The most recent substantial historical shift in the notion of cartography began during the Renaissance, with Europeans following on Ottoman Empire cartographic work. During the Renaissance cartography was established as a formal discipline, bringing together the two forms of earlier mapping; that language of representation from within, and the demarcation and assertion of control over the land. Late in the 17th century Dutch cartography, at that time prominent in the fields of navigation and cartography, reflected this huge transition that unified the two representational languages into one multifunctional and assorted language. Though linked together as one language, the second initial form would prove the stronger one within that union, as modern European cartography increasingly imposed its labels and borders designed to conquer the unknown.

Africa was integral to the early modern preoccupation with being able to account for the "whole" world in seemingly scholarly fashion. The Africa that took shape in early modern geographies was not imagined in isolation: its cultural geography was linked to other regions of the world in a comparative system that helped to distinguish between the "barbarous" and those "worthy" to be called human, and between the "Southern Nations" and the "Northern People." It contributed to the emergence of a global south, made explicit through the language of cartography, which allowed early modern readers to gain their bearings in a more complex world. Sandra Young in her article "Early modern geography and the construction of a knowable Africa" examines some early scholarly representations of Africa in English, to reflect on the role of textual structure in constructing Africa as an object of knowledge, a place of strangeness and possibility. Editorial interventions transform inherited associations between Africa and "barbarism," she argues, and between nomadism and "beastliness," and subject them to new evidentiary strictures. Even so, these myths appear as a watermark in the later texts' adjudication of what it means to be human.

To understand how early modern geographers understood the ambit of their work, and the implications for Africa, Young examined three texts spanning a little over a 100 years, in 50-year steps: William Prat's Discription of the Contrey of Aphrique (1554), Pory's edition of Leo Africanus's A Geographical Historie (1600), and Richard Blome's 1682 English-language edition of Bernadus Varenius's Geographia Generalis, which sought to describe the discipline itself. In the account of Africa by Leo Africanus, a selfidentified "African," a more complex version of Africa entered the discourse. Scholars have presented Leo Africanus as a mediator between worlds, but his own speaking posture is complicated by the disciplinary structures shaping his narrative and the controlling presence of John Pory as partisan compiler and translator. Similarly, Blome's framing of Varenius's Geographia in 1682 establishes a set of equivalences across the "Southern Nations" that derive meaning in relation to their "Northern" opposites. Through the language of cardinal points and demonstrable experience, Africa in the 17th century emerges as knowable and inhabitable, but steeped in old stigmas. Cartography, ancient and modern, particularly in the African continent, has been used to imagine, control, and both demystify and exoticize that which lies outside of the dominant culture. In *The Self Made Map*, Tom Conley speaks to the power of cartography to "both foster and to discredit the mystical relation with the unknown." Similarly, maps have been described as scientific abstractions of reality, representing something that already exists objectively. A map anticipated spatial reality. It was a model for, rather than a model of, what it purported to represent, and had become a real instrument to concretize projections on the earth's surface.

The act of mapping formed a network of domination and control over both the Africans who were being mapped, and in relation to the other powers likewise seeking to know and own the world. Maps and modes of navigation played a determining role in the relative stature and wealth of European nations from the 15th to the 19th centuries, a role that further demonstrates their power to define and order.

A general map of Africa from the year 1595 provides all example of the manner in which the Europeans tried to document the physical space of the African continent, and demonstrates the impossibility of truly representing the cultural complexities that exist beyond the map. This initial representation of African space on the part of the European cultures served primarily to appropriate the space of an "Other" and demarcate the boundaries of their new possessions.

The initial European representation of African space served primarily to imagine the exotic continent as they saw fit, appropriate the space of an "Other," and to demarcate the boundaries of the Europeans' new possessions. The following map contains detailed images that serve to remind how the navigation of outsiders through the flowing artistic currents of Africa resulted in an influence of one culture on another that continues to this day.

In addition to the artistic representations of control over the other, this period saw a transformation of notions of domination and order from theoretical forms expressed through mapping to the literal European occupation and rule throughout the continent. Africa had been an imagined space and desired territory of the Europeans since they first learned of it, though their initial conquest was impeded for various reasons including the military technology of the African civilization, geographic factors such as the climate and disease, and internal conflicts between the diverse ethno-cultural groups reins, empires, and civilizations (such as Yoruba Kongo, Akan, and Maude) that dominated the first moments of two centuries (16th and 17th). But by the mid-19th century, African space was nearly completely appropriated by foreign powers, ushering in a period of colonial subjugation and exploitation.

In the latter half of the 16th century maps devoted exclusively to Africa became more numerous, and the following appeared:

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1554 (1563, 1588) Ramusio.
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1560 Gastaldi, engraved by J. and L. Doeticum

1578 (1593) De Jode.

1579 (1580) Duchetti.

1562 (1564) Forlani.

1563 (1566) Camocius.

1564 Gastaldi; a large map on 8 sheets

1565 Bertelli.

1570 Ortelius.

1575 Thevet 1590 Pigafetta, engraved by Bonifacius.

1592 Plancius.

1595 Mercator.

1596 Linschoten.

1564 Nicolo Nelli; on 3 sheets (Africa, Arabia, India, etc.),

1597 Pigafetta, engraved by Wm. Rogers.

1597 Hulsius.

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1600 Quad. Bussemacher. 1600 Arnoldo di Arnoldi.

The maps of Africa by Ortelius and Mercator went into many editions. They are extremely decorative, with large title-pieces, usually to be found colored, though uncolored examples exist. One other important publication in the 16th century must be mentioned, the first African atlas, the *Geografia* of Livio Sanuto, published in Venice in 1588. This contains 12 maps. The 17th century witnessed an enormous increase in publications devoted to maps, of which the following are a selection:

1602 Botero.
1613 Ramusio.
1666 Chetwind
1626-7 Speed.
1666 Hollar.
1660 Overton.

1631 Hondius. 1669 Sanson - Mariette.

1632 Jansson. 1670 De Wit. 1636 Visscher (N. J.). 1670 Ogilby. 1640 Bertius. 1671 Picart

1646 Merian.1680 Valk (6 sheets).1646 Davity.1680 Berry-Sanson

1650 Blaeu. 1680 DeWit.

1650 Sanson. 1680 Overton -Lea.

1650 Jansson. 1680 Allard. 1652 Seile-Trevethen. 1682 Blome.

1655 Walton.1685 Sanson- J aillot.1689 Overton and Lea.

1656 Visscher. 1690 Valk.

1659 Hondius. 1690-6 Sanson- Jaillot.

 1659 Cluver.
 1700 Schenk.

 1660 Nicolai.
 1700 Moll.

 1660 Danckerts.
 1700 De l'Isle.

 1663 Seile-Vaughan.
 1700 Wells.

All these are highly decorative sheets, mostly issued in color, and all from general atlases or works of travel or geography. Several of them, for example the Hondius, Blaeu, Jansson and Sanson, went into numerous editions.

Juan de la Cosa Portolan World Chart, 1500 (#305)

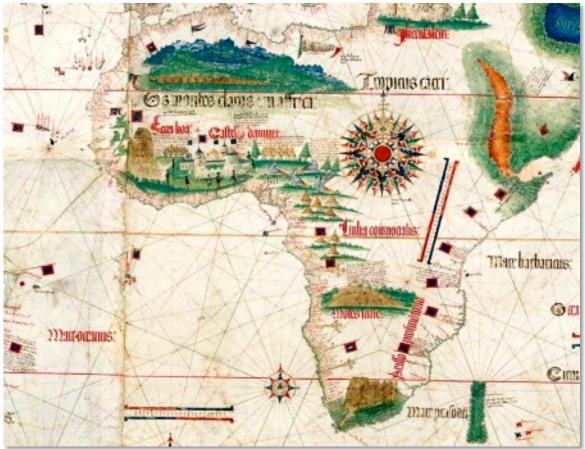
The African coast as far as the Cape of Good Hope is represented with fair accuracy, apparently drawn from Portuguese sources. The eastern coast however seems to be entirely imaginary. Well out in the Indian Sea, almost in the center, are two large islands, *Zanabar* and *Madagascoa*, as on Behaim's globe (#258). La Cosa shows the coastline of Africa and the Cape of Good Hope with considerable accuracy. The inscription on the southern coast of Asia, *tierra descubierta por el Rey don Manuel Rey de Portugal* [land discovered by King Manuel King of Portugal], refers to Vasco da Gama's voyage to Calicut on the western coast of India from which he had returned to Portugal the previous year from his first voyage. The numerous names on the eastern coast of Africa, however, cannot be attributed to da Gama.



The representation of Africa is distorted by the excessive length of the Mediterranean. The general shape of the western coastline is good, though, in relation to the west-east extent of the Gulf of Guinea coast, the coastline southwards to the Cape is too short. This was a characteristic of early Portuguese charts of this region: owing to adverse sailing conditions, it was usual to underestimate distances run.



Africa as shown on a reproduction of the La Cosa map (#305)



Africa as portrayed on the Cantino world map of 1502 (#306)

Chart for the navigation of the islands lately discovered in the parts of India, known as the "Cantino World Map", 1502 (#306)

The African continent is shown for the first time with something closely approaching its correct outline: on the east coast the names of Soffala, Mozambique, Kilwa, and Melinde occur, and the island of Madagascar is inserted but not named. This area of the planisphere shows Africa and the Indian Ocean as known to the Portuguese after the voyages of Vasco da Gama (1497-99) and Cabral (1500-01) and later discoveries reported in Lisbon as recently as September 1502. At the extreme left is the fort of São Jorge da Mina on the African Gold Coast; crosses further south mark padrões set up by earlier expeditions. Portuguese flags on the east coast of Africa denote the ports touched at by da Gama and Cabral. Comparisons with the more Ptolemaic outlines of the 1490 Martellus map (#256) show a striking improvement in the delineation of Africa and India. South Africa no longer curves to the east. Madagascar, discovered by Western Europe in 1500, is shown for the first time. Two scales of degrees are given. Africa is characterized by a hilly landscape in pale blues and greens, a castellated Portuguese fortress, native huts, natives in jet black, birds of various hue and a huge lion-headed figure in brown and gold. A circular structure labeled the Tower of Babilonja appears in Egypt. In the Cantino planisphere, latitudes were incorporated only in the coasts of Africa, Brazil and India, while Europe and the Caribbean Sea continued to be represented according to the portolan chart model.

There is also an elaborate depiction of the Portuguese castle of São Jorge da Mina (Elmina Castle, on the Gold Coast of west Africa), flanked by two African towns. Other illustrations include a lion-shaped mountain representing the Sierra Leone mountain range, the Alexandria lighthouse (laid horizontal), the mythical Mountains of the Moon (legendary source of the Nile River) in central Africa, and either the Table Mountain or Drakensberg range in South Africa. Along the central African coast are the various cross stone markers (padrões) erected by Diogo Cão and Bartolomeu Dias in the 1480s. In north Africa, there is the Montes Claros in the usual place of the Atlas mountains, the legend below on the left reading that this is the land of King Organo, whose king is very noble and very rich, and to the right of this is the land of the King of Nubia, the king of which is continuously making war on Prester John and is a moor and a great enemy of Christians.



Africa as portrayed on the Contarini world map of 1506 (#308)

Contarini/Roselli World Map, 1506 (#308)

Africa is now surprisingly well delineated, showing the whole of the east coast but the interior details are pure speculation. In this regard the map incorporates the names fairly close to those of Cantino (#306), and an attempt to fit in the India of Vasco da Gama; between the Persian Gulf and the Indus of Ptolemy, the cartographer has inserted a narrow peninsula, trending southwestwards, on which are shown the towns of *Cobait* (Cambay), *Cananor* and *Calicut* (these two were visited by Vasco da Gama).

Madagascar and its adjacent island Zanzibar are greatly exaggerated in size. Further east, the rest of Asia still follows Ptolemaic lines. The position of the much-exaggerated islands of Madagascar and Zanzibar in the Indian Ocean is exactly reversed from that on the *La Cosa* map (#305). The inscription on the former states:

This island is larger and richer than any in the world. It is 40,000 miles in circumference. From the kingdom of Moabar, reads the inscription on the scroll east of the islands, ships reach the island of Madagascar in twenty-nine days that can hardly return in three months because the vehement current of that sea runs southward. This island has groves of sandal-trees and all kinds of spices, also elephants, lions, Iynxes, leopards, stags, camels, and many birds; and there is great abundance of gold there.



The portrayal of Africa on the Kuntsmann II (a.k.a. The Four Finger) world map, 1502-06(#309)

Kunstmannn II (a.k.a. "Four-Finger Map") world map, 1502-1506 (#309)

As has been noted by historian David Quinn, elaborately colored maps, charts, and atlases were given as presents by monarchs and other men of high rank in the 16th century because they were esteemed as works of art. These are the maps and charts that largely survive to our day, and they exist precisely because they were valued as art objects, even when they passed out of the hands of the patrons to whom they were given. Such maps and charts survived the period when they were valued for their utility, whether as accurate representations or as strategic projects, because they were works of art. The crest that appears on the *Kunstmann II* map as part of the icon of the

Garden of Eden placed over south Africa suggests that the map was commissioned or quickly came into the hands of Cardinal Bernardino Lopez de Carvajal. Bernardino Lopez de Carvajal was a Spanish Bishop of Cartagena and was later made Cardinal in 1492. In Rome he lived at the palace of the Mellini. He was known for his learning.

Some scholars have glanced at the representation of Africa and noticed its exaggerated east-west extension (due to the inaccurate calculation of longitude), to compare coastal place names with those on other charts or other records of Portuguese voyages of exploration, or to conclude from the absence of Madagascar, discovered in 1506, that the chart must have been made before that date.

The representation of Africa on the *Kunstmann II* map traces the coastline in careful detail, and is rich in names of bays, promontories, rivers, cities, and ports. The portrayal of the interior is more of a summary, the general emptiness of the continent being masked by seven portraits of local rulers and a large vignette on the Tropic of Capricorn showing *Paradise*, labeled *Paradisus Terrestris*. The inclusion of the *Garden of Eden* on a world map dating from just after 1500 and including cartographical sketches of the New World is indeed remarkable. Throughout the Middle Ages the *Garden of Eden* described in *Genesis* was believed to exist on earth, as a place belonging both to the past and to the East. At first, the mythical *Prester John's* kingdom was thought to be somewhere in India, but in the course of the 14th century his empire was gradually moved from India to Ethiopia, a land that had always been perceived as almost celestial. This transfer was yet another factor contributing to the late medieval location of *Paradise* in Africa. It also explains why, on this map, *Paradise* appears near the portrait of *Prester John*.

Since tradition dictated that the early Paradise was unreachable by man, the author of the Kunstmann II map placed his sign for Paradise on the tropic that Jacobus Pérez of Valencia had said was the impassable frontier of fire protecting Paradise; the map maker, however, was also outlining and naming on his map several newly discovered lands lying to the south of that tropic, not only in America but also in Africa itself. A legend on the map to the south of the Gulf of Guinea (and thus of the Tropic of Capricorn), for instance, indicates the island where Portuguese criminals were exiled. By the time the Kunstmann II map was compiled, in other words, the known world had been extended to the south of the Tropic of Capricorn at a number of points, almost surrounding, as it were, the unknown African territories thought to border on *Paradise*. The map sign for *Paradise*, however, is intended not to pinpoint an exact location, but to indicate in a general fashion a neighborhood and a limit, the point at which the known and knowable world was supposed to end. In so far as the author of the Kunstmann II map depicts the coastlines in great detail, enumerates the ports, and defines space by mathematical astronomy, he is adopting the principles of nautical chart making and Ptolemaic mapping. In so far as he includes the inaccessible "somewhere" of the earthly Paradise in Africa, he remains in the tradition of the medieval world maps in which the articulation of space is an unfolding of the process of human history and places are indicated next to each other, irrespective of "correct" distances and positions.

What makes the representation of *Paradise* on the *Kunstmann II* map particularly interesting is its design. To read most of the legends and vignettes, the map has to be turned so that east is at the top. The icon and the inscription for *Paradise* (*paradisus terrestris*) are positioned to be read with the map oriented with East at the top. The vignette shows *Paradise* on the top of a high mountain, creating an image that evokes the intermediate situation of a *Paradise* on earth halfway to heaven. *Paradise* is also depicted

as a garden protected by a walled enclosure, a standard practice in the iconography of the subject. Within the garden, the larger, central tree could be either the *Tree of Life* or, more likely, the *Tree of Knowledge of Good and Evil*, mentioned in *Genesis* as situated in the middle of *Eden*, whereas the two small trees flanking it represent the other trees (*Genesis* 9). On top of the central tree sits a parrot.

According to Alessandro Scafi, most intriguing of all, however, is the coat of arms hanging on the larger tree of *Paradise*. A coat of arms is a sign of ownership. The coat of arms is that of the Spanish Cardinal Bernardino López de Carvajal (1456–1523), and the implication must be that either the map was once in the cardinal's possession or, more likely, given contemporary cartographic practice, that it had been made for him.

