

# BY THE OLD HYDROGRAPHER

## â€™As it ÂWasâ€™™

Gerhard Mercator, Flemish geographer of German extraction, during his long life (1512-1594) became the greatest cartographer of the Renaissance. The projection upon which he based his World Map of 1569 is still used for sea charts today.

Mercator's father Herbert Kremer was a shoemaker in Gangelt, to the east of the River Maas in Germany. A massive harvest failure of 1511 meant they were so short of food that the family fled across the river into Belgium and across the flatlands to Rupelmonde on the Schelde River. Here they sought shelter with Herbert's brother Gilbert, a graduate of Louvain University and currently priest of the hospice in Rupelmonde. Here, on 5th March 1512, Gerard Kremer was born. As a young man he named himself 'Mercator' (Merchant). His father died when the boy was quite young and his uncle Gilbert took over his education, sending him to a boarding school at 's-Hertogenbosch in the Netherlands to prepare him for the University of Louvain, which he entered in 1530.

The Rector of Louvain, Pieter de Corte, was managing to steer a mean course between the new Christian humanism being promoted by Martin Luther and the determination of the Holy Roman Empire to maintain the Catholic dogma. This violent schism was to inhibit Mercator for the first forty years of his life. Having received a degree in philosophy, Mercator went to Antwerp, where he was impressed by the thriving map-printing trade using copper or woodcut engravings. This set him thinking more as a geographer than as a philosopher, so he returned to the university to study mathematics.

Once back at university he fell in with Gemma Frisius, about four years his senior, who was about to undertake the construction of a massive terrestrial globe for King Charles V of Spain, Emperor of the Holy Roman Empire. In constructing the globe Frisius was joined by three other persons of note: Maximilianus Transylvanus, a widely travelled imperial diplomat, Jasper van der Heyden, skilled engraver and goldsmith, and Mercator. Having collected a great amount of data from world travellers, the first practical task was to engrave and print the twelve gores to be pasted onto the 370mm-diameter globe. Here Mercator excelled himself in the number of names he was able legibly to engrave onto the copper plates to be used for printing the gores.

In 1536, the year the globe was completed, Mercator married Barbara Schelleken, who had cast off her family's Catholic beliefs for the Lutheran creed. By putting his name to the great globe, the self-styled 'Mercator of Rupelmonde' had taken his first positive steps as a cartographer, a trade in which he became the supreme master. He now became a mapmaker, and between 1536 and 1543 produced two wall-maps, one of the Holy Land (six sheets) and one of Flanders (nine sheets), a World Map, and both a celestial and a terrestrial globe. He then published a manual on 'italic' writing, the beautiful cursive that he invented and used for all his subsequent work and which is still used today by classical cartographers and many others.

Emperor Charles of the Holy Roman Empire had a sister, Queen Maria of Hungary, whom he had appointed as his Regent in the Low Countries. In the desperately cold winter of 1543-44 she decided to purge her regency of heresy, of which many young persons associated with the University of Louvain were thought to be guilty. Her henchmen rounded up about forty such people, all of whom were incarcerated in the cold and gloomy castle at Rupelmonde, many to be executed there.

Mercator's wife Barbara never ceased in her search for those prepared to appeal for his release, and after seven months of solitary confinement he was released and returned to his family in Louvain. Now, of course, he had to tread carefully; for any work he might publish would be searched by Queen Maria's advisers for any trace of heresy. This fear greatly hampered his work, so that by 1552 he had not published a map for twelve years and began to think of moving his business and family elsewhere.

Duisberg on the Rhine in Germany, in the Duchy of Julich-Cleves, was ruled by Duke Wilhelm V. He had a reputation as a reformer, permitted the spread of Lutherism and promoted the education of his subjects. Thus it seemed to Mercator that

Duisberg would provide the tranquillity he required for his work. So at the age of forty, with several wagons loaded with his family, his tools, copper plates etc., he set out. It was a decision he was never to regret. He bought a large property in Duisberg and adapted it for his family and work. In 1554 he made the long journey by boat upriver to visit the great Spring Book Fair in Frankfurt, where he happily mingled with printers, book-dealers and publishers. That year he published a wall-map of Europe (fifteen sheets), followed ten years later with a wall-map of the British Isles (eight sheets).

In 1569 he published his universal world history, *Chronologia*, which proved a best seller at the Frankfurt Book Fair fifteen years after his first visit to this great emporium. In the same year he published his unique world map on his new projection, on which rhumb lines cross each meridian at a constant angle. Although he had never been to sea, Mercator had realised that his projection would enormously simplify ocean navigation. However, it took conservative-minded seamen about one hundred years to realise the benefits that could be achieved.

Over a century before Mercator's birth, a copy of Ptolemy's 'Geography', together with numerous lists of geographical coordinates of places across the then known world, had come to light in Constantinople, where it had lain unread for hundreds of years. Translated in Italy from Greek into Latin, this unique work became gradually available to cartographers across Europe. Mercator's admiration for Ptolemy was such that he now spent ten or more years reproducing the maps which Ptolemy had published in Alexandria, one of which was used to illustrate [Oswald Dreyer-Eimbcke's contribution to 'As it Was' in the September 2006 issue of Hydro International](#). By 1578 Mercator had published 28 of his Ptolemy maps, dedicating them to the current Duke of Julich-Cleves, where he had always been treated so generously.

Whilst continuing to publish European maps, Mercator now turned his attention to what he termed the 'New Geography': the collection of cartographic data for compilation of an 'Atlas of Maps'. His sons and grandsons joined him in working towards this goal, even when he became too enfeebled to make a practical contribution. On his death at the age of 82 in 1594 the material for the atlas was all but complete, and within four months the eldest son Rumold and his family helpers had the first volume of Mercator's famous Atlas ready for publication.

#### Further Reading:

- Cauwenberghe, Carlos van: 'Gerardus Mercator Rupelmundanus, Cartographer and Renaissance Man'; The Hydrographic Journal, No.116 April 2005.
- Crane, Nicholas: 'Mercator, The Man who Mapped the Planet'; Weidenfield & Nicholson, London, 2002.