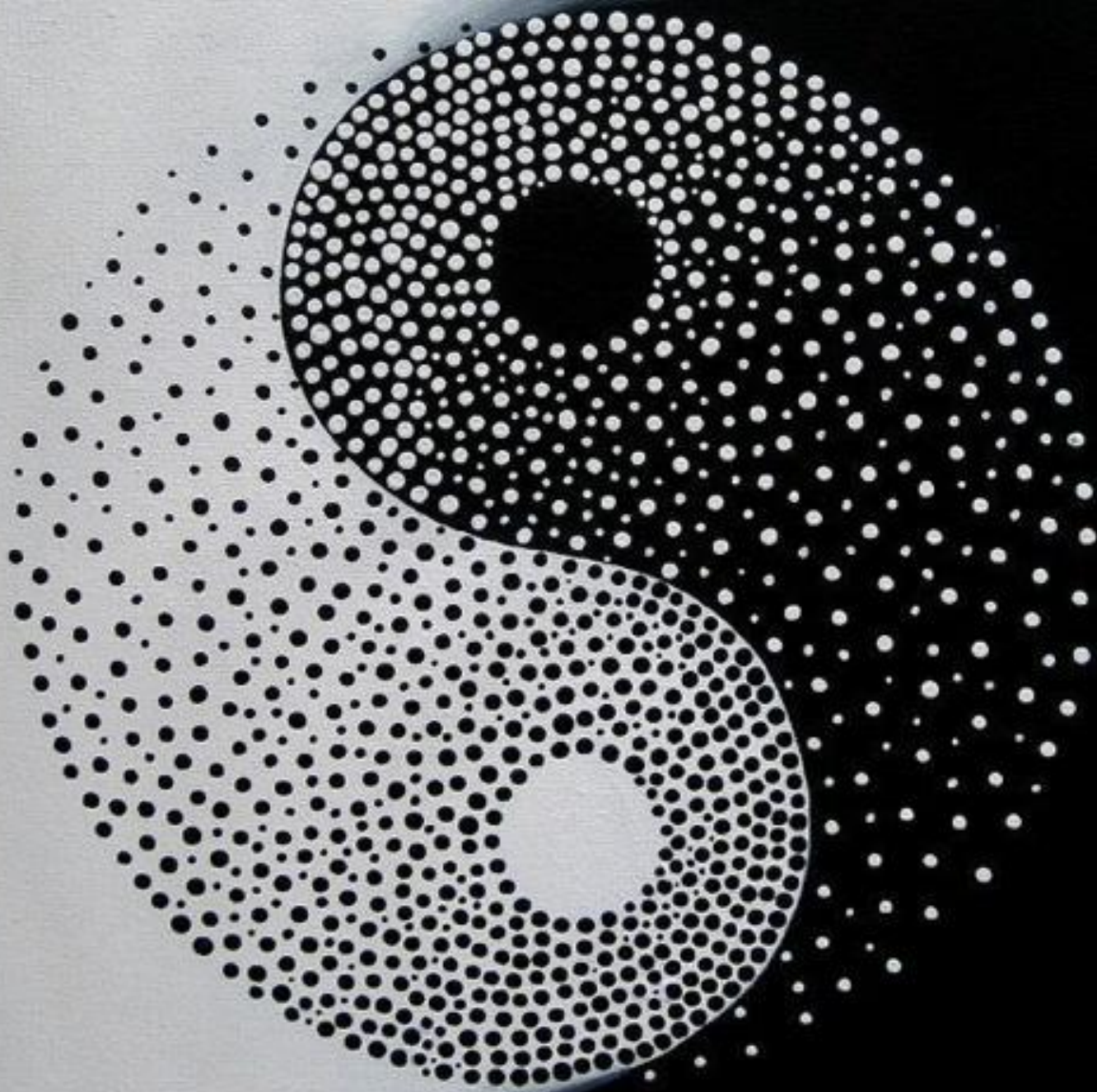


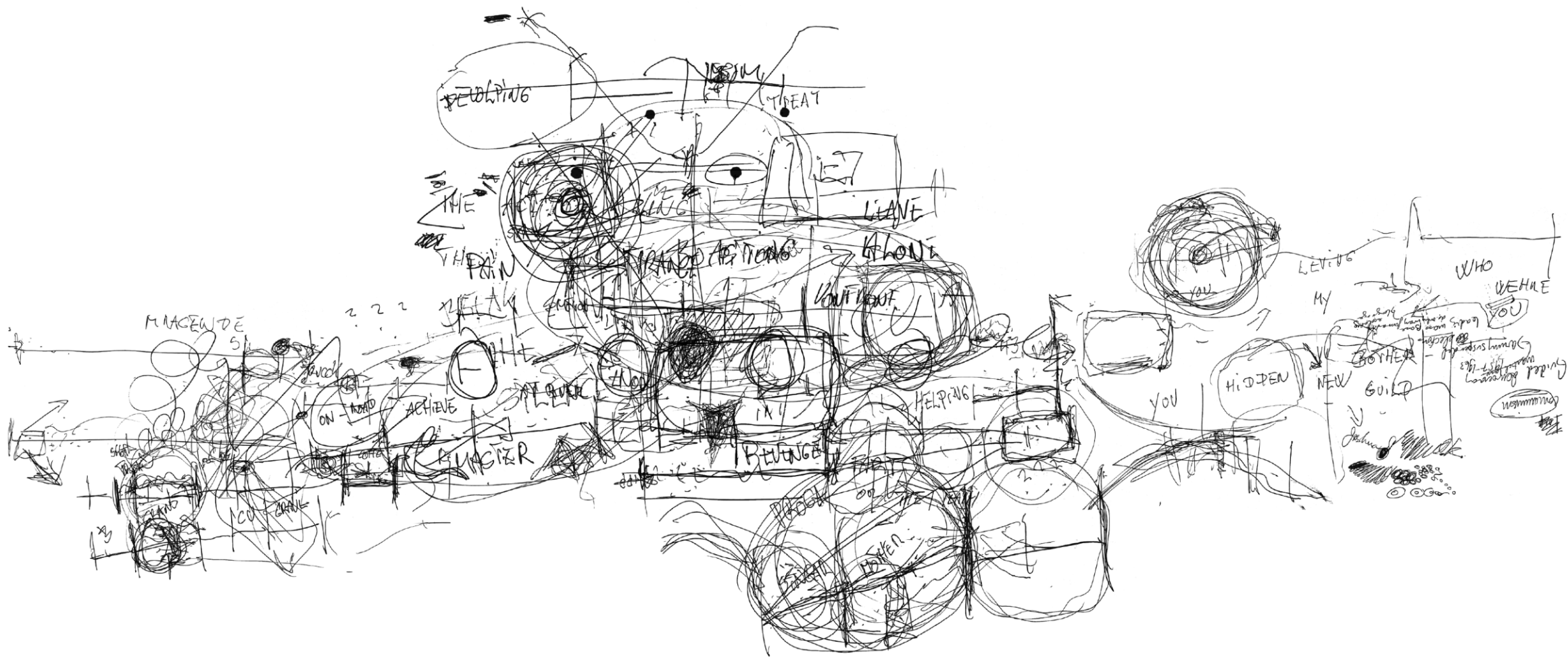


Order within Chaos

week 4 – time, memory and the archive

Lecture 13 | Coexistent Perspectives (ADAA7000)





[in]

being

from being to becoming

time

[and]

The Birth of Tragedy

Friedrich Nietzsche

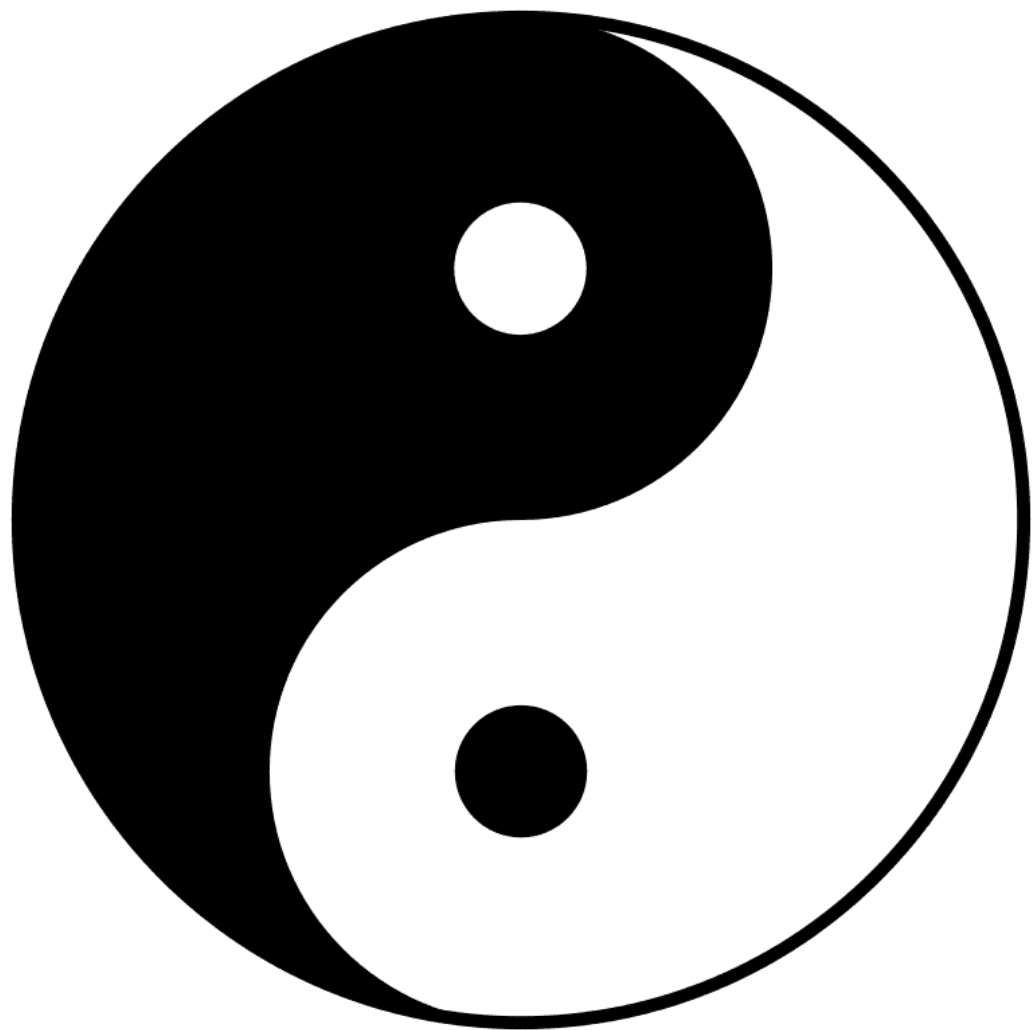
Nietzsche says because god doesn't exist we, as humans, are thrown back upon ourselves.

