

SHAPE OF THE WORLD

*Have you ever been surprised that accurate maps precede planes and satellites?
Accurate world maps came about earlier than many think, yet they were a long, long way coming.*

150 AD

Claudius Ptolemy, Alexandria, Egypt

The first to use positions of latitude and longitude based on astronomical observations. Ptolemy's book 'Geographica' listed the positions of 6,345 sites and probably also included maps.

Lost for centuries, but rediscovered and reconstructed from the list of coordinates in the 14th Century, we don't know the exact extent of the original maps.



1050

Unknown monk, Saint-Sever Monastery, France

A classic Medieval 'T-O map', this depicts Asia (right half), Europe (upper left) and Africa (lower left). Its main objective, however, was not to explain the world but the Bible. More prominently than continents, it features Jerusalem and Calvary (center), the Biblical lands, the Red Sea, Sinai, the Garden of Eden and Paradise.

Originally oriented with east up, Eden was at top center, closest to the Heavens.



1154

Muhammed al-Idrisi, Palermo, Italy

At a time when most world maps were based on the Bible, al-Idrisi's took its information from travellers' and merchants' accounts. Most distances were based on the highly inaccurate method of converting travel time. Still, compared to its contemporaries the map resembled a recognisable and detailed Eurasia and Northern Africa.



1375

Abraham Cresques, Majorca, Spain

This early chart was based on ships' logs, and is very accurate where distances and directions were well known. For areas outside the Mediterranean, the Black Sea and parts of the North Atlantic, however, it relies on hearsay and guesswork like earlier maps.



1489

Henricus Martellus, Florence, Italy

A milestone in depicting the Old World, Martellus' map used sources like Marco Polo's travels in Asia and Bartolomeo Dias' first circumnavigation of Africa.

Sailors had long known to calculate latitude by the sun (this map accurately depicts the north-south extent of Africa), but not yet longitude, leading to distorted east-west distances.



1529

Diego Ribeiro, Seville, Spain

The Spanish Crown's official and secret 'master map' was updated by Spanish explorers under penalty of death. Based on an enormous number of ships' logs, it covered most of the world's coasts. Charts at the time, however, were based on port lists and dead reckoning from a few fixed positions, ignoring curvature and magnetic declination, and were not well suited for filing into a larger map.

Areas explored by non-Spanish, e.g. Northern Europe and North America, are depicted fancifully.



1599

Edward Wright, London, England

Wright perfected the 1569 Mercator projection, i.e. an actual grid for plotting positions, taking the Earth's curvature into consideration. Although the raw data - ships' logs - were still approximate, the data could now be presented more consistently and realistically.

Wright's map included new discoveries such as Novaya Zemlya (first known to Europeans in 1553), Spitzbergen (1596), the Davis Strait (1585), Japan (1542) and the Amazon River (1542).



1778

Jacques Nicholas Bellin, Paris

With the invention of the marine chronometer in the 1760s, ships were able to correctly determine longitude, perfecting the east-west rendition of coasts.

After the Cassini family successfully calculated France's shape and size by triangulation in the 1740s, several European states set up surveying bodies which in time provided accurate maps of whole countries.

Although some coasts were still unexplored or needed larger data sets for correction, this was truly a modern world map.



1832

Adolf Stieler, Gotha, Germany

The 'Stieler' was the leading European atlas since the early 1800s. In this second edition of the world map, only unexplored Polar regions are missing or depicted inaccurately, while the rest of the world's coasts are reliably positioned. By now, ships' instruments were so accurate that a single journey could provide good maps of new lands.

The continents' interiors, however, are a completely different story...

