

**Signs of Life: Bio Art and Beyond**

Edited by Eduardo Kac

Cambridge, MA: The MIT Press, 2007

ISBN: 978-0-262-11293-2

420pp. + b/w images

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In his book *Marking Time* (2007), Paul Rabinow draws attention to a somewhat overlooked essay by the philosopher of science Georges Canguilhem, entitled “Nature dénaturée et nature naturante” [“Nature denatured and naturalizing nature”] (1976). In the essay, Canguilhem takes issue with the idea that nature can be robbed of its “naturalness” – nature denatured by neglect or by manipulation. In fact, as Rabinow makes clear in his reading of the essay, “denaturation” is meaningless and refers to nothing more than a change in use. Nature cannot be made unnatural.

It is from this perspective that I begin my reading of Eduardo Kac’s provocative and truly innovative collection of essays, *Signs of Life: Bio Art and Beyond*. The book contains essays from over thirty contributors covering a broad range of themes, from bioethics, biotechnology and the limits of subjectivity to aesthetics in scientific practice and the role of nature in art. While the individual contributions are each worthy of attention, it is the way Kac chooses to conceptually frame the volume that proves the most interesting – and in fact, gives weight to some of the more idiosyncratic inclusions.

Kac’s concerns are many, and in his introduction he walks his readers through the evolution of hybrid plants, animals and humans, and ponders de-evolution through monsters, new medical technologies and genomics. The introduction reaches back into the history of science (specifically the life sciences) to tell a complicated story of “progress” and the formation of scientific ideology. Using everything from classificatory biology in Lamarck’s *Philosophie zoologique* (1801) to the problems of human physiology in Saint-Hilaire’s *Des Monstruosités humains* (1822), Kac opens a conceptual space where contemporary art endeavors are no longer footnotes buried deep in the history of the present, but rather take head on the problems faced by the life sciences from their inception.

The history that Kac presents has a certain force. It would be fair to say that the volume's contributors are writing on the side of anxiety. Whether their concerns are "bioethical" (which in practice are less "ethical" and more about the protection of institutions from legal action) or simply cautious, the way technologies are felt on a human (animal) level are given serious consideration. Marc Quinn's genomic self-portraits with cloned DNA are only one example of the problems of subjectivity that arise in relation to a novel technological field. But it is the threat (and promise) of science to change the natural order that seems shot through so many of the volume's concerns – coming dangerously close to the "denaturing" problem Canguilhem's essay describes. Is the anxiety about "denaturation" or simply a change in use?

Some of the most interesting essays in the volume present old problems in a new light. The "clone" paintings and paintings from *E. coli* bacteria described in David Kremers' essay "Repo Duction" tend to pale when considered against Alexander Fleming's (the discoverer of penicillin in 1928) "germ paintings" reproduced in the essay "The Growth of Microorganisms on Paper" written nearly a century ago. What seem like intractable problems between art and science are made so clear in Vilém Flusser's essay, "On Science" (originally published in *Artforum* in 1988). "Why is it that dogs aren't yet blue with red spots, and that horses don't yet radiate phosphorescent colors over the nocturnal meadows of our land?" Flusser rightly asks, "Why can't art inform nature?" This is perhaps the central question of the volume, and one that Kac wisely presents through a number of voices.

If there is a word of critique to be uttered about the volume, it is that it lacks a great deal of art. Still, what Kac seems to be doing is linking a set of conceptual issues that anticipate art making rather than examining art that is made. The purpose here may be to remake ways of looking or thinking about art elsewhere. But perhaps it is fairer to say that the book offers a program for sorting through the aesthetic grayness at the intersection of art, technology, and the natural world.