

Beyond La Niña, La Pinta, and La Santa María: The Invention and Mental Mapping of the New World¹

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The topics of Columbus’s voyages of exploration, the first encounters between Amerindians and Europeans, and the ensuing collision of their respective worlds provide ample opportunities for creative and stimulating pedagogical approaches that go beyond the stale memorization of dates, places, and names. This essay and accompanying classroom exercise approach the encounter between Europe and the Americas as a prolonged process of intellectual creation rather than physical discovery, what Mexican historian Edmundo O’Gorman called “the invention of America.”²

The gradual unveiling of the Americas took place in the context of a Europe in transition between the Middle Ages and the Renaissance, also of transition from feudalism to capitalism, from small regional kingdoms to absolute monarchies, and from a world view dominated by religion and scholasticism to another based on skepticism, humanism, and experimentation. These transitions, to be sure, were gradual, occurring at different times in different places. Although

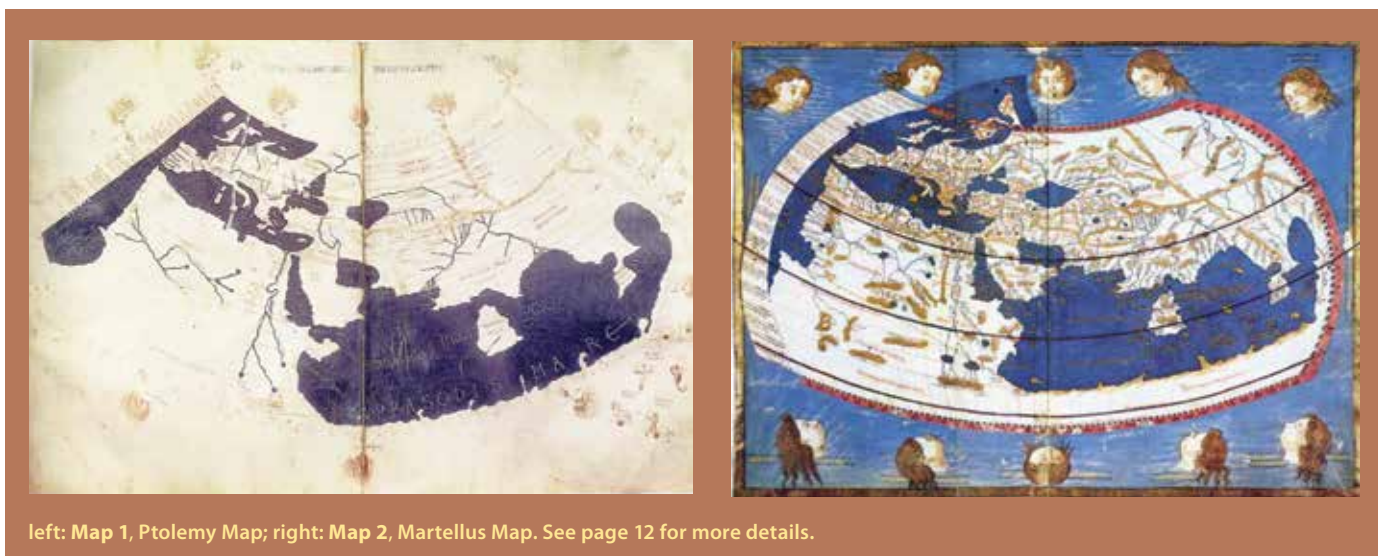
they were contemporaries, Christopher Columbus and the cartographer and explorer Amerigo Vespucci represented two different worlds, a waning Middle Ages and a dawning Renaissance, worlds that collaborated and clashed as Europeans strove to make sense of a potentially new world gradually unfolding before their eyes and in their minds.

Contrary to the still repeated misconception that before 1492 Europeans believed the earth was flat, it had long

been established that it was round. Actually, as far back as the second century, Claudius Ptolemy had calculated the size of the earth, which he estimated to be 28 percent smaller than its actual size. He also produced a fairly accurate map of the known world, which was rediscovered during the Renaissance and became an important source of cosmographic knowledge (bottom left).

