

Abstract Submitted
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That is Cool: the Nature Of Aesthetics in Fluid Physics¹ JEAN HERTZBERG, University of Colorado, Boulder — Aesthetics has historically been defined as the study of beauty and thus as a metric of art. More recently, psychologists are using the term to describe a spectrum of responses from “I hate it” to “I love it.” In the context of fluid physics, what is beautiful? What elicits a “Wow! Awesome! Cool!” response versus a snore? Can we use aesthetics to deepen or change students’ or the public’s perceptions of physics and/or the world around them? For example, students seem to appreciate the aesthetics of destruction: environmental fluid dynamics such as storms, tornadoes, floods and wildfires are often responsible for massive destruction, yet humans draw pleasure from watching such physics and the attendant destruction from a safe distance. Can this voyeurism be turned to our advantage in communicating science? Observations of student and Facebook Flow Visualization group choices for fluid physics that draw a positive aesthetic response are sorted into empirical categories; the aesthetics of beauty, power, destruction, and oddness. Each aesthetic will be illustrated with examples drawn from flow visualizations from both the Flow Visualization course (MCEN 4151) taught at the University of Colorado, Boulder, and sources on the web.

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