By displaying the geographical knowledge of his time, the author of the map also provides a coherent and unitary vision of the spread of European Christianity over the earth. Again, the representation of Africa on the Kunstmann II map owes much to the vision of Queen Isabella of Spain that the importance of the conquest of Africa and of the fight to propagate Christian faith was one of her primary objectives/vision. A number of kings are portrayed in Africa. In his bull Ineffabilis et summi (1495), Pope Alexander VI had pointed out that African territories were ruled by sovereigns all having the title of kings. Most of these kingdoms, however, needed to be Christianized, and the propaganda accompanying Spanish diplomacy presented King Ferdinand as the king capable of propagating the faith by unifying several different kingdoms. Sapi (Sappi, on the map) was the name given to the people living along the coast of Sierra Leone by Portuguese traders in the 15th and 16th centuries. The Malindi leader (Rex Melindi on the map) had offered the first Portuguese expedition, led by Vasco Da Gama (1497-1499), hospitality and gifts. Magnus Soldanus was the Sultan of Babylon, who ruled over Egypt and the Holy Land and had special diplomatic ties with the Spanish monarchs. The presence of the King of Tunis (Rex Tunci) and the King of Fez (Rex Fessi) (their territories were the object of protracted negotiations between Spain and Portugal) reminded the map viewer that these African cities, which had risen to independent sovereignty, had became very populous after the expulsion of the Moors and Jews from Spain in 1492 and were the object of Ferdinand's military campaign. "Prince Bemoim" (the king, or bumi, of Jolof, Ziloffo on the map), had requested the Portuguese to baptize him along with all his people, as reported in 1488 by João de Barros and Pagholo degli Ulivieri, and was regarded as a good example for the future of African Christianity. The point is underlined by the presence on the map of the legendary *Prester John*, the Christian ruler ready to help European Christendom in its fight against Islam.

In this context, the submission of the Canary islands (*insule de canaria*) and the new discoveries in the Atlantic were seen by Spain (and by Cardinal Carvajal) as an important step in the process of the conversion of Africa, a process that had begun with the expulsion of the Muslims from Granada and that aimed at a crusade against the Ottoman Turks and the Christian re-conquest of the Holy Land. It is the connection in the *Kunstmann II* map between expansion in Africa and recovery of Jerusalem, on the one hand, and the discovery of new lands beyond the ocean, on the other, that has been discussed by the historian Alessandro Scafi. As Columbus wrote to Pope Alexander VI in February 1502, sailing westwards was another path to reach the Holy Land.

Thus the *Kunstmann II* map bears witness to the fact that, while the discoveries of new lands in the Atlantic were considered part of Spanish territorial expansion in Africa, they also marked a new collaboration. After a crisis in their relationship, Spain and the pope were united in their aim of organizing a crusade against the Turks and bringing

Christ to both Africa and the Indies. The anonymous author of the *Kunstmann II* map displays on a geographical stage the convictions that lay at the core of Carvajal's diplomatic efforts: the capacity of the Christian power formed in the Mediterranean by the Catholic sovereigns not only to overcome the Turkish threat but also to follow Christ's invitation to widen the boundaries of the Christian world, beyond the Atlantic as well as in Africa. As a knight hangs his shield when resting after victory, or as a challenge to other knights to joust, Carvajal's coat of arms hanging on the *Tree of Knowledge* would seem to be highlighting his diplomatic victories as well as the challenge of a New World.



The African Continent on the Waldseemüller world map of 1507 (#310)

Martin Waldseemüller world map, 1507 (#310)

In Africa, Waldseemüller gives full expression to the recent Portuguese exploration by including the rounding of *Caput de bona Speransa* [Cape of Good Hope], by Bartholomew Diaz and Vasco da Gama, and on to *Calicut*; the depiction of the Arab settlements of *Melinde, Monbatha, Quiloe and Monsanbiqui*; the Portuguese *Padros, T. del Natal* and *Cortada*; and the rivers *R. di Infante, S. Thomas, de Largo* (Espiritu Santu) and *S. Vincente* - all traced by a series of Portuguese flags. Not many interior details are shown to speak of, but a large group of natives is shown at the Cape, and above them, a large vignette of an elephant. While the shape his Africa resembles reality more so than

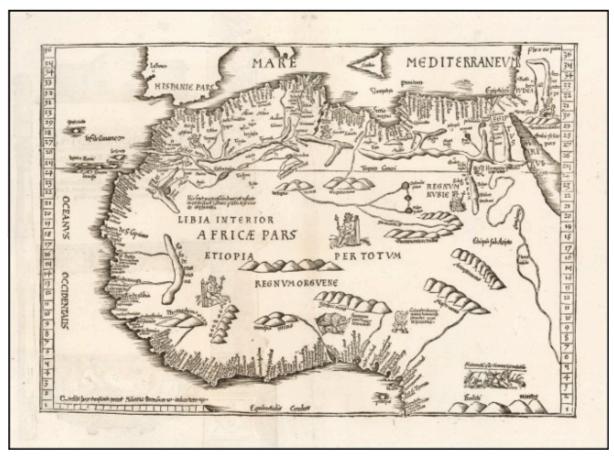
Martellus', Waldseemüller extends the continent to beyond its actual 34° S in a similarly misguided manner as Martellus with Waldseemüller's Africa reaching an inexplicable 50 degrees plus. Waldseemüller placed an elephant and a group of natives in southern Africa on his world map of 1507.

The cartographic history of the *blemmyae* [i.e., men with their head on their chest] in Africa is complex and provides an interesting example of how the image of monsters in the same general area can develop over time. Martin Waldseemüller placed the *blemmyae* in eastern Africa on his world map of 1507 (#310), in



accordance with Ptolemy's *Geography* 4.7; Johann Schöner, on his globe of 1515 (#328), places an illustration of a *blemmya* in the same spot. On his 1516 *Carta marina*, Waldseemüller has a legend about *cicloped[es] siue monoculi* [Cyclopes or *monculi*] in western Africa, and somehow Lorenz Fries conflated the idea of the Cyclops and the *blemmya* in the illustration in the *Tab[ula] Mo[donerna] Primae Partis Africae* in the 1522 Strasbourg edition of Ptolemy, so that Africa now has a one-eyed *blemmya*. This same illustration appears in the 1525 (Strasbourg), 1535 (Lyon), and 1541 (Vienna) editions of Ptolemy, and was copied from one of these editions by Pierre Desceliers on his world map of 1550, who adds a six-armed man nearby from an unknown source (*see below*).





Tab[ula] Mo[donerna] Primae Partis Africae, 1522, Lorenz Fries



Africa as portrayed on the Ruysch world map, 1507-1508 (#313)

Johannes Ruysch world map, 1507-1508 (#313)

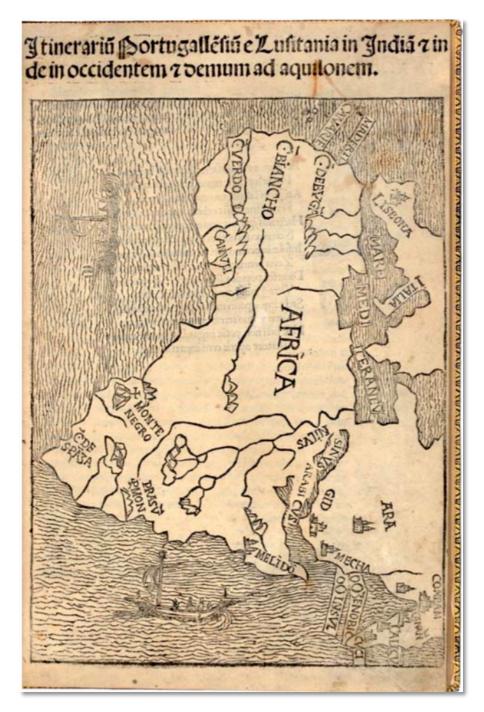
In his delineation of the coastline of Africa, Ruysch displays accurate and up-todate information concerning the Portuguese discoveries. With the exception of some small maps based on the cosmographical speculations of the ancients, and inserted in the works of Macrobius, Sacrobosco and others (#201), along with the Contarini and Waldseemüller maps (#308 and #310), it is one of the first printed maps representing Africa as a peninsula encompassed by the ocean (Note: the Chinese had been displaying Africa in this manner for over 100 years prior to this map, see #227, #236). The southern point of Africa moreover is here placed on a nearly correct latitude, thus giving a tolerably exact form to that part of the world. Ruysch also gives on his map a relatively correct location to the Insule ae Azores, Insula de Madera, Ins. Canarias and Insuie de Capo Verde. The African continent on the map is yet another cartographic advance as it breaks with the early tradition which held that there was a land bridge between eastern African and the peninsula of Southeast Asia. It is also the first map that shows the Portuguese discoveries and landfalls along the southern and Cape coasts. His general accuracy in the eastern hemisphere is almost certainly due to contemporary information gained from Portuguese navigators and explorers.

Ruysch's map is also the first printed map on which, in conformity with the drawings on the *portolanos*, a tolerably correct direction is given to the northern coast of

Africa, by attending to the considerable difference of latitude between the coastlines to the east and to the west of *Syrtis*, and by giving a proper form to that bay.

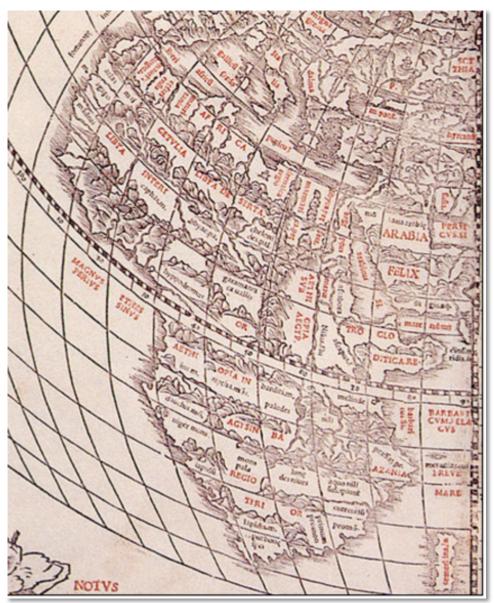


Africa as portrayed on the Maggiolo polar world map, 1511 (#316)



Fracan (Antonio) Montalboddo, Itinerarium Portugallesium e Lusitania in India [Milano] 1508 16 x 22 cm. This is a woodcut map that appears on the first page of a Latin translation of Paesi Nouamente ritrouvate, originally published in Vicenza in 1507, the earliest printed collection of voyages. It includes accounts of journeys in various parts of Africa. In this 1508 edition published in Milan, the map is orientated with the west at the top of the page. The map is rudimentary, nevertheless it does show the results of Vasco da Gama's voyage 1497-9, delineates the main rivers, a few mountain chains and a Portuguese padrao.

It is the earliest known printed map devoted "exclusively" to a representation of the whole of the African continent. (#316.2)



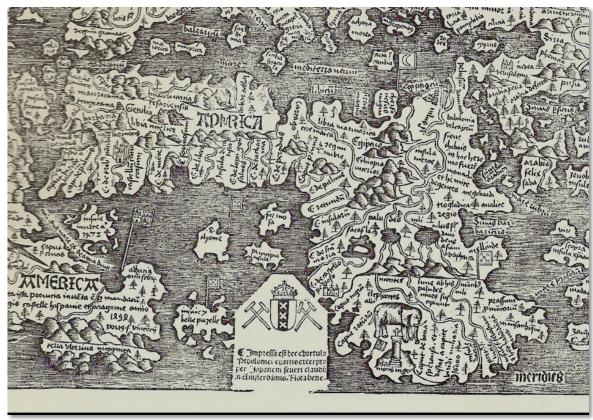
Africa as portrayed on the Sylvanus world map, 1511 (#318)



Africa as portrayed on the Hemisphere Maps of Johannes de Stobnicza, 1512 (#319)



Africa on an Islamic map (orient with South at the top)



Africa as portrayed on the Aurelius world map, 1514 (#323)



Africa as portrayed on the Brixen Globe, 1502 (#333.2)



A map of Africa, orientated with South at tile top, from Leo Africanus' Descrittione dell 'Africa, translated from his Arabic notes into Italian in 1526 at the request of the pope.

Although closely bounded to the north by one of the world's busiest commercial highways, the Sahara Desert received remarkably few first-hand travelers' narratives until the beginning of the 19th century. Ibn Battuta's personal account of a trans-Saharan journey taken in 1352-54 was little known in its day, while the more eminent Islamic geographers seemed content to rely on the testimonies of others rather than risk the difficult journey themselves. European travelers, for whom the lure of the legendary riches of Mali would prove an irresistible challenge, were particularly few and far between. An obscure Frenchman, Anselme d'Isalguier, taken into slavery on the Moroccan coast, spent the years 1405-13 in the city of Gao and married a Songhai princess who became the talk of Toulouse. In 1447 the Genoese gold merchant Antonio Malfante ventured inland from the northwest, spent some time at the Tuat oasis and dispatched a fairly comprehensive report of his findings. And around 1470 the Florentine merchant Benedetto Dei visited Timbuktu but left us with nothing more than a passing, mouth-watering aside buried inconspicuously in his *Chronicles*. No doubt there were others who, for reasons of commercial rivalry, kept quiet about their adventures or even falsified information to throw others off the scent.

For two centuries virtually the only substantial geography of North Africa accessible to European scholars was that of the traveler known to the western world as Giovanni Leo Africanus, 'Leo the African'. Born Hasan ibn Muhammad al-Wazzan into a wealthy family from Granada, then expelled during the Spanish re-conquest, he was educated in Morocco and subsequently travelled extensively on official business to almost every part of North Africa and the Near East. His Description of Africa, rich in anecdotal detail and widely read throughout Europe, provides little indication of chronology but does furnish a solid and reliable account of

the places visited. After numerous journeys in the north, Leo crossed the Sahara in about 1514 and on a wide sweep visited all the kingdoms of the upper Niger, from Mali to Timbuktu, even as far as Lake Chad. Luckily for Europe, in 1518 he was captured at sea by pirates in the employ of the Knights of St John, handed over to Pope Leo X, and for expediency converted to Christianity. Throughout his ten years in Italy he wrote prolifically and earned a reputation as the leading cross-cultural scholar of his time.



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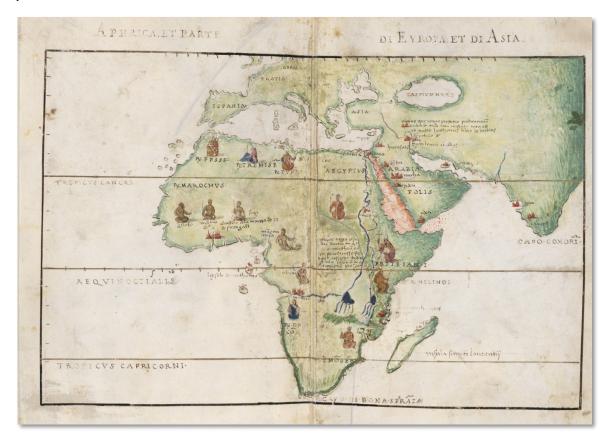
comprehensive report of his findings. And around 1470 the Florentine merchant Benedetto Dei visited Timbuktu but left us with nothing more than a passing, mouth-watering aside buried inconspicuously in his *Chronicles*. No doubt there were others who, for reasons of commercial rivalry, kept quiet about their adventures or even falsified information to throw others off the scent.

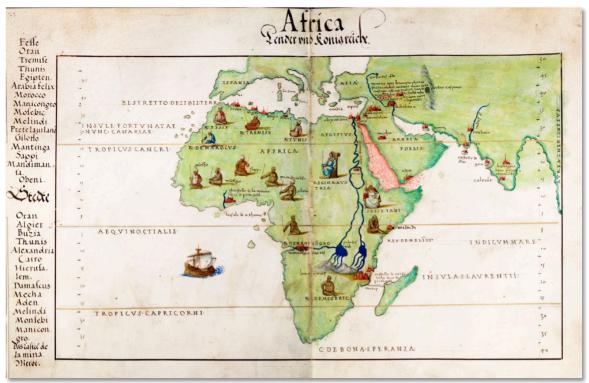
For two centuries virtually the only substantial geography of North Africa accessible to European scholars was that of the traveler known to the western world as Giovanni Leo Africanus, 'Leo the African'. Born Hasan ibn Muhammad al-Wazzan into a wealthy family from Granada, then expelled during the Spanish re-conquest, he was educated in Morocco and subsequently travelled extensively on official business to almost every part of North Africa and the Near East. His Description of Africa, rich in anecdotal detail and widely read throughout Europe, provides little indication of chronology but does furnish a solid and reliable account of the places visited. After numerous journeys in the north, Leo crossed the Sahara in about 1514 and on a wide sweep visited all the kingdoms of the upper Niger, from Mali to Timbuktu, even as far as Lake Chad. Luckily for Europe, in 1518 he was captured at sea by pirates in the employ of the Knights of St John, handed over to Pope Leo X, and for expediency converted to Christianity. Throughout his ten years in Italy he wrote prolifically and earned a reputation as the leading cross-cultural scholar of his time.



Africa. Sebastian Münster, [Basel, 1544] La table & description universelle de toute l' Afrique...

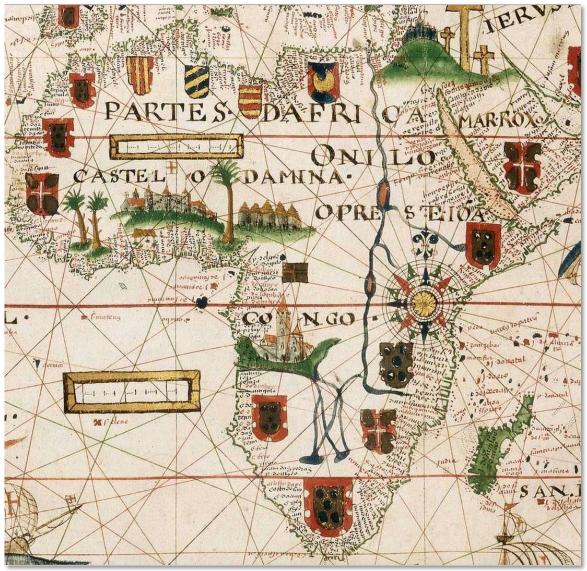
The earliest, readily available, printed map to show the entire continent of Africa. Richly evocative of its early period, it is embellished with a galleon in full sail, a relatively realistic elephant, parrots, and a Cyclops. The map is based partly on Ptolemaic, partly on Portuguese and partly on Arabic sources. The overall shape of the continent was derived from the Portuguese. A source for the interior of North Africa may have been the *Descrittione dell'Africa* written in manuscript by al Hassan (Leo Africanus) in 1526. As would be the case with virtually all 16th and 17th century maps of Africa, Münster's depiction of the Nile and its headwaters follows that of Ptolemy, with the source of the White Nile presented as two lakes fed by streams emanating from Ptolemy's *Mountains of the Moon*.



