

ADRIAEN METIUS
1571-1635

Metius was born in Alkmaar on 3 December 1571, the son of Adriaen Anthonisz., who was to become burgomaster of that city. His father was cartographer and military engineer for the States of Holland and West-Friesland. Metius and his two brothers were apparently stimulated by their father's interest in mathematics and technology. His older brother Dirk became an engineer, mathematician and cartographer, while his younger brother, Jacob, became instrument maker and specialized in lens-grinding. Jacob Metius may have invented a telescope with a concave and a convex lens independently from other inventors of the instrument.

Adriaen Metius got his primary education in Alkmaar's grammar school. In 1589 he entered the Frisian university of Franeker to study philosophy and law. Five years later he continued his studies at Leiden. There he attended the lectures of the mathematicians Rudolph Snel and Ludolph van Ceulen, and these caused him to change the subject of his study to mathematics and astronomy. After spending some time with Tycho Brahe at his astronomical observatory at Hven, Metius moved to Jena in 1595 and became a lecturer of astronomy at the university. During this period, Metius prepared his first astronomical publication, *Doctrinae sphaericae libri V* (Franeker, 1598).

After his return to the Netherlands, in 1598, Metius was asked by the stadholder of Holland, Maurice of Nassau, to be a military engineer. Together with his father, Metius was involved in the surveying of fortifications. Later that year he became extraordinary professor of mathematics, navigation, and astronomy at Franeker, as successor to Johannes Roggius. In 1600 Metius obtained a full professorship, which included the teaching of surveying and military engineering. Moreover, he was allowed to give lectures in the Dutch vernacular. Metius held this position until his death. The quality of his teaching attracted many students from the Netherlands and abroad, one of whom was René Descartes, who attended Metius's lectures in 1629.

Although he respected the ideas of Copernicus and his followers, Metius was an adherent to the Tychonic world system. Because of this position he became involved, between 1608 and 1611, in a conflict between Aristotelians and adherents to new natural philosophical systems. Beginning in 1611, however, Metius's work became less

theoretical and more practical, because he was able to buy new instruments (some of them made by his brother Jacob) and make astronomical observations and measurements. In that same year he published his *Manuale arithmeticae et geometriae practicae*, a widely used and often reprinted instruction manual for surveyors and students of mathematics. Other publications dealt with astronomy, the use of the astrolabe, the practice of triangulation and geography, fortification, and a perpetual calendar. Metius' works were not very original, but possessed great didactic qualities so that they were often reprinted.

Adriaen Metius died in 1635 after two childless marriages, with Jetske Andrae and Cecilia Vertest. He was succeeded in his chair at Franeker by Bernardus Fullenius, Sr.

Primary works

Poggendorff, vol. 2, 129-130; there is no satisfactory bibliography, but see the lists in Boeles, *Hoogeschool*, Bierens de Haan, *Bouwstoffen*, and *NNBW* (all below).

Secondary sources

D. Bierens de Haan, *Bouwstoffen voor de geschiedenis der wis- en natuurkundige wetenschappen in de Nederlanden* (Amsterdam, 1893), ch. 12, 219-253 (= *Verslagen en Mededeelingen van de Koninklijke Akademie van Wetenschappen Amsterdam, Afdeling Natuurkunde*, 2e reeks, 12 [1878] 1-35); W.B.S. Boeles, *Frieslands Hoogeschool en het Rijks Athenaeum te Franeker*, vol. 2 (Leeuwarden: Kuipers, 1879) 70-75; H.A.M. Snelders, 'Alkmaarse natuurwetenschappers uit de 17e en 18e eeuw', in: E.H.P. Cordfunke, ed., *Van Spaans beleg tot Bataafse tijd. Alkmaars stedelijk leven in de 17de en 18de eeuw* (Zutphen: Walburg Pers, 1980) 101-122; A. den Oudsten, 'De hemel is gestegen of de aarde is gedaald' (Franeker: Museum 't Coopmanshûs, 1981) 11-22.

D.J. Struik, in: *DSB*, vol. 9, 335-337; C. de Waard, in: *NNBW*, vol. 1, 1325-1327.

[L.C.P.]