The nature of who we are is based on two impulses; order and chaos. We can't have one without the other.

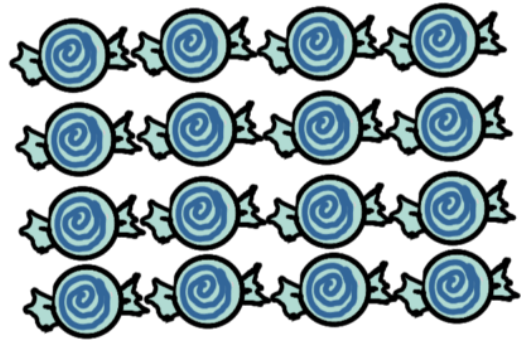
Order and chaos are the basis of human suffering.

Nietzsche associates **order** and **chaos** with the gods Apollo - order and Dionysus - chaos. Therefore human existence is tragic.

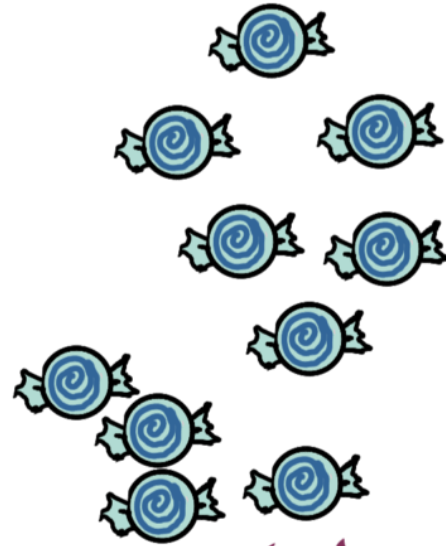




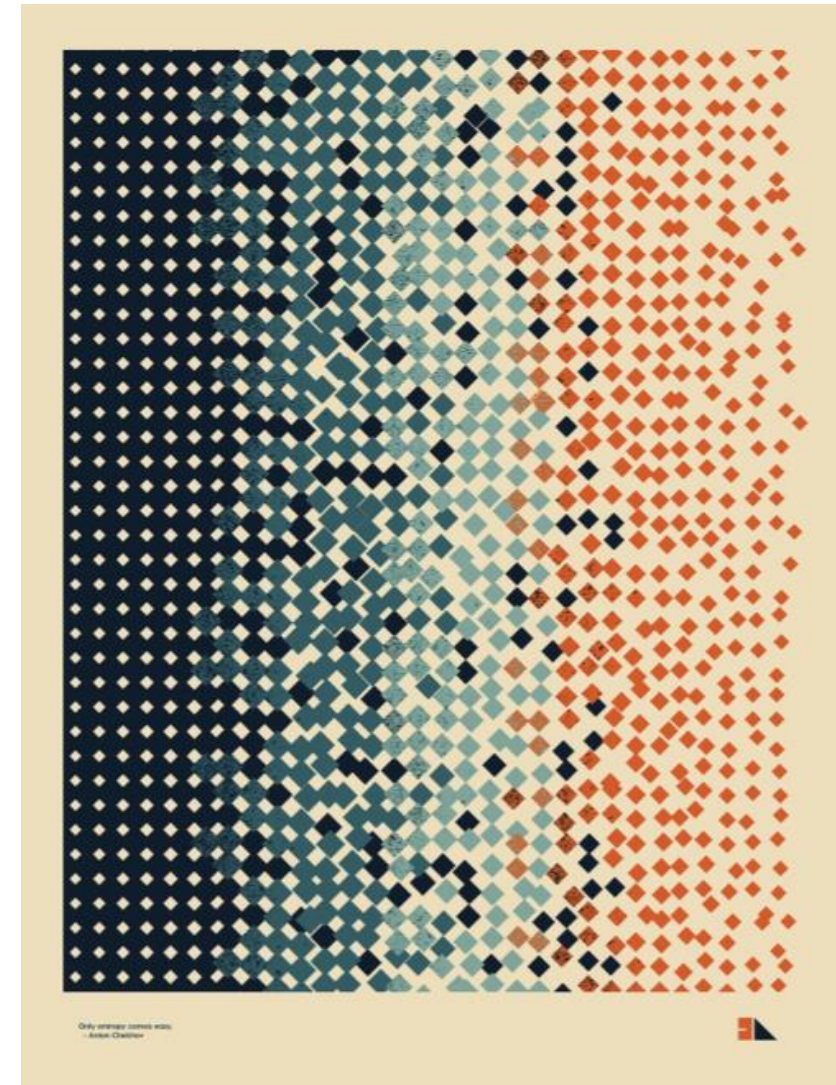
Entropy is a measure of internal disorder in a naturally decaying system.



Low Entropy
order



High Entropy
disorder



Entropy — The Pillar of both Thermodynamics and Information Theory

“Only entropy comes easy”-Anton Chekhov

entropy and complexity

Complexity is based on the variability of patterns within each image, ranging from highly variable (more complex) to uniform (less complex).

Entropy is determined by **the degree of chaos in the image**; the more “regular” the painting, the lower the entropy.



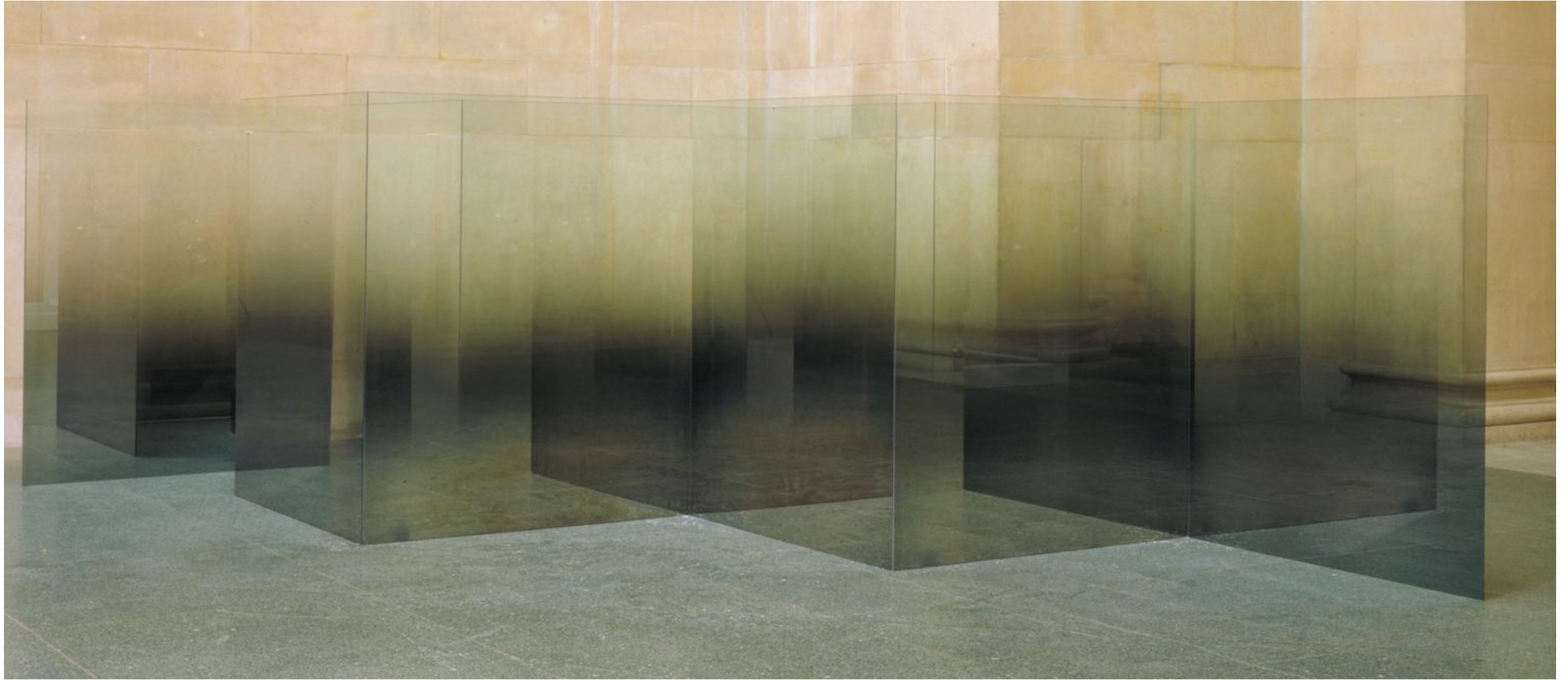
Jackson Pollock's paintings have a high degree of entropy

Robert Smithson

In a 1966 essay entitled “**Entropy and the New Monuments**,” the artist Robert Smithson argued that a number of contemporary works of sculpture and architecture embodied a dullness and an absence of energy; blank forms and listlessness struck him as recurrent features. Such works thus recalled, to the erudite Smithson, **the Second Law of Thermodynamics**, which he read as implying that the entire universe is undergoing an inevitable loss of energy and a corresponding drift towards **homogeneity**.



