[1]

Imagine for a moment that you are a sailor during the Early Modern Period (sixteenth to eighteenth century), venturing from the coast of your homeland for the first time into the vast blue expanse of the ocean. The captain orders you and the other sailors about your tasks, the sails come down as you leave the relative safety of the harbor. Beneath you the water's color slowly begins to deepen as the bow of your ship breaks waves heading to your destination. Maybe it is a couple days down the coast to a nearby port town, or maybe across the entire ocean on a trading run to one of the European colonies. You stand on the deck taking a moment's respite when suddenly you see a large spout of mist not one hundred feet from you. Shortly after a large shape comes barreling out of the water as it launches into the air, it looks like a fish but is ten times larger than even the biggest fish you have seen. The creature lands with a crash and a wall of water rises from beneath it, obscuring your view as it dives back into the depths. How would you interpret what you saw or tell the tale of the massive monster that broke the water and disappeared an instant later? If you are not sure how you would handle such a tale or try to derive meaning about the natural world around you and beneath the waves of the ocean, you are not alone.

Throughout time authors have grappled with how to describe or define the monstrous, especially when it came to the leviathans that lived in the sea. From their depictions on ancient Greek and Roman art to the writings of later authors, sea monsters have captured the imagination of generations of people who evolved to live on the land.[2] What is a sea monster, though? Were they real or fictional? Figments of the imagination or glimpses into a past before humans? Both Classical and Medieval authors disagreed on what monsters were. Marcus Cornelius Fronto (circa 100–late 160s), a Roman grammarian and tutor to future Emperor Marcus Aurelius Antoninus (127–180) viewed them as *contra naturam* (against nature) while others like St. Augustine (345–440) viewed monsters as part of the Christian God's plan, and a way to teach the dangers of sin.[3] What we can say about monsters, as difficult as a precise definition is to pin down, is that they were astonishing creatures with exotic origins whose exact

shapes and behaviors were difficult to note until science as a discipline developed ways to study them.

One such monster is the whale, their zoological infraorder Cetacean comes from the Latin word *cetus* and the Greek *ketos* meaning sea monster.[4] During the early modern period whales were thought of as the mythical creature, the physter or prister, a monster with two blowholes that rises out of the water vertically and spouts water on ships.[5] It is recognized today that this monster more specifically is the sperm whale (*Physeter macrocephalus*), which exhibits similar behavior, rising out of the water vertically with a portion of its head visible to breath, before submerging under the waves. One of the most famous depiction of physters is found on the *Carta Marina et descripto septemtrionalium terrarium ac mirabilium* (Nautical Chart and Description of the Northern Land and Wonders) published in Venice in 1539 by Olaus Magnus (1490 – 1557).[6] The map is one of the earliest maps depicting the Nordic countries: the region that would become Sweden, Norway and Finland. The map contains a veritable compendium of sea monsters all with their own descriptions and narratives of behavior. A hugely influential map, the *Carta Marina* would go on to influence cartographers like Gerard Mercator (1512–1594) and Abraham Ortelius (1527–1598).[7] Ortelius was so influenced by Magnus' map that in a 1590 version of his atlas the *Theatrum orbis terrarium* (Theater of the World), his depiction of Iceland would include many of the sea monsters featured on the *Carta Marina*.[8]

It is an earlier depiction of a physter that is of interest here, found in the upper right-hand corner of Ortelius' 1588 map of what is now parts of China, India, Oceania, and North America, *Indiae Orientalis, insularumque adiacientium typos* (fig. 3.1). There is a scene that looks like it is straight out of the *Carta Marina*, a fairly accurate depiction for its time of a whale with two blowholes releasing spouts of water attacking a ship. The ship, in distress, has thrown barrels overboard. The unseen sailors of the ship did this hoping the barrels will distract the whale long enough for the ship to get away to safety. This method of escaping whales extends from several stories going as far back as Alexander the Great's attempted conquest of India.[9] The whale on Ortelius' map is one of a few sea monsters present on the page, as opposed to the depiction's source material. Part of the *Carta Marina*'s purpose was to provide descriptions of the myriad sea monsters that lurked in the depth. If there are only a few monsters on Ortelius' map and no description even mentioning the physter, why is it there?

The answer lies above the whale, in the small land mass representing part of the west coast of North America. At the time of this map's printing, North America was still relatively unexplored by Europeans

who were establishing themselves in South America. First depicted on a map in 1507 by Martin Waldseemüller (1470–1520), North America was still a land of unknowns, a location many imperial powers wanted to explore but had yet to find an easy way to reach. Traditionally sea monsters, which had begun to appear on maps in the tenth century, were used to express ideas about the unknown.[10] They were markers of possible danger, reminding viewers of the dangers the sea held, but also the vitality of the ocean and the creatures that swim through its waters.[11] Ortelius' map printed in his *Theatrum orbis terrarium*, considered the first modern atlas, and designed to be sold to a popular audience, knew his map would not be viewed by sailors on the ocean. Instead, the map and the atlas it was printed in lived in the studies of learned individuals seeking to understand the world around them.[12] These individuals were looking to build European empires and trade routes across the globe.

In creating this map, Ortelius needed to fill the emptiness near North America. Little was known about the continent at the time and a blank space would not have sold well. Ortelius also needed to signal that while there was little knowledge, based on other exploration over the centuries there was an idea of what could be expected. To illustrate this knowable unknown the whale, became a perfect instrument.

Maps serve as a mediator between the physical world and the mental world.[13] The whale provides the point at which this mediation occurs for Ortelius. Thought of as a monster until the fifteenth century, the perception of the whale began to change as it moved from demon of the deep to commercial good, with trade in whale oil and baleen taking off internationally.[14] It was during this century that we begin to see whales being depicted as they appear in real life. If we look at Ortelius whale as compared to other illustrations, we notice that the fish scales are gone, the whale instead has smooth grey skin and a familiar tail we know from today. Once a sea monster that inhabited the edges of maps marking the unknown, whales were now a commodity.[15] Humans had knowledge of them, they knew how to escape their grasp and pass to the other side. What started as the leviathan, a beast that came and went devouring ships and sailors had become a known entity. For Ortelius there was no better way to illustrate the area around North America. This idea of the whale as a knowable unknown was reflected in later maps during the eighteenth century. No longer were the oceans populated with whales or sea monsters, but with ships sailing across the waves.[16] This shows a systematic shift in humans' understanding of the ocean from the deep blue abyss where any monster could lurk, including the whale, to a tamer world where globalism was beginning in earnest through the trade routes crisscrossing the water.

Figure 3.1. Abraham Ortelius (1527–1598), *Indiae Orientalis insularumque adiacientium typos*, in *Theatrum orbis terrarum*, Antwerp, 1588, print, 20 x 26 1/4 in. (50.8 x 66.7 cm.), University of Delaware Library, Special Collections, 01815 gr.

NOTES

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[2] John K. Papadopoulos and Deborah Ruscillo, "A Ketos in Early Athens: An Archaeology of Whales and Sea Monsters in the Greek World," *American Journal of Archaeology* 106, no. 2 (2002), 188.
[3] Chet Van Duzer, "Hic Sunt Dracones: The Geography and Cartography of Monsters," in *The Ashgate Research Companion to Monsters and the Monstrous*, ed. Asa Simon Mittman and Peter J. Dendle (London, England: Taylor & Francis Ltd, 2017), 388.
[4] Joe Nigg, *Sea Monsters: a Voyage around the World's Most Beguiling Marine Map* (Chicago, Illinois: University of Chicago Press, 2013), 54
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[7] Adele J. Haft, "Marianne Moore's 'Sea Unicorns and Land Unicorns': The 'Unreal Realities' of Early Modern Maps and Animals," *Cartographic Perspectives*, no. 46 (2003), 46.
[8] Van Duzer, *Sea Monsters*, 108.
[9] Nigg, *Sea Monsters*, 102.
[10] Van Duzer, *Sea Monsters,*11.
[11]Ibid.
[12] Surekha Davies, *Renaissance Ethnography and the Invention of the Human: New Worlds, Maps and Monsters* (Cambridge, Massachusetts: Cambridge University Press, 2017), 9 and 47.
[13] Cristina Picanço, "Representation of Cetaceans in Old Maps: Myth, Decorative Elements of Reality," in *From Nature to Science: Scientific Illustrations on Marine Mammals Throughout the Centuries. Old Challenges and New Perspectives*, 2013, 30.
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[15] Picanço, "Representation of Cetaceans in Old Maps," 31, and Van Duzer, *Sea Monsters*, 118.
[16] Van Duzer, *Sea Monsters*, 118.

NOVA TOTIUS TERRARUM ORBIS GEOGRAPHICA AC HYDROGRAPHICA TABULA

YOO JIN CHOI

On *Nova totius terrarum orbis geographica ac hydrographica tabula* (shortened as *Nova totius terrarum,* 1606) (fig.4.1), the world is surrounded by twenty-two windows of allegorical illustrations. Windows on the top and bottom borders of the map represent seven specific locations in the universe and the earth, inviting viewers to imagine the places. Windows on the left and right borders display four personified figures on each side, one representing four classical elements and the other representing four seasons. This type of a map with paneled margins of elaborate illustrations is best known as *cartes à figures*, or "map with figured borders." The borders frame the central cartography and display images of allegorical personification, portraits of rulers, views of cities, and many other images that are relevant to the geographic areas on the map.[1] While the origin of the *cartes à figures* is often contested, scholars believe this cartographic design appeared and gained popularity in the beginning of the seventeenth century, the golden age of mapmaking.[2]

One of the cartographers credited as inventors of the border decorations is Willem Janszoon Blaeu (1571-1638), who designed *Nova totius terrarum*.[3] Born as a son of a wealthy tradesman, Blaeu started his life as an assistant to his family business of herring-dealership. However, his passion was in the mathematics and astronomy. He spent two years in Hven, Sweden to study these subjects, including a six-month apprenticeship under a Danish astronomer Tycho Brahe. When he returned to Holland in 1596, Blaeu started his career as a commercial globe-maker and cartographer. He successfully ran his business using his scientific knowledge and eventually expanded the business to Amsterdam in 1599.[4] He was one of the first cartographers who used his mentor Brahe's astronomical theories instead of the traditional model of the Ptolemaic universe, signaling the shift in the Dutch cartographic practices. In 1605, Blaeu decided to publish commercial maps that appealed to the growing interests in private map-collecting practice of the Dutch public. He hired several designer-engravers to create maps of cities, countries, continents, and the world.[5]

Blaeu's fame as a popular cartographer gave him an opportunity to interact with governors of the Dutch East India Company. Such interactions gave him new geographic information from international explorations

and trades, assisting him to be even more popular with up-to-date maps. In 1633, Blaeu was appointed the official hydrographer of the Dutch East India Company until his death in 1638, allowing him to add new information to his old copper plates and print new editions of older publications.[6]

It is interesting to note that Blaue's original name was simply Willem Janszoon, which was one of the most common names used in the low countries. When he joined the cartography industry, five of his local competitors in Amsterdam also had the identical name, and many more with similar names. One of his biggest competitors was Johannes Joassonius, whose Latin signature was "Jan Jansz." This signature caused confusion among customers because Willem Janszoon also used a shortened signature of "Williem Jansz." as well as a Latin one, "Guilielmus Janssonius." The confusion further continued due to the proximity of their stores and residences in Amsterdam. In 1621, Willem Janszoon decided to adopt a new family name "Blaeu" at the age of fifty.[7] It was an effort to follow the family legacy of his grandfather, Willem Jacobsz, whose nickname was "Blaeuwe Willem." While the nickname Blaeu was another commonly used name at the time, it surely stopped the confusion with his competitor Janssonius.[8] Blaeu started to sign his maps with the new name Gulielmus Blaeuw, as appeared in the copy of *Nova totius terrarum* at the University of Delaware Special Collections.

When he started to expand his cartography business in 1605, Blaue experimented to publish world maps for walls in three different designs: a cylindrical flat map by Petrus Plancius in 1592, a stereographic projection map in two hemispheres, and a Mercator projection map. Among the three, the Mercator projection map with figured borders had the highest demand in the Dutch market, and the design influenced many following Dutch world maps in the seventeenth century.[9] The copy of *Nova totius terrarum* at the University of Delaware Special Collections is a modern facsimile of the Mercator projection map in a folio format, which was originally printed in its first state in 1606 with a signature of Gulielmus Ianssonius. The geographic design is completely identical with the larger wall map in the Mercator Projection, but Blaeu surrounded the map with figured borders containing decorative illustrations.[10] Illustrations on the left border show four allegorical personifications of basic elements, titled *Quatuor Elementa*: fire, air, water, and earth. On the right are another four set of personifications of seasons, titled *Quatuor Anni Tempestates*: spring, summer, autumn, and winter. The top border has seven oval-framed vignettes of seven known cosmological planets, or *Septem Planetae*, personified as the Greco-Roman gods: Moon, Mercury, Venus, Sun, Mars, Jupiter, and

Saturn. On the contrary, the bottom border shows the seven man-made wonders on earth, or *Septem Mirabilia Mundi*: the Hanging Gardens of Babylon, the Colossus of Rhodes, the Great Pyramid of Giza, the Mausoleum of Halicarnassus at Caria, the Temple of Artemis at Ephesus, the Statue of Zeus at Olympia, and the Lighthouse of Alexandria.

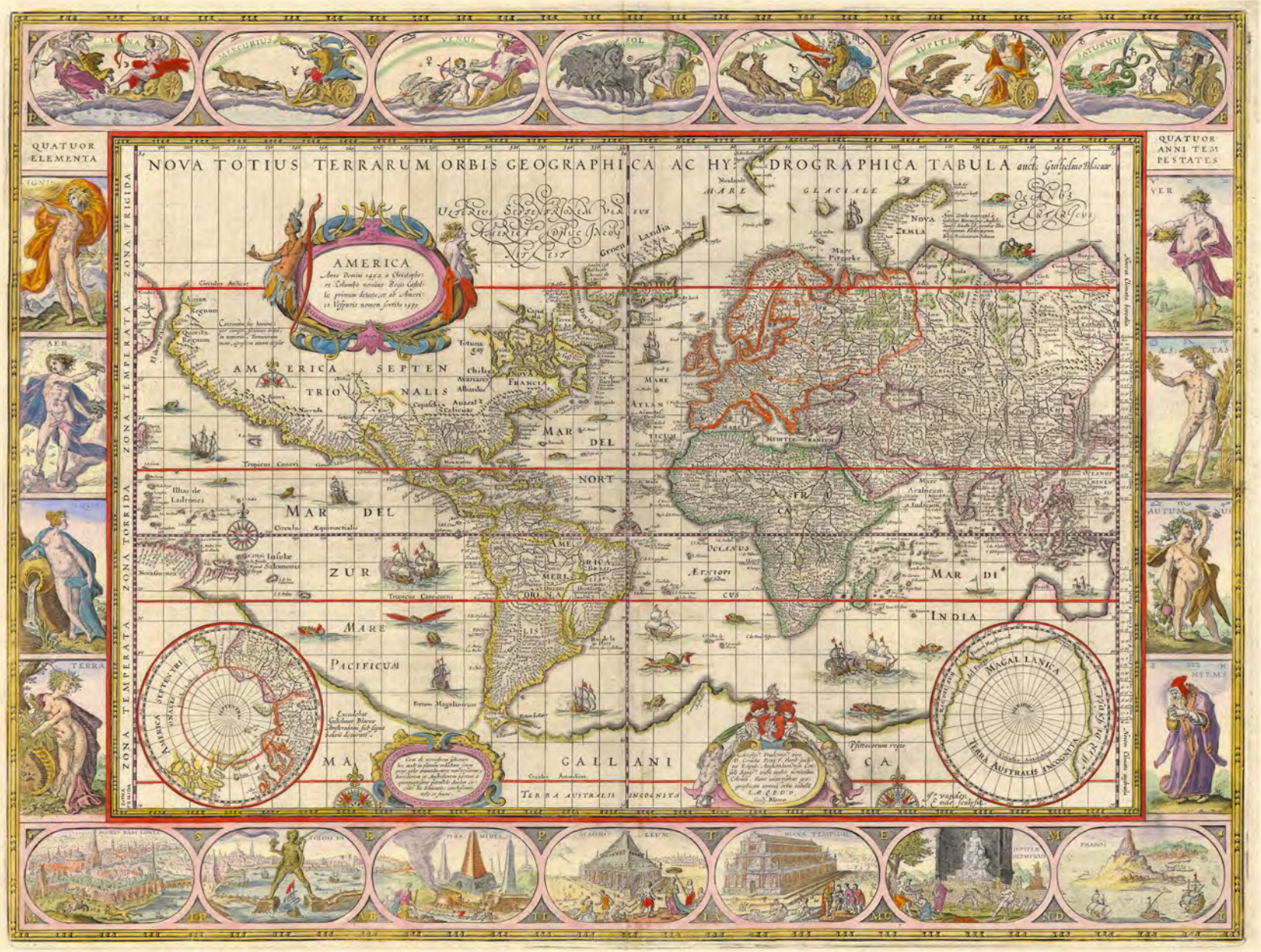
While the illustrations serve the decorative and aesthetic purposes for sales, they also acted as a mirror of seventeenth-century European tastes. The illustrations on the map reflected the changing ideals and demands of consumers, influenced by the Age of Enlightenment. People desired to pursue and disseminate human knowledge of the world. They longed to understand the philosophies of antiquity and humanism of Renaissance. This appeal to more knowledge encouraged cartographers to include extraneous texts and illustrations in blank spaces as a marketing strategy to attract customers. Consumers bought maps with embellished borders to boast their interests in worldly knowledge.[11] Illustrations on the borders of *Nova totius terrarum* are the windows to the past and its enduring legacy in knowledge.