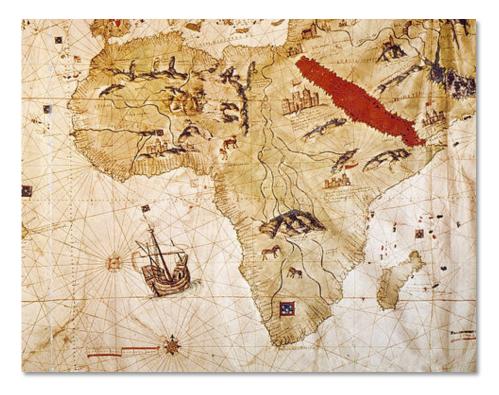


Africa by Battista Agnese, 1554 in his nautical atlas of the world and the Mediterranean Sea





Africa as portrayed on the Planisphere of Domingos Teixeira, 1573



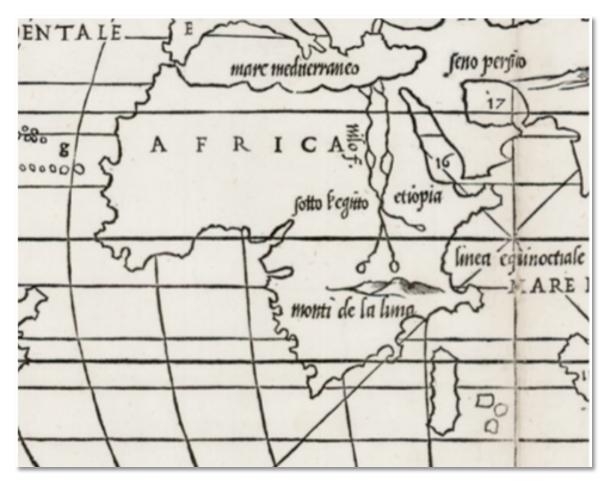
Africa as portrayed on the Vespucci world map, with elephants and camels, 1526 (#338)



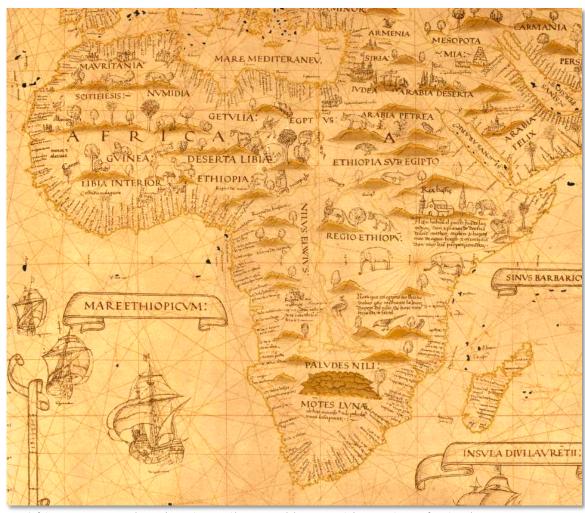
Detail of the Maggiolo 1531 world map: North Africa and the Mediterranean Sea (#340)



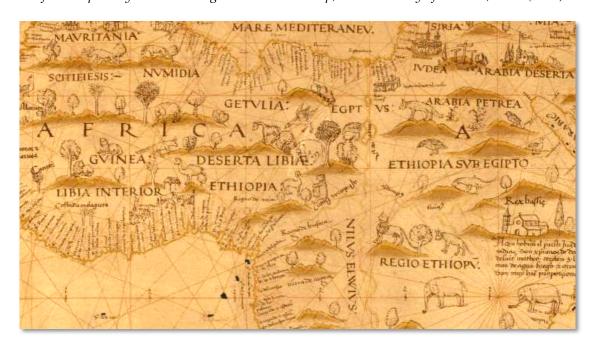
Africa as portrayed on the De Summa Totius Orbis by Pietro Coppo, 1520-1528 (#341)



Africa as portrayed on the World Map in Bordone's Isolario, 1528 (#343)



Africa as portrayed on the Diego Ribero world map, with a variety of animals, 1529 (#346)





Africa as portrayed on the Harleian world map of 1544 (#347)



Africa as portrayed on the Typus Cosmographicus Universalis by S. Grynaeus/H. Hoblein, 1532 (#353)

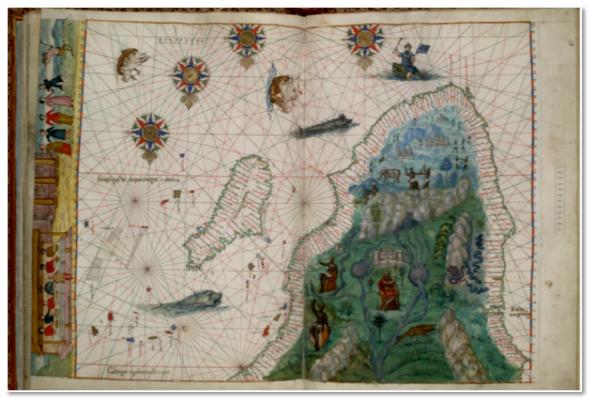
The fantastic figures surrounding the map represent people and fauna from various parts of the world. Some of these, such as the Ubangi people of Africa, are quite real; others are the invented descendants of medieval myth.



Africa as portrayed on the Pierre Desceliers' Planisphere, 1550 (#378)

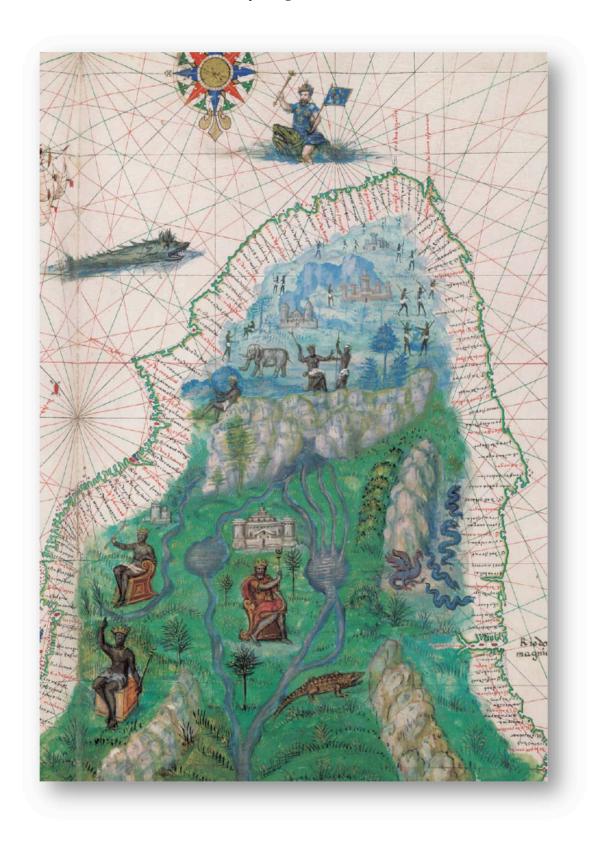


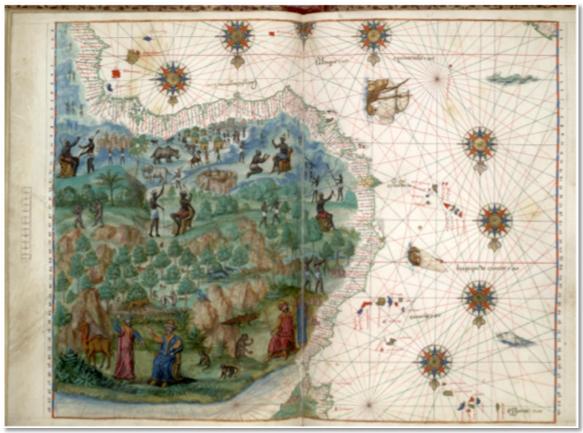
Detail: showing a one-eyed blemmya in West Africa



Southern Africa and the Southwestern Indian Ocean (oriented with South at the top) in the Vallard Atlas, 1547 (#381.2)

Map #5, emerging from the heart of Black Africa, ruled by potentates that can be identified as the ruler of the Congo and the ruler of Mutapa (Monomotapa), springing forth from two lakes, which undoubtedly reflect a vague knowledge of the Great Lakes of East Africa; and Map #7 depicts the course of the Senegal River and a large city nearby, which apparently corresponds to Timbuktu or to the capital of Mali. Curiously enough, while the outline of the coasts and the toponyms are clearly of Portuguese origin, the illuminations, which evidence traces of the influence of coeval Flemish paintings, are more typically French, realistically representing, above all, the areas that the French had already visited. Medieval vestiges can be seen primarily in the interior of the African continent, where it is possible to observe the fantastic creatures that authors such as Pliny and Solinus, heirs to the Indian tradition of the Râmâyana, had placed on the eastern fringes of the known world.





Map #7, Northwest Africa from the Vallard Atlas, 1547, #381.2 (oriented with South at the top)



Above is Giovanni Battista Ramusio's 1556 map of Western Africa, one of the earliest maps of Africa to be based substantially on contemporaneous information. The map covers western Africa and the Guinea Coast, stretching from modern day Mauritania to Cameroon. It appeared in Ramusio's *Delle Navigationi et Viaggi*, the first collection of first hand travelers' reports. With respect to Africa, Ramusio relied both on information of Portuguese travelers and the reports of Leo Africanus, the author of the *Descrittione dell'Africa* which appeared in the third volume of Ramusio's *Viaggi*. The coastline shows remarkable detail for the period.

Perhaps unsurprisingly, the map is less revelatory with respect to the interior of Africa, which would be opaque to European explorers until the end of the 19th century, Some place names do appear to have some basis in actual report. The *Empire of Benin* is named: the Portuguese had contacted this kingdom, bringing back tales of a noble city with a powerful king, and trading metal and guns for ivory, gold, and slaves. The English, too, had contacted Benin by 1553. In the northern extremes of the map, above the Tropic of Cancer, several cities appear - notably Segelmese, and the oasis of Berdoa, all reported by Atncenus.

Where the map is terse with its data, it is lucid in its visual description of Africa to a European audience. A barren, desert 'Libya Interior' in the north gives way to mountains and jungle below. Not only exotic animals like elephants and monkeys appear, but also herds of camel appear, and a shepherd with a flock. Africans are shown with houses and stockades. A king is shown with courtiers at Guinea; and while many Africans here are portrayed in primitive light, the soldiers in the vicinity of Guinea are shown well-armed and in order - reflecting the European strategy of allying with strong local kingdoms in order to facilitate the exploitation of the broader region. And while

there are plentiful sea-monsters visible amongst the European ships and native canoes, the land is devoid of such beasts as the cyclops that dominates Münster's 1540 map of the continent (#381). The Africa depicted here is an Africa that can be reached, and controlled, by men.

Mountains and rivers are shown, the Senegal, Gambia and Niger [R. grande] flowing due east and west, rising in a large lake in the east. Two types of trees are drawn, palms to indicate deserts and stylized trees to locate forests. The fauna is represented by lions, elephants and monkeys, and camels are included representing the Arab traders who came down from the north. Figures of natives, out of proportion to their surroundings, are shown with loincloths, bows and spears, and a large vignette of a native king in a compound with his subjects pouring earth on their heads are informative of the customs of the land. On the coast is the fortified post of the Portuguese the Castel de la Mina, with European soldiers outside. The sea is engraved with wavy lines upon which float native craft and European ships. Two of the latter are shown, on the right a vessel with the arms of Portugal going from Elmina to the island of St. Thomas, on the left a ship bearing the fleur de lys. At this time adventurers from France were beginning to break the Portuguese monopoly of the coast, doing a brisk trade in the Senegal. The vignette of this French ship is thus not purely decorative but presents an actual fact.

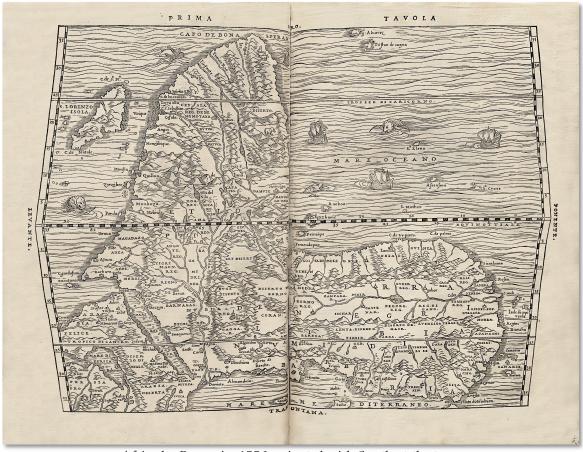


This woodcut map is filled with mountains, trees and bushes shown in great detail, and many animals - elephant, camel, monkey and lion. There are natives in the south, many in loincloths, carrying bows and arrows, and one group appears as soldiers in uniform. The southern seas, engraved in horizontal wavy lines, are alive with native canoes and sea monsters, and there are also two European ships. The one on the right has the arms of Portugal and is going from Elmina to the island of St. Thomas, and the vessel on the left bears the *fleur-de-lys*.

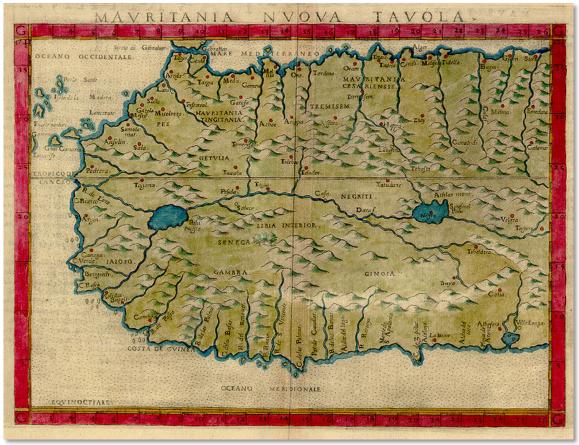
The map includes the coast of Guinea, with a scene of natives rendering homage to a cross-legged chieftain. Below this appears a fortified Portuguese fort - Castel de la Mina (modern Elmina), which was founded by the Portuguese in 1482 and became an export centre for gold from the interior (Lamina de Portogal). Today Elmina is part of Ghana (called the Gold Coast until 1957). From 1500 to at least 1530 the Elmina trade was very prosperous, and it remained a post of great importance, flourishing as it did on gold and slavery.

The Senegal (*Senega*) and Gambia (*Gambra*) Rivers and the Rio Grande are linked with a west-flowing Niger, the river that the Arab geographer Al-Idrisi called the '*Nile of the Negroes*.' At that time the Niger and the Nile were thought to rise from the same source.

At the time of this map French traders were beginning to break Portuguese monopoly of the coast and were doing a brisk trade in Senegal. They travelled to Costa de la Melegeta (*Melaquetta*) on the *Grain Coast* (modern Liberia) but they seldom got as far as Elmina and never reached Benin.



Africa by Ramusio, 1556, oriented with South at the top

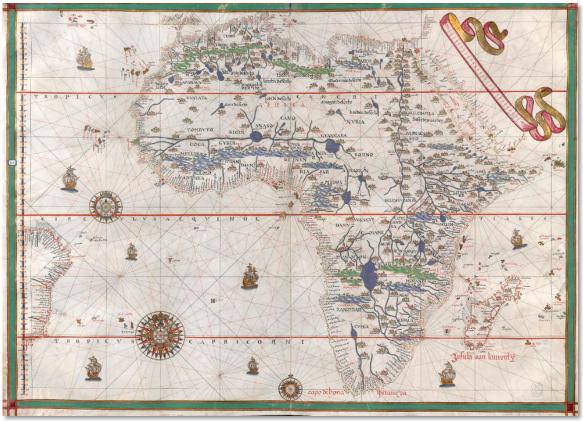


1561 map of West Africa by Girolamo Ruscelli



Africa Tertia Pars Terrae. [Africa the third continent] Hanover, Heinrich Bünting, 1581. 26 x 34 cm, woodcut. Heinrich Bünting (Buenting), a professor of Theology in Hanover, issued the first edition of Itinerarum Saccrae Scripturae in 1581. This atlas included symbolic maps: the world as a clover leaf, Europe as a lady or virgin queen, and Asia in the form of Pegasus (the winged horse). The text of this cosmography appeared in Danish, Swedish, Dutch and English. This woodcut map of Africa has an unusual shape, tapering to a narrow angle in the south. Numerous rivers appear in West Africa and as tributaries to the Nile, and mountain chains and various kingdoms are mentioned. The sea is engraved in narrow wavy lines, with a galleon, a merman and above him a sea-bird. It is interesting to note the different type of lettering used in this map, indicating the use of inset type for the woodcut technique.