Spiral Jetty (1970) | earthwork sculpture | Robert Smithson



Entropy is the inevitable and steady deterioration of a system or society

Larry Bell Untitled 1971

Entropy as Trace

Work of Days (1998)

Rivane Neuenschander

Neuenschwander's adhesive dust traps visualise entropy as quiet accumulation - order emerging through decay.

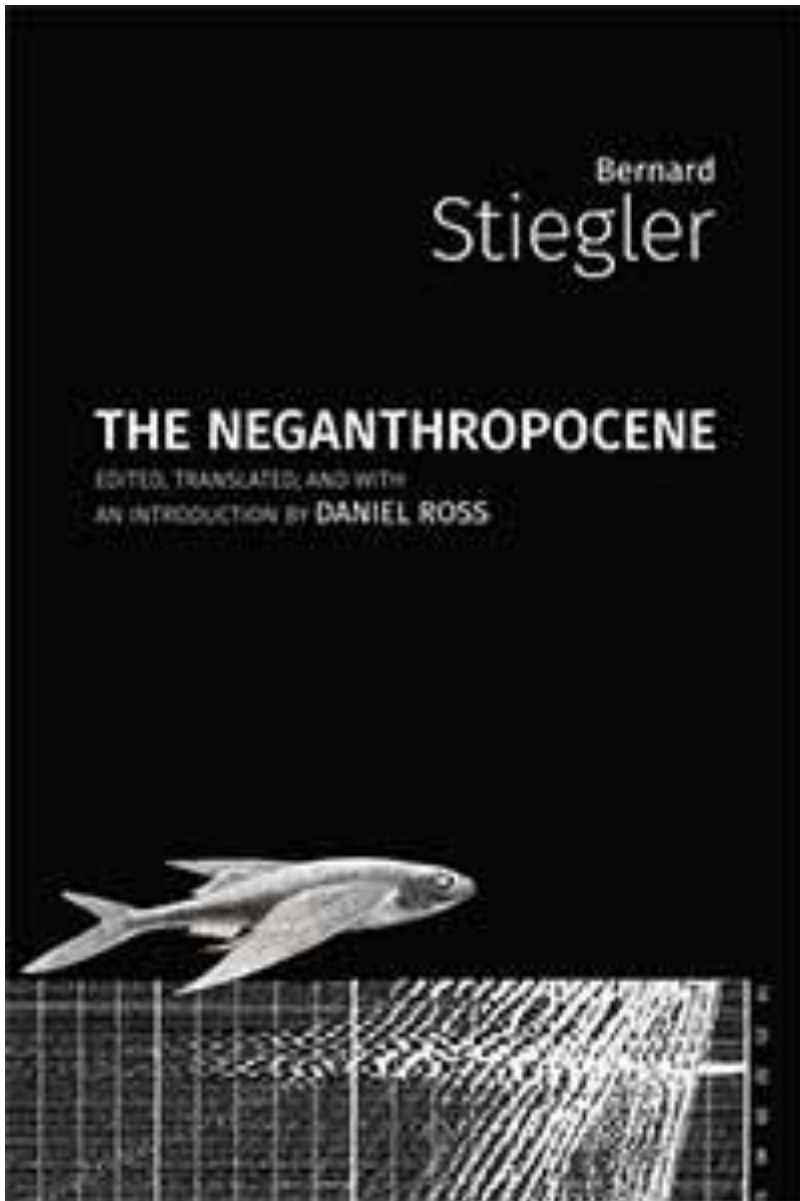




negentropy **negative entropy**

Mika Tajima





Negentropy (in art and design) refers to the process of creating order, complexity, and meaning out of chaos, which is the opposite of thermodynamic entropy.

Artists use negentropy to impose structure, reorder chaotic information, and create self-organising systems, whether through intentional planning or by finding order in unexpected sources. It can be found in classical techniques like using negative space to define form or in conceptual works that explore themes of organization, life, and the relationship between mind and matter.

The **Neganthropocene** is a concept proposed by **Bernard Stiegler** for a new era following the destructive **Anthropocene**, which is characterised by a "new regime of negentropy". **Negentropy, or negative entropy, is the process of creating or maintaining order from disorder** by using energy and is an important concept in thermodynamics, information theory, and biology. Stiegler uses this term to suggest a new approach to technological and social development that counteracts the entropic tendencies of the Anthropocene.

the abyss of freedom

“I experience a sort of terror when, at the moment of setting to work and finding myself before the infinitude of possibilities that present themselves, I have the feeling that everything is permissible to me... Will I then have to lose myself in this abyss of freedom?”

–Igor Stravinsky, the Poetics of Music

If you stare into the Abyss long enough the Abyss
stares back at you.

