



**Setting the Stage:** The Amazon River in South America is the largest river by discharge volume of water in the world, and the disputed longest river in the world. The headwaters of the Apurímac River on Nevado Mismi had been considered for nearly a century as the Amazon's most distant source, until a 2014 study found it to be the headwaters of the Mantaro River on the Cordillera Rumi Cruz in Peru. The Mantaro and Apurímac rivers join, and with other tributaries form the Ucayali River, which in turn meets the Marañón River upstream of Iquitos, Peru, they form what countries other than Brazil consider to be the main stem of the Amazon. Brazilians call this section the Solimões River above its confluence with the Rio Negro forming what Brazilians call the Amazon at the Meeting of Waters (Portuguese: Encontro das Águas) at Manaus, the largest city on the river.

At an average discharge of about 209,000 cubic meters per second (7,400,000 cu ft/s; 209,000,000 L/s; 55,000,000 USgal/s, greater than the next seven largest independent rivers combined—the Amazon represents 20% of the global riverine discharge to the ocean. The Amazon basin is the largest drainage basin in the world, with an area of approximately 7,050,000 square kilometers (2,720,000 sq mi).

The Amazon was initially known by Europeans as the *Marañón*, and the Peruvian part of the river is still known by that name today. It later became known as *Rio Amazonas* in Spanish and Portuguese, and Amazon River in English. The name *Rio Amazonas* was given after native warriors attacked a 16<sup>th</sup> century expedition by Francisco de Orellana. The warriors were led by women, reminding de Orellana of the Amazon warriors, a tribe of women warriors related to Iranian Scythians and Sarmatians mentioned in Greek mythology.

In March 1500, Spanish conquistador Vicente Yáñez Pinzón was the first documented European to sail up the Amazon River. Pinzón called the stream *Río Santa María del Mar Dulce*, later shortened to *Mar Dulce*, literally, “sweet sea”, because of its freshwater pushing out into the ocean. Another Spanish explorer, Francisco de Orellana, was the first European to travel from the origins of the upstream river basins, situated in the Andes, to the mouth of the river. In this journey, Orellana baptized some of the affluents of the Amazonas like Rio Negro, Napo and Jurua. The expedition reached the mouth of the Amazon on 24 August 1542, demonstrating the practical navigability of the Great River.

In what is currently in Brazil, Ecuador, Bolivia, Colombia, Peru, and Venezuela, several colonial and religious settlements were established along the banks of primary rivers and tributaries for trade, slaving and evangelization among the indigenous peoples of the vast rainforest, such as the Urarina. In the late 1600s Czech Jesuit Father Samuel Fritz, an apostle of the Omagus established some forty mission villages. Fritz proposed that the Marañón River must be the source of the Amazon, noting on his 1707 map that the Marañón “has its source on the southern shore of a lake that is called *Lauricocha*, near Huánuco.” Fritz reasoned that the Marañón is the largest river branch one encounters when journeying upstream, and lies farther to the west than any other



tributary of the Amazon. For most of the 18<sup>th</sup>–19<sup>th</sup> centuries and into the 20<sup>th</sup> century, the Marañón was generally considered the source of the Amazon.

The most distant source of the Amazon was also thought to be in the Apurímac river drainage for nearly a century. Such studies continued to be published even recently, such as in 2008, where various authors identified the snowcapped 5,597 m (18,363 ft) Nevado Mismi peak, located roughly 160 km (99 mi) west of Lake Titicaca and 700 km (430 mi) southeast of Lima, as the most distant source of the river. From that point, Quebrada Carhuasanta emerges from Nevado Mismi, joins Quebrada Apacheta and soon forms Río Lloqueta that becomes Río Hornillos and eventually joins the Río Apurímac. However, a 2014 study by Americans James Contos and Nicolas Tripcevich in *Area*, a peer-reviewed journal of the Royal Geographical Society, identifies the most distant source of the Amazon as actually being in the Río Mantaro drainage.

The Amazon has over 1,100 tributaries, 12 of which are over 1,500 kilometers (930 mi) long. Some of the more notable ones are:

Branco	Madeira
Casiquire canal	Marañón
Caquetá	Morona
Huallaga	Nanay
Putumayo (or Içá River)	Napo
Javary (or Yavarí)	Negro
Juruá	
Pastaza	Tocantins
Purús	Trombetas
Tambo	Ucayali
Tapajós	Xingu
Tigre	Yapura



### Cartographically

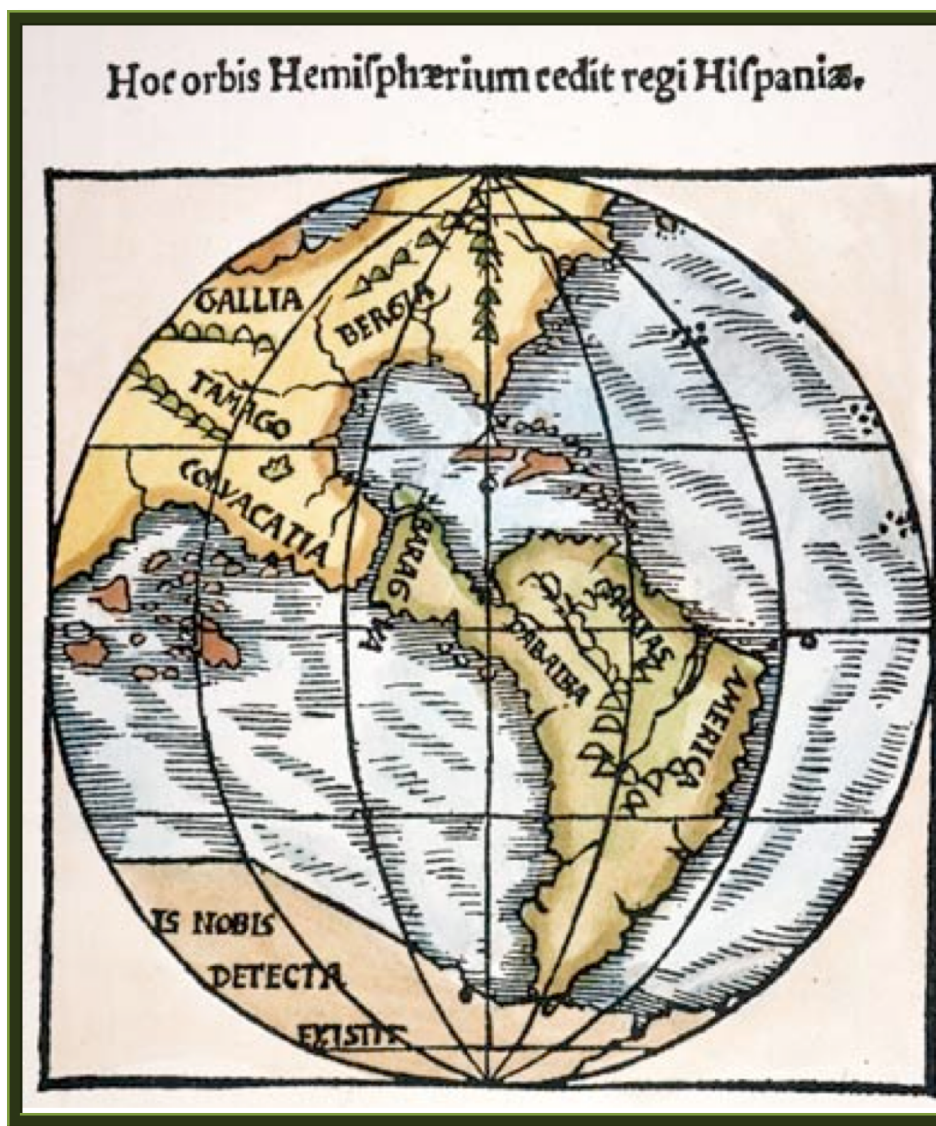
While the Spanish conquistador Vicente Yáñez Pinzón first documented the Amazon River in 1500 and called the stream *Río Santa María del Mar Dulce*, later shortened to *Mar Dulce*, and another Spanish explorer, Francisco de Orellana, was the first European to travel the entire length of it in 1542, I cannot find a map that definitively displays even a portion of the Amazon River until 1526. Below are examples of some possible speculative renderings of the Amazon River.