Vespucci is likely to have been more influenced by Henricus Martellus’s 1489 map (bottom right); and he believed that Earth’s circumference was 24,000 miles, very close to its actual size.³

Columbus was emblematic of the Middle Ages, a deeply religious man and a crusader at heart. He drew his cosmology deductively, mainly from the Bible and a few philosophical authori-



left: Map 1, Ptolemy Map; right: Map 2, Martellus Map. See page 12 for more details.



above left: Map 3, The Ecumene Schematic Map, right: Map 4, Toscanelli Map. See page 12 for more details.

ties. Columbus believed in the medieval Catholic dogma of the Ecumene, a cosmivision in which the world’s landmass consisted of three connected continents (Europe, Asia, and Africa), each with its own great river (Don, Ganges, and Nile), and each with its own race (descendents of Japheth, Shem, and Ham), all of these triads being reflections of the Holy Trinity.

Columbus was a self-taught man who embraced an unconventional cosmivision based on even less reliable calculations. He accepted the views of Paolo Toscanelli, a Florentine physician and mathematician, whose 1474 map made the world even smaller, and Marinus of Tyre’s measurement of Eurasia which was 45 degrees longer than Ptolemy’s and 125 degrees longer than it actually is.⁴

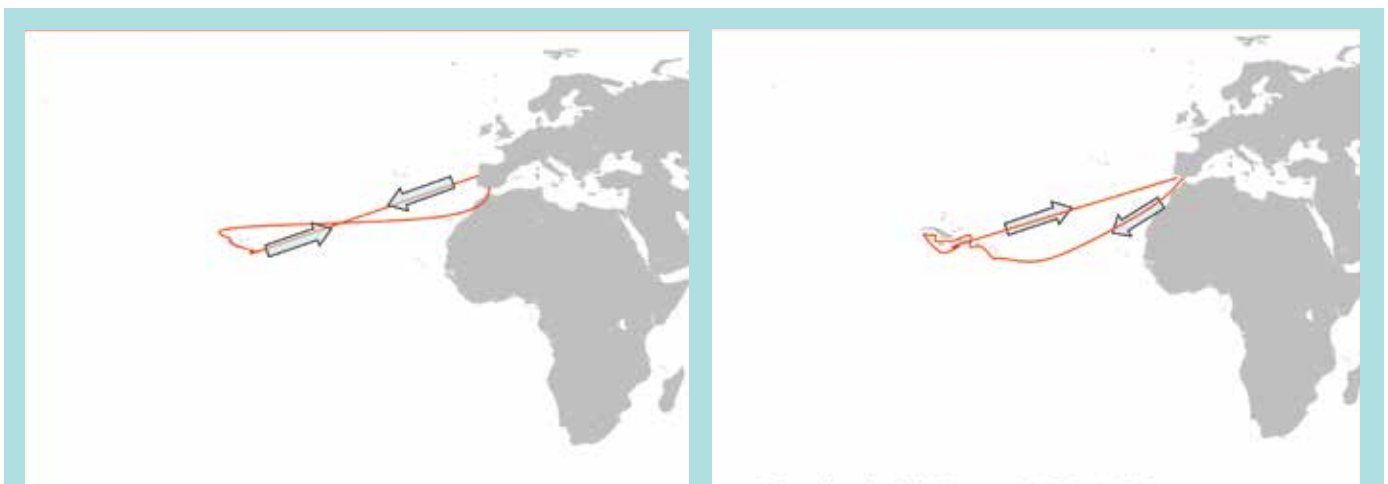
The compounding effect of these miscalculations led Columbus to believe that it was feasible to reach Asia by crossing the Atlantic Ocean, known then as Occidental Ocean.

Columbus’s first voyage (1492–1493) shook the cosmological, philosophical, and religious foundations of Europe, as explorers,

cosmographers, theologians, and cartographers scrambled to make sense of the puzzling geographic information gradually making its way to Europe from half way around the globe (below left). Columbus interpreted the geographic observations from his first voyage according to the idea of the Ecumene, concluding that he came in contact with the Indies, inhabited by Indians, and that the largest of those islands, Cuba, was the legendary island of Cipangu (Japan).

