1014-I1-1472 **Jerry Lodder*** (`jlodder@emmy.nmsu.edu`), Math Sciences, Dept. 3MB, Box 30001, New Mexico State University, Las Cruces, NM 88003. *Lamé's Counting of Triangulations.* Preliminary report.

A course in discrete mathematics or combinatorics is often reduced to a list of facts and formulae with little mention of the original work and motivating problems that have found resolution in the modern topics of induction, recursion or algorithm. In this talk we explore Gabriel Lamé's (1795–1870) elegant and efficient counting argument for the number of triangulations P_n of a convex n-sided polygon, forming a sequence that would become known as the Catalan numbers. We present excerpts from Lamé's 1838 publication "Given a convex polygon, in how many ways can one partition it into triangles by means of diagonals?" This paper has been adapted into a student project used recently in an undergraduate course in combinatorics, where the students are asked to rediscover Lamé's steps in deriving the short recursion relation $P_{n+1} = [(4n-6)/n]P_n$. Learning from historical sources provides context, motivation and direction to the subject. Finally, student reaction to the project is discussed using data from pre- and post-course questionnaires. (Received September 28, 2005)