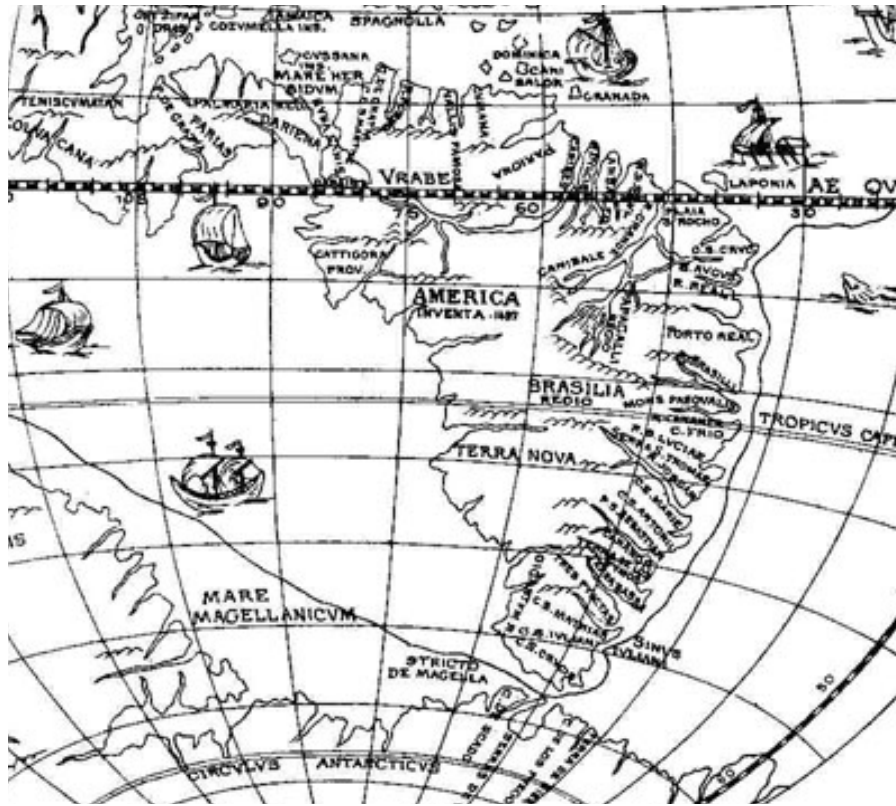
World map by Francesco Rosselli, 1508 where South America is portrayed as an amorphous large landmass separate from Asia similar to the Contarini and Ruysch maps, but with a somewhat defined southern coast. (#315)



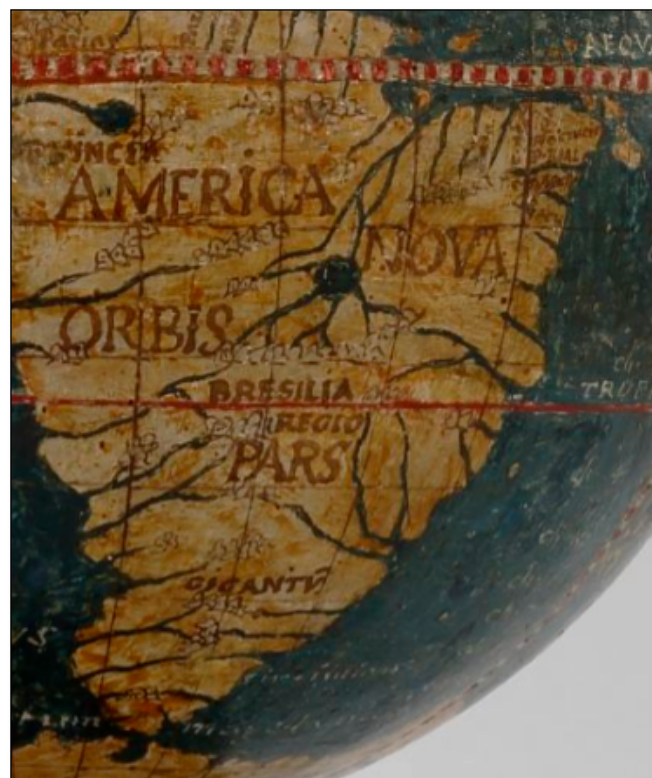




*De Orbis Situ ac descriptione, 1526- 1530 by Franciscus Monarchus  
[Francois Le Moyne/Francis the Monk] Note the three names on South America (America, Parias  
and Dabaiba). On this simple woodcut print the South American landmass is separated by a  
strait from the Asian continent. (see monograph #337)*



South America on a re-drawing of *Nova et integra universi orbis descriptio* [Paris Gilt or De Bure Globe], 1527 (#344)







Lithograph facsimile of the Ulpius Globe, Western Hemisphere, 1542 (#367)  
 The Amazon appears as a southward trending river almost intersecting with the Rio de la Plata



Detail of South America from the world chart by Battista Agnese, 1544

Another southward trending Amazon River appearing to terminate in a mountainous forest where the source appears for the Rio de la Plata. Missing is the Orinoco River discovered in 1500.





South America on the 1546 world map by Giacomo Gastaldi where the Amazon River snakes its way south. Missing is the Orinoco River discovered in 1500.



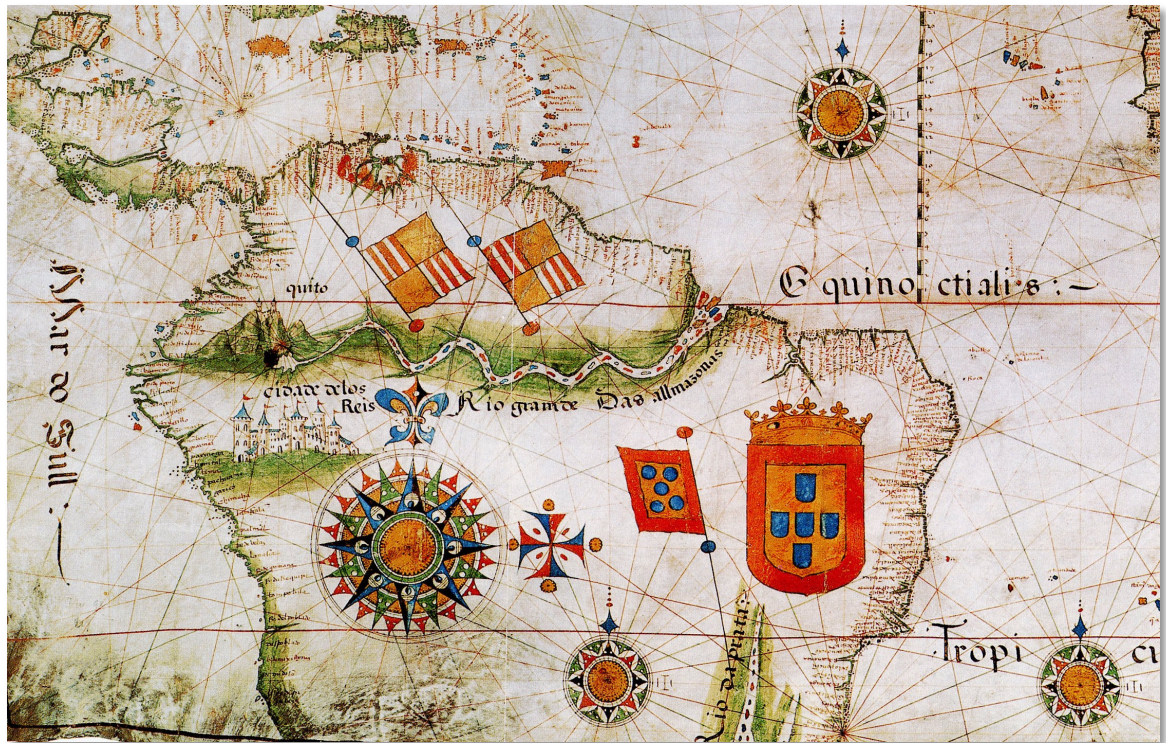
*Early representation of the Amazon, 1546*