During his second voyage (1493–1496), Columbus revisited Cuba and Hispaniola and several new islands of varying sizes (below right).

This time, however, in spite of what the natives told him, he claimed that Hispaniola, and not Cuba, was Japan; and that Cuba was actually the Malay Peninsula protruding from the Asian mainland. Precisely at the point when Cuba began to appear to be an island, instead of continuing to sail westward, Columbus ordered his ships to turn back—but not before making his crew take an oath affirming that Cuba was not an island.



left: Map 5 Columbus’s first voyage (1492–1493), right: Map 6 Columbus’s second voyage (1493–1496). See page 13 for detailed explanation.



above: **Map 7** Juan de la Cosa produced the first map portraying Cuba as an island in 1500.

Ironically, one of the men who took the oath, navigator Juan de la Cosa, produced the first map portraying Cuba as an island in 1500. (see **Map 7** above.)

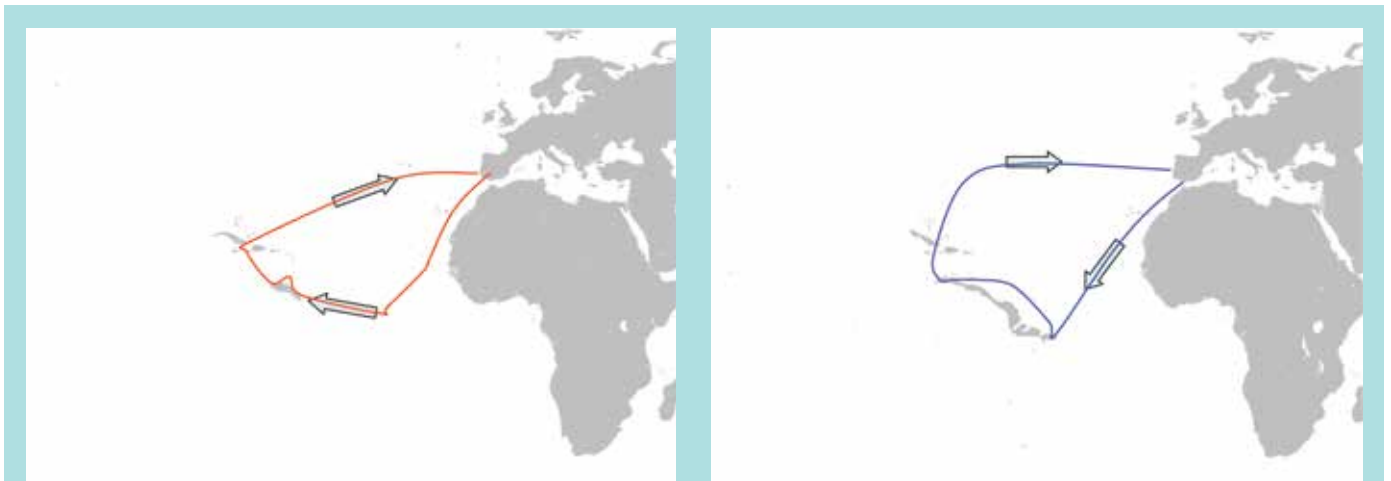
Vespucci was born and raised in Florence, the epicenter of the Renaissance, where he received a privileged education, and later worked as a merchant for the de Medici family. Renaissance minds like his approached the question scientifically, seeking and analyzing empirical evidence in order to reach conclusions about the nature of the islands and landmasses encountered by the European explorers. For him the budding idea of a New World was not a dogmatic conclusion but rather a hypothesis to be tested with subsequent voyages and explorations.

Over the next few years, Columbus, on the one hand, and

Vespucci, on the other, embarked on parallel explorations to determine the nature of the lands Columbus took to be the Indies.

