



# ISEA2022

# POSSIBLES

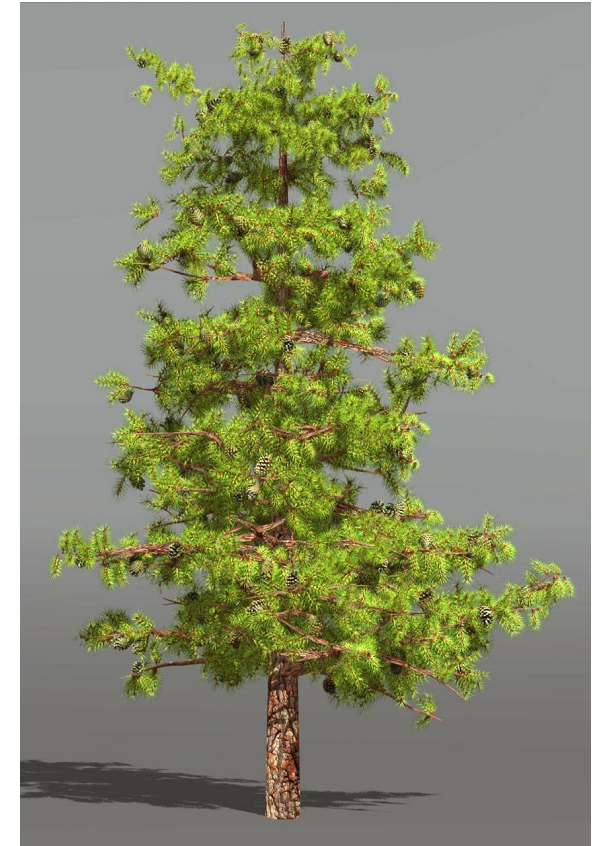
27th International Symposium on Electronic Art  
Barcelona 10-16 June 2022

#ISEA2022BARCELONA



# Knowledge Cultures in New Media Art

Rama Hoetzlein



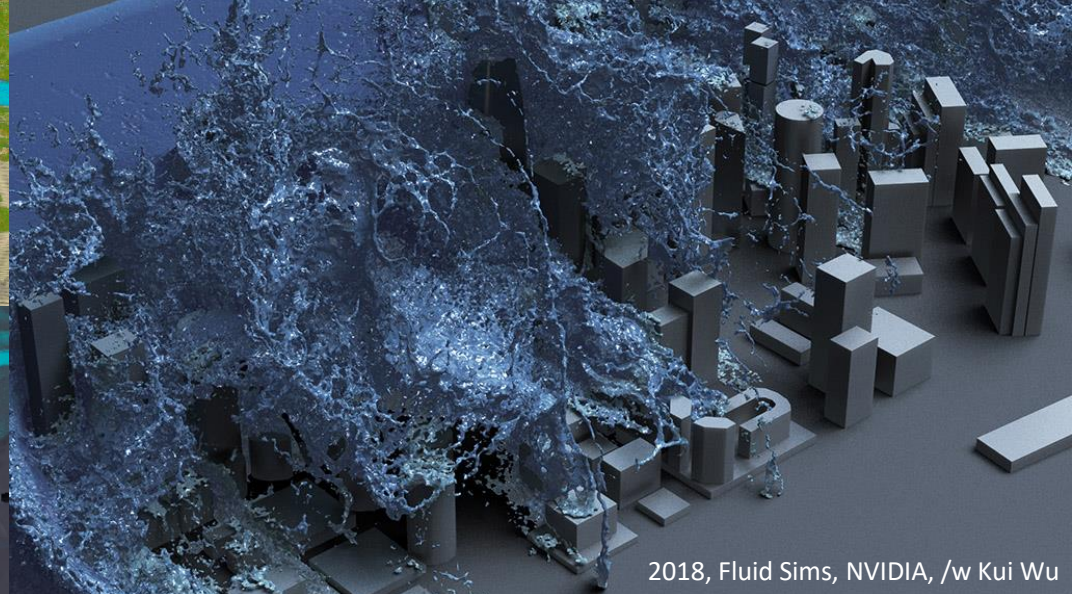




2022, Ponderosa Pines 145



2019, Rivers Project



2018, Fluid Sims, NVIDIA, /w Kui Wu



2021, Procedural Art







2001, BFA in Robotic Sculpture, Cornell University



2004, Energy & Entropy, UC Santa Barbara



2011, Ecoplayer, Copenhagen Zoo, Medialogy Aalborg



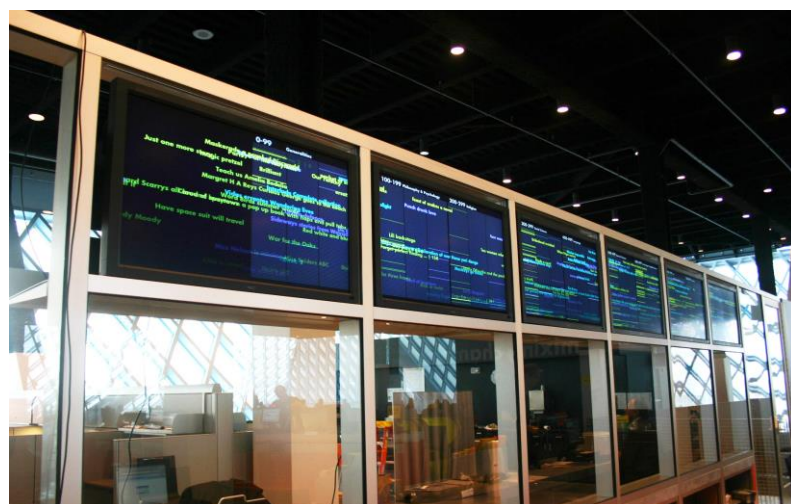
2001, BFA in Robotic Sculpture, Cornell University



