



Master of Electronic Art

Spatiality and Interaction

Introduction | Week: 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9 . 10 . 11 . 12 |

Bioart/Moist Reality

Week eleven

Overview

Whereas historically Art and Biology conjured up images of detailed artist studies of fauna and flora now artists work directly with living material.

1959 *Aromoarama* for *Behind the Great Wall* film, 1960 *A scent of Mystery* used the Smell-o-vision system, 1981 Odorama scratch and sniff cards for *Polyester*, were early attempts to integrate smell and entertainment that never really caught on. Recent developments in the areas of bio-technology and chemistry have accelerated an interest in exploring senses other than sight. Developments in biosensors have very wide application, from watches that read blood level to fertility bras. Bio-identification and bio-surveillance or biometrics (verification of identity based on physiology or behaviour of that person) have obvious security and law enforcement applications.

Science and technology enabled us to observe, transform and manipulate bodily functions. New body imaging technologies like CAT & PET, MRI opened up new view of the body. Bionics enables creation of new hybrids between human and machine. Although tissue to material interface is still to be overcome, the creation of separate bionic components is a possibility. While this field of research has potentially great medical implications, it is also a field ridden with ethical problems. Artists practicing in the field of biological and medical research can engage in deconstructive analysis, the analysis of practical and ethical implications as well as in the experimentation of 'live' materials.

Stelarc , Christa Sommerer & Laurent Mignonneau , Patricia Piccinini , Oron Catts & Ionat Zurr , Eduardo Kac , Critical Art Ensemble , George Gessert , Oron Catts and Ionat Zurr , Marc Quinn , Heather Ackroyd and Dan Harvey , Suzanne Anker , Christopher Ebener & Uli Winters , Joe Davis , Jon Tower, David Kremers , Knut Mork, Cultural Terrorist Organization , David Goodsell , John Dunn & Mary Anne Clark , Gail Wight , Gary Schneider , Kevin Clarke , Sonya Rapoport , Gina Czarnecki , Thomas Grunfeld , Simon Robertshaw , Michael Spano , Newton Harrison , Richard Lowenberg , Athena Tacha , Ken Rinaldo , Hubert Duprat , Tony Bellaver , Carsten Holler , Marc Bohlen , Leif Brush , Eric Samakh & David Rokeby , Przemyslaw Prusinkiewicz , Dimitri Terzopoulos , Louis Bec ,

Peter Weibel, organisor of the 1993 Ars Electronica

Primary Reading

Czeglady, Nina *Intimate Perceptions*

Langton, Christopher 1989 *Artificial Life*

Kac, Eduardo *Transgenic Art* , originally published in Leonardo Electronic Almanac, Vol 6, No 11, December 1998

More

on bioart & technology

The Arts Catalyst

Ars Electronica *Life Science 1999 & Next Sex 2000*

Coakley, J 2004 *Welcome to the World of BioArt* , the Space ABC Arts Online

Critical Art Ensamble *The Coming of Age of the Flesh Machine* , in Druckrey, T (ed) 1996 *Electonic Culture. Technology and Visual Representation* , Aperture, NY, pp 390-403

Gessert, George *A History of Art Involving dna*

Grau, Oliver 2003 *Virtual Art: From Illusion to Immersion* , The MIT Press, Cambridge/ Massachusetts, London/England, ch8

BioTech Hobbyist Magazine

Joy, Bill *Why The Future Doesnt Need Us*

Kac, Eduardo (ed) 2005 *Signs of Life: Bio Art and Beyond* , The MIT Press

Kac, Eduardo *GPF Bunny* , in Dobrila, Peter T and Kostic, Aleksandra (eds) 2000 *Eduardo Kac: Telepresence, Biotelematics, and Transgenic Art* , Kilba, Maribor,, pp 101-131

Nadarajan, Gunalan 2006 *Ornamental Biotechnology and Parergonal Aesthetics* , in Signs of Life: Bio Art and Beyond, MIT Press

Dorothy Nelkin *The Gene as a Cultural Icon*, *Art Journal* 55: 1

John van Neumann - computer pioneer

New Technologies , *Wired*, September 1996

Oron Catts and Ionat Zurr *The Art of the Semi-Living Art and Partial Life: Extra Ear - ¼ Scale*

Oron Catts and Ionat Zurr 2001 *Growing Semi-Living Sculptures: The Tissue Culture 7 Art Project*

Paradise Now exhibition

Pescovitz, D *Reality Check*

Ramos, Vitorino & Filipe, Almeida, *Artificial Ant Colonies in Digital Image Habitat*

Ramos, Vitorino *On the Implicit and on the Artificial - Morphogenesis and Emergent Aesthetics in Autonomous Collective Systems*

Regis, E *Future Weapons*

Anders Sandberg *Bionics*

Society for Developmental Biology

Sommerer, C & Mignonneau, L (eds) 1998 *Art @ Science*, Springer Vienna, NY

Barbara Stafford 1984 *Voyage into Substance: Art, Science, Nature, and the Illustrated Travel Account*, The MIT Press

Symbiotica

Thacker, Eugene *Biophilosophy for the 21 st Century*

Wilson, S 2002 *Information Arts: Intersections of Art, Science and Technology* , The MIT Press, Cambridge/Massachusetts & London/England

