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**Reza Sarhangi\*** (rsarhangi@towson.edu), Towson University, Department of Mathematics, 8000 York Road, Towson, MD 21252. *Some Girihs and Puzzles from the Interlocks of Similar or Complementary Figures Treatise.*

This presentation is about the second part of my study with some puzzle problems and girih constructions that have been recorded in the Interlocks of Similar or Complementary Figures. Most problems in the treatise are full of sketches and some of them are incomprehensible. Nevertheless, this is the only document that has survived for many centuries that gives instruction for girih construction. It is believed that the document was written sometime between the 13th and 15th centuries by an anonymous mathematician/craftsman. This is the only document remaining from the medieval Persia that demonstrates how a girih can be constructed using compass and straightedge. Moreover, the treatise includes some puzzles for polygon transformations from one geometric shape to another. This may happen either by dissecting one shape and rearranging the pieces to make another shape, or by solving the problem mathematically. (Received September 02, 2015)