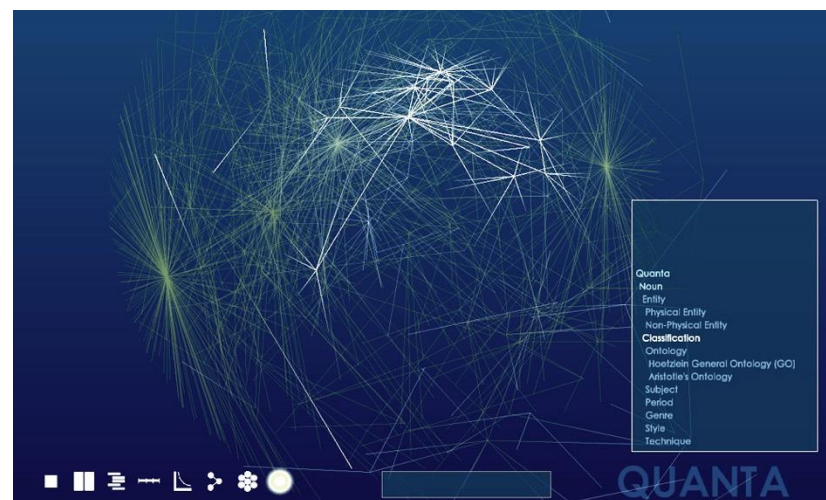
2004, Energy & Entropy, UC Santa Barbara



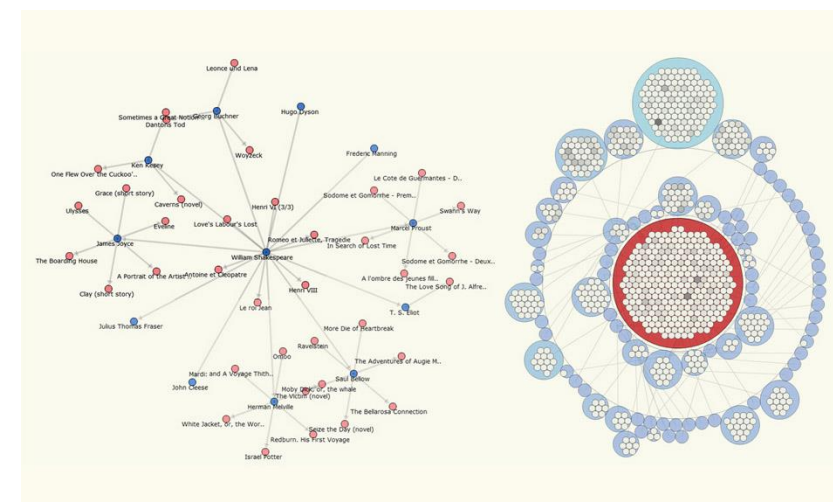
2011, Ecoplayer, Copenhagen Zoo, Medialogy Aalborg



2005, Making Visible the Invisible,  
Seattle Public Library, George Legrady



2007, Quanta, Masters Thesis,  
Media Art & Technology, UC Santa Barbara

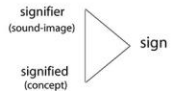


2010, RoSE, Research Oriented Social Environment  
Co-director /w Alan Liu, Digital Humanities



## MEDIA THEORY

### THEORY



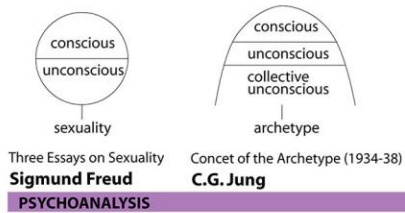
Course in General Linguistics (1915)

### ART

**Saussure**  
Switzerland



### modern art



Three Essays on Sexuality  
**Sigmund Freud**

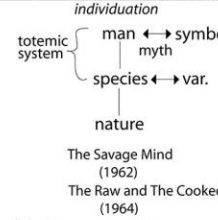
Concets of the Archetype (1934-38)  
**C.G. Jung**

**PSYCHOANALYSIS**



Writing Degree Zero (1953)  
**Roland Barthes**

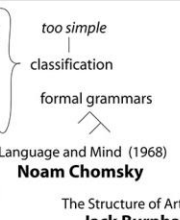
**Marshal McLuhan**  
Understanding Media (1964)



The Savage Mind (1962)  
The Raw and The Cooked (1964)  
**Levi-Strauss**

**STRUCTURALISM**

**Clement Greenberg**  
Art and Culture



Language and Mind (1968)  
**Noam Chomsky**

The Structure of Art (1973)  
**Jack Burnham**

Frank Stella  
**MINIMALISM**  
no expression, only form

Richard Serra  
**PERFORMANCE ART**

Dali  
**paranocritic surrealism**

Masson  
Miro  
assassination of painting  
**automatic surrealism**  
**SURREALISM**  
Manifest of Surrealism (1929)  
**Andre Breton**

Jackson Pollock  
**ABSTRACT EXPRESSIONISM**  
no form, only expression

1954  
Jasper Johns  
**POP ART**

1962  
Andy Worhol  
1966  
Claes Oldenberg

Russia  
**RUSSIAN CONSTRUCTIVISM**  
functionality

### avante-garde

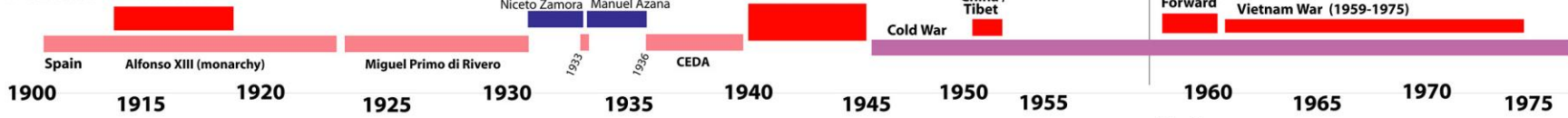
## CONSUMER ART



**COMPUTER INVENTED**

## post-modern

## POLITICS



## SCIENCE



World Population

2 billion

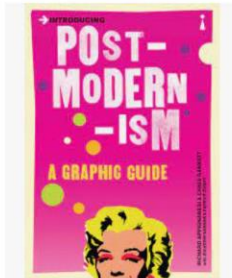
rise of popular science

## Timeline of 20<sup>th</sup> c. Art and New Media

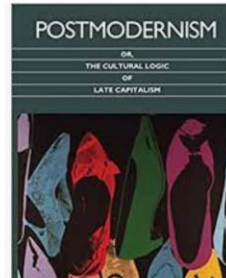
Rama Hoetzlein (c) 2009-2010  
<http://www.rchoetzlein.com>



