1116-A1-605 **David J. Pengelley*** (davidp@nmsu.edu), Mathematics, 3MB, New Mexico State University, Las Cruces, NM 88003. *Throwing away the textbook: Teaching discrete mathematics from primary historical sources.*

Can our students benefit from studying primary historical sources, as is the norm in the humanities? Could guided student projects based on primary sources even form the entire course material for deep questioning, investigation, resolution, and learning? A long-term team effort has created discrete mathematics courses based entirely on primary source projects for mathematics and computer science majors: Goodbye textbook, hello Euclid, Chrysippus, Archimedes, Pascal, Leibniz, Boole, Frege, Cantor, Dedekind, Russell, Whitehead, Post, von Neumann and others.

Our student projects utilize carefully selected excerpts from primary sources, supplemented with our own unifying writing, to provide stimulating and motivating challenges for students based on the sources. These include modern questions and exercises about proofs and programming, and together cover the material in a standard textbook course in a variety of possible ways.

We will present samples of primary source project materials, including challenges for both mathematics and computer science students, and discuss how students benefit, how their work changes, and what their own views are of learning from primary sources. (Received September 08, 2015)