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Christopher Baltus* (christopher.baltus@oswego.edu), Department of Mathematics, Snygg Hall, SUNY Oswego, Oswego, NY 13126. *Poncelet's Circular Path to Central Collineations*. Preliminary report.

A Central Collineation, a collineation with a line of fixed points, or, equivalently, a point on which all lines are fixed – think of Desargues's Theorem – became central in synthetic projective geometry only in Luigi Cremona's *Elementi di Geometria Proiettiva* of 1873. There, figures related by a central collineation were called "homologous." The term and the concept, but not the development, go back to Poncelet's 1822 masterwork. How did Poncelet get to homology? It was his study of circles, a study that began, in earnest, at an elementary level in a Russian prison camp in 1813, and shows his tie to the geometers at the Ecole Polytechnique. We will trace Poncelet's path to homologous figures. (Received February 03, 2011)