South America on the Pierre Desceliers' 1550 Planisphere with the Amazon represented very wide river but abruptly ending to accommodate some graphics; and the Rio de la Plata dominating the continent (#378)





The Amazon on a 1550 map, unknown artist



A portion of a 1551 map by Sancho Gutierrez

Note the undefined west coast of South America and the Amazon snaking due west and the Rio de la Plata dominating from the south





from *Brevis exactaque totius Novi Orbis eiusque insularum descriptio recens* a Joan. Bellerio, 1553



South America in the Queen Mary I Atlas, 1558, by Diego Homem (#395)  
Note the name "America" on the equator, a very dominant Amazon River





South America in Forlani 1, 1560 (#398)

Note the north-south direction of the Amazon River, very similar to the 1546 world map by Giacomo Gastaldi. Missing is the Orinoco River discovered in 1500.



South America in Forlani 3 world map, 1565 (#398)

Between 1560 and 1570, Paolo Forlani issued four world maps, with his 1565 map (known as Forlani 3) being the largest and the most decorative of the sequence. Note the north-south direction of the Amazon River, with unnamed east-west branches. Missing is the Orinoco River discovered in 1500. There is a far better delineation of the Andes Mountains on the western side than on previous maps.





Detail: South America on the 1560 world map by Nicolas Desliens  
(oriented with South at the top)



Terra Nova [South America], 1561, Girolamo Ruscelli with a very erratic Amazon running southwest. It is amazing that nearly twenty years after Francisco de Orellana travelled the length of the Amazon River we can still find these fantastic representations of the river. But it can sometimes be explained by the fact that most cartographers from this era used a convenient "model" (i.e., they "copied" from another map) so the serpentine configuration of the Amazon proliferated and the southern orientation is seen on numerous maps; and like Africa, South America was first explored "externally", i.e., the coastal areas, leaving the interior to be explored for many centuries. Of course the one major exception as the remarkable Orellana exploration of the Amazon. Missing is the Orinoco River discovered in 1500.





*La Descrittione. di. Tutto. ll. Peru. [Venice]: Paulo di Forlani da Verona, 1562 (#398)*

This is a portion of a map of South America by Paolo Forlani showing all of Florida in the northwest, a portion of the Gulf of Mexico and of Central America, Bermuda and the West Indies, and all the way south to Terra del Fuego, the ocean. Many rivers are depicted and all are named, the source of River Perla is named *Lago*. The form of the Amazon River with a series of overemphasized curves and a previously shown north-south route has changed direction to east-west and the dramatic curves are reduced. But in all and especially in the southern part, the proportions are gravely distorted. Missing on these Forlani maps are all of the drawings of indigenous people, animals and/or plants that often filled in the “empty” unknown spaces on previous maps of South America. The form of the Amazon River with a series of overemphasized curves and a north-south route has changed direction to east-west and the dramatic curves are reduced. But in all and especially in the southern part, the proportions are gravely distorted. As for the Rio de la Plata, this map’s portrayal of its massive, island-filled mouth is among the first to include and name the Uruguay River. The rivers of southern Brazil and the Uruguayan coast are also nearly completely represented.

It is the first large-scale delineation of South America to appear in print and the only Laferi school map dedicated to this continent. For the geographical information, Forlani drew in large part on the world map published in 1561 by his eminent colleague Giacomo Gastaldi. (*see monograph #398*).

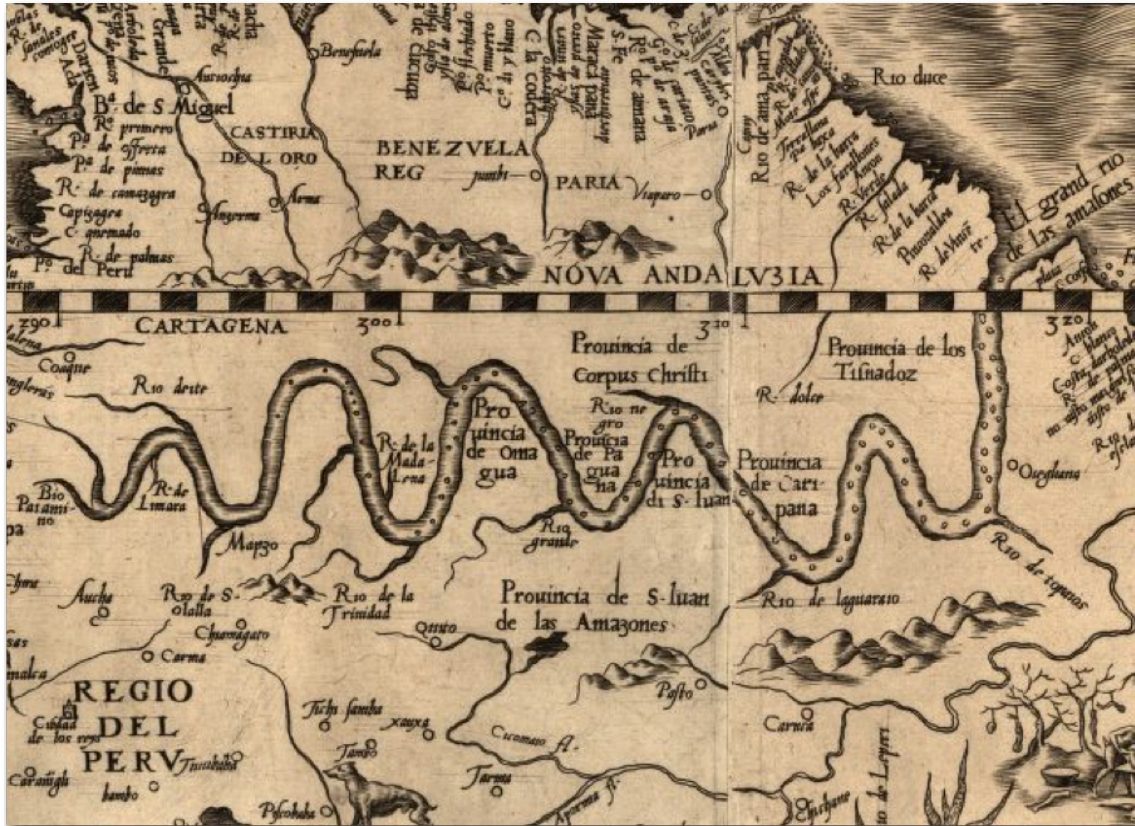




South America on the Diego Gutiérrez map of the Western Hemisphere, 1562 (#400)

This Gutierrez map displays a dominant Rio de la Plata and Amazon River, Lake Titicaca and the location of *Potosí* (Bolivia). The giants of Patagonia and cannibals remain displayed as well. Missing is a definitive Orinoco River discovered in 1500.