Whitelaw, Michael 2004 *Metacreation: Art & Artificial Life* , The MIT Press

on senses

Ackerman, Diane *A Natural History of the Senses*

Biomertics Research

Freeman, Walter J 1991 *The Physiology of Perception* , Scientific American, vol 264:2, Feb 1991, pp78-85

Fritz, J, Way, T & Barner, K 1994 *Haptic Representation of Scientific Data for Visually Impaired* , Applied Science and Engineering Laboratories A.I. duPont Institute/University of Delaware

Alan Hirsch

Interactive Brain-wave visual analyzer

Kohl, James *Phermones*

Kress-Rogers, Erika (ed) 1997 *Handbook of Biosensors & Electronic Noses* , CRC Press, Boca Raton

Wilder Penfield

van Mensvoort, Koert *What you see is what you feel*

Schachtel, E 1963 *Metamorphosis* , Routledge, London

Richard Vogt *Taste of Smell Course Syllabus*

on nature

Evernden, Neil 1992 *The Social Creation of Nature*, Johns Hopkins University Press, Baltimore

Williams, Raymond *Problems of Materialism & Culture*

on body and medicine

Birke, Linda & Hubbard, Ruth 1995 *Reinventing Biology* , Indiana University Press, Bloomington

Czeglady, Nina *Appropriation of Medical Discourse*

Doyle, Richard *On Beyond Living: Rhetorical Transformations*

Foucault, M *Birth of the Clinic*

Foucault, M *History of Sexuality*

Flannery, Maura 1998 *Images of the Cell in 20 th Century Art and Science*, Leonardo 31: 3

Galisen, Peter *Picturing Science, Producing Art*

Gallagher, C & Laqueur T W *The Making of the Modern Body*

Haraway, Donna *Cyborg Manifesto*

Haraway, Donna *The Promises of Monsters*

Harding, Sandra *Whose Science? Whose Knowledge?*

Hayles, N K *How We Became Posthuman: Virtual Bodies in Cybernetics*

Latour, B & Callon, M *Laboratory Science*

Lupton, Deborah 1994 *Medicine as Culture*, Sage, London

Margulis, Lynn

Masters, Judith *Revolutionary Theory* in Birke, Linda & Hubbard, Ruth 1995 *Reinventing Biology* , Indiana University Press, Bloomington

Stafford, Barbara *Body Criticism*

Stelarc *Parasite Visions: Alternate, Intimate and Involuntary Experiences*

Treichler, P A, Cartwright, L & Penley, C *Visible Woman*

Turner, Bryan S *Regulating Bodies*

Wilson, S *Body and Medicine* in Information Arts: Intersections of Art, Science, and Technology

Wolff Purcell, Rosamond *Special Cases: Natural Anomalies and Historical*

Monsters

The X-ray Century

on body & technology

Anstey, J *We Sing the Body Electric: Imagining the body in Electronic Art*

Bodies and Their Spaces links

Critical Art Ensemble *Flesh Machine Molecular Invasiion*

Fuller, Gillian *Perfect Match: Biometrics and Body Patterning in a Networked World* ,
Fibreculture, Issue 1

Huffman, Kathy Rae *CyberIntimacy: >From Net Nookie to Coffee Talk*

Morse, M What do Cyborgs Eat? in Druckrey, T (ed) 1997 *Electronic Culture* , Aperature, NY

SymbioticA *The Tissue Culture & Art Project*

Thacker, Eugene 2000 *Redefining Bioinformatics: A Critical Analysis of Technoscientific Bodies* , *Enculturation*, Vol. 3, No. 1, Spring

Vesna, V *Bodies Incorporated: Theoretical Appropriation for Somatic Intervention*

Woodward, K *From Virtual Cyborgs to Biological Time Bombs* in Druckrey, T (ed) 1997 *Electronic Culture* , Aperature, NY

on aesthetics & bio

Gould, S J 1996 *The Shape of Life* , Art Journal, 55:1

Hennessy, M 1996 *Science Pour l'Art*

Hoffman, R 1996 *Just a Little Bit Unnatural* , in Art Journal 55:1

Koch, A S & Tarnai, T *The Aesthetic Viruses* , in Emmer, M (ed) *The Visual Mind*

Malina, R *Moist Realities*

Elliot M Meyerowitz & Enrico Coen

Root-Bernstein, R 1996 *Do We Have the Structure of DNA Right? Aesthetics, Assumptions, Visual Conventions, and Unsolved Problems*, Art Journal 55:1, p48

on genetic engineering

Gessert, G 1993 *Notes on Genetic Art* , Leonardo, vol 26, no 3, pp 205-211

Levy, E 1996 *Contemporary Art and the Genetic Code* , Art Journal. Special Issue

Flusser, W 1998 *Curie's Children* , Art Forum, 26:7

on genetic music

Clark, M A *Genetic Music: An Annotated Source List*

on art & ecology

Cembalest, R 1991 *The Ecological Art Explosion*, Artnews, Summer, pp 96-105

Dion, M 1993 *The Origin of the Species: Alexis Rockman on the Prowl* , Flash Art, October

Dion, M & Rockman 1996 *Concrete Jungle* , Search Uno Books, NY

Matilsky, B 1992 *Fragile Ecologies* , Rizzol, NY

Wired *Description of Mud Drawings*

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