Book Review

Metacreation: Art and Artificial Life. By Mitchell Whitelaw. Cambridge, MA: MIT Press, 2004. 281 pages, hc, ISBN:0-262-23234-0.

Metacreation Art and Artificial Life by Mitchell Whitelaw, is about a visual arts movement that represents biology, cybernetics, and artificial intelligence in the form of art; the art products could be an image generated by either a computer, a photograph, or a painting. The book essentially presents a platform for an artistic concept now known as "computational art." Computational art begins with the sources of determinism and chance usually associated with nonlinear dynamics, with subsequent transductions by the artists. "Rather than a desire-driven amplification of creative agency, the artists deliver … a quietly automated factory for novel forms that meet a set of specific criteria" (p. 177).

Artists whose work is represented in this book include Karl Sims, Steven Rooke, Nick Gaffney, Jeffrey Vantrella, Christa Sommerer, Laurent Mignonneau, Robb Lovel and John Mitchell, Troy Innocent, John McCormack, Natalie Jeremijenko, Yves-Amu Klein, Kenneth Rinaldo and Mark Grossman, Bill Vorn and Louis-Phillippe Demers, Simon Penny and Jamieson Schulte, Erwin Driessens and Maria Verstappen, Ulrike Gabriel, Paul Brown, Scott Draves, Erwin Briessens and Maria Verstappen, and Mauro Annunziato. Note that some of the artists are working in teams, or at least pairs, instead of strictly individually. Whitelaw's subtopics through the book are "Breeders," "Cybernatures," "Hardware," Abstract Machines," "Theorizing A-life, Art, and Culture," and "Emergence."

We found the book to be very interesting with very original and provocative ideas. In particular, the computer-generated images representing an abstract living cell and photographs of mechanisms give very impressive artistic results. However, There are some critiques that we would like to suggest, however. First of all, the photographs and pictures should have been printed in color unless they were taken or drawn in black and white originally. Color photographs and images would convey their ideas better and make the photographs prettier to

look at and analyze. We recognize the cost of the color images; nevertheless, they would have tremendously improved the reader's experience.

Some of the photographs could have been improved by zooming in on them to cut out the unnecessary parts and to make them more artistic rather than informational. Cropping and zooming were in fact used effectively when Whitelaw tried to capture some of the details in Annunziato's artwork. On the other hand, goal of the photography in this instance may have been informational, with the artistic rendering left to the original artists.

The author digressed occasionally about technology and artificial intelligence with themes that had no apparent connection to the art. This background material may be necessary, however, for the mainstay of the art community that might not be as familiar with the technical concepts are nonlinear scientists are. In addition, some of the sections that talk about art and technology, however, did not have any illustrative examples at all. We feel that was an important omission. Also, in some sections, more examples would have gotten the idea across better. On the other hand, the author might have been trying to give an even-handed representation to all the artists that appeared in the book.

Overall, in spite of the limitations that were already mentioned, we found the book to be interesting, informative, and very original. For instance, Whitelaw's last essay suggests that the development of computational art was an inevitable result of the boundaries between art, non-art, science, and non-science becoming fuzzier since the onset of the Dada period of the early 20th century. *Metacreation* captures an art movement that is clearly unique. Moreover, we found the artwork to be very impressive generally.

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