

Why do I read
Deleuze?

I have been:

Conservative / philosopher / hippy /
anarchist / drag queen / black turtle
neck smoker/ lighting director / digital
nerd / Professor

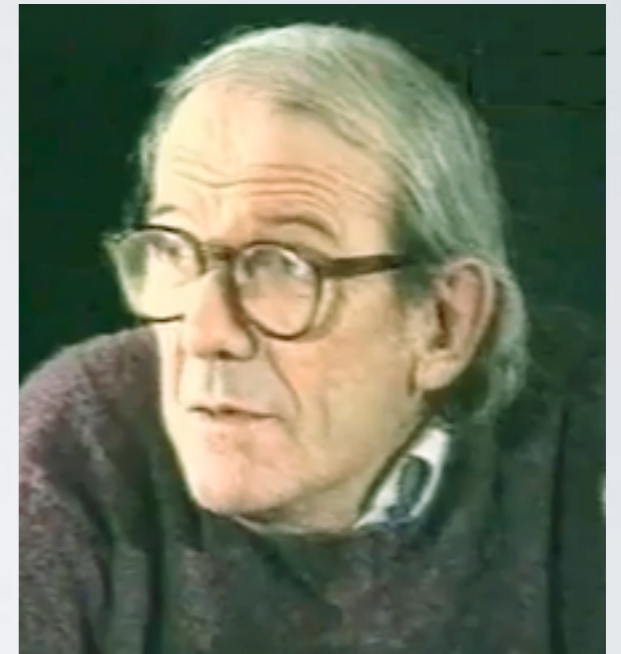
I now would rather
become, thanks to...

Bergson movement (change) / Whitehead process /
everything is image in motion

GILLES DELEUZE

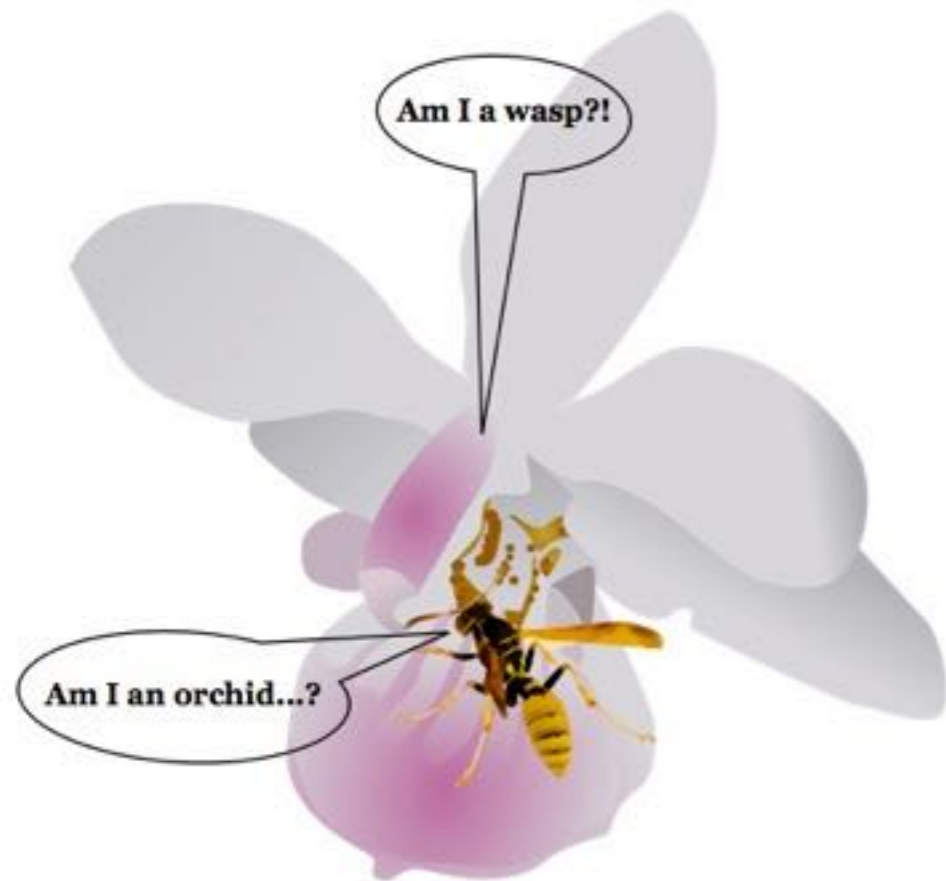
(1925-1995)

- Bergsonism (1966)
- Logic of sense (1969)
- Rhizome (1976)
- Thousand plateaus (1980)
- Logic of sensation (1981)
- The movement-image. Cinema I (1983)
- The time-image. Cinema 2 (1985)
- What is philosophy? (1991)



And a little bird and a wasp

Rhizomatic Connection



WTF



<http://www.youtube.com/watch?v=GPbWJPsBPdA>

http://www.youtube.com/watch?v=tj32_ijdmLo



fresh
architecture
frame

Plane of composition

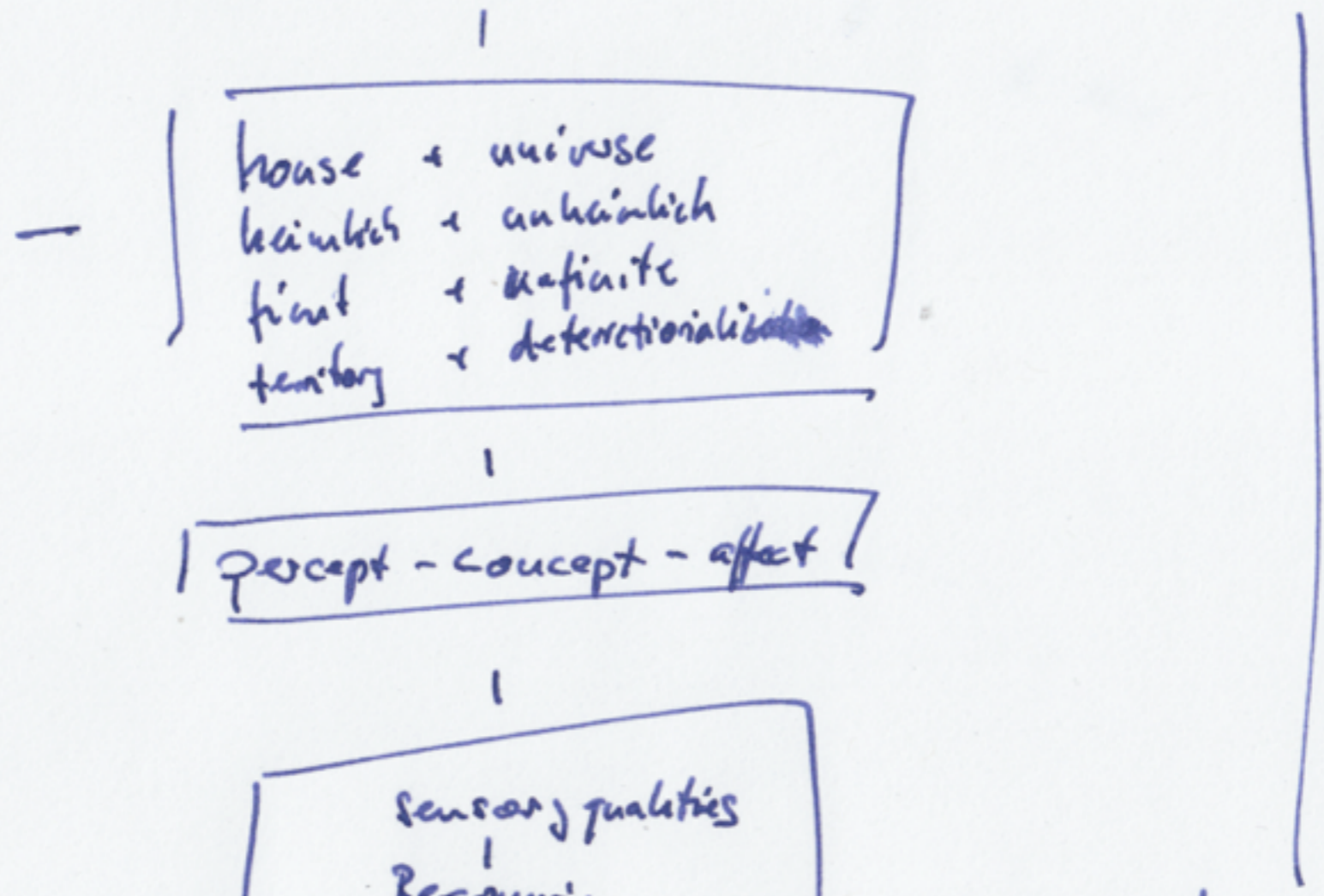
house + universe
heimlich + unheimlich
faint + definite
territory + deterritorialization

Percept - Concept - affect

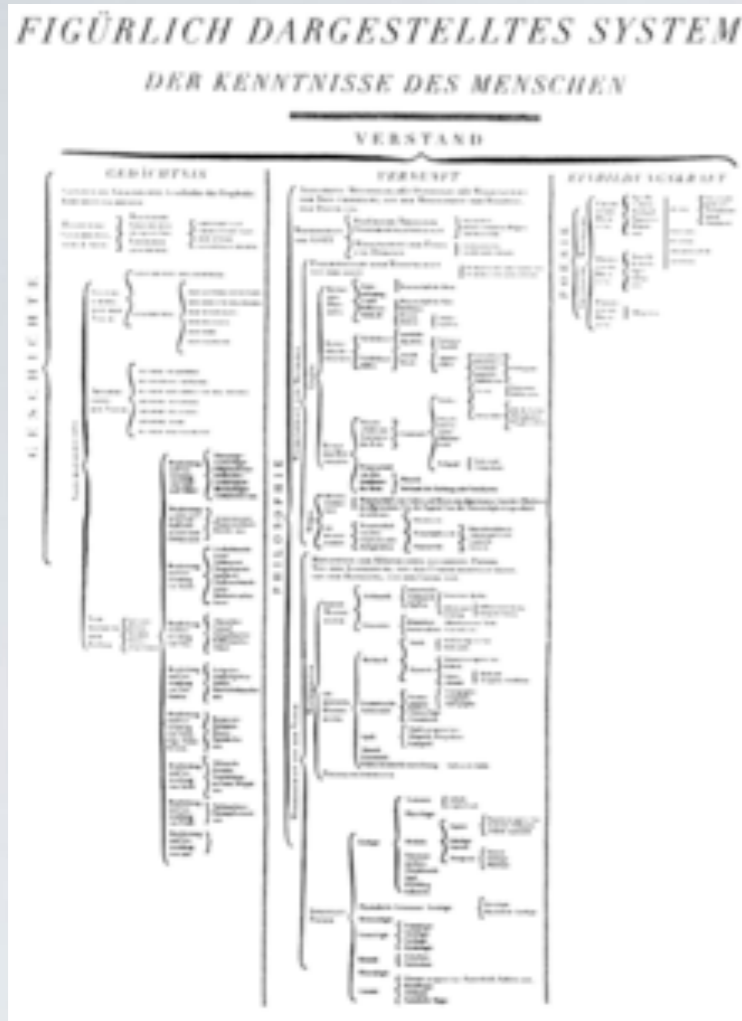
Sensory qualities
|
Becoming
|
Territory
|
Animal

— Art

— house



Rhizome



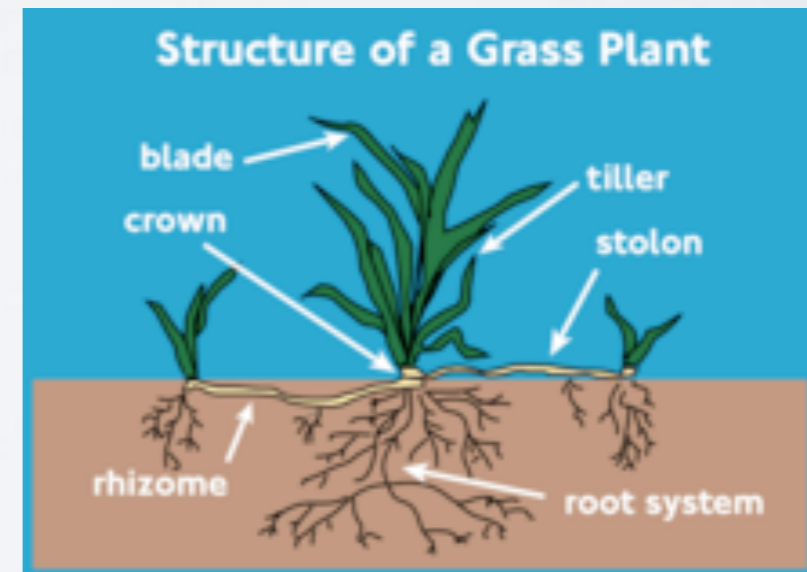
Dichotomischer“ Baum des menschlichen Wissens in Band 1 der [Encyclopédie](#)



„Rhizomatische“ Verweisstruktur zwischen Webseiten



Übereinandergeschüttete Ingwerrhizome – ein Geflecht ohne „Stamm“



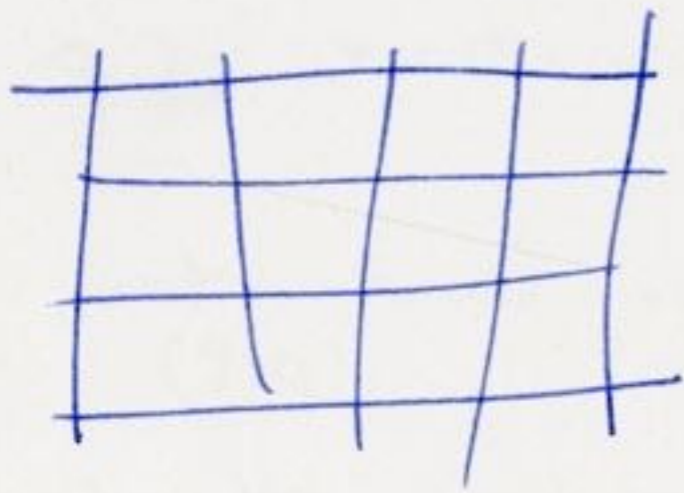
Rhizom einer Graspflanze

Why did it take me so long to find it and what did I do before?

Books / films

- Antiquity plays
- H. Balzac
- Shakespeare
- H. Fichte
- F. Dostojevski
- L. Tolstoi
- H. Hesse
- Dziga Vertov
- Godard
- Lars von Trier
- Peter Greenaway

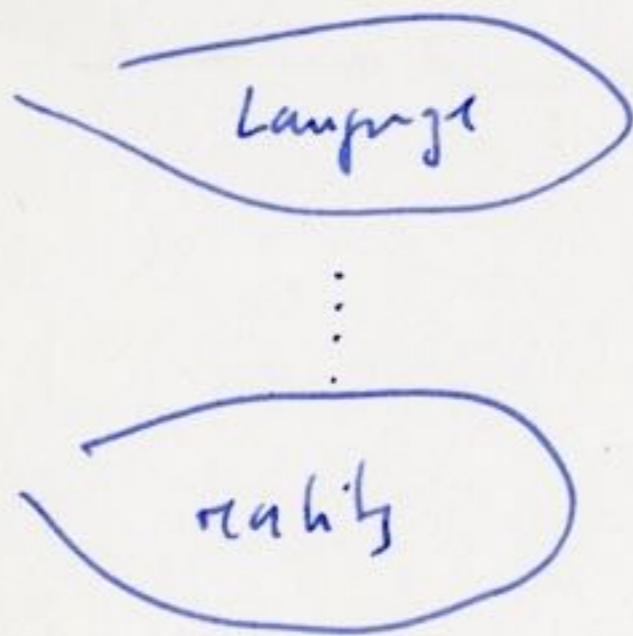
- I. Kant (aesthetics)
- G.F. Hegel (phenomenology)
- E. Husserl (Ideas)
- H.N. Castaneda (guise theory)
- D. Lewis (possible world)
- N. Goodman (ways of world making)
- Metaphors
- Leibniz (Monads)
- Self-consciousness
- M. Bense (information)
- C.S. Pierce (semiotics)
- K. Marx (capital)
- Van Gogh
- Kandinsky
- J. Johns
- Cezanne
- Picasso
- Nude
- Bad 19th century american art
- Art Nouveau
- Postmodern architecture
- Jawlensky
- P. DeMarinis



Categories (Kant 12)

the world is structured according to a logic we can understand.

Contradiction in the logic are interpreted as impossibilities in the world. We don't question our logic.



Structuralism. The world is mirrored in language. Both can change, there is no causal / necessary link. Many different structures can mirror world in different ways



Phenomenologic. The only thing we can make statements about with certainty is our consciousness / self-consciousness. We sit in a chair and meditate on our consciousness. The world is in epoché ()



Post-structuralist.. Knowledge and consciousness are not restricted to humans. We think in post-human forms. The world is folded, the different layers + strata form new phenomena. We understand ourselves as processes and becomings. We form rhythms and new structures



Studied

- Freiburg (philosophy)
- Hamburg (literature)
- Heidelberg (philosophy)
- Bremen (art science)

Learning art history in London



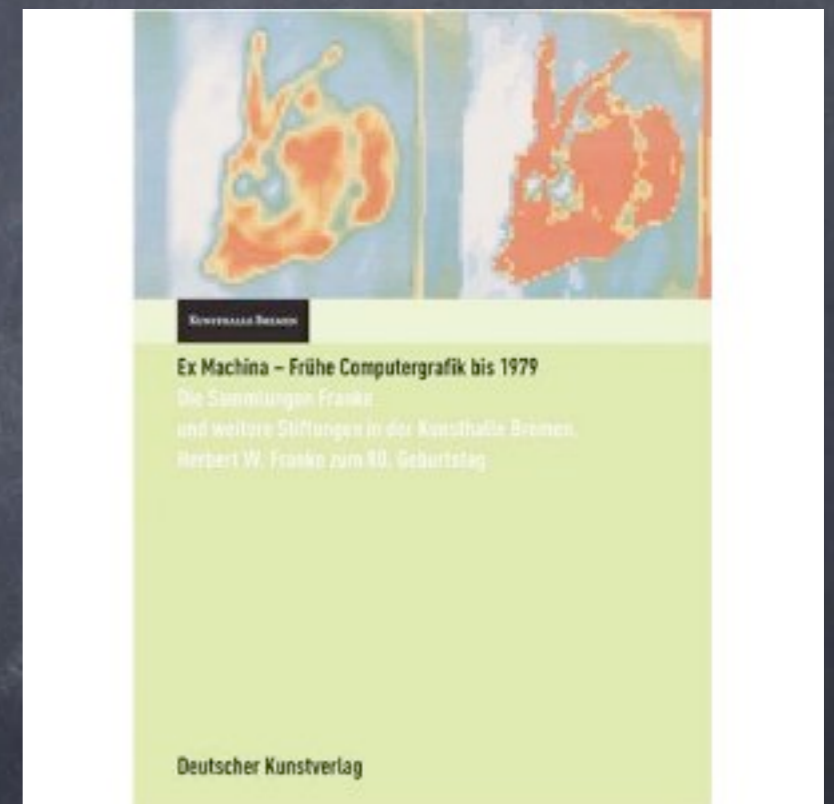
Tate Gallery / National Gallery

4 years Multimedia

- Enough of the ivy tower
- Dotcom bubble 2000
- Late night and pizza service
- Federal bank Germany
- Siemens Headquarter
- TV documentaries (BBC)



Chercher la flamme – I.e. Writing a PhD



Digital computer art: A view from art history into the early beginnings

Christoph Klütsch (International University Bremen)

Aesthetic values

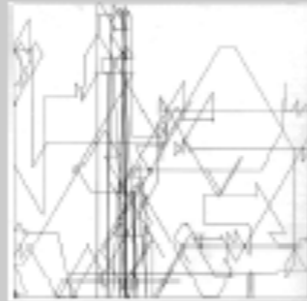
The historical coincidence of Max Bense's (Stuttgart, Germany) and Abraham Moles' (Strasbourg, France) 'information aesthetics', and the academic use of mainframe computers created a surrounding which has enabled: Frieder Nake, Georg Nees, and (independently in the USA) A. Michael Noll to explore new fields of visual research since 1962.

When the first public attempts at computer art were made, this new breed of people considered themselves to bridge C. P. Snow's 'two cultures'.

What started on 2/5/1965 as 'generative aesthetics' at a small exhibition in Stuttgart, found its international culmination in a series of conferences in Zagreb and exhibitions in NY and London in 1968/69. The questions addressed were:

- Is it possible to write a program which would enable a computer to produce aesthetic objects with a significant aesthetic value?
- How could these aesthetic values be scientifically, psychologically, and philosophically defined?
- What kind of implications does computer art have not only on art itself, but also on society, and our self understanding as human beings?

1965 digital computer art entered the art world - "The three N's"



Frieder Nake 1962

Frieder Nake

"This picture is a restricted picture generation. It is each picture generating computer program. At all times, when later applied the same method, most computer programs employ: they tried to vary a theme as often as possible in order to attain a 'best' (in their judgment) object. This method became particularly important in several years with Nake's, concrete art, New Technics, etc." (Nake 1969)



Georg Nees 1965

Georg Nees

Georg Nees wrote his PhD about "Generative Aesthetics" with Max Bense as doctoral advisor. Nees describes his work as an "aesthetic laboratory" which enables him to do "visual research". Here we see the transition from order to chaos. In other words he investigated "the use" which occurred, but if abstract conditions structure?



Michael Noll 1962

Michael Noll

"In general, completely random two-dimensional pictures are not very interesting. However, the computer is also able to mix together randomness and order in mathematically specified proportions to achieve a desired effect." (Noll 1966)

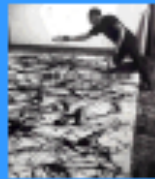
Bense's Information Aesthetics

In 1965 Max Bense published his 'Aesthetics'. Referring to David Birkhoff's *Mathematical Aesthetics*, Claude Shannon's *Information Theory*, Noam Chomsky's *Generative Grammar*, and Norbert Wiener's *Cybernetics*, Bense developed a new aesthetic based on strict science.

The goal was to measure the value of art works by determining the ratio between order and chaos respectively, information and redundancy:

- The aesthetic information is part of (human) communication.
- Communication can be understood as a cybernetic process.
- Information theory measures information (Shannon)
 - Artworks contain aesthetic information
 - > Aesthetic information can be measured
- Aesthetic Measure is an interplay between order and complexity (see Birkhoff) and can be described in terms of neg-entropy.
- The process of art is the inverse of entropy: art creates order.
- The aesthetic object is related to a process which can be understood as a sign process.
- Given the rules for generating aesthetic information, a computer can produce aesthetic objects which are perceived as signs.

Intuition in Art



Pollock in his studio, 1950

Art and Machines



Tig Daly, Meta-Matic 1958

Generative aesthetics - ARTificial ART

Who is the CREATOR in computer art?

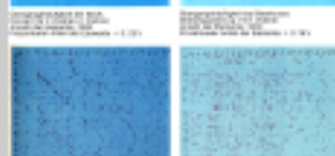
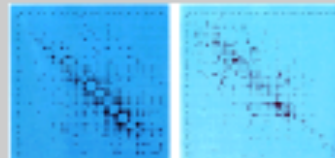
The artist, the programmer, or the program?

Art as a communication process:



S. Maier: A cybernetic model of aesthetic processes

We can TALK about the aesthetic values of objects - can we MEASURE them?



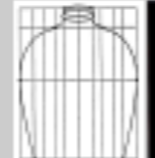
In the 50s, Wilhelm Fuchs analyzed the aesthetic value of outstanding works of art and formalized stylistic criteria.



Manfred Mohr, Rand Structures 1969

"The first step in that direction was an extended analysis of my own paintings and drawings from the last ten years. It resulted in a surprisingly large amount of regularities, determined of course by my particular aesthetic sense, through which I was able to establish a number of basic elements that amounted to a rudimentary syntax. After representing these basic constructions through a mathematical formalism, and setting them up in an abstract combinatorial framework, I was in a position to realize all possible representations of my algorithms." (Mohr 1971)

A mathematical approach to aesthetics



Birkhoff 1932



Sung Dynasty (960-1279)

David G. Birkhoff (1884-1944):

M = O/C
M = aesthetic measurement
O = Order
C = Complexity

$$M = \frac{O}{C} = \frac{P + E + R + NY - P}{C}$$

Order and Complexity are fundamental principles in the world.

Is there an aesthetic relation between them?

Two Cultures

20-22. March 1968 at the MIT:

"The session entitled 'Art, Technology and Communication' began in the afternoon with Jerome Lettvin, M.I.T.'s monumental (six feet, 270 pounds) Professor of Communications Physiology, removing his jacket, rolling up his sleeves, brushing his hair back behind his ears, and stating that we've been handed a 'Snow job' on the division between art and science." (Sprack 1969)

Computer art as a bridge?

In the 60's a new collaboration of artists and engineers emerged in using a computer:

- In the tradition of the Bauhaus, industrial production merged with artistic production using the computer as a tool, and succeeded with the generative aesthetic, classical industrial design.
- Nevertheless, while in Europe engineers had to fight to be seen as creative, in the USA the new scientist-artist was seen as 'superior' to classic artists such as Picasso

Early networking

In the January 1966 issue of 'Computers and Automation', Leslie Meisel at the University of Toronto suggested building a network for sharing information about events connected with computer art.

Shortly afterwards, he published a bibliography on computer art and in June 1966 the conference "Design and Computer" was held at the University of Waterloo, Ontario, Canada.

The conference was organized by Martin Knapp, who at that time worked at the Institute of Design at the University of Waterloo and at the Hochschule für Gestaltung in Ulm, Germany.

The participants were: Allen Barnholtz, Edward Barnstone, Steven A. Coons, William A. Fetter, Edwin L. Jacks, Kenneth C. Knowlton, Marvin L. Marshall, A. Michael Noll, Kenneth G. Scheid, and Arthur H. Neuman.



Leslie Meisel 1968

Conferences: Talking about my ideas and meeting like minded people

- Banff, Canada
- London
- NYC
- San Francisco
- Berlin
- Shanghai

Scientific and project coordinator

Der Wasserturm

			
Wasserversorgung	Stadtbild	Architektur	Stationsauswahl

Die Begradigung der Delme

1884
1889
1905

zurück weiter

IP





Der große Zirkus

zurück weiter



IP



Die Technik des Wasserturms

zurück weiter

IP





Becoming a Professor

- * I don't want to go to Texas!
- * And my wife doesn't like Germany any more....