The Nile finds its source in the Mountains of the Moon. Elephantophagi is shown in West Africa. Several large cities and kingdoms noted. The map is based largely upon Sebastian Münster's map, first issued in 1540. Large sailing ship and sea creatures embellish the map.

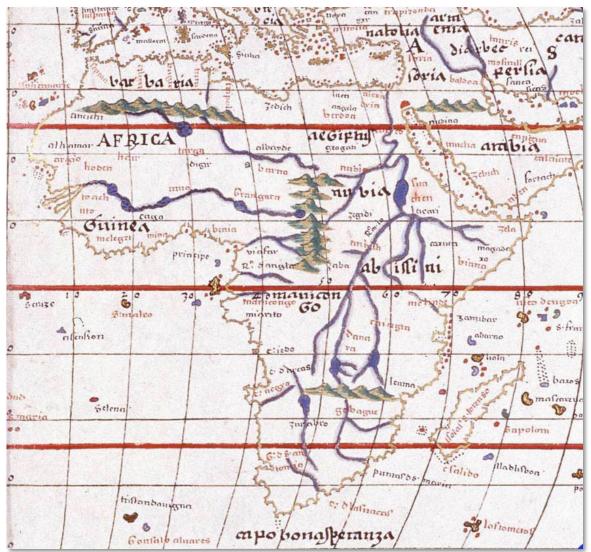


Africa in the 1587 atlas by Joan Martines



Gerard de Jode, Africae Vera Forma. et Situs.,1593 (#433)

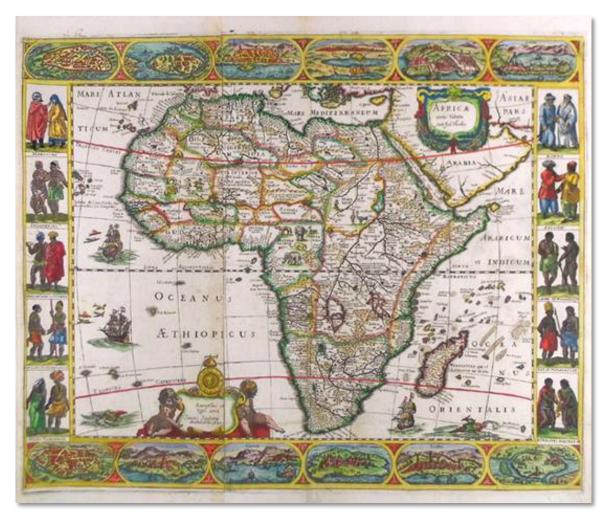
This map of Africa appeared in the second edition of Gerard de Jode's *Speculum Orbis Terrarum*, issued by his son, Cornelius, in Antwerp. The title is in large lettering across the top of the map, with jeweled bands on either side. A plaque of descriptive text at the top right terminates in a circular medallion with the words *Formes Haeredium Gerardi de Jode*. Six sea monsters and four sailing ships decorate the sea and small vignettes of natives, some with bow and arrow, others with spears, are placed on and around the map, which shows the *Kingdom of Monomotapa* extending down to the Cape, the *Cuamo*, the *Rio de Spirite* and the *Rio Infanta*. On the verso is the text in Latin.



Africa on the 1587 world map Joan Martines,



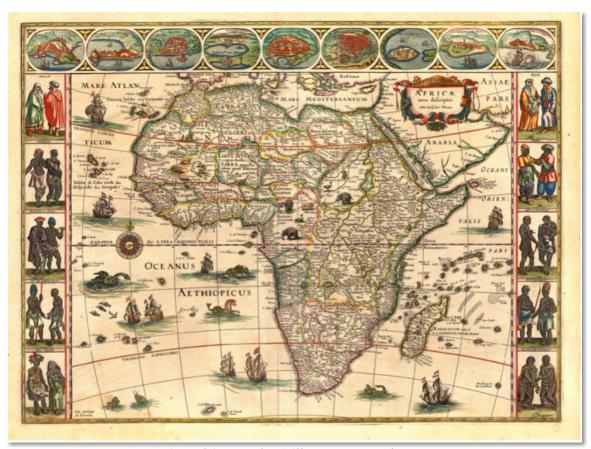
Africa on another 1587 world map Joan Martines



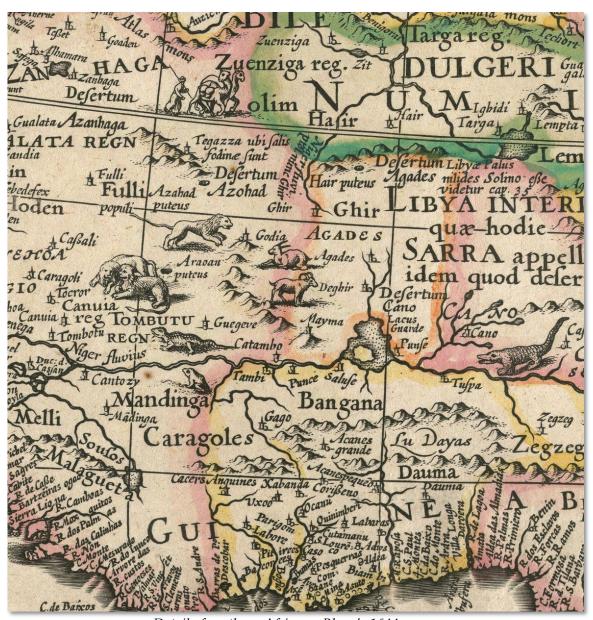
Africae nova Tabula Auct. Jud. Hundio. Hondius, Jodocus and Jansson, 1642

The continent of Africa is shown, with the southernmost sections of Europe visible, as well as the adjoining Arabian peninsula and parts of Asia. The borders of the various empires and nations of mainland Africa, as well as the seacoasts of Madagascar and the islands of the Atlantic and Indian Oceans, are outlined in hand color, and principal cities are picked out in red. Although largely fictitious, abundant waterways and mountain ranges crisscross the landmass. Particularly notable are the large lakes Zaire and Zaflan, at the foothills of the Mountains of the Moon. Numerous African animals populate the interior, including lions and barbary sheep near the Moroccan coast, a very stylized crocodile in West Africa, elephants, a leopard and a hyena in the Congo, and a pair of ostriches and a monkey in Nubia. The reefs and shoals of the Indian Ocean are shown as dotted or crossed patches, while numerous sailing ships, flying fish, and sea monsters adorn the seas. The map is further ornamented by a pair of baroque cartouches, one containing the title surrounded by ribbons and garlands of fruit, while the other, containing the publisher's details, is supported by languid cherubs and features a timepiece intended to remind the viewer that life is short and time is always fleeting. The highly decorative border features vignettes of principal African cities based on Braun and Hogenberg, including Alexandria, Mozambique, Alger (Algiers), Tunis, Tanger (Tangier), Ceuta, Alcair (Cairo), St. Georgius della Mina (Elmina,

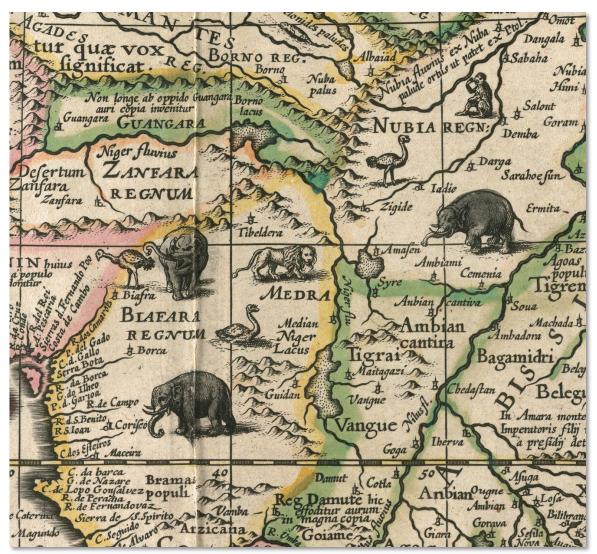
Ghana), Canaria (Grand Canary), Quiloa (Kilwa Kisiwani, Tanzania), Tzaffin (Safi, Morocco), and Ceffala (Sofala, Mozambique), while pairs of figures represent the costumes of Moroccans, Senegalese, Guinean merchants, Congalese soldiers, Egyptians, Abyssinians, Mozambicans, a Madagascan king, and inhabitants of the Cape of Good Hope. Unusually, the cartography for this map is not based upon the 1606 Hondius wall map of Africa, but rather on the geography of Hondius' competitor, Willem Blaeu, who published a very similar series of carte-e-figures maps in 1617. The current example is something of a cartographic mystery. Hondius, for reasons unknown, engraved two almost identical maps of Africa with decorative borders, the first in 1619, and the second in 1623. Each was issued in various different states and remained in use up until the 1650s. The key difference between the two is the inclusion on the second plate of a large baroque cartouche, featuring a distinctive memento mori clock-face of a radiate skull. The cartouche is an almost direct copy of the one appearing on van den Keere's 1614 map of the continent.



AFRICA, 1644 by Willem Janszoon Bleau Nine city views across top of map: Tanger, Ceuta, Alger, Tunis, Alexandria, Alcair, Mozambique, S. Georgius della Mina, Canaria.

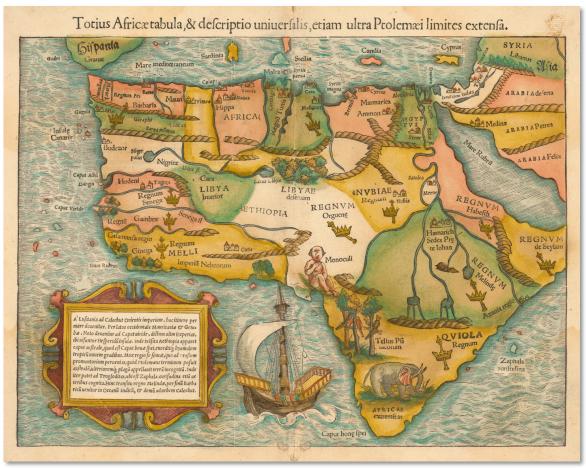


Detail of northern Africa on Bleau's 1644 map



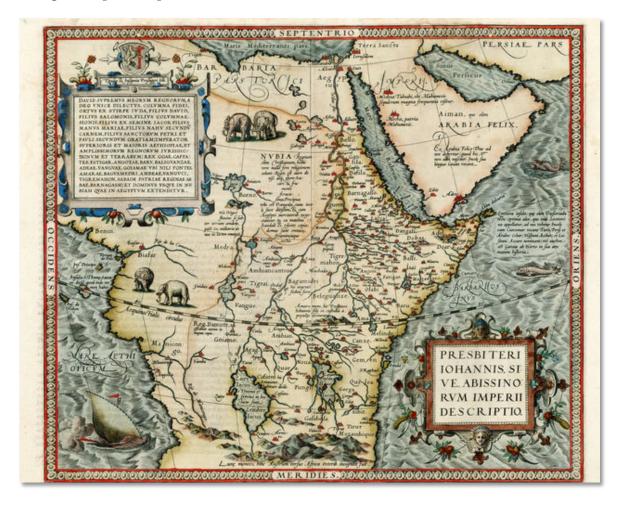
Detail of central Africa on Bleau's 1644 map

In spite of its rich detail, the design of the map is remarkably clean and sharp, particularly in regard to the coastline. Yet it is deceptive as to its overall accuracy. Its remarkably accurate general outline and the plentiful interior detail disguise the near-complete ignorance of Africa's interior among Europeans at the time. The top border panels consist of town and port views, primarily of North African ports but including others, such as Mozambique. The map also depicts a variety of natives in traditional dress, including Moroccans, Senegalese, merchants in Guinea, Congolese Soldiers and others. This stands as one of the signature maps of the leading cartographic publisher of the Dutch Golden Age.



Sebastian Münster's "Totius Africæ tabula, & descriptio uniuersalis, etiam ultra Ptolemæi limites extensa", 1489-1552. (#381)

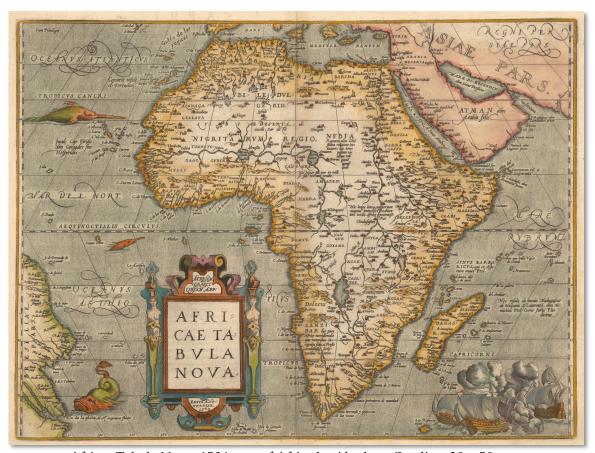
The earliest obtainable map of the whole continent of Africa. Because it was issued with some variations in both of Münster's very popular works, Geographia (1540-1552) and Cosmographia (1544-1628), the map is difficult to date precisely. Münster was the first mapmaker to print separate maps of the four then known continents (Europe, Africa, Asia, America). The map of Africa contains many interesting—if not curious features: a one-eyed giant seated over Nigeria and Cameroon, representing the mythical tribe of the "Monoculi"; a dense forest located in today's Sahara Desert; and an elephant filling southern Africa. The Niger River begins and ends in lakes. The source of the Nile lies in two lakes fed by waters from the fabled Mountains of the Moon, graphically presented as small brown mounds. Several kingdoms are noted, including that of the legendary Prester John, as well as "Meroë," the mythical tombs of the Nubian kings. Few coastal towns are noted, and there is no Madagascar yet. A simplified caravel, similar to those used by the Portuguese (and Columbus), sails off the southern coast. One of the intriguing aspects of this map is the loop of the Senegal River, which is shown entering the ocean in today's Gulf of Guinea. Actually, this is the true route of the Niger River, but that fact will not be confirmed until the Lander brothers' expedition in 1830. Strangely, this loop disappeared from subsequent maps of Africa for the next two hundred years. The text in the large cartouche offers a rudimentary itinerary for sailors from Lusitania to Calechut (Calicut, India), describing a route that essentially avoids Africa. Lusitania was a province of the Roman Empire, comprising most of modern Portugal and part of Spain.



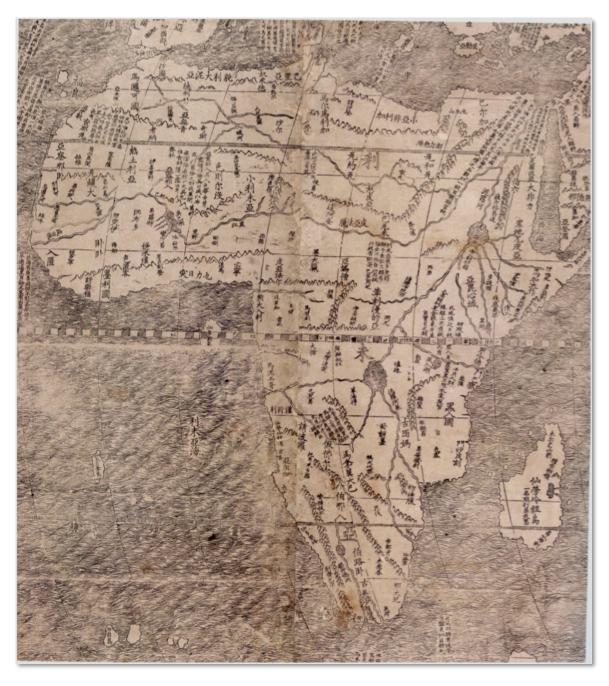
Presbiteri Johannis, Sive Abissinorum Imperii Descriptio. [The land of Prester John]
Antwerp, Abraham Ortelius, 1573, 37 x 43 cm.

This Ortelius map - 'Abyssinia, the Land of Prester John' - first appeared in his Additamentum and then in all subsequent editions of the Theatrum Orbis Terrarum. It depicts Africa from the Mediterranean to the Mountains of the Moon, which are placed below Mozambique. It is often referred to as the Prester John map. The dedication to biblical David is at the upper left, surrounded by the typical floral strap-like ornamentation. Above the dedication is the coat of arms of Prester John, and a long genealogical record traces his ancestors to King David. In the right lower corner is a similar flower-bordered rectangular cartouche with the map's title. An Arab dhow curiously appears off the west coast. Two dolphins are shown off the east coast and on land four elephants. The two-lake system is represented, once again, with its tributaries providing the origin of the Nile. The east coast is shown in greater detail than in the 1570 map of Africa and the Arab settlements of Melinde, Mombaza, Quiloa and Mozambique are probably taken from the travels of Ibn Batura, a renowned Arab explorer and writer.

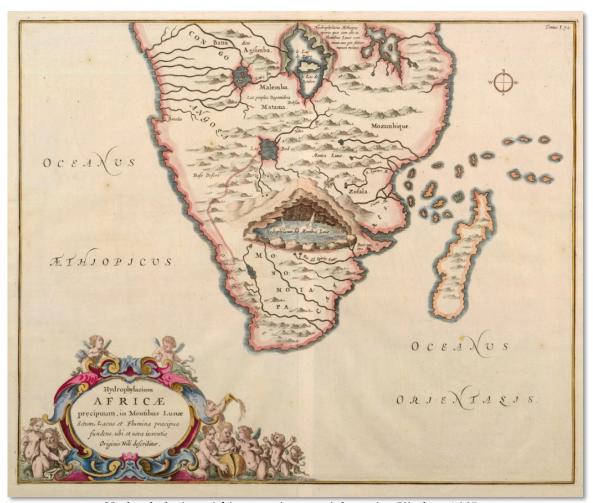
Prester John was a mythical African King, waging a war against the Muslim Infidels from his Kingdom in Central Africa. For centuries, from the receipt of a fake letter from Prester John to the Byzantine Patriarch, Europeans searched for Prester John, initially in Asia and later in Africa. The Crusaders hoped that Prester John would join with Europeans in the protection of the Holy Lands from the Islamic Saracens and in the protection of all Europe from the Mongols. In the late 1400s and early 1500s, the Portugese searched for Prester John in East Africa, though they did eventually find a Christian kingdom in *Abyssinia*.