During his third voyage (1498–1500), Columbus ventured farther south and came in contact with the mainland of South America, near the Gulf of Pariah, which separates Trinidad and the coast of Venezuela; there he stood in awe of the basin of the great Orinoco River, and now scrambled to redraw the map of the world and to find a place for the seemingly continental landmass he found (below left). He turned to another Biblical explanation: the Orinoco, he concluded, flowed from the Garden of Eden.

In his first voyage (1499),⁵ Vespucci reached the Cape of San



left: **Map 8** Columbus's third voyage (1498–1500), right: **Map 9** Vespucci's first voyage (1499). See page 13 for detailed explanation.

TEACHING IDEAS

Teachers and students can use this essay and accompanying illustrations in different ways.

Illustrated Teacher-Led Lecture

Using the illustrations and maps provided, teachers can help students understand the process of intellectual, rather than physical, discovery by the European explorers. In addition to the content presentation, teachers should ask thought-provoking questions throughout such as “What were the fundamental differences between Medieval and Renaissance ways of finding knowledge?” and “Who deserves credit for the ‘invention’ of America?”

Individual Student Reading, Small Group Discussion, and Whole-Class Analysis

Students can be asked to read the article underlining critical information and writing down questions engendered by the article as they read. Then, in small groups they can discuss the reading and the questions noted. The teacher can then project the voyage maps to demonstrate the actual process of the “invention of America.”

Role-Playing Exercise

After learning about each of the explorers’ lives and beliefs, students can engage in a role-playing activity in which they assume the roles of Columbus and Vespucci as they experienced the gradual unveiling of the New World. This requires students to imagine the world as known to European cartographers at the time, a world in which a huge Ocean separated the western coasts of Europe and Africa and what they believed was the eastern coasts of Asia.



Portrait of a Man, Said to be Christopher Columbus by Sebastiano del Piombo (1516). Source: Metropolitan Museum of Art, New York. www.metmuseum.org/Collections/search-the-collections/110002098

Roque near the northwestern tip of Brazil and then sailed west toward Venezuela where he coasted from the Gulf of Pariah all the way to Maracaibo, in present day Venezuela (below right).

He, like Columbus, believed that those coasts were part of a large continental mass. Soon thereafter, Pedro Álvarez Cabral, sailing for Portugal, navigated south along the Brazilian coast to about 15 degrees south of the Equator, thus expanding the mental map of the southern continent to a massive territory stretching between at least Porto Seguro, Brazil and Maracaibo.

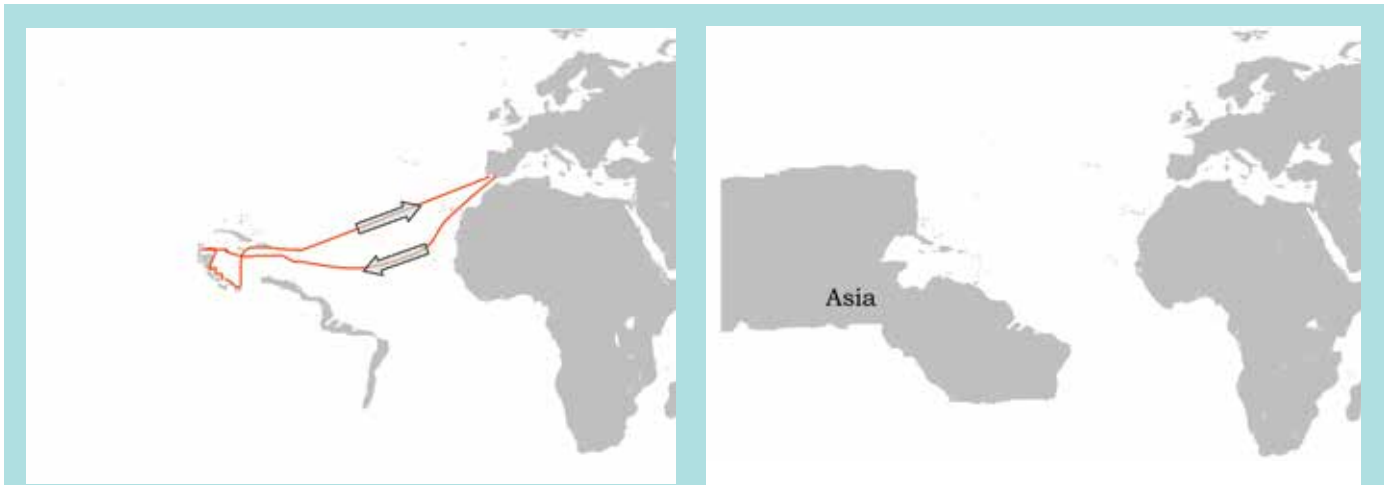
By the year 1500, these mystifying discoveries produced two competing interpretations: Columbus concluded deductively (below left) that because islands could not produce rivers of the magnitude of the Orinoco River, the landmass to the south