The allegorical personifications of four basic elements and the seven planets are acknowledgement of the Ptolemaic traditions. While Blaue increasingly stepped away from the tradition and projected the cosmological knowledge from his master in Sweden, Blaeu depicted the allegorical figures in the traditional sequence. According to Ptolemy, the earth is at the center of the universe, surrounded by spheres of water, air, and fire, respectively. Similarly, illustrations on the left border also shows the sequence of earth, water, air, and fire, from bottom to top. The top border is the combination of modern knowledge and the past tradition. Seven deities represent the seven known celestial bodies of the seventeenth-century European cosmology, therefore the modern scientific knowledge. Simultaneously, the planets follow a specific sequence in accordance with the Aristotelian and Ptolemaic astronomical systems.[12]

Blaeu also refers to the knowledge of the Renaissance period. It is apparent in his appropriation of designs in Flemish engravings by Maerten van Heemskerck (1498-1574) and Hendrik Goltzius (1558-1617). For all vignettes on four borders, Blaeu borrows designs of the Renaissance prints, from iconographic symbols to styles. Specifically, Blaeu adopted engravings of the Seven Wonders of the Ancient World by Van Heemskerck, who clarified the list of seven wonders following literary sources from antiquity for his works on paper.[13] The concept of Wonders had existed since antiquity. However, there were multiple lists circulating as possible canons, and the Colossus of Rhodes was the only Wonder included in every list. There were other candidates to the list of Wonders such as the Library of Alexandria and The Walls of Thebes. Maarten Van

Heemskerck was the first artist to research and print a list of Seven Wonders of the World based on the ancient texts.[14] His engravings became visual sources to the seven vignettes on the bottom border of *Nova totius Terrarum*.

Even after Blaeu's death in 1638, *Nova totius terrarum* continued to circulate for several decades. Despite the influx of new geographic knowledge, designs and details of the world map remained unchanged in later editions of the Blaeu atlas. Many scholars speculate that the demands from customers for the aesthetics and the financial decision by the Blaeu family to save cost of map production synergized, allowing *Nova totius terrarum* to enjoy its popularity until the end of the seventeenth century.[15] As Rodney W. Shirley writes in his oft-quoted description of the map, *Nova totius terrarum* has proven itself to be celebrated as "one of the supreme examples of the mapmaker's art," presenting the figured borders as the visual gateways to the past and its bygone geographical references.[16]



Willem and Johannes Blaeu, Public domain, via Wikimedia Commons

Figure 4.1. Willem Janszoon Blaeu (1571–1598), *Nova totius terrarum orbis geographica ac hydrographica tabula*, Amsterdam, 1950s facsimile of 1606 original print, 13 5/8 x 17 in. (34.6 x 43.2 cm.), University of Delaware Library, Special Collections, FOLIO+ G3200 1630 .B6 1950.

Notes:

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[2] June Schlueter, "Rereading the Side Panels in 'The View of London from the North'," *Medieval & Renaissance Drama in England* vol. 23 (2010): 145.

[3] Sáenz-López Pérez, *Marginalia in cARTography*, 18.

[4] Cornelis Koeman, Günter Schilder, Marco van Egmond, and Peter van der Krogt, "Commercial Cartography and Map Production in the Low Countries, 1500–ca. 1672," in *Cartography in the European Renaissance*, ed. David Woodward (Chicago, IL: University of Chicago Press, 2007), 1314.

[5] Cornelis Koeman, "Life and Works of Willem Janszoon Blaeu: New Contributions to the Study of Blaeu, Made during the Last Hundred Years," *Imago Mundi* vol. 26 (1972): 12-13.

[6] Koeman, "Life and Works of Willem Janszoon Blaeu," 15.

[7] Koeman, Schilder, van Egmond, and van der Krogt, "Commercial Cartography and Map Production in the Low Countries," 1314.

[8] Koeman, "Life and Works of Willem Janszoon Blaeu," 10.

[9] Günter Schilder, "Willem Jansz. Blaeu's Wall Map of the World, on Mercator's Projection, 1606-07 and Its Influence," *Imago Mundi* 31 (1979): 36-37.

[10] Schilder, "Willem Jansz. Blaeu's Wall Map of the World," 49-50.

[11] Sáenz-López Pérez, *Marginalia in cARTography*, 22-23.

[12] Sáenz-López Pérez, *Marginalia in cARTography*, 23; Daniella Snyder, "The Planets," *Maps as Art: Using Digital Media to Bring Art and Cartography to Life*, http://daniellasnyder.sites.gettysburg.edu/maps_as_art/view-map/the-planets/.

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[15] Schilder, "Willem Jansz. Blaeu's Wall Map of the World," 50.

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NOAH'S ARK MAPPED
THE BEGINNINGS OF HARMFUL ENDS

RACHEL ALLEN

Asiae nova descriptio (1607) by Jodocus Hondius (1563–1612) is all about beginnings (fig.5.1). Wrapped in mythological and religious tradition, a picture of one continent marks the origins of humanity. The map, in its current form in UD's Special Collections, is a single sheet, but once belonged in an atlas. In 1593, the notable cartographer of maps and globes started his publishing house in Amsterdam.[1] In about thirty years, the Hondius family firm would help create the atlas market for a rising mercantile middle class.[2] In the meantime, Hondius created maps and globes for sale.

Mapmakers at this time did more than depicting landforms and political borders. They were also concerned with giving a larger picture of the universe, just as Hondius's *Asiae nova descriptio* brought an early modern ordering of the world's human inhabitants into view. At first look, this map speaks to the larger maritime and trading pursuits of Europe, particularly the Dutch, on Asia. Previously, Europe's focus had centered on the East of Asia, but by the seventeenth-century, all eyes were on the Southeast. The West's insatiable appetite for three luxury spices, cloves, nutmeg, and mace, motivated power struggles over trade in what is now called Indonesia. In the Indian Ocean on the map are large vlieboots, or multi-masted ships similar to carracks, darting on their trips to and from islands such as Java. Located at the bottom of the map as "Java Major," this strategic location was not yet fully explored by the Dutch, as its yellow outline fades into the water. Nearby, a lone djong (jong), a Javanese ship similar to the Greek penteconter, returns home, further emphasizing the island's autonomy. The first permanent Dutch trading post was only established in Banten, West Java, four years prior to this map. But the recently formed Dutch East India Company (VOC) would come to dominate the region with oppressive consequences for the people living there.

Though most of the map features the new trading interest of the Dutch, the margins tell a much older story, the focus of this essay. Above the title, the red-faced and horned Pontus stares back. As a primordial deity and son of Gaia in Greek mythology, he was more than a resident god and rather the embodiment of the sea itself. In other depictions, his grey beard melts into the water and his horns are crab claws. In a map filled with unknown places and dreams of maritime success, the beginning of the sea seems an apt onlooker.

Below Pontus and the map's title, a text box recounts the beginnings of humans. The Latin narrative places humanity's origins in Asia. It states that it was there where God created Adam and Eve. The text continues by explaining that Noah's ark arrived in Asia where it has remained since. In this story, Noah built a large boat that saved enough people and animals to repopulate the world after a global flood. Describing what happened after the flood, Genesis 9:18–19 reads, "The sons of Noah who came out of the ark were Shem, Ham and Japheth. (Ham was the father of Canaan.) These were the three sons of Noah, and from them came the people who were scattered over the whole earth." Hondius' map emphasizes this part of the story, listing Noah's sons and detailing where the descendants of Shem "scattered." Genesis 10 begins by listing the descendants from each of Noah's sons, and ends: "These are the clans of the sons of Noah, according to their genealogies, in their nations, and from these the nations spread abroad on the earth after the flood." Even though Genesis does not state where Noah's sons took residence, Hondius follows the tradition of later texts, which associate Shem with Asia, Ham with Africa, and Japheth with Europe.[3] Hondius logically recounts Shem's boundaries on a map of Asia.

This harmonious matching of sons and continents worked well when Europe believed there to be only three continents. Noah's sons were sometimes described on the medieval T-O structure maps. In Jean Mansel, *La Fleur des Histoires* (ca. 1455), the illustrated manuscript show Noah's ark on top of Mt. Ararat and each son on a separate continent, pointing to their designated land and dressed in the makers' imagined costume. But when Europe learns of the existence of more land to the west, a problem arises. If there are more lands, where does that leave the neatly sorted sons and continents?

Hondius, deeply invested in the narrative of Noah's sons, slowly shifts to new ideas. Years prior to his completion of *Asiae nova descriptio* (1607), Hondius had already made significant depictions of Noah's story. For example, his 1603 wall map of the world (*Nova et exacta totius orbis terrarum descriptio geographica et hydrographica*, 1603) included a table of Noah's descendants and four medallions depicting Noah and his sons. Additionally, an ancient world map inset in the center shows the spreading of the descendants according to Genesis 10, even including small pictures of the sons near the Middle East.[4] Even though Hondius backs off the story pictorially in *Asiae nova descriptio*, he cannot abandon it completely. A year later, he made a few important changes. His 1608 world map still included the table and medallions, but he omitted the inset world map. In its stead, Hondius depicts five women personifying Europe, Asia, Africa, and both Americas.[5] As a significant transition, this map bridges

traditions. While still holding on to the religious story linking three continents to three sons, the emerging tradition of secular continent personifications takes root. Nevertheless, each woman holds a banner that describes how a son of Noah populated each continent. But the problem of the "new" continents remains. America holds a banner that reads: "What father America may have had, is very uncertain…it is more credible that this region began to be peopled from the northern parts of Europe and Asia (with which America is contiguous or separated only by a narrow strait); but by whom or when is altogether uncertain."[6]

Hondius had explored this idea in *Asiae nova descriptio* the year before. The text block in the upper right corner speaks of English explorer John Davis (c. 1550–1605). Davis piloted several Dutch and English expeditions in the East Indies, but Hondius describes his attempts to find the Northwest Passage through present-day Canada. At this time, maritime straits through North America were believed to exist since straits through Chile were already found (Strait of Magellan). A maritime passage through the continent was perceived as particularly advantageous, as it would open up a western trade route to Asia. As the banner on Hondius' 1608 map notes, he believed like many that America connected to Asia. This would solve the problem of American population origin, concluding that they came from Asia. Obsessed to prove it, explorers like Davis searched for this northern route. However, the task proved treacherous. In the text block, Hondius describes the "mountains of ice" as "completely horrible." But hope remained in imaginative geography. West of the upper text block and the yellow American parts, a strait named "Anian Fretum" records not the precise location of the passage, but the belief that it was there.

Hondius reiterated tradition while on the cusp of change. As the two types of continental ordering of people appeared on the same map, it becomes easier to see how secular, allegorical personifications of the continents grew out of the previous tradition of Noah's three sons. Though not exactly a race construction in the modern sense, it perpetuated racist ideas later supported. Eurocentrism, a pervasive ideology at the time, also paved the way for later racialized hierarchies by supposing Europe as the best continent, inherently superior to other parts of the world.[7] As seen in Mancel's *La Fleur des Histoires* discussed above, early depictions of Noah's sons do not possess the later used phenotypic racialization markers associated with the different continents. However, harmful ideas that enforced European superiority persisted in these narratives. Ham, who inherited Africa, had been cursed. This led to the racist interpretation that all Africans were also cursed, justifying African slavery which was already thriving by this time.[8] The sixteenth-century

brought African slave trade to the coastal region of Guinea. New Guinea in the Pacific looms large in the bottom right of *Asiae nova descriptio*; though unexplored by the Dutch, hope that it would yield the same profits as the first Guinea in Africa rendered it oversized.

Though a seemingly benign cartographic representation, ideas about the continental hierarchy leading to racist ideas pervade this map. The early modern urge to provide a fuller world picture beyond geography reveals perspectives on how Europeans thought human inhabitants were ordered in the world.

Figure 5.1. Jodocus Hondius (1563–1612), *Asiae nova descriptio*, Amsterdam, 1607, print, 17 1/2 x 20 in. (44.5 x 50.8 cm), University of Delaware Library, Special Collections, 01807 gr.

NOTES:

[1] David Woodward, ed., *The History of Cartography*, Volume Three, Part 2, *Cartography in the European Renaissance* (Chicago: University of Chicago Press, 1987), 1311.

[2] Woodward, *Cartography in the European Renaissance*, 1318.

[3] Chet Van Duzer, "The Pre-History of the Personification of Continents on Maps: Earth, Ocean, and the Sons of Noah," in *Bodies and Maps: Early Modern Personifications of the Continents*, ed. Maryanne Cline Horowitz and Louise Arizzoli, Intersections: Interdisciplinary Studies in Early Modern Culture, Volume 73 - 2021 (Leiden: Brill, 2021), 107.

[4] Duzer, 121.

[5] Duzer, 122.

[6] Duzer, 123.

[7] Michael Wintle, "Gender and Race in the Personification of the Continents in the Early Modern Period: Building Eurocentrism," in *Bodies and Maps: Early Modern Personifications of the Continents*, ed. Maryanne Cline Horowitz and Louise Arizzoli, Intersections: Interdisciplinary Studies in Early Modern Culture, Volume 73 - 2021 (Leiden: Brill, 2021), 39-40.

[8] Wintle, 47-48.

CENTRAL MARGINS
HOW A CELESTIAL GLOBE IS A FAMILY'S WHOLE WORLD

RACHEL ALLEN

With the turn of a page, the whole universe reveals itself. Perhaps that was the experience of seventeenth-century patrons in Amsterdam's new atlas market.[1] *Nova Totivs Terrarvm Orbis Geographica* (1638) comes from the first book of a colossal three-volume atlas published by the Hondius family firm.[2] Here, mapmaker Hendrik Hondius (1597–1651) engraved not just a map of the world, but lavishly illustrated his understanding of the entire surrounding cosmos (fig. 6.1). For Europeans at this time, it was still common practice to include the known universe on a world map, as cosmographers fashioned connections between the heavenly and terrestrial realms in one unified world picture. Practically, knowledge of stars, planets, and celestial events held significance for navigation and agriculture.[3] Scientifically, ideas were changing about the placement and movement of celestial bodies. Altogether, this world map charts a complex set of relations between the universe, cartographic traditions, and family legacy. With references to constellations throughout the map, the celestial globe in the upper center becomes the locus for understanding all of these connections.

By this time, astronomer Nicolaus Copernicus (1473–1543) had already put forth a heliocentric model.[4] Following his theory, he removed earth from the center of the universe, asserting that the earth rotated on its own axis but also revolved around the sun along with other planets.[5] Copernicus' theory was not immediately broadly accepted by the public, yet it sparked a major shift from the Ptolemaic model of the heavens in which the earth was fixed at the universe's center while the sun, moon, and all planets revolving around it, and the stars rotating in a fixed angles around the earth. Over time this Ptolemic model was superseded by Copernicus' theory, and by the seventeenth century the most progressive mind came to believe that the earth in fact rotated around the sun.

Yet, for Hondius, the new scientific shifts in astronomy seemed to be less important for the benefits of his publishing house. To compete for atlas sales with his biggest rival working just next door, the Blaeu family, he aligned his family with the widely accepted Ptolemic tradition rather than new ideas about the universe, hoping to reach the established preference of the mass.[6] On the Hondius map, a tiny globe appears at the top of the map in the center, showing constellations Boötes (herdsman), Ursa major (bear), Leo (lion), and

Virgo (virgin) can be seen at close inspection. As it appears, Hondius' world map depicts a celestial globe, a longstanding element prevailing with the mapmakers adopting the Ptolemic cartographic model.

Celestial globes are the globes that depict the stars, fixed in a sphere that moves around the earth. On them, the constellations read in reverse from how they would appear when looking up at them from the earth. Each star is placed as if looking from above the stars down toward the earth's surface. Yet Hondius' celestial globe on the map is unique; the four constellations on the globe depicted present in the forward direction as if looking up from the earth, not downward. A celestial globe would not have been rendered this way. For comparison, Virgo, Boötes, and Leo face the upper left on a celestial globe made by the Hondius family, yet they face the upper right on a celestial map held in the University's Special Collections (fig. 6.2). Though a small detail, it seems an important one for a publishing house that made its money selling maps, atlases, and globes, particularly as Hondius' father, Jodocus Hondius the Elder (1563–1612) specialized in globe-making. Famously, one pair of his terrestrial and celestial globes that together depict the cosmos likely appear in paintings by Johannes Vermeer's *The Geographer* (1669): a terrestrial globe rests on a high cabinet behind the man hunched over a map. In another painting by Vermeer, a celestial globe receives an even closer attention from *The Astronomer* (1668-1673).

In the case of the *Nova Totivs Terrarvm Orbis Geographica*, one might ask if Hondius made a mistake when drawing the celestial globe on this map with the four constellations projecting upward to the sky. In the copper-engraved printing process used to produce maps at this time, the image would have been incised on copper in reverse so that it would appear in the correct orientation when printed on paper. However, it seems unlikely that a skilled engraver would make a reversal mistake or that the mapmaker preparing the drawing would lazily copy a celestial map when printed globe segments were available within the publishing house. Maybe it was a late addition done by a novice apprentice. Or, if by accident, the hand-colored detail of specific constellations in the correct position renders this conclusion suspicious. Perhaps in the context of an atlas rather than a globe, the constellations in the orientation as would be seen from the earth would make them more recognizable. If unfamiliar, readers could then make identifications by comparing them to a celestial map. Thus, the celestial globe that appears as if containing an error is rather designed for viewers to identify with the practice of the map makers.

