1056-C1-301   **Reza Sarhangi*** (`rsarhangi@towson.edu`), Mathematics Department, Towson University, 7800 York Building, Towson, MD 21252. *A Brief Study of Modularity in Mosaic Designs.*

Based on some older documents we may claim the compass-straightedge geometric construction as one of the main methods for creating mosaics designs. However, other methods, such as "cutting and pasting" of tiles and "modularity", should be considered as alternatives used by the artisans. This presentation demonstrates some ideas about making patterns and designs in Persian mosaics using cutting and pasting and "modularity" of single-color tiles. The predominance of geometry constructions of compass-straightedge in medieval Persian art exhibits both the "artisans' skills" and the "direct involvement of mathematicians" in the pattern making process. Nevertheless, the goal of this presentation is to study other design-making approaches that perhaps are much older than the domination of sophisticated geometry in making ornamental designs. We first give a summary of the idea of "modularity", and then present other related methods. (Received August 26, 2009)