

CALL FOR PAPERS

A Special Issue of the Journal of Mathematics and Art

Mathematical Models used in Aesthetic Evaluation

Guest Editors: Gary Greenfield and Penousal Machado

By sampling across the broad spectrum of mathematical models currently being used by researchers in visual arts and music, this special issue will chronicle the state of the art when algorithmically evaluating works of art on the basis of their aesthetic content.

Despite its long history, the problem of automating aesthetic evaluation remains a difficult and challenging one. In the 1930s, G.D. Birkhoff first proposed using $M = O/C$, where O is order and C is complexity, to evaluate "pleasing polygons" and "elegant vases". In the 1960s, Max Bense led a movement to use information theory to "obtain a vector or scalar measurement of the aesthetics of a work of art." In the 1970s, Stiny and Gips introduced shape grammars as a means for algorithmically specifying aesthetics in painting and sculpture. In the 1990s, in response to the growing popularity of evolutionary computation, researchers began to investigate mathematical models for aesthetic evaluation within the context of generative art systems. That is, they began to study how to identify visual and audio material that might be of aesthetic interest to humans when a prohibitively large number of compositions needed to be evaluated.

This special issue will focus on current efforts to investigate a wide variety of mathematical models under the umbrella of algorithmic aesthetics for automating aesthetic evaluation within different problem domains. Submissions should be in accord with the general guidelines for submissions to the [Journal of Mathematics and Art](#) (see Instructions for Authors).

Deadline for Submissions: August 1, 2011; early submissions appreciated.

Send submissions to: ggreenfi@richmond.edu as an email attachment.

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