Other elements of *Nova Totivs Terrarvm Orbis Geographica* include the chosen constellations represent the stars seen during spring in the northern hemisphere.

The remaining three quadrants of the globe fall into shadow, colored blue. By privileging this view, three aspects of the mapmaker's values surface. First, the important constellations are ones seen by the mapmaker, or Europeans more generally, rather than any other part of the world. In a time of accelerated European exploration and colonization, ideas of superiority justified claims to land, trade, or other property. To illustrate this narrative, a vignette directly below the globe at the bottom of the map presents allegories of the four known continents. The turbaned man on the left represents Asia, while the barely clothed America and Africa stand to the right. On top of a plinth, crowned and enthroned Europe holds a book in her right hand and scepter in the other with a cloth of honor draped behind her. Together, these items represent the knowledge and power of Europe with a heightened status above the other continents she rules over. Below, the typecast characters perpetuate harmful stereotypes and enforce the idea of an inherently subordinate position. By presenting tribute to Europe, all parts of the world are meant to serve her desires for wealth and property. Importantly, this theme is not unique to this map and can be seen in many atlas title pages and marginal map decorations during this period, including the frontispiece of Ortelius's *Theatrum Orbis Terrarum* (fig.6.3).[7]

The second aspect concerning the spring constellation is its placement in a quarter of the circle, building on the symmetry of the entire picture. Inherited from ancient thought, many early moderns believed in a perfectly balanced and symmetrical cosmos. On this map, several pairs and quartets mirror each other. Appearing like two disks, the double hemisphere projection divides the world evenly into two parts. Besides balancing the composition, the two circles separate the so-called "old" and "new" worlds, or landforms known for longer or shorter periods to Europeans. The sun and moon peek from behind the world in unison, while the celestial globe and continent vignette hold the central top and bottom of the picture. Furthering the symmetry, four portraits appear in each corner, and four personified elements occupy the remaining margin.[8] On the celestial globe, the constellations represent one of four seasons. Interestingly, the symmetry only breaks in the final quartet, the four continents discussed above. For Europe to dominate the other three, the maker must settle on an asymmetrical composition.

With cartographic tradition, the final value represented in the celestial globe comes into view: Hondius family legacy. As mentioned earlier, Hendrik's father Jodocus was known for his cartographic work. Presenting a celestial globe might nod to that history, as would incorporating other specific constellations

throughout the map. Jodocus collaborated with astronomer and cartographer Petrus Plancius (1552–1622) on a celestial globe completed by 1598, known to be the first globe to include twelve new constellations in the southern hemisphere.[9] Several of them appear on this map. The figure of personified air cradles a chameleon in her hand representing Chamaeleon while two white cranes representing Grus glide by her. Phoenix, the color of ash, emerges from the flames in Fire's hand. And flying fish, representing Piscis Volans, spring across the middle of the map from one hemisphere to the next. These and the rest of the southern constellations can be found on another page of the celestial atlas (fig. 6.4).[10]

To further embed his family legacy, Hondius positions a portrait of his father in the lower-right corner, probably after a commemorative print published the year after his father's death. In the print he and another notable cartographer, Gerard Mercator (1512-1594), each use a compass on their globes. Jodocus bought Mercator's plates after his death and the family published them in a series of atlases, including the one that holds this map.[11] Here, Mercator's portrait, also likely drawn after the print, sits opposite Jodocus in the lower-left corner. Julius Caesar's portrait rests in the corner above, included for commissioning the first map of Roman roads. The last portrait is of Claudius Ptolemy whose *Geographia* gave birth to the Ptolemaic model discussed above. By aligning his family with a line of famous cartographers dating back to antiquity, Hondius inserted his family's claim of authority over the long history of mapmaking.

From investigating the small celestial globe depicted on Hendrik Hondius' world map, connections between the universe, cartographic traditions, and family legacy become clear. Ultimately, all of Hondius' devices were in service of publishing an atlas—one that would be not only worthy of collection but also more desirable than those designed by his competitors.

Figure 6.1. Hendrik Hondius (1597–1651), *Nova Totivs Terrarvm Orbis Geographica AC Hydrographica Tabvla*, in *Atlas Novus*, Volume 1, Amsterdam, 1638, print, 20 1/2 x 13 x 3 in. (52.1 x 33 x 7.6 cm), University of Delaware Library, Special Collections, Folio+ G 1007 .A7 1638.

Figure 6.2. Elijah H. Burritt (1794–1838), *Atlas designed to Illustrate The Geography of the Heaven,* print, New York, 1835, 16 ½ x 14 ½ in (41.91 x 36.83 cm), University of Delaware Library, Special Collections, FOLIO+ QB63 .B9x 1835.

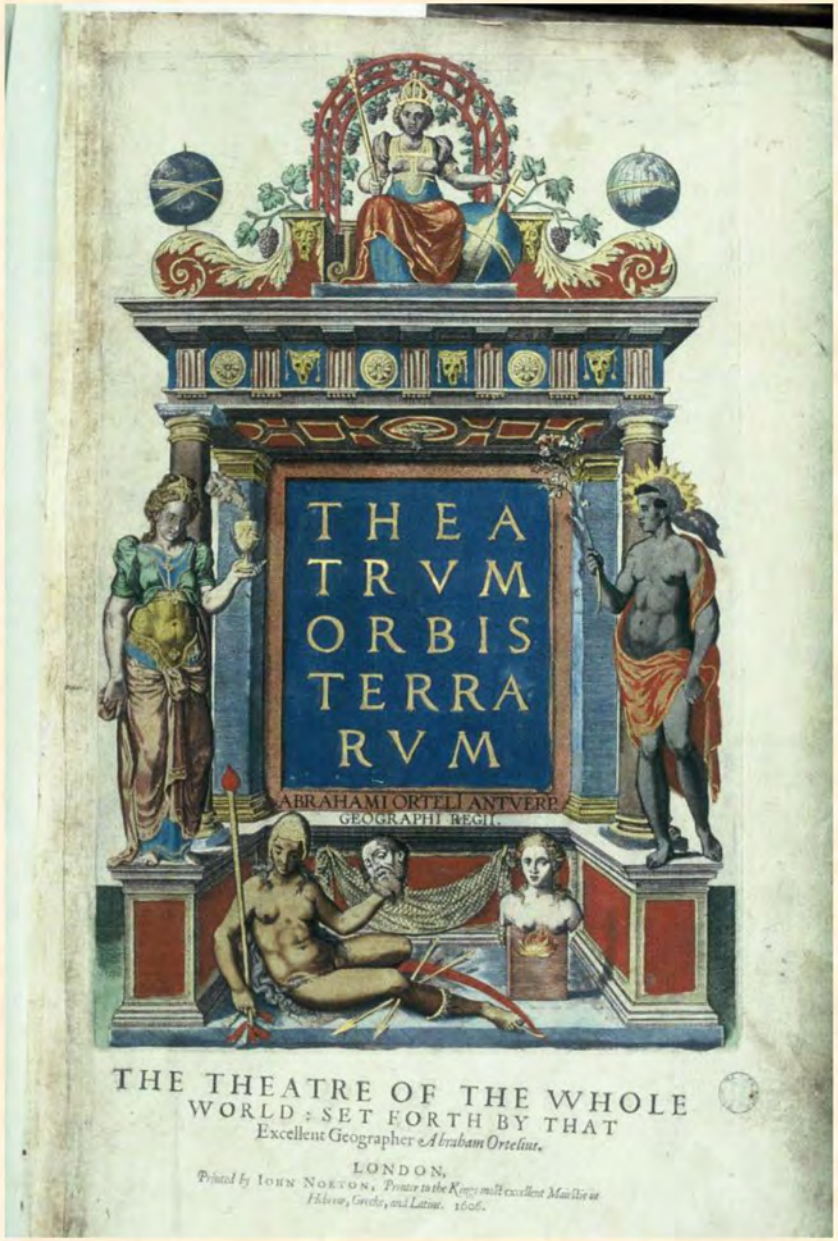

Figure 6.3. Abraham Ortelius (1527–1598), Frontispiece in *Theatrum Orbis Terrarum*, 1964 facsimile of 1570 original print, 16 1/2 x 25 in. (41.9 x 63.5 cm.), University of Delaware Library, Special Collections, FOLIO+ G1006 .T5 1570a.

Figure 6.4. Elijah H. Burritt (1794–1838), *Southern Circumpolar Map in Atlas designed to Illustrate The Geography of the Heaven*, New York, 1835, print, 16 ½ x 14 ½ in (41.91 x 36.83 cm), University of Delaware Library, Special Collections, FOLIO+ QB63 .B9x 1835.

NOTES:

[1] Mercantile middle class with humanistic interests supported the growing atlas market in Amsterdam. See David Woodward, ed., *The History of Cartography*, Volume 3, Part 2, *Cartography in the European Renaissance* (Chicago: University of Chicago Press, 1987), 1318.

[2] For more on this atlas, see Woodward, *Cartography in the European Renaissance*, 1327-29.

[3] Nick Kanas, "Celestial Maps and Frontispieces in the Time of Mercator," in *A World of Innovation: Cartography in the Time of Gerhard Mercator*, ed. Gerald Holzer, et al. (Newcastle upon Tine: Cambridge Scholars, 2015), 215.

[4] Copernicus put forward his ideas in *De revolutionibus orbium coelestium* (*On the Revolutions of the Heavenly Spheres*), published just prior to his death in 1543.

[5] Sheila Rabin, "Nicolaus Copernicus," *Stanford Encyclopedia of Philosophy*, September 13, 2019. https://plato.stanford.edu/entries/copernicus/.

[6] Willem Jansz. Blaeu rose to be the main rival. See Woodward, *Cartography in the European Renaissance*, 1314-15, 1325, 1328, 1363.

[7] See Michael Wintle, "Gender and Race in the Personification of the Continents in the Early Modern Period: Building Eurocentrism," Maryanne Cline Horowitz, "Exotic Female (and Male) Continents: Early Modern Fourfold Division of Humanity," and Mark Rosen, "Worlds Apart: The Four Continents and the Civitates Orbis Terrarum," in *Bodies and Maps: Early Modern Personifications of the Continents*, ed. Maryanne Cline Horowitz and Louise Arizzoli, Intersections: Interdisciplinary Studies in Early Modern Culture, Volume 73 - 2021 (Leiden: Brill, 2021).

[8] Sets of personifications were generally organized into four: four seasons, four elements, four humours, and four winds. See Maryanne Cline Horowitz, "Exotic Female (and Male) Continents: Early Modern Fourfold Division of Humanity," 73.

[9] See Elly Dekker, "Early Explorations of the Southern Celestial Sky," *Annals of Science* 44, no 5 (1987): 439–470. And Arndt Latusseck, "The Milky Way in Johann Bayer's Uranometria, 1603," *Journal for the History of Astronomy* 45, no. 2 (2014): 161–81.

[10] The other eight constellations are Apis, Apus, Dorado, Hydrus, Indus, Pavo, Triangulum, and Tucana.

[11] Woodward, *Cartography in the European Renaissance*, 1324.

ARTICULATING CHRISTIAN IDENTITY IN OTTOMAN PALESTINE

EMILY BEEBER

The Middle East has long been a contested site among the three Abrahamic faiths: Judaism, Christianity, and Islam. This struggle for authority results from the region's significance to all three religions, and it cartographically manifests in *Situs Terrae Promissionis. S.S. Bibliorum intelligentiam exacte aperiens*, which translates as "The disposition of the Promised Land precisely clarifies biblical writings" (fig.7.1).[1] This map appears within the third volume of a three-volume set of atlases by Henrik Hondius (1597–1651) and Johannes Janssonius (1588–1644), published in Amsterdam in 1638. The maps within this book represent Asia, Africa, and the Americas, as well as Italy and Greece.

Situs Terrae Promissionis employs the visual language of early modern cartography to convey biblical narratives. Its complex, multilayered chronology necessitates the viewer's careful attention, while deciphering its diminutive illustrations requires close observation. This map synthesizes contemporary geographic knowledge and ancient narratives, and the Exodus story is visually prominent. By layering biblical events atop a contemporary representation of the Middle East, the map emphasizes the importance of this land to European Christians. During the seventeenth century, however, this region was under Ottoman rule. Hondius and Janssonius thus disregarded and effaced elements of their historical reality. Instead of referencing contemporary political circumstances, *Situs Terrae Promissionis* transports the viewer back in time to experience biblical events. Through its orientation, text, and iconography, it casts the seventeenth-century Middle East as a Christian land.

The orientation of *Situs Terrae Promissionis* does not adhere to the convention of placing north at the top of the page and south at the bottom. Instead, the top corresponds with the southeast. A small compass, hovering over the Mediterranean Sea, indicates that north corresponds with the lower left. According to Eran Laor, some depictions of Palestine "are laid out from the point of view of the navigator approaching the coast of the Holy Land by sea, from the west."[2] By conforming to this orientation, *Situs Terrae Promissionis* encourages European viewers to envision their own maritime approach to this region. Furthermore, by aligning the coastline so it is parallel to the upper and lower boundaries of the page, the land resembles an unfurled

scroll, encouraging the beholder to "read" it like a written text.

Another significant element of this map is the Latin inscription held aloft by two cherubs. It attests to the earth's bounty, further emphasized with a garland. This garland is heavy with a profusion of leaves, flowers, and fruits, indicative of the land's generative potential. The text on the map is an excerpt from Chapter 8 of the Book of Deuteronomy, which reads, "For the lord thy God bringeth thee into a good land, a land of brooks of water, of fountains and depths that spring out of valleys and hills; A Land of wheat, and barley, and vines, and fig trees, and pomegranates; a land of oil…and honey."[3] This text directly addresses the reader, and it conveys a message of belonging by suggesting that this is their land, which they have been led to through divine providence.

The two figures in the lower left corner of the map are integral to its narrative (fig. 7.2). Instead of including depictions of the region's contemporary inhabitants, this map includes figures from the distant past. The man on the left, who holds the two tablets of the law, is Moses. The turbaned figure to his right, who wears a priestly breastplate and holds a censer, is his brother Aaron. Both men wear vibrant garments that echo the yellow, pink, and green boundaries inscribed on the land itself. Their compositional and chromatic prominence provides a hint regarding the minuscule yet detailed narrative that appears on the right side of the map, which chronicles the events of the Book of Exodus (fig. 7.3). Beginning in the lower right corner, a narrow, winding path across the land delineates the journey that the Israelites took out of Egypt. Corresponding numbers indicate significant events and locations, guiding the reader's eye across the page.

The map includes several of the most recognizable moments from this narrative. For example, a body of water on the right side of the page is labeled "*Mare Rubrum Arabicus*" (Arabian Red Sea). According to the Book of Exodus, this is the sea that Moses miraculously parted as the Israelites fled Egypt. Close inspection of the map reveals a large caravan; its members appear to have safely crossed the sea. Meanwhile, the label "Pharao" (Pharaoh) appears in the water itself, which alludes to the watery demise of the Egyptians. This map reminds its viewers of the divine favor bestowed upon the Israelites.

In his analysis of early modern maps of Jerusalem, Rehav Rubin identifies diachronicity as an integral component of these cartographic depictions.[4] This characterization is also applicable to *Situs Terrae Promissionis*, which similarly juxtaposes narrative elements and landmarks from disparate historical moments. Various references to Aaron clearly

demonstrate its diachronicity. In addition to his presence in the lower left corner, his place of rest also appears on the map. The land next to the number thirty-four is labeled "*Sepulcrum Aaron*" (Aaron's grave). Aaron is simultaneously alive and deceased on the surface of a single map.

It is generative to place this map in visual dialogue with contemporary depictions of the Holy Land. Many of its elements reflect established iconographic precedents. For example, in 1629, the Dutch cartographer Willem Janszoon Blaeu (1571-1638) produced a map entitled *Terra Sancta quae in sacris Terra Promissionis olim Palestina* (trans. The Holy Land, known in the Scriptures as the Promised Land, formerly Palestine). Like *Situs Terrae Promissionis*, it features Moses and Aaron, who appear on either side of the cartouche at the lower right. Notably, they possess the same attributes; Moses holds the tablets of the law, while Aaron wears a breastplate and holds a censer. In this work, Moses looks up to the heavens, which signifies a divine presence. This emphasizes the sacred character of the land depicted in this map. Like *Situs Terrae Promissionis*, it engages with a diachronic form of representation; once again, a path cuts across the Red Sea. Diminutive yet voluminous clouds simultaneously encircle the peak of Mount Sinai, where, according to the Book of Exodus, Moses received the Ten Commandments from God.

Notably, *Situs Terrae Promissionis* is not an original work by Hondius and Janssonius. The text of the map itself attests to its indebtedness to "Chr. Adrichom," or Christian van Adrichom. Adrichom authored a volume entitled *Theatrum Terrae Sanctae*, which includes maps and historical information.[5] Hondius and Janssonius faithfully replicate many elements of the original map, including its division of the region into "patrimonial lands" associated with the Twelve Tribes of Israel.[6] In addition to depicting the region in its entirety, Adrichom drew from an array of religious and secular sources, including the writings of the Roman historian Josephus Flavius, to produce a map of Jerusalem. Like *Situs Terrae Promissionis*, it uses a diachronic mode of representation. Rubin identifies Adrichom's choice of imagery in this map as ideologically charged; for example, it includes a depiction of a small structure, which is crowned with a crescent and contains an idol. This implies that Adrichom sought to associate the Muslim faith with idolatry.[7]

Situs Terrae Promissionis does not include a similarly overt effort to dismiss Islamic influence. Perhaps its makers were cognizant of the shared Abrahamic roots of the Christian and Muslim faiths. Instead, it seeks to pictorially naturalize the Christian perspective within this region. It does so through its large-scale representations of Moses and Aaron, its detailed

depiction of biblical events, and its incorporation of religious text atop the land. These elements invite the viewer to engage with the map and envision their own involvement in the story that it tells.