was “a mighty continent that was hitherto unknown,” which God had concealed from Europeans until that point.⁶

This new continent, he believed, was separated from the islands and mainland to the north, which he claimed all along were Asia. On the other hand, Vespucci hypothesized that all of the islands and landmasses constituted a single continent, Asia (below right), believing that it was a “fourth part of the earth.”⁷ Both explorers embarked on yet another round of voyages, to test their respective ideas. In 1502, Columbus led a fourth exploration, setting out toward the yet unknown isthmus of Central America in search of a water passage separating what he now believed was Asia to the north and the new continent to the south (illustration next page: top box, map at the left).



left: **Map 10** Columbus’s hypothesis (1500), right: **Map 11** Vespucci’s hypothesis (1500). See page 13 for detailed explanation.



left: **Map 12** Columbus's Fourth voyage (1502–1504), right: **Map 13** Columbus's Final Conclusion. See page 13 for detailed explanation.

He believed that finding an oceanic passage would prove his new theory of two different continental masses. After coasting from Honduras to as far south as Panama without finding any water passage, he discarded the two-continent theory, returning to his earlier Ecumene-based proposition that all of the lands belonged to Asia; when he died in 1506, he was still convinced of that (top right). As a result of this voyage, Columbus recurred to another Biblical explanation, interpreting information about prodigiously rich gold mines in Central America as the Mines of Ophir in Panama, which produced the gold to build Solomon's temple.

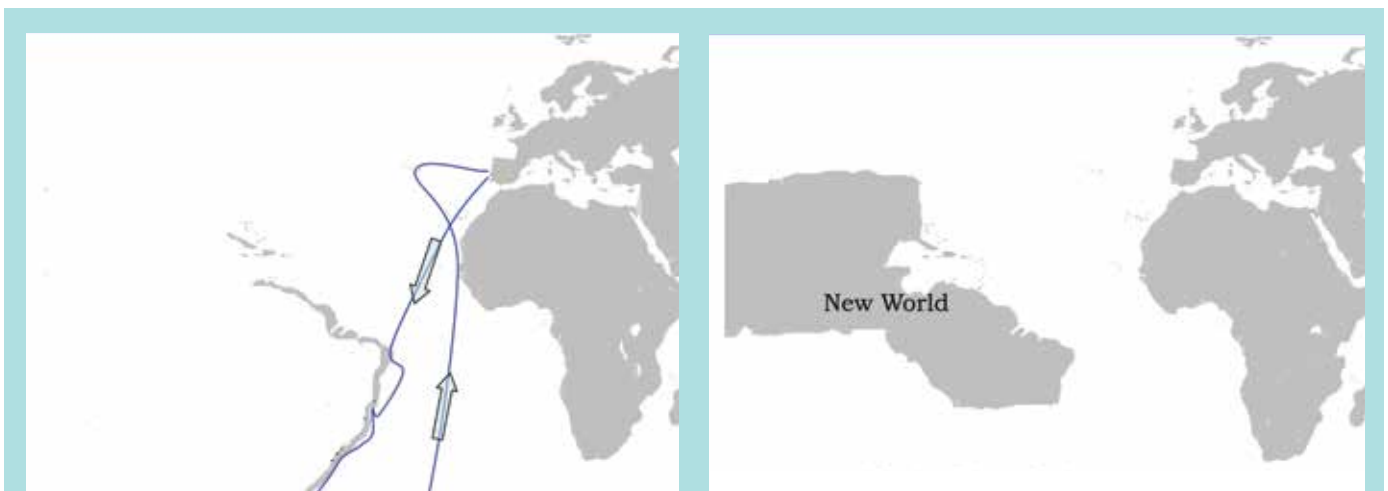
Vespucci, meanwhile, set out in his second voyage (1501–1502)⁸ in search of more evidence to support his hypothesis of a new single continent.

