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Samuel Charles Herwood* (sherwood@adelphi.edu), Adelphi University, Dept. of Math and CS, 1 South Avenue, Garden City, NY 11530. *Resurrecting Hinton's Tesseract: Using 3D Graphics to Emulate the Four-Dimensional Models of Charles Howard Hinton.*

Through a large body of work, the mathematician Charles Howard Hinton (1853-1907) believed he had come up with an intuitive thought process for anyone to understand and visualize four spatial dimensions. In the century since Hinton's death, his work has waned in prominence and almost none of his writings are available in their original form. His system for visualizing the fourth spatial dimension was based on a set of colored wooden cubes presented in succession. We will use 3D computer graphics to gain insight into this system of cubes, as well shed some light on the nature of the fourth spatial dimension in general. (Received September 21, 2012)