*Detail: a mis-shaped South America on the 1567 world map by Ali Macar Reis with a relatively accurate Amazon River system (#407.2)*





South America in Abraham Ortelius' *Americae sive Nova Orbis nova descriptio* in his *Theatrum Orbis Terrarum*, 1570 with two rivers representing the Amazon River

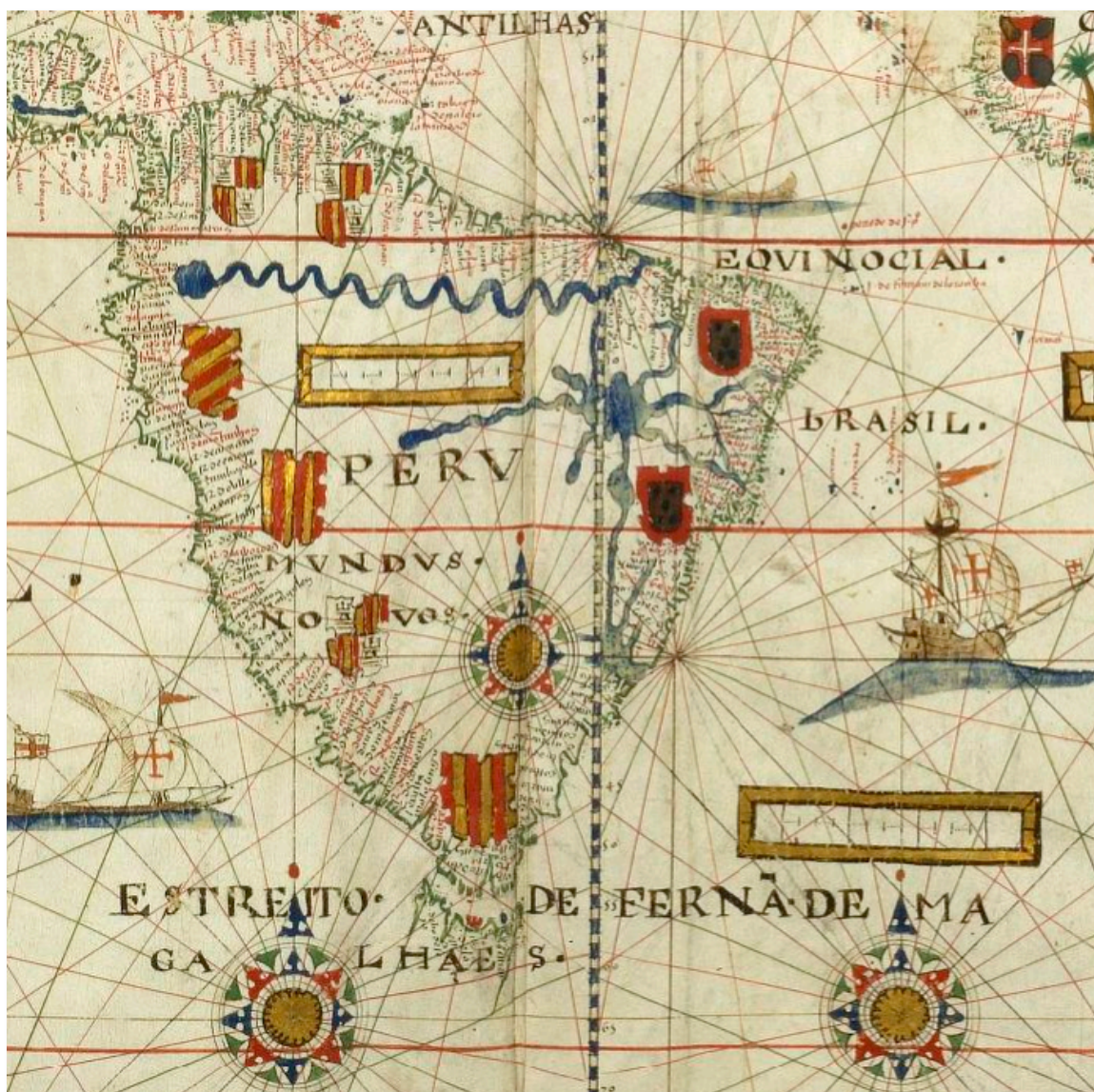




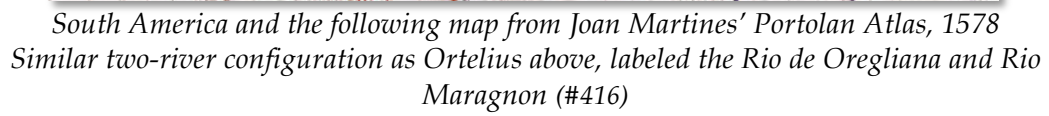


*Typus Orbis Terrarum*, another map by Abraham Ortelius, 1570 in the same year but with a different configuration of the river systems





Detail from Domingo Teixeira's 1573 planisphere (#399)  
Note the prominent Tordesillas Meridian and a "spider patterned" Rio de la Plata







Atlas (South America) by Joan Martines, 1583



#8. Northeastern South America, Joan Martines' Portolan Atlas, 1578



Showing the Maragnon [Amazon] (#416)



A map of South America by Diogo Homem, 1588, showing Orellana's discoveries on an excessively meandering Amazon.

Francisco de Orellana descends the River of the Amazons. The first traverse of the South American continent. Within a few years of Pizarro's conquest of the Andes, a bevy of minor conquistadors, intoxicated by rumors of golden cities and mythical kingdoms, descended the bewildering maze of precipitous gorges that flanked the mountains' eastern slopes. Most returned empty-handed from dark impenetrable forests or came to grief at the hands of hostile Native Americans. But gold and silver were not all they sought. Equally precious were the fruits of the forest: spices that might equal those of the Indies, the monopoly of the rival Portuguese. Thus, when Pizarro heard of a '*land of cinnamon*' somewhere in the jungles east of Quito he had no hesitation in equipping his brother Gonzalo with an expedition of 300 soldiers and 4,000 Indian bearers. The journey began from Quito in February 1541, but on the nightmarish crossing of the cordillera, in snow that turned to weeks of incessant torrential rain, 140 Spanish and countless Indians either deserted or died of exposure. On reaching the Napo, a tributary of the Amazon, a rudimentary vessel was constructed to ferry the weakest downstream, its occupants reduced to eating toads and snakes and the leather of their boots.

In anticipation of an even greater river ahead, Gonzalo dispatched fifty men under his second-in-command Francisco de Orellana to investigate. He would never see Orellana again. The swift current of the Napo prevented his return; Gonzalo trudged wearily back to Quito; and Orellana was swept into the main stream of the Amazon, eventually reaching a village of friendly natives. In May, having cobbled together a second and larger vessel, Orellana began his descent of the great river, en route hearing of a race of warrior women who lived deep in the forests and after whom the river would come to be known. Near the junction with the Tapaj6s the expedition observed its first tides, but the sea was still some 600 kilometers (370 miles) distant and it was not until late August that the party finally broke into the open waters of the Atlantic. The vessels rigged with vines, with blankets for sails, the expedition traced the coast to the safety of the Spanish outpost on the island of Cubagua. Back home, Orellana held the royal court spellbound with tales and exaggerations of his adventures, sufficient to gain assent for an expedition to colonize the river for Spain. His party decimated by disease and Indian hostility, he died of sickness and grief on the river that had immortalized his name.