post-modernism book



Amazon - Introducing Po...  
amazon.com



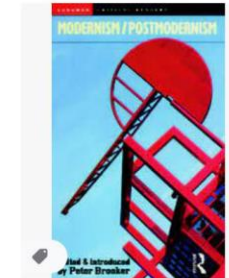
Cultural Logic of Late Ca...  
amazon.com



Amazon - Postmodernis...  
amazon.com



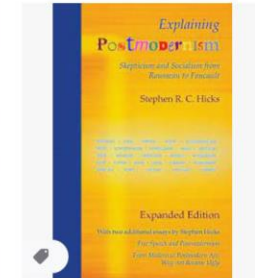
Post-Postmodernism: or...  
sup.org



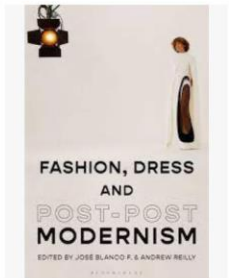
Modernism/Postmodern...  
routledge.com · In stock



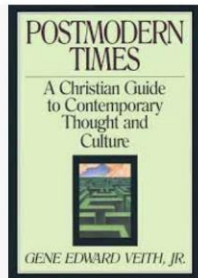
Taking Derrida, Lyotard ...  
amazon.com



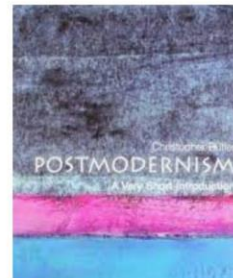
Explaining Postmodernis...  
amazon.com



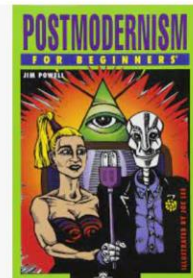
Fashion, Dress and Pos...  
bloomsbury.com



Postmodern Times: A ...  
amazon.com



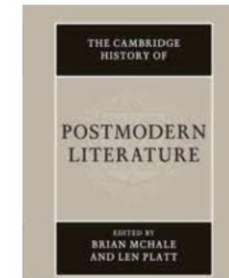
Short Introduction by C...  
goodreads.com



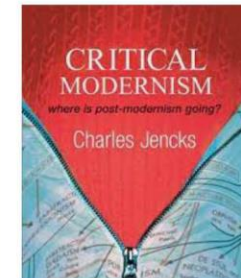
Postmodernism For Be...  
amazon.com



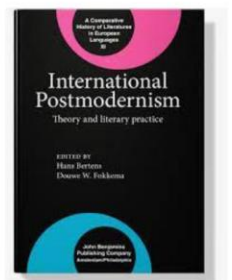
Postmodern Architecture | Arc...  
phaidon.com · In stock



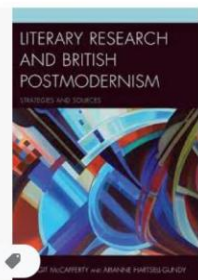
The Cambridge History ...  
cambridge.org



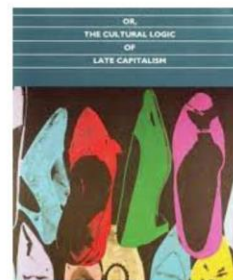
Critical Modernism: Wh...  
wiley.com



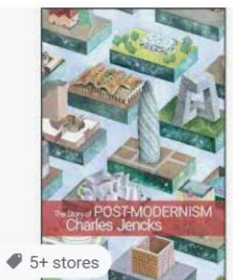
International Postmod...  
benjamins.com



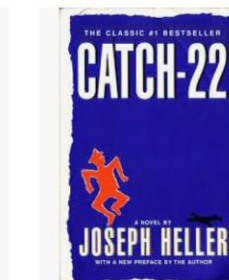
Literary Research and ...  
rowman.com



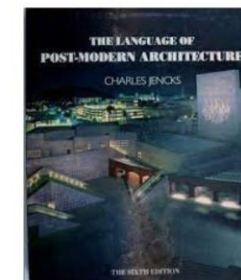
Postmodernism or the ...  
goodreads.com



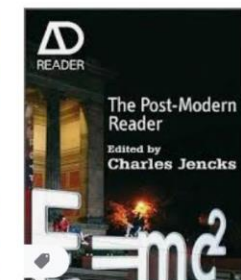
The Story of Post-Modernism...  
target.com · In stock



Top 10 Works of Post...  
listverse.com



Amazon - The Language ...  
amazon.com



The Post-Modern Read...  
bookdepository.com · In s...

## Jean-François Lyotard

“Simplifying to the extreme, I define postmodern as incredulity toward metanarratives. This incredulity is undoubtedly a product of progress in the sciences: but that progress in turn presupposes it. “

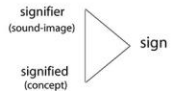
- The Postmodern Condition (1979)

What narrative is undone? The narrative promise of *modernism*.