Things I don't understand

* Representation

* Figure

* Monotheism

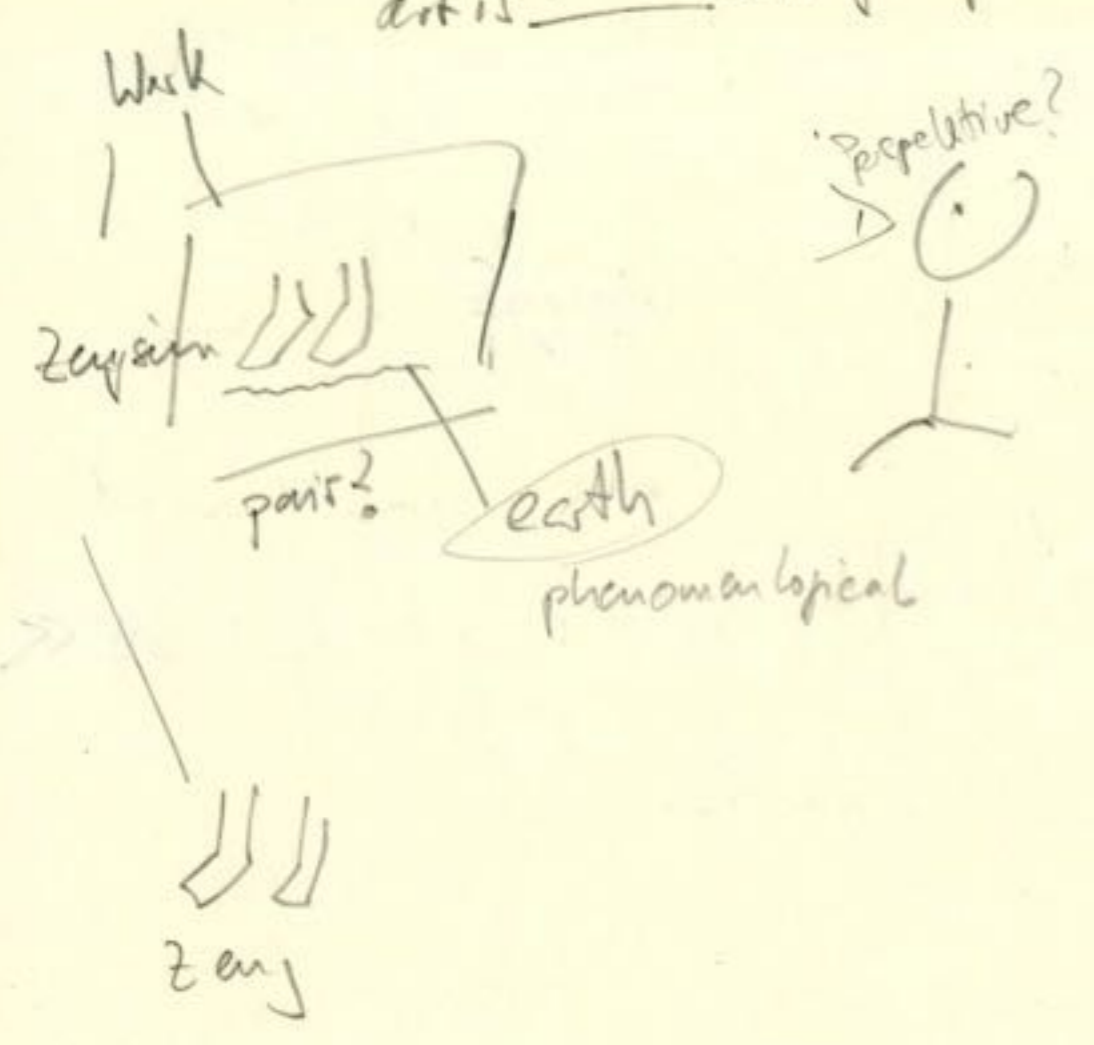
* Beauty

* Violence

What I would like to understand:

- * Folding
- * Process
- * Connection
- * Motion
- * Sensation
- * Immanence

art is Truth setting itself to work.



Derrida - Heidegger - Schapiro

What excites Heidegger's unease by not asking whether or not there are peasant shoes? What kind of picture/image/painting is he talking about?

Is Heidegger's vagueness more accurate to understand than the catalog entry?

How says the painting the truth?

Can we understand world as such or does it have to be mediated?

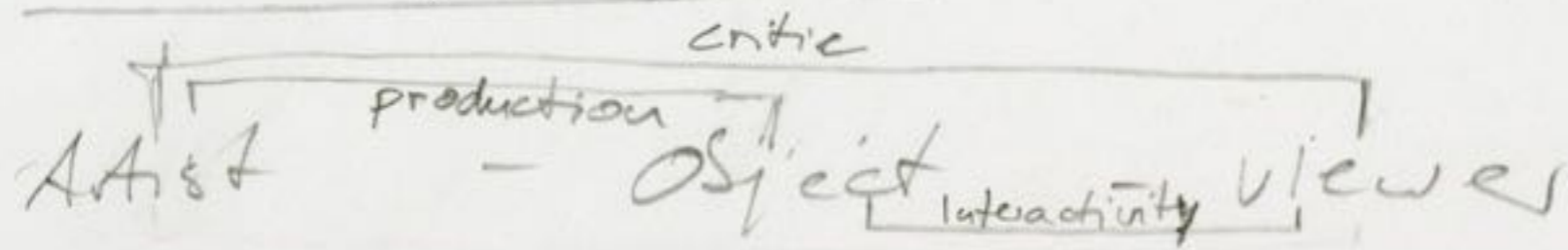
Does this argument work for abstract art?

What is the relation between language, thing and *Verdellung* (Illustration)

Form and Function - *Zeug + Zeugsein*, foundation of aesthetics in a 'firstness'?

Have Lily painting a pair of shoes.
Read together the beginning of the text.

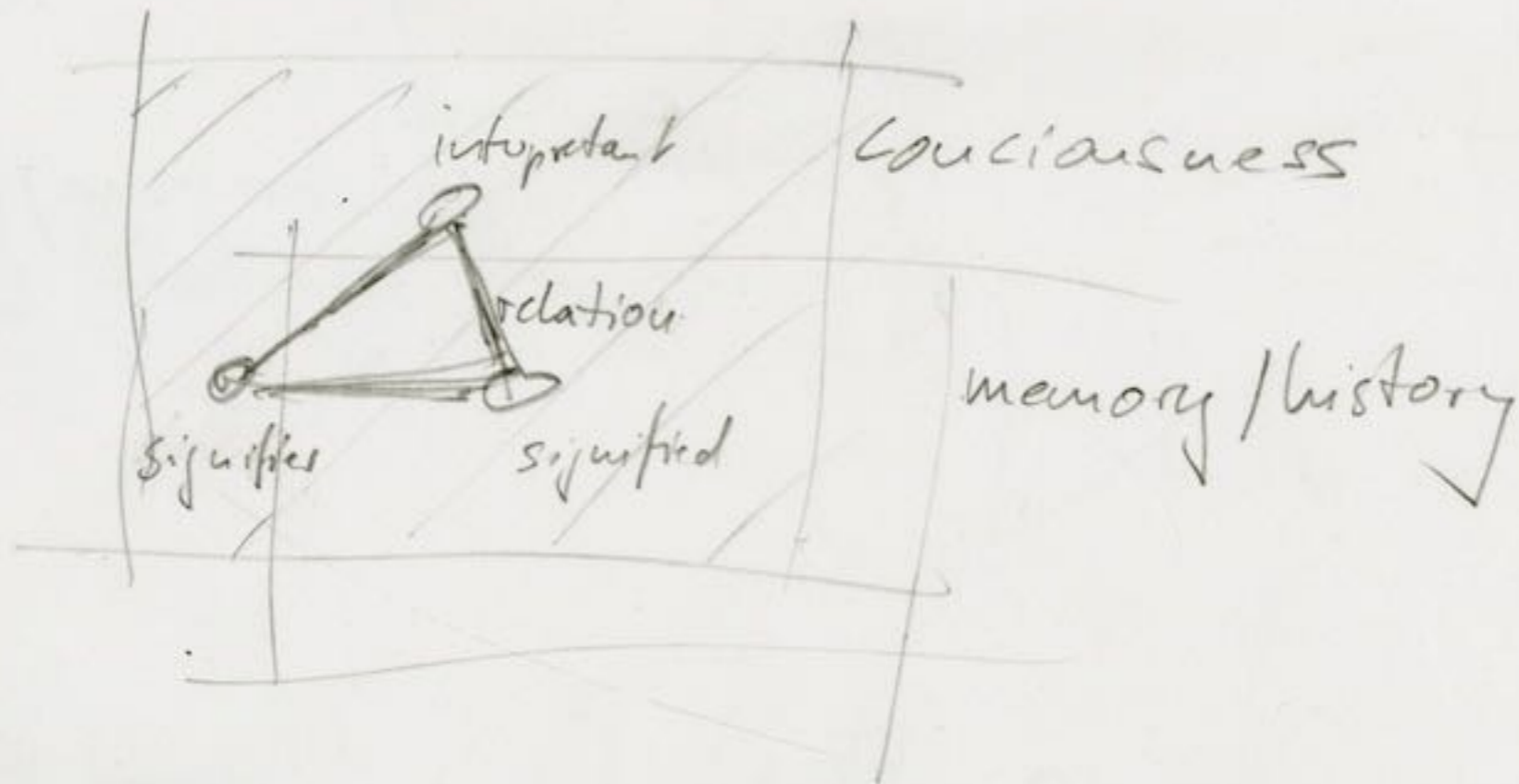
Art Systems



Institutions (Critic)

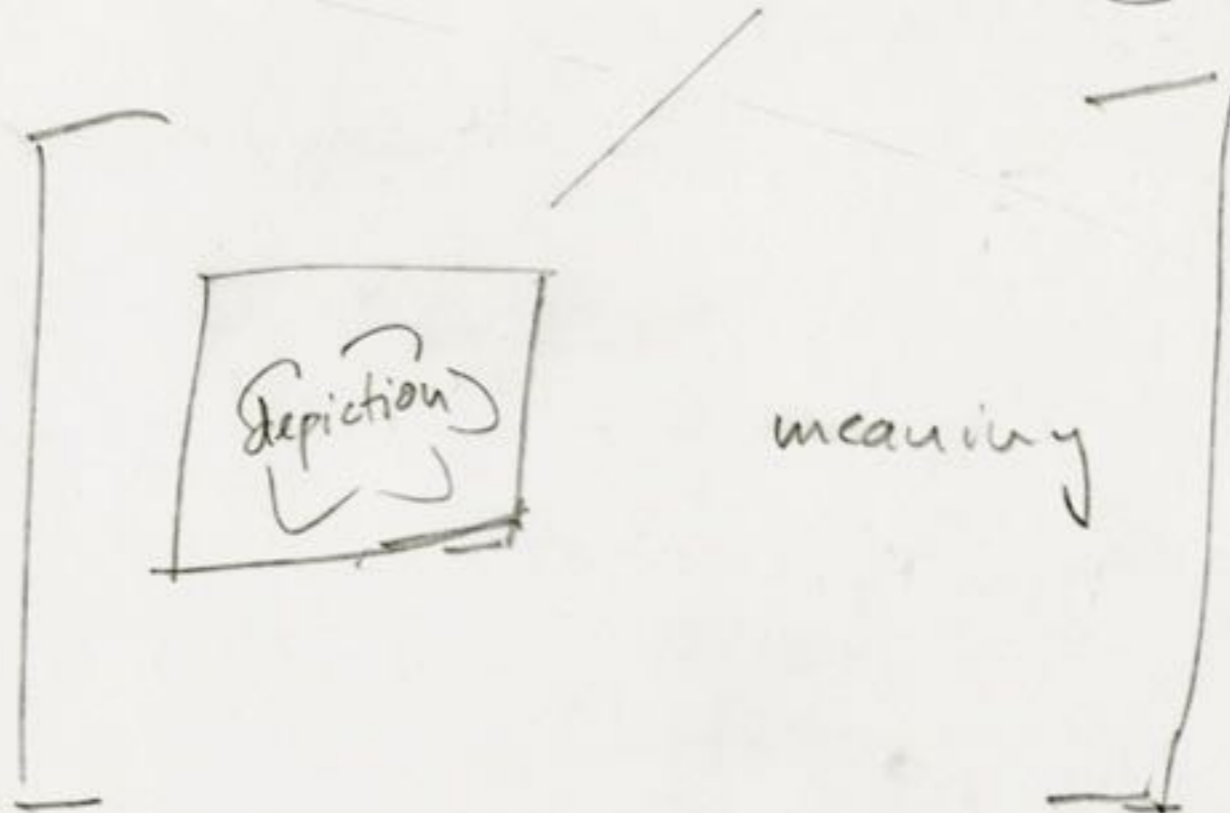
Gallery — Museum — Market

Singer



physical process
stream of consciousness

reality



Structuralism / phenomenology

gate



gabc

surface

flatness
skin

the other

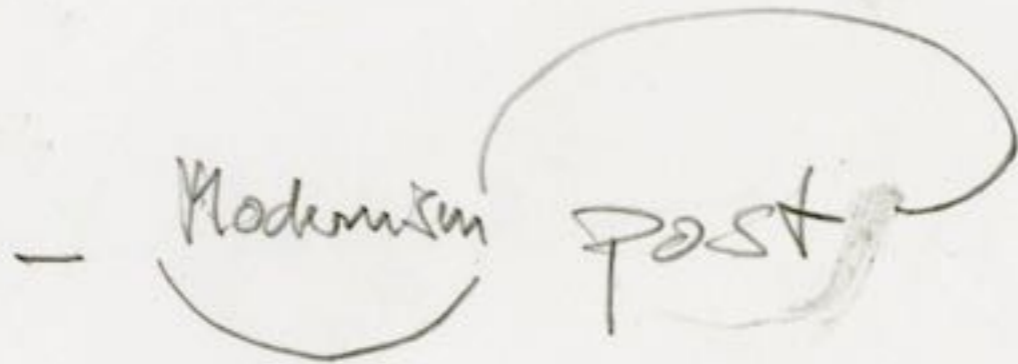
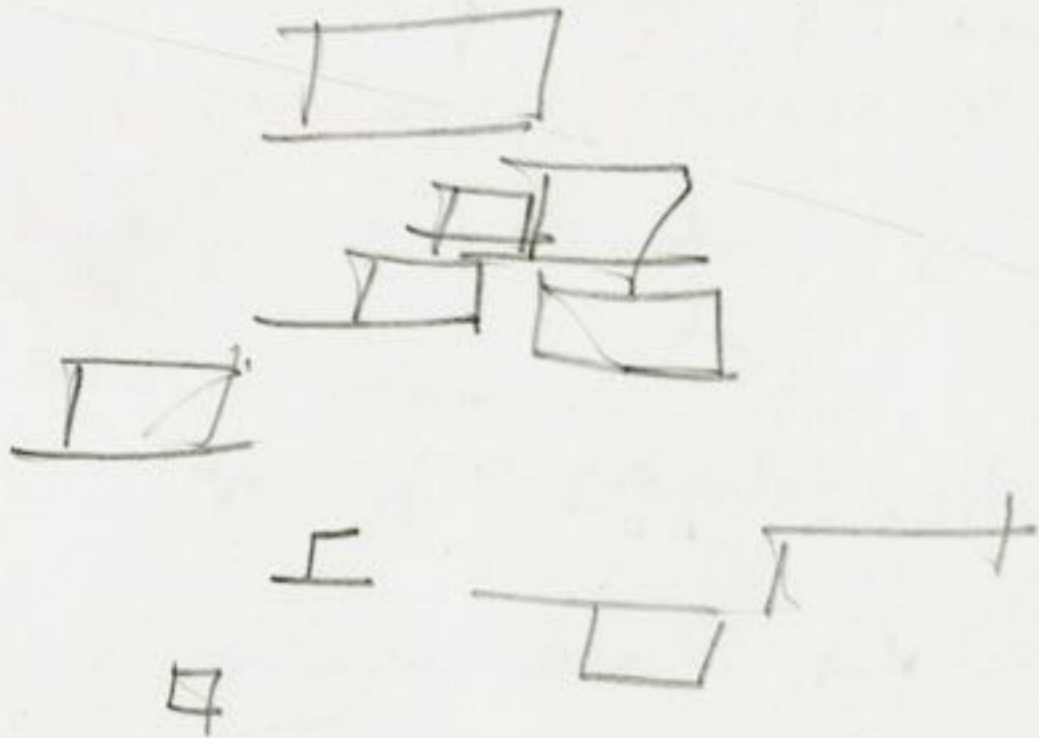


autologie

Archeology



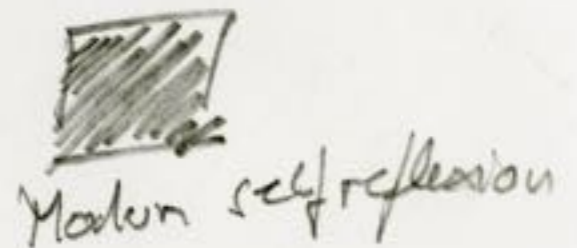
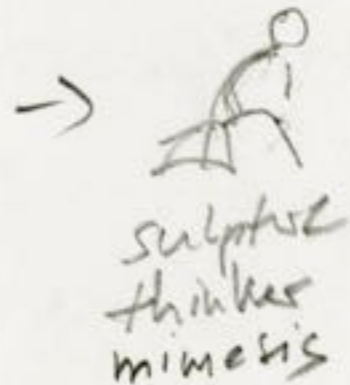
Deconstruction



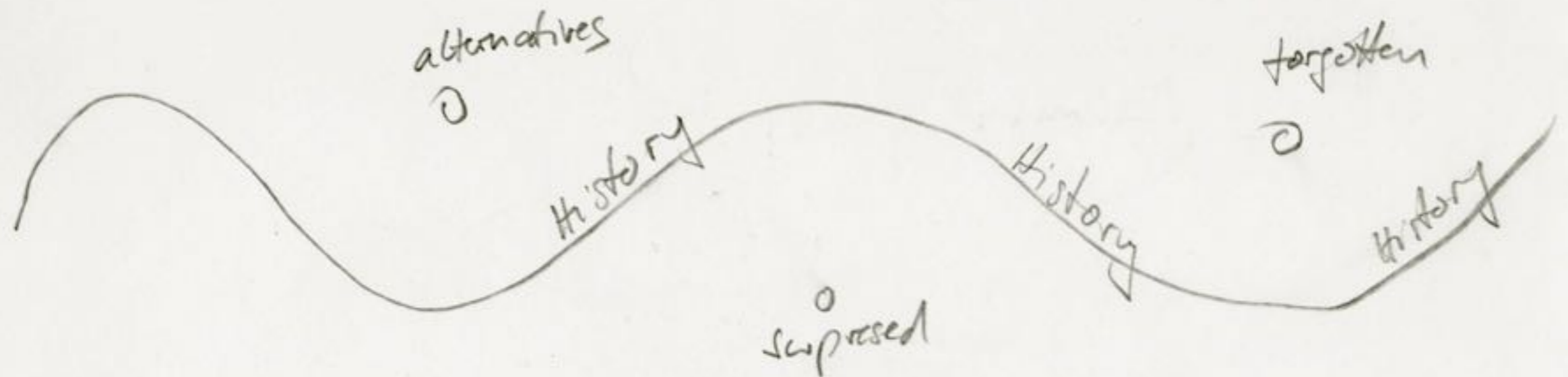
Difference

History Who did what why and how?

Reconstruction of construction. How did the artist work?
What did he mean. Even the path of a word spirit




Multiperspectival view




The invisible


→ the in between ←

the ephemeral 

..... process

transfiguration 

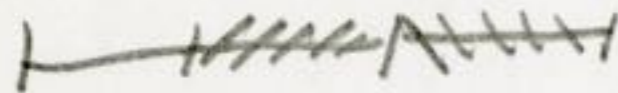
/ the other

object 

idea / concept

gaps with in media are

the condition for into media processes



Data collage

Should I curate an exhibition?

Language

- Lesen, Schreiben, Interpretieren
- Literatur
 - Prosa
 - Wissenschaft

Word

Tele-graphic
De Marinis

Concept Art

Reconstruction
- Zevi

Art and language

Geometry

Sculpture

- Judd

Sol Le Witt

- concept
- formal



Mohr

- generative
- computational

- Adadant
- Hiltnerich
- Albers

Artists I would like to know better:

Ben Rubin and Mark hansen

Bill Fontana

Bruce Naumann

Camille Utterback

Cy Twombly

Dan Graham

David Hall

David Rockeby

Don Ritter

Donald Judd

Douglas Gordon

Eduardo Kac

Fischli & Weiss

Frieder Nake

Gary Hill

Gene Youngblood

Gerhard Richter

Gustav Metzger

Guy Debord

Iannis Xenakis

Jasper Jones

Jean-Luc Godard

Jenny Holzer

Jim Campbell

Jodi.org

John Cage

Ken Goldberg

Nybble Engine

Paul DeMarinis

Paul Sermon

Peter Greenaway

Richard Kriesche

Richard Serra

Roy Ascott

Samuel Beckett

Schmelzdahin

Sol Lewitt

Tony Oursler

Toshio Iwai

Vasily Kandinsky

Yves Klein

Maurizio Bolognini

Knowbotic Research

Krzysztof Wodiczko

La Monte Young

Leif Inge

Luc Ferrari

Luigi Fontana

Lynn Hershmann

Making THINGS public

Manfred Mohr

Marie-Jo Lafontaine

Mark Amerika

Mark Tansey

Finding Deleuze

Kandinsky

Computer Art

Inner Necessity

-

Rules, Algorithms

Life

-

chance

plane of immanence

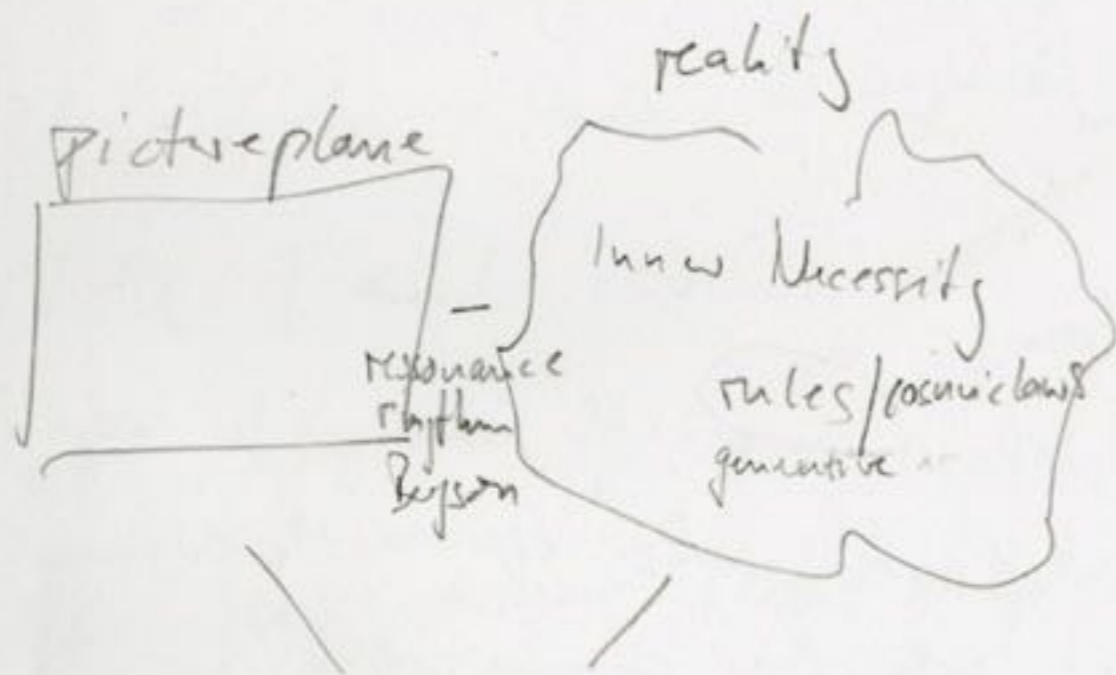
-

virtual

force / movement

-

motion



= Life = plane of immanence
 Heart = Delente

artist
 abstracts / spiritual

2. The point is divorced from its practical, purposive state, so that it stands outside the sequential chain of the sentence.

Today I am going to the cinema



In this instance, the point requires a larger empty space around it, so that its sound can resonate. Nonetheless, this sound remains delicate, modest, and is drowned by the writing surrounding it.

If the size of the point itself, and of the empty space surrounding it are increased, the sound of the writing becomes diminished, and the sound of the point gains in clarity and strength [Fig. 1].



Fig. 1

Today I am going to the cinema.
Today I am going. To the cinema
Today I. Am going to the cinema

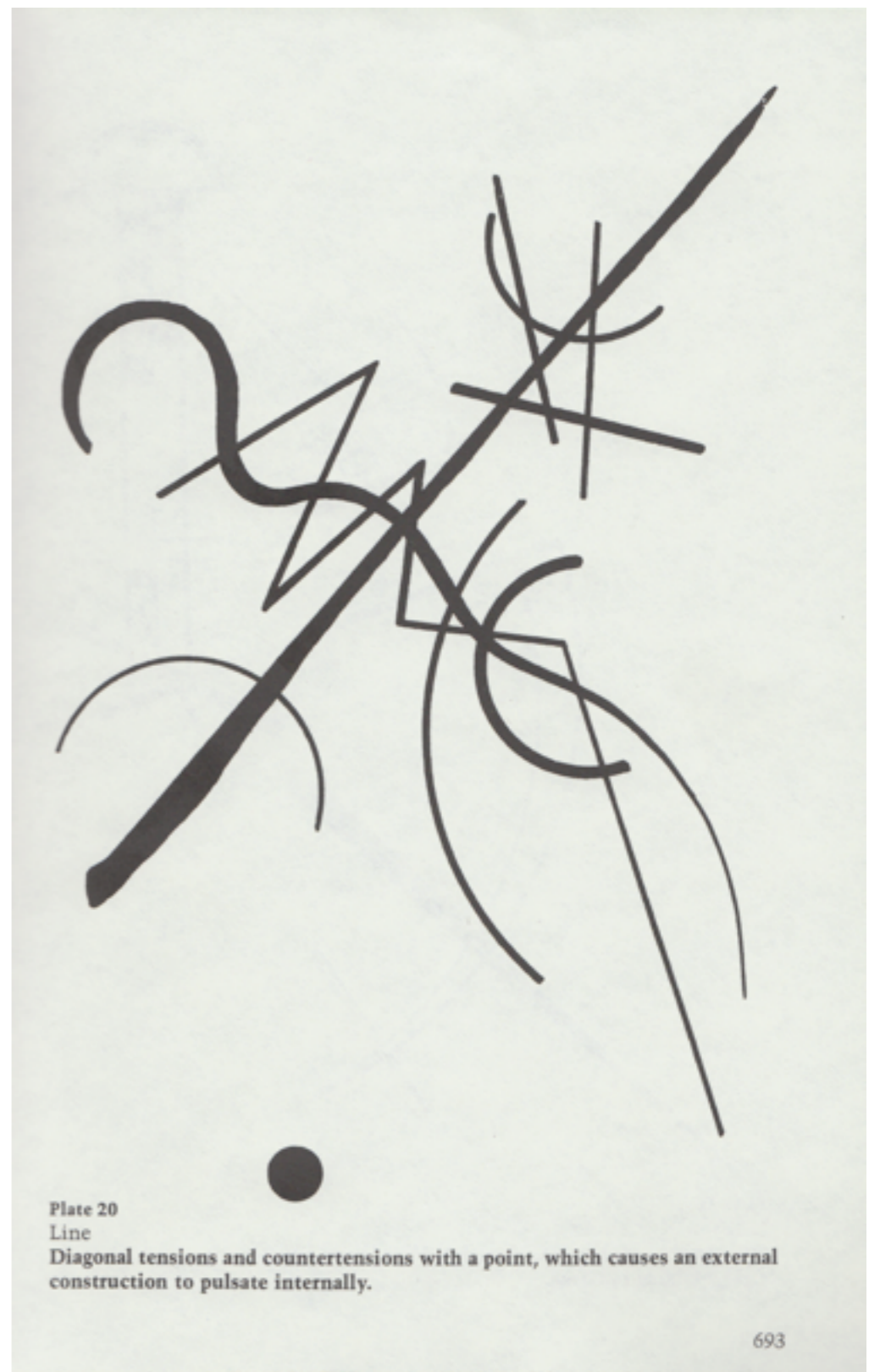


Plate 20
Line
Diagonal tensions and countertensions with a point, which causes an external construction to pulsate internally.

