

Dechaies, Claude François Millet | Encyclopedia.com

Complete Dictionary of Scientific Biography COPYRIGHT 2008 Charles Scribner's Sons
5-6 minutes

(*b.* Chambéry, France, 1621; *d.* Turin, Italy, 28 March 1678)

mathematics.

Not much is known of Dechaies's personal life. For some times he was a Jesuit missionary in Turkey. He was well liked in Paris, where for four years he read public mathematics lectures at the Collège de Clermont. After teaching at Lyons and chambéry, he moved to Marseilles, where he taught the arts of navigation and [military engineering](#) and the practical applications of mathematics to science. From Marseilles he went to Turin, where he was appointed professor of mathematics at the university. He died there at the age of fifty-seven.

Although not a first-rate mathematician, Dechaies was rather skillful in exposition; Hutton has observed that "his talent rather lay in explaining those sciences [mathematics and mechanics] with ease and accuracy... that he made the best use of the production of other man, and that he drew the several parts of the mathematical sciences together with great judgement and perspicuity."

Dechaies is best remembered for his *Cursus seu mundus mathematicus*, a complete course of mathematics, including many related subject that in his day were held to belong to the exact sciences. The first volume opens with a description of mathematical books arranged chronologically that, as De Morgan remarks, is well done and indicates that Dechaies had actually read them. This is followed by his edition of Euclid's *Elements* (bks. I-VI, XI, and XII). Arithmetic computation, algebra, spherical trigonometry, and conic sections are of course included. Of the algebraic material, Hutton observes that it is "of a very old fashioned sort, considering the time when it was written." The algebra of Dechaies is imbued with the spirit of Diophantus; as Moritz Cantor points out, Dechaies rarely mentions the work of Mydorge, Desargues, Pascal, Fermat, Descartes, or Wallis. Among other subjects included in the *Cursus* are practical geometry, machanics, statics, geography, magnetism, civil architecture, military architecture, optics, catoptrics, perspective, dioptrics, hydrostatics, hydraulic machinery, navigation, pyrotechnics, gnomonics, astronomy, astrology, meteoritics, the calender, and music, as well as a section entitled "A Refutation of the Cartesian Hypothesis." Indeed, in his history of mathematics, Cantor gives a detailed description of the *Cursus* both because it was a popular and widely used textbook and because it reflected the totality of mathematical knowledge as possessed by dilettantes or amateur mathematicians of the time who were fairly competent interpreters or expounders of the subject. Thus, while according Dechaies due credit for his effort, Cantor is nevertheless critical of much of the mathematical content of his work, deploring Dechaies's failure to make full use of such available contemporary source materials as the firsthand works of mathematicians, their correspondence and so on.

Dechaies's separate edition of Euclid, long a favorite in France and elsewhere on the Continent, never became popular in England.

BIBLIOGRAPHY

I. Original Works. Dechaies's works are *Cursus seu mundus mathematicus*, 3 vold. (Lyons, 1674), also ed. by Amati Varcin, 4 vold. (Lyons, 1960); *L'art de fortifier, de défendre et d'attaquer les places, suivant les méthodes françoises, hollandoises, italiennes & espagnoles* (Paris, 1677); *L'art de naviger démontré par principes & confirmé par plusieurs observations tirées de l'expérience* (Paris, 1677); and *Les principes généraux de la géographie* (Paris, 1677). His edition of Euclid, *Les éléments d'Euclide, expliquez d'une manière nouvelle & très facile. Avec l'usage de chaque proposition pour toutes les parties de mathématiques* (Lausanne, 1678, 1683), appeared in revised editions by Ozanam (Paris, 1730) and Audierne (Paris, 1753) and in English translation by Reeve Williams (London, 1685).

II. Secondary Literature. On Dechaies or his work, see Moritz Cantor, *Vorlesungen über die Geschichte der Mathematik*, III (Leipzig, 1913), 4–6, 15–19; [Augustus De Morgan](#), *Arithmetical Books From the Invention of printing to the Present Time* (London, 1847), pp. xv, 53; Charles Hutton, "History of Algebra," in *Tracts on Mathematical Philosophical Subjects*, II (London, 1812), tract no. 33, p. 301; and *Philosophical and Mathematical Dictionary*, I (London, 1815), 395–396; and *The Penny Cyclopaedia of the Society for the Diffusion of Useful Knowledge*, VIII (London, 1837), 343.