## MEDIA THEORY

### THEORY



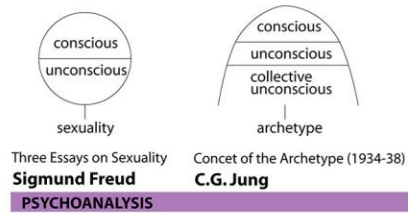
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### ART

**Saussure**  
Switzerland



### modern art



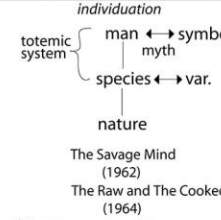
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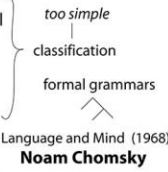


Writing Degre Zero (1953)  
**Roland Barthes**

**Marshal McLuhan**  
Understanding Media (1964)



**Clement Greenberg**  
Art and Culture



Language and Mind (1968)  
**Noam Chomsky**

Art as a Language  
**Levi-Strauss**

**STRUCTURALISM**  
Frank Stella, Sol Lewitt

**MINIMALISM**  
no expression, only form

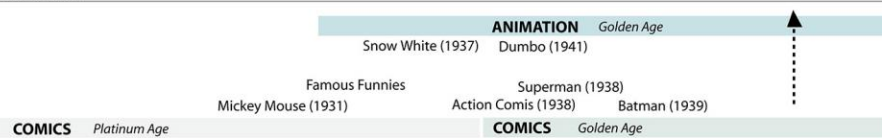
**ABSTRACT EXPRESSIONISM**  
no form, only expression

**POP ART**  
1954 Jasper Johns, 1962 Andy Warhol, 1966 Claes Oldenburg

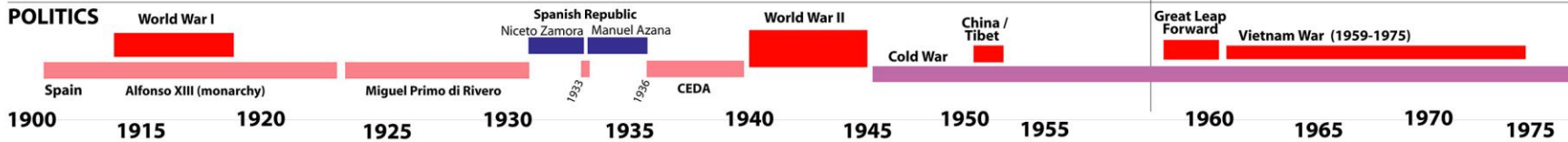
**PERFORMANCE ART**  
Richard Serra

**POST-MODERN**

## CONSUMER ART



## POLITICS



## SCIENCE



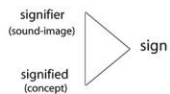
World Population

Timeline of 20<sup>th</sup> c. Art and New Media

Rama Hoetzlein (c) 2009-2010  
<http://www.rchoetzlein.com>

## MEDIA THEORY

### THEORY



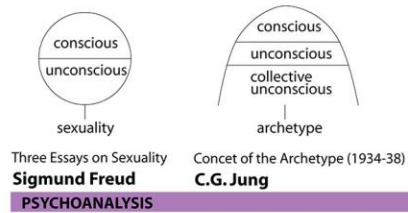
Course in General Linguistics (1915)

**Saussure**  
Switzerland

### ART



### modern art



**Walter Benjamin**

Art in the Age of Mech. Rep. (1936)

The Mechanical Bride (1951)

**Marshall McLuhan**

Understanding Media (1964)

**Clement Greenberg**

Art and Culture

**Steven Levy**

Hackers (1984)

Artificial Life (1992)

**Paul Virilio**

The Vision Machine (1994)

**Lev Manovich**

The Language of New Media (2001)

The Information Bomb (2000)

Harold Cohen (AARON) Karl Sims William Latham  
**GENERATIVE ART**

Peter Beyls (1988) *The Algorists*  
**ALGORITHMIC ART**

Hebert (1989)

Visual Display of Quantitative Information (1983) Edward Tufte  
**INFORMATION VISUALIZATION**

Sommerer & Mignonneau K. Feingold Eduardo Kac  
**ORGANIC ART / ARTIFICIAL LIFE**

**HACKING (EXPLORATORY)** **HACKTIVIST ART (SUBVERSIVE)**

**TACTICAL MEDIA**

**new media art**

Stelarc  
**CYBERNETIC ART**

Naim Jun Paik  
**VIDEO ART**

**POST-MODERN SCULPTURE**

Robert Smithson  
**EARTH ART**

**LOWBROW**

**POP SURREALISM**

**GRAFFITI**

Juxtapoz mag. (1994) Robert Williams Mary Ryden

Richard Serra  
**PERFORMANCE ART**

1962 Andy Warhol 1966 Claes Oldenburg  
**POP ART**

Jackson Pollock  
**ABSTRACT EXPRESSIONISM**

no form, only expression

**avante-garde**

**SURREALISM**

Manifest of Surrealism (1929)  
**Andre Breton**

**automatic surrealism**

**paranocritic surrealism**

Dali

Masson Miro assassination of painting

**RUSSIAN CONSTRUCTIVISM**

functionality

## CONSUMER ART

### POLITICS

**COMICS** Platinum Age Famous Funnies Mickey Mouse (1931) Action Comics (1938) Superman (1938) Batman (1939)  
**COMICS** Golden Age Snow White (1937) Dumbo (1941)

### SCIENCE

Quantum theory Wave-Particle Duality Theory of Relativity  
Radio Astronomy Electron Microscope Superfluidity Nuclear Fission  
Big Bang Theory Quantum Electro-dynamics Structure of DNA  
**COMPUTER**

1900 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2010

World Population 2 billion

### COMPUTER INVENTED

**COMICS** Marvel Comics Fantastic Four (1961)  
**VIDEO GAMES** Pong (1971) Centipede Pac-Man (1981) Super Mario (1985) Doom Quake Warcraft Myst/Riven  
**visual effects & games**