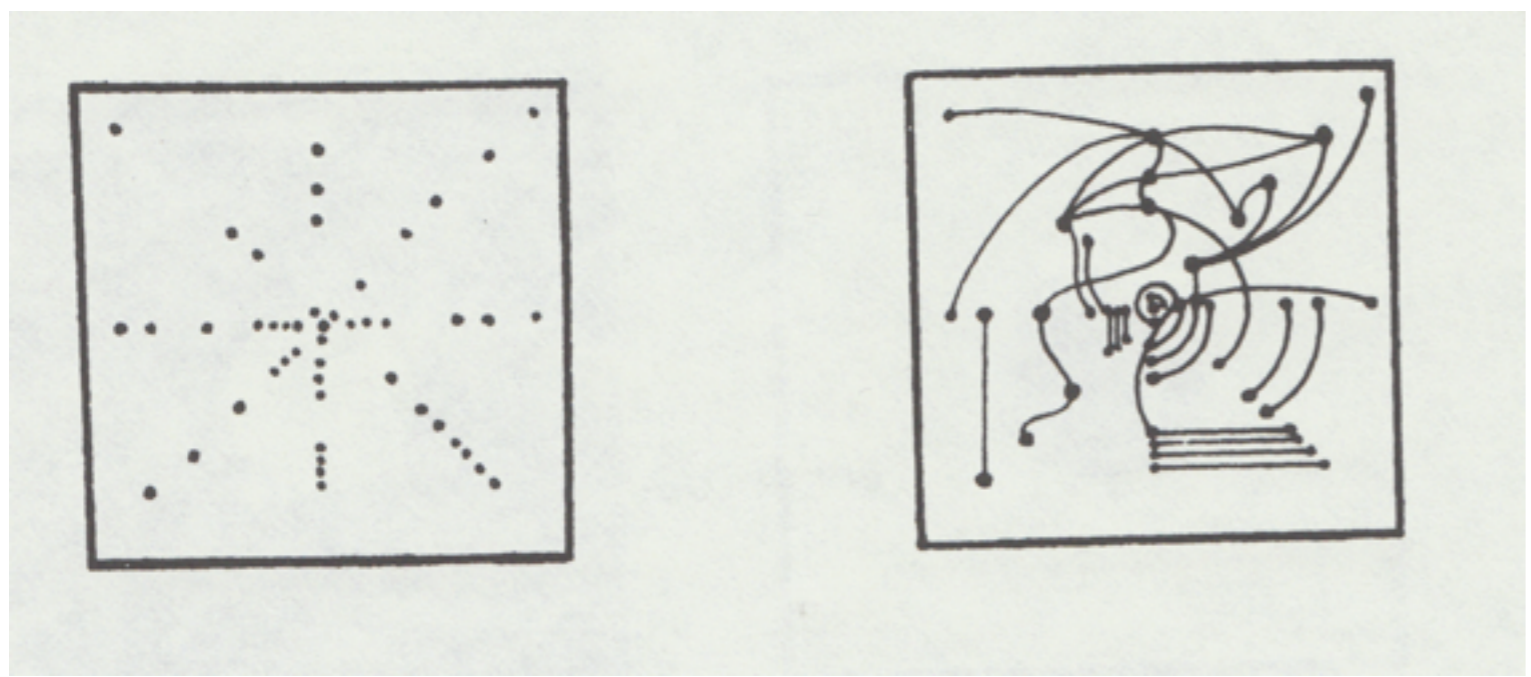




Fig. 9
A leap by the dancer Palucca.

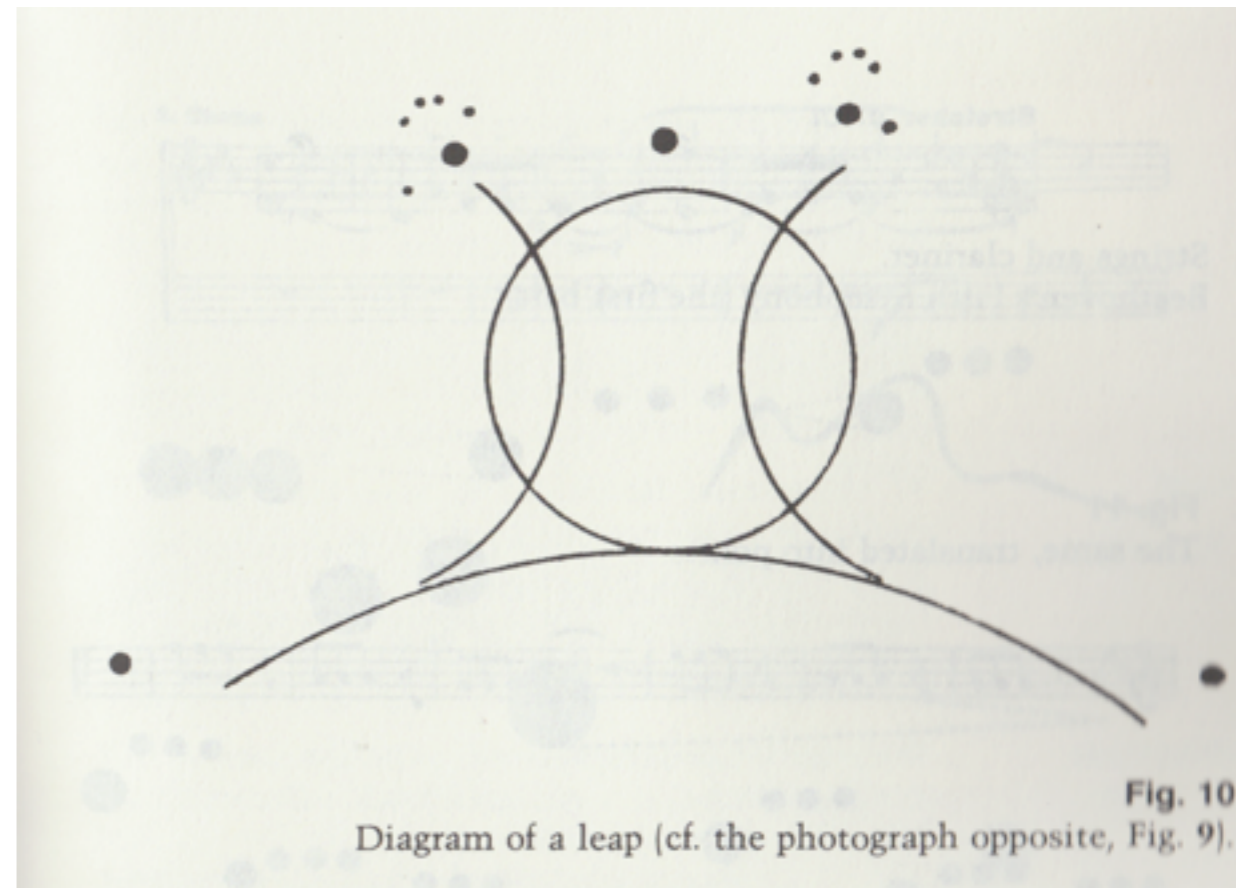
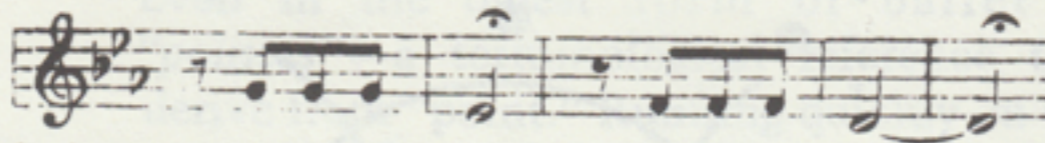


Fig. 10
Diagram of a leap (cf. the photograph opposite, Fig. 9).

Streicher u. Cl.



Strings and clarinet.
Beethoven's Fifth Symphony (the first bars).

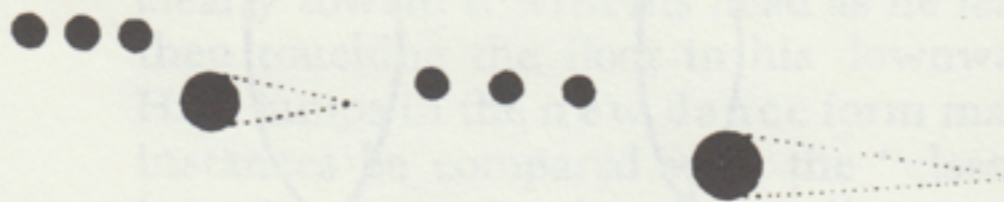


Fig. 11
The same, translated into points.

Point, plane to line

Kandinsky

Transcendence



Laws, mathematical description

Extraction of the point from sentence, dance, music



Immanence

automata

early computers at generative activities

Industria Higgens

machine

Handwritten



Computers

new computational machines

plane of immanence

logic of sensation



Delance

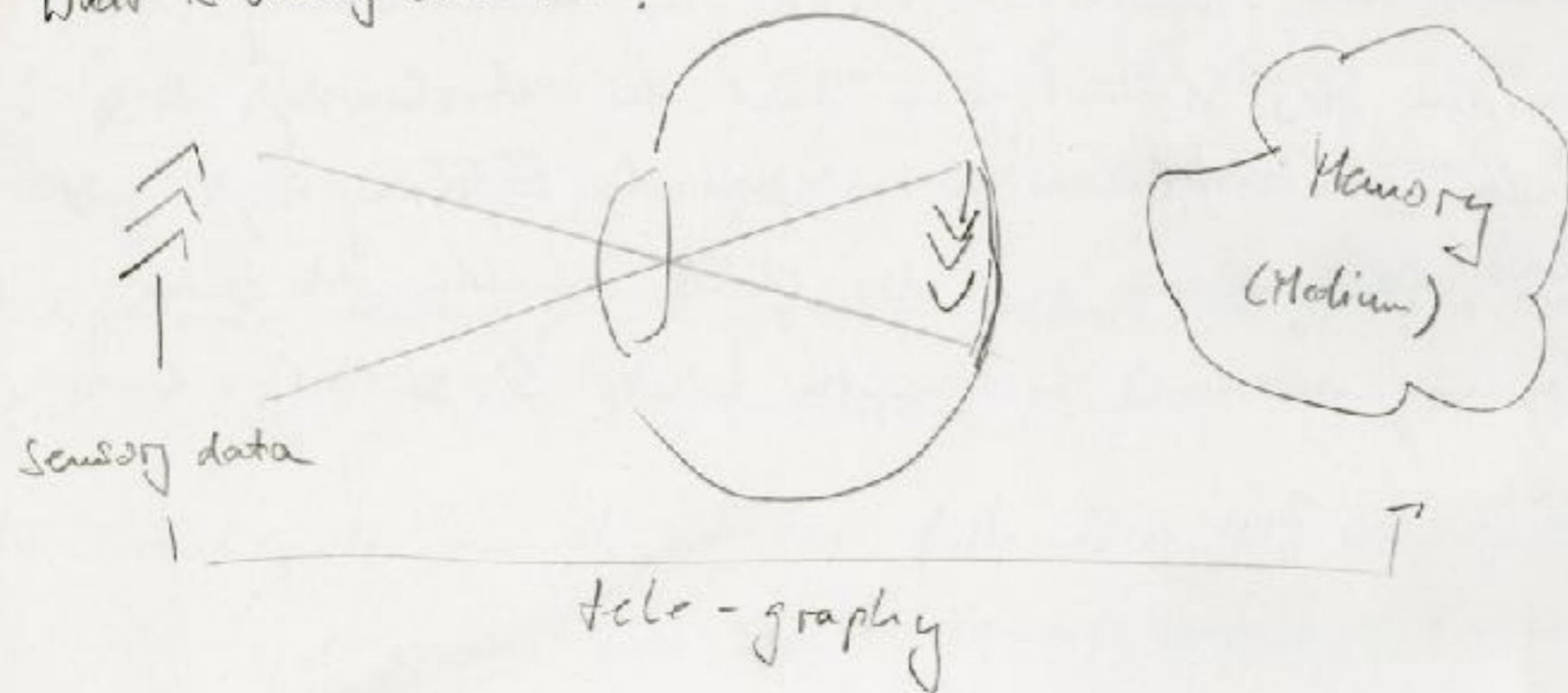
What is a body (body propo, social body) in tele-graphic culture?

(Lyotard, Inhuman p. 50)

What institution has responsibility for teaching tele-graphy?

(p. 51)

What is wrong with this?



instead Monads

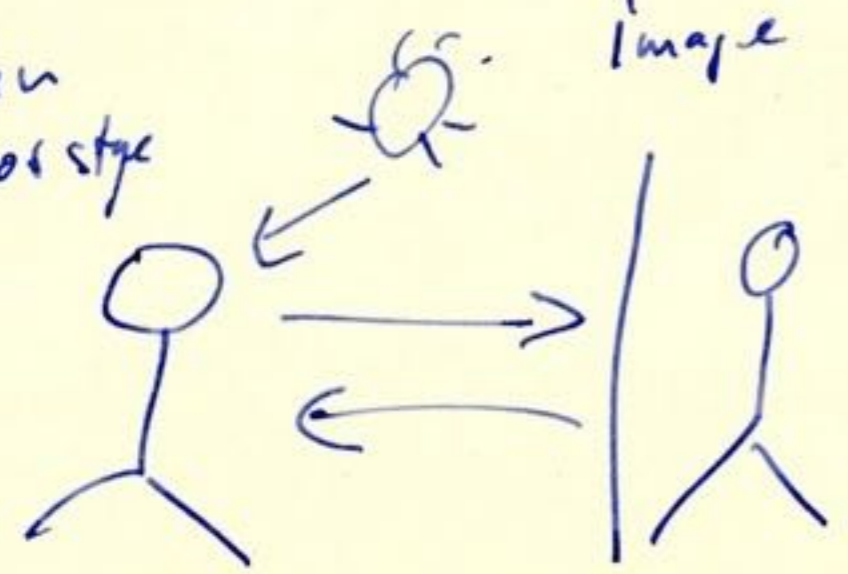


material point in interaction = image
= perception

Bergson 'Matter and Memory' (p. 102) speaks of a teleframe as analogy for perception

Learning from students

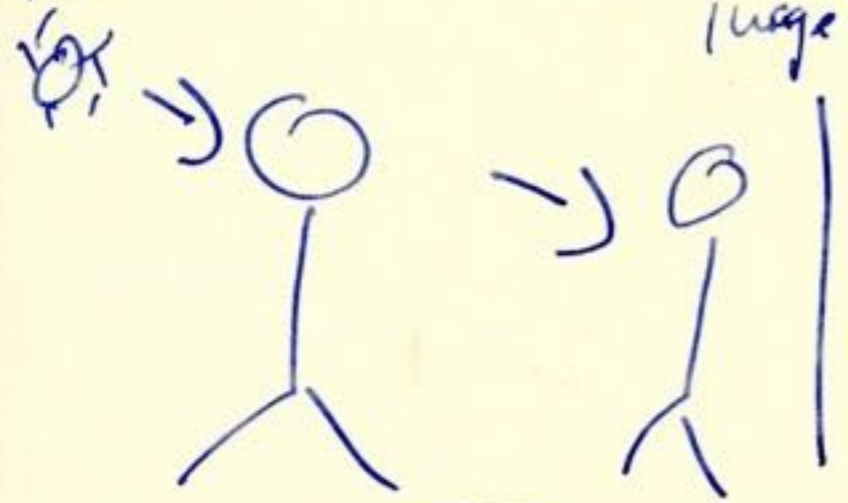
Lacan
mirror stage



Mirror
optical
abstract
non-physical

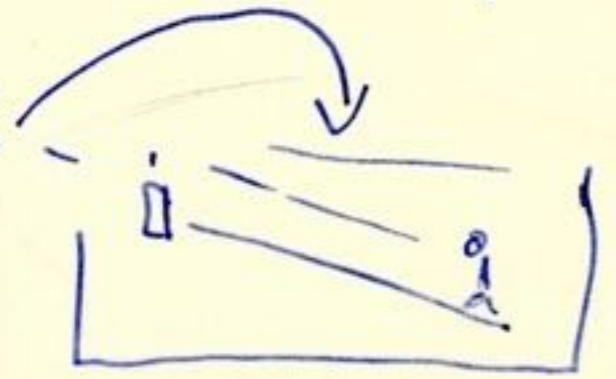
The affected Image

U. Hoback
textrain



Shadow
abstract
distorted

Ideas
Plato's
cave



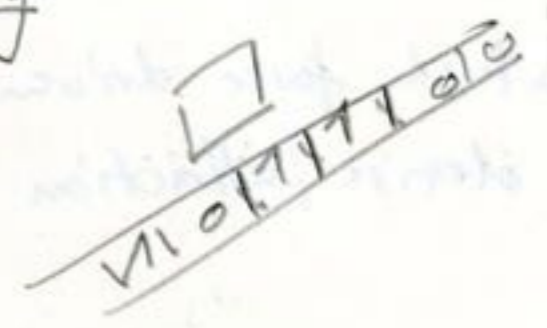
Shadows
of ideas

Watzburg - Deleuze
the travel of an idea

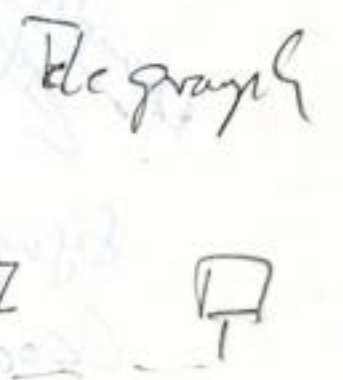
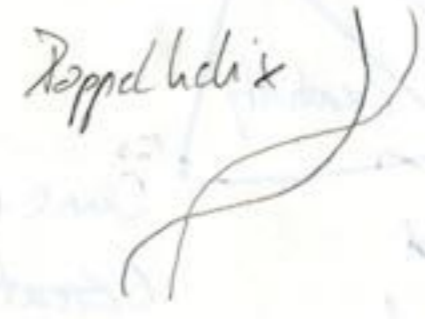
Morton Feldman - duration - Bergson

Coding and de-coding are processes. The formal description of the processes is a folding of ~~code~~ coding. The DNA folds and unfolds and ~~creates~~ unpacks its complex codes (life forms, geological strata, solar systems) creates new codes (evolution) and leads to reflexivity. Perception is one code responding to other codes only as a range through time.

Turing



Bergson Cine



The DNA sequence resembles the Turing code or the Bergson cine-matograph. Turing + Bergson add a mechanism of perception. All three need a force to set the code in motion. The telegraph transmits code and computer, but how do we get to: →

How Art History Changed my Perception

Dr. phil. Christoph Klütsch
Prof. Art History
SCAD Lacoste

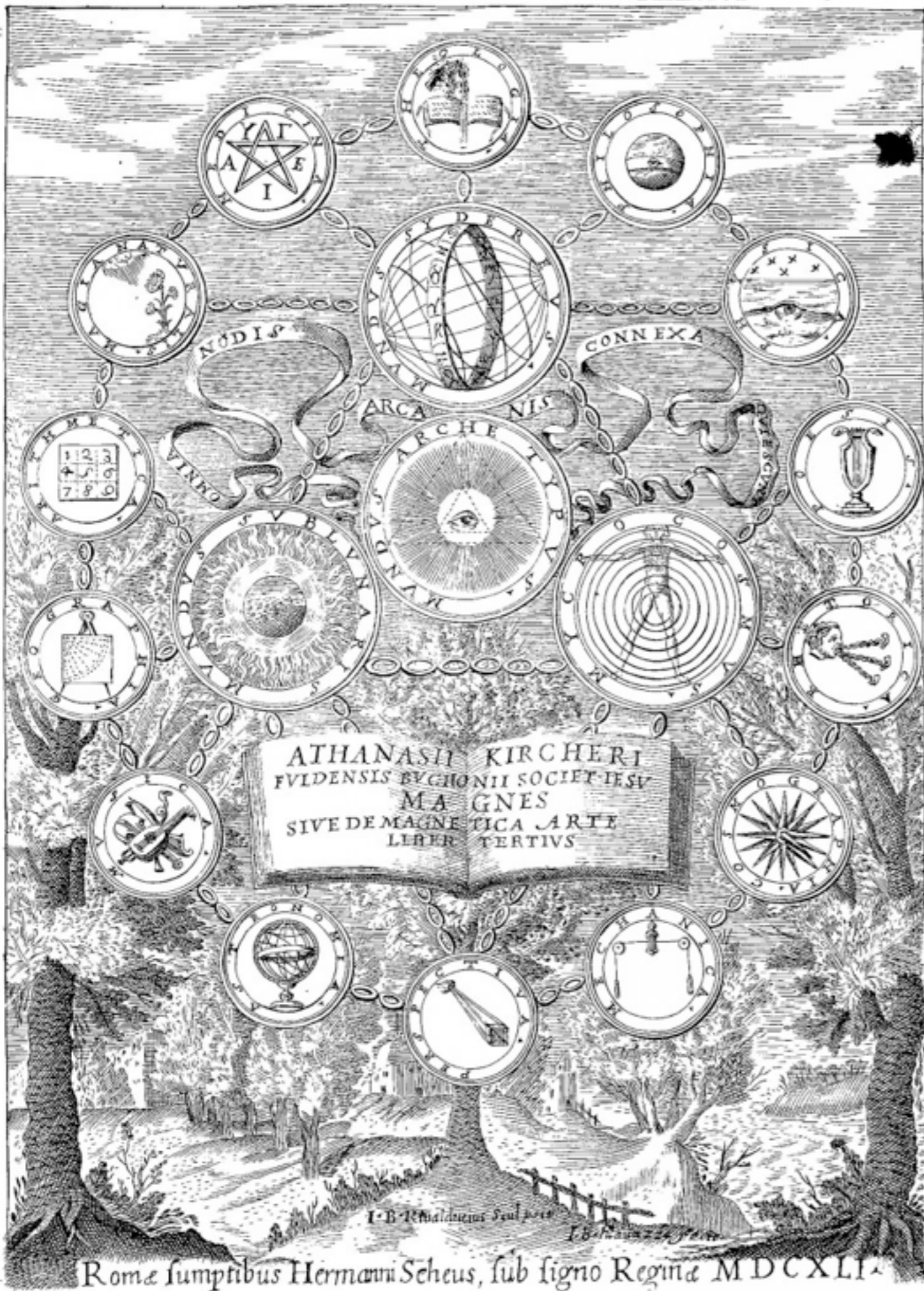
“... the project Deleuze had long had of opening philosophy up to artist-thought (la pensée-artiste) and of aesthetically intensifying its system of interpretation in order to let in its own outside”

Connoisseur



Chantilly outside of Paris

A. KIRCHER 1602 – 1680



3 roots of art history

Erwin Panofsky

(1892-1968)

- **Primary or Natural Subject Matter:** The most basic level of understanding, this strata consists of perception of the work's pure form.
- **Secondary or Conventional subject matter:** This strata goes a step further and brings to the equation cultural and iconographic knowledge.
- **Intrinsic Meaning or Content:** This level takes into account personal, technical, and cultural history into the understanding of a work. It looks at art not as an isolated incident, but as the product of a historical environment. ... Essentially, this last strata is a synthesis; it's the art historian asking "what does it all mean?"

Heinrich Wölfflin

(1864-1945)

- 1. **From linear** (draughtsmanly, plastic, relating to contour in projected ideation of objects) **to painterly** (malerisch: tactile, observing patches or systems of relative light and of non-local colour within shade, making shadow and light integral and supercedent to contours as fixed boundaries.)
- 2. **From plane to recession:** (from the 'Will to the plane', which orders the picture in strata parallel to the picture plane, to planes made inapparent by emphasising the forward and backward relations and engaging the spectator in recessions.)
- 3. **From closed** (tectonic) **form to open** (a-tectonic) **form** (The closed or tectonic form is the composition which is a self-contained entity which everywhere points back to itself, the typical form of ceremonial style as the revelation of law, generally within predominantly vertical and horizontal oppositions; the open or atectonic form compresses energies and angles or lines of motion which everywhere reach out beyond the composition, and override the horizontal and vertical structure, though naturally bound together by hidden rules which allow the composition to be self-contained.)
- 4. **From multiplicity to unity:** ('Classic art achieves its unity by making the parts independent as free members, and the baroque abolishes the uniform independence of the parts in favour of a more unified total motive. In the former case, co-ordination of the accents; in the latter, subordination.' The multiple details of the former are each uniquely contemplated: the multiplicity of the latter serves to diminish the dominance of line, and to enhance the unification of the multifarious whole.)
- 5. **From absolute clarity to relative clarity of the subject:** (i.e. from exhaustive revelation of the form of the subject, to a pictorial representation which deliberately evades objective clearness in order to deliver a perfect rendering of information or pictorial appearance obtained by other painterly means. In this way instead of the subject being presented as if arranged for contemplation, it avoids this effect and thereby escapes ever being exhausted in contemplation.)

