Formalized axiomatic approaches and generalized techniques of abstraction loomed large in the development of twentieth-century mathematics. Consequently, mathematicians increasingly conceived their field as a system of abstract structures, frequently characterizing their subject as a creative art rather than as an essential tool for understanding the natural world. Historians of science and mathematics have increasingly shown how pedagogy cultivates the material and epistemic practices that define what it means for mathematics to be a scientific discipline. This talk also considers what it meant for mathematics to be a humanistic, creative art by examining the development of George David Birkhoff’s theory of aesthetic measure in the 1920s and 1930s. Not an aberration of mathematical work, Birkhoff’s theory inflected practices of mathematical instruction and ideas about the underlying nature of mathematics. (Received July 16, 2019)