South America, 1592, by Theodore DeBry



Detail: Amazon represented two separate rivers: Rio de las Amazonas and Rio Maragnon





The "Rio Grande" [Amazon] River on the Brasilia et Peruvia ... by Gerard de Jode, 1593 (#342)



South America on Abraham Ortelius' updated *Americae Sive Novi Orbis, Nova Descriptio*, 1595. Another example of the two Amazon River system





*A very demonstrative Amazon and Rio de la Plata rivers on the 1595 map of the Western Hemisphere by Rumold Mercator*



The Amazon and its tributaries on the Henricus Van Langren and Jan Huygen Van Linschoten map of South America, 1596, oriented with West at the top. (436.1)





The Amazon River on the *Nieuwe caerte van het Wonderbaer ende Goudrijcke Landt Guiana* by Jodocus Hondius (1598) that also shows an enormous Lake Parime. Manoa is shown on the northeastern shore. Mountains separate Lake Parime from Lake Cassipa.

Lake Parime is a legendary lake located in South America. It was reputedly the location of the fabled city of El Dorado, also known as *Manoa*, much sought-after by European explorers. Repeated attempts to find the lake failed to confirm its existence, and it was dismissed as a myth along with the city. The search for *Lake Parime* led explorers to map the rivers and other features of southern Venezuela, northern Brazil, and southwestern Guyana before the lake's existence was definitively disproved in the early 19<sup>th</sup> century. Some explorers proposed that the seasonal flooding of the Rupununi savannah may have been misidentified as a lake. Recent geological investigations suggest that a lake may have existed in northern Brazil, but that it dried up some time in the 18<sup>th</sup> century. Both *Manoa* (Arawak language) and *Parime* (Carib language) are believed to mean "big lake". Two other mythical lakes, *Lake Xarayes* or *Xaraies* (sometimes called *Lake Eupana*), and *Lake Cassipa*, are often depicted on early maps of South America.



Another example of the two Amazon rivers on Girolamo Ruscelli's 1598 map of the Western Hemisphere





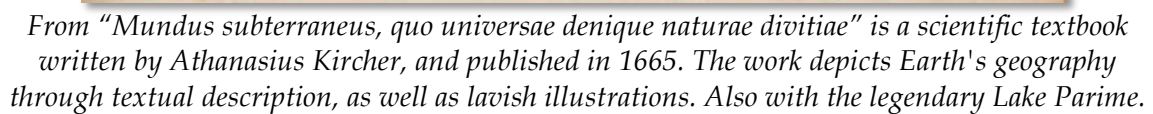
A configuration of the river systems in South America that shows a potential navigable river linking a branch of the Amazon River with the Rio de la Plata. Eastern Brazil is depicted as an island, made insular by a huge Rio de la Plata that extends from the Atlantic in the south to a large lake, Eupana Lacus. From this lake the Rio Grande flows further northward into the Amazon River and from there into the Atlantic. In reality, this "river" terminating in the Atlantic Ocean near Belém is (today) a different river system called the Araguaia and Tocantins Rivers. The Araguaia River comes from Goiás-Mato Grosso south borders. From there it flows northeast to a junction with the Tocantins near the town of São João. The Tocantins River runs from south to north for about 2,450 km. It is not really a branch of the Amazon River, since its waters flow into the Atlantic Ocean alongside those of the Amazon. It rises in the mountainous district known as the Pireneus, west of the Federal District, but its western tributary, the Araguaia River, has its extreme southern headwaters on the slopes of the Serra dos Caiapós. The Araguaia flows 1,670 km before its confluence with the Tocantins, to which it is almost equal in volume. From the map of the Western Hemisphere, America, 1606, by Jodocus Hondius (#447.1)



Another example by Gerard Mercator & Jodocus Hondius, *America Meridionalis*, 1613-1620  
Also with the legendary Lake Parime









Like the Hondius map shown above, Eastern Brazil is depicted as an island, made insular by a huge Rio de la Platta that extends from the Atlantic in the south to a large lake, Eupana Lacus. From this lake the Rio Grande flows further northward into the Amazon River and from there into the Atlantic.



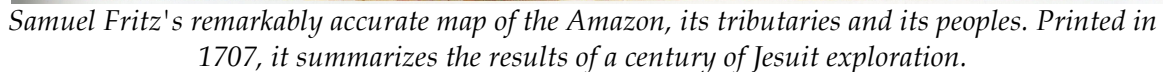
A map of South America and the West Indies, 1683 by William Hack showing a southward water passage, the Rio de la Platta, making Brazilia virtually a large island





The Amazon River on the 1691 map of South America, *America Meridionale*, by Vincenzo Coronelli. Also with the legendary Lake Parime. (#488)





Precise geographical knowledge of the Amazon and its tributaries remained sketchy until the arrival of the Jesuits in the 1650s. For 130 years they monopolized the ministry to the Indians, enduring formidable hardships to establish missions throughout Amazonia. Particularly forbidding were the countless languages encountered, most of which had no equivalents for abstract concepts like 'belief' or 'spirit', while to expound on the Trinity to the Yancos tribe proved impossible, their word for three being '*poettarrarorincouroac*'. However, linguistics was a field in which the intrepid Bohemian