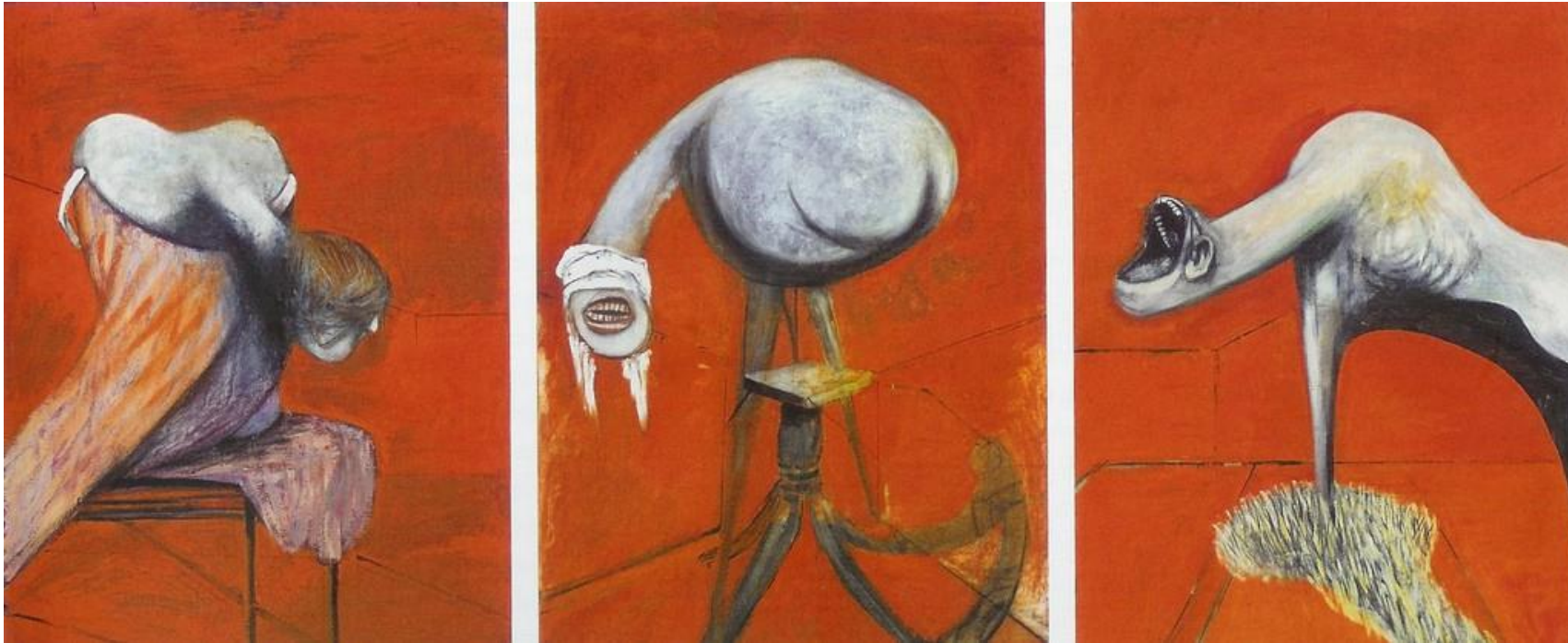
Friedrich Nietzsche





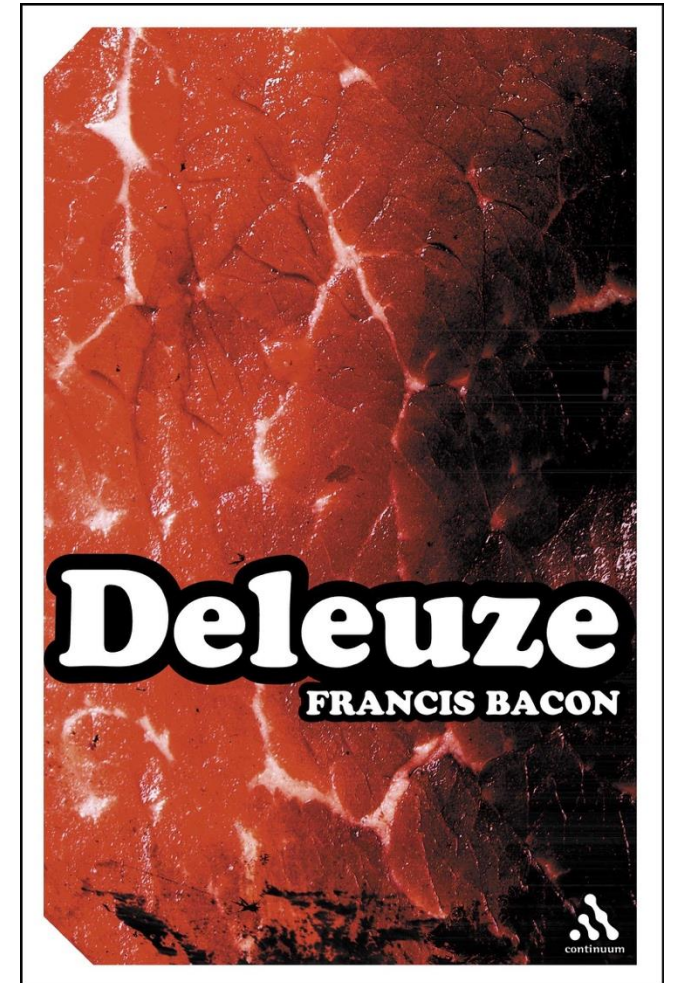


Shocking Masterpiece | from a logic of representation toward a pure logic of sensation



Three Studies for Figures at the Base of a Crucifixion (1944)

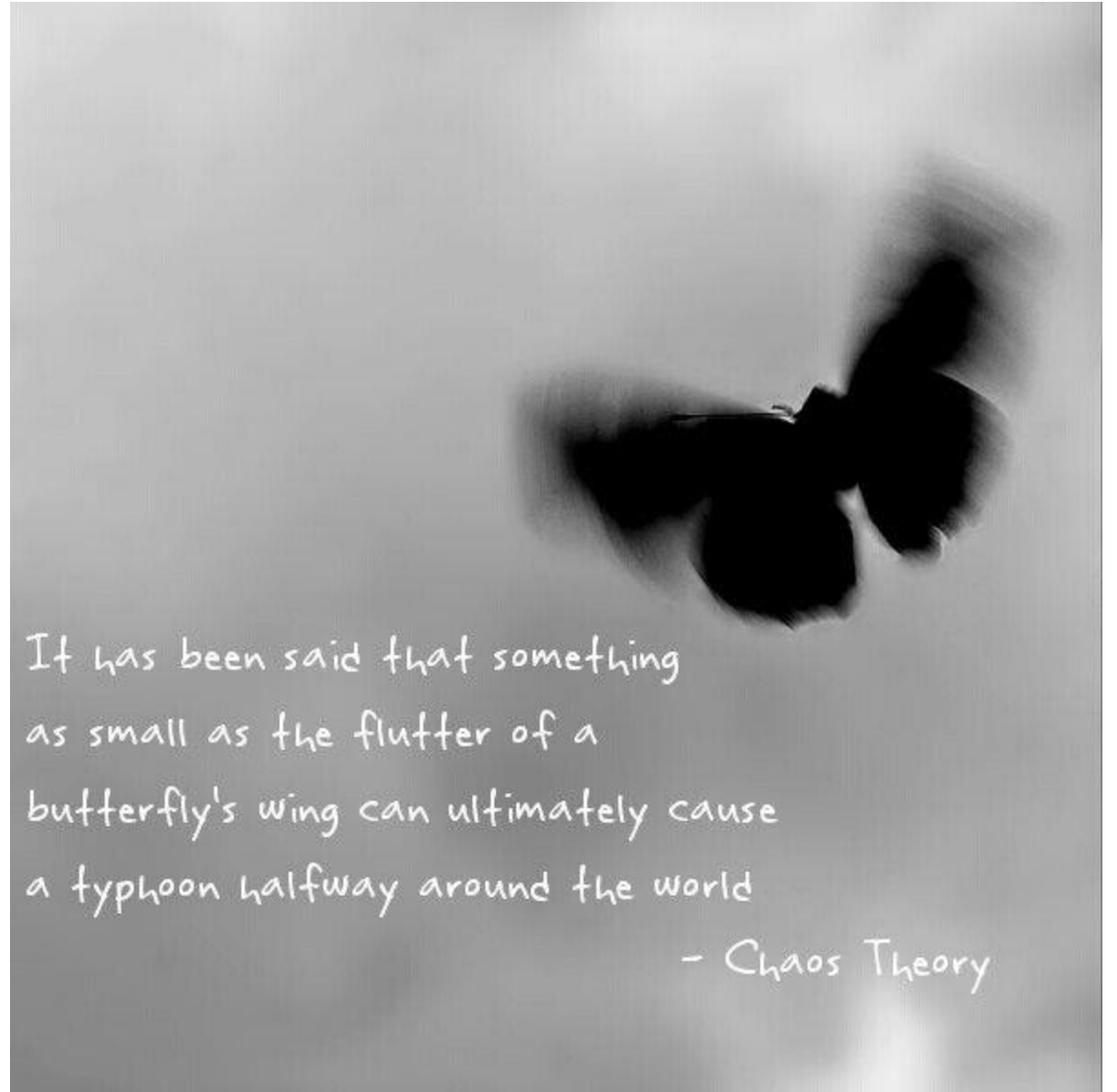
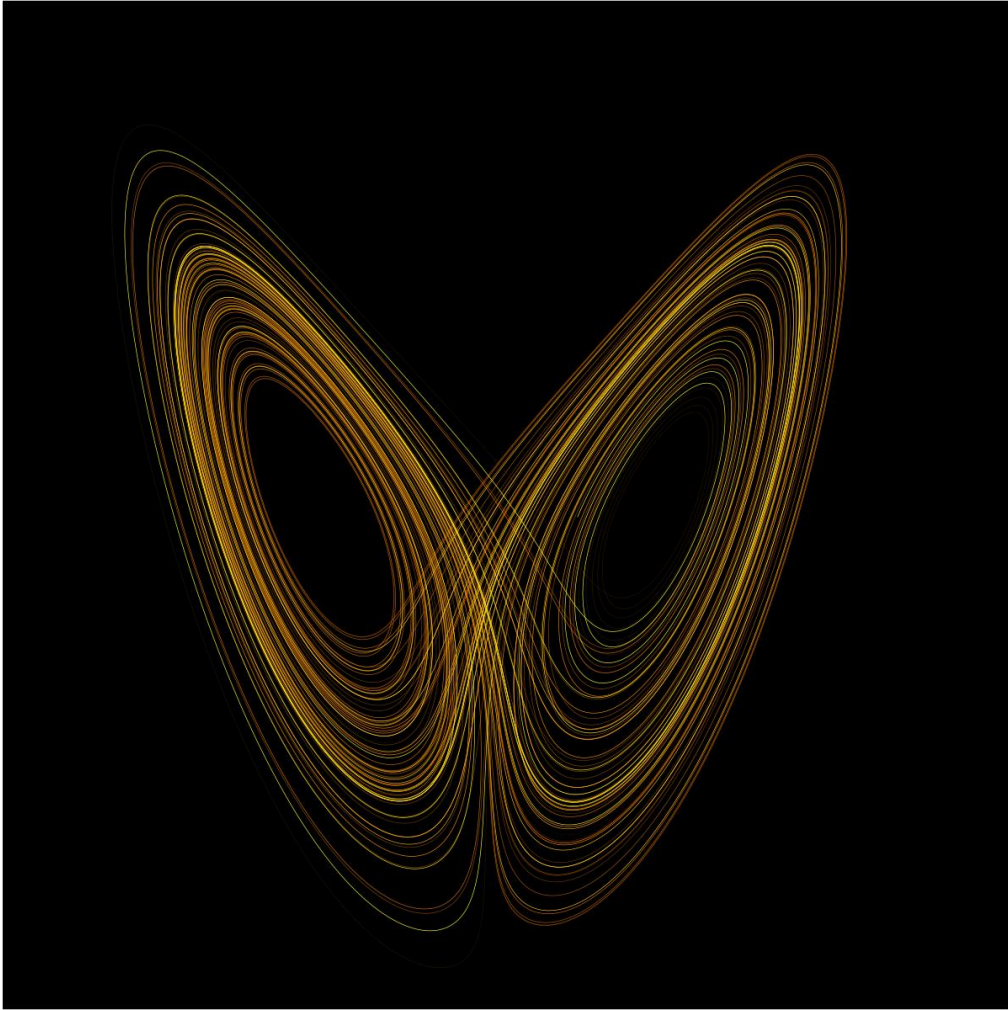
The 'Diagram', whilst a chaos, a catastrophe, is also a germ of order or of rhythm.