Rubin highlights how a map's diachronicity could encourage specific ideological positions, noting that it could function "as an instrument of Church education and propaganda, influencing the 'armchair pilgrim' by inculcating a spirit of religiosity in the viewer, and creating a sentiment of piety towards Jerusalem and the Holy Land."[8] This statement demonstrates how a map could blur the boundaries between the sacred and secular world. Though reliant on contemporary scientific advances and ostensibly grounded in empirical observations, maps also possess the potential to elicit an emotional or spiritual response from their viewers. When viewing this work, the beholder could mentally engage in a pilgrimage from the comfort of their home. This act could strengthen their imagined affiliation with the Holy Land, even though it was under Ottoman control during this period.

In both versions of *Situs Terrae Promissionis*, representing the Exodus narrative is arguably akin to staking a claim over the land. It is a method of articulating, if not dominion, then a form of cultural ownership. Though Christian Europeans were, in a sense, dispossessed of a land that they perceived as rightly theirs, cartography provided a venue for the figurative assertion of control. The ideology of the cartographer dictated the contents of cartographic representation. In maps of the Holy Land, this manifests through an omission of the land's contemporary inhabitants and an emphasis on its biblical history.

This differs from contemporaneous maps, such as Willem Janszoon Blaeu's depictions of the four continents, in which European makers articulate dominance over areas that they were actively colonizing. This map takes on a comparatively aspirational character; it presents a region that is under neither European nor Christian control. Instead, this work offers a venue for a fantastical projection of Christian dominance over a significant area.

Figure 7.1. Henrik Hondius (1597–1651) and Johannes Janssonius (1588–1644), *Situs Terrae Promissionis. S.S. Bibliorum intelligentiam exacte aperiens per Chr. Adrichom*, in Atlantis Novi, Pars Tertia, Amsterdam, print, 1638, 20.5 x 13 x 3 in. (52.1 x 33 x 7.6 cm), University of Delaware Library, Special Collections, Folio+ G 1007 .A7 1638.

Figure 7.2. Moses and Aaron, detail of Figure 7.1

Figure 7.3. Exodus narrative, detail of Figure 7.1

NOTES:

[1] This paper will henceforth refer to the map using an abbreviated version of its title: *Situs Terrae Promissionis*.
[2] Eran Laor, "Introduction," in *Maps of the Holy Land: Cartobibliography of Printed Maps, 1475-1900* by Eran Laor and Shoshana Klein (New York: Alan R. Liss, 1986), XVII-XVIII.
[3] The Bible, King James Version, Book 5: Deuteronomy 8: 7-8, *Project Gutenberg*, https://www.gutenberg.org/cache/epub/8005/pg8005.html.
[4] Rehav Rubin, "Timing a Sacred Space: The Diachronic Concept in Early Maps of Jerusalem," *Horizons in Geography*, no. 60/61 (2004): 323.
[5] Shai Cohen, "Chistian [sic] van Adrichom," in *Holy Land in Maps*, ed. Ariel Tishby (Jerusalem: The Israel Museum, 2001), 96.
[6] Cohen, "Chistian [sic] van Adrichom," 98.
[7] Rubin, "Timing a Sacred Space," 324.
[8] Rubin, "Timing a Sacred Space," 330.

MAPPING COLONIALISM

EMILY BEEBER

In *Asia noviter delineata* (about 1640), the Dutch cartographer Willem Janszoon Blaeu (1571-1638) presents both cartographic and ethnographic information (fig. 8.1). Blaeu's map of Asia occupies the largest area of the page; ships punctuate the surrounding waters, evoking international trade and colonization. Though the map itself is impressively detailed, the illustrations along its margins also merit careful consideration. These ornamental elements provide a more comprehensive understanding of Asia's urban centers and inhabitants; a row along the map's upper border consists of nine ovular views of cities, and the left and right edges each include five pairs of human figures.

The rich imagery of *Asia noviter delineata* prompts consideration of both Asia itself and the ways that Europeans interacted with its people through evangelization and colonization. Some of the cities that Blaeu highlights occupied significant roles in international networks of trade, while others served as enclaves for Jesuit missionaries and other European colonizers. *Asia noviter delineata* thus draws attention to the Asian cities that were of mercantile significance to Europeans. Furthermore, Blaeu's personal biography provides an additional link to European colonialism; he worked for the Dutch East India Company as a hydrographer.[1] Significantly, Blaeu also produced continental maps of Europe, Africa, and the Americas, respectively entitled *Europa recens descripta*, *Africae nova descriptio*, and *Americae Nova Tabula*. These maps employ the same format as *Asia noviter delineata* and include vignettes of cities and ethnic groups. Examining these works in tandem with Blaeu's depiction of Asia illuminates how he simultaneously articulates and blurs the boundaries between these parts of the world.

Blaeu's Dutch identity helpfully contextualizes his depictions of the continents. According to Jenny Marie Johnson, these four maps demonstrate "his uniquely Dutch view of the world."[2] Blaeu's cartographic endeavors took place during an era of economic prosperity for the Dutch Republic. In 1602, the Dutch East India Company was established to replace the several smaller companies that had emerged and to more robustly compete with the Portuguese.[3] The company consisted of six "chambers," and the most powerful one was in Amsterdam. Blaeu personally

oversaw its Hydrographic Office; in this role, he reviewed and synthesized documents from merchants and sailors to produce accurate representations of ports, coastlines, and other geographic features for navigational purposes. Thus, Blaeu had a literal hand in the creation of documents that were used on ships and helped Dutch merchants reach faraway ports in pursuit of desirable commodities and financial success. Through his position in the powerful metropolis of Amsterdam, he facilitated and supported profitable Dutch maritime ventures. His family's involvement with these endeavors did not end with his death, which occurred in 1638. Notably, his son and grandson, both of whom were named Joan, succeeded him in his role, and a member of the Blaeu family occupied it until 1705.[4]

As noted, Blaeu's inclusion of human figures along the left and right borders of *Asia noviter delineata* is a visual format that he employs in his representations of the other three continents. Blaeu divides the human figures on these maps by ethnicity. Through this taxonomic approach, he visually emphasizes cultural difference. This arguably relates to the imagery presented in costume books, which Ann Rosalind Jones describes as "a genre that linked real and imagined bodies to geography."[5] It also resembles allegorical imagery of the four known continents, which frequently appears in maps and atlases of the early modern period. Depictions of the continents typically privilege the personification of Europe at the expense of other figures. However, hierarchies are somewhat less overt within this map. Compositionally, each pair occupies the same amount of space. They do not interact with one another, which prevents Blaeu from explicitly depicting the power dynamics between them. Overall, these figures are not identifiable individuals, but rather ethnically typified.

Blaeu conveys the different ethnic identities of his subjects through their sartorial attributes. However, though the structure of this map suggests a fixed system of classification, the boundaries between ethnicities and even continents are somewhat porous. For example, the Greek man at the lower right corner of *Europa recens descripta* wears a turban, and as a result, he resembles the turbaned "*Arabes*" depicted on the left border of *Asia noviter delineata*. Furthermore, one of the cities that Blaeu highlights on his map of Europe is Constantinople, known today as Istanbul. This city had shifted through history from Christian to Muslim control, and its status as part of Europe was a point of contestation.

Europeans had an array of interests and intentions in Asia, one of which was to convert the continent's inhabitants to Christianity. A substantial number of Jesuit missionaries travelled east, and some of them also worked as cartographers, thus demonstrating the

entanglement of religion and early modern mapmaking. Concurrently, profit was a driving force behind Dutch maritime endeavors, and spices were a particularly profitable commodity. The so-called "Spice Islands" drew Dutch traders who were eager to capitalize on this fragrant resource, which possessed both culinary and pharmaceutical uses.[6]

Blaeu's map evokes his position as an instrument of a colonizing power through its representation of ships within the nine vignettes of cities. Several of these vessels appear in motion, which suggests that they are either arriving at or departing from ports with valuable spoils. Perspectivally, the viewer looks down on these urban centers from above, which evokes a sense of control. Blaeu's selection of cities was a calculated decision. Johnson notes that "each figured prominently as a source of trade goods, a waystation along major trade routes, or a political or financial center."[7] Those that he highlights emphasize economic and religious endeavors in Asia by not only the Dutch, but also the Portuguese. Consequently, the maps take on an aspirational tone, depicting cities where the Dutch had a foothold, as well as those where they sought to establish one. For example, beginning in 1609, Bantam functioned as the headquarters of the Dutch East India Company. Other cities were sites of colonial power struggles between the Dutch and Portuguese, revealing the fraught stakes of early modern colonization. For instance, in 1603, the Dutch unsuccessfully attempted to blockade Portuguese-controlled Goa. Ultimately, this map records the antagonistic relationships developing between colonizing powers. [8]

The cities that occupy the central positions on each of the four continental maps are important to Europeans for various reasons, from economic to intellectual to religious. Jerusalem occupies the center of the map of Asia. In his map of Africa, Blaeu centers Alexandria, an intellectual hub. This may have been a self-referential decision; as the home of the ancient cartographer Ptolemy, the city was significant to the discipline. Blaeu's map of Europe centers the city of Rome, which, like Jerusalem, possesses religious significance. Amsterdam, the map's place of publication, is at the far left of the page. Though it is not in the middle, the viewer's eye may have encountered it first if they read the illustrations from left to right. The map of the Americas centers Cusco (Cuzco), the capital of the Inca Empire. These maps all deliberately emphasize urban centers that possess commercial, political, and religious importance.

Ultimately, *Asia noviter delineata* reflects Blaeu's role within a powerful colonizing apparatus. Through his depictions of the four continents, he demonstrates his knowledge of the world, and specifically its most significant spiritual and economic centers. At first, this

map seems to suggest the gaze of a colonizer, but the reality is more nuanced. Though Blaeu categorizes and classifies the people of Asia, he does the same in his depiction of Europe, applying the same methodology to all corners of the world. This approach suggests an impulse to categorize and classify human existence, but it does not necessarily invoke a strict hierarchy, unlike allegorical depictions of the four continents. These four works simultaneously demonstrate the distinct nature of each continent. However, the vignettes of cities attest to the reality that they were intertwined in a global network of trade.

Figure 8.1. Willem Janszoon Blaeu (1571–1638), *Asia noviter delineata*, Amsterdam, about 1640, print, 19.5 x 23.5 in. (49.5 x 59.7 cm), University of Delaware Library, Special Collections, 01812 gr.

NOTES:

[1] C. Koeman, "Life and Works of Willem Janszoon Blaeu. New Contributions to the Study of Blaeu, Made during the Last Hundred Years," *Imago Mundi* 26 (1972): 10.
[2] Jenny Marie Johnson, "The Cities of Blaeu's World," *Mercator's World* 6, no. 2 (March 2001): 24.
[3] Günter Schilder, "Organization and Evolution of the Dutch East India Company's Hydrographic Office in the Seventeenth Century," *Imago Mundi* 28 (1976): 61.
[4] Schilder, "Organization and Evolution," 61-65.
[5] Ann Rosalind Jones, "When Allegory Met History: Allegories of the Continents on Costume-Book Title Pages in the Late Sixteenth Century," in *Bodies and Maps: Early Modern Personifications of the Continents*, ed. Maryanne Cline Horowitz and Louise Arizzoli (Leiden and Boston: Brill, 2021), 253.
[6] Anthony Farrington, *Trading Places: The East India Company and Asia 1600-1834* (London: British Library, 2002), 12.
[7] Johnson, "Cities of Blaeu's World," 24.
[8] *Ibid*.

NAVIGATING EARLY MODERN VOYAGES

KIRCHER'S TABULA GEODOBORICA

MARÍA CARRILLO MARQUINA

Spiraling and intersecting lines teem out of the map, *Tabula Geodoborica* (1667 CE), marking both marine and land pathways (fig. 9.1). The dotted, dashed, hollow, and solid lines distinguish individual routes amongst the entangled networks extending from the Middle East to China. Many are also coupled with small annotations that elegantly mimic the routes' curvatures adding further identification of certain pathways. Contained within an elaborately rendered cartouche or decorative emblem is the title of the map alongside a short description in Latin stating, "Various Journeys in Cathay Exhibiting Admission."[1] This cartographic representation of China and East Asia comprises the second map in the seventeenth century volume *China Illustrata* compiled by Jesuit Athanasius Kircher.

Commodities such as silver, porcelain, and silk were typically seen as luxury objects exchanged between Asia, Europe, and the Americas during early modern times. Additionally, the transfer of knowledge, ideas, and information resulting from expanded trade networks reveal multiple middles as a method to re-examine the concepts of ideology and uncover the intricacies of their production and consumption. Systems of knowledge coupled with values and customs are largely influenced and shaped in part by movement.[2] The titular map *Tabula Geodoborica* presents a compelling example that demonstrates the intricacies of how knowledge transfer is charted onto its surface.

Taking the role of an armchair knowledge producer; Kircher heavily pieced together and borrowed from the firsthand accounts of missionaries who traveled to the Middle East and China. Over 200 pages of descriptive text paired with intricately engraved images, *China Illustrata* discusses the complex discourse surrounding the appearance of China by seventeenth century European scholars for European consumers. The volume, itself, contains a wealth of information on various subjects. Chapters range broadly and emphasize topics such as botany, geography, religion, and zoology.[3] Its rich contents are further supplemented by the inclusion of two introductory maps: *Imperium Sinicum* and *Tabula Geodoborica.* The former illustrates the empire of China in detail while the latter depicts an interweaving mix of travel routes traversing East Asia and China.

Close analysis reveals that the routes materialized on *Tabula Geodoborica* depict historical pathways. Thus, the pathways inscribed were most likely intended for entertainment purposes rather than for actual travel use. The documentation of historic journeys within *Tabula Geodoborica* includes those of Saint Thomas the Apostle, merchant Marco Polo, and Portuguese Jesuit Benedict Goës to name a few.[4] For instance, above the label of Persia on the left-hand side is an inscription that reads *Iter S. Thoma Apostl* (*Path of Saint Thomas the Apostle*) illustrating Saint Thomas's travels from the Middle East to the coast of Malabar in India to preach the Gospel in 72 CE. A small, red-toned architectural structure marks the end of this path coupled with a notation that states *Meliapor S. Thome* (*Mylapore Saint Thomas*), seemingly pointing to the Mylapore neighborhood of Chennai, India where the Portuguese erected the Saint Thomas Cathedral Basilica in 1547. Multiple tangled and winding paths span the top half of *Tabula Geodoborica*. One of which documents Marco Polo's journey, who traveled along the "Silk Road" during 1271–1295, also identifiable by its inscription.[5] The script states: *Iter M.P. Veneti in Cataium* (*Path of Venetian Marco Polo in Cathay*). Portuguese Jesuit Benedict Goës' journey commences directly below the Saint Thomas the Apostle's path in the East Asia and ends right along the Great Wall of China. In effect, nearly all the routes charted on this map present historical pathways of missionaries that traveled to the East. Presented at the beginning of the volume, *Tabula Geodoborica*, functions almost as an ode or acknowledgement to the missionaries whose accounts allowed for the crafting of this text to occur.

While the identification and significance of historical journeys included on the map is notable; what piques interest is the marine route originating on the right-hand side of the map in China. This path emerges in Macao, weaves through Malacca, and curves around the continent of India until it reaches its destination in Goa. This route, unlike many of the others, does not include a detailed inscription that would reveal its identification. It merely reads *Iter in Chinan* (*Path of China*). Whose path is documented here and how would the transfer of cartographic or navigational knowledge influence its representation?

This marine route closely echoes a similar path that Chinese admiral Zheng He (1371–1433) would have sailed during one of his seven notable voyages during the Ming dynasty (1368–1644).[6] The first journey he embarked on sailed across the China Sea, past Malacca and Semudera to eventually reach the West coast of India.[7] Zheng He's intimate knowledge of Arabic, the then universal language, aided him in the dissemination and gathering of information across his journeys. The main impetus behind these voyages during the reign of Emperor Yung-lo stemmed from a desire to establish Chinese control over Southeast Asia through East

Africa.[8] Despite a colonial agenda imparted by the Chinese government, Zheng He's travels demonstrate impressive technological and navigational skills that were not seen at the time in European countries.

One of the only documents that records Zheng He's voyages is the *Wu Beizhi* (also referred to as the *Wu-pei chih* or the *Mao Kun* map) compiled by Mao Yuanyi in 1621 and published in 1628.[9] The *Wu Beizhi* consists of a sequence of coastal sketches paired with texts that did not comprise of a standard size, orientation, or order. The marine paths corresponded directly to the rendering of an irregular coastline. Zheng He's fleets used the proximity to landmasses as a navigational and orientating tool. In early modern times, the use of maritime navigation and knowledge greatly differed from what we might envision today. Much navigational knowledge originated from Arabic sources and ways of maritime travel.[10] Pictorial aids were among the most common guides for transoceanic travel purposes. These were customarily paired with detailed textual explanations of the voyages and are perhaps more aptly described as "illustrated sailing directions" rather than taking on a purely cartographic form.[11] Since *Tabula Geodoborica* illustrates chronicled routes, the capturing of a segment of Zheng He's famed voyage, from China to India, fits.