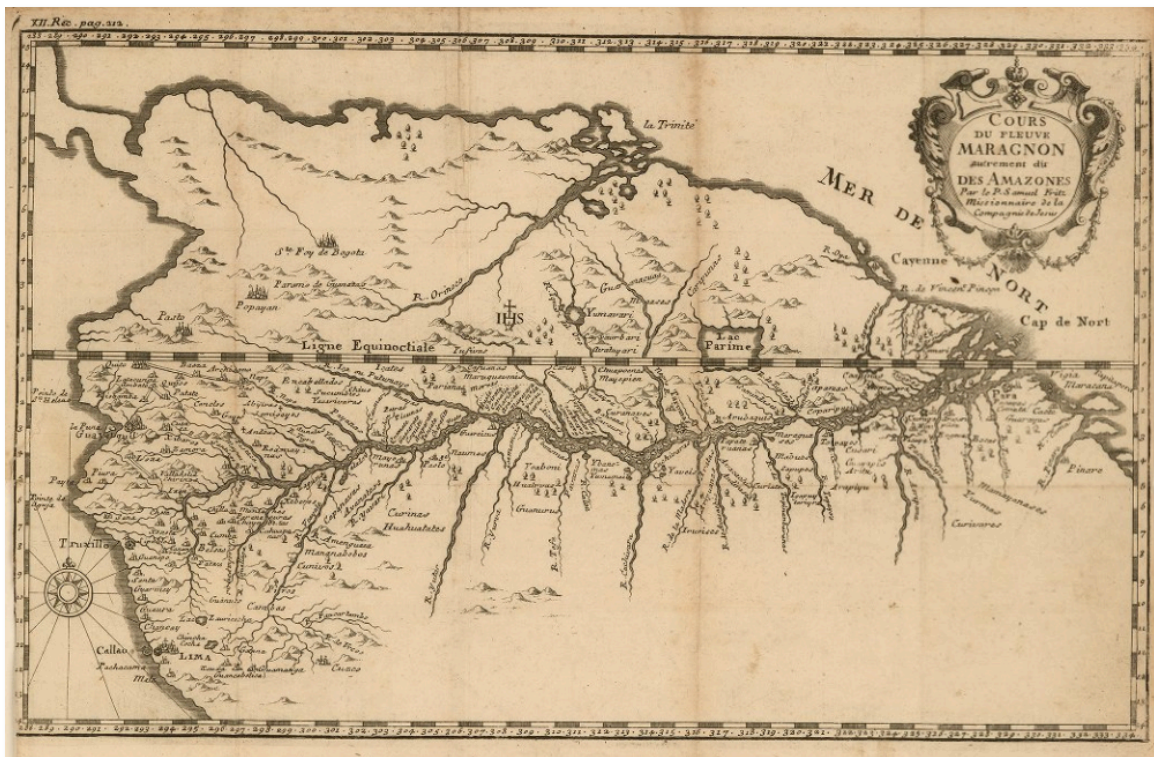


missionary Samuel Fritz excelled. He spent the best part of forty years ministering to the Indians from a dugout canoe, and with only rudimentary equipment produced the first detailed map of Amazonia. In the rainy season of 1689 he lay unwell for three months in a Yarimagua village, the waters rising around him, rats and lizards eating his food, while the grunting of alligators kept him from sleep. Seeking medical attention he descended the Amazon to its mouth, only to be imprisoned for eighteen months as a spy. Beloved by the Indians as their savior from Portuguese slave traders, much of his life was devoted to resettling his flock to the safety of the upper Amazon. He died in 1723, his body horribly mutilated from the bites of insects he had never bothered to brush aside.



*The Great River Marañon or of ye Amazons With the Mission of the Society of Jesus, Geographically describ'd by Samuel Fritz settled Missioner on ye sad, 1712*  
Map of the Marañon [Amazon] River and its tributaries from its source in the Andes Mountains to its mouth or delta. Includes Lake Parime and the Orinoco River. Cartographic elements include degrees of latitude and longitude, compass rose, some topographical details, and location of settlements, missions, and forts, Relief shown pictorially.





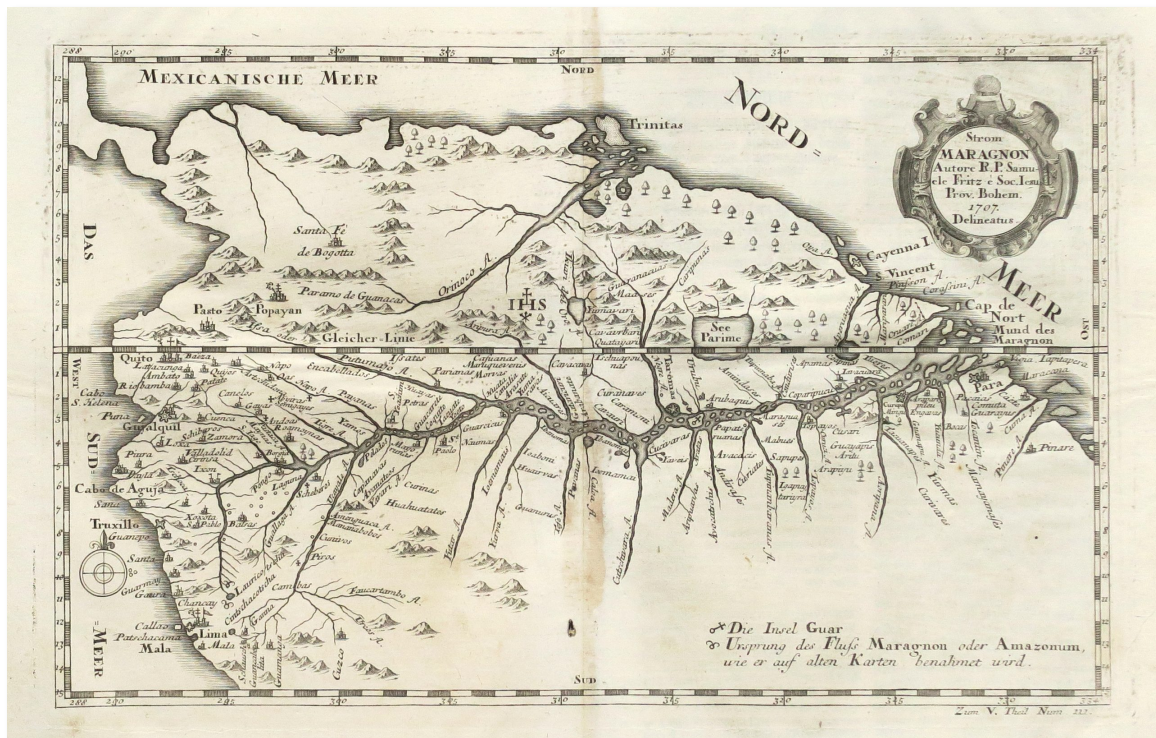
*Cours du fleuve Maragnon autrement dit des Amazones Par le P.Samuel Fritz Missionnaire la Compagnie de Jesus, 1717*

*Map of the course of the Marañon [Amazon] River in South America. Cartographic elements include degrees of latitude and longitude, compass rose, location of settlements and missions,*



South America on the map of the Western Hemisphere, 1720, by John Senex (#520.1)  
Gone are all of the people and animal illustrations, although the mythical lake Parime is still displayed. The Andes Mountains are shown in their proper place, as are the major river systems.





Jesuit Map of northeast South America from Strom Maragnon Autore R. P. Samueie Fritz, e Soc. lesu. Provo aohem. 1707. Deiineatus. Based on the explorations by Samuel Fritz, a Jesuit missionary who lived in South America for four decades.

### Controversy?

In the article “The Nile is the world’s longest river? The Amazon would like a word” by Terrence McCoy, Lauren Tierney and Marina Dias (12 June 2023) there appears to be a bit of a nationalistic riverine controversy.

The *Guinness World Records*, *Britannica* and the U.S. government agree: The longest river in the world is the mighty Nile – the “father of African rivers,” *Britannica* says. But in Brazil, home to the powerful Amazon River, which cleaves South America more than slithers across it, the Nile’s standing is slightly lower. “The Amazon is the most extensive in the world,” declares the educational website *Brazil School*.

At a time when so much of the world has been measured, so many arguments settled – tallest mountain (Everest), largest ocean (Pacific), most venomous snake (western taipan) – the question of which river is the world’s longest remains, somehow, tantalizingly beyond our reach. What appears at first to be a basic geographic query, a matter of cold science and hard numbers, has instead morphed into a cartographical dispute that has divided the scientific and exploration communities along the fault lines of national identity, units of measurement and even personal pique.

“The Nile is definitely longer than the Amazon,” said Sir Christopher Ondaatje, an English-Canadian adventurer who’s journeyed to what he says is the river’s far-flung source. “And there is no doubt about that.”

“The Amazon is longer than the Nile,” counters Guido Gelli, the former geosciences director of the Brazilian Institute of Geography and Statistics. “I have no doubt in my mind.”

According to the U.S. Geological Survey and *Britannica*, the difference between their lengths is just 132 miles – less than the drive from Washington to Philadelphia. They have the Nile’s 4,132 miles barely edging out the Amazon’s 4,000.