**Great Leap Forward** **Vietnam War (1959-1975)** **Soviet-Afghanistan** **Rwanda** **Iraq War (2003-)**

Berlin Wall Falls World Trade Center 9/11

Man in space 3 billion Chaos theory Moon Landing 4 billion Superstring theory 5 billion First extraterrestrial planet Human genome 6 billion World Population

**rise of popular science**

Timeline of 20<sup>th</sup> c. Art and New Media

Rama Hoetzlein (c) 2009-2010  
http://www.rchoetzlein.com

Rama Hoetzlein, Knowledge Cultures in New Media Art

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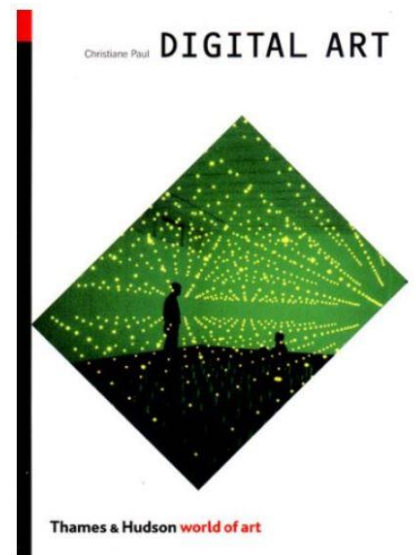
Perhaps meta-narratives are no longer linear; but they are not absent.

# I. Cultures of Practice

Based on media and *forms* of practice

- Video games
- Generative art
- Information art
- Internet art
- Virtual worlds
- Social media

*Ideology varies widely, often implicit in making.*



Christiane Paul, Digital Art  
Thames & Hudson © 2003



Lev Manovich, Language of New Media  
MIT Press © 2001



## II. Social or Explicit Cultures

- Ecological art

“Ecological art is purposeful and often prescriptive:  
the intended actions and directions for activists are clear.” (Ellison & Borden)

- Feminist art

“[feminist art] is neither a style nor a movement but  
instead a value system, a revolutionary strategy, a way of life” (Lippard)

- Hacktivism

*Ideology is explicit.*

## Def. **Knowledge Cultures**

I define knowledge cultures as flexible, over-lapping, non-exclusive, ideological sub-groups and seek to identify their explicit, hidden or shared **ideological** principles.



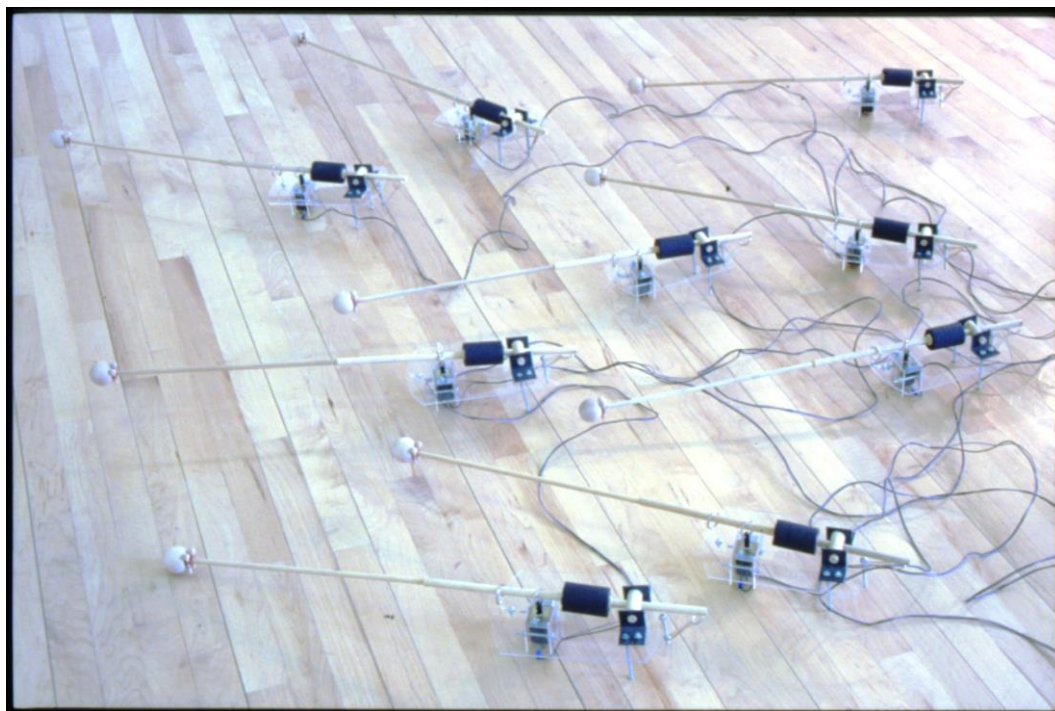
# III. Technological Cultures

- Techno-philic  
embrace technology as playing a prominent, positive role in the world
- Techno-critical  
appreciate technology while also reflecting on its challenges and implications
- Techno-phobic  
against technology; opposed to its global impacts

*Ideologies based on ones' outlook toward technology.*

What are the deeper  
ideological cultures in Art?