Other than potentially chronicling a segment of Zheng He's travels, the marine voyage also resembles a path controlled by the Habsburg monarchy which was financed by the *Vereenigde Oost-Indische Compagnie* (United East India Company, or VOC) commencing in 1580.[12] The route in the East Asian waters by the VOC was the primary mode of trading with China and consisted of Portuguese trades with Canton merchants through Macao, which linked up with Malacca and Goa to the west and Nagasaki to the east.[13] Zheng He's paths thus became fifteenth century maritime routes which were also later expanded on by Portuguese and Dutch sea traders.

In his making of the *Tabula Geodoborica*, Kircher heavily incorporated missionary accounts from Jesuit Martino Martini. Prior to Martini's departure to Goa, he was enrolled in the Collegio Romano and studied at the institution's mathematical academy under the tutelage of Kircher.[14] The two men maintained a great degree of correspondence during Martini's first journey abroad. In effect, this consistent communication further establishes precedent for Kircher's incorporation of Martini's observations and cartographic sketches. As frequently practiced by his Jesuit predecessors, Martini acquired a significant number of texts on Chinese sciences and Chinese Classics. Martini crafted the atlas *Nuvus Atlas Sinensis*, 1654 and *Sinicae historiae decas prima* (*History of China*), 1659 by directly borrowing, translating, and copying numerous late Ming geographical works and interpreted them in a format

that would be familiar to European audiences. In fact, in the preface to *Nuvus Atlas Sinensis*, Martini writes "I have all this from geographical books and maps, each composed and printed by the Chinese themselves for each of the provinces, maps which I have with me and am willing to show to whomever may be curious about these things."[15] Since it is known that Kircher used Martini's geographical renderings of East Asia and China directly from *Nuvus Atlas Sinensis* to draft the two maps in *China Illustrata*; it can confidently be surmised that Martini would have been exposed to Zheng He's travels through the *Wei Beizhi* to some degree.[16]

The correspondence between Kircher and his student Martini resulted in the transfer of cartographic and navigational knowledge influenced by Chinese sources and an understanding of geography, European mathematical advances, and Arabic marine navigational feats, culminating in Kircher's *Tabula Geodoborica*. Knowledge spurring from Zheng He's first voyage, embarked in 1405, the compilation of the said journey by Mao Yuanyi, the encounter of such texts by Martini, till these records finally reached the desk of Kircher demonstrates the evolution of knowledge dictated in part by information. Thus, *Tabula Geodoborica* presents a European revision of Ming surveys which were additionally revised, borrowed, and edited by Kircher, transposing a Chinese mode of knowing to one accessible for European audiences. Here, the transmission of navigational knowledge from Arabic, European, and Asian sources all culminated in Kircher's *China Illustrata.* Uncovering the dominant motivations and voices compounded onto these maps allows for an interrogation of a map's inherent biases and demonstrates the methods needed to unpack the international transmission of knowledge. Coupled with additional common trade routes, Kircher's *Tabula Geodoborica* emphasizes the merging of historical, religious, and scientific documentation that is echoed in the rest of the volume.

Figure 9.1. Athanasius Kircher (1602–1680), *Tabula Geodoborica* in *China Illustrata*, Amsterdam, about 1667, print, 12 1/2 x 1/2 in. (31.8 x 21.6 cm), University of Delaware Library, Special Collections, FOLIO DS708 .K58 1667.

NOTES:

[1] All translations are my own, unless otherwise notated.
[2] Pamela Smith, ed., *Entangled Itineraries: Materials, Practices, and Knowledges across Eurasia* (University of Pittsburgh Press, 2019), 5.
[3] Baleslaw Szczesniak, "Athanasius Kircher's: China Illustrata," *Osiris* 10 (1952), 392.
[4] Others include the routes of Giovanni de Plano Carpini, Benedict the Pole, Francis D'Orville, and Henry Grueber. Szczesniak, 402.
[5] Khodadad argues against the term "Silk Road" or "Silk Route" because its current use conceals the vast networks that existed in the multiple middles between China and Rome, and ultimately presents a Eurocentric view. I have chosen to include the term due to its general understanding but place it within quotation marks. Khodadad Rezakhani, "The Road That Never Was: The Silk Road and Trans-Eurasian Exchange," *Comparative Studies of South Asia, Africa and the Middle East* 30, no. 3 (January 1, 2010), 420.
[6] Barbara Bennett Peterson, "The Ming Voyages of Cheng Ho (Zheng He), 1371-1433," *Australian Association for Maritime History* 16, no. 1 (1994): 10, 43.
[7] Peterson, 44.
[8] Peterson, 43.
[9] P. J. Rivers, "New Lamps for Old: Modern Nautical Terms for Ancient Marine Practices and the Navigation of the Zheng He Voyages," *Journal of the Malaysian Branch of the Royal Asiatic Society* 85, no. 1 (2011), 86.
[10] Rivers, 89-90.
[11] Rivers, 98.
[12] Mario Cams, "Displacing China: The Martini-Blaeu Novus Atlas Sinensis and the Late Renaissance Shift in Representations of East Asia," *Renaissance Quarterly* 73, no. 3 (ed 2020): 960, https://doi.org/10.1017/rqx.2020.123.
[13] Cams, 960.
[14] Cams, 961.
[15] Cams, 975.
[16] Szczesniak, "Athanasius Kircher's," 387.

AMBASSADES MÉMORABLES A L'EMPEREUR DU JAPON

YOO JIN CHOI

On January 27, 1638, a Japanese magistrate sent an urgent message to Nicolaes Couckebacker, Chief of the Dutch East India Company (*Vereenigde Oostindische Compagnie*; shortened as VOC) in Japan. The message requested to send a large quantity of gunpowder to support the Japanese government's campaign against the local Catholic rebellion in Nagasaki. Couckebacker immediately dispatched six barrels of gunpowder and even offered to supply the campaign with the most powerful Dutch cannons at his disposal. This exchange led to additional demands from the Japanese government for the Dutch warships and soldiers as a proof of alliance against the rebellion. Couckebacker reportedly felt personal hesitance to make direct involvements in armed aggression against the local Christians. Sharing ships and soldiers with the Japanese government could also interfere with future expeditions and international trades. However, Couckebacker had to make a diplomatic choice complying to the requests, thus hyperbolically declaring the Dutch forces as "faithful vassals of His Majesty [the shogun]."[1]

The rebellion became a catalyst for the extreme isolationist policy by the Japanese shogunate. Prior to the rebellion, the Japanese government had already been concerned with the presence of European powers and influences that quickly spread among people. Specifically, the government was afraid of local leaders in port cities pursuing international alliances to challenge the recently-centralized regime under the Tokugawa shogunate.[2] As a result, the government announced a series of edicts, restricting international trades and political relationships. This diplomatic policy did not originally targeted only Europe, and many Asian countries such as China, Korea, and Ryukyu also had limited access to Japanese lands and trades. However, the level of disengagement between Japan and Europe could not be compared to that of Asian countries, as they had designated cities to enter and continue the cultural and political exchanges with local and central governments.[3] Suspecting that the Portuguese merchants and missionaries supported the rebellion, the Japanese government expelled all the remaining Portuguese and closed its borders to Europe.[4]

The only country exempted from this harsh policy was the Netherlands. Recognizing the loyal service of the VOC and its lack of interest in Christian conversion, Japan accepted the self-subordinating attitude of the

VOC as the vassal. In exchange, Japan allowed the Dutch merchants to stay in Japan as long as they moved their station to a designated area and limited their interactions with local Japanese people.[5] Consequently, the VOC became the only European entity that officially interacted with Japan. Using this advantage, the Netherlands shifted the flow of the early modern global trade.

In 1669, thirty-one years after Couckebacker supplied gun powder to the Japanese government, Arnoldus Montanus (c.1625-1683) compiled accounts of the Dutch travelers and published *Gedenkwaerdige Gesantschappen der Nederlanders aen den keizer van Japan* (also known in English with its short, translate title as *Ambassades mémorables a l'empereur du Japon*).[6] The volume has two parts. The first half is an extensive introduction about European knowledge about the world, "discoveries" from expeditions, and the history of the Euro-Japanese interactions, from the missionary trip by Francis Xavier in the sixteenth century to the contemporary VOC establishment in Nagasaki (fig.10.1). In the second part, Montanus edited several first-person journals by contemporary Dutch travelers who visited Japan between 1640 and 1665 (fig.10.2). The first journal is from Wilhem Bijlevelt, who was kept captive in the Japanese imprisonment due to his accidental dis-embarkment in 1643. The following two journals were by employees of the VOC: Zacharias Wagner and Hendrik Indijk, both of whom acted as the Chief of the VOC in Japan. The next journal comes from Hendrik Hamel, who was imprisoned in Korea for fourteen years, similarly to Bijlevelt. The final fifteen pages is narrated by a fictional character named Van Zelderen, who describes his imaginary trip to Edo (fig.10.3).[7] Providing an eclectic variety of real and fictional travel narratives to Japan and subsequent descriptions of Japanese culture, *Gedenkwaerdige Gesantschappen* gained immense popularity among European readers and was translated into German,[8] English,[9] and French.[10]

The book soon became one of the first multi-lingual encyclopedic publications that offer the breadth of information about seventeenth-century Japan. Montanus argued that his book had "more firsthand information about Japan than any other post-1650 publication."[11] However, his book was also heavily criticized for its inaccuracy. Several contemporary travelers who had visited Japan warned that the book includes vulgar contents such as nudity and violence and unrealistic narratives. One critic even said that "this work neither justifies the costs of printing, nor lives up to the promises on the title-page, and it little deserves the enthusiasm with which it is received and sought after."[12] It is now believed that the majority of the first half of the volume comes from unauthenticated sources

of writing that Montanus gathered, and his own imagination based on readings and research.[13]

Scholars have also debated over the authenticity and credibility of images included in the volume, despite its full title stating to include "a large number of illustrations drawn in Japan."[14] There are 25 full-page illustrations and 71 in-text images, which range from maps and site plans to Japanese people and their cultures. Analogous to the real and fictional composition of the texts, the illustrations also have mixed provenance. There are a few illustrations that show convincing relevance or connections to potential sources, particularly views of major trade cities such as Batavia of Indonesia and Firando of Japan. Among all, the illustration with the most surviving textual information is a site perspective image of Osaka Castle. This bird-eye view of the structure has a similar watercolor drawing in an atlas published by Willem Janszoon Blaeu, an official hydrographer of the VOC from 1633 to 1638. It is highly speculated that this watercolor by Johannes Vingboons, a Flemish painter and collaborator of the Blaeu family, might have served as a model for the engraving in Montanus's book or at least derives from a common source image.[15]

Finding the original source of Osaka Castle is more difficult, but there is another textual evidence that may refer to a potential inspiration. A verbatim testimony of a Dutch visitor to the Amsterdam Great Hall of East India House in 1638 describes that: "Hanging in the hall…are splendid Chinese and Japanese paintings…And there is the royal court of Japan, without equal anywhere in the world in worth, size, and strength."[16] While the quote does not specifically identify the location in the Japanese painting, its description as the royal court of Japan without competition would be appropriate to Osaka Castle.[17] Constructed in 1583-1590, Osaka Castle was a common motif of Japanese screens and wall paintings in the sixteenth and seventeenth centuries. Especially, Japanese leaders like Toyotomi Hideyoshi (r.1586-1598) used the gilded image of Osaka Castle as a token of luxurious hospitality and diplomacy for his guests until the castle's destruction in 1615.[18] It is likely that the VOC had access to a copy of Osaka Castle painting.

Montanus includes another geographic illustration that is considered as the earliest known image of the region, Dejima island. Because the Japanese government constructed the island in 1634, this artificial island was not known to the rest of the world until the publication of *Gedenkwaerdige Gesantschappen* in 1669. Since 1641 when the VOC moved its trading post to the island, Dejima acted as the only channel of exchange between Japan and Europe until the mid-nineteenth century. Due to the lack of earlier surviving images, scholars speculate that this illustration is the original image or a first-hand copy of the original.[19]

Using a collection of first-hand accounts from the VOC and his own imagination, Montanus aimed to provide information about Japan to his European readers of *Gedenkwaerdige Gesantschappen*. Rich illustrations and maps enhance the understanding from the detailed descriptions of major cities and architecture, although his publication also received harsh criticism for its fictitious and dubious contents. The book has received a lot of scholarly attention regarding its authorship, historical inaccuracy, and context. However, there is still a room for further research on its illustrations, particularly those of Japanese cities and their visual inspirations and sources. Like the analysis of Osaka Castle from this essay, illustrations of other cities such as Edo and Miako await future studies to develop a stronger understanding of *Gedenkwaerdige Gesantschappen*.

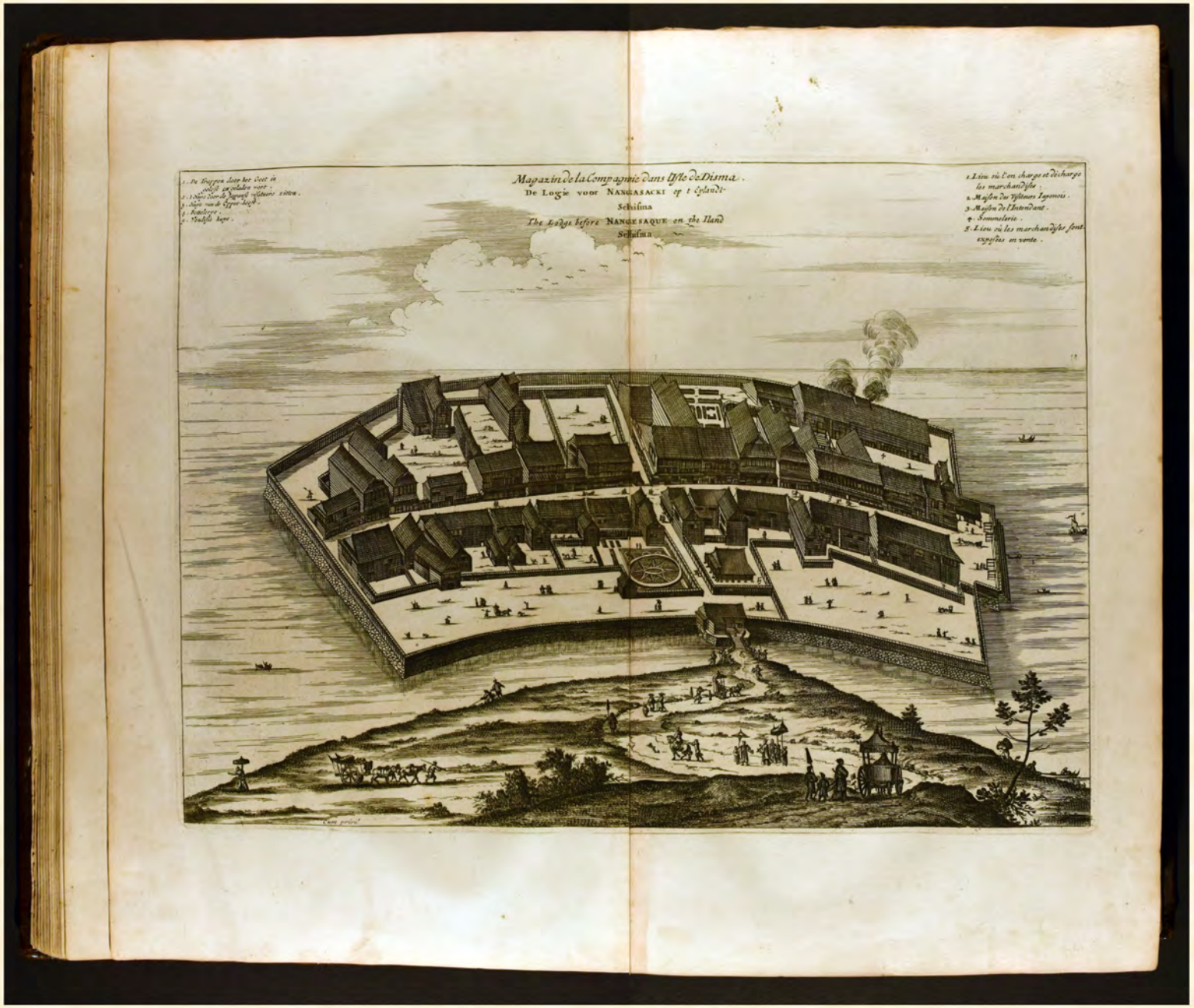

Figure 10.1. Arnoldus Montanus (about 1625–1683), *Magazin de la Compagnie dans l'Isle de Disma* (trans. Dutch East India Company Storage on Dejima Island), in *Ambassades mémorables a l'empereur du Japon*, Amsterdam, print, 1680, 14 1/2 x 19 x 2 in. (36.8 x 48.3 x 5.1 cm), University of Delaware Library, Special Collections, Folio DS808 .M77.

Figure 10.2. Arnoldus Montanus (about 1625–1683), *Route d'Osacca a Iedo* (trans. Routes to Osaka and Edo), in *Ambassades mémorables a l'empereur du Japon*, Amsterdam, print, 1680, 14 1/2 x 19 x 2 in. (36.8 x 48.3 x 5.1 cm), University of Delaware Library, Special Collections, Folio DS808 .M77.

Figure 10.3. Arnoldus Montanus (about 1625–1683), *Miako*, in *Ambassades mémorables a l'empereur du Japon*, Amsterdam, 1680, print, 14 1/2 x 19 x 2 in. (36.8 x 48.3 x 5.1 cm), University of Delaware Library, Special Collections, Folio DS808 .M77.

NOTES:

1 Adam Clulow, "The Shogun's Loyal Vassals," in *The Company and the Shogun: The Dutch Encounter with Tokugawa Japan*, (New York: Columbia University Press, 2014), 97-101.