Francis Bacon: The Logic of Sensation (1981)

O'Sullivan, S., 2009. From stuttering and stammering to the diagram: Deleuze, Bacon and contemporary art practice. *Deleuze Studies*, 3(2), pp.247-258.

chaos theory



It has been said that something
as small as the flutter of a
butterfly's wing can ultimately cause
a typhoon halfway around the world

- Chaos Theory



The Hadley Attractor

Equations :

$$\begin{aligned}\frac{dx}{dt} &= -y^2z^2 - ax + a\zeta, \\ \frac{dy}{dt} &= xy - \beta xz + y + d, \\ \frac{dz}{dt} &= \beta xy + xz - z.\end{aligned}$$

Definitions :

a, β, ζ, d = equation parameters
 x, y, z = 3D coordinate
 t = time

Parameters :

$a = 0,2$
 $\beta = 4$
 $\zeta = 8$
 $d = 1$



The Halvorsen Attractor

Equations :

$$\begin{aligned}\frac{dx}{dt} &= -ax - \beta y - 4xz + y^2, \\ \frac{dy}{dt} &= -ay - 4z - 4xz^2, \\ \frac{dz}{dt} &= -az - 4x - 4y + x^2.\end{aligned}$$

Definitions :

a = equation parameter
 x, y, z = 3D coordinate
 t = time

Parameters :

$a = 1,4$



The Dequan Li Attractor

Equations :

$$\begin{aligned}\frac{dx}{dt} &= a(y-x) + dxz, \\ \frac{dy}{dt} &= px + \zeta y - xz, \\ \frac{dz}{dt} &= \beta z + xy - xz^2.\end{aligned}$$

Definitions :

a, β, d, x, p, ζ = equation parameters
 x, y, z = 3D coordinate
 t = time

Parameters :

$a = 40$
 $\beta = 1,823$
 $d = 0,16$
 $x = 0,65$
 $p = 55$
 $\zeta = 20$



art of chance

random

aleatoric

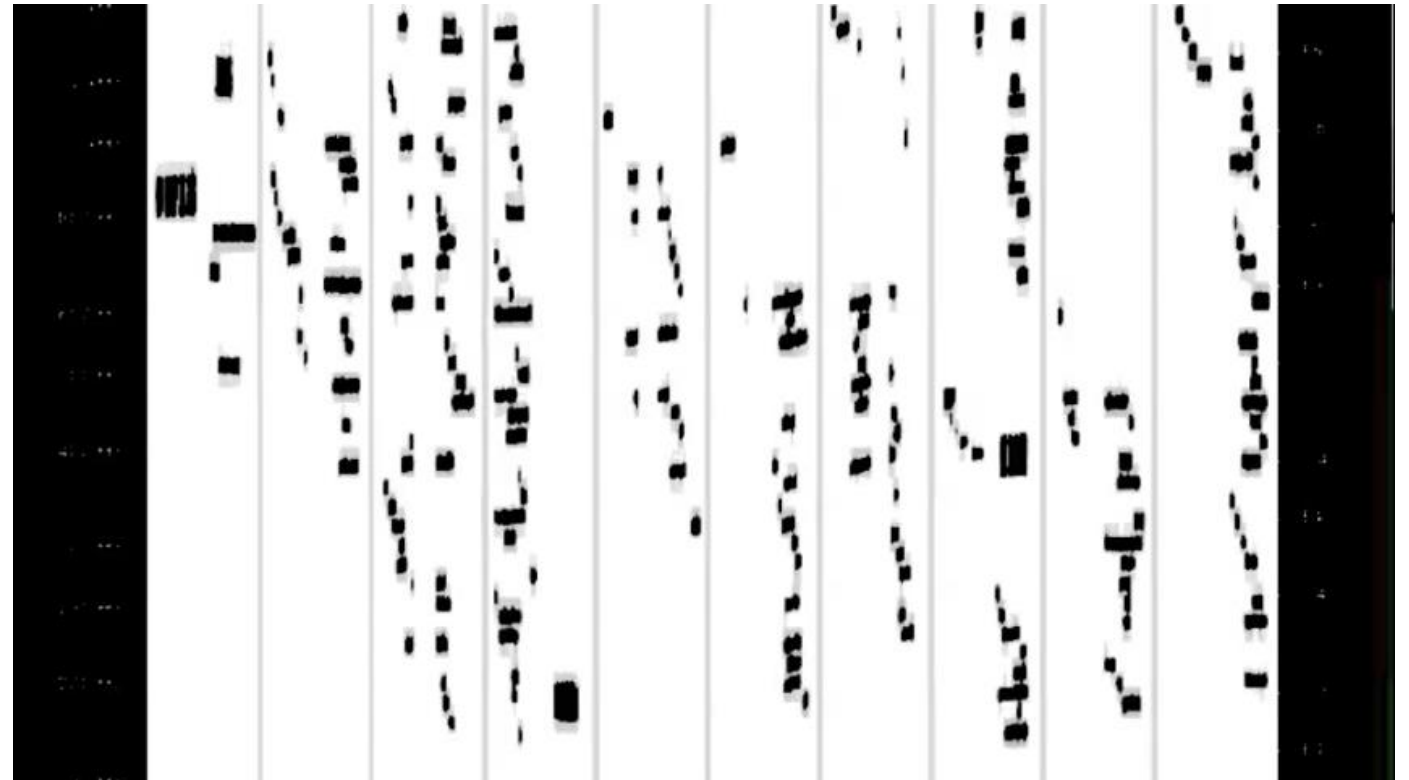
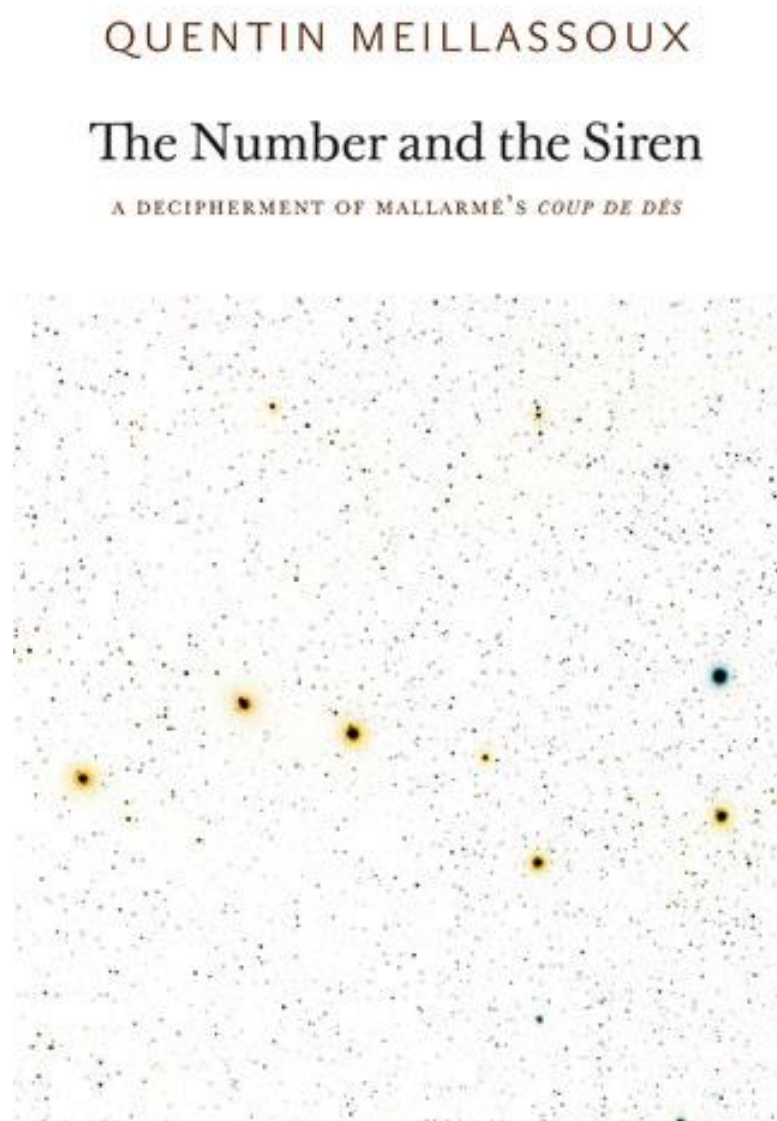
indeterminacy