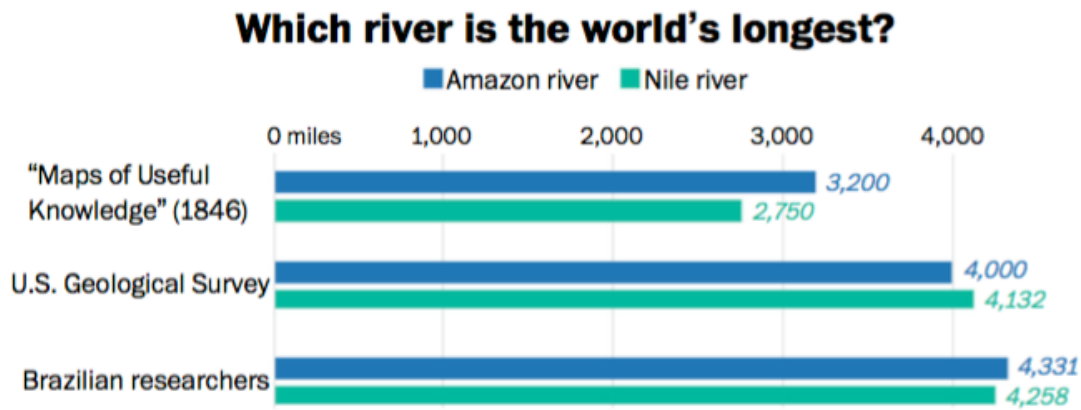
“More than 1,500 people have rowed or paddled across an ocean. But to kayak down the entire Amazon? That has been done fewer than 10 times, and all of them were for adventure’s sake. To document the entire river, its geography and biodiversity — this has never been done.” To try to settle the dispute — a task that some assert will never be possible — a team of international researchers and explorers are now (2023) planning to voyage the length of the Amazon.

It’s not an easy question to answer. Rivers, more than most geographic features, are ever changing and are also prone to multiple interpretations. Floods wash away bends. Shorelines swivel and shrink during droughts. Man-made canals divert/change their paths. Man-made dams introduce changes.

Then there’s the question of where a river begins. Is it at the headwaters of the largest channel of water — the “source stream?” Or is it the “most distant source,” the faraway birthplace of the most distant tributary?

Equally controversial is deciding where the river ends. Many geographers think it’s where the mainstream hits the mouth. But others say it’s where the longest distributary comes to its end. Any deviation in the measurement scheme, any change in the river’s course, natural or otherwise, can yield different lengths — and reshuffle the ranking.

In 1846, according to the atlas “Maps of Useful Knowledge,” the Amazon was the world’s longest river, at 3,200 miles; the Nile came in at 2,750. More recently, Brazilian researchers have argued, the Amazon is more than 1,000 miles longer — and 87 miles longer than the Nile. Or maybe, according to the U.S. Geological Survey, it’s 132 miles shorter than the Nile.



The “source” of the Amazon is full of controversy and discussion. For centuries, people believed the Amazon’s source was the Marañón River in northern Peru. Then explorers argued that following another remote tributary, Apurimac River, led to an even more distant source. A 1971 expedition led by the American explorer Loren McIntyre traced the river to a faraway brook in the Andes and crowned it the Amazon’s headwaters.

But looking at the maps, neuroscientist James Contos focused on a third affluent, the Mantaro River, that appeared to twist farther than the Apurimac. So he set out with a GPS, hiking books and kayak to find out if the maps were true. He ventured into the inhospitable environment — arid, cold, thin mountain air — that couldn’t have been more different from the low, flat, hot Amazon basin. After days of hiking, Contos found a new most distant source: A modest spring near the base of a mountain.



He published his research in 2014 in the scholarly journal *Area*. But other researchers immediately tried to discredit it. A dam had been built along the Mantaro that diverts enough water during the dry season that the riverbed empties. Some scientists argued that this should disqualify it from consideration as a source. Others countered that it shouldn't matter — the river's seasonality was caused by human intervention.

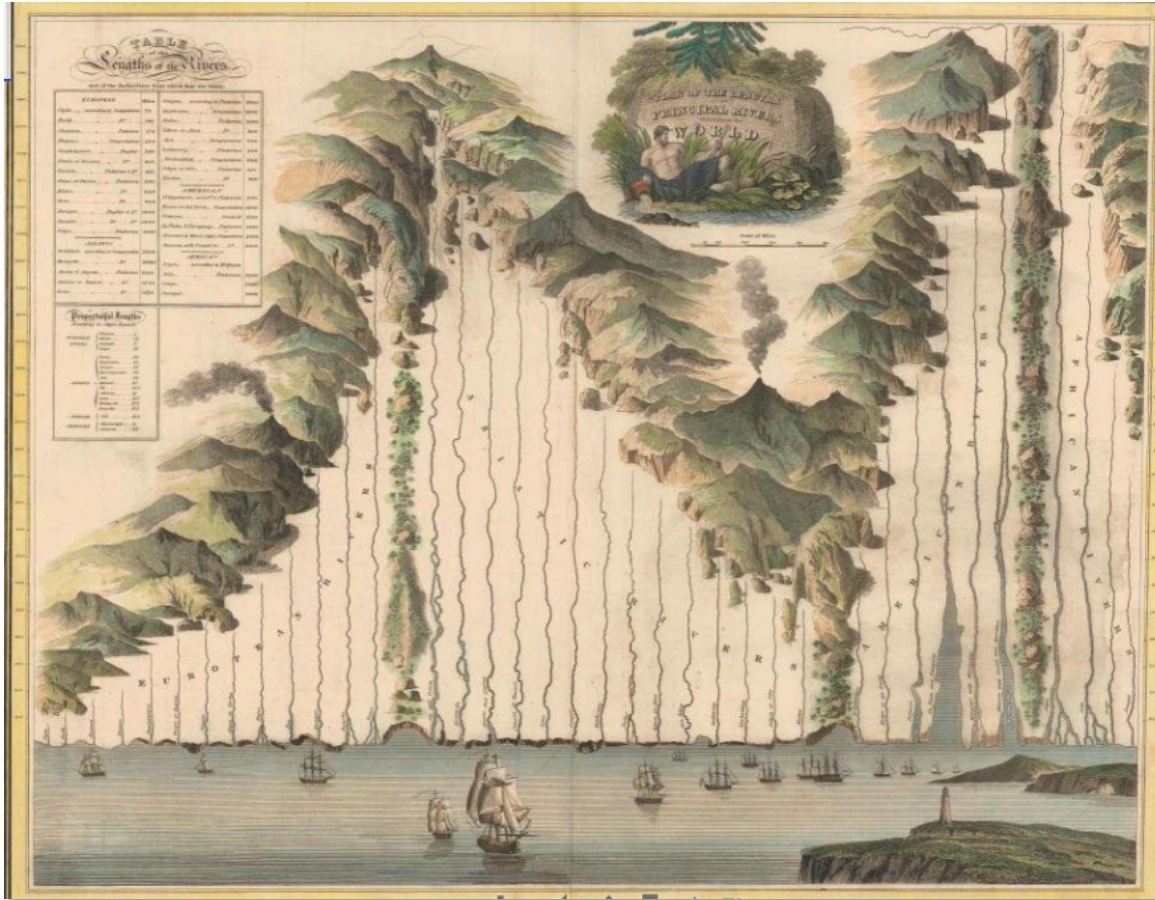
The waters of the Amazon travel thousands of miles before coming to Marajo Island, half the size of Portugal, wedged between the river and the Atlantic. Most of the Amazon's water gushes northward, the shortest route to the sea. But some of it tracks south, beginning a long, circuitous path toward the Atlantic.