Aby Warburg

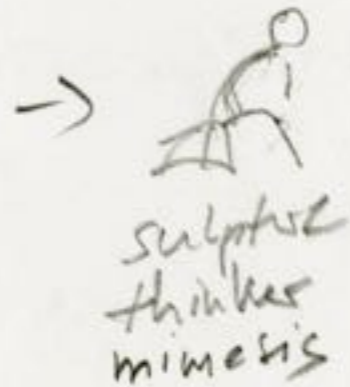
(1866-1922)



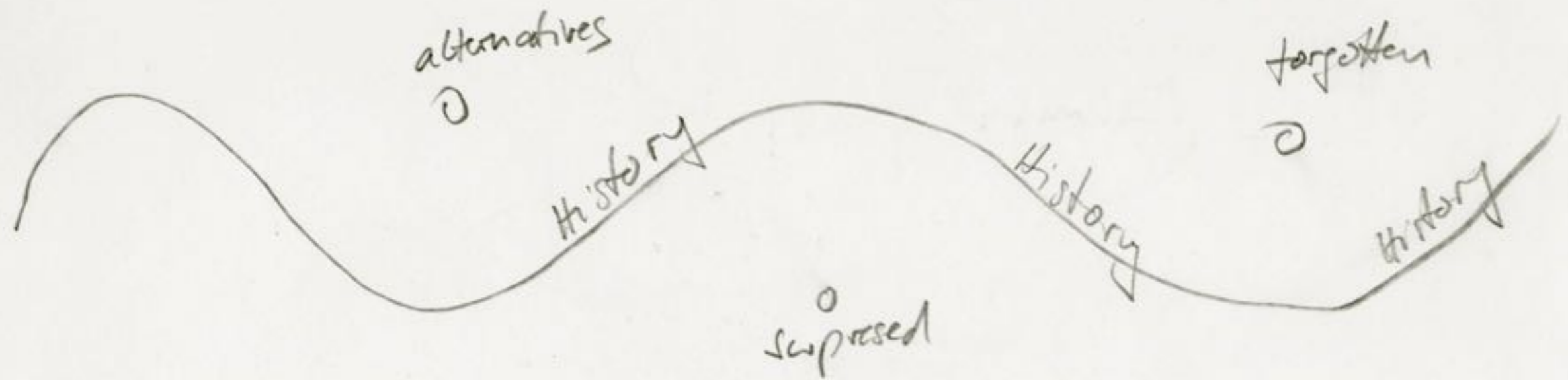
Aby M. Warburg, «Mnemosyne-Atlas», 1924 – 1929
Mnemosyne-Atlas, Boards of the Rembrandt-Exhibition, 1926 | Photography

History Who did what why and how?

Reconstruction of construction. How did the artist work?
What did he mean. Even the path of a word spirit

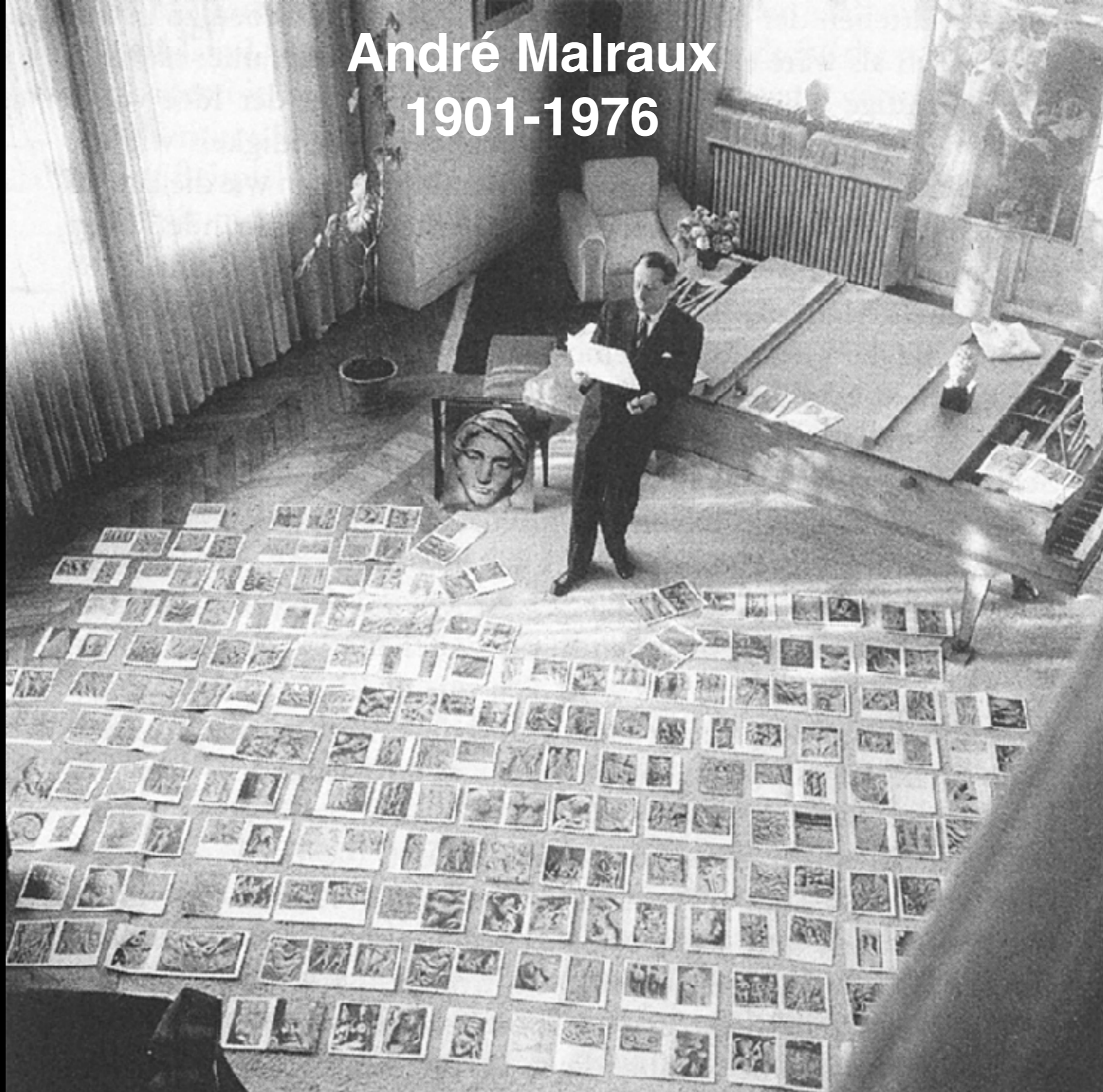


Multiperspectival view



Imaginary Museum

**André Malraux
1901-1976**



The Imaginary Museum of World Sculpture 1952-4

But... wait a minute

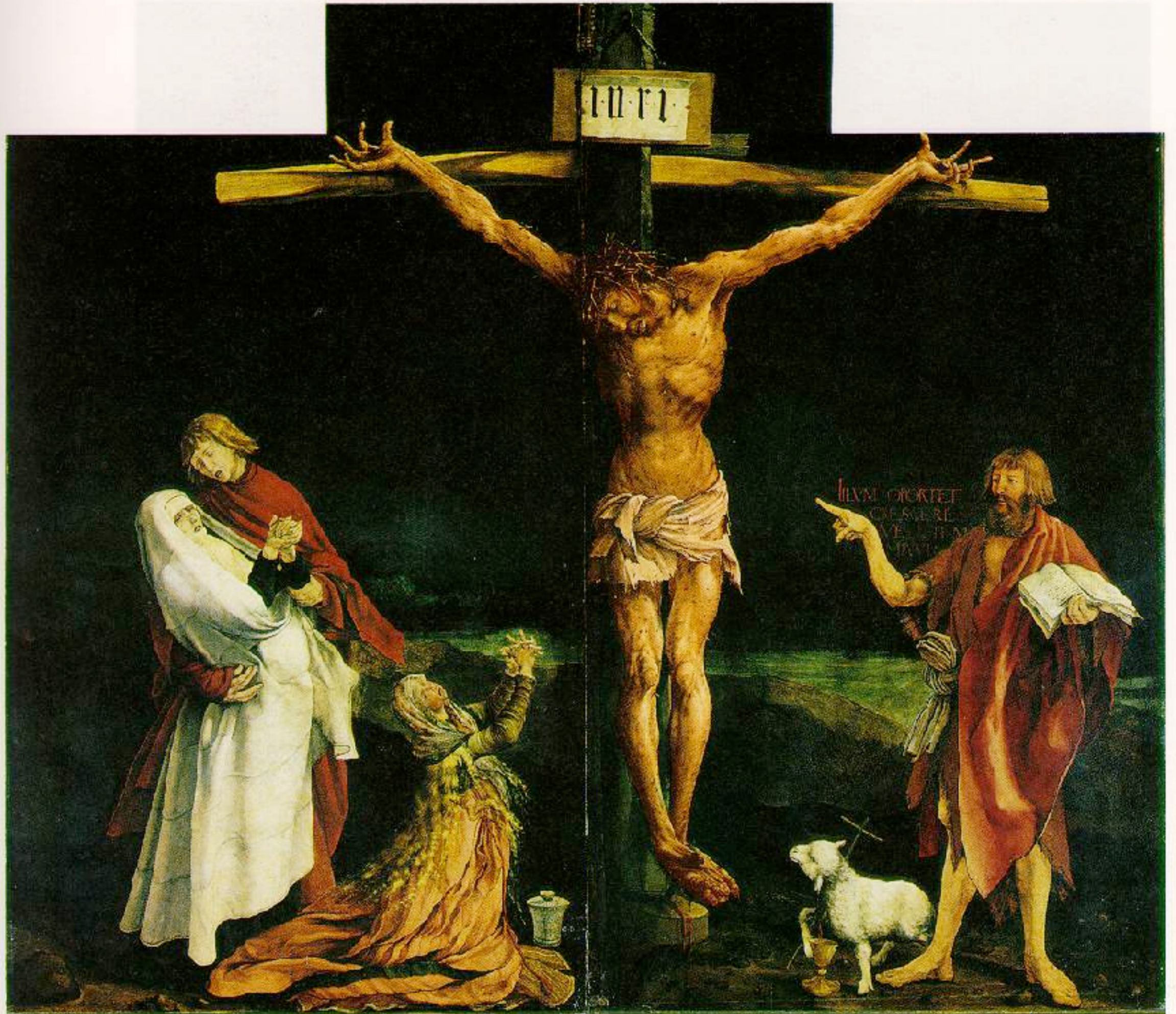
Art Market and Ideology

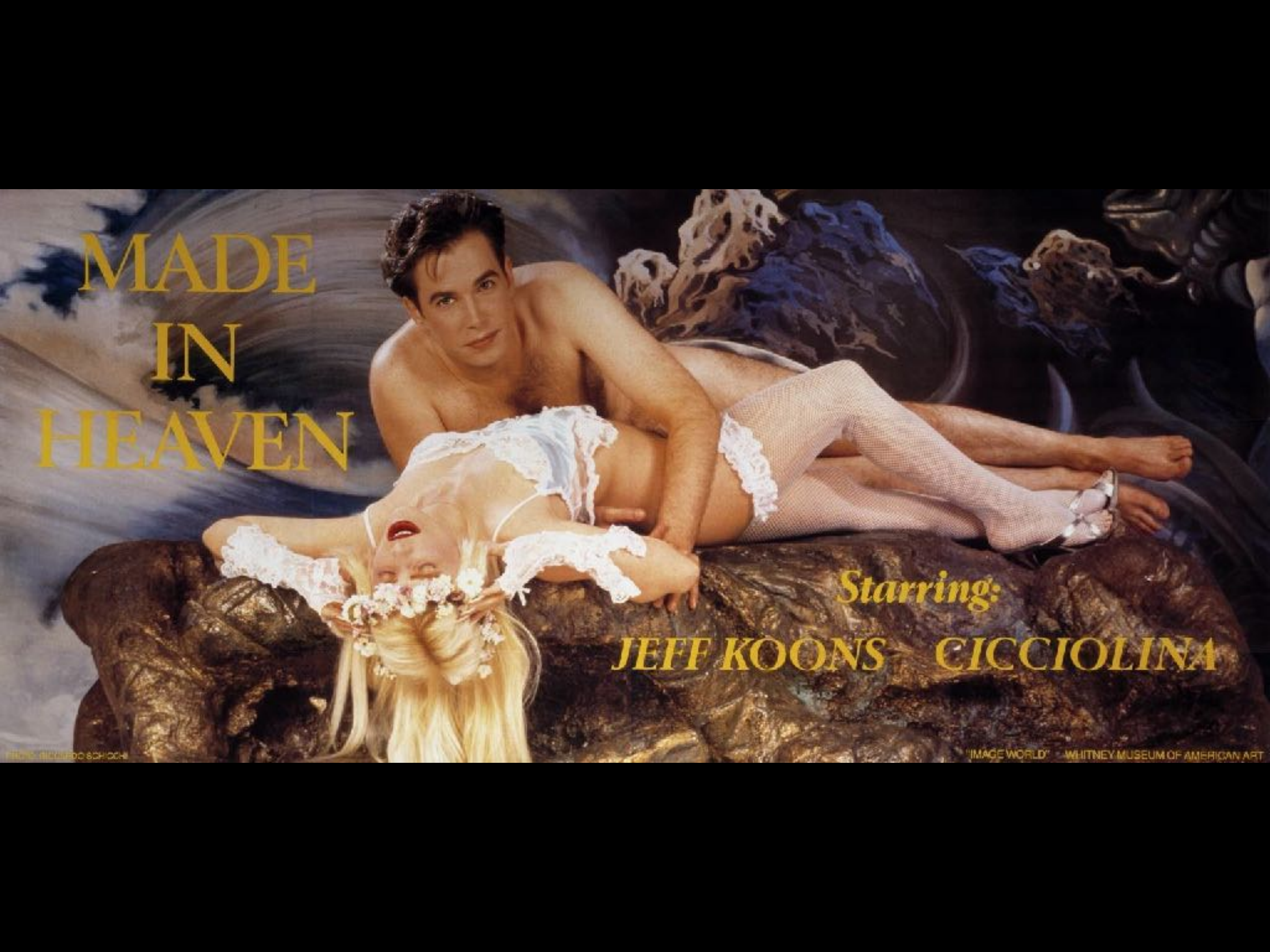


SOCIETY **SPECTACLE**
of the

guy debord





The artwork depicts a man and a woman in white lace lingerie. The man is leaning over the woman, who is lying on her back on a dark, rocky surface. The background is a swirling, ethereal blue and white pattern. The title 'MADE IN HEAVEN' is written in large, gold, serif capital letters on the left side of the image.

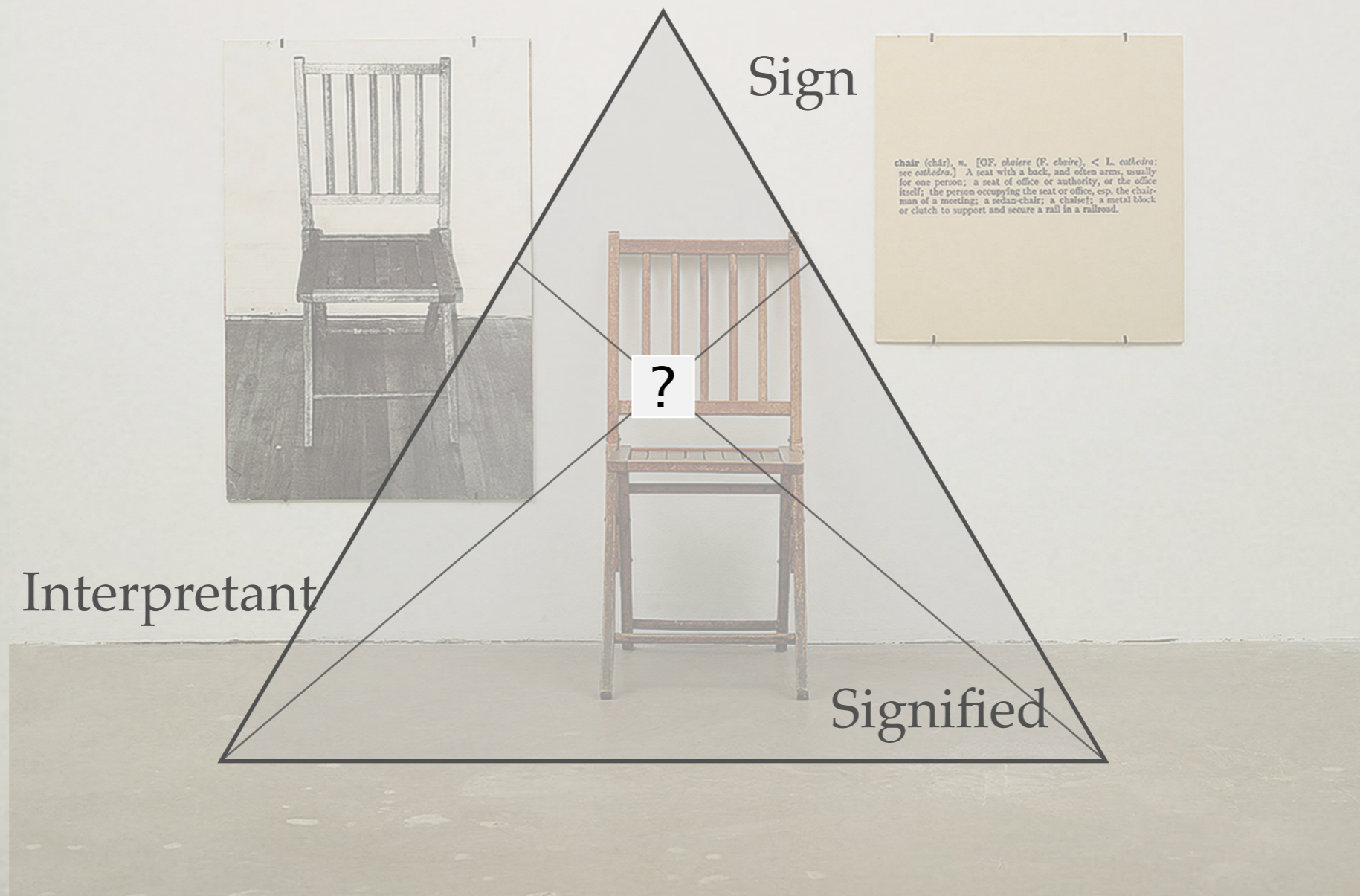
MADE
IN
HEAVEN

Starring:

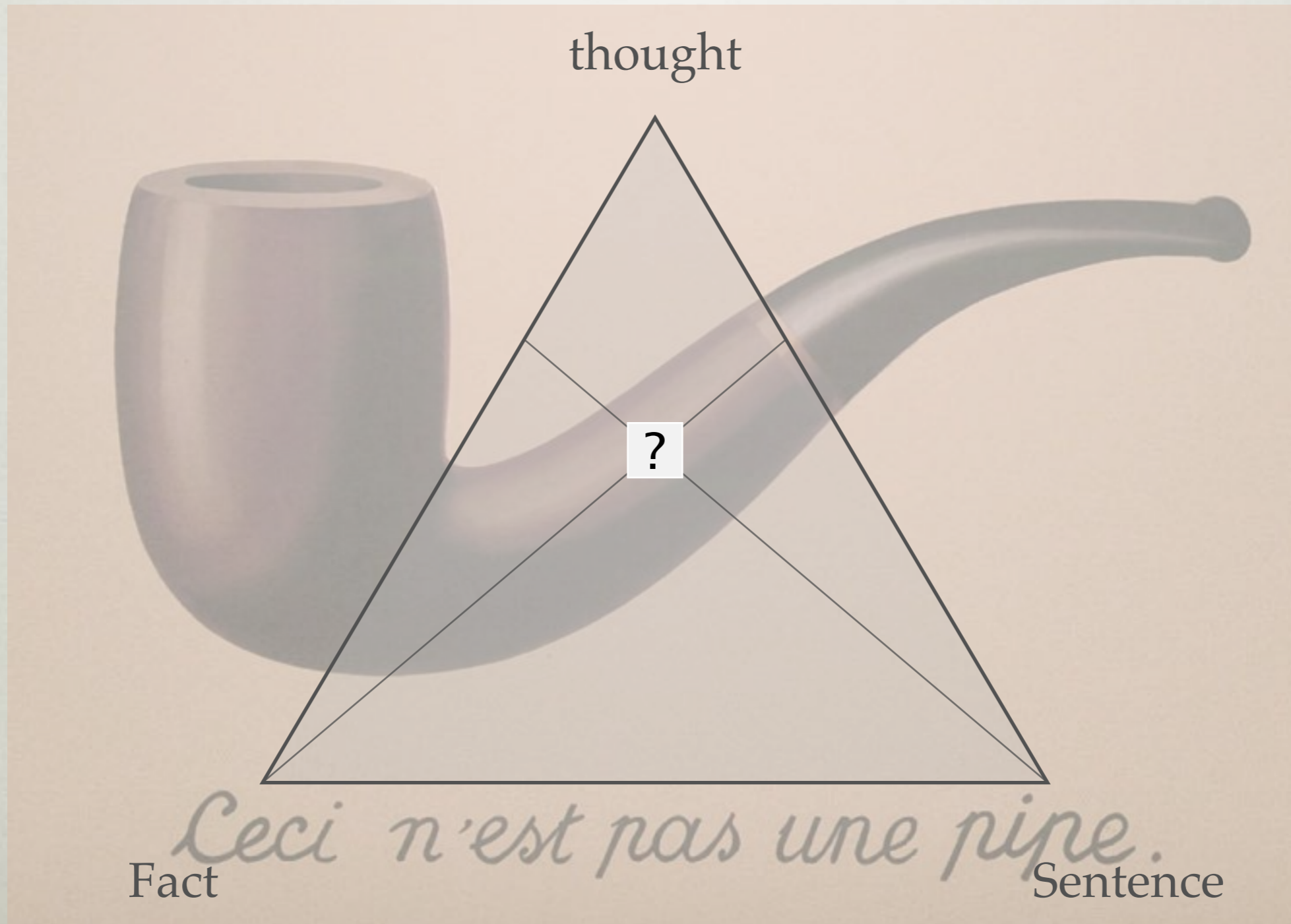
JEFF KOONS - CICCiolina



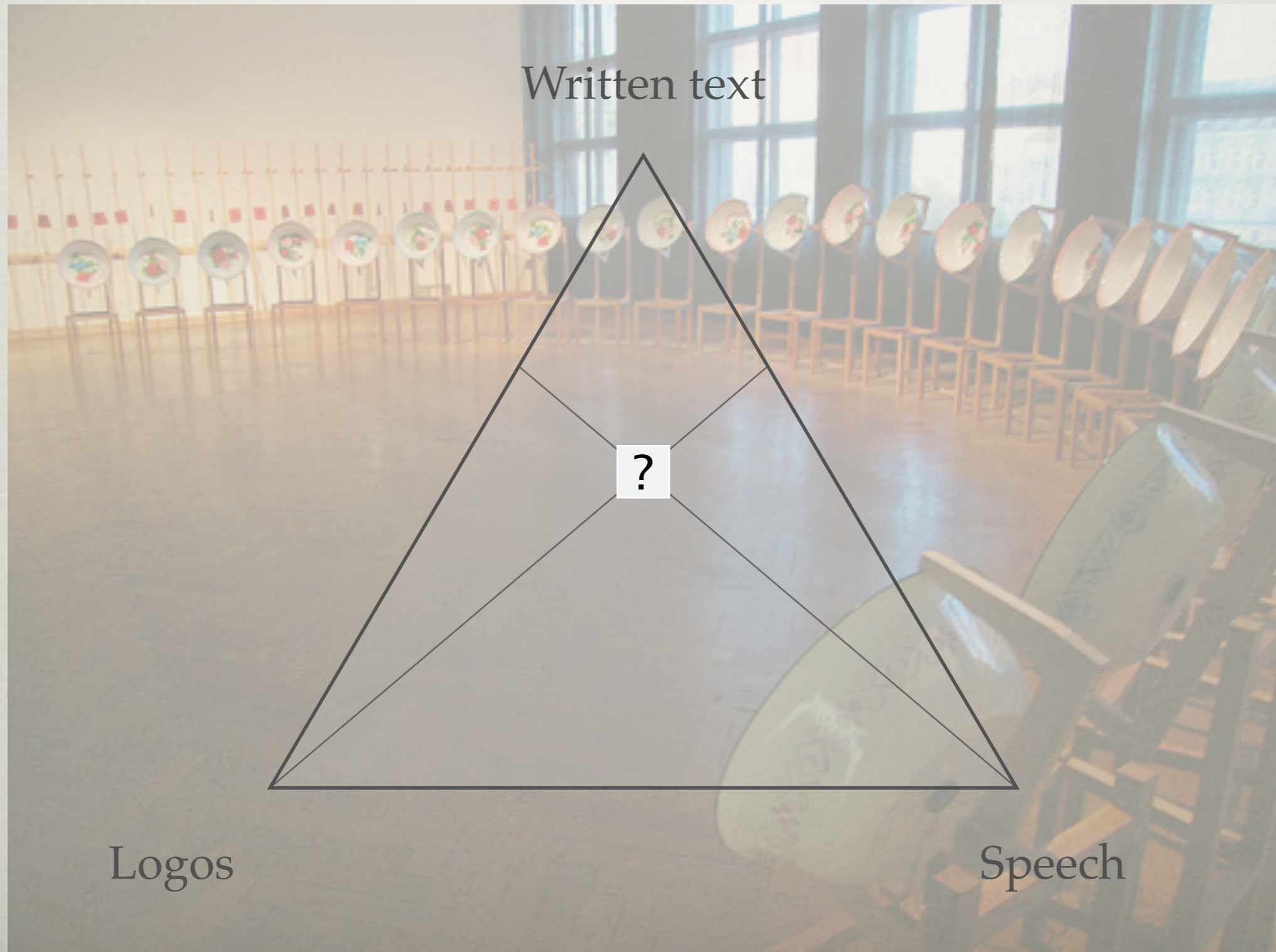
KOSUTH

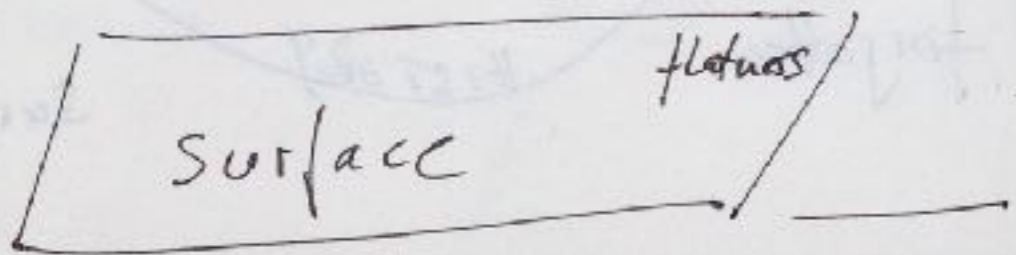


MAGRITTE



DEMARINIS

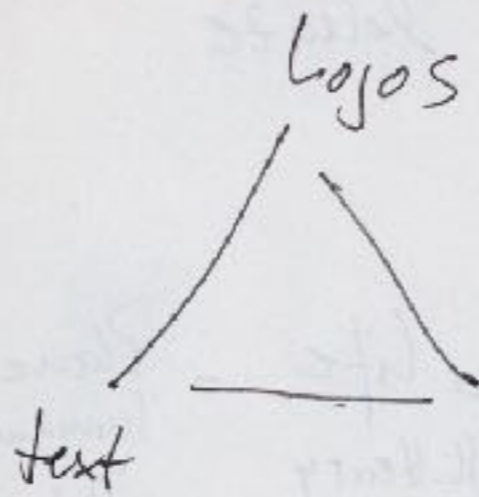




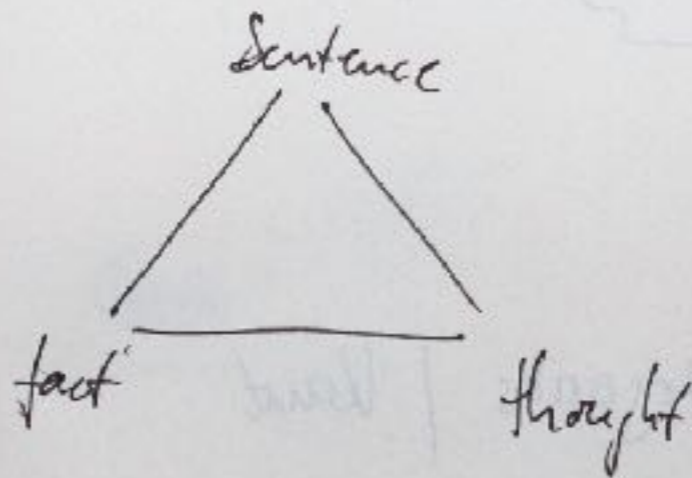
the other X ontology

(Transcendental) Wölfflin ——— Iconology
 Paupsky

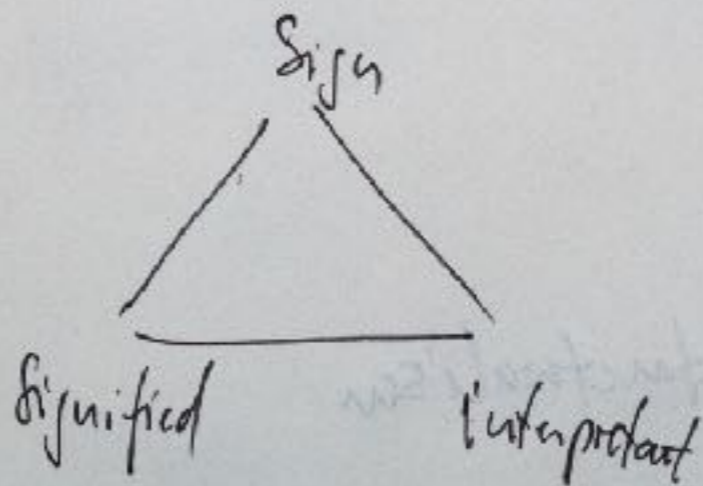
Warburg
 (Transdisciplinary)