In order to prove that it was a new continent, he had to rule out that it was Asia, so he sailed southward way beyond the point where Asia's southernmost point was believed to be located. Vespucci's expedition reached what later came to be known as Río de la Plata, Argentina, located 34.5 degrees south of the Equator. Based on this evidence he inductively

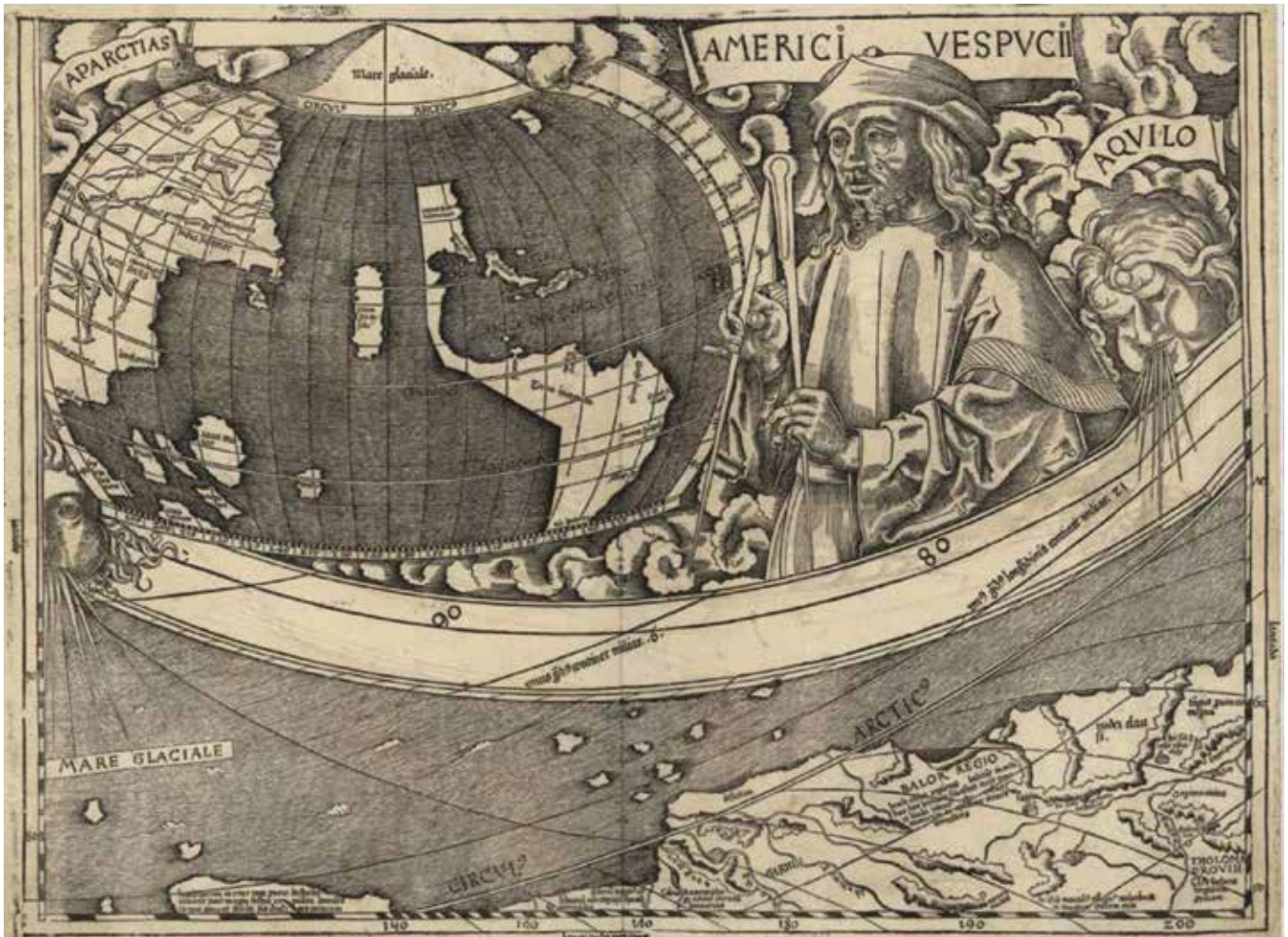
concluded that all of the newly discovered lands and continents, indeed, constituted a new world.

