

1067-01-1076 **Nathan Sidoli*** (athan.sidoli@utoronto.ca), Waseda University, SILS, 1-6-1 Nishi-Waseda, Shinjuku-ku, Tokyo, Tokyo 169-8050, Japan. *Diagrams and spheres: reflections on an early Arabic edition of Menelaus' Spherics.*

In this talk, I will discuss the use of constructive techniques in Menelaus' *Spherics*, as found in the Arabic version of al-Harawī. Greek geometers, in general, relied on constructions, as a form of geometric operation, for bringing new objects into the domain of discourse so that they could be of use in proving theorems, or solving problems. For any proposition, the full set of given and constructed objects were presented in a single diagram. For texts dealing with spherical geometry, the diagrams preserved in the medieval manuscripts often present real difficulties of interpretation. In this talk, I will argue that the ancient and medieval texts were meant to be read in conjunction with actually doing constructions, before carrying out the reasoning. I will make this argument based on a few striking examples from Menelaus' *Spherics*. (Received September 18, 2010)