2 Ronald P. Toby, "Reopening the Question of Sakoku: Diplomacy in the Legitimation of the Tokugawa Bakufu," *Journal of Japanese Studies* vol. 3, no. 2 (1977): 336-338.

3 Toby, "Reopening the Question of Sakoku," 325-327.

4 Michael S. Laver, *The Sakoku Edicts and the Politics of Tokugawa Hegemony*
(Amherst, NY: Cambria Press, 2011), 136-138.

5 Clulow, "The Shogun's Loyal Vassals," 110-113, 130.

6 Reinier Hesselink, "Memorable Embassies: the secret history of Arnoldus Montanus' *Gedenkwaerdige Gesantschappen*," *Quaerendo* vol. 32, no. 1-2 (2002): 1.

7 Hesselink, "Memorable Embassies," 6-10.

8 *Denckwürdige Gesarzdtschafften der Ost-Indischen Gesellschaft in den Vereinigten Niederlanden an unterschiedliche Keyser von Japan*, 1669-1670

9 *Atlas Japannensis: being remarkable addresses by way of embassy from the East-India Company of the united provinces, to the emperor of Japan*, 1670

10 *Ambassades mémorables de la Compagnie des Indes Orientales des Provinces Unies, vers les Empereurs du Japon*, 1680

11 Alexandra Curvelo, "Nagasaki/Deshima after the Portuguese in Dutch accounts of the 17th century," *Bulletin of Portuguese-Japanese Studies* no. 6
(2003): 148.

12 Isabella H. van Eeghen, "Arnoldus Montanus's book on Japan," *Quaerendo* vol. 2, no. 4 (1972): 256-257.

13 Hesselink, "Memorable Embassies," 6.

14 The full title of the original Dutch edition is: *Gedenkwaerdige Gesantschappen der Oost-Indische Maetschappy in't Vereenigde Nederland, aen de Kaisaren van Japan: Vervattende Wonderlijke voorvallen op de Togt der Nederlandsche Gesanten: Beschryving Van de Dorpen, Sterkten, Steden, Landschappen,, Tempels, Godsdiensten, Dragten, Gebouwen, Dieren, Gewasschen, Bergen, Fonteinen, vereeuwde en nieuwe Oorlogs-daeden der Japanders: Versiert met een groot getal Afbeeldsels in Japan geteikent: Getrokken uit de Geschriften en Reis-aentekeningen der zelve Gesanten, door Arnoldus Montanus*. The original title in Dutch translates to the following in English: "Memorable embassies of the East Indian Company in the United Netherlands, in the Emperors of Japan; Containing wonders from the journey of the Dutch ambassadors: Description of the Villages, Fortresses, Towns, Landscapes, Temples, Religions, Clothes, Buildings, Animals, Plants, Mountains, Fountains, ancient and modern military exploits of the Japanese: adorned with a large number of Illustrations drawn in Japan: Taken from the Writings and Travel-Journals of the same Ambassadors," by Arnoldus Montanus.

15 Larry Silver, "Sites of Power: Images from Southeast Asia for the Dutch East India Company (VOC)," *Dutch Crossing* vol. 23, no. 2 (1999): 111-113.

16 Cited as Vaspar Barlaeus by Silver, "Sites of Power," 104.

17 While Kyoto was the historical capital of Japan, Osaka Castle acted as an important stronghold in the late *Sengoku* period (the Age of the Country at War, or the Warring States period) of Japan. Toyotomi Hideyoshi, a powerful predecessor of Tokugawa who unified Japan and attempted to conquer the neighboring countries, constructed the castle in Osaka not only as a fortress to protect his territories but also as a symbol of his power and opulence. Many contemporaneous records by visitors of Osaka Castle describe its impressive size and ostentatious decoration in gold and silver. Silver, "Sites of Power," 111; Jennifer Mitchelhill, *Castles of the Samurai: Power and Beauty* (Tokyo: Kodansha International, 2003), 66-67, 82-89.

18 Silver, "Sites of Power," 111-113.

19 Van Eeghen, "Arnoldus Montanus's book on Japan," 257.

MAPPING RHUBARB
KIRCHER'S IMPERIUM SINICUM

MARÍA CARRILLO MARQUINA

Imperium Sinicum (fig.11.1) is the very first map included in the seventeenth century volume *China Illustrata,* the earliest recorded extensive and encyclopedic study on China and East Asia by Europeans. Taking up a two-page spread, this geographic and topographic cartographic representation was produced as an individual copper engraving. The map was later reproduced at the beginning of the eighteenth century in a single sheet format and its final product included extensive hand-coloring that visually indicated the different provinces of China by yellow, green, or red hues (fig.11.2). The vibrancy of the colors allows for other carefully rendered details such as the illustrated mountain ranges, streams, and architectural structures to shine. Inscribed on the map is a careful script that notates the different counties, provinces, marine bodies, and cities present in the empire of China. Other changes to the reproduced copy include slight tweaks in the positioning of the cartouche that bears the title of the map.

China Illustrata was compiled by Jesuit Athanasius Kircher around 1667 in Rome. While Kircher was never able to visit neither China nor the Far East, he gathered first-hand accounts of the geography, language, nature, and knowledge experienced by Jesuit missionaries. In effect, *China Illustrata* became a collection of documents and writings that sketched the historical and religious accounts of Eastern missions alongside their scientific and empirical notations. Thus, the volume simultaneously reflects the Jesuit missionary agenda in the East, while concurrently marking the beginnings of Sinology.[1]

Knowledge actively fluxes and flows as it diffuses outward. The idea of knowing artifacts, materials, or objects largely relies on their assigned meaning and value that tends to shift in significance depending on temporal and spatial elements. As Pamela Smith in *Entangled Itineraries* writes, knowledge is "constituted in part by movement" and reflects knowledge systems that have been "transformed and constituted anew."[2] Thus, materials and their properties change in meaning as people "come to 'know' them."[3] These systems of knowledge that are in part guided by a geographical transfer of ideas are often described as material complexes.[4]

An examination that follows on the processes of locating Chinese traditional herbs in early modern times, as reflected in both *Imperium Sinicum* and *China*

Illustrata, will demonstrate a particular case study that exhibits medicinal knowledge as a material complex. Kircher specifically relied on the accounts of five different individuals: Martino Martini, Philippus Martinus, Joannes Grueber, Henricus Roth, and Michael Boym.[5] It is worth noting, that while Kircher duly credited these missionaries' accounts, scholars conventionally refer to the contents of *China Illustrata* as a work solely authored by Kircher. In contrast to conventional view, multiple cases can be presented to demonstrate how Kircher borrowed and extrapolated on other missionaries' accounts. One such example is the geographical renditions of *Imperium Sinicum,* which Kircher heavily referenced Martini's famed world atlas, *Novus Atlas Sinensis*, published by Joannes Bleau in Amsterdam in 1655.[6] Here, Kircher's reliance on missionary knowledge manifests itself in the cartographical rendering of China.

As European, American, and Asian contact increased, the spread of flora with curative properties disseminated through various trading routes and cities. One such example of this crossing of medicinal knowledge includes Peruvian balsam, which also marked an important historical moment of Asian and American trading contact.[7] Another case includes the spread of curative herbs that transversed the Silk Road to Europe like rhubarb which originates in Western China and Tibet. The rhubarb plant or *Rheum rhabarbarum* gained its name in the European language from its association with the word *sreu* which means river or to flow since it was known that the best species of rhubarb developed to the east of the Volga River.[8] This association with locality and the plant's appellation continued in the early modern period. A connection started forming between the location the rhubarb plant was sold at and the route the herb traveled–adopting names such as Turkish, Indian, Chinese, or Russian rhubarb. But the search for the "true" Chinese rhubarb, with the most potent properties, accelerated coupled with an increasing demand for the herb. The allure of the different species of rhubarb quickly spread during the seventeenth and nineteenth centuries and naturalists even attempted to identify and classify over fifty different species.[9] However, more often than not, the herb only changed in name rather than in species and most likely they all originated in China.

One of the earliest mentions of this herb is in the Chinese text *Shen Nong Ben Cao Jing* (*The Divine Farmers Materia Medica*) dated between 300 BCE and 200 CE where its entry claimed that rhubarb could treat illnesses including hypochondria, sciatica malaria, and nosebleeds.[10] Rhubarb is described as having a bitter taste, being 'cold' in property, and used as a purgative and detoxicant.[11] The influence of the cleansing principle reigned supreme in early modern medicine. As Erika Monahan in "Locating Rhubarb: Early Modernity's

Relevant Obscurity" stresses, for the most part, laxatives, purging, and bloodletting were recommended, and rhubarb was used in all three.[12] Both rhubarb's aperient and astringent properties found in the roots of the plant determines its value. Its efficacy, ability to travel overland and through marine trading, and newfound discretionary spending abilities are attributed to the plant's success.[13] The herb's price reflected this. For example, in Macau from 1582 to 1601, a pound of rhubarb in Peking sold for $0.10, while it would cost six or seven times as much in Europe.[14] Thus, both the rhubarb's curative abilities and the herb's monetary value shifted as knowledge of the plant further spread, shifted, and transformed.

Polish Jesuit missionary Michael Boym's seminal text *Flora Sinensis*, published in Vienna in 1654, consists of a comprehensive presentation on the material related to the environment including plants and animals of East Asia. Kircher adopted a considerable amount of Boym's botanical research to augment the final chapters of *China Illustrata.* Recording and notating medicinal properties derived particular interest from Boym. This is further emphasized by his other publications including *Specimen medicinae Sinicae* (*Chinese Medicinal Plants*) and *Clavis medica ad Chinarum doctrinam de pulsibus* (*Key to the Medical Doctrine of the Chinese on the Pulse*) that he worked on with two Chinese assistants to translate Chinese into Latin.[15]

Boym strived to retain an empirical viewpoint when highlighting observations from his travels. This includes providing "nomenclature in Chinese and Latin and enriching his descriptions with references to their medicinal properties" alongside documentary illustrations.[16] In *Flora Sinensis*, the entry for this medicinal herb is an image of the plant accompanied by Chinese characters alongside the Latin script; notating *rhabarbum* and *ta-huan.*[17] The inclusion of commentary in both Latin and Chinese demonstrates how the properties and characteristics of an herb Indigenous to China was classified and documented by the hand of a Jesuit missionary.

Towards the end of *China Illustrata*, Kircher dedicated space to describe and detail the kinds of flora and fauna present in China. In the entry for rhubarb, he provides an extensive visual description of the herb alongside two woodcut prints of the said plant, *rheubarbum mattlioli* (Rhubarb of Matthiolus) and *rheubarbum verum* (True Rhubarb) (figs. 11.3 & 11.4). Part of the record speaks to its origin as Kircher writes "although this is found in all China, it is particularly common in the provinces of Suciven, Xensi, and Socieu, which are near to the wall of China."[18] These locations are easily identifiable in the single sheet copy of *Imperium Sinicum* where all the colored provinces identify the boundaries of the borders. In effect, alongside the top of the map near the Great Wall of China in the light-

yellow section is the annotation *Provinc. III XENSI* (Third Province, Xensi). Here, the encyclopedic entries within the volume and cartographic mappings intersect. The inclusion of a map like *Imperium Sinicum* is then able to anchor the early modern reader and allows them to make connections between the information gathered in the entries and their geographical locations.

In all, the map *Imperium Sinicum* whether considered as a single sheet or within the larger volume of *China Illustrata,* drives home the notion of material complexes and emphasizes the temporal flux and flow of 'knowing.' Kircher's geographical renditions of the empire of China were borrowed, copied, and adapted from missionary accounts; demonstrating how knowledge was disseminated from the East to the West. Even the empirical knowledge of the types, properties, and functions of medicinal flora were shown to have greatly shifted throughout the early modern period. As the woodcut prints of a rhubarb species have demonstrated rhubarb, originally used as Chinese medicine, adopted different uses, values, and meanings as it became disseminated through trade. Thus, examining the contents of texts such as *China Illustrata,* must be done with a critical and questioning eye.

Figure 11.1. Athanasius Kircher (1602–1680), *Imperium Sinicum*, in *China Illustrata*, Amsterdam, about 1667, print, about 12 1/2 x 1/2 in. (31.8 x 21.6 cm), University of Delaware Library, Special Collections, FOLIO DS708 .K58 1667.

Figure 11.2. Athanasius Kircher (1602–1680), *Imperium Sinicum*, about 1700 reprint of ca. 1670 original, print, single sheet, 16 x 19 in. (40.6 x 58.3 cm), University of Delaware Special Collection, 04077 mc2.

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Rheubarum Matthioli

Rheubarbarum ex Flora Sinica. P. Brim.

Quanquam hoc in universa *Sina* nascatur, in provinciis tamen *Suciven*, *Xensi*, atque *Socieu* Civitate ad muros *Sinarum* proxima uberius provenit; Illam M. Paulus Venetus *Sociur* appellat, ubi & *Mauri*, qui dum cum *Caravanis* in *Katay*, hoc est, *Sinas*, & *Cambale*, hoc est *Pequinum* proficiscuntur, subsistunt, (quo etiam olim cum illis Benedictus Goex Lusitanus è Societate JESU quærens *Catajum* pervenit) coemunt. Terra in qua gignitur rubra est & lutosa ob fontes & pluvias: folia pro ratione plantæ magis vel minus duobus palmis longa, infernè angusta, supernè ampla, limbus illorum lanuginem pilosam habet, quæ tamen ubi adolescunt & maturantur, marcescuntque, flavescunt & interram declinant. Truncus supra terram uno palmo cum foliis supereminet, ex quorum medio ramus subtilis onustus floribus, violis magnis non absimilibus exurgit, qui succum expræssum instar lactis cærulei habent, odorem acutum, & quem nares fastidiant redolentes. Radix seu caulis, quem terra recondit, est longus uno, duobus & aliquando tribus palmis; illius color æreus subobscurus, sæpè grossite humanum brachium adæquat, alias quoque radices tenues circumcirca projicit, quibus resectis *Rheubarbarum* divisum in frusta, carnem interdiu flavi coloris rubeis refertam venis ostendit, ex qua succus flavus & rubeus aliquantulum viscosus distillat. Porrò si quis statim illa frusta humida ad siccandum

Figure 11.3. rheubarbum mattlioli (Rhubarb of Matthiolus), in China Illustrata, Amsterdam, about 1667, 12 1/2 x 1/2 in. (31.8 x 21.6 cm), University of Delaware Special Collection, FOLIO DS708 .K58 1667.

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dum appenderet, experientia docuit, unctuosum illum humorem mox evaporare, radicemque leviſſimam remanere, adeòque omnem virtutem deperdere. Ideò periti recentis *Rheubarbari* fruſta primò in oblongis reponunt menſis, & qualibet die tribus aut quatuor vicibus ea revolvunt, ut per hanc induſtriam ſuccus incorporetur fruſtis, & conſtipatus maneat: tum verò quatuor dierum ſpatio concreto humore, tranaſctis per fruſta illa funiculis, appenſa vento exponunt, loco tamen umbroſo, nè radiis Solaribus contingantur. Effodiendo *Rheubarbaro* hybernum tempus eſt optimum, antequam viridia folia incipiant pullulare: quod ſcilicet eo tempore, circa menſis Maji initium ſuccus & virtus unita & collecta ſit; Quod ſi verò *Rheubarbari* radix effodiatur æſtate, aut illo tempore quo viridia folia producit, uti necdum hoc tempore maturuit, flavoque illo ſucco & rubeis venis caret, poroſaque ac leviſſima eſt, ita ad perfectionem *Rheubarbari* hyeme effoſſi, minimè pertingit: Currus humidis adhuc *Rheubarbari* caulibus onuſtus, uno ſcuto & medio venit, ſiccatum verò tantum pondere ſuo decreſſit, ut ex ſeptem libris recentis, ſicci vix una vel altera libra obtineatur. Recens ac viride amariſſimum eſt & guſtui maximè contrarium. Sinicè vocatur *Tayhuam*, quod ſignificat *ſumme flavum*. Quamvis illa de *Reubarbaro* ſatis; hæc tamen ex relatione Doctiſſimi Viri *Jacobi Golii* adjicere nobis viſum fuit.

Rheubarbarum Verum.

Kkk

Hæc

Figure 11.4. rheubarbum verum (True Rhubarb), in China Illustrata, Amsterdam, about 1667, 12 1/2 x 1/2 in. (31.8 x 21.6 cm), University of Delaware Library, Special Collections, FOLIO DS708 .K58 1667.