Africae Tabula Nova, 1584 map of Africa by Abraham Ortelius, 30 x 50 cm
The map of Africa was, apparently, one of the few for which Ortelius himself was responsible, as he gives no source, but it has been pointed out that there is some similarity between this map and the copperplate engraved maps of Forlani and Gastaldi. The Theatrum Orbis Terrarum added one name, Carneca, to Gastaldi's Africa, and made the Cape more pointed. Zanzibar is transferred from the east to the west coast. 'Zanzibar' was a designation often given to the East African coastlands north of Cape Delgado, but a further oddity is that Ortelius marks the island of Zanzibar in the correct place. The Nile is based on the Ptolemaic concept. The cartouche is classical in design, with two armless statues of women and four lions' heads incorporated in the supporters, and is completed with decorative scrollwork. Two swordfish and a whale decorate the Atlantic, while in the right-hand lower corner of the Indian Ocean a decorative group of three ships is enveloped in a cloud of smoke. Large lakes appear in various parts of the mainland and there are numerous rivers and cities, but no animal life is indicated. Despite a few mistakes, this beautiful map is one of the cornerstones of mapmaking of the continent of Africa, and remained the standard map for the rest of the 16th century.



Africa as portrayed in Matteo Ricci's world map, Kunyu Wanguo Quantu, 1602, #441



Hydrophylacium Africae precipuum, Athanasius Kircher, 1665

There is an attractive cartouche in the lower left corner in which the title appears in an oval surrounded by a scroll design surmounted by two cherubs. To the right of the cartouche is a group of angels, three of whom are looking at a partially opened sphere. Above this group is another cherub drinking from a horn of plenty.



Detail of the Hydrophylacium in the Mountains of the Moon

Kircher, Athanasius, 1602-1680.

Hydrophilacium Africæ precipuum, in Montibus Lunæ situm, lacus et flumina præcipua fundens, ubi et nova inventio originis Nili describitur, 35 x 42 cm. From Kircher's Mundus subterraneus... (Amsterdam, 1665). [Historic Maps Collection]

Kircher's *Mundus subterraneus*, dealing with geophysics, earthquakes, and volcanoes, was one of his most popular and spectacular works, full of exotic engravings and strange theories. (Fascinated with underground rumblings, Kircher had himself lowered into Vesuvius shortly after a nearby earthquake in 1638.) In it, he published an account from the journal of Pedro Páez, a contemporary Jesuit colleague, who had visited Ethiopia in the early 1600s and described seeing the "fountains of the Nile." James Bruce, the English Nile explorer, translated Kircher's version in his own work, *Travels to Discover the Source of the Nile* (1790):

On the 21st of April, in the year 1618, being here, together with the king and his army, I ascended the place, and observed every thing with great attention. I discovered first two round fountains, each about four palms in diameter, and saw, with the greatest delight, what neither Cyrus king of the Persians, nor Cambyses, nor Alexander the Great, nor the famous Julius Caesar, could ever discover. The two openings of these fountains have no issue in the plain on the top of the mountain, but flow from the root of it. The second fountain lies about a stone-cast west from the first: the inhabitants say that this whole mountain is full of water, and add, that the whole plain about the fountain is floating and unsteady, a certain mark that there is water concealed under it; for which reason, the water does not overflow at the fountain, but forces itself with great violence

out at the foot of the mountain. . . . [T]he fountain seems to be a cannon-shot distant from Geesh. . . . [Vol. 3, pp. 619-20]

Another Portuguese Jesuit, Jerónimo Lobo, claimed to have passed through the area in 1629. He offered a different (and fairly accurate) description"

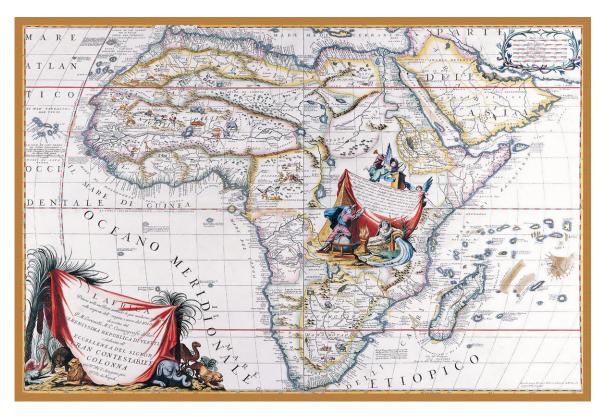
In this territory of Toncua is the known head and sourse of the River Nile, by the natives called Abani (i.e.) the Father of Waters. . . . The Head rises in the most pleasant Recesse of the Territory, having two Springs, called Eyes, each about the bigness of a Coach-wheel, distant twenty paces.... These two springs rise in a little field covered over with green and thick wood. . . . This plain is on the top of a high mountain, overlooking many spacious Vallies and from this hight insensibly descends. . . . At little more than three dayes journey from the Head, the River is large, deep enough for vessels to sail in. . . . [A Short Relation of the River Nile, of Its Sourse and Current . . . (London, 1669), pp. 8-11]

Kircher's map visualizes these description of the source of the Nile, showing the river flowing out from under the *Mountains of the Moon*, through Ethiopian lakes that are also linked subterraneously. It is an imaginative exercise, for none of the geography is accurate.

Ptolemy's map of Africa [see the map of the continent by Sebastian Münster] shows the Nile flowing from two parallel lakes fed by waters from mountains (the *Mountains of the Moon*, though not named there). He cited as his sources the tales of the Greek merchant Diogenes and other travelers who claimed to have journeyed inland from the coast of East Africa and looked upon two great lakes and snowy mountains. Unnamed by Ptolemy, these lakes on later maps acquired the names of *Zaire lacus* [Lake Zaire] and *Zaflan lacus* [Lake Zaflan]. Sometimes they were aligned side by side; often, one was placed forward like a footstep. This tradition in Africa maps continued well into the 1700s. Guillaume de L'Isle (1675-1726), often called the father of modern geography because of his scientific approach to the subject, was the first cartographer to discard the lakes. On his map "L'Afrique dressée sur les observations de Ms. de l'Academie Royale des Sciences . . .," first issued in 1700, he gave the correct source for the Blue Nile as Lake Tsana (Tana) in Abyssinia (Ethiopia), no doubt based on the 17th century accounts of Portuguese missionaries, including Pedro Páez and Jerónimo Lobo.

The first known "expedition" up the Nile was undertaken by two centurions sent by the Roman emperor Nero in the first century CE. They failed, however, to get past the Sudd—the great swamp of thickets and aquatic vegetation of the White Nile that lies between the latitudes 5°N and 10°N in southern Sudan. Not until the 1860s explorations of Burton, Speke, Baker, and Grant—further confirmed by Stanley in the 1870s—was the puzzle of the lakes resolved. The sources of the White Nile lie in the feeder streams and rivers of Lake Victoria; its waters issue out at Ripon Falls (submerged now by the Owen Falls Dam) and then course through and out Lake Albert, joining the Blue Nile at Khartoum. Conceivably, Lake Victoria and Lake Albert were Ptolemy's two lakes. The Ruwenzori mountain group, on the boundary between Uganda and the Democratic Republic of the Congo, between Lake Albert and Lake Edward, contain snow-capped peaks that reach over 16,000 feet. First identified by Stanley in the 1880s, these mountains are now usually associated with Ptolemy's *Mountains of the Moon*. Scholarship has shown that Ptolemy did not originate the concept of the "Mountains of the Moon" and their role as the source of the Nile River—it was probably an inherited

Arab idea—but the popularity of Ptolemy's *Geographia* greatly accounted for the propagation of it. [For a thorough argument, see William Desborough Cooley, Claudius Ptolemy and The Nile . . . (London, 1854).]



L'Africa divisa nelle sue Parti secondo le Piit moderne, relationi colle scoperte dell'origine e corso del Nilo ... [Africa divided into its several parts according to recent information with the discoveries of the source of the Nile.] Venice, Vicenzo Maria Coronelli, 1691.

2 sheets 59 x 44 cm each. Scale in Italian miles, French, Spanish, German and English leagues, sea leagues. Prime meridian through Ferro Island.

Dedicated to Eccelenza del signor Gran Contestabile Colonna.

This double-sheet map of Africa first appeared in his atlas, the *Atlante Veneto*. Most maps of Africa produced in the 16th and 17th centuries showed the sources of the River Nile originating in two massive lakes - Zaire and Zaflan - well south of the Equator, and themselves fed by streams from the *Mons Lunae* [Mountains of the Moon]. This formulation was inherited by European geographers from the ancient geographical authority, Claudius Ptolemy: hence the most enduring geographical feature of the African continent was derived from second century geographical knowledge, By far the most dramatic geographical change on Coronelli's map is the near excision of the lakes (only the southern portion of Lake Zaire is shown) and the eradication of the upper Nile, instead depicting Lake Tsana (Tana) in *Abyssinia* as the source of the great river, This represented a partial correction, Lake Tsana being the source of the Blue Nile, The White Nile (not retained on Coronelli's map) would remain mysterious until its true source was discovered by Waldecker in 1937,

Coronelli's map is not the first to dispense with the long-cherished Ptolemaic Nile: the extremely rare four-sheet Du Val of 1678 has that honor; Coronelli's name is

first associated with the new geographical model in the 1689 Coronelli-Nolin map of Africa, also separately issued and extremely rare, Although these two maps pre-date the map appearing in Coronelli's 1691 *Atlante Veneto*, neither were as widely disseminated or seen as this one and consequently neither had as much impact,

The large cartouche in the lower left-hand corner of the west sheet consists of an animal skin hanging from palm trees. On the left are an ostrich, a crocodile, a leopard and a lion. A camel and a lion appear in full view on the right with an elephant's head peeping out from under the skin. The sea is not decorated but the mainland is embellished with all kinds of animals, together with scenes of horsemen in combat with lions and archers aiming at a large ostrich-like bird. A most noticeable feature of the decoration on the mainland is a scene consisting of a large piece of drapery containing information about the source of the Nile, at the very top of which there is an angel blowing a trumpet, while another holds one corner of the drapery on which the recording angel has just written the legend. To the right is a bearded figure - Father Nile - reclining against a bowl from which water is rushing over the back of a crocodile.

Coronelli knew well the importance of this geographical change, and on this map he emphasized it with a dramatic cartouche in the center. Coronelli's descriptive text is shown on a grand tapestry, suspended on the right by a putto and on the left hanging from the pinnacle of a Great Pyramid. A geographer - identified as such by the globe he uses as a footstool- points out the names of the scholar Hiob Ludolf and the Portuguese Jesuit Balthazar Tellez, two of the sources of the new information. A classical river god pours the river out of his jar, dousing a crocodile and threatening to inundate the geographer's maps and books. The winged, classical avatar of Fame hovers atop the scene, pointing out the new course of the Nile on the map, playing her vuvuzela.

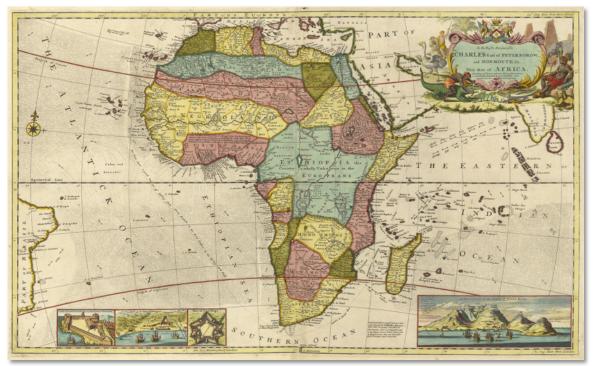
In addition to the crocodile in the descriptive cartouche, the title/dedicatory cartouche features lions, a camel, an ostrich ... and another crocodile. The body of the map, however, is home to dozens of animals and monsters - some recognizable, some less familiar (apparently the Gambia River was thought to be home to giant hedgehogs, and the fabled Roc makes an appearance, carrying off a horse.)





The maps of the 18th century still maintain a decorative quality, though their ornamental side is usually confined to the title-piece and scale of miles. Many of the title-pieces have large figures depicting the natives and products of the continent; for example, Senex, Moll, Price, Homann, and Seutter, a favorite motif being a representation of a native riding a crocodile. The large map of Moll is of particular interest for the inset views it contains of the Cape of Good Hope, Cape Coast Castle, St. James Fort, etc. In the latter maps of this period it is possible to study the gradual extension of European penetration into the interior. As in the preceding century, there are marine charts of the coasts, though the emphasis is now on the French and English productions, a notable example being Part V of the English Pilot, the West Coast of Africa from the Straits of Gibraltar to the Cape of Good Hope, issued in 1701 and numerous subsequent editions up to 1780.

In the 19th century ornament, with one or two exceptions, for example the atlases of Tallis and Fullarton, was excluded, though many are remarkable for the excellence of their engraving. Their primary interest lies in their historical recording of the spread or penetration of European element in the interior, the gradual discovery and naming of physical features, the towns and trading posts established.



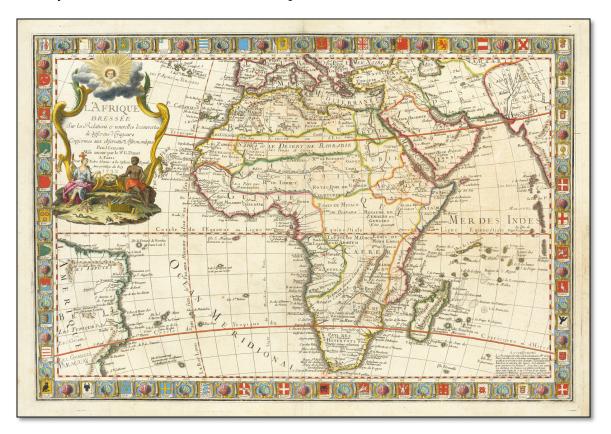
1710 map of Africa by Herman Moll

To the Rt. Honourable Charles Earl of Peterborow and Monmouth. This Map of Africa. According to ye newest and most exact observations is most humbly dedicated ... London, printed for Inc Bowles, print and map seller next to the Chapter House in St. Paul's churchyard by Philip Overton, map and print seller near St. Dunstan's Church, Fleet Street and by John King at ye Globe, 1710, 58 x 97 cm

Moll published more than twenty-five atlases and geographical works with reissues and loose maps. The same maps were used in different publications with minor alterations, something that is particularly known of this large folding map of Africa. He had a good reputation and was highly conscientious. A notable feature of his maps are the long legends he used in blank spaces. The dedication title to the Earl of Peterborow at the top

right features a coat of arms, presumably of this nobleman. There are figures of mounted natives chasing an ostrich, a Black African riding a crocodile, an elephant, a lion and a pyramid. It bas been suggested that this cartouche was partly inspired by Guerard's design for de l'Isle's map of Africa.

Inset views along the base of the map show, on the left, Cape Coast Castle on the coast of Guinea: James Fort, St. Helena; Fort of Good Hope (Cape) and on the right a detailed 'Prospect of the Cape of Good Hope,' showing the different parts of Table Mountain. No settlements other than the 'Fort of Good Hope' are marked and the Hottentot tribes are not specified. Various names on the southern shore marked on this map are not known today. The boundaries and cities of Monomotapa are marked and both *Vigiti Magna* and *Zimboae* appear as do the Delagoa River and the Zambezi. Further north Moll attempts to compromise with ancient geography, retaining the two great lakes of Zaire and Zaflan but turning them into morasses and dissociating them from the Nile, which is shown rising in Lake Tzana in Abyssinia, a feature of de L'Isle's 1700 map. The winds and the calms are indicated; the route from Britain to the East is marked in the Atlantic and, in the Indian Ocean, mention is made of the course to Surat. Within the map, in Guinea, a legend appears referring to white men inhabiting an area one hundred leagues from the coast of Guinea, who wear clothes which differ from those worn by the blacks and some of whom keep the Christian Sabbath.



The 1732 edition of this ornate map of Africa, published by Guillaume Danet in Paris. A defining feature of the map is the border, which is filled with dozens of maritime flags of states and polities. These include Malta, Tripoli, the Turks (Ottomans), and several insignia each for large countries like France and Britain. The flags are interspersed with delicate shells. Interestingly, this example of the map is embellished with a number of

orange circles and other marks. These are scattered throughout Africa, and I have not identified a clear significance for their placement.