Most people consider the north stream to be the Amazon's final say. Not Paulo Roberto Martini. To prove his point, Martini traced a map at the Brazilian Institute of National Spatial Research in Sao Paulo state. "Here's the Breves canal," he said, indicating a narrow blue squiggle. His finger followed it as it banked South, then merged into waters that flushed eastward toward the Atlantic. This path — which goes around the Marajo rather than past it — was what his team selected to measure when it set out in 2008 to compare the lengths of the Amazon and the Nile. To make things fair, they measured the Nile by the same standard, selecting its longest path to the mouth. In the final count, the Amazon came out on top, narrowly: 4,344 miles to 4,257. Headlines declared the Amazon the longest river the world. But victory was fleeting. Other scientists criticized the decision to use the Breves canal. Some alleged the Brazilian researchers were simply looking for any way to make their river appear longer.

And that argument of the "source" sounds a lot like the one surrounding the source of the Nile.

There, controversy goes back centuries. In the mid-1850s, at the height of the global exploration craze, when fame and fortune rested on bold announcements, an explorer named Jack Speke came out with one of the biggest. He argued in 1858 that he'd found the river's source: Lake Victoria. That proclamation has been debated ever since, and today, three separate countries — Uganda, Burundi and Rwanda — claim the source of the Nile as their own.

But the controversy quiets as the Nile winds its way north, flowing into Egypt and onward to the Mediterranean Sea.



*Plan of the Lengths of the Principal Rivers Throughout the World, 1821, John Thompson*

A most unusual and attractive comparative rivers chart or map issued separately as an optional post-publication supplement to the 1821 edition Thomson's *General Atlas*. It is a unique angle on the comparative genre, focusing exclusively on rivers laid out comparatively in a compelling array. The rivers are divided by continent with the Amazon River taking pride of place at some 3,100 miles long. The humble Nile, its full majesty yet a mystery in 1821, clocks in a poor fourth at just 2,000 miles (following his contemporary Pinkerton). Other impressive rivers include the Ob and Volga, both in Russia, and the Hoang Ho of China (Yellow River or Huang He). At the base of the chart is a view of the sea, with multiple sailing ships and a lighthouse. Mountains and volcanoes surround the rivers, but none are defined. A chart in the upper left compares river lengths by continent.



# TABLE

of the

# Lengths of the Rivers

and of the Authorities from which they are taken.

## EUROPEAN

Miles

<i>Clyde</i> ,.....according to Computation	70
<i>Forth</i> ,.....".....D <sup>o</sup> .....	140
<i>Shannon</i> ,.....".....Pinkerton	170
<i>Thames</i> ,.....".....Computation	200
<i>Guadalquivir</i> ,.....".....Playfair	340
<i>Douro, or Douero</i> ,.....".....D <sup>o</sup> .....	400
<i>Vistula</i> ,.....".....Pinkerton & D <sup>o</sup>	450
<i>Duna, or Dwina</i> ,.....".....Pinkerton	500
<i>Rhine</i> ,.....".....D <sup>o</sup> .....	600
<i>Don</i> ,.....".....D <sup>o</sup> .....	800
<i>Dnieper</i> ,.....".....Playfair & D <sup>o</sup>	1000
<i>Danube</i> ,.....".....D <sup>o</sup> .....D <sup>o</sup>	1300
<i>Volga</i> ,.....".....Pinkerton	2600

## ASIATIC

<i>Ob &amp; Irtysh</i> ,.....according to Computation	2300
<i>Hoang-Ho</i> ,.....".....D <sup>o</sup> .....	2000
<i>Amour &amp; Argoun</i> ,.....".....Pinkerton	1850
<i>Jenicei or Yenisei</i> ,.....".....D <sup>o</sup> .....	1750
<i>Lena</i> ,.....".....D <sup>o</sup> .....	1570

<i>Ganges</i> ,.....according to Pinkerton	1400
<i>Euphrates</i> ,.....".....Computation	1200
<i>Indus</i> ,.....".....Pinkerton	1000
<i>Gihon or Amu</i> ,.....D <sup>o</sup> .....	900
<i>Ava</i> ,.....".....Computation	800
<i>Godavery</i> ,.....".....Pinkerton	700
<i>Nerbuddah</i> ,.....".....Computation	600
<i>Sihon or Sirr</i> ,.....".....Pinkerton	550
<i>Kistna</i> ,.....".....D <sup>o</sup> .....	500

## AMERICAN

<i>St Lawrence</i> ,.....accor <sup>d</sup> to Pinkerton	700
<i>Bravo or del Norte</i> ,.....Computation	1200
<i>Orinoco</i> ,.....".....Crutwell	1380
<i>La Plata, &amp; Paraguay</i> ,.....Pinkerton	1900
<i>Missouri, &amp; Mississippi</i> ,.....Computation	2000
<i>Amason, with Ucaial &amp;c</i> ,.....D <sup>o</sup> .....	3100

## AFRICAN

<i>Niger</i> ,.....according to McQueen	
<i>Nile</i> ,.....".....Pinkerton	2000
<i>Congo</i> ,.....	1400
<i>Senegal</i> ,.....	1000

Proportional Lengths	
According to Major Rennell.	
EUROPEAN RIVERS	Thames ..... 1
	Rhine ..... $5\frac{1}{2}$
	Danube ..... 7
	Volga ..... $9\frac{1}{2}$
ASIATIC	Indus ..... $6\frac{1}{2}$
	Euphrates ..... $8\frac{1}{2}$
	Ganges ..... $9\frac{1}{2}$
	Burrampooter ..... $9\frac{1}{2}$
	Ara ..... $9\frac{1}{2}$
	Jenicci ..... 10
	Ob ..... $10\frac{1}{2}$
	Amour ..... 11
	Lena ..... $11\frac{1}{2}$
AFRICAN	Hoang-Ho ..... $13\frac{1}{2}$
	Kian-Ku ..... $15\frac{1}{2}$
AMERICAN	Nile ..... $12\frac{1}{2}$
	Mississippi ..... 8
	Amazon ..... $15\frac{1}{2}$





**Relevant Monographs** referenced herein (they can be accessed on this website, [www.myoldmaps.com](http://www.myoldmaps.com)):

- #240 World Map, Albertin de Virga, ca, 1411-15
- #315 *Oval world map*, Francesco Rosselli, 1508
- #337 *De Orbis Situ . . .*, Franciscus Monarchus [Francois Le Moyne], 1526-30
- #342 *Brasilia et Peruvia ...* by Gerard de Jode, 1593
- #344 *Noua et integri universi orbis descriptio* [Paris Gilt or De Bure Globe], 1528
- #367 *The Ulpius Globe*, 1542
- #378 Pierre Descelier's *Planisheres*, a.k.a. *The Dauphin Map*, 1546, 1550, 1553
- #395 Diego Homen, *Queen Mary I Atlas*, 1558
- #398 *Universale Descrittione Di Tutta la Terra Conosciuta Fin Qui*, Paolo Forlani, 1565
- #399 Dominigo Teixeira Planisphere, 1573
- #400 *Americae sive quartae orbis partis nova et exactissima descriptio / avtore Diego Götiero Philippi Regis Hisp. etc. Cosmographo Hiero. Cock excude 1562; Hieronymus Cock excude cum gratia et priuilegio 1562.*
- #407.2 1567 world map by Ali Macar Reis
- #409.1 *Universal Atlas*, Fernando Vaz Dourado, 1568-71
- #416 Joan Martines, *Portolan Atlas*, 1578
- #436.1 Henricus Van Langren and Jan Huygen Van Linschote, 1596
- #447.1 Jodocus Hondius, *America*, 1606
- #448 Vincenzo Maria Coronelli maps and globes, 1690
- #520.1 *Western Hemisphere*, 1720, by John Senex