stochastic



Free as a Bird – Max Ernst, Lop Lop and the Art of Chance

un coup de dés mallarmé

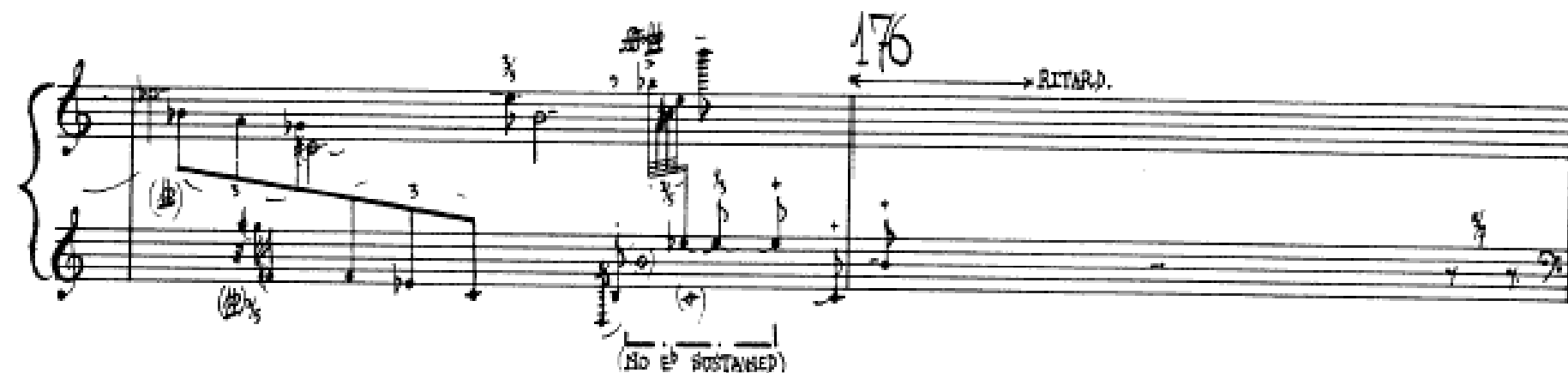
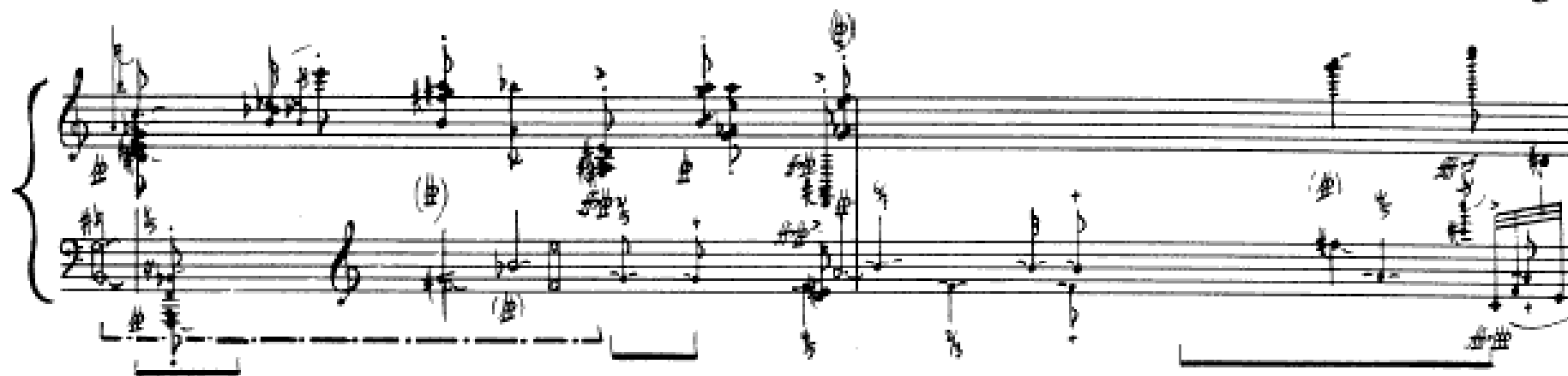


A phono-graphic translation of the Stéphane Mallarmé poem "Un coup de dés jamais n'abolira le hasard" ("A Throw of the Dice Never Will Abolish Chance").

69 = $\downarrow$ = 2nd time ACCEL.

MUSIC OF CHANGES

John Cage



ORIGINAL HEXAGRAM

--	--	---	-0-	-0-	--	--	--	---	--	--	--	--	---
---	---	---	--	--	---	-X-	---	---	--	--	-X-	---	---
---	--	--	---	--	--	-0-	--	---	---	-X-	---	---	---
-X-	--	--	--	--	---	-0-	-0-	--	-0-	---	--	--	---
--	-0-	--	---	-0-	--	--	--	-X-	-0-	-X-	-0-	---	--
---	--	---	--	---	--	--	---	---	--	--	--	-0-	---

CHANGED HEXAGRAM

--	--	---	--	--	--	--	--	---	--	--	--	--	---
---	---	---	--	--	---	---	---	---	--	--	---	---	---
---	--	--	---	--	---	--	--	---	---	---	---	---	---
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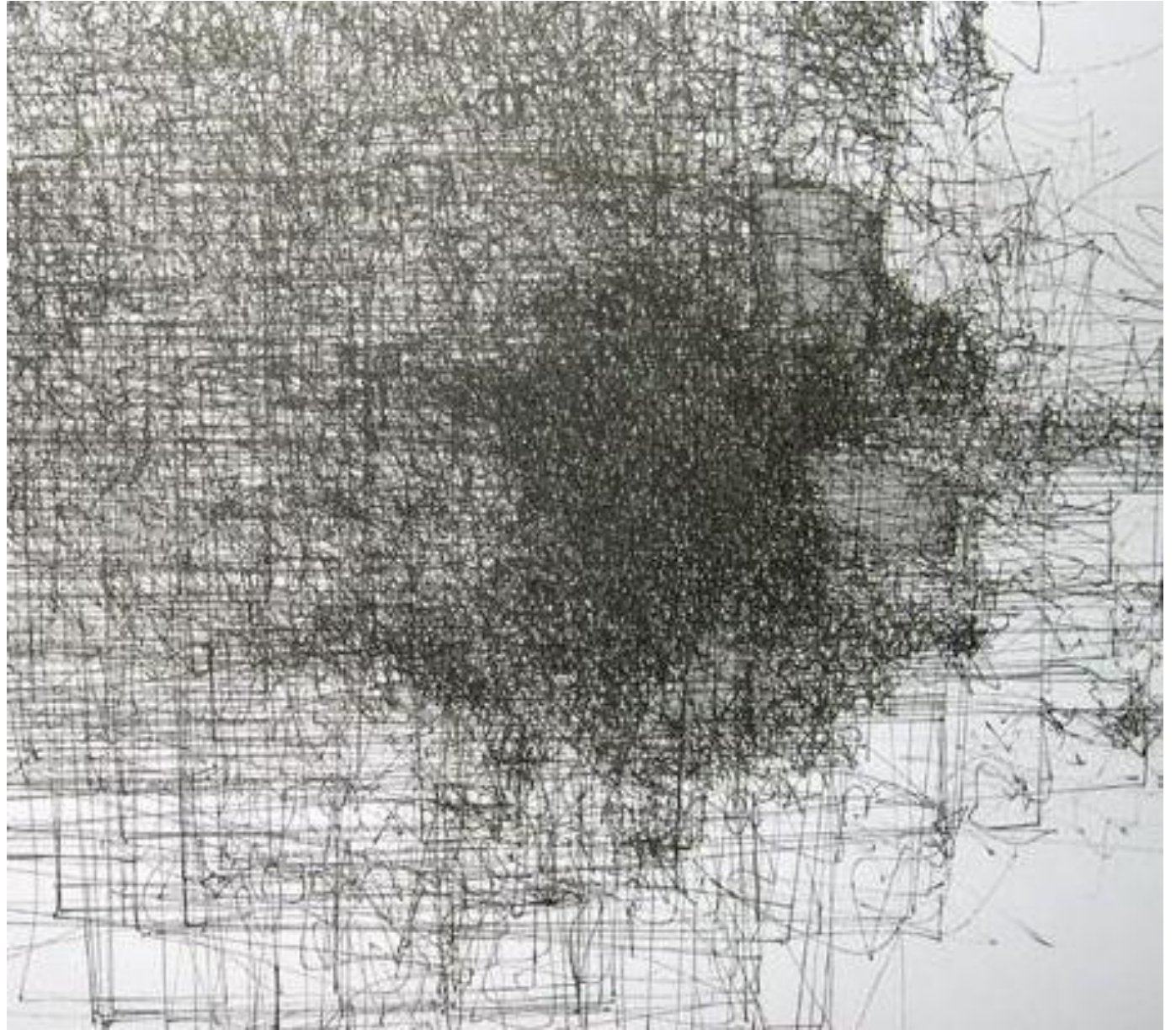
KEY FOR IDENTIFYING THE HEXAGRAM

17	29	42	64	41	39	62	63	21	32	36	40	58	1
49	8	42	40	24	39	8	3	38	16	34	45	47	1

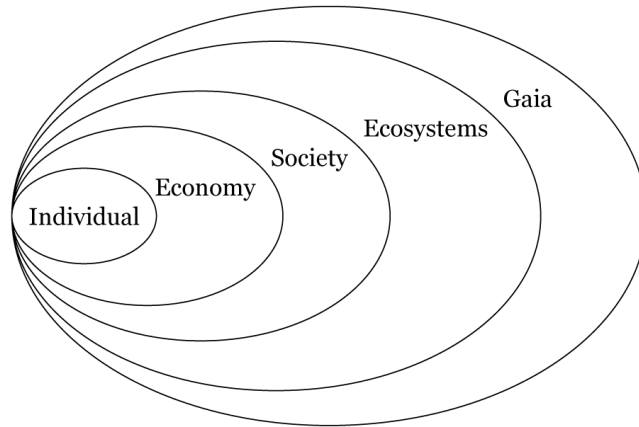


systems and **complexity**

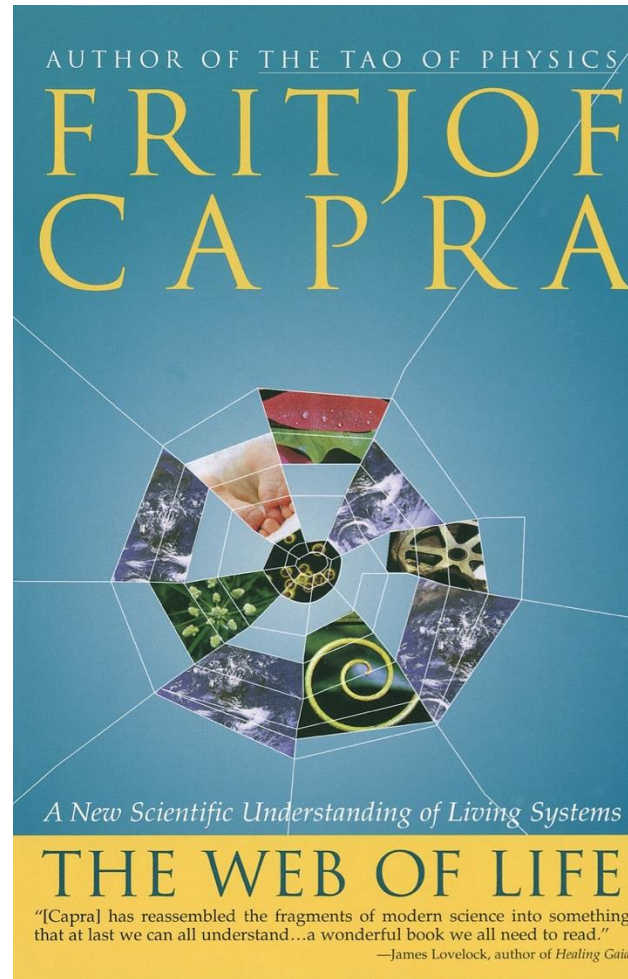
complexity, kinetics, motion, rhythms,
patterns