The map is centered on Africa, but also includes the Arabian Peninsula and part of Asia, much of southern Europe, and a large portion of South America. The Atlantic and Indian Oceans are filled with islands, many of which include notes about their date of encounter or their geography. For example, Ascension is described as "nothing more than a rock." Political units are separated by dotted lines. In Africa, these include Abyssinia, which houses the Source du Nile. Danet abandoned the Ptolemaic hypothesis for the source of the Nile in the Mountains of the Moon in South Africa, a representation that had frequented maps of previous centuries. Instead, he opted for a source of the Nile in eastern Africa, the location of the Blue Nile. Rivers were of interest to Danet; they are the major geographic feature in the interior, and they are often augmented with extra information. In the south, a note explains that the source of the Zambezi River is unknown, for example. There are also several large lakes in the African interior. In central Africa, the kingdom of Zendero ou Gengiro is noted to be a powerful state. This is a reference to Janjero, also known as Yamma. The Hottentots, in reference to the Khoikhoi peoples of southern Africa, are described as wanderers and barbarous, the latter a reflection of European prejudices. As the maritime flags of the border indicate, this map is made with trade in mind. Evidence of European commerce with Africa is written in the toponyms. For example, near the Cape of Good Hope is the Fort Hollandois in reference to the Dutch settlers who had established a Dutch East India Company colony there in 1652. In West Africa, in the Gulf of Guinea, is La Mine, Elmina was established in 1482; the castle was originally a trading factory; later, it was used to hold enslaved people bound for the Middle Passage and then plantations in the Americas. The castle survives today and is the oldest European building in existence south of the Sahara.

A lush cartouche is in the upper left comer, with a woman, likely representing Europe, showing a Black man, likely representing Africa, a necklace. He holds open shackles. At their feet are a cornucopia and a basket, as well as a snake, scorpion, shells, and gloves.

The meridian used in this map is calculated from the Isle de Fer in the Canary Islands, A note runs along the line explaining that Louis XIII fixed this meridian in 1634. This meridian was thought to be twenty degrees west of the Paris parallel. The choice of the more westerly meridian was supposed to standardize maps, but many cartographers continued to use other meridians as their primes.

This concern with the history and mechanics of cartography is also evident in a note in the bottom right corner. It explains that the projection used follows the work of a *Mr. de la Hire*. This is Philippe de la Hire, a notable French astronomer, mathematician, and painter, A member of the French Academy of Sciences and a fellow of a circle of savants that included Giovanni Domenico Cassini, Christiaan Huygens, Gottfried Liebniz, and Rene Descartes, de la Hire was interested in celestial movement, telescopes, and cartography, From 1679 to 1682, he made important measurements of the French coastline: in 1683 he calculated the extension of the Paris meridian to the north, Most of his writings were on graphical methods, hence his mention on this map.

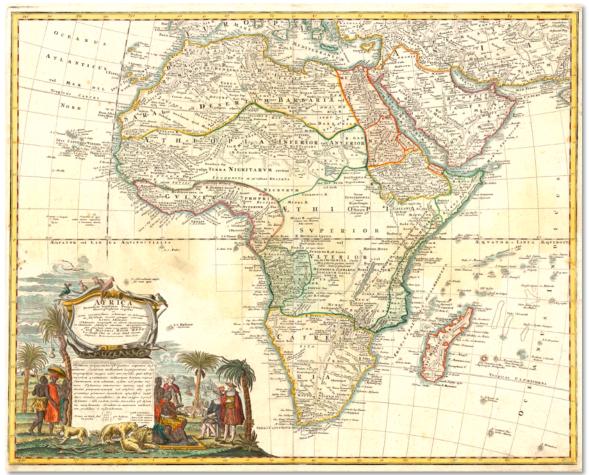
The map was first issued by Danet in 1731 and later revised by Desnos in about 1760, at which time he significantly revised the cartographic details.

In the southeast on this map are the *Etats du Manamotapa*, In the early 15th century, a prince of the Kingdom of Zimbabwe established his own seat of power called

the *Kingdom of Mutapa* to the north. The kingdom expanded quickly, fed by the region's gold reserves and trade connectivity.

The Portuguese heard of the empire, which reached its peak in 1480, when they rounded the Horn at the end of the 15th century and began trading along the coasts of southern Africa. The Portuguese traders transliterated the word for ruler, *Mwenemutapa*, to *Monomotapa*, which was then used to describe the region on maps.

In the 1560s, the Portuguese Crown entered into direct relations with Mutapa: in 1569, King Sebastian gave a coat of arms to the *Mwenemutapa*, the first grant of arms to a native southern African. However, this interaction was not characteristic of Portuguese-Mutapa relations, which were often combative as the Portuguese sought to take over the local gold reserves. These gold reserves were connected in European minds to the gold mines of King Solomon, ensuring *Monomotapa* an enduring place in the European geographic imagination.

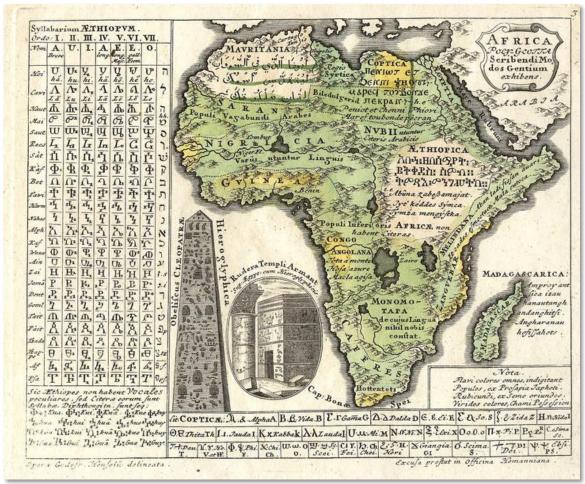


1737 map of Africa by Johann Matthias Hase

Africa Secundum legitimas Projectionis Stereographicae regulas et juxta recentissimas relationes et observationes in subsidium vocatis quoque veterum Leonis Africani Nubiensis Geographi et aliorum monumentis et eleminatis fabulosis aliorum designationibus pro praesenti statu ejus aptius exhibita. [Africa according to the most recent reports and observations], 45 x 54 cm, Scale in Italian miles, German and nautical leagues. Prime meridian through Ferro Island.

Haas' revision of J.B. Homann's 1715 map of Africa, augmented to include important cartographic developments as recorded by Guillaume Delisle and D'Anville. The map presents a fairly accurate picture without most of the fictitious lakes and rivers of previous cartography, focusing on the known coastal regions of the continent, leaving the interior blank or marked Terra Incognito. Egypt, Nubia and Abyssinia are shown as distinct entities, Lake Nyasa is shown as Lac Marawi, and the Congo is located. The Dutch settlements of Castell Batov and Stellenbosch are shown at the Cape. The most striking feature of the map is the large title cartouche that is framed by elephant tusks and a horned serpent. In the foreground is a scene of natives negotiating with European traders, surrounded by indigenous animals. In the background is a view of Table Bay and Table Mountain. Johann Matthias Haas, also known as Hasse, Haase, and Hasius, became Professor of Mathematics at Wittenberg and worked for Homann and his heirs. An ornate title consisting of a panel surrounded by elephant's tusks rests on a piece of masonry containing a long description of the scale used. On the left are four Africans, one of whom has climbed to the top of a palm tree. In front of the masonry are members of the lion family, a snake-like lizard and a tortoise. On the right an interview is being conducted between Europeans and Africans under a palm tree. The African chief is sitting on the back of another who is crouching on a mat, while others look on. Two Europeans are standing at this interview and a third is seated. In the background is a view of Table Bay and Table Mountain. Most of the usual ornamentation has disappeared from the map as well as most of the fictitious lakes and rivers. 'Castell Batov' indicates the Dutch settlement at the Cape and Stellenbosch is marked. Some tribal names, a few unnamed rivers and place names on the coast bear a fairly accurate resemblance to their actual position in the south.





Map of Africa, 1741, by Gottfried Hensel in his Europa Poly Glottia Linguarum Geneologiam exhisbens [with] Asia Poly Glottia [with] Africa Poly Glottia [with] America cum Supplementis Poly-Glottis. Includes tables identifying the characters of the Ethiopian, Hebrew, and Coptic languages, with an Oblesk showing hieroglyphics and a vignette of a Greek Temple. One of a set of four, depicting the four continents.



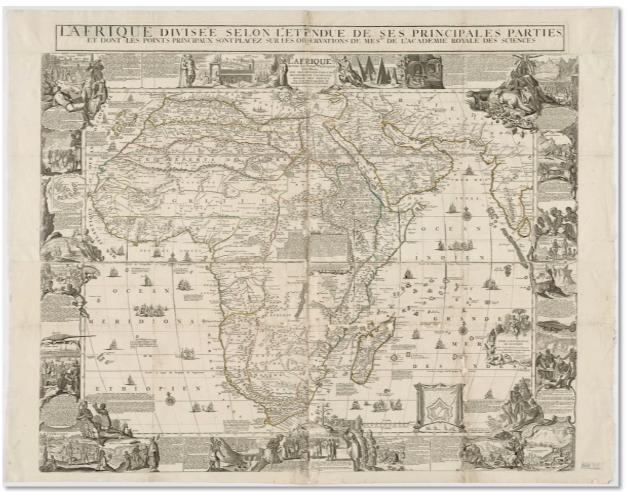
An eclectic world map, tempera on cloth, oriented with South at the top, 1770, #225.2, Museum für Islamische Kunst in Berlin



Life on the Nile.

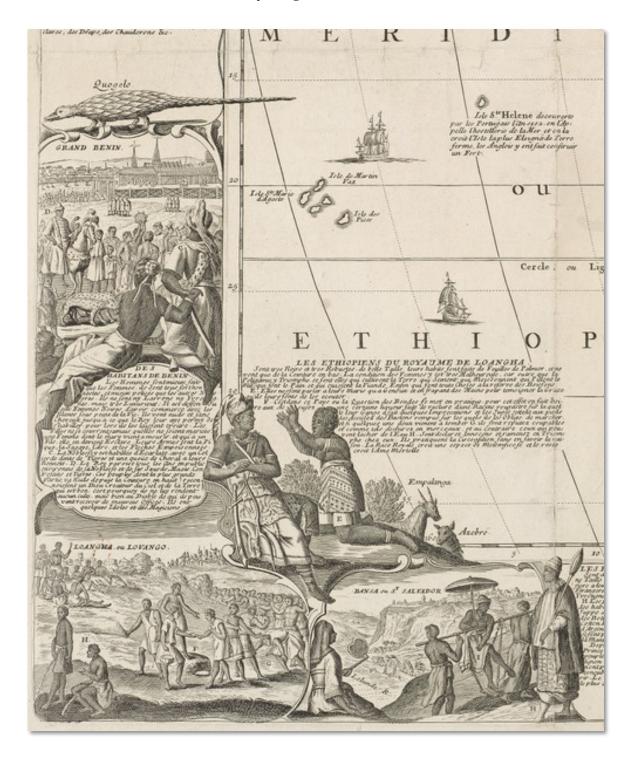
Detail of Africa from the Eclectic World Map, oriented with South at the top.

Along the Nile River everyday life combines with legend and myth: elephants roam and locals eat and farm, with the river's source ends in the fictional Mountains of the Moon, on which Alexander's legendary palace perches. In Africa, the Nile is the most prominent feature. It originates, as on so many Islamic maps, in several streams in the southerly Mountains of the Moon, on which the legendary palace of Alexander is perched, and swings far to the west to join the Mediterranean near Morocco.



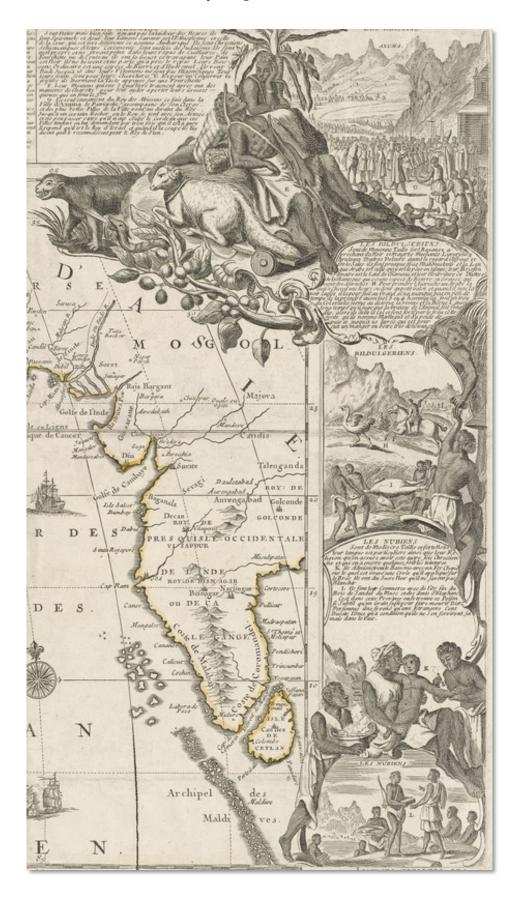
Map of Africa by Nicolas de Fer, 1770 with many vignettes showing local scenes as seen through French eyes

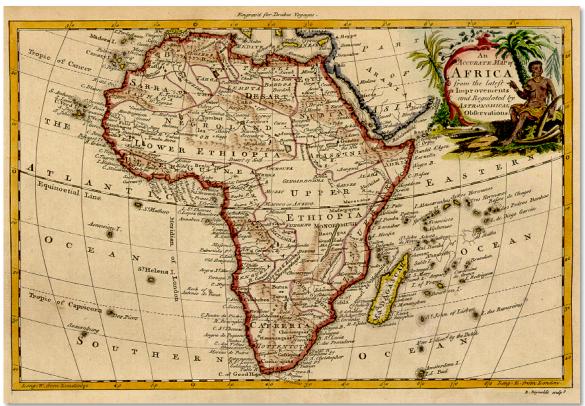












1771 Map of Africa by R. Reynolds



The first published map by Muslims using European cartographic methods, with longitude and latitude



1805 map of Africa by John Cary, illustrating the extent of knowledge about Africa's interior by external entities. Note the Mountains of Kong stretching east-west across northern Africa to join up with the legendary Mountains of the Moon to create one giant belt stretching across the entire continent of Africa.

For nearly a century, the fictitious *Mountains of Kong* were illustrated as running along the 10th parallel by cartographers attempting to fill the blank space of the continental interior while having very little data to go on. But to invent an entire mountain range, that would intimidate and prohibit future ventures of trade and exploration for years to come, would suggest that, at some point, a tremendous leap of theoretical mapping was taken. So who made it, and what prompted it? James Rennell is most commonly accused of this cartographic crime, as his 1798 *A Map showing the Progress of Discovery & Improvement, in the Geography of North Africa* is the first to feature the label "Kong mountains". The London mapmaker was an experienced and meticulous geographer, he had been lauded in 1779 for his *A Bengal Atlas*, a work instrumental in the service of British strategic interests, which makes the creation of a fiction as significant as the *Kong Mountains* all the stranger. Rennell's North Africa map was one of two drawn to accompany Mungo Park's *Travels in the Interior Districts of Africa*, in which the fearless Scottish adventurer records his solo travels through Central Africa in search of the

legendary city of *Tambuctoo*, equipped with little more than a compass, shotguns, a blue dress coat and a wide-brimmed hat. In the book, Park makes a key reference:

I gained the summit of a hill, from whence I had an extensive view of the country. Towards the south -east, appeared some very distant mountains, which I had formerly seen from an eminence near Marraboo, where the people informed me, that these mountains were situated in a large and powerful kingdom called Kong; the sovereign of which could raise a much greater army than the king of Bambarra.



Rennell considered this confirmation of his belief that the Niger began at this point in mountains and flowed to the west along the range. What is rarely mentioned, though, is that this theory was not of his invention. Since the 16th century, when Europeans first started penetrating the African mainland, there were rumors of giant mountain ranges in the region, which seemed to be confirmed by the Niger's path, and they can be found drawn, unnamed, on maps created earlier than Rennell's famous blunder - the *Mappe Monde* of Louis Denis, produced in Paris in 1764, is one such example.

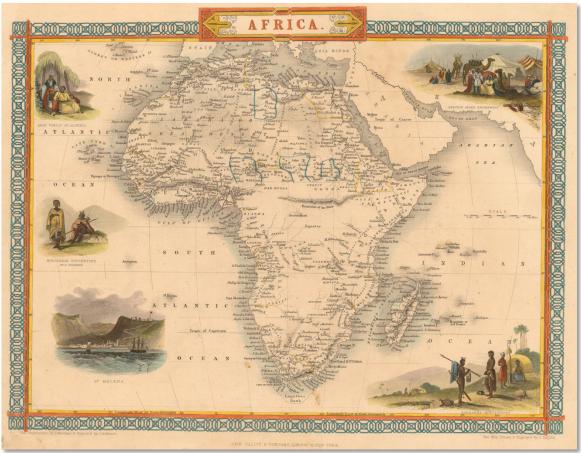
Rennell would have been working in part from these maps, and would have found Park's mention as persuasive corroboration. In the appendix to Park's book, Rennell writes:

The discoveries of this gentleman ... give a new face to the physical geography of Western Africa. They prove, by the courses of the great rivers, and from other notices, that a belt of mountains, which extends from west to east, occupies the parallels between 10 and 11 degrees of north latitude, and at least between the 2nd and 10th degrees of west longitude (from Greenwich). This belt, moreover, other authorities extend some degrees still farther to the west and south, in different branches ...



After the publication of Rennell's map the mountains rose up on a series of other works - forty, in fact, have been found by Thomas Bassett and Philip Porter to bear the *Kong* falsity. Aaron Arrowsmith's Africa Atlas (London, 1802) brought them to the mainstream; Johann Reinecke drew the snow-covered slopes of *Gebirge Kong* on his map of 1804; but most striking is John Cary's depiction on his 1805 *A New Map of Africa*, in which the *Kong* peaks are joined with the mythical *Mountains of the Moon*, to form an impossibly vast transcontinental belt. In 1880, the German publication *Meyer's Conversation Guide* informed its readers that the *Mountains of Kong* were: 'unexplored mountains, extending north of the coast of Upper Guinea over a length of 800 to 1,000 km between the seventh and ninth degrees latitude north, until longitude 1° west of Greenwich'. After featuring in Jules Verne's *Robur the Conqueror* in 1886, the *Mountains of Kong* then appeared on Rand McNally's 1890 map of Africa, and again on Trampler's *Mittelschulatlas* (Vienna, 1905). They made their final appearance in 1928, in the highly respected Bartholomew's *Oxford Advanced Atlas*, though even as late as 1995 they enjoyed a mention in *Goode's World Atlas*.