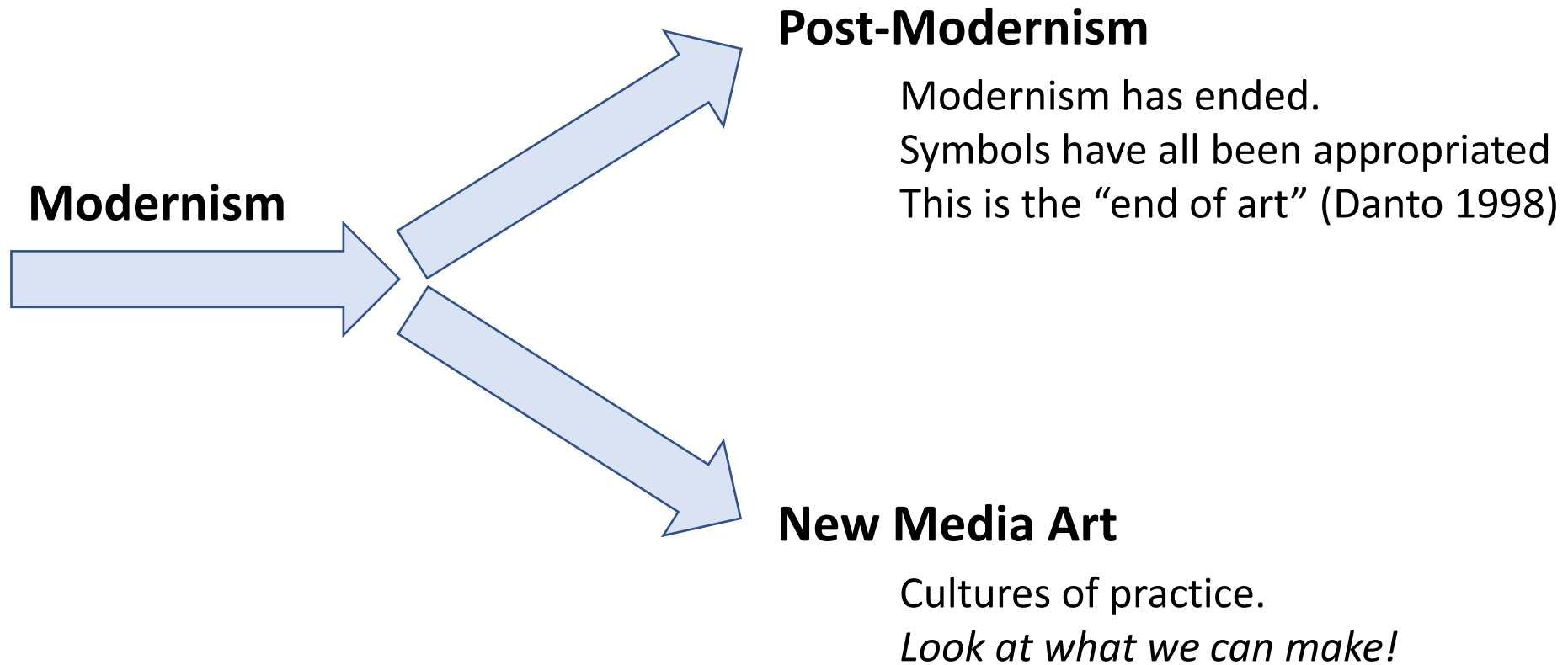


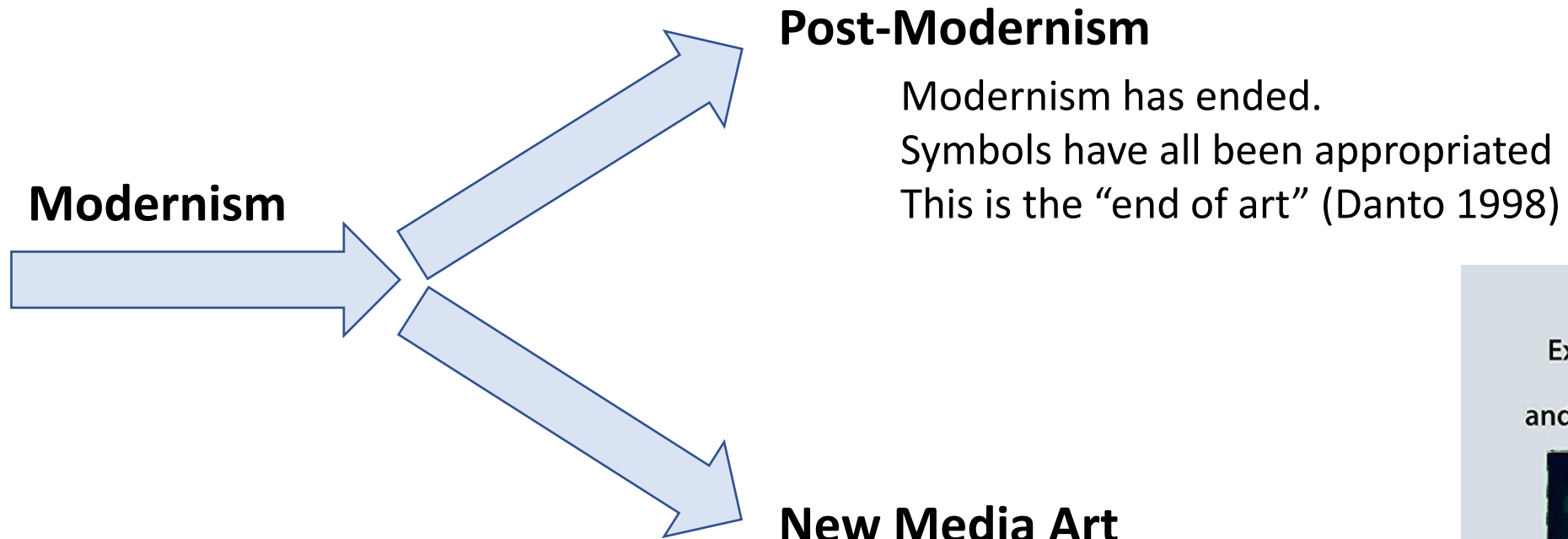


2001, Creatures, Robotic Sculpture, R.Hoetzlein



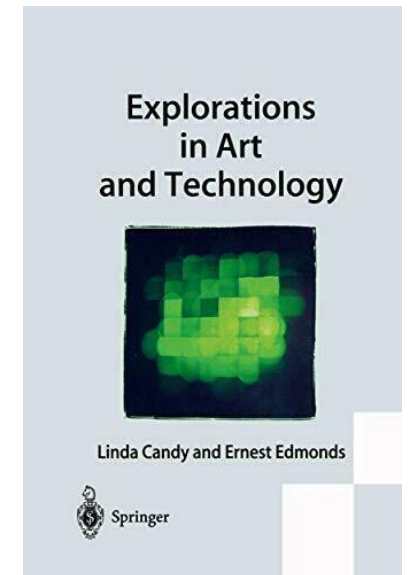
2020, Naturalist Family Crest, Oil on birch panel, R.Hoetzlein





Cultures of practice.  
*Look at what we can make!*

“What emerges is a compelling story of new visions and new forms in a field that is set to transform traditional norms in both art and technology as we move through the 21st Century.”



