

1077-O1-1420 **B. Carrigan***, Auburn University, 221 Parker Hall, Auburn, AL 36849. *Building Art Galleries for Geometric Proofs.*

Using students as guards, the classic art gallery problem is presented to the students. then in small groups using geobords and guard markers students explore the solutions and patterns involved in the art gallery problem. The concepts of the guards sight produces the ideas of convexity and simplicies. Finally the use of triangulation and coloring is used to prove that patterns (hopefully found by the students!) hold in general. Once the concepts are developed through this hands on activity, students begin to readily accept the ideas that basic geometric concepts are built upon. (Received September 19, 2011)