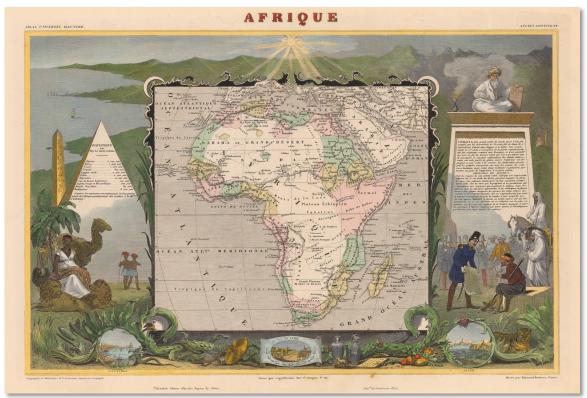


Map of Africa by John Tallis, 1851

"Africa", a steel engraved map, with five vignettes, from Tallis's *The Illustrated Atlas*, issued to coincide with the Great Exhibition of 1851 in London, Tallis' atlas was regarded as a tour-de-force of the mapmaker's art, scientific in intent but visually attractive: one of the most decorative atlases of the 19th century. The maps were drawn and engraved by John Rapkin, and the vignettes were created and engraved by various prominent artist-illustrators.

More than five-sixths of the region is still unknown to European geographers. Of the alleged *Mountains of the Moon* still nothing is known. Vast sandy wastes with occasional green and habitable spots characterize Africa. The chief streams of which the author has any definite and accredited account are the Nile, Niger, Joliba, Senegal, Gambia, Congo, Orange, Quilimane and the Haines. The Nile rises in Abyssinia and enters the Mediterranean at Rosetta. The Niger has its source in the Kong Mountains and enters the Atlantic after 1,660 miles. Charting its course had cost many British lives.

In the known parts of Africa alone 150 languages are spoken. Between the time of this and Cary's map, British explorers had crossed the Sahara, descended the Niger to its outlet in the Gulf of Guinea, and visited large areas of west and southern Africa. Not surprisingly then, the map's vignettes show an Algerian family, a Bedouin Arabs' desert encampment, two different Hottentot tribes (Bosjeman and Korranna) of southern Africa, and a view of the island of St. Helena. Important as a port of call for ships returning to Europe from the East Indies, the island declined in importance after the Suez Canal opened in 1869.



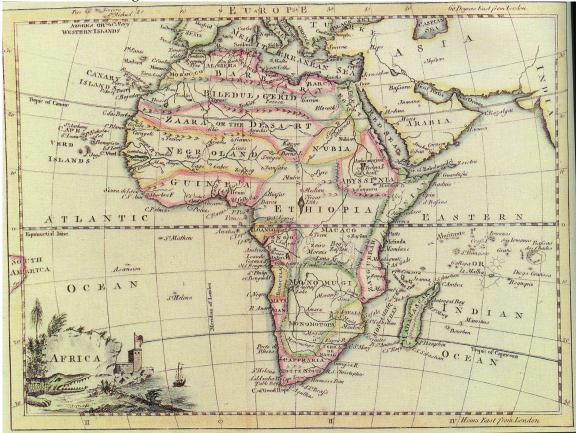
1852 map of Africa by Victor Levasseur

An interesting contrast to the preceding English map of the same period, this French version appears subordinate to its surrounding pictorial (and political) representations. The decorations, however, are intriguing and revealing. The hot African sun reigns over the continent. On the right, a French military officer is showing an armed Arab a map or other document (a surrender document?), while French soldiers and Arab horsemen look on. Seated above them on a shelf is a turbaned Muslim holding a tablet lettered CORAN (Koran)

An article by Richard A. Lobban, Jr. tries to answer this question: "If European colonialism had not altered the African continent, how would modern African political geography differ?" Comparing pre-colonial maps with later maps of the region offers insight into the origins of Africa's boundaries and quandaries. The configuration of traditional kingdoms and empires in Africa had little to do with the colonial borders that Europeans imposed during the late nineteenth century. In fact, these colonial borders, which split natural geographic boundaries and divided similar language groups, led to some of the conflicts that arose among African nations during the 20th century.

As noted above, expanded European awareness of Africa began when the Portuguese began exploring the coast during the 15th and early 16th centuries. Europeans explored only the coastlines, estuaries, and offshore archipelagos, though Arab geographers and cartographers such as Al-Idrisi and Ibn Battuta had mapped nations in the African interior, some of which predated Islam. The small coastal states, such as Ashanti, Dahomey, and Benin - where trade occurred - were better known to Europeans than the larger empires in the African interior, such as Ghana, Mali, Songhai, and Bornu. Before colonization divided the continent, Africa's interior remained largely a matter for speculation among Europeans and Americans.

Pre-colonial maps tended to picture the *Mountains of Kong* in west Africa and the exaggerated *Mountains of the Moon* as the source of the Nile. The lands south of Egypt were called "Ethiopia" by the Greeks, "Bilad as Sudan" by the Arabs, "Negritia" by Latin writers in medieval times, and "Negroland' by English speakers - all mean essentially "Land of the Blacks." Mapmakers left the vast explored region of south-central Africa blank, or titled it Terra Incognita, lands unknown, or filled it with mythical animals and kings. Many pre-18th century maps connected the Niger and Nile river systems. In a 1766 map by Thomas Jeffreys, published in London, the west African coast is called the Guinea coast, possibly a corruption of the word Ghana, or "Land of Gold," known to the Arabs and the Portuguese.



A New Geographical and Historical Grammar by Thomas Jeffreys, 1766. This polychrome map provides an early British version of the interior boundaries of Africa, including "Negroland" (translated from the Arabic Bilad as Sudan, Land of the Blacks). "Nubia" was the name applied to the modern Sudan and the Greek reference to Ethiopia [Burnt .. Face People] still lingers in central Africa. "Biledul Gerid" [Land of the Monkeys] is the reference of the north African interior.

The geographical history of Sudan, Africa's largest nation, highlights the difference between pre-colonial and colonial reckonings of the continent. Early concepts of Sudan were much broader and more general than its modem application. Arab conquerors of the Sahara desert and the adjoining *Sahel* (borders) translated the Greek word Ethiopia into *Bilad as Sudan* and applied it to everything south, east, and west of Egypt. However, the historic name for what became modem Sudan was *Nubia*.

After the American Civil War (1861-1865), Turkish authorities in Egypt hired American military mapmakers to chart the Upper Nile, especially *Nubia*. The British used details from these maps when invading the territory decades later, a territory that became the British colony of Sudan. In 1898, fresh from the massacre of 10,000 Sudanese at Kareri, the British general Kitchener sent a detachment of troops up the White Nile to the tiny hamlet of Fashoda. There they confronted a slightly smaller detachment of French troops coming from the Congo. Both forces had orders to claim the region for their respective nations. On the brink of killing each other on the broad open plain, the British saw they had more soldiers, and, then and there, Sudan became a British colony.

Except for some minor adjustments, the border between Egypt and colonial Sudan fell between the first and second cataracts of the Nile, realistically demarcating ancient distinctions in race, ethnicity, territory, and language between Egyptians and Nubians. The British had difficulty conquering Darfur, an autonomous sultanate in the western part of Sudan populated by the Furawi, an ancient group of the Sahara. British military forces finally defeated the sultan in 1916, thereby completing the Anglo-Egyptian condominium rule. Yet the Furawi never fully accepted this forced marriage with the powers in Khartoum, Sudan's capital, and Darfur continues to simmer under military rule even in modem Sudan.

In the east the British colonists faced the semi-nomadic Beja, Beni Amer, and Hadendowa peoples, who had already shown their strong opposition to colonialism under the leadership of Mahdist general Osman Digna. The British applied force to bring them into the Sudan colony. Along the eastern border adjacent to Ethiopia, local inhabitants long were subject to the predations of slave raiders (heavily based in Khartoum during the 19th century) and were suspicious of any government based in the capital.

Colonial rule produced some of its most lasting complications in the south. The colonial border between southern Sudan and its neighbors (modem-day Ethiopia, Kenya, Uganda, the Central African Republic, and the Democratic Republic of the Congo) was based on the "height of land" principle, that is, whether rainfall flowed to the Mediterranean (via the Nile) or the Atlantic (via the Congo). Yet southern Sudanese peoples such as the Nuer, Beir, Karamajong, Luo, Bari, Azande, and Bongo were concerned less with the flow of raindrops than with the fact that their linguistic cousins and kinsmen lived across what were to them meaningless borders dividing Ethiopia and the French, English, and Belgian colonies.

19th century colonial boundaries divided peoples and forced others into an artificial nation. Southern Sudanese peoples such as the Azande, Bari, Luo, and Nuer overlapped across the two watersheds and thus became separated from their kinsmen. Colonial borders also confined northern Afro-Arab peoples with the Dinka, Shilluk, and Nuba farther south, thus putting the descendants of northern slave raiders into the same country with borderland southerners whom they once attacked. Needless to say, this marriage was hardly heaven-made. Civil unrest erupted in 1955, ceased temporarily in 1972, reignited again in 1983, and has raged ever since as Africa's most protracted internal war.

Certainly, conflicts existed among African peoples long before colonialism, but the uninvited colonial rulers certainly made little positive contribution to these hostilities. The British practice was to build up traditional emirs, chiefs, kings, and the like, intensifying local rivalries and using soldiers from one ethnic group to fight against their traditional enemies. This policy of "divide-and-rule," which encouraged traditional divisions in Africa, set the stage for four decades of civil strife after the colonizers departed in 1956.

The Cartographic Carving Knife: West Africans practiced slavery from medieval times, long before Europeans arrived. Peoples who did not fall under the protection of the large interior states were slavery's primary victims. When the slave trade to the New World emerged, the institution reached new levels of horror, and African coastal states began to compete with those in the interior, becoming the source both of slaves and of slave traders.

As the slave trade wound down after the 1860s, it was replaced by the more legitimate trade of African commodities. Profits from this commerce grew, and European powers and their local agents competed for position on the continent. Although they had fought wars amongst themselves over access to slaves, Europeans sought peaceful solutions to their conflicts over Africa's land and resources. Representatives of the major European powers convened in Berlin during the winter of 1884-1885 to settle their claims to Africa. No Africans were invited, and the United States had only observer status.

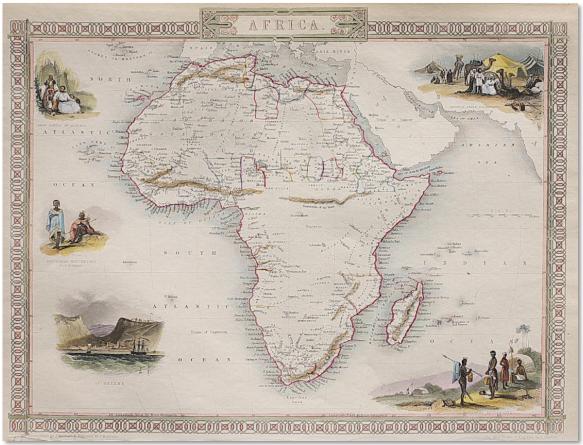
With a cartographic carving knife in hand, the Berlin conferees demarcated Africa into colonial dependencies, excepting only Christian Ethiopia, the resistant Mahdi of Sudan, and the depots for repatriated slaves in Liberia, Sierra Leone, and Gabon. Following the conference, Europeans endeavored to demonstrate "effective control" over the lands they claimed, typically through brutal colonial wars of "native pacification." The Bibliographisches Institut in Leipzg produced a map in the late 1880s that shows the multicolored European claims on Africa. The new borders reflected little about Africa's cultural and linguistic groups; the European powers used them to secure ports, forts, and railways - critical links in the transport of Africa's mineral and agricultural wealth to the coast for export to Europe.

The tiny nation of Guinea-Bissau in West Africa illustrates the emergence and application of colonial boundaries. Lying just south of Senegal on the Atlantic coast, the former Portuguese Guinea represents a surviving fragment of the once huge Portuguese presence in coastal Africa.

From the 16th century on, the Portuguese competed with other Europeans - the Dutch, English, French - and, later, the Americans, and generally fell to the superior navies and fire-power of their opponents. By the time the colonial partition of Berlin unfolded, the Portuguese had nearly lost their effective area of control in the region.

The residual fragment of Portuguese Guinea contained three main groups - Senegambians, Fulas, and Mandinkas. The "height-of-land" principle determined the country's borders, even though traditional allegiances followed kinship and language affiliations. Cultural groups in Portuguese Guinea overlapped into the neighboring countries of Senegal, Gambia, and Guinea-Conakry.

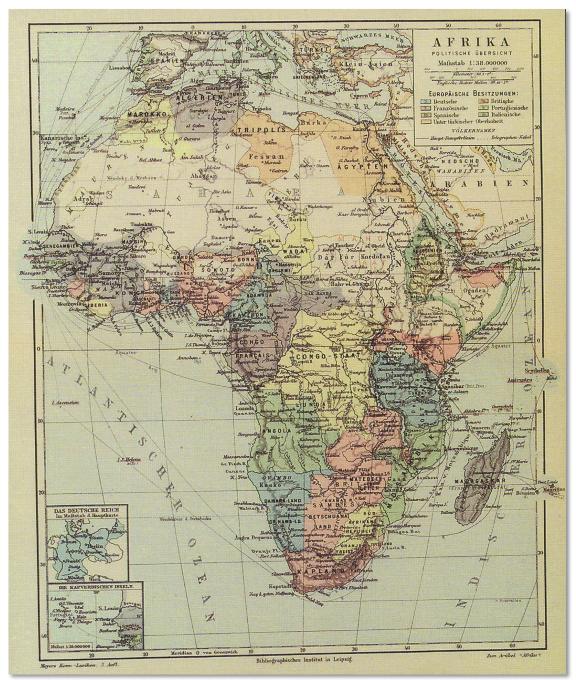
Colonial rule in Portuguese Guinea ranged from concern for the health and educational needs of the indigenas to slavery, brutal repression, and forced labor. The country's small size, as well as the linguistic isolation of the Portuguese, shielded it from international scrutiny. Nevertheless, shared harsh experiences created a sense of nationhood among those who suffered under Portuguese rule. Guinea-Bissau won independence from the Portuguese in 1974, and the intense reverberation of the struggle also contributed to the overthrow of the fascist government of Portugal.



Africa, 1851, John Tallis

The map has five vignettes entitled: Arab Family of Algeria, Bosjesman Hottentots Wild Bushmen, st. Helena, Bedouin Arabs Encampment, and xcnenoe Hottentots. The map shows clearly how well defined the coastline was and how little of the continent's interior was known at this time.

As Frank Jacobs states in his article "How Njoya the Great Put His African Kingdom on the Map", cartography doesn't merely reflect the world, it shapes it, too. Maps can be used to express possession, justify aggression, and codify conquest. Take the Berlin Conference of 1884–85, for example, where Europe came together to carve up Africa into spheres of influence. Maps were used as the first, blunt instruments of colonialism. Those spheres soon hardened into lines, and by the start of World War I, nearly all of Africa had been turned into European colonies. Most of those lines survive today as the borders of Africa's independent states. Cartography served the colonizers well in Africa.



The map produced by the Bibliographisches Institut in Leipztg (1884-1885) exemplifies the cartography of Africa following the Berlin Congress.

While the Mandingo people occupy a large part of West Africa,

Europeans would soon carve up their territory.

One of the major post-colonial conflicts in modern West Africa falls along the ecological fracture zones between the old savanna kingdoms and the villages and chiefdoms to their south, stretching down to the coast, where European surveyors began their partition of the continent. The departure of the colonial administrations reignited these old hostilities, as seen in the border wars between Senegal and Mauretania and the protracted civil strife between Muslims, Christians, and Animists in Chad.

The common colonial strategy of "divide and rule" fostered divisions that assisted in colonial administration but engendered tension and conflict (in some cases, deliberately). Artificial colonial constructs created borders that either separated homogeneous cultural-linguistic groups or mechanically merged natural resources.

Another source of modern regional conflict results from political rivalries within, or against, one-party states and the despotic military governments of modern post-colonial Africa - for instance, civil war in the Democratic Republic of the Congo and genocidal conflicts in Rwanda and Burundi. Such battles incorporate a process of class formation, which was suspended during the colonial epoch but reborn in the power vacuum left by the departure of colonial forces.

Today, many African nations are organized as pluralistic democracies with a peaceful transfer of power upon elections. On the other hand, there are also examples of corrupted and self-serving elites or military despots who rule by force and allow civil war to prevail rather than lose power by democratic election. As the colonial epoch fades further into the past, African political leaders must be credited or blamed for their own successes and failures.

The problems of modern Africa are not solely the result of colonial divisions. Conflict certainly existed in Africa before and after this relatively brief (1885-1960) period. However, the nature of some of the modern conflicts certainly has roots in colonial boundaries. The Organization of African Unity, the premier pan-African political body, has pledged to adhere to inherited colonial boundaries, while it recognizes the conflicts caused and barely constrained by these borders. Some boundaries already have been renegotiated or reset by referendum and war.