So who "invented" America? Was it Columbus or Vespucci? Arguably it was neither and it was both. The invention and mental discovery of America required the mystic zeal of a prodigiously stubborn Columbus, whose deeply religious worldview allowed him to embark on explorations and theories summarily dismissed by his learned contemporaries. It also required a Renaissance man like Vespucci, who proposed hypotheses and sought empirical evidence to make sense of the new lands eventually named the Americas in his honor.

In 1507, Martin Waldseemüller produced the very first map with the word "America" stamped over South America. This map and others produced in the next few years reflected the Europeans' continuing uncertainty about the size, shape, location and connectedness of the new world that continued to unveil itself. Two things, though, remain clear: no one refers to the new lands as Columbia and no country celebrates Vespucci Day. 🌐



left: **Map 14** Vespucci's Second Voyage (1501–1502), right: **Map 15** Vespucci's Final Conclusion. See page 13 for detailed explanation.



above: **Map 16** In 1507, Martin Waldseemüller produced the very first map with the word “America” stamped over South America.

Notes

1. A few segments of this essay appeared previously in “1492: First Encounters, the Invention of America and the Columbian Exchange,” *Revista Brasileira do Caribe* 6, no. 11 (2005), 13–31.
2. Edmundo O’Gorman, *The Invention of America* (Westport, Conn.: Greenwood Press, 1972). Also see Eviatar Zerubavel, *Terra Cognita: The Mental Discovery of America* (New Brunswick, N.J.: Rutgers University Press, 1992) and Enrique Dussel, *The Invention of the Americas* (New York: Continuum, 1995).
3. Felipe Fernández-Armesto, *Amerigo: The Man Who Gave His Name to America* (New York: Random House, 2008), 69–72.
4. Helen Wallis, “What Columbus Knew,” *History Today* 42, no. 5 (May 1992): 17–23; www.historytoday.com/helen-wallis/what-columbus-knew.
5. Vespucci claimed that he embarked in four expeditions to the New World. The historical sources that mention four voyages, however, have been held suspect by many scholars; and there is a consensus that he had only two voyages—one in 1499, and the other in 1501–1502. The graphic reconstruction used here is derived from maps that appear in <http://olinuris.library.cornell.edu/exhibitions/vespucci>.
6. Christopher Columbus, *Four Voyages to the New World* (Gloucester, Mass.: Peter Smith, 1978), 129–130.
7. Fernández-Armentos, *Amerigo*, 71. See Vespucci’s letters in: http://mith.umd.edu/eada/html/display.php?docs=vespucci_letters.xml&action=show.
8. See note 5. If the questionable 1497 voyage is discounted, his 1501–1502 voyage is his second.