De Man's



Magritte

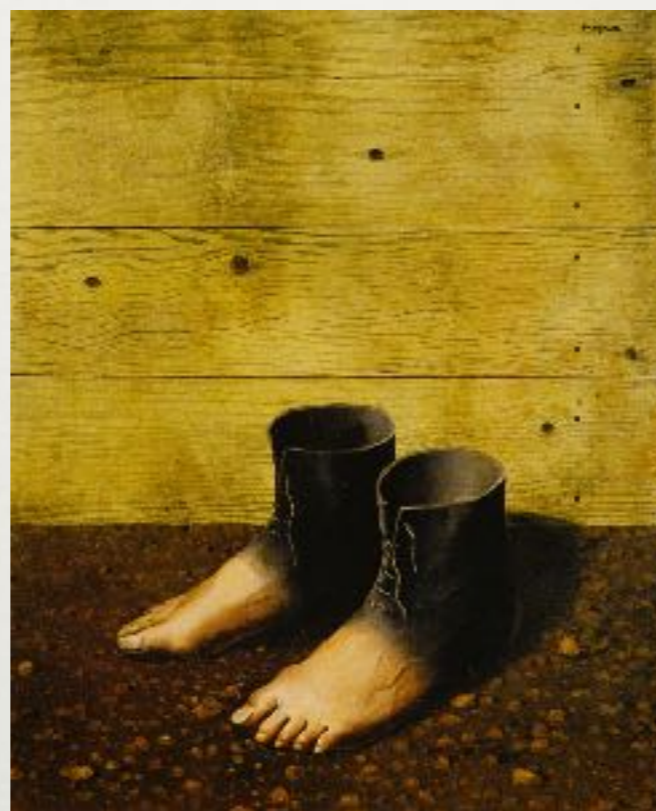


Peirce

A quick history of representation through shoes



Vincent Van Gogh, Old shoes with laces. 1886



Rene Magritte (1898 -1967)
Le Modele Rouge 1935
(translation: "The Red Model")
depicts feet that morph into
lace-up shoes.



Erika Rothenberg Shoe Story (1993)



Duchamp, Marcel, 1887-1968
Not a Shoe (1950)



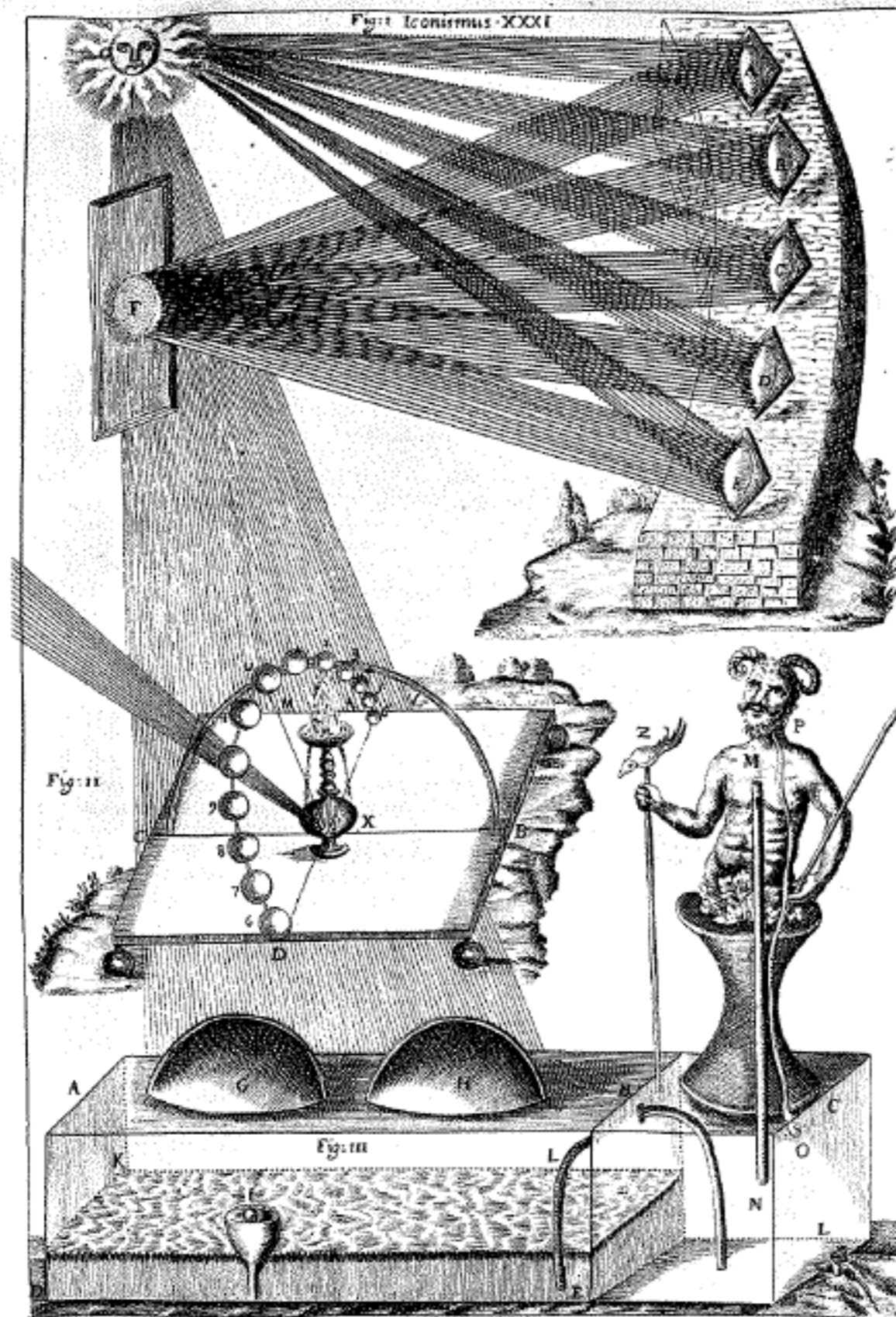
Spoerri, Daniel, 1930- As mentioned, shoes are not an issue for me (1991) bread dough and shoe 28 x 30 x 30 cm

Perception

Jeffrey Shaw - Golden Calf

1994

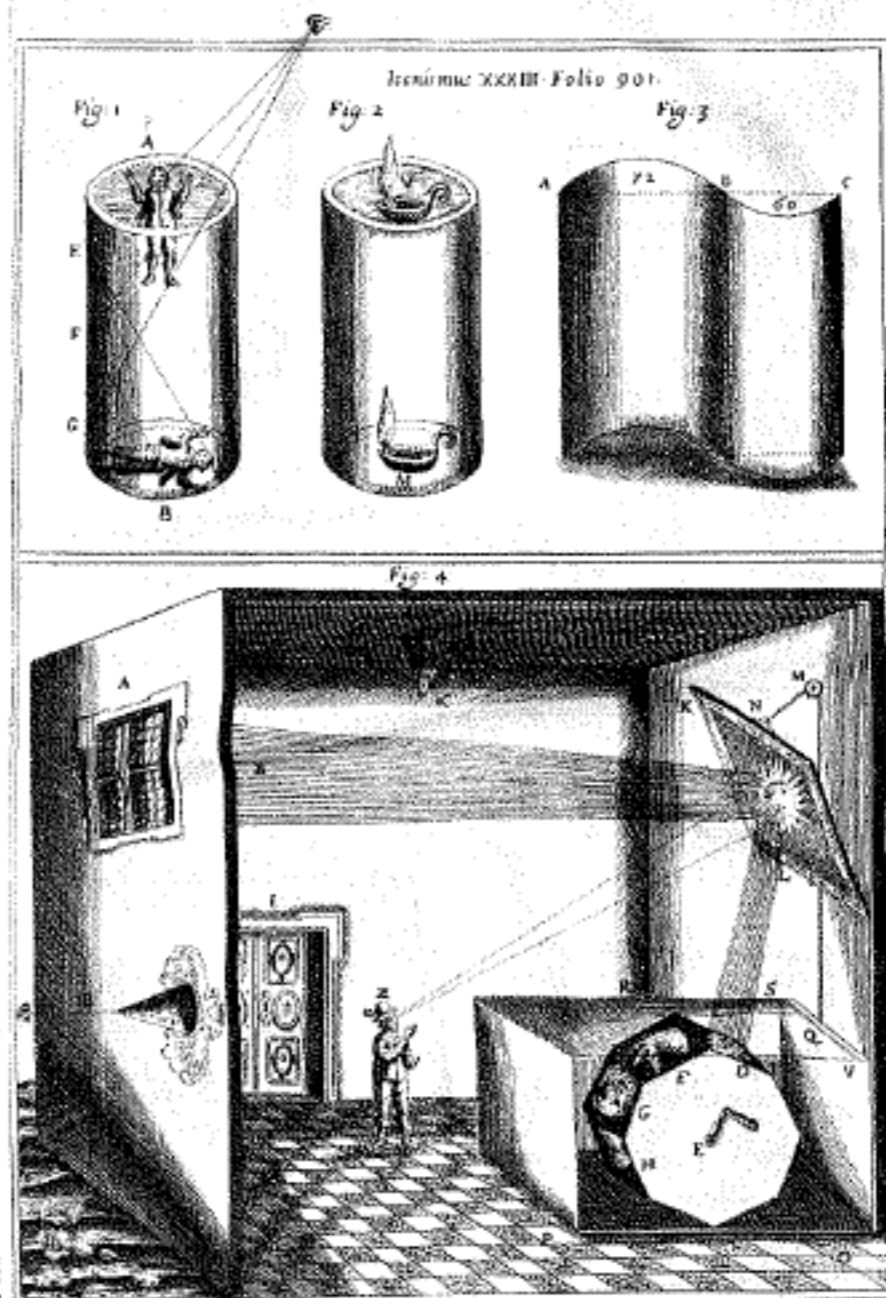




dentibus fusè tradidimus, differunt. In planis verò speculis multiplicatis omnia hæc impedimenta cessant; nam singula in unum punctum directa, dum loco radiorum superficies lucidas fundant, neque

tanta sit radiorum debilitas, haud dubiè majorem effectum præstare possunt. Si quis igitur mille, verbi gratia, specula ita disponeret, ut omnia in unum punctum reflecterent (hoc enim fieri posse in Arte Ana-

Ana-



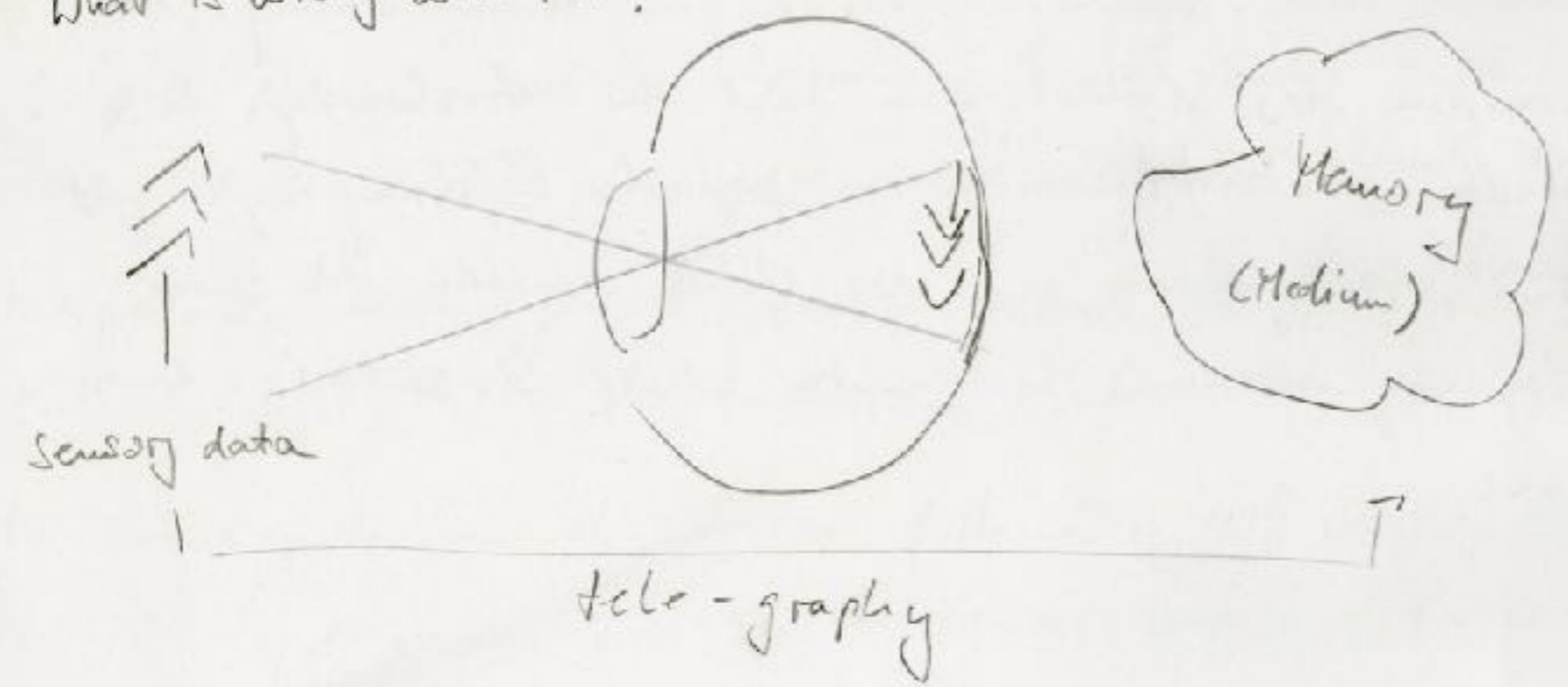
it so amazes the viewers that they try in vain to touch what they see. Greedy folk, especially, try to grab the coins (shown here), but they groan and indignation when they find them to be insubstantial. The best entertainment of all is to confront a cat with its own reflection in the machine: 'for when it sees it full of an innumerable multitude of coins, it thinks that they are real, and I can scarcely tell you what tricks it plays in the theatre. It tries to catch them, stroke them with its tail, kiss them, and break through the obstacles in every way, striking them with its paws, wanting so much to reach them: and it expresses with various

What is a body (body propo, social body) in tele-graphic culture?

(Lyotard, Inhuman p. 50)

What institution has responsibility for teaching tele-graphy?
(p. 51)

What is wrong with this?



instead Monads



material point in interaction = image = perception

Bergson 'Matter and Memory' (p. 102) speaks of a teleframe as analogy for perception

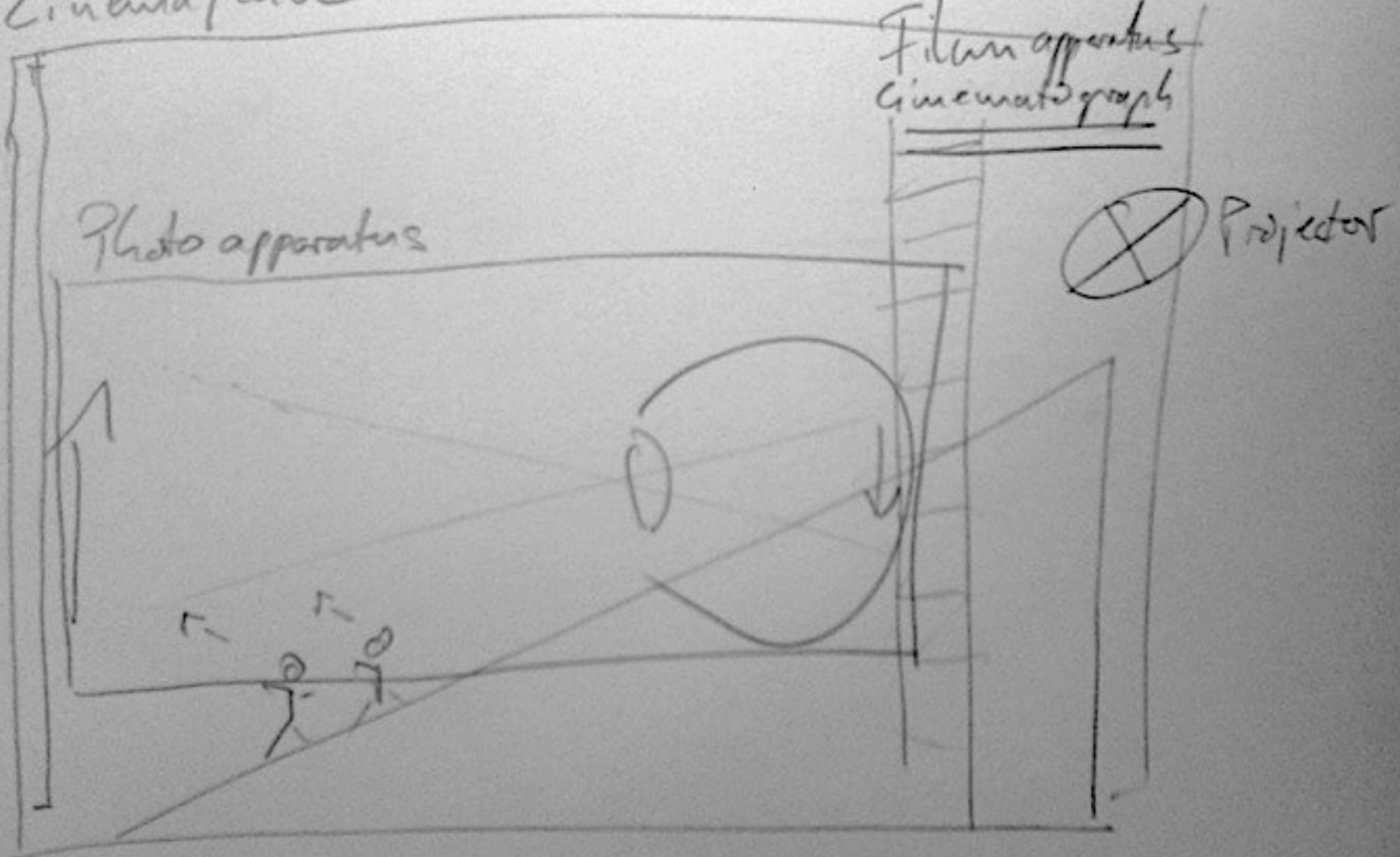
Representation

Cinema/cave

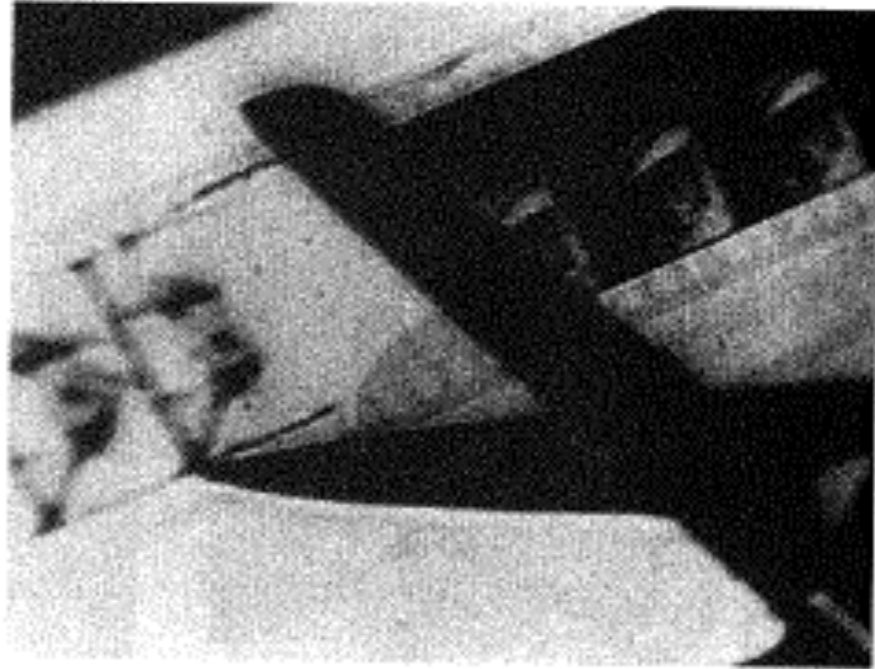
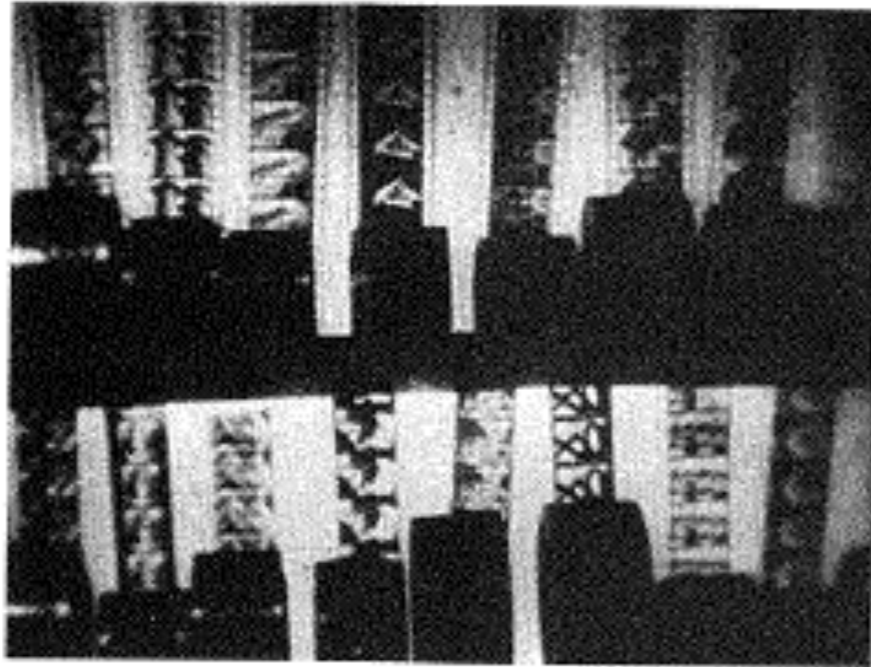
Film apparatus
Cinematograph

Photo apparatus

Projector



How about time?



[149] As theorized by Vertov, film can overcome its indexical nature through montage, by presenting a viewer with objects that never existed in reality.

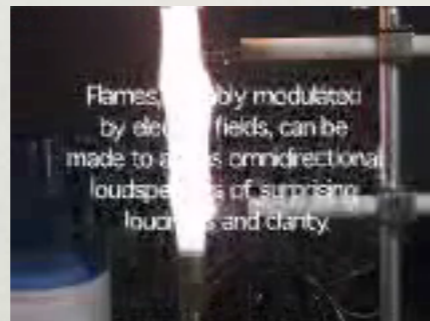


MYSTERIES OF THE MEDIUM



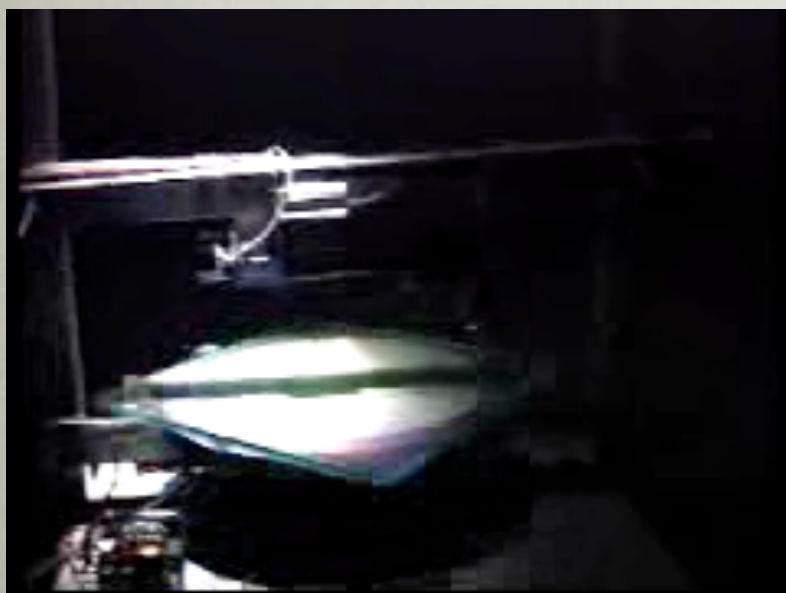
Firebirds (2004)

Oracular flames kept captive within birdcages recite speeches of some political leaders of the twentieth century. Gas flames, suitably modulated by electrical fields can be made to act as omnidirectional loudspeakers of surprising clarity and amplitude.



Gray Matter (1995)

Interactive electrified objects that produce sound and sensation when stroked with the hand.

