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John McCleary* (mccleary@vassar.edu), Department of Mathematics and Statistics, Vassar College, Poughkeepsie, NY 12604-0069. *On what is called the Dehn invariant*. Preliminary report.

In his solution to Hilbert's third problem Dehn considered various quantities associated to a decomposition of a polyhedron into subpolyhedra. What we call today the *Dehn invariant* of a polyhedron lies in an algebraic object not available to Dehn. I will discuss the contexts of various papers treating scissors congruence from Dehn to the mid 20th-century to follow the evolution of this idea, and in this way consider how the conceptual image of this invariant changed in the hands of various researchers. (Received September 14, 2020)