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Reza Sarhangi* (rsarhangi@towson.edu), Towson University, Department of Mathematics,
7800 York Building, Towson, MD 21252. *A Brief Study of Designs on the Surfaces of Some
Swing-Hinged Dissections.*

By a dissection we mean, cutting a geometric, two-dimensional shape into pieces that one can rearrange to form a different shape. Examples of interesting and mathematically sophisticated dissections come from a wide range of resources, from the ancient Greeks, to the medieval period of Islamic art and science, to the mathematical puzzle columns in magazines, and to many website resources. A special property for some dissections is the ability to connect pieces by hinges in such a way that it preserves the transformation between two shapes by swinging one figure to another. The purpose of this presentation is to inspect the dissections' structures from a different point of view: Using the transferable surfaces to illustrate patterns and designs that are changeable in a meaningful and pleasing way along with the shapes of the dissections. (Received September 02, 2008)