

1125-A0-202

Glen Van Brummelen*, Quest University, Squamish, BC. *Trigonometry and the Challenge of the History of Mathematics.*

Writing the history of mathematics is hard. Really hard. Although the apparent purity of mathematics might seem to render its history freer of world view than that of other subjects, in practice it simply makes different ways of thinking harder to recognize. Many monographs these days avoid crossing boundaries between major cultures to avoid imprinting from one to the other. My ongoing project on the history of trigonometry from antiquity to the present goes against this grain. Perhaps quixotically, I portray mathematical ideas as they move through very different peoples and eras, following a complex story while attempting to respect each culture's approach. We shall explore several episodes in trigonometry from ancient Greece, India, Islam, the West, and China where crossing the border is a risky business; we hope to gain some lessons in securing a safe crossing. (Received August 11, 2016)