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More about the maps and where to find them on the Web

Map 1: **Ptolemy map** originally in his *Geographia*, circa 150 AD. This 1482 edition is an example of the rediscovery of classic works during the Renaissance. Source: <http://upload.wikimedia.org/wikipedia/commons/2/23/PtolemyWorldMap.jpg>

Map 2: **Henricus Martellus map** of 1489 is based on Ptolemy’s map but portrays a smaller Asia and the Indian Ocean does not appear as a landlocked body of water. Source: http://upload.wikimedia.org/wikipedia/commons/4/4d/Martellus_world_map.jpg

Map 3: **The Ecumene** as represented in a schematic map of the world by Bishop Isidore of Seville (560-636 AD). Note the three known continents inhabited by the three known races. The east appears on top of the map rather than on the left, a reflection of the greater importance of the east, where the Holy Land of Jerusalem is located. Source: <http://idlespeculations-terryprest.blogspot.com/search?q=isidore>.

Map 4: **Toscanelli map** (1474). The original of his map has been lost but it has been reconstructed based on information from the letter that accompanied the map. Source: Lawrence J. Burpee, *An Historical Atlas of Canada* (Toronto: Thomas Nelson and Son Limited, 1927). Map by John Bartholomew and Son, Ltd., Edinburgh Geographical Institute. www.heritage.nf.ca/exploration/toscanelli.html; see also, http://cartographic-images.net/252_Toscanellis_World_Map.html.

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More about the maps and where to find them on the Web (continued)

Map 5: **Columbus’s 1st voyage** (1492–1493) showing the lands he coasted, including several small islands in the Bahamas, Cuba’s northwestern coast, and a good portion of the northern coast of Hispaniola.

Map 6: **Columbus’s 2nd voyage** (1493–1496) reflecting his encounter with numerous Leeward and Windward islands, Puerto Rico, and Jamaica. It also reflects his coasting of southern Cuba. He insisted that Cuba was the Malay Peninsula and embraced the idea that Hispaniola was Japan.

Map 7: **Juan de la Cosa’s map** of 1500 shows the geographical knowledge accumulated at the time from various explorations. It is the first map in which Cuba appears in the shape of an island (1500). Source: http://upload.wikimedia.org/wikipedia/commons/b/b5/1500_map_by_Juan_de_la_Cosa-North_up.jpg.

Map 8: **Columbus’s 3rd voyage** (1498–1500), including his first encounter with South America.

Map 9: **Vespucci’s 1st voyage** (1499). In all fairness, this voyage should be credited to Alonso de Ojeda, who organized and led the expedition. Many question the validity of his account of a first voyage in 1497 and therefore the 1499 voyage is widely referred to as number one. The graphic reconstruction presented here is derived from maps created by Nij Tontisirin and Boris Michev, in Oris and Ulin Libraries, Cornell University. <http://olinuris.library.cornell.edu/exhibitions/vespucci>

Map 10: **Columbus’s hypothesis**. The lands and islands discovered so far are parts of two separate continental masses: Asia to the north and a previously unknown continent to the south.

Map 11: **Vespucci’s hypothesis**. The lands discovered thus far are all connected and appear to belong to Asia.

Map 12: **Columbus’s 4th voyage** (1502–1504) during which he sets out to find an oceanic passage between what he believes to be Asia and a new continent to the south.

Map 13: **Columbus’s final conclusion**. He died holding on firmly to these ideas, leaving the *Ecumene* intact and never giving up on his belief that Cuba was not an island.

Map 14: **Vespucci’s 2nd voyage** (1501–1502). It reflects how far south he went in search of a passage to what he believed was the Indian Ocean. See comment on Map 9, above.

Map 15: **Vespucci’s conclusion**. Columbus’s failure to find an oceanic passage between the northern and southern continents validated his contention that all of it was a connected landmass, and his southward coasting of the continent demonstrated that it could not be Asia because it went as far south as 34.5° below the Equator, if not farther.

Map 16. A facsimile of **Waldseemüller’s world map** from his *Universalis Cosmographia* (1507). While the larger map includes the name “America,” this insert shows the term “*Terra Incognita*” (unknown land). It does, however, show what was known of the American continents as connected, and separated from Asia. Source: http://upload.wikimedia.org/wikipedia/commons/thumb/c/c0/Waldseemuller_map_2.jpg/1280px-Waldseemuller_map_2.jpg