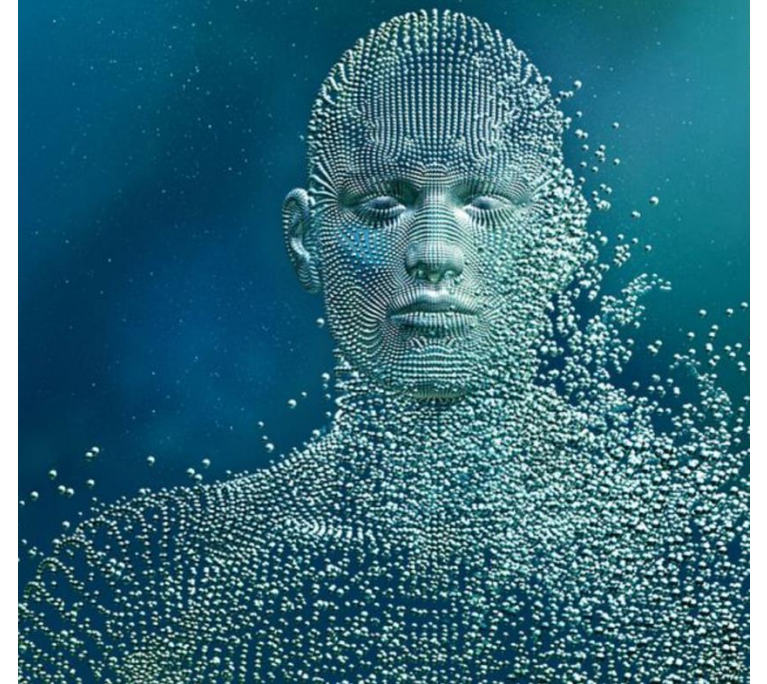
systems theory



In the **Web of Life**, Capra offers a scintillating synthesis of scientific breakthroughs in cybernetics, information theory, chaos theory, Gaia theory, and systems thinking, all the while expatiating on a deep ecological vision of reality.



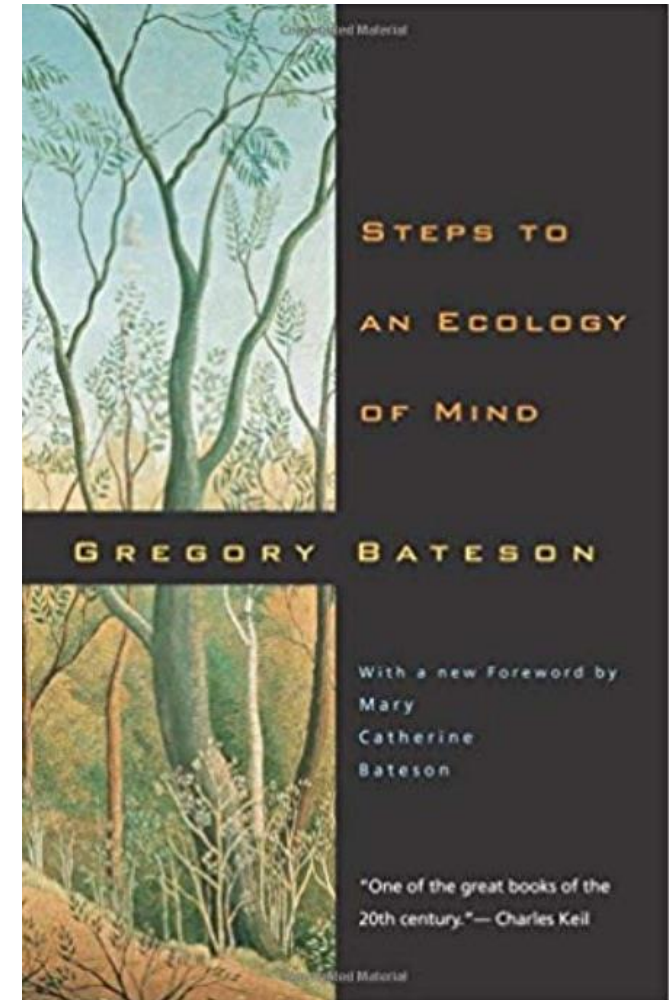
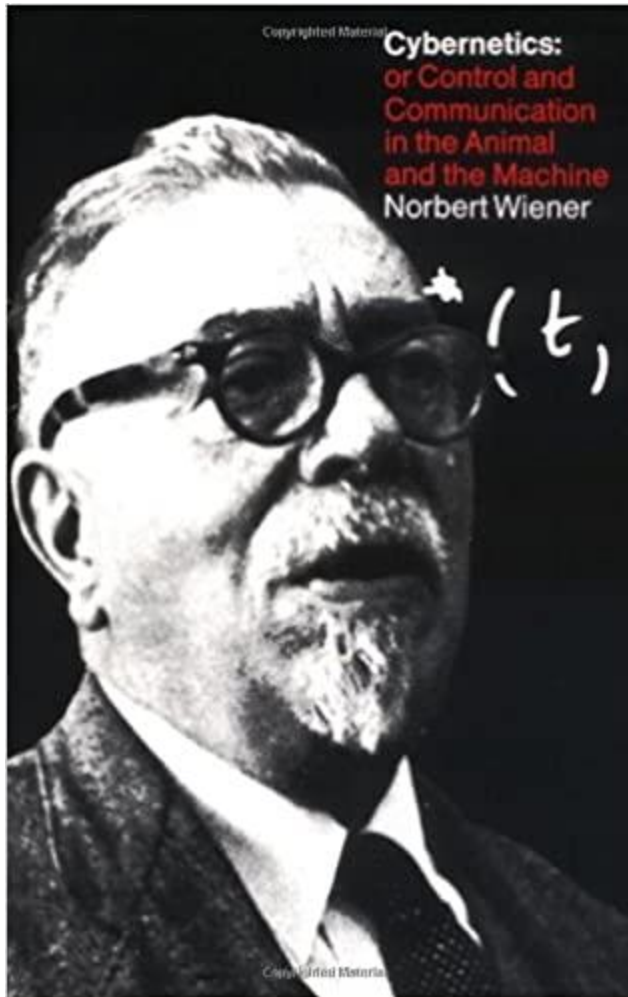
As we penetrate into matter, nature does not show us any isolated 'basic building blocks', but rather appears as a complicated web of relations between the various parts of the whole ~ Fritjof Capra



Understanding of life begins with the understanding of patterns.

Cybernetics

Or Control and
Communication in the
Animal and the Machine



cybernetics

Contemporary Art and Cybernetics
Waves of Cybernetic Discourse within Conceptual, Video and New Media Art

Period	Player	Homeostasis	Reflexivity	Virtuality	Artifacts	Skeuomorphs
Homeostasis 1945	Shannon MacKay McCulloch Pitts Kubie von Foerster	feedback loop information as signal/noise circular causality instrumental language			electronic rat homeostat electric tortoise	man-in-the-middle
Self-Organization 1960	von Foerster Maturana Varela	quantification	reflexive language autopoiesis structural coupling system-environment		frog's visual cortex	homeostasis
Virtuality 1985	Varela Brooks Moravec			emergent behaviour functionalities computational universe	simulation mobile robot	self-organization

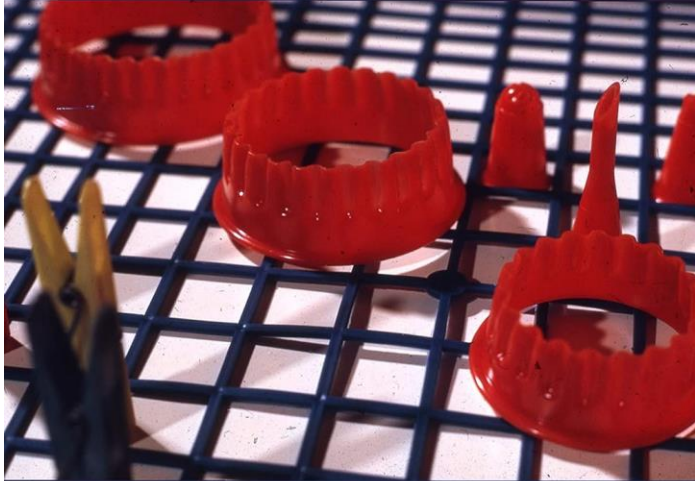
Fig. 1. Three Waves of Cybernetics, adapted from Katherine Hayles's *How We Became Post-human*, MIT Press, 1995. (© Katherine Hayles)

