Tacquet, Andreas | Encyclopedia.com

(b. Antwerp, Belgium, 23 June 1612 : *d*. Antwerp, 22 December 1660)

mathematics.

Tacquet was the son of Pierre Tacquet, a merchant, and Agnes Wandelen of Nuremberg. His father apparently died while the boy was still young but left the family with some means. Tacquet received an excellent education in the Jesuit collège of his native town, and a contemporary report describes him as a gifted if somewhat delicate child . In 1629 he entered the Jesuit order as a novice and spent the first two years in Malines and the next four in Louvain, where he studied logic, physics, and mathematics . His mathematics teacher was William Boelmans, a student of and secretary to Gregorius Saint Vincent . After his preliminary training Tacquet taught in various Jesuit *collèges* for five years, notably Greek and poetry at Bruges from 1637 to 1639 . From 1640 to 1644 he studied theology in Louvain and in 1644 – 1645 he taught mathematics there . He took his vows on 1 November 1646 and subsequently taught mathematics in the collèges of Louvain (1649 – 1655) and Antwerp (1645 – 1649, 1655 – 1660).

Tacquet's most important mathematical work, *Cylindricorum et annularium,* contained a number of original theorems on cylinders and rings . Its main importance, however, lay in its concern with questions of method . Tacquet rejected all notions that solids are composed of planes, planes of lines, and so on, except as heuristic devices for finding solutions. The approach he adopted was that of Luca Valerio and Gregorius, an essentially Archimedean method . The development of his thought can be seen in the fact that in his *Arithmeticae theoria et praxis* he took the value of ax^n ($x < 1$, $n \to \infty$) to be actually zero . Tacquet's most popular work was *Elementa geotnetrice*, which went through numerous editions during the seventeenth and eighteenth centuries and was edited and revised by Whiston, Musschenbroek, and Bošković . Although little more than a paraphrase of parts of Euclid and Archimedes, the book was distinguished by its clarity and order . Tacquet's *Opera mathematica* was published posthumously and contained, among other previously printed and unprinted works, his *Astronomia*. In the eighth book of this work he rejected the motion of the earth, first, because there was no proof, physical or philosophical, to prove it; second, because his faith required him to believe in its immobility.

Tacquet's importance was mainly pedagogical and his books taught elementary mathematics to many generations of readers, although his influence on Pascal may have been greater. As a creative mathematician he can hardly be deemed more than minor . He was extremely well-read in mathematics, astronomy, and physics, and seemed to have almost total knowledge of the literature . This makes him appear at times as a typical exponent of the irritatingly erudite eclecticism of seventeenth century scientific Jesuits. However, most of his works were written as textbooks for the Jesuit collèges and had no pretensions to originality . His devotion to his church, his order, and his teaching may explain his relative lack of creativity .

BIBLIOGRAPHY

I. Original Works. The standard bibliography of Tacquet's works is in C. Sommervogel, *Bibliothèque de la Compagnie de Jésus*. VII (Brussels, 1896). cols. 1806 – 1811. The most important are *Cylindricorum et annularium* (Antwerp, 1651, 1659), also in the *Opera: Elementa geometriae* (Antwerp, 1654, 1665, 1672), which was issued in numerous eds. and revs., including translations into English, Italian and Greek, at least until 1805; and *Arithmeticae theoria et praxis* (Louvain, 1656: Antwerp, 1665, 1682). the *Opera mathematica* (Antwerp, 1669, 1707) contains works on astronomy, spherical trigonometry, practical geometry, and fortification, plus previously published writings on geometry and Aristotle's wheel. Tacquet's correspondence with Huygens is printed in Oeuvres complètes de Christiaan Huygens, publiées par la Société hollandaise des sciences, I – III (The Hague. 1888 – 1890), *passim*.

II. Secondary Literature. For biographical information on Tacquet, see H. Bosmans, "Tacquet," in Biographie nationale, XXIV (Brussels, 1926 – 1929), cols, 440 – 464: and "Le Jésuite mathématicien anversois André Tacquet (1612 – 1660)", in *Gulden passer*, **3** (1925), 63 – 87. See also Bosmans' "André Tacquet (S. J.) et son traité d'arithmétique théorique et pratique", in *Isis*, **9** (1927), 66 – 82. There is no adequate analysis of Tacquet's mathematics and science. For earlier accounts see A. G. Kästner, *Geschichte der Mathematik*, **III** (Göttingen, 1799), 266–284, 442 – 449; and J. B. J. Delambre, *Histoire de l'astronomie moderne*, II (Paris, 1821), 531 – 535. Among modern studies that treat Tacquet is C.R. Wallner, "Über die Entstehung des Grenzbegriffes', in *Bibliotheca mathematica*, 3rd ser., **4** (1903), 246 – 259.

Per StrØmholm