Is Africa now in the process of regaining the configuration it would have had if Europeans had not carved it up in the first place? Will some new major savanna state emerge in a period of Islamic revival? Will the great plurality of ethnicities along the coast finally reveal that only federalism and democracy present any hope toward peace and democracy? Will the coastal states finally federate to oppose the new interior polity? African borders have shifted in the past. It is likely they will do so in the future.

Summary

Africa forms a half-way house in geography, Egypt and its northern coasts being known in remote antiquity, its southernmost tip not reached by Europeans until 1487 by Bartholomew Diaz, and its center practically unknown until the late 19th century. Compounding the issue is the lack of indigenous cartographic tradition throughout Africa.

In the early editions of Ptolemy, part of Africa is shown in the map of the world, and separate maps are devoted to its northern littoral and Egypt. There are maps of Africa in all editions of Ptolemy (see monograph #119), but its southernmost parts are not shown until the edition of 1508, and the first edition of Ptolemy to have a separate map for the southern area showing the Cape is the 1513 Strasburg edition. In the later editions of Ptolemy, maps of the whole of Africa appear among the tabula moderna.

The Cape, however, was depicted before that date, for example, on the 1320 map called (in translation) *The Countries in the Southwestern Sea* (#227), the 1402 *Kandingo*, the 1459 Fra Mauro and the 1489 Martellus world maps (#236, #249 and #256), Behaim's globe (1492, #258), the *Laon Globe* (1493, #259) and the *Lennox Globe* of 1508 (#314). This is a remarkable achievement for the time, cartographical representation usually lagging far behind geographical discovery. Behaim, who constructed his globe in his native city of

Nurnberg, had special facilities for his task, being employed in the Portuguese service. Even before this date a break with the Ptolemaic tradition of a landlocked Indian Ocean was shown in the works of Macrobius (#201) and Sacrobosco (#261) and in the *portolan* charts, for example, of Marino Sanudo 1306, the Laurentian *portolan* of 1351 (#233), an anonymous *portolan* of 1417, and the Catalan map of 1450 (#246). All these show a theoretical connection between the South Atlantic and the Indian Ocean. The outline of Africa first began to approach its real shape in the manuscript maps of the first years of the 16th century; for example, in the world *portolan* of Juan de la Cosa (#305) and a finer map by Caneiro in 1502 (#307). The coastal nomenclature in Caneiro's map is extensive, 360 names being given. The *padraos* set up by the Portuguese to mark their claim to the country are shown round the coast, the interior is practically empty, though a loaded elephant led by an armed Moor is placed in the interior of South Africa.

According to the map historian R.V. Toolely, of printed maps, the earliest so far known to exist showing the whole of Africa is a woodcut map on a newsletter *Den Rechtenweg*, published 1505. It was followed in 1506 by Contarini's world map (#308), by Waldseemüller in 1507 (#310), and in 1508 by George Reisch in his world map to accompany the Ptolemy atlas of that date (#313). Another early printed map of Africa is that which occupies practically the whole of the title-page of a work entitled *Itinerarlum Portugalesium*, published in Milan in 1508. A year later, in 1509, a small map of Africa showing the Cape appeared in a work published in Strassburg, the *Glohus Mundi*. Africa is also shown in the world map in Reisch's *Margarita Philosiphica* of 1513, in the *Carta Marina* of Waldseemüller of 1516 (#320), and in the world map of Grynseus of 1532 (#353).

Throughout the period between 1500 and 1900, the maps continued to display detailed and more accurate coastal features and cultural data, but the interior regions were either filled with animals, fantastic creatures, or left blank due to insufficient information from first-hand knowledge. This period also represented the extensive European colonization of Africa, beginning in the coastal areas throughout the 18th and 19th centuries, leading to acquisition of large portions of the interior for precious resources by the beginning of the 20th century. This extensive colonization effort resulted in many more accurate maps, especially filling in details of the African interior.

In the late 19th century Europeans raced to claim Africa as their own, from Cairo to the Cape. In 1880 the portion of the continent under European control amounted to just 10%. Two decades later, it was 90%, eventually climbing to more than 96% by 1914. This profound transformation is known as the *Scramble for Africa*. We know it, to quote Joseph Conrad, as "the vilest scramble for loot that ever disfigured the history of human conscience."

The *Scramble* and its redefinition of the African landscape were by no means a unitary process. As of the 1880s, Europeans were racing not so much to conquer or take land by force – most of that came later – but rather to forge paper deeds by which whites claimed to buy governing rights from indigenous rulers. Our most careful historians have not forgotten that fact. But what they have overlooked is how the forging of treaties overwhelmingly depended on a controversial proposition. This proposition was that new private companies and individuals, as opposed to pre-existing European states, could and should govern massive territories and millions of people.

Over a third of African territory -- an area larger than the continental United States -- theoretically lay in the hands of openly for-profit regimes at one interval or another. These regimes included people like the notorious King Leopold II, of course,

but also less-known ventures such as the German and British East Africa Companies. How they all came together with broad European approval is not immediately apparent; indeed, no historian has ever been able to explain it. The truth is, though, that the process was a major problem not just for Africa, but for the territorial and legal order of the international system. This history goes beyond our traditional narrative of imperial rivalries and encourages us to rethink what was happening at the time.

The act of mapping formed a network of domination and control over both the Africans who were being mapped, and in relation to the other powers likewise seeking to know and own the world. Maps and modes of navigation played n determining role in the relative stature and wealth of European nations from the 15th to the 19th centuries, a role that further demonstrates their power to define and order.

A general map of Africa from the Renaissance provides an example of the manner in which the Europeans tried to document the physical space of the African continent, and demonstrates the impossibility of truly representing the cultural complexities that exist beyond the map. This initial representation of African space on the part of the European cultures served primarily to appropriate the space of an Other and demarcate the boundaries of their new possessions.

In addition to the artistic representations of control over the- other, this period saw a transformation of notions of domination and order from theoretical forms expressed through mapping to the literal European occupation and rule throughout the continent. Africa had been an imagined space and desired territory of the Europeans since they first learned of it, though their initial conquest was impeded for various reasons including the military technology of the African civilization, geographic factors such as the climate and disease, and internal conflicts between the diverse ethnocultural groups reins, empires, and civilizations (such as Yoruba, Kongo, Akan, and Mande) that dominated the first moments of two centuries (16th and 17th). But by the mid-19th century, African space was nearly completely appropriated by foreign powers, ushering in a period of colonial subjugation and exploitation.

The initial European representation of African space served primarily to imagine the exotic continent as they saw fit, appropriate the space of an "other," and to demarcate the boundaries of the Europeans' new possessions. The maps shown here contain detailed images that serve to remind how the navigation of outsiders through the flowing artistic currents of Africa resulted in an influence of one culture on another that continues to this day.

As Oscar Norwich concludes, 'So Geographers in Afric-rnaps, with savage-pictures fill their gaps,' is part of a well-known quatrain from Jonathan Swift's On poetry which is often quoted by writers on maps of Africa, but it is far from apposite. Early map makers used such sources as were available to them, to match the perceived interests of their readers, thereby incorporating more contemporary knowledge than Swift implies. Thereafter, the Age of Reason did not sweep away Swift's rampaging elephants, as is sometimes suggested. Its impact was not so immediate or substantial. What followed represented less of a transformation and more of a trend through the eighteenth and into the 19th century, as African cartography evolved in response to new data of variable quality and as the interests of readers changed. The texts and the maps of 19th century exploration in Africa can only be understood in terms of their several purposes, including commercial exploitation, missionary zeal and scientific enquiry.

With the failure of the *Berlin West Africa Conference* of 1884-85 to ensure the continuation of the traditional system of free-trading by European powers on the coasts

of the continent, and the replacement of indirect imperial influence with direct colonial rule, the purposes of map making changed. This is the most significant turning point in the history of European mapmaking in Africa. The previous five centuries of indirect imperial influence were relatively consistent and uniform in a functional sense, by comparison with the new requirement to govern Africa directly. The colonial administrator made maps to enable him to function and they were substantially different to those that previously existed. The maps compiled during the brief but influential period of colonial rule amounted to the nearest thing to a transformation in Africa's cartographic past.

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No. 82 "A Sequence of Maps of Africa".

In 1526 Affonso, Christianized king of the Kongo, was crying in a wilderness of exploitation. Eighty-five years earlier the Portuguese had brought the Gospel to western Africa and taken home their first sack of gold and their first batch of people. By the mid-19th century, European, American, and Arab slavers supplied by African go-betweenshad robbed the continent of perhaps as many as 25 million human beings.

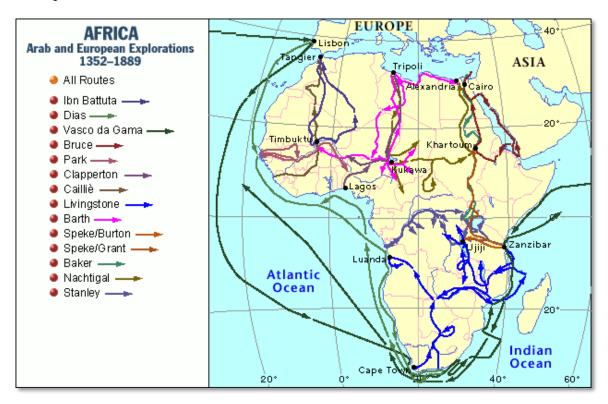
Colonial inroads came slowly, with Portugal scattering 16th century beachheads along the east and west coasts that other powers would ultimately overrun, leaving Lisbon with Angola, Mozambique, and Guinea. The British, French, and Dutch were all trading on the Guinea coast by 1600. In 1652 the Dutch East India Company, vying for control of the Indies trade, established a resupply station on the Cape of Good Hope. Cape Town mushroomed in spite of company policy restricting the immigration of Dutch farmers, or Boers. Britain won control of the cape in the early 1800s and in 1833 abolished slavery. The Boers trekked inland and met the Zulu, whom they defeated at Blood River in 1838.

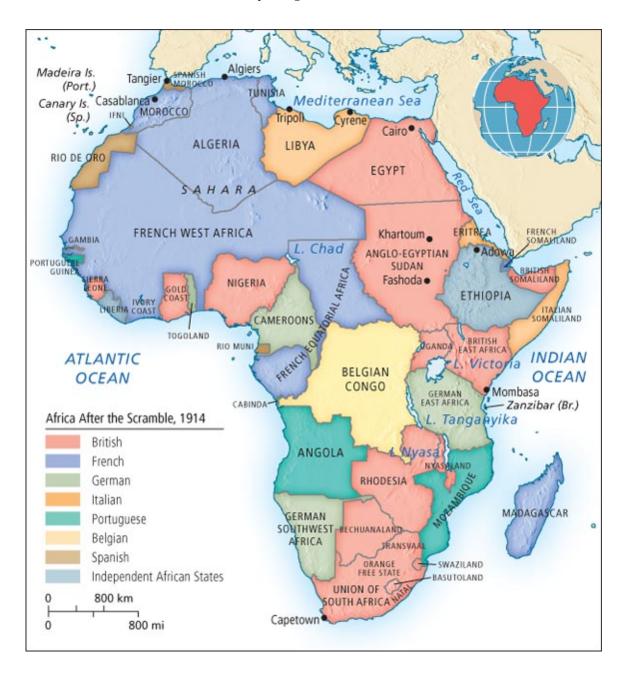
While the lay of Africa's southern lands was thus learned, the interior as late as 1790 was "still but a wide extended blank, on which the Geographer ... has traced, with a hesitating hand, a few names of unexplored rivers and of uncertain nations." James Bruce had explored the Blue Nile, but it remained for others to penetrate the rain forests and enthrall Europe with vivid tales. Mungo Park attacked the mystery of the Niger. David Livingstone, dean of the pathfinders, mapped the Zambezi and crossed the continent. John Speke and Richard Burton sought the source of the Nile, for decades a topographical combination lock.

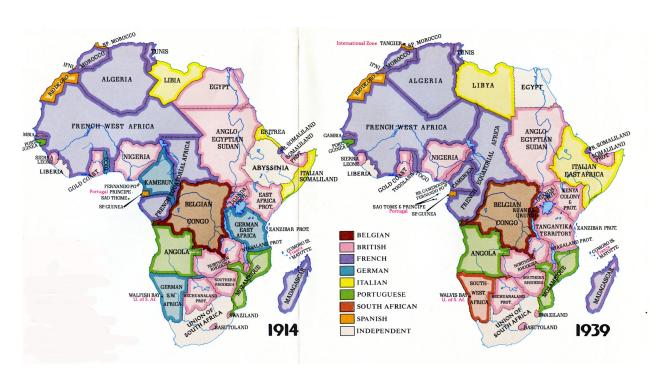
Colonization followed hot on their heels. History records Henry Morton Stanley not only as the "finder" of Livingstone but also as the land hunter who helped win for

King Leopold II of Belgium the mineral-rich Congo Free State. The countrymen of adventurers like Rene Caillie dreamed of "Africa French from Algeria to Congo." Britons cherished a "Cape to Cairo" corridor to complement their holdings in Sierra Leone, the Gold Coast, and Nigeria. In Togo, Kamerun, South-West Africa, and East Africa, Germany wedged footholds between other colonial claims. "My map of Africa lies in Europe," declared Otto von Bismarck, the Iron Chancellor.

In 1884 he convened the Berlin Conference, in which the competing powers gerrymandered Africa with their own political boundaries. In 1891 a Nigerian editor mourned, "A forcible possession of our land has taken the place of a forcible possession of our persons."







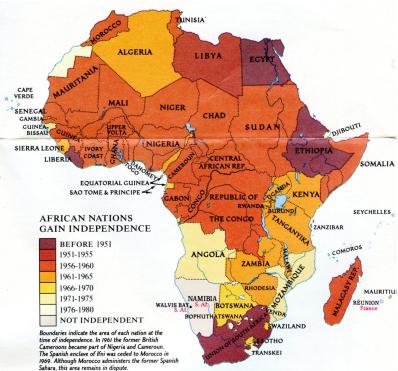
THE ROAD TO INDEPENDENCE

REMORS OF NATIONALISM rocked the colonials around the turn of the 20th century. Italy's dream of Ethiopian conquest ended at the battle of Adowa. In German East Africa as many as 120,000 Africans died in the futile Maji-Maji rebellion. Britain struggled to suppress the Ashanti in the Gold Coast and took 17 years to crush Sudan's Mahdists.

A different revolt that would have greater long-range impact raged in southern Africa's Anglo-Boer war. Cecil Rhodes had thrust a pioneer column north into Bechuanaland (today's Botswana) and into the Matabele kingdom that would long bear Rhodes's name. His fellow British also held a protectorate in East Africa and coveted huge lodes of diamonds and gold in the Boer republics. The Boers lost the battle but won the war, in a sense, when the black vote was precluded in Boer strongholds by the constitution of the Union of South Africa in 1910.

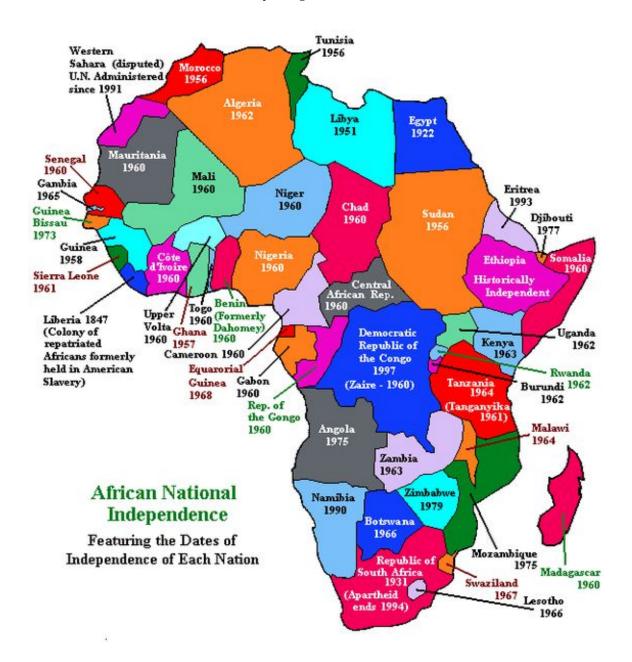
German sympathy for the Boers enraged the British, foreshadowing World War I. With Germany's defeat came the partitioning of its colonies. Britain and France split Cameroun and Togo. Tanganyika was mandated to Britain, Ruanda-Urundi to Belgium, and South-West Africa to South Africa. Resentment smoldered among thousands of Africans co-opted by the warring powers. Black anger crystallized in 1935 when Italy again invaded Ethiopia, a prelude to the Second World War.

In its aftermath, a "wind of change" swept south, beginning with Libya's independence in 1951.



Britain reeled under the Mau Mau revolt in Kenya and withdrew its troops from the Suez Canal, which Egypt's President Gamal Abdel Nasser nationalized in 1956. The same year saw a Sudanese republic born. The Gold Coast became independent Ghana in 1957, and black rule spread quickly through British Africa—save for maverick Rhodesia, where a defiant white minority government declared unilateral independence in 1965. Belgium's withdrawal from the Congo touched off a bloody

upheaval. A frustrating eightyear war in Algeria spelled the end of French rule in Africa. In 1975, beset by guerrilla warfare in Mozambique, Angola, and Guinea, Portugal withdrew. Spain's last major enclave, Spanish Sahara, was absorbed by Morocco. As Africa began to regain control of its destiny, the political vise tightened on Zimbabwe-Rhodesia and Namibia (South-West Africa), while South Africa stared unblinking at the prospect of a continent united against it.



For those who think Africa is One Country.

