

1035-01-617 **Yibao Xu*** (xuyibao@hotmail.com), 55 Elsie Drive, Plainsboro, NJ 08536. *Rare Chinese Mathematical Books in the David Eugene Smith Collection.*

The historian of mathematics David Eugene Smith (1860-1944) was an avid book collector, and among rare volumes he amassed were some of the most significant works of Chinese mathematics. Among these is a first edition of the mathematical textbook written by the English missionary Alexander Wylie, *Shuxue qimeng* (Compendium of Arithmetic). Another work preserved in the Smith Archives is a manuscript copy of a Chinese translation of Euclid's *Elements*, and its relationship to the first translation of Euclid into Chinese by Matteo Ricci and Xu Guangqi published in 1607 raises some interesting questions. The first reaction to the new style of mathematics represented by the Euclidean axiomatic approach to geometry may be seen in the work of the great Chinese mathematician Mei Wending (1633-1721). How he merged traditional Chinese *gougu* theory with the newly-introduced Greek geometry will be examined in the context of the manuscript copy of the Chinese translation of the *Elements* in the Smith collection. Whether this manuscript is the one actually used by Mei himself, and if so, how the marginal annotations in the manuscript may be related to Mei's published works, will also be considered. (Received September 12, 2007)