Enlightenment Compressed
Buddha TV
1974

Nam June Paik



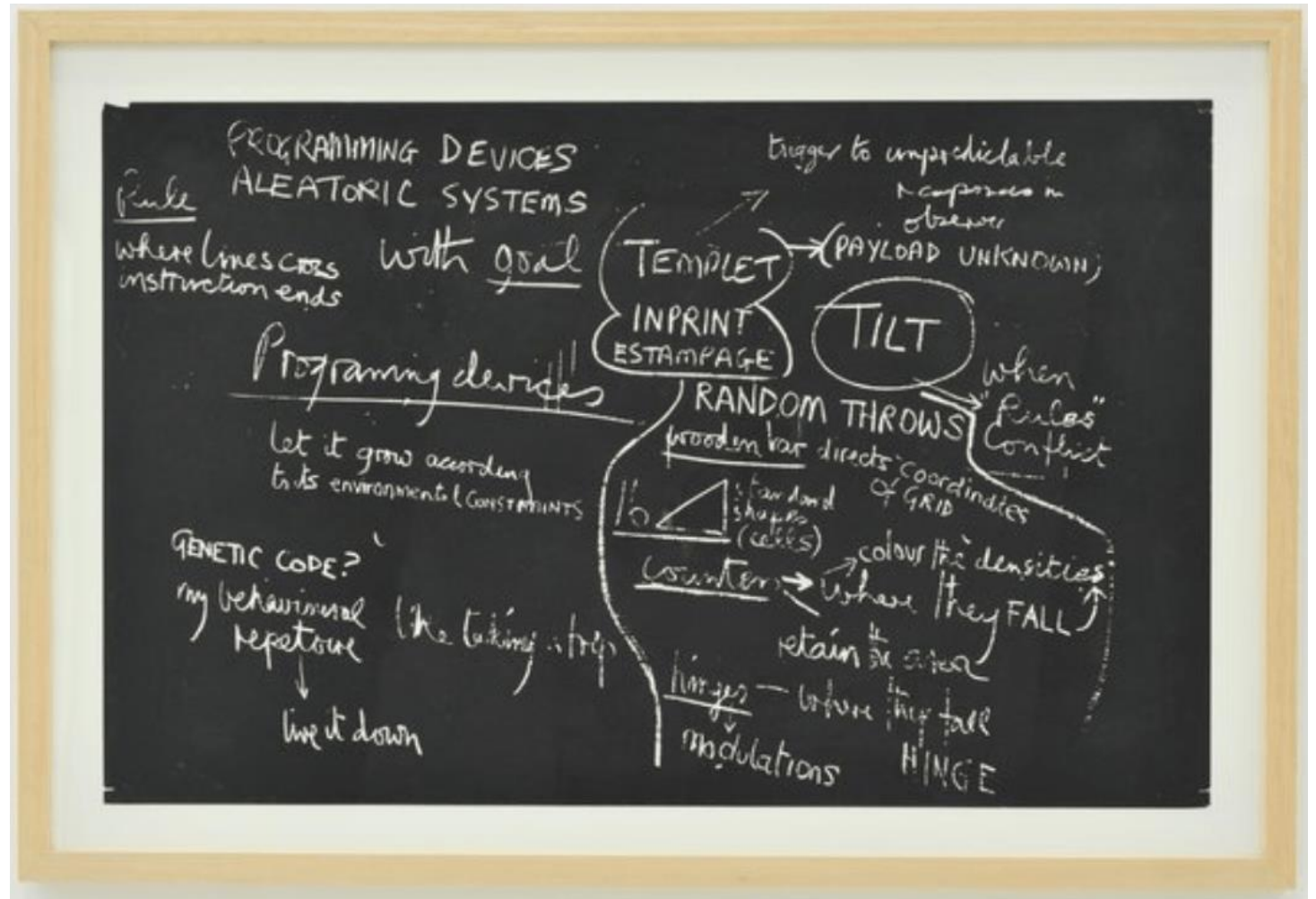
ROUTLEDGE ADVANCES IN ART AND VISUAL STUDIES



ART, CYBERNETICS AND PEDAGOGY IN POST-WAR BRITAIN

ROY ASCOTT'S GROUND COURSE

KATE SLOAN

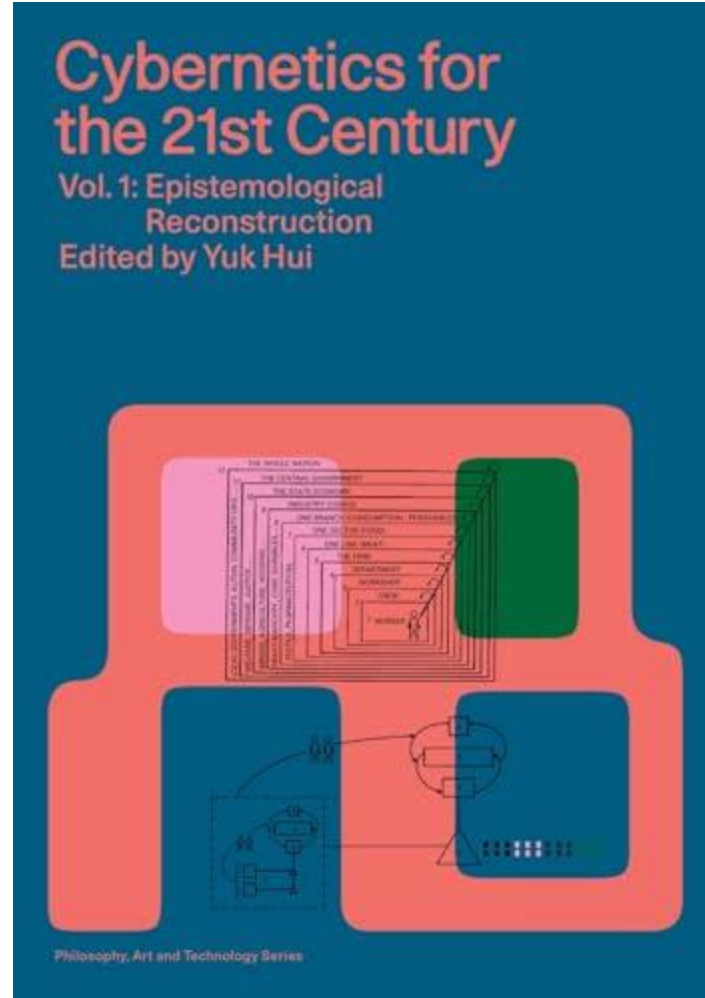
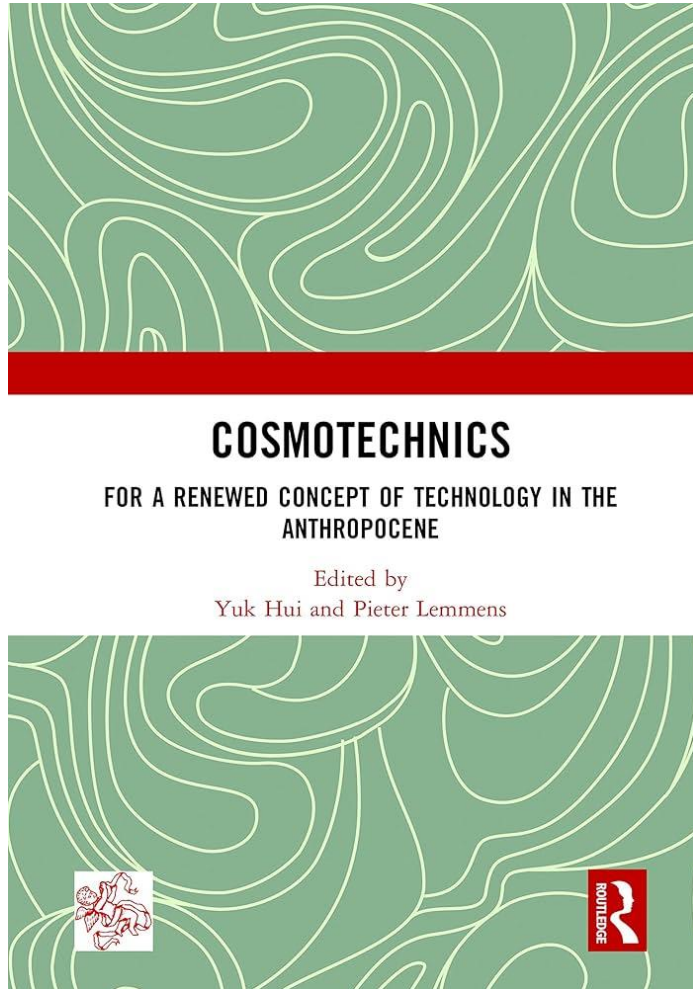


Groundcourse, Ascott's extraordinary pedagogical model for visual arts and cybernetics which used an integrative and systems-based model, drawing in behaviourism, analogue machines, performance and games.

Groundcourse | Roy Ascott

cosmotechnics and cybernetics

