

1077-E1-2935 **Charles F. Rocca*** (roccac@wcsu.edu), Western Connecticut State University, Dept. of Mathematics, 181 White Street, Danbury, CT 06776. *James Hamblin Smith's Euclid.*

“To preserve Euclid’s order, to supply omissions, to remove defects, to give short notes of explanation and simpler methods of proof in cases of acknowledged difficulty - such are the main objects of this Edition of the Elements.” - James Hamblin Smith

For over a thousand years Euclid was a gold standard for how geometry and arguably mathematics was to be done. Starting in the 17th the field began to see not just minor grumblings but major changes. These came in waves with the rise of analytic geometry, followed by non-Euclidean geometries, the development of firmer ideas about axiomatic systems and Hilbert’s axioms for Euclidean geometry. In the late 19th century J.H. Smith prepared his edition of the Elements. While largely faithful to the design of Euclid, within Smith’s text we see many references to necessary change to address the difficulties in Euclid. In this talk we will discuss some of the changes that Smith made and how his text can be used in an introductory course in Euclidean geometry to help students appreciate the geometry and its history. (Received September 23, 2011)