Abstract

It is a widely held view, by mathematicians and non-mathematicians alike, that the subject matter of K-12 mathematics, and emphatically of mathematics below high school level, is simple, cut and dried, not worthy or in need of serious attention by serious mathematicians. This talk will argue otherwise: that careful analysis of the K-12, and even the elementary mathematics curriculum is needed. This analysis is not purely mathematical - it requires consideration of students, of uses and goals - but it involves a strong mathematical component, and it requires high level mathematical talent. It can be thought of as analogous to the investigations of foundations that went on in the 19th and a substantial part of the 20th century, and it provides new perspectives on some of that work.