NOTES:

[1] Baleslaw Szczesniak, "Athanasius Kircher's: China Illustrata," *Osiris* 10 (1952): 392.
[2] Pamela Smith, ed., *Entangled Itineraries: Materials, Practices, and Knowledges across Eurasia* (University of Pittsburgh Press, 2019), 5.
[3] Smith, *Entangled Itineraries,* 8.
[4] *Ibid.*
[5] Szczesniak, "Athanasius Kircher's," 396.
[6] This influence is evident in the rendering of specific sections of the geography of *Imperium Sinicum*. This can be noted in greater detail by comparing Martini's *Qvantvng Imperium Sinarvm Provincia* (*The Guangdong Province in the Chinese Empire*) within the atlas that heeds great attention in capturing the geographical placement of a series of islands off the southeast coast of China. For more information, please see *Imperium Sincium Quindecupartitum: Finding Connections between Athanasius Kircher and Martino Martini* (University of Delaware, 2020). Szczesniak, "Athanasius Kircher's," 396.
[7] Angela Schottenhammer, "'Peruvian Balsam': An Example of Transoceanic Transfer of Medicinal Knowledge," *Journal of Ethnobiology and Ethnomedicine* 16, no. 1 (December 2020): 2.
[8] Shahid Akbar, "Rheum Officinale Baill.; R. Palmatum L. (Polygonaceae)," in *Handbook of 200 Medicinal Plants*, by Shahid Akbar (Cham: Springer International Publishing, 2020), 1528.
[9] Erika Monahan, "Locating Rhubarb: Early Modernity's Relevant Obscurity," in *Early Modern Things: Objects and Their Histories, 1500-1800* (London: Routledge, 2013), 228.
[10] Monahan, "Locating Rhubarb," 228.
[11] Peigen Xiao, Liyi He, and Liwei Wang, "Ethnopharmacologic Study of Chinese Rhubarb," *Journal of Ethnopharmacology* 10, no. 3 (May 1984): 276.
[12] Monahan, "Locating Rhubarb," 228.
[13] Monahan, "Locating Rhubarb," 233.
[14] Monahan, "Locating Rhubarb," 232.
[15] Chiara Bocci and Roderich Ptak, "THE ANIMAL SECTION IN BOYM'S (1612—1659) 'FLORA SINENSIS': PORTENTOUS CREATURES, HEALING STONES, VENOMS, AND OTHER CURIOSITIES," *Monumenta Serica* 59 (2011): 354. For further reading: Marta Hanson and Gianna Pomata, "Medicinal Formulas and Experiential Knowledge in the Seventeenth-Century Epistemic Exchange between China and Europe," *Isis* 108, no. 1 (March 2017): 1–25.
[16] Bocci and Ptak, "THE ANIMAL SECTION IN BOYM'S (1612—1659) 'FLORA SINENSIS': PORTENTOUS CREATURES, HEALING STONES, VENOMS, AND OTHER CURIOSITIES," 354.
[17] The word *ta* translates to English as leaves and *huang* to yellow color. Rhubarb is a yellow leafed plant and thus traditional Chinese herb is named after its visual characteristics. Akbar, "Rheum Officinale Baill.; R. Palmatum L. (Polygonaceae)," 1528. Michel Boym, *Flora Sinensis, Fructus Floresque Humillime Porrigens Serenissimo et Potentissimo Leopoldo Ignatio, Hungariae Regi Florentissimo, &c. Fructus Saecul Promittenti Augustissimos /* (Viennae, Austriae,: Typis M. Rictij, 1656), 50–51.
[18] Original Latin reads: "Quanquam hoc in universa *Sina*nascatur, in provinciis tamen *Su civen, Xensi,* atque *Socieu* Civitate ad muros *Sinarum* provima uberius provenit. Athanasius Kircher, *China Illustrata*, trans. Charles Van Tuyl, 1667, 251.

ATLAS CHINENSIS AND THE CREATION OF THE EXOTIC

DAKOTA STEVENS

Over 700 pages of elaborately engraved images and descriptive text, the *Atlas Chinensis* is well positioned to discuss the complex discourses surrounding the appearance of China to seventeenth century Europe. While the title page states the atlas was written by Arnoldus Montanus (1625?–1683), this is an erroneous attribution. The text was compiled by Olfert Dapper (1636–1689), a Dutch physician and writer who never traveled outside of the Netherlands.[1] Using personal research, and travel accounts such as Johan Nieuhof's (1618–1672) manuscript of the 1665–1667 Dutch East India Company embassy to China, the atlas portrays China as an exotic local worthy of Europeans growing interest in it as a commercial marketplace, and space of foreign wonder.[2]

Originally published in Dutch, before being translated into English by John Ogilby (1600–1676) in 1671, the atlas covers a range of topics from Chinese culture and topography to exotic flora and fauna. Geographical atlases like the *Atlas Chinensis* were conceived of in the Netherlands by Jacob van Meurs (circa 1618–1680) a bookmaker and impresario of print.[3] van Meurs was able to find popular commercial success through creating a printing program focusing on large, ornate, and visually impressive books. The many hundreds of pagers were filled with maps and engraved images, paratext, or words set in the margins of the pages that serve to supply additional interpretation and navigational help, allowing readers to quickly skim through topics. The geography books he published were printed in multiple editions and languages, delivering a new way to consume and comprehend the non-European world.[4]

The key to van Meurs' success was the great emphasis placed on the pictures included in the atlases. The pictures appealed to early modern Europeans' desire to view the world, especially the *new* worlds that have been *discovered* in the preceding two centuries.[5] The pictures delivered packaged visual content that did not necessarily need to rely on the words printed on the page to get their point across. In fact, the written text was even presented in a heavily editorialized and sanitized way. During the compiling process van Meurs and his competitors removed the personal aspects of travel accounts, relying instead on the descriptive elements, thus transforming the text from a narrative mode into a seemingly objective description.[6] This objective descriptive mode of explanation was well

known to educated Europeans, who had been consuming scientific descriptions of flora and fauna since the middle of the seventeenth century.[7] By presenting the atlas in this way the publishers gave the contents of the book a timeless quality. The Dutch model of geography can in this way be seen to develop an allochronic strategy of representation, where actual time is minimized and given a backseat role to perceived time.[8] This allowed anyone who wanted to travel the world, see exotic places, people, and creatures, the ability to, from the comfort of their own homes. Published almost a century before the *Atlas Chinensis*, the 1581 edition of German geographer George Braun's (1541 – 1621) *Civitates orbis terrarium* is a collection of bird's eye views of cities around the world. It brings to light the long history of this sentiment stating "Can one…imagine anything more pleasant than to be in one's own home, a place far from all danger, to see, thanks to these books, the entire shape of the world…"[9] Atlases of the sort van Meurs printed were not meant as a guide you like a regular map, but were instead, intended for consultation in personal studies, libraries, and parlor rooms.[10] For van Meurs and others like him the creation of these atlases became a performance specializing in the presentation of the exotic. The main part of this performance took place in the images contained in the books. Frozen in time they displayed to European readers a distant land that did not change over the years, but rather stayed the same. China became through the pages of the *Atlas Chinensis* an exotic novelty that met standards of agreeableness. Through which European imperial authority became content to not conquer China, though they tried a number of times. Nowhere is this sentiment of exotic agreeableness more visible than in the engravings of flora and fauna. The remainder of this essay will turn to one picture of a pineapple to explore this concept further.

Depicted in the latter quarter of the book the engraving shows two larger than life pineapple plants (fig. 12.1), the word "Ananas Fructus" a reference to the scientific name for pineapple *Ananas comosus* hangs above them. One fruit bearing plant appears with the leaves still attached to its stalk, while the other would be floating in space were it not for the small portion of stalk connecting it to the earth. Between the two fruits lies the middle portion of a pineapple cut open for the viewer to see what the inside looks like. The middle ground is occupied by three figures, farmworkers from their dress, and the baskets of fruits they hold. In the background is a small house with a curved roof like those found on pagodas. It should be noted that pineapple plants do not lose their leaves; the depiction of a plant with no leaves serves purely to accentuate the size of the fruit compared to the human figures on either side.

The importance of the pineapple in the atlas is as a commercial trade good. Pineapples are not native to China; they were first cultivated in South America around 2,000 BCE by the indigenous Tupí-Guraraní, of Brazil.[11] The Portuguese, after establishing control over Brazil in the sixteenth century, began to trade the pineapple around the globe. Eventually it made its way to India, China, and Southeast Asia.[12] Accompanying the depiction of the pineapple is a brief history of its route from South America through Oceania into China as well as a description of its appearance, taste, and uses, including medicinal ones. Here the descriptions serves a role in cementing the pineapple within Chinese material culture. Travel accounts, and by extension the geography books like *Atlas Chinensis,* had material culture at their heart. As such, European understanding of China and its people was linked to trade and trade goods.[13] But how then does the atlas produce ideas of the exotic through its images?

Prior to 1650 European colonial powers sought to reduce the distance between themselves and the lands they occupied. They applied a principle of attachment, a rhetorical strategy that expressly forged connections between colonizers and colonized.[14] An example of this is Spain calling their holdings in Central and North American New Spain. Through name equivalence they sought to establish a closer connection to the colonies and impart the same sensibilities of the homeland. Post-1650, however, European powers sought to establish a different kind of relationship with the rest of the world. Instead of trying to position themselves in a close relationship with other countries, Europeans sought to expand the qualities that differentiated them from others.[15] Through depictions of material culture, flora and fauna in atlases like *Atlas Chinensis*, they were able to do just that. By capitalizing on the differences between people, European powers were able to impart a pan-colonial or hyper-imperial perspective.[16] This made the non-European world a mix of exotic people, places, and things effectively diluting any single perspectives

The pineapple as a commodity, not seen by most Europeans until the seventeenth century and inherently tied into Chinese material culture becomes an exemplar of the exotic.[17] Philosopher John Locke even famously remarked that the pineapple unseen and untasted was a symbol of the exotic, not understandable until it was seen and tasted.[18] The engraving in *Atlas Chinensis* does not allow a reader to taste the fruit but through the pairing of description and image they can imagine it in their world rather than half a globe away. Operating as a static reinforcement, the pineapple is presented as an everlasting consumable, larger than life and broken into the parts of its life cycle, like a reader would have seen in a book on zoology or botany.

The *Atlas Chinensis* and its images like the pineapple are part of a larger program that sought to create the non-European world as exotic and agreeable to European sensibilities and imperial desires. The pictures are frozen in time, the pages of the atlas reproduced edition after edition. China did progress technologically, but the Europeans reading from the safety of their studies saw a country and a people conflated with their material culture.[19] The bound pages of the *Atlas Chinensis* turned the world into a commodity, producing a consumable globalism.

Figure 12.1. Olfert Dapper (1636–1689), translated and published in English by John Ogilby (1600-1676), *Atlas Chinensis*, London, 1671, print, 17 x 23 1/4 x 2 1/2 in. (43.2 x 59.1 x 6.6 cm.), University of Delaware Library, Special Collections, Folio DS808 .M76 1671.

NOTES:

[1] Isabella H. Van Eeghen, "Arnoldus Montanus's Book on Japan," *Quaerendo* 2, no. 4 (1972), 262.; Reinier H. Hesselink, *Memorable Embassies: the Secret History of Arnoldus Montanus' Gedenkwaerdige Gesantschappen* (Leiden, Netherlands: Brill, 2002), 105.

[2] "Atlas Chinensis : Being a Second Part of a Relation of Remarkable Passages in Two Embassies from the East-India Company of the United Provinces, to the Vice-Roy Singlamong and General Taising Lipovi, and to Konchi, Emperor of China and East-Tartary : with a Relation of the Netherlanders Assisting the Tartar against Coxinga, and the Chinese Fleet, Who till Then Were Masters of the Sea, and a More Exact Geographical Description than Formerly, Both of the Whole Empire of China in General, and in Particular of Every of the Fifteen Provinces," Renaissance Exploration Map Collection - Spotlight at Stanford, accessed May 26, 2021, https://exhibits.stanford.edu/renaissance-exploration/catalog/ph450dz0150.

[3] Benjamin Schmidt, *Inventing Exoticism: Geography, Globalism, and Europe's Early Modern World* (Philadelphia, Pennsylvania: University of Pennsylvania Press, 2019), 49.

[4] Schmidt, *Inventing Exoticism,* 9.

[5] Schmidt, *Inventing Exoticism*, 83.

[6] *Ibid.*

[7] Harry Robin, *The Scientific Image: from Cave to Computer* (New York, New York: W.H. Freeman and Company, 1993), 74.

[8] Johannes Fabian, *Time and the Other: How Anthropology Makes Its Object* (New York, New York: Columbia University Press, 2014).; Benjamin Schmidt, *Inventing Exoticism*," 103.

[9] Surekha Davies, *Renaissance Ethnography and the Invention of the Human: New Worlds, Maps and Monsters* (Cambridge, Massachusetts: Cambridge University Press, 2017), 9.

[10] Davies, *Renaissance Ethnography,* 9.

[11] Ruth Levitt, "'A Noble Present of Fruit': A Transatlantic History of Pineapple Cultivation," *Garden History* 42, no. 1 (2014), 106.

[12] Levitt, "'A Noble Present of Fruit,'" 107.

[13] Anne Gerritsen and Stephen McDowall, "Material Culture and the Other: European Encounters with Chinese Porcelain, Ca. 1650-1800," *Journal of World History* 23, no. 1 (2012), 87-88

[14] Schmidt, *Inventing Exoticism*, 13.

[15] Schmidt, *Inventing Exoticism*, 14.

[16] Schmidt, *Inventing Exoticism*, 18.

[17] Ruth Levitt, "'A Noble Present of Fruit," 109.

[18] Schmidt, *Inventing Exoticism*, 109.

[19] Anne Gerritsen and Stephen McDowall, "Material Culture and the Other: European Encounters with Chinese Porcelain, Ca. 1650-1800," *Journal of World History* 23, no. 1 (2012), 99.

LIMINALITY AND THE UNKNOWN

MERCURIO GEOGRAFICO'S MAPS OF ASIA

ERIN HEIN

The frontispiece of the *Mercurio Geografico* boasts that it is a "geographical guide to all parts of the world."[1] With a title that unifies the world into a single cartographic compendium, the atlas, first published by the Roman de'Rossi house in 1682, claims to present the totality of the Earth in a neutral, expository manner. Inside, however, the viewer encounters realms that are divided and ordered according to distinct geographical, pictorial, and cultural hierarchies. As such, the *Mercurio Geografico* is an argument for continental identity. The atlas presents the world as it was understood in Europe near the end of the early modern period, which saw the continent's discovery of the Americas, the first circumnavigation of the world, and the dispatching of Jesuit missionaries to foreign and distant peoples. The *Mercurio Geografico* presents a narrative of European geographic discovery and its subsequent crisis of continental position and identity.

This essay examines pictorial strategies of continental self-fashioning used by the *Mercurio Geografico* cartographers, relying on the two volumes in the University of Delaware's Special Collections, which were likely printed in the 1690s and feature hand-colored details. Throughout the maps are gestures toward and explicit depictions of boundaries and liminal spaces, which declare Europe as a discrete, knowable, inhabitable continent amid lands that are presented as separate and unknowable.

The first map in the *Mercurio Geografico* asks the viewer to conceptualize the world as both whole and known. The title labels a double planisphere as a "true map" of the "terrestrial globe."[2] However, pictorial devices fragment the land masses into various continents. Within the format of the double planisphere, which renders two halves of a spherical globe collapsed into discs, this plate separates the Old and New Worlds, distinguishing the Americas from Africa, Asia, and Europe. Such a cartographic scheme breaks from the convention of a single, stretched format of the Ortelian world map.[3] Not only is the earth itself segmented in the double planisphere, but each continent is pictorially identifiable from the next, defined by printed dotted lines. The hand-colored borders in the UD Special Collections copy of the *Mercurio Geografico* highlight the dotted lines that were included in the printed plate.[4] These pictorial separations, appearing in the atlas' very first image of the world, declare that the Eurasian land mass is

divided, and that Europe is culturally and geographically separate from those lands and peoples to its east.

The *Mercurio Geografico* viewer had already been initiated to the segmented version of the world presented in the double planisphere. The first volume's frontispiece features the titular god Mercury in the center, mediating an interaction between an ancient geographer, holding a book and globe with his instruments strewn about below, and the four personifications of the continents (fig. 13.1). The Americas, Africa, Asia, and Europe are presented as allegories, with varying attributes that define their symbolic role in the metaphysical world. Shown this way, the discrete identities of the continents are self-evident. Asia is given the camel and incense burner emanating smoke – she is aligned with pagan spirituality traditionally ascribed to the East.[5] Europe is contrastingly represented with attributes of intellectual and political progress. She holds a crown, denoting civilization and divine government, and a classical façade, gesturing toward the mathematical perfection attained by her artists and architects.[6] Africa, adorned with an elephantine headpiece, holds a cornucopia of grains. America is armed with arrows and wears a feathered headpiece, a reference to indigenous peoples who were encountered by Europeans at the end of the fifteenth century. In highlighting specific attributes, the frontispiece foregrounds specific qualities for each continent.

The allegories on the frontispiece are abbreviated examples of the continents in Cesare Ripa's *Iconologia*, a popular seventeenth-century emblem book. Ripa's Asia is described as a woman "crowned with a beautiful garland of various flowers and different fruits… wearing a lavish dress embellished with gold, pearls, and other jewels."[7] She holds a smoking incense burner in her left hand and standing in front of a camel. The Asia in the *Mercurio Geografico* has a camel behind her, but her pearl headdress and jeweled pin are relatively simple. The incense burner, emitting plumes of smoke, is her defining attribute. She holds it in her lap and the smoke reaches upward, encroaching on Africa's space. The Europa from the Iconologia is given several attributes – an edifice, crown, and ox are retained in the *Mercurio Geografico*. By following Ripa's allegorical formulas, the *Mercurio Geografico* works within previously held conceptions of continental identity and prompts the viewer to understand the continents as distinct bodies with different characteristics and natures.

The *Mercurio Geografico* organizes its maps according to continent. So, maps of Europe are first, followed by Asia, Africa, and North and South America. In this organizational system, Eurasia is torn in two. Such separation is further supported by different pictorial strategies, which suggest the relative importance and

independence of each continent. Plate 3's map of Europe, adapted from a 1677 map by French cartographer Guillaume Sanson, includes on its periphery "part of Africa" and Anatolia (modern-day Turkey). Anatolia and Africa have geography, namely an isthmus and a strait, that naturally separates them from Europe and, therefore, the viewer will not mistake these lands as "European." There is no risk in providing a similar level of detail in these regions – visually, they include a density of both topographical and political information.

