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Bethlehem, PA. *Insights into Cayley's work on the quintic.*

The Lehigh University library has a collection of 40 letters written from Arthur Cayley to Robert Harley between 1859 and 1863, and an unpublished manuscript "A Memoir on the Quintic Equation" that Cayley was working on at the time of his death in 1895. Examination of this material, which is available online at as part of the library's digital archive at <http://digital.lib.lehigh.edu/remain/con/cayley.html>, gives insights into the working relation between Cayley and Harley as they attacked the quintic from an invariant-theoretic point of view, and into Cayley's lifelong interest in the quintic. (Received June 30, 2008)