The Mercator Instruments for Murad III of 1579

Jan De Graeve, Belgium

In 1991 Jeremy Collins, director of the scientific instrument department at Christies sold 2 magnificent globes prepared for Murad III in 1579, for 1 000 000 £ sterling, and in 1997, he sold the armillarsphere for 771 500 £. They were the most expensive scientific instruments ever sold; Today fortunately, they remain united, with the same private collector.



In 2012 we have celebrated the 500th anniversary of Gerard Mercator Fig conference in Kuala lumpur June 2014

born in 1512 and I was fortunate to present a study of his scientific books of his vast library. An exhibition was held in Sint Niklaas, between Antwerp and Ghent near the place where he was born in Rupelmonde

on March 5^{th.} I studied his life and work and this is probably, why I stand here to-day.

A brief introduction



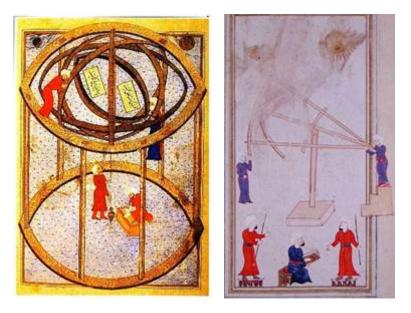
The Mercator's Instruments for Murad III of 1579 (1569), (7399) Jan de Graeve (Belgium)

Murad III (1546-1595) Ottoman Sultan of Turkey from 1574 to 1595, died in Istanbul on January 15/16 1595, after many years of war with Persia, but he expended the empire to the Caspian sea, to Azerbaijan and in the west he got in conflict with the Austrian Empire.



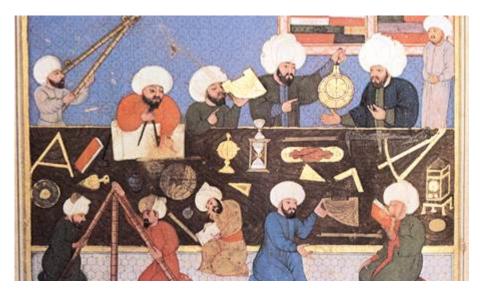
His grandfather was Suliman the Magnificent; his father is called Selim II and his mother Nur Banu Sultan, she was born in Venice, but captured at sea when she was 12, and she became a favorite of Selim II. In 1574 Murad III became the sultan succeeding to his father. Shortly after he decided to construct an observatory in

Istanbul, the works were completed in 1577.



In 1579 2 years later the grand vizier Sokahlin Mehmed Pascha was assassinated .The mufti, who had great influence on Murad III had issued a fatwa, to destroy the observatory and all its instruments, after the comet of 1578, was to predict the destruction of the empires which construct observatories. A miniature remains of the instruments in the observatory; we recognize an astrolabe, a quadrant a quarter circle and a large European globe.

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Salamon Schweygger had had visited the observatory and reported on a pair of globes in 1578. These were not the first scientific instruments in the Ottoman empire as in 1540 already the French ambassador Rincon had brought for the grand Visir Mufti Pascha :"*un mappamondy faict en sphere*, *fort beau et riche, lequel iceluy Rincon avait fait faire expres à Venise et faict apporter j'usqu'a Constantinople avec ung livre contenant l'interpretation d'iceluy instrument , ayant couté, tant ledit mappemond y que ledit livre, 90 écus*"



The globes were to be installed in the Tophane observatory.

I was asked if the globes left the workshop of Mercator, and the answer I can actually give you, is probably not to your satisfaction. I think the 3 instruments left the workshop but never reached their final destination, as no record was found in the archives of the Ottoman court. They were probably ordered by a wealthy client to be offered, or sold to Murad III, and they probably remained in the family until the auctions by Christies in London in the 90es. The destruction of the observatory in 1579, can well be one of the reasons the instruments didn't reach Istanbul.

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The reign of Murad III, says the encyclopedia Britanica "was a time of financial crisis and severe inflation, because of the costs of wars, with Persia, Hungaria and the import of vast quantities of silver from South America, by the Spanish fleet.

There is another story about the instruments. In a letter from the Austrian ambassador von Sinzendorf to the emperor Rudolph II in 1580, a young Gabriel Dufrens, from the court of the sultan is described as a spy .The man bought clocks watches and instruments through Europe . He or one of his man could have ordered the instruments to Mercator on his voyage from Venice to the north along the Rhine traveling through Duisburg. This hypothesis is not confirmed and there should be traces of payment at the Ottoman court.

The court of Habsburg and other monarchs have sent presents to confirm treatises and commercial agreements with the Ottoman court.

The instruments probably remained in the family for 4 centuries, until the auctions by Christies in London in the 90es.

The globes have been described by my good friend professor Gerald l'Estrainge Turner from Oxford and by Dr. Elly Dekker.

They have been attributed to Gerard Mercator's workshop during his Duisburg period.

They are not signed but dated 1579 and all tree have the same old inventory n° 154.

Stylistically they have the same columns, supporting the terrestrial- and celestial globe and armillary sphere.



The 3 instruments have the Tughra, the signature of MuradIII and cartouches are written in latin and in Turqish. The inscription *omnium regnum mundi rex* is the translation *for sha in sha*.



The diameter of the 2 globes is 29.5 cm which is the local foot for Malines, which Gerard Mercator used

The compass rose has 32 directions inscribed in Flemish, the other inscriptions are Latin

The horizontal circles are similar to the 1541 terrestrial globe and the 1551 celestial globe of Mercator

The globes have 2 hemicycles of gilded copper.

The letter forms are those Mercator used; the 0, 6 and 9 are punched and not engraved

The inscription in the Indian Ocean reads: Amurates III Magni in coeli Dei soly manus solus omnium regnum mundi rex imperator sulthanus Turcorum 1579.

We find the magnetic pole, as we do on Mercator globes also the configuration as on his map of 1569 *ad usum navigantium*. The data are those of Mercators Ptolomaeus map of 1578 and data his son Romuald published in his map of 1587.

This brief analysis confirms the globes and the armillary sphere have been constructed under the direction of Gerard Mercator and most probably by his sons Arnold and Romuald.



Photo tugra

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