Linda Candy and Ernest Edmonds  
Springer © 2002

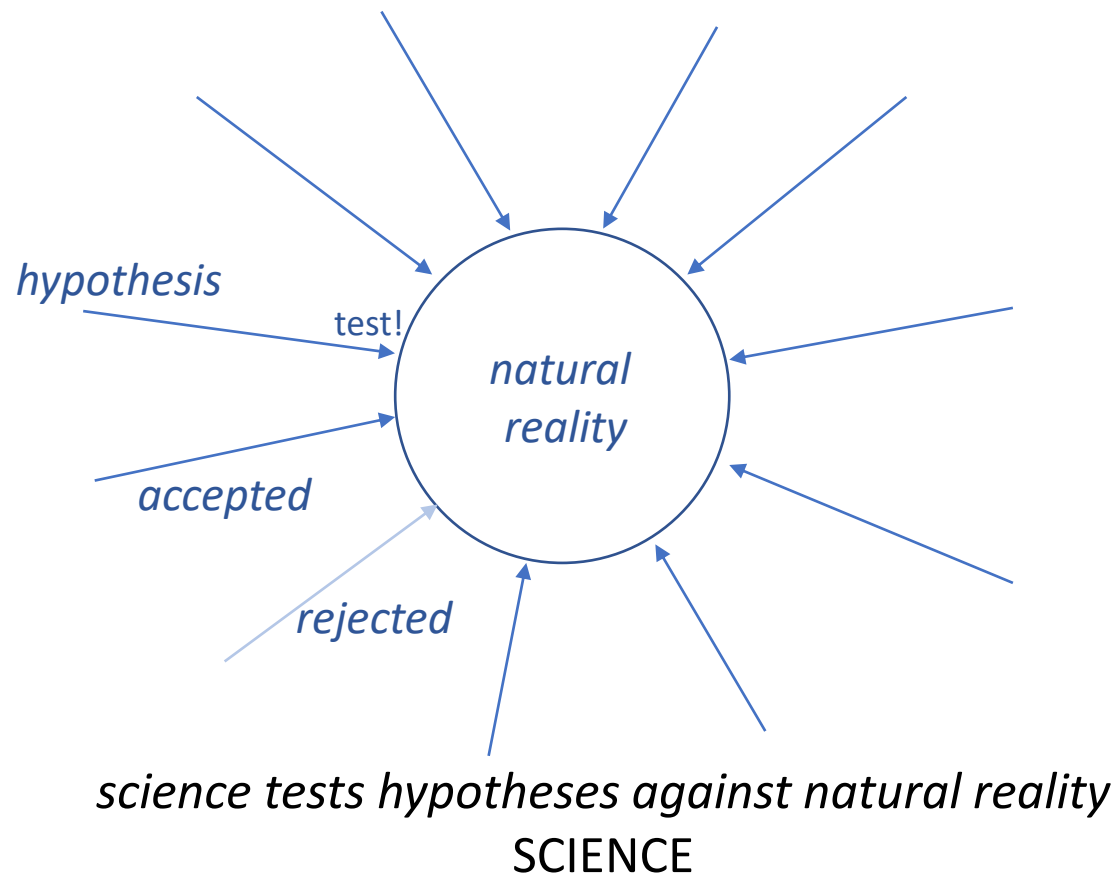


## Post-modern origins of New Media Art

“science does not expand by means of the positivism of efficiency...” (Lyotard)

