1145-01-1429 Elizabeth Cornwall\* (ecornwall@dixie.edu). Cracking Al-Kāshī's Tables.

During the  $14^{th}$  century, the Persian astronomer and mathematician al-Kāshī wrote his influential  $Kh\bar{a}q\bar{a}n\bar{\imath}$   $Z\bar{\imath}j$ , an astronomical work consisting of tables and accompanying text. Among the many astronomical tables contained in this work, al-Kāshī presented several tabulating trigonometric quantities including some devoted to the "shadow", numerical data mathematically equivalent in many respects to the modern day tangent function. This presentation investigates these 'tangent' tables, detailing how they were laid out and to be used, the broader context in which they were understood, as well as the more complex question of how the numerical data they contain was computed. (Received September 21, 2018)