In contrast, the lands that flank Europe to the east are literally pushed to the margin of the map and information dissipates at these margins. For instance, "Grande Tartaria" is placed within the latitudinal marker. This land lacks basic visual information, to the point where the northeast corner is left completely blank. This is not a strategy that is unique to the *Mercurio Geografico* - it was common for regional maps in atlases to contextualize the position of the land it depicts within world geography by using less detailed peripheral areas. The century prior, Ortelius' map of Europe similarly leaves marginal lands blank. The *Mercurio Geografico* uses earlier pictorial idioms to communicate the limits of Europe by neglecting to fully depict the lands that lie just beyond it.

The continental map of Asia in the de'Rossi tome prominently features Moscovia, the granduchy that predates the Tsardom of Russia; Piccola Tartaria (Ukraine); Greece; and even Poland – all lands firmly declared as European (fig.13.2). "EUROPA" is scrawled across the top-left of the map and is not relegated to marginal status. Moscovia stretches across half of the plate in the north and is one of the more geographically and topographically articulated areas.[8] Asia's geography, as represented by Sanson in this map, is dependent on that of Europe. It is shown relative to its western counterpart, whereas Europe is not reliant on nor geographically contextualized by Asia.

The ambiguous boundary between Europe and Asia is a site at which the *Mercurio Geografico* grasps for a concrete, geographic border to separate the two continents. There is no clear barrier to delineate space here, such as the Red Sea or the Turkish Straits. However, a rich history of this border exists from antiquity and manifests the deeply seeded Myth of Continents, which describes the false and treacherous assertion that hierarchy of biology and culture is inherent in the continental division of geography that is, in fact, the same land mass.[9] While the discussion that follows shows a long-standing effort to divide Asia and Europe, scholars have convincingly complicated this history, arguing that it was not until the sixteenth and seventeenth centuries that European geographers sought to completely separate the continents and their identities.[10] Benjamin Braude shows that in pre-1400

medieval Europe, the Earth was understood as one *oikumene*, with Europe, Africa (then called Lybia), and Asia comprising regions of that whole.[11] The history of the Euro-Asian border might best be understood as European geographers continually grasping for a distinct, topographical feature to mark an ambiguous, shifting border.

Ancient texts from the Greek and Roman empires create a separation between Europe and Asia that closely reflects the nature of Mediterranean geography. In 500 BCE, Hacataeus imagined an isthmus connecting the continents between the Caspian and Black Seas. This land was further delineated along the Caucasus Mountain range, creating a clear division between Europe and Asia. Similarly, Pomponius Mela, in 43 CE, separated the two continents using the Black Sea and the Don River, which has a northern source (either in the Riphae mountains or the Caspian Sea). These ancient authors reveal an attitude on continental division that relied on clear geographic barriers, whether real or fictional.

Such desire for clear boundaries is reflected in early modern European geographical thought as well, which was largely founded on the Ptolemaic cartographic tradition. This thinking retained the Don River as the primary geographic boundary, establishing Europe as a large peninsula attached to Asia by an isthmus. W. H. Parker has convincingly argued that while Eurasia was represented with greater faithfulness to reality after the Renaissance, cartographers still grasped at a geographically clear boundary to divide the two continents.[12] These included various combinations of the Don, Volga, and Ob Rivers, several lakes, and the Ural Mountains. The *Mercurio Geografico* pushes eastward of Parker's latest identified border, employing the Pisida River and the Altai Mountains which run east to west and separate China and Russia.[13]

At this border, the *Mercurio Geografico* manifests a larger European anxiety with ambiguous space and arbitrary, man-made boundaries. While this anxiety certainly developed out of concern for territorial security (Italy was constantly under threat from the Ottoman Empire in the seventeenth century), the need for definitive borders also reflects an understanding that continents had distinctive cultural and ethnographic identities that were tied to the land itself. Such a worldview is at the heart of the Myth of Continents, which attributes cultural difference to geographic regions.[14] In order for the land to the east and west of any given Euro-Asian boundary to be differentiated, a space of transition needed to be established. Bands of distinct topography, such as river valleys or mountain ranges, were obvious choices.

This space at the Euro-Asian border is liminal, a site of threshold across which transformation occurs. Theory of the limen is derived from anthropological studies of

ritual and refers to the threshold between states of being. Here, the person involved in ritual is neither what they once were, nor what they will become – they occupy a state of ambiguity at the moment that the ritual occurs.[15] While ritual theory often refers to spiritual rather than physical space, Victor Turner's early model of the ritual limen included religious pilgrimage, which located liminal transition within large swathes of geography traveled in pursuit of a final destination.[16] In response to Turner, Bobby C. Alexander identifies the limen as a site through which everyday social relations are reconfigured and transformed.[17] These conceptions of the limen as a defined physical space can be directly applied to something like the Ob River or Russian mountain ranges. Thus, a traveler crossing that limen could be understood by the viewer of the maps to transform socially from native to foreigner and from host to guest.

The titular reference to the god Mercury in the Italian atlas places the *Mercurio Geografico* within the conceptual context of the limen and transformational space. In her short essay "Il Mercurio Geografico: il Gioco e la Differenza," Alessandra Bonazzi explored the symbolic function of Mercury as the divine dedicatee of the atlas, as well as his role on the frontispiece of both volumes. Bonazzi identifies Mercury's role as the god of thresholds, doorways, and crossroads as especially relevant to the atlas because these functions reference the act of traversing geography and moving from one type of space to the next.[18] Mercury's role as a messenger to the gods requires that he cross the threshold between the heavens and the earth. The *Mercurio Geografico* accentuates the liminality of travel by placing the earth's geography within the context of liminal spaces such as doorways and crossroads. The messenger god acted as an emblem for the power of liminal spaces, even before the anthropological understanding of the ritual limen was introduced in the twentieth century.

Jesuits, who supplied the information for the *Mercurio Geografico* maps (as the viewer is told each cartouche), were establishing missions within Asian societies that were also concerned with borders and transformational space. In 1689, seven years after the first edition of the *Mercurio Geografico* was published, two Jesuits at the Qing court helped to broker an agreement between Russia and China on their shared border. The first of several agreements at the Sino-Russian border, the Treaty of Nerchinsk established the Amur River as the boundary between the two sprawling empires. There had been violent skirmishes between the two empires in the Amur River Valley since the 1650s – Manchu troops acting as both defenders and aggressors. While the Treaty of Nerchinsk had yet to be negotiated at the time of the *Mercurio Geografico*'s publication, Jesuits were painfully aware of what an ambiguous border

could mean for a state, as they witnessed the disquiet in the Qing court over its own northern border.

Skirmishes across border lines were both common and significant enough that they were recorded in a 1697 scroll called the Aihun, Luosha, Taiwan, Nei Menggu tu. Now held at the Library of Congress, the scroll maps the border between Russia and China and illustrates military bases and camps, around which conflict ensued. Moreover, the seventeenth century saw the invasion and usurpation of the Ming dynasty by the Manchu, who founded the Qing dynasty in 1636. The Qing overtook the Ming over a nearly forty-year period, slowly marching south and conquering Ming territory.[19] Such conflict over borders, as well as the transformation that comes with changing dynastic rule, would have been at the forefront of the Jesuit's minds as they provided information to European cartographers about China's topography. And their awareness of the political importance of borders could have been projected onto the Euro-Asian border, rendered and compiled by the 1690s in the *Mercurio Geografico*.

The Italian atlas employs other visual and organizational strategies to communicate differences between European and Asian lands. While contemporary cartographic models located the Euro-Asian border along rivers and mountains, the *Mercurio Geografico* supplements the tradition with a visually ambiguous meeting of hand-colored lines. These widen the gap between Europe and Asia, demarcating a pictorial zone that separates the continents. They don't technically touch; they are separated by a pictorial limen.

The *Mercurio Geografico* gives Europe a geographical history through two plates in the first volume of the Roman Empire. These ground European lands within a long and ancient lineage. No maps establish the same antique past east of Persia. Indeed, Asia is actively barred from such a patrimony with the cartouches on the maps, all of which state the information displayed was gathered recently, by Jesuits and explorers from "our century." For instance, the cartouche for "Il Regno della China" claims that the 1682 map is comprised of the "most recent information from the most illustrious travelers of our century."[20] This casts Asia and its countries as new, as the maps are comprised of information that had just recently been collected. Moreover, the cartouches elevate European Jesuits and travelers by claiming that these are the "most exact" maps of these regions, a claim that neglects the existence of more accurate and informative political and geographical maps that were made in Asian courts.[21] For example, the Da Ming Yi Tong Shan He Tu was created less than thirty years after the *Mercurio Geografico*, no doubt using earlier cartographic models and information, and includes much detail about the location of cities, regions, mines, and topographical details in and around China.

The *Mercurio Geografico* also uses scales of distance to differentiate Europe and its adjacent lands from those east, which are cast as exotic and untraversable. Maps of European regions, Turkey, and the Arabian Peninsula (regions where Europeans had strong trading foundations) include a scale that measures hours of walking, "leghe d'un hora di camino." Maps of Asia do not employ this scale, instead they list both European and regional miles. Thus, where Europe and its marginal lands are described in terms of traversability and access, the East is not. The hourly unit of measure facilitates imaginative participation in the space – the viewer can conceptualize traveling across it. This opportunity is not afforded to Asian lands east of Anatolia. Based on the information given in the maps, a viewer might consider these regions inaccessible and unknowable, able to subsume a traveler who attempted to cross. This cartographic strategy mystifies Asia, while declaring Europe to be a land mass that is inhabitable and understandable.

While the *Mercurio Geografico* insists that it delivers a holistic picture of the world to its viewer, the atlas displays a European agenda of continental identity and hierarchy. Indeed, the characteristics ascribed to the geography of Europe (understandable, inhabitable, every-day) and those ascribed to Asia (incomprehensible, inaccessible, exotic) are echoed in the continental allegories. Where Europe holds a perfect edifice, inviting as both shelter and seat of civilization, Asia carries an incense burner, billowing with perfumed smoke. Here, juxtaposed with Europe, Asia is mysterious. Devoid of other attributes, her character is unknown. And the geographer, presented to the allegories by Mercury, seeks to represent this personified "truth" on his cartographic plane. This conceit emblematizes the *Mercurio Geografico* itself, presenting the atlas from the de' Rossi publishing house as a crystallization of conceptual understandings of the continents, not as they physically existed, but as they were perceived in a Europe preoccupied with its own cultural identity and primacy on the world stage.

Figure 13.1. *Mercurio Geografico*, Rome: Domenico De' Rossi, 1692, 23.937 x 18.50 in. (60.8 x 47 cm.) University of Delaware Library, Special Collections, Folio+G1012.R67.

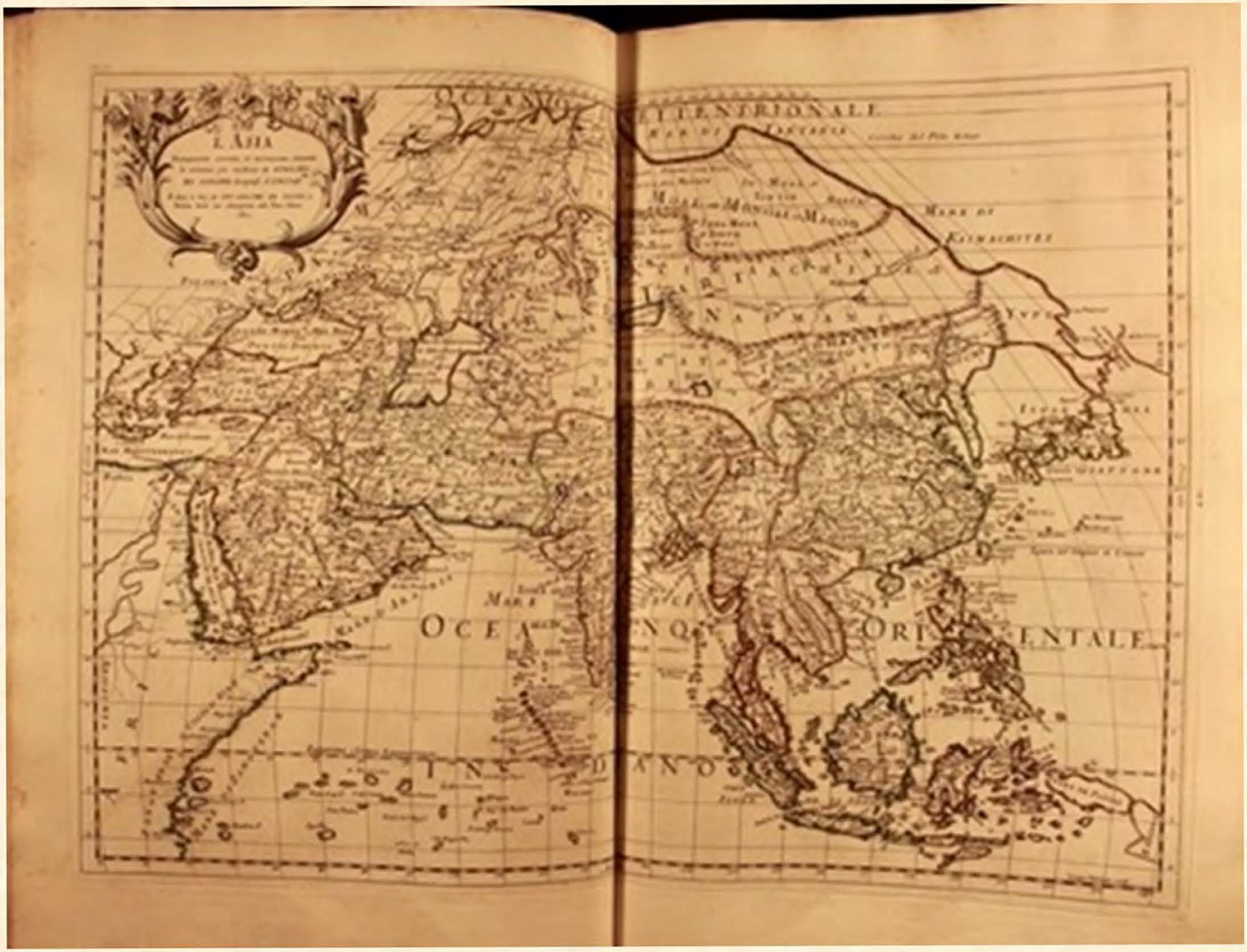

Figure 13.2. *Asia,* in *Mercurio Geografico*, Plate 4, Rome: Domenico De' Rossi, 1692, 23.937 x 18.50 in. (60.8 x 47 cm.) University of Delaware Library, Special Collections, Folio+G1012.R67

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[1] Original text: "guida geografica in tutte le parte del mondo," Mercurio Geografico. Plate 2. The University of Delaware's Special Collections. Folio+G1012.R67.
[2] Original text: "Mappa mondo o vero carta generale del globo terrestre/ Rapresentato in due Planisferi."
[3] The Ortelian scheme was included in Abraham Ortelius' 1570 atlas *Typus Orbis Terrarum* and was wildly popular in the seventeenth century.
[4] Given that most of the hand coloring is used to articulate and emphasize geographical and political borders, it is likely that it was added within the publishing house.
[5] Denis Cosgrove, *Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination*, (Baltimore and London: The Johns Hopkins University Press, 2001), 11.
[6] Ibid.
[7] Cesare Ripa, *Iconologia* (Venice: Presso Christoforo Tomasini,1645), *Iconologia*, 64.
[8] The disparity in detail here may be partially attributed to the available knowledge of these various regions, in addition to any intentional or subconscious pictorial strategies.
[9] Martin W. Lewis and Kären E. Wigen, *The Myth of Continents: A Critique of Metageography*, (Los Angeles: University of California Press, 1997).
[10] For example, see Denys Hay, *Europe, the Emergence of an Idea* (Edinburgh: Edinburgh University Press, 1968).
[11] Benjamin Braude, "The Sons of Noah and the Construction of Ethnic and Geographical Identities in the Medieval and Early Modern Periods," *The William and Mary Quarterly* 54, no. 1 (1997): 109.
[12] W. H. Parker, "Europe: How Far?" *The Geographical Journal* 126, no. 3 (1960): 278-286.
[13] See *Mercurio Geografico*. Plate 75. "La Gran Tartaria." Folio+G1012.R67, The University of Delaware's Special Collections.
[14] W. H. Parker, "Europe: How Far?" 278-286, and also see Lewis and Wigen, *Myths of the Continents*.
[15] Selva J. Raj, "Transgressing Boundaries, Transcending Turner: the Pilgrimage Tradition at the Shrine of St. John de Britto," *Journal of Ritual Studies* 16, no. 1 (2002): 12.
[16] Victor W. Turner, *The Ritual Process: Structure and Anti-Structure* (Chicago: Aldine Publishing Co, 1969).
[17] Bobby Chris Alexander, *Victor Turner Revisited: Ritual as Social change* (Atlanta: Scholars Press, 1991), 20.
[18] Alessandra Bonazzi, "Il Mercurio Geografico: Il Gioco e la Differenza," in *Giacomo Cantelli: geografo del serenissimo*, Alessadra Bonazzi, Debora Dameri, Franco Farinelli, Achille Lodovisi, and Stefano Torresani, ed. (Bologna: Grafis Edizioni, 1995), 37-38.
[19] Peter C Purdue. "Boundaries and Trade in the Early Modern World: Negotiations at Nerchinsk and Beijing." *Eighteenth-Century Studies* 43, no. 3 (2010): 344-348.
[20] Original text: "le relationi più recenti de più illustri Viaggiatori del nostro secolo."
[21] Original text: "più essate."