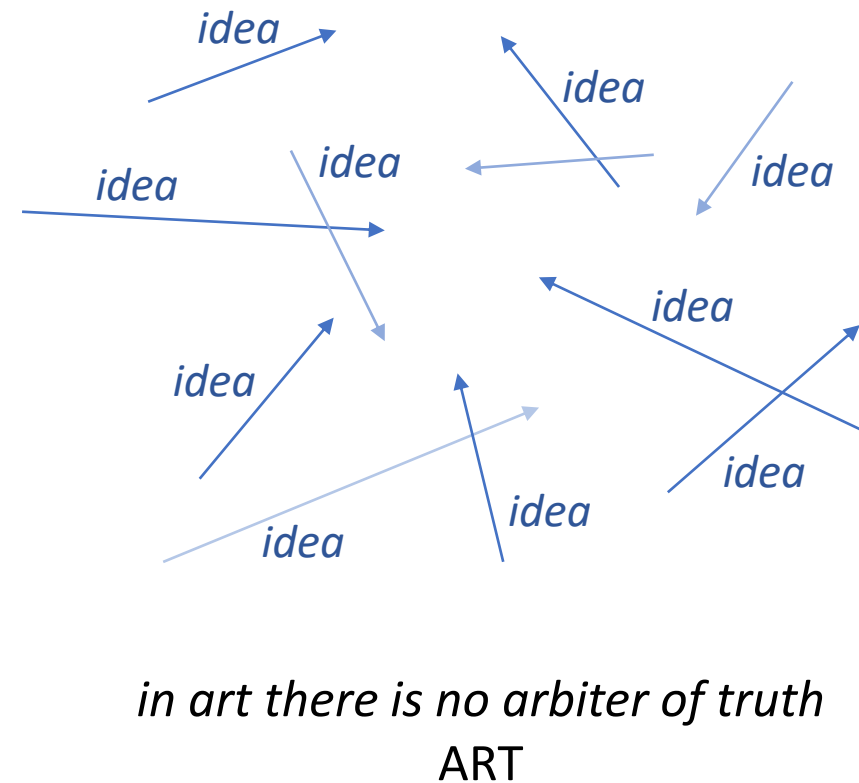
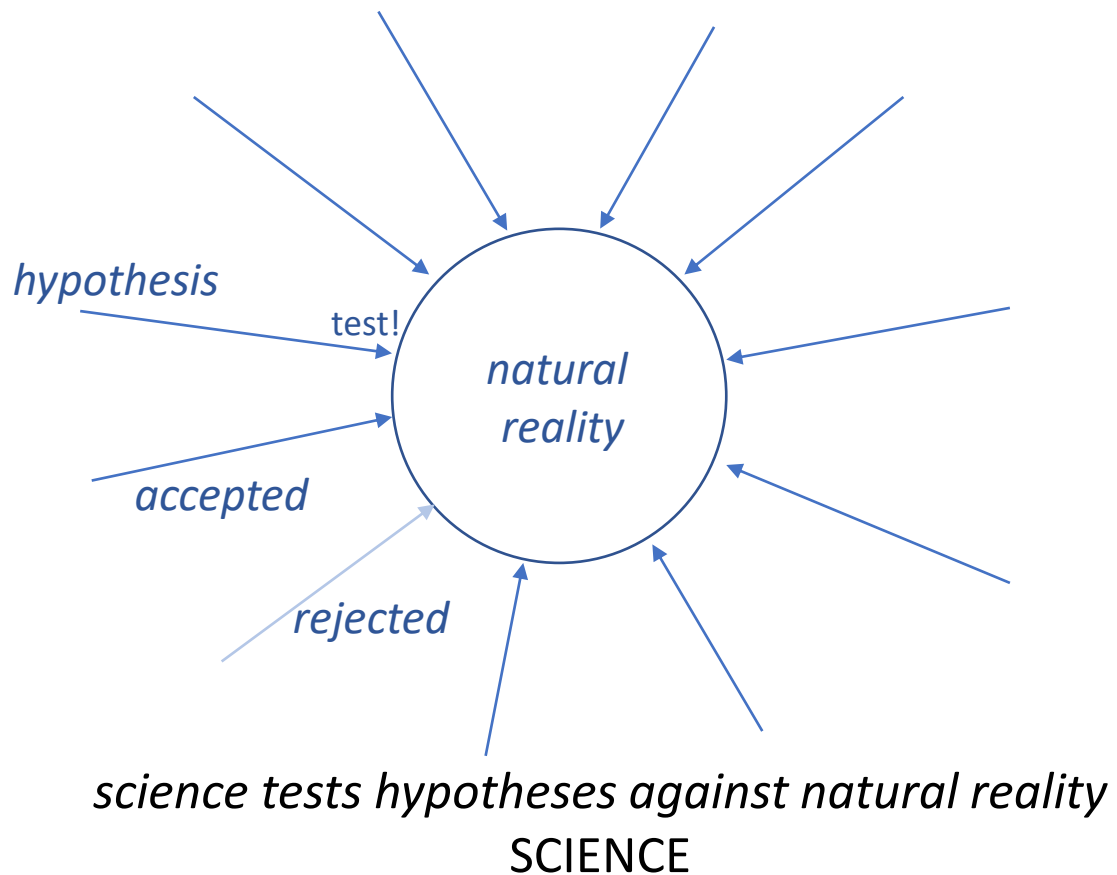
# Post-modern origins of New Media Art

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# Post-modern origins of New Media Art

“science does not expand by means of the positivism of efficiency...” (Lyotard)





## IV. Embedded Cultures of Pluralism

Pluralists embrace the notion that literally anything is valuable as art, ie. all is deserving to be seen. (*internal self-consistency*)

Contrary to the “modernist” perspective that there are universal values in art.

Easy test: “Do you think that anything can be art?”

*Ideology based on scientific hypothesis generation*

# CONTEMPORARY DILEMMA

"Our challenge is not so much to seek ever more sophisticated technological solutions to existential and environ-mental problems, as it is to re-establish a moral, emotional, and perhaps spiritual, relationship with the bio-sphere: living with empathy and consciousness, with respect for the land, the plants, the animals, and people."

Alexandra Bal, Sentience as the Antidote to Our  
Frenzied Mediated Selves, ISEA 2020

# CONTEMPORARY DILEMMA

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Alexandra Bal, Sentience as the Antidote to Our  
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*In other words, there may not be enough time to try everything.*





## V. Synthesis

Art is not bound to the terms of fragmentation and hypothesis testing – it has the capacity to coherently synthesize and integrate knowledge.

A culture of *synthesis* need not deconstruct, it need not propose hypotheses, nor conduct experiments, nor invent media types. It does not require ‘novelty’ to legitimize itself but might instead drawn from what exists to define similarity and consensus.



1938, Stuart Walker, Composition 55  
Transcendental Painting Group



2022, Rama Hoetzlein, Manipulations of the Sarcophagus  
Sentient Painting series

“Spirituality Has Long Been Erased from Art History. Here’s Why It’s Having a Resurgence Today.”

Art World, Eleanor Heartney, Jan 2020



## VI. New Meta-Narratives

The meta-narratives of our times are the knowledge cultures of scientific fragmentation, pluralism, presumed objectivity and their paradoxical relationship to globalism and ecological disaster. These are recurring grand narratives that are neither regional nor temporary.

The knowledge cultures observed here are a reflection of the trends of science, technology and art over the past century, the goal of which was to make explicit the new meta-narratives of the post-modern/medium so that the future of new media art might avoid being bound to the same narratives.

*What do we value?*

## **Rama Karl Hoetzlein**

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Digital Media Design  
Florida Gulf Coast University

E-mail: [rhoetzlein@fgcu.edu](mailto:rhoetzlein@fgcu.edu)

Website: <http://ramakarl.com>



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# POSSIBLES

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