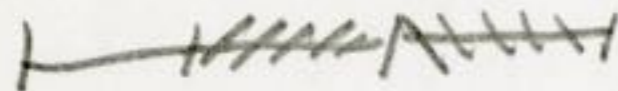


The Edison Effect (1989-1993)

Ancient phonograph records, wax cylinders and holograms are scanned with lasers to produce music at once familiar and distant, like some faintly remembered melody running through the head.

gaps with in media are

the condition for into media processes

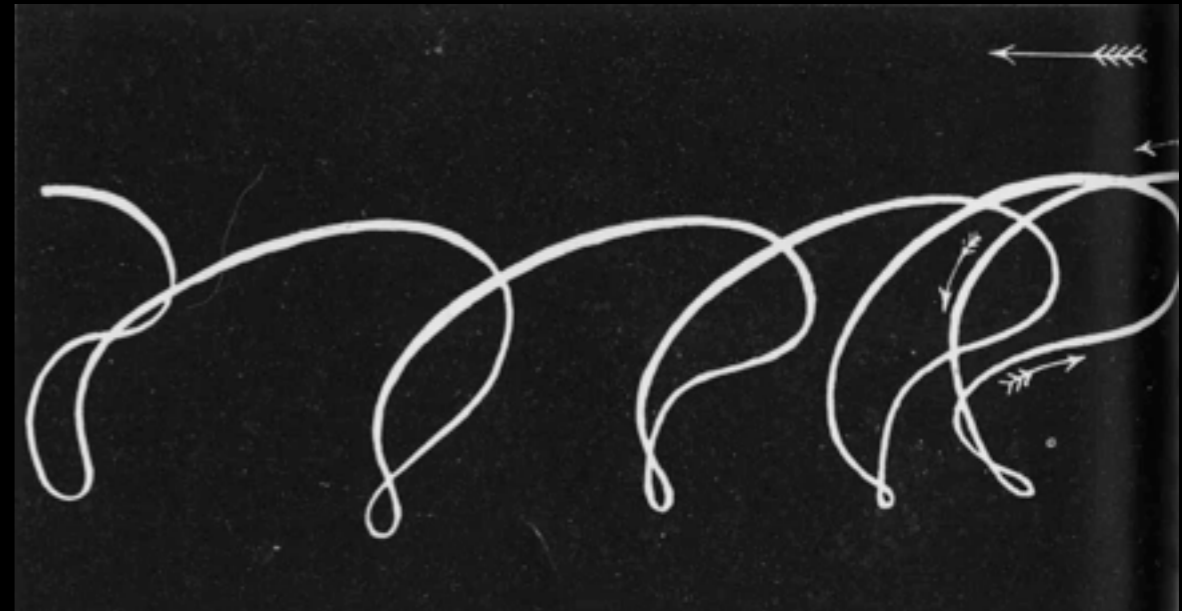
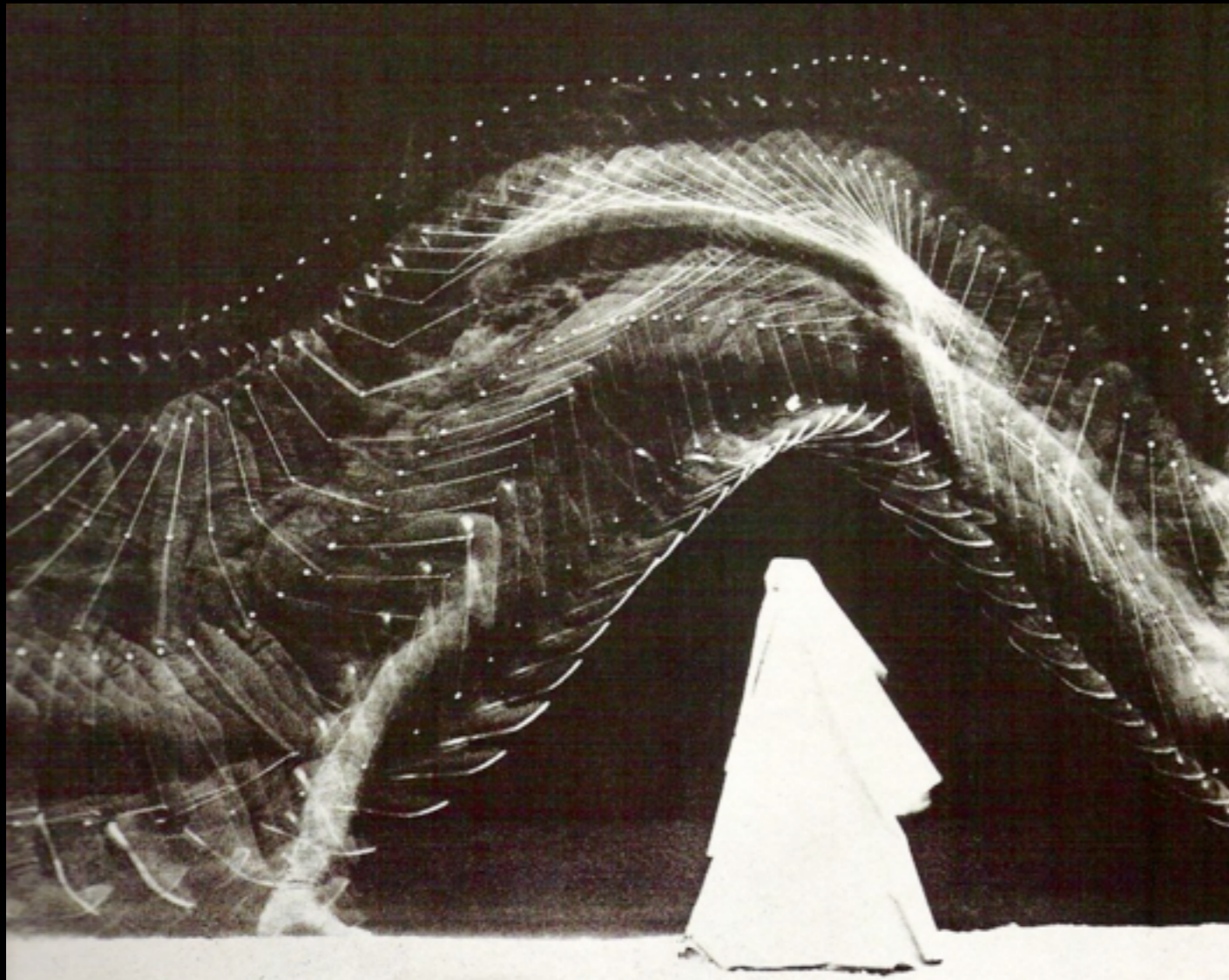


Dada collage





Pelican in Flight





White lives on speakers

Yoshimasa Kato and Yuichi Ito

White lives on speakers 2006

The theme of our work is sculpture made through sound. The method of this work is a white liquid jumping on a speaker. This liquid is potato starch dissolved in water.

A lot of shapes can be observed via stimulation of the starch. This piece has two modes of excitation: one is with a constant frequency applied in sound. The second is by using the changing frequencies of the viewer's brain waves, especially interactive when using alpha and beta waves. In some ways, our work is influenced by the idea of brainwave-modulated in Tarkovsi's SOLARIS.



H. Bergson

- creative evolution

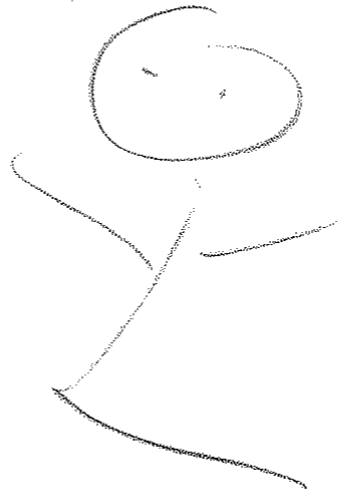
concept of
nothing

(understood they
introspectivity)

World
Becoming

from
ordinary knowledge

duration



apparatus
(cinematograph)

Can I bridge concepts,
time, algorithm, experience
and the notion of duration?

Kandinsky

Computer Art

Inner Necessity

-

Rules, Algorithms

Life

-

chance

plane of immanence

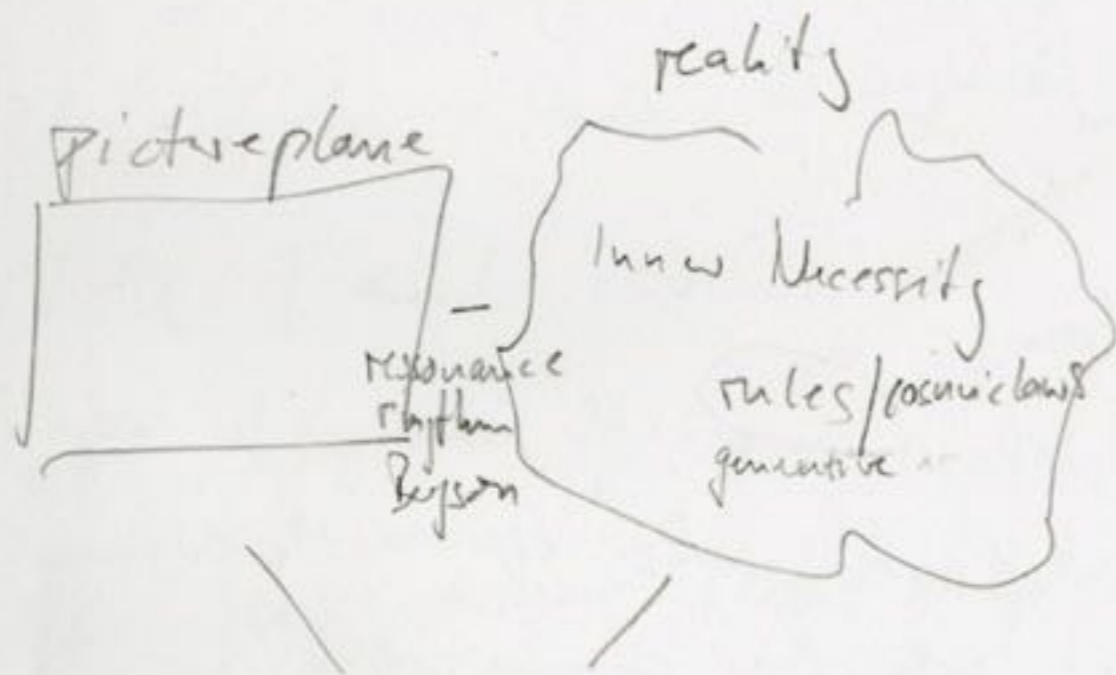
-

virtual

force / movement

-

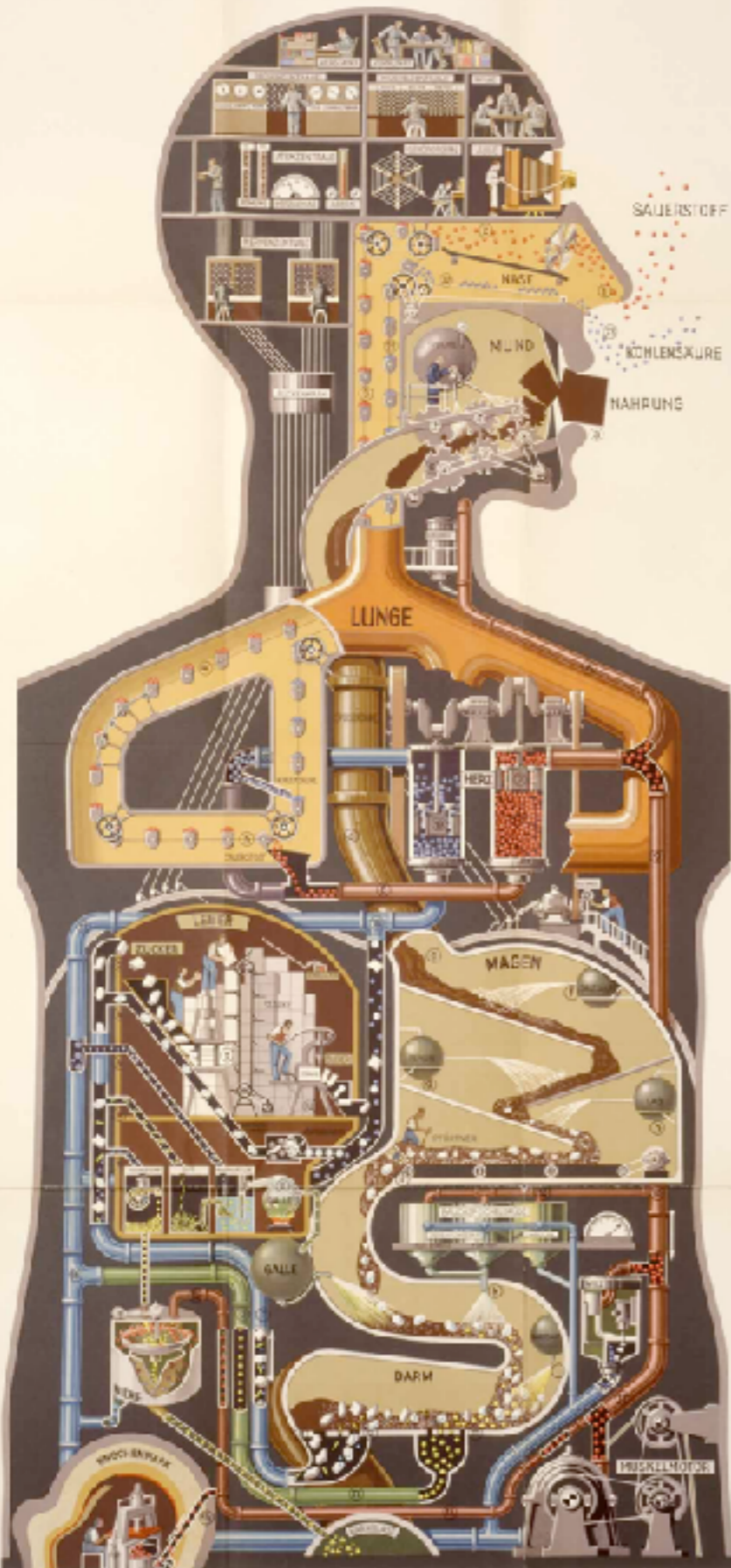
motion



= Life = plane of immanence
 Heart
 Delente

artist
 abstracts / spiritual

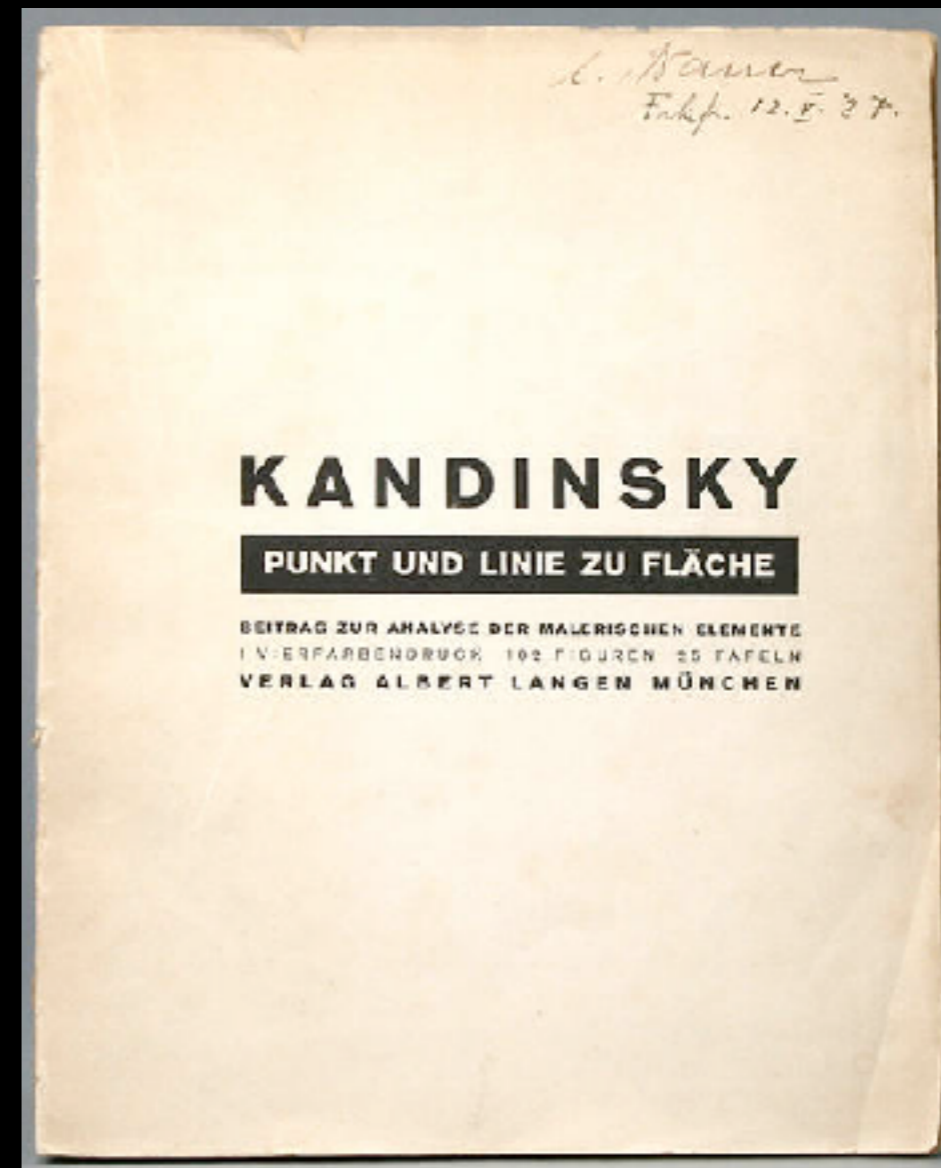
Der Mensch als Industriepalast



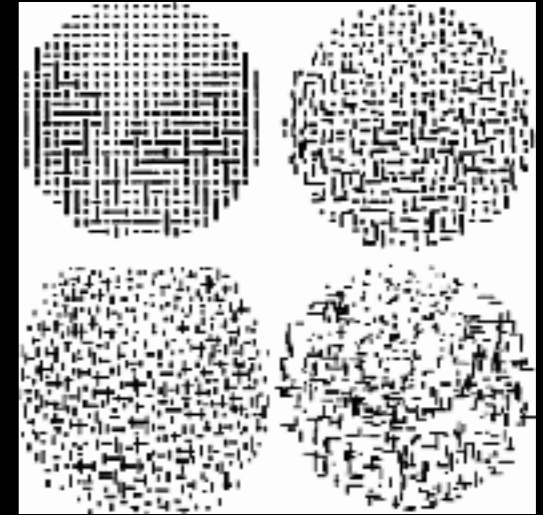
Aus Kahn, DAS LEBEN DES MENSCHEN / Franck'sche Verlagsbuchhandlung, Stuttgart /

Fritz Kahn

"Der Mensch als Industriepalast"
(Man as Industrial Palace)
(1926)



Michael Noll
Mondrian 1965



Stuttgart 1965
Max Bense



Kandinsky 1926
point line plane



Frieder Nake 1965
generative aesthetics



Generative grammar
Chomsky 1965



Fig. 9
A leap by the dancer Palucca.

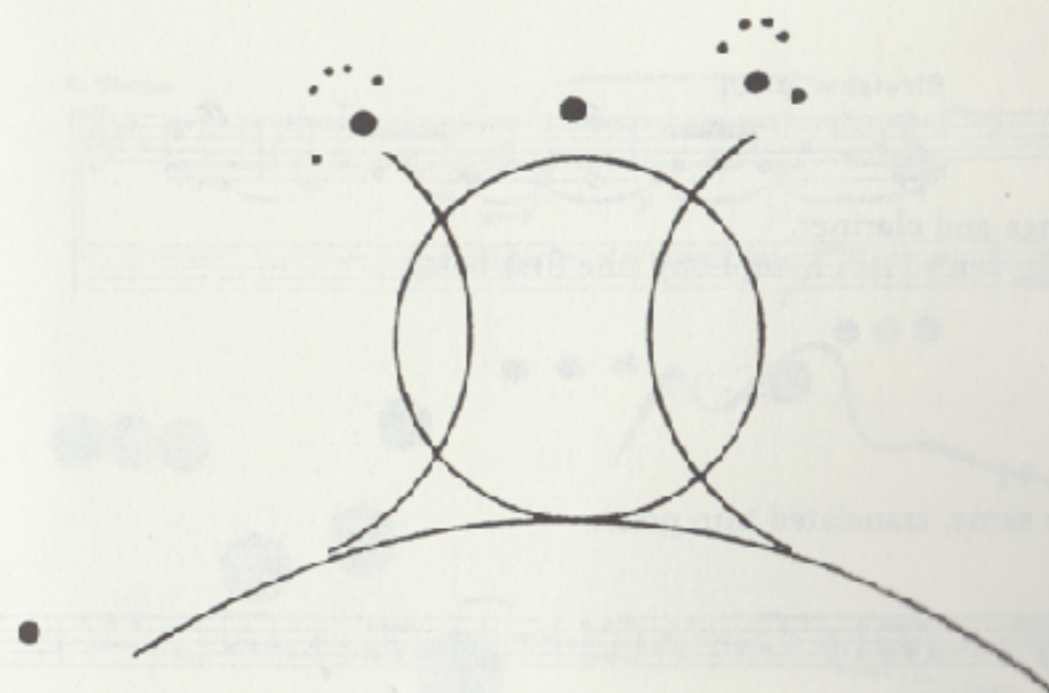


Fig. 10
Diagram of a leap (cf. the photograph opposite, Fig. 9).

Streicher u. Cl.



Strings and clarinet.
Beethoven's Fifth Symphony (the first bars).

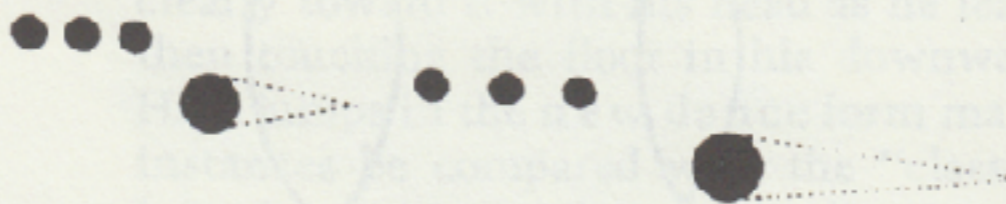


Fig. 11
The same, translated into points.

Origin



Small white labels with illegible text, likely museum identification tags, located in the bottom left corner of the image.







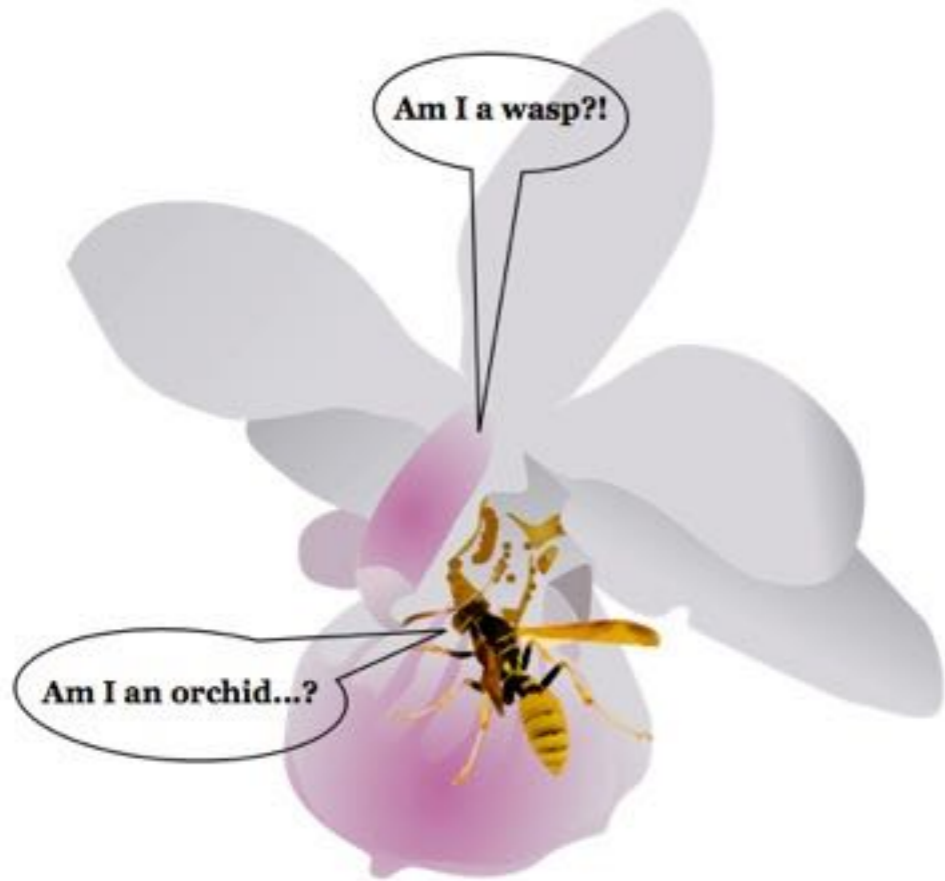






Deleuze

Rhizomatic Connection



WTF





The house of art

fresh
architecture
frame

Plane of composition

house + universe
heimlich + unheimlich
finit + infinite
territory + deterritorialization

Percept - Concept - affect

Sensory qualities
|
Becoming
|
Territory
|
Animal

— Art

— house

Affect and thought

The logic of sensation

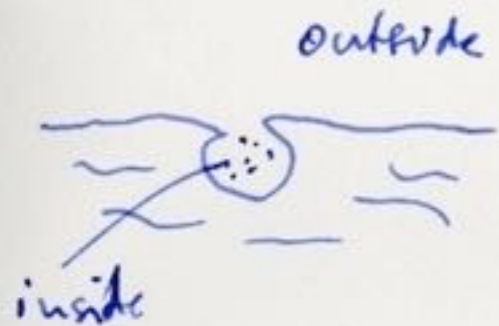






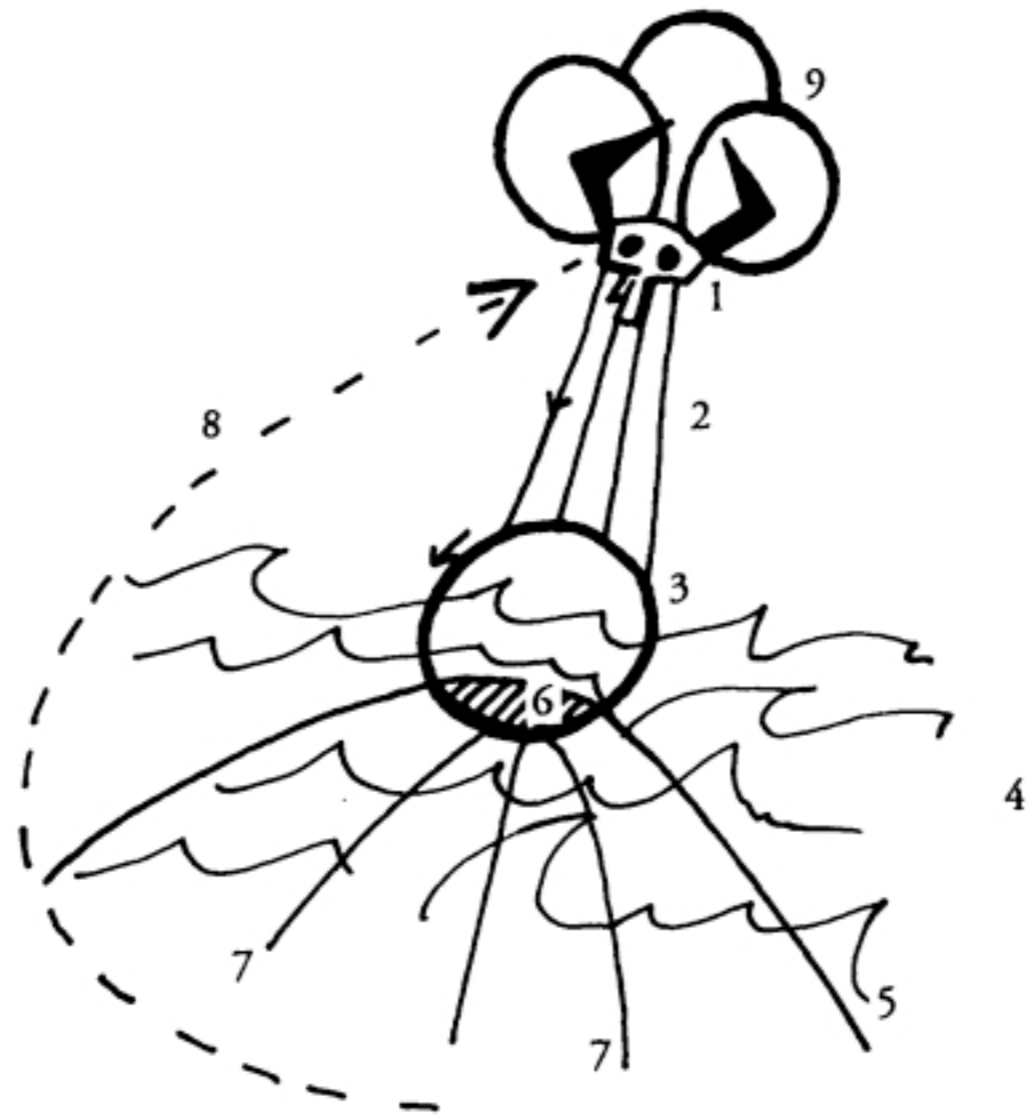


Phenomenologic. The only thing we can make statements about with certainty is our consciousness / self-consciousness. We sit in a chair and meditate on our consciousness. The world is in epoché ()





Post-structuralist.. Knowledge and consciousness are not restricted to humans. We think in post-human forms. The world is folded, the different layers + strata form new phenomena. We understand ourselves as processes and becomings. We form ruins and new structures

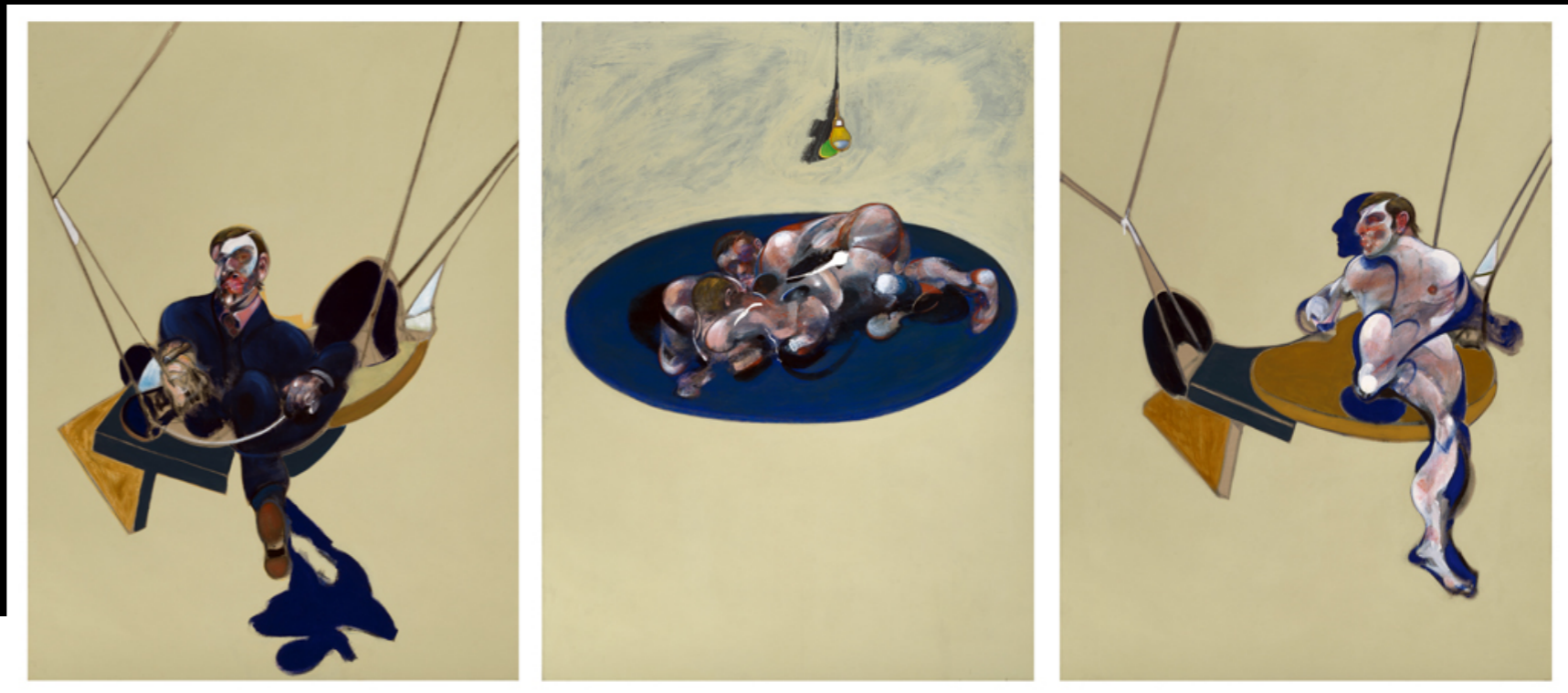




FIGURAL: RENÉ MAGRITTE - FRANCIS BACON MICHELE FOUCAULT - GILLES DELEUZE



Ceci }  } n'est pas }  ne pipe
/ ceci n'est pas une pipe /

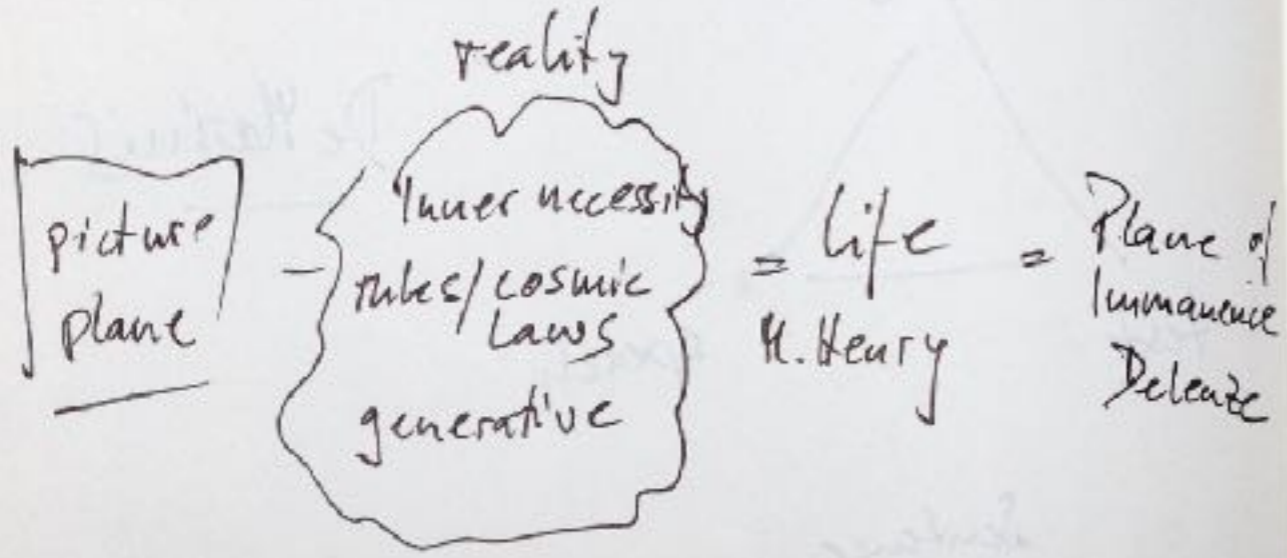




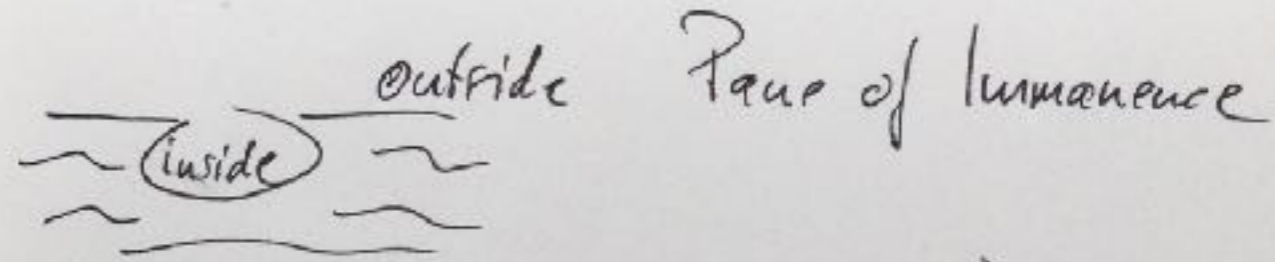
Donatello's *St. John the Evangelist*
c. 1400
Gilded terracotta
The Metropolitan Museum of Art, New York
The Metropolitan Museum of Art, New York
The Metropolitan Museum of Art, New York
The Metropolitan Museum of Art, New York
The Metropolitan Museum of Art, New York

This is the ‘book of philosophy’ which we no longer propose to replace with another form of expression and a new style – as Deleuze famously puts it in the preface to *Difference and Repetition*: ‘The time is coming when it will hardly be possible to write a book of philosophy as it has been done for so long: “Ah! the old style”’ (Deleuze 1994: xxi). Instead, we oppose to it another regime of production which incorporates the ‘book of philosophy’ into the material milieu by plugging it into the mechanic conditions of reality of the most external and the most internal of forces. The **diagram** names this process where signs flush with material flows – and whose cutting edges of creation are ontologically affirmed and analytically assisted – turn back on philosophy’s reterritorialisation onto the concept, at the very same moment that philosophy absolutely deterritorialises capital by suppressing it as an internal limit

Kaoudinsky + Deleuze



Phenomenology



Categories | Kant

langue

Structuralism



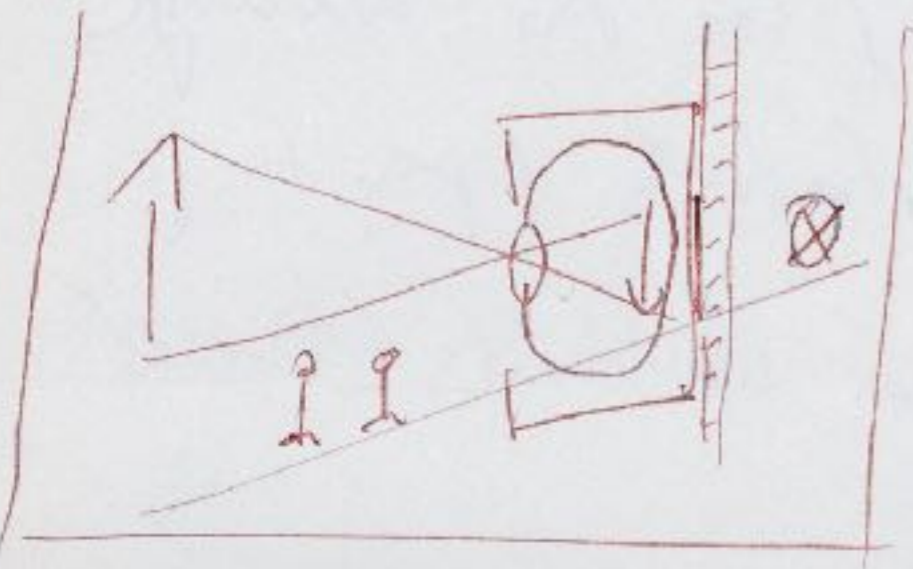
Rhetoric

reality




Existentialism

Representation



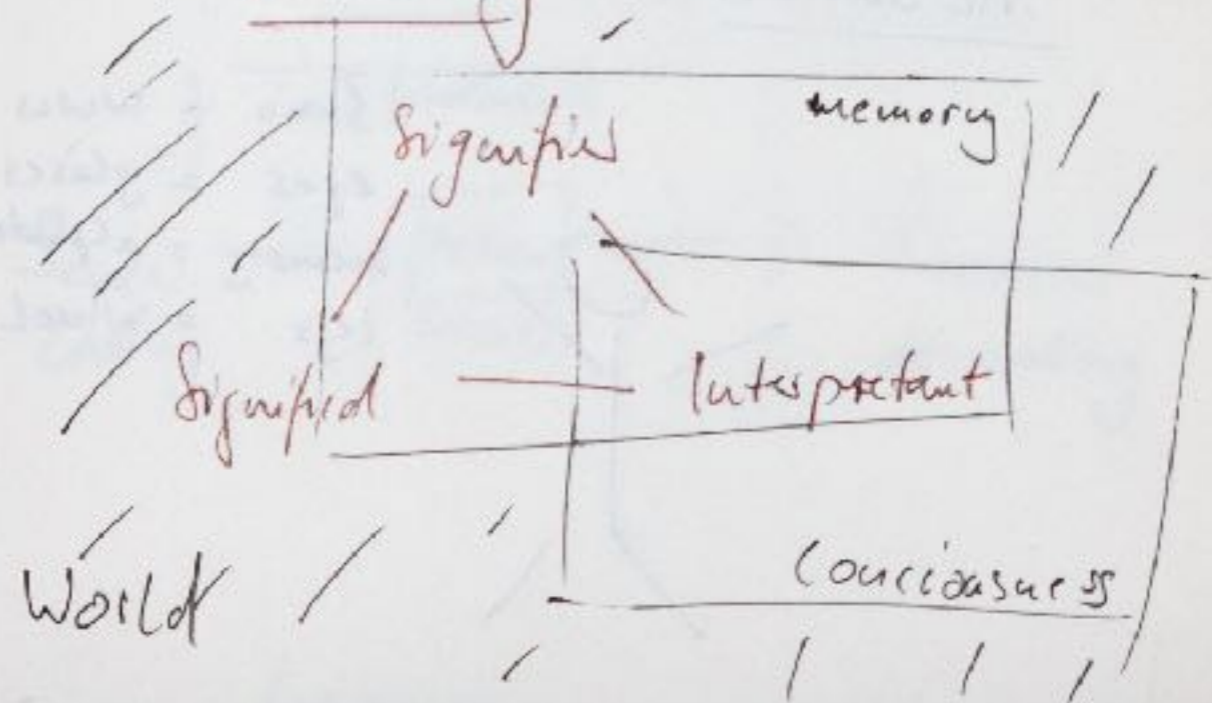
Information

Matter - Information - Energy

Turing 
1101111010111111

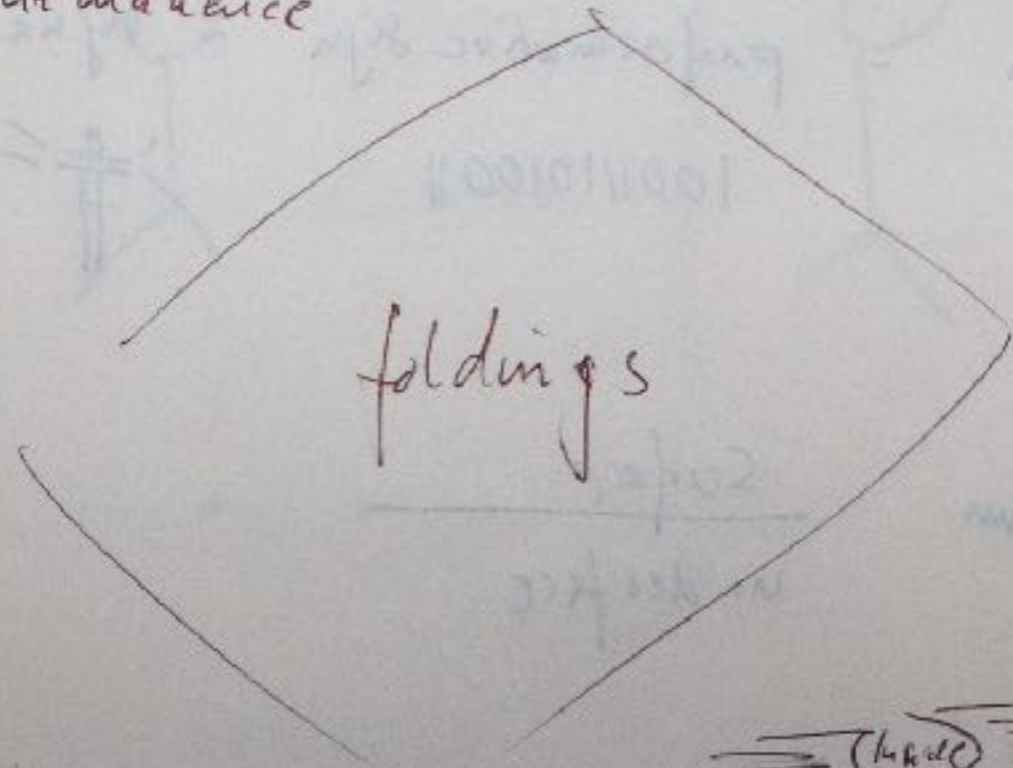
- can be measured (Shannon) if not represented
- structure, system, organization, chaos, order

Meaning



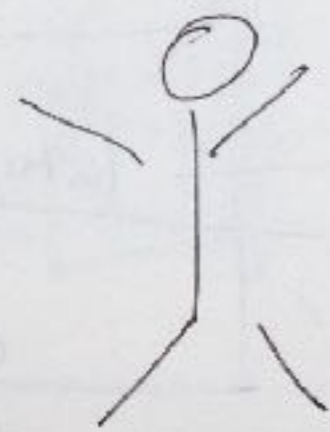
Spirituality

luminescence



state outside

McLuhan



Brain = www
 eyes = glasses
 memory = alphabet
 legs = wheel

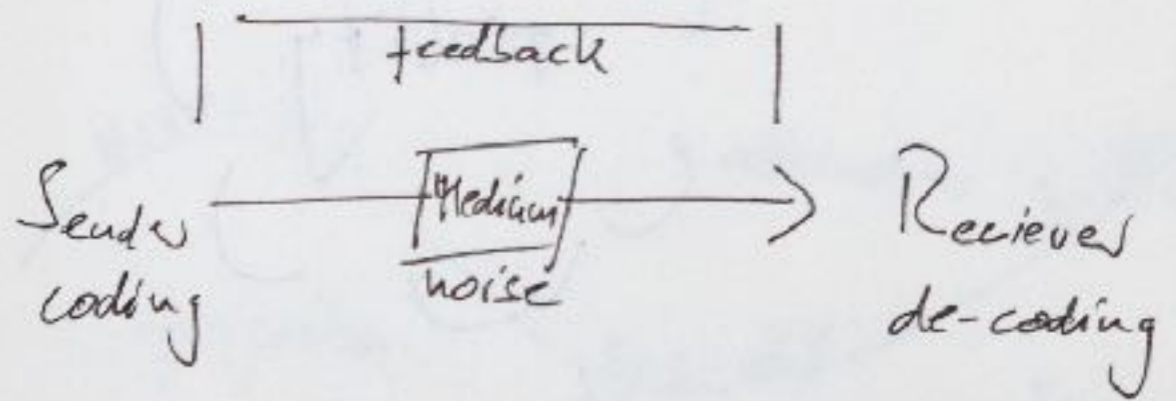
Media are extension of man (What else?)

Sign - performative sign - signal
 (stop) 100111010011

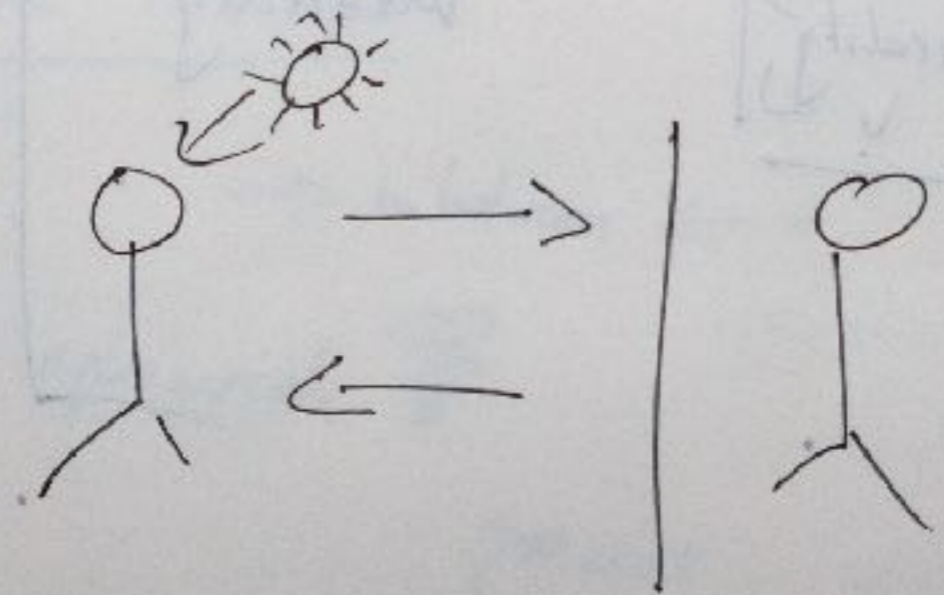
Medium Surface
 un des face

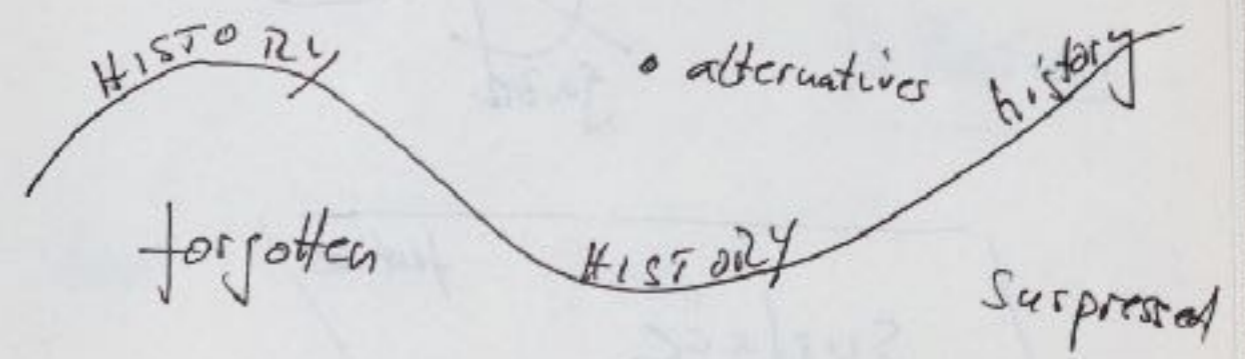
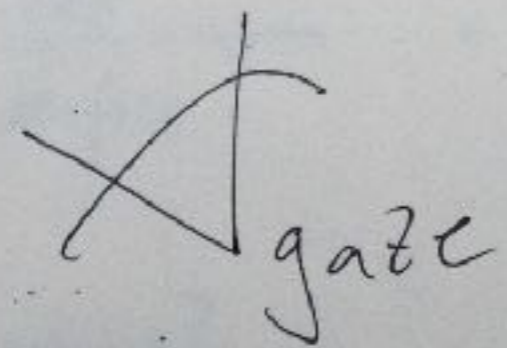
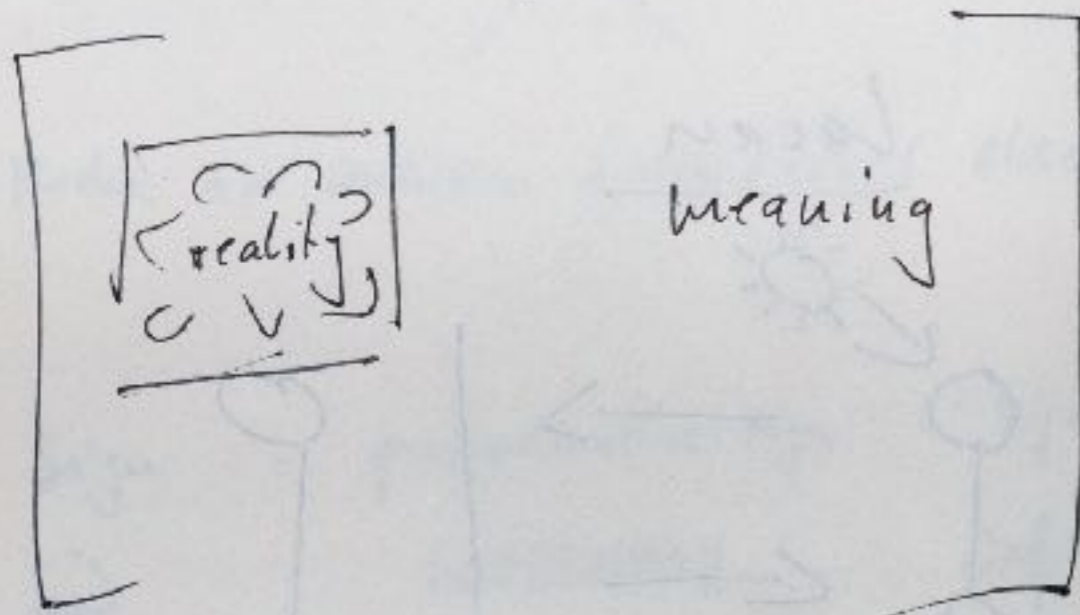
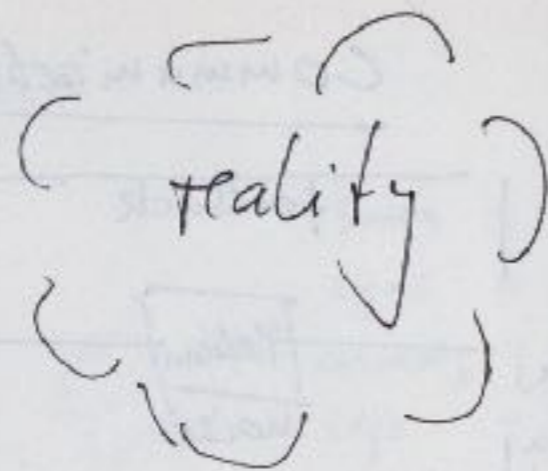
What is reading?

Communication channel



Lacan





the invisible

→ in between ←

ephemeral

..... process

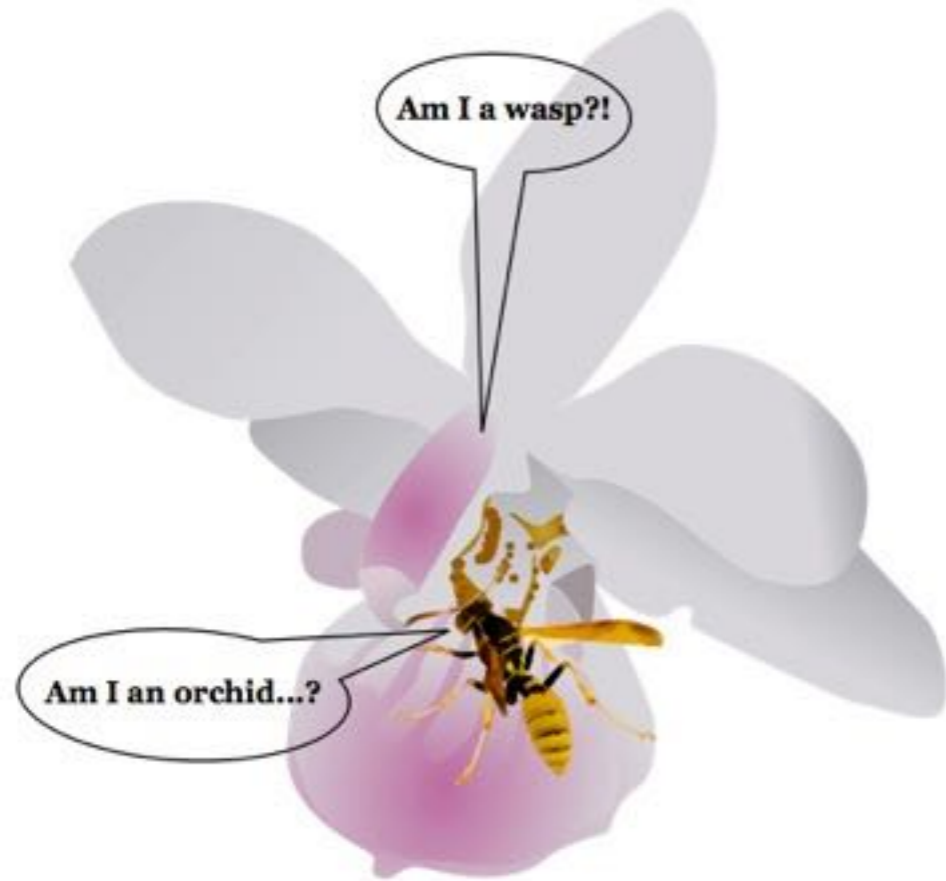
transfiguration

| the other

object

idea / concept

Rhizomatic Connection

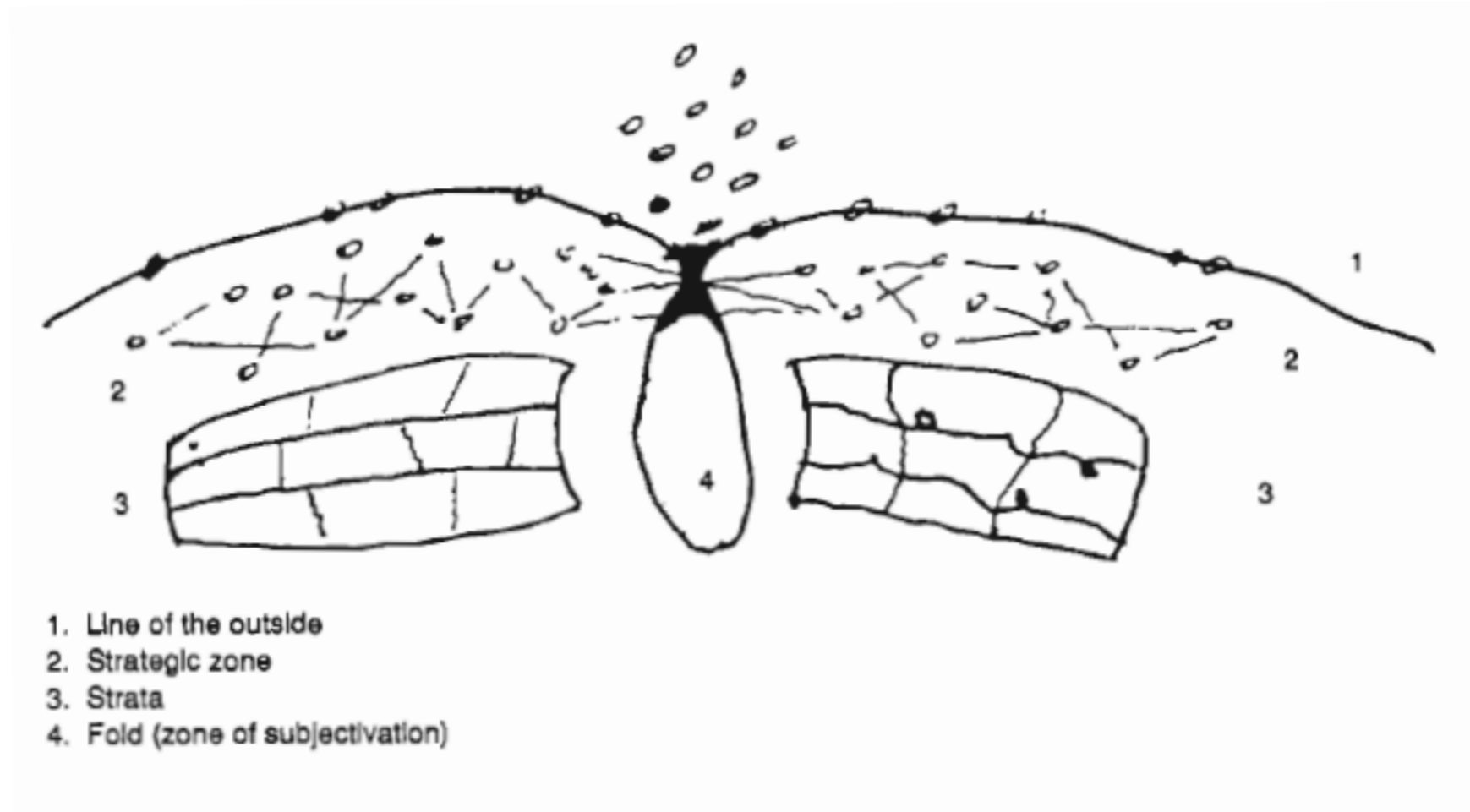


WTF

<http://dsc.discovery.com/videos/life-vogelkop-bowerbirds-display-treasures.html>



Fold



Can *force* fold so as to be self-action, the affect of self by self, such that the outside in itself constitutes a coextensive inside?

(Deleuze - Foldings or the insight of thought p. 332)

“the diagram cannot be used to represent an objectivised world; on the contrary it organises a new type of reality. . . . The diagram is not a science, it is always a matter of politics. It is not a subject of history, nor does it survey history from above. It makes history by unmaking its previous realities and significations, constituting so many cutting edges of emergence or of creationism, of unexpected conjunctions, of improbable continua.” (Deleuze 1975: 1223; Eric Alliez emphasis)

Plane of Immanence





9



PAOLO (Giovanni di)



Foldings





Kulturlandschaft:

A cultural landscape, as defined by the World Heritage Committee, is the "cultural properties [that] represent the combined works of nature and of man."

The three categories extracted from the Committee's Operational Guidelines, are as follows:

1.) "a landscape designed and created intentionally by man"

2.) an "organically evolved landscape" which may be a "relict (or fossil) landscape" or a "continuing landscape"

3.) an "associative cultural landscape" which may be valued because of the "religious, artistic or cultural associations of the natural element"

The “Kulturlandschaft”

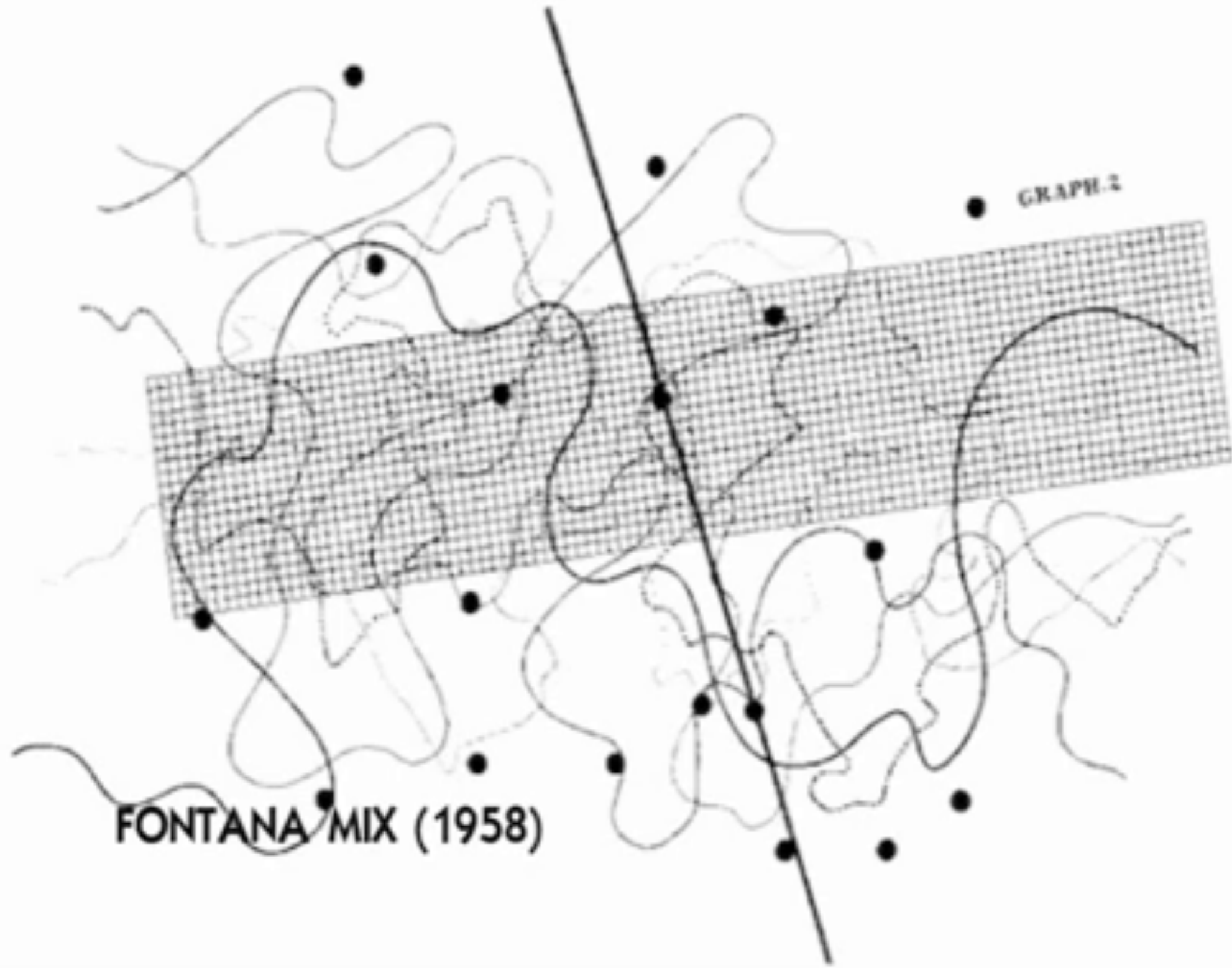
- Is this a place a higher power made for us?
- Are we locked in History?
- Are we on the path to transcendental consciousness?

What is the relation between human and nature?

- A battle?
- Harmony?
- A feedback loop?
- A fold?
- A rhizome?
- A body without organs?







<http://www.ubu.com/aspen/aspen5and6/fontana.html>

10 TRANSPARENT SHEETS WITH POINTS, 10 DRAWINGS HAVING SIX DIFFERENTIATED CURVED LINES, A GRAPH (HAVING 100 UNITS HORIZONTALLY, 20 VERTICALLY) AND A STRAIGHT LINE, THE TWO LAST ON TRANSPARENT MATERIAL.

PLACE A SHEET WITH POINTS OVER A DRAWING WITH CURVES (IN ANY POSITION). OVER THESE PLACE THE GRAPH. USE THE STRAIGHT LINE TO CONNECT A POINT WITHIN THE GRAPH WITH ONE OUTSIDE.

MEASUREMENTS HORIZONTALLY ON THE TOP AND BOTTOM LINES OF THE GRAPH WITH RESPECT TO THE STRAIGHT LINE GIVE A 'TIME BRACKET' (TIME WITHIN WHICH THE EVENT MAY TAKE PLACE) (GRAPH UNITS = ANY TIME UNITS).

MEASUREMENTS VERTICALLY ON THE GRAPH WITH RESPECT TO THE INTERSECTIONS OF THE CURVED LINES AND THE STRAIGHT LINE MAY SPECIFY ACTIONS TO BE MADE. THUS, IN THE CASE OF (FONTANA MIX) TAPE MUSIC, THE THICKEST CURVED LINE MAY GIVE SOUND SOURCE(S) WHERE THE LATTER HAVE BEEN CATEGORIZED AND RELATED QUANTITATIVELY TO 20. (IN THIS CASE, THE 2 POINTS CONNECTED BY THE STRAIGHT LINE MUST PERMIT THE LATTER TO INTERSECT THE THICKEST CURVED LINE.) INTERSECTIONS OF THE OTHER LINES MAY SPECIFY MACHINES (AMONG THOSE AVAILABLE) FOR THE ALTERATION OF ORIGINAL MATERIAL AMPLITUDE, FREQUENCY, OVERTONE STRUCTURE, MAY BE CHANGED, LOOPS AND SPECIFIC DURATIONS INTRODUCED.

MEASUREMENTS MADE MAY PROVIDE ONE OF A NUMBER OF PARTS TO BE PERFORMED ALONE OR TOGETHER. IN MAKING TAPE MUSIC, AVAILABLE TRACKS MAY BE LESS IN NUMBER THAN THE TIME BRACKETS GIVEN BY MEASUREMENTS. FRAGMENTATION IS THEN INDICATED.

THE USE OF THIS MATERIAL IS NOT LIMITED TO TAPE MUSIC BUT MAY BE USED FREELY FOR INSTRUMENTAL, VOCAL AND THEATRICAL PURPOSES. THUS, AFTER A PROGRAM OF ACTION HAS BEEN MADE FROM IT, IT MAY BE USED TO SPECIFY A PROGRAM FOR THE PERFORMANCE OF THE OTHERWISE UNCHANGING MATERIAL. WHERE POSSIBLE TECHNICALLY THIS CAN BE NOT ONLY SIMPLE CHANGES OF TIME (STARTING, STOPPING) BUT ALSO ALTERATIONS OF FREQUENCY, AMPLITUDE USE OF FILTERS AND DISTRIBUTION OF THE SOUND IN SPACE.

How I learned to love diagrams

Prof. Dr. Christoph Klütsch
SCAD

1. Introduction: Rhizome

vedi NOTE **XIV** piano piece for David Tudor 4
disegno del 1949
adozione pianistica: 27.3.1959

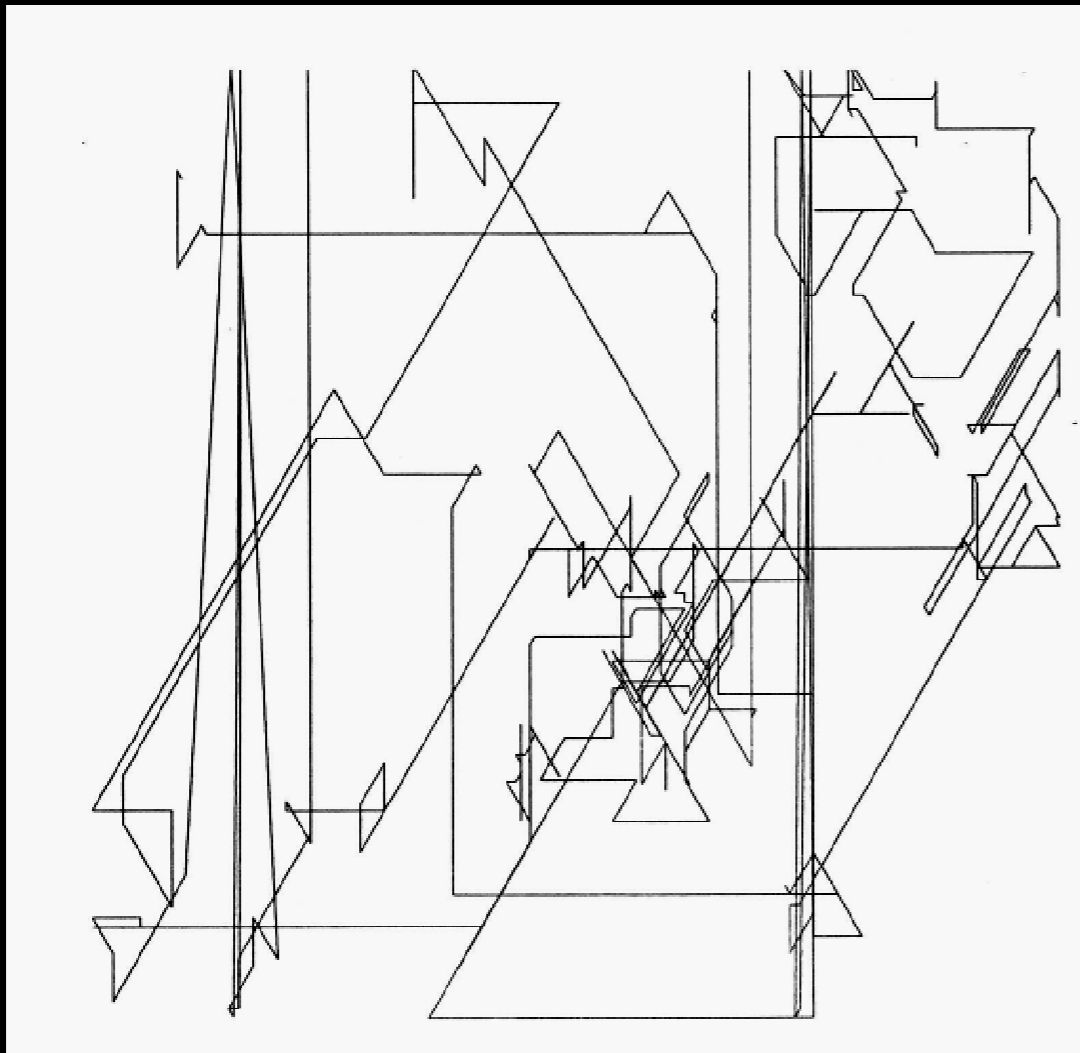
The image shows a musical score for 'Rhizome' by Sylvano Bussotti. It consists of six staves. The first staff is labeled '1' and contains a bracketed list of dynamics: S, M, P. The second staff is labeled '2' and contains a bracketed list of performance instructions: *Balato*, *Muto*, *Capriccio*, *Talento*. The third staff is labeled '3' and contains a bracketed list of parameters: *sequenza*, *frequenza*, *timbro*, *durata*, *intensità*. The fourth staff is labeled '4' and contains a diagrammatic representation of a piano keyboard with arrows indicating fingerings and dynamics like *forzando* and *piano*. The fifth staff is labeled '5' and contains a simple musical notation. The sixth staff is labeled '6' and contains a large, complex, scribbled-in graphic that overlaps the other staves, representing a 'rhizome' structure. The score is written in a complex, non-linear fashion, with many lines and curves connecting different parts of the score.

SYLVANO BUSSOTTI

Algorithmic art



FRIEDER NAKE



“Each painter is a restricted picture generator. So is each picture generating computer program. At all times, artists have applied the same method most computer programs employ: they tried to vary a theme as often as possible in order to attain a 'best' (in their judgment) object. This method became particularly important in recent years with Bauhaus, concrete art, New Tendencies, etc.” (Nake 1969)



Digital computer art: A view from art history into the early beginnings

Christoph Klütsch (International University Bremen)

Aesthetic values

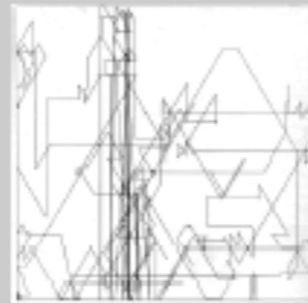
The historical coincidence of Max Bense's (Stuttgart, Germany) and Abraham Moles' (Strasbourg, France) 'information aesthetics', and the academic use of mainframe computers created a surrounding which has enabled: Frieder Nake, Georg Nees, and (independently in the USA) A. Michael Noll to explore new fields of visual research since 1962.

When the first public attempts at computer art were made, this new breed of people considered themselves to bridge C. P. Snow's 'two cultures'.

What started on 2/5/1965 as 'generative aesthetics' at a small exhibition in Stuttgart, found its international culmination in a series of conferences in Zagreb and exhibitions in NY and London in 1968/69. The questions addressed were:

- Is it possible to write a program which would enable a computer to produce aesthetic objects with a significant aesthetic value?
- How could these aesthetic values be scientifically, psychologically, and philosophically defined?
- What kind of implications does computer art have not only on art itself, but also on society, and our self understanding as human beings?

1965 digital computer art entered the art world - "The three N's"



Frieder Nake 1962

Frieder Nake

"This picture is a restricted picture generation. It is each picture generated by computer program. At all times, when later applied the same method, most computer programs employ: they tried to vary a theme as often as possible in order to attain a 'best' (in their judgment) object. This method became particularly important in several years with Nake's, concrete art, New Technics, etc." (Nake 1969)



Georg Nees 1965

Georg Nees

Georg Nees wrote his PhD about "Creative Aesthetics" with Max Bense as doctoral advisor. Nees describes his work as an "aesthetic laboratory" which enables him to do "visual research". Here we see the transition from order to chaos. In other words he investigated "the use" which occurred, not of abstract construction structure!



Michael Noll 1962

Michael Noll

"In general, completely random two-dimensional pictures are not very interesting. However, the computer is also able to mix together randomness and order in mathematically specified proportions to achieve a desired effect." (Noll 1966)

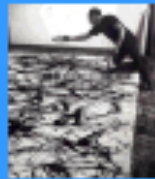
Bense's Information Aesthetics

In 1965 Max Bense published his 'Aesthetics'. Referring to David Birkhoff's *Mathematical Aesthetics*, Claude Shannon's *Information Theory*, Noam Chomsky's *Generative Grammar*, and Norbert Wiener's *Cybernetics*, Bense developed a new aesthetic based on strict science.

The goal was to measure the value of art works by determining the ratio between order and chaos respectively, information and redundancy:

- The aesthetic information is part of (human) communication.
- Communication can be understood as a cybernetic process.
- Information theory measures information (Shannon)
 - Artworks contain aesthetic information
 - > Aesthetic information can be measured
- Aesthetic Measure is an interplay between order and complexity (see Birkhoff) and can be described in terms of neg-entropy.
- The process of art is the inverse of entropy: art creates order.
- The aesthetic object is related to a process which can be understood as a sign process.
- Given the rules for generating aesthetic information, a computer can produce aesthetic objects which are perceived as signs.

Intuition in Art



Picasso in his studio, 1950

Art and Machines



Tiguly, Meta-Matic 1958

Generative aesthetics - ARTificial ART

Who is the CREATOR in computer art?

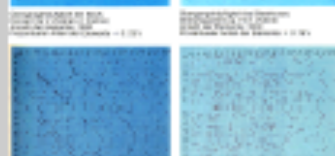
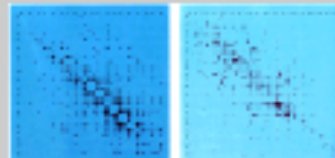
The artist, the programmer, or the program?

Art as a communication process:



S. Maas: A cybernetic model of aesthetic processes

We can TALK about the aesthetic values of objects - can we MEASURE them?



In the 50's, Wilhelm Fuchs analyzed the statistic value of outstanding works of art and formalized stylistic criteria. Fuchs: statistical analysis of music



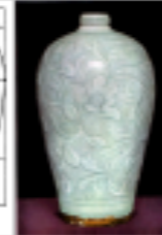
Manfred Mohr
Band Structures 1969

"The first step in that direction was an extended analysis of my own paintings and drawings from the last ten years. It resulted in a surprisingly large amount of regularities, determined of course by my particular aesthetic sense, through which I was able to establish a number of basic elements that amounted to a rudimentary syntax. After representing these basic constructions through a mathematical formalism, and setting them up in an abstract combinatorial framework, I was in a position to realize all possible representations of my algorithms." (Mohr 1971)

A mathematical approach to aesthetics



Birkhoff 1932



Sung Dynasty (960-1279)

David G. Birkhoff (1884-1944):

M = O/C
M = aesthetic measurement
O = Order
C = Complexity

$$M = \frac{O}{C} = \frac{P + E + R + NY - P}{C}$$

Order and Complexity are fundamental principles in the world.

Is there an aesthetic relation between them?

Two Cultures

20-22. March 1968 at the MIT:

"The session entitled 'Art, Technology and Communication' began in the afternoon with Jerome Lettvin, M.I.T.'s monumental (six feet, 270 pounds) Professor of Communications Physiology, removing his jacket, rolling up his sleeves, brushing his hair back behind his ears, and stating that we've been handed a Snow job on the division between art and science." (Sprack 1969)

Computer art as a bridge?

In the 60's a new collaboration of artists and engineers emerged in using a computer:

- In the tradition of the Bauhaus, industrial production merged with artistic production using the computer as a tool, and succeeded with the generative aesthetic, classical industrial design.
- Nevertheless, while in Europe engineers had to fight to be seen as creative, in the USA the new scientist-artist was seen as 'superior' to classic artists such as Picasso

Early networking

In the January 1966 issue of 'Computers and Automation', Leslie Meisel at the University of Toronto suggested building a network for sharing information about events connected with computer art.

Shortly afterwards, he published a bibliography on computer art and in June 1966 the conference "Design and Computer" was held at the University of Waterloo, Ontario, Canada.

The conference was organized by Martin Knappes, who at that time worked at the Institute of Design at the University of Waterloo and at the Hochschule für Gestaltung in Ulm, Germany.

The participants were: Allen Barnholtz, Edward Barnstone, Steven A. Coons, William A. Fetter, Edwin L. Jacks, Kenneth C. Knowlton, Marvin L. Marshall, A. Michael Noll, Kenneth G. Scheid, and Arthur H. Neuman.



Leslie Meisel 1968



a)



b)



c)



d)

Maurizio Bolognini: Computer sigillati (**Sealed Computers**), Installation (programmed computers), 1992-2004. Computer sigillati are machines (more than 200 since 1992) which have been programmed to produce unlimited streams of random images and are then left to work indefinitely without monitors. a) Museum of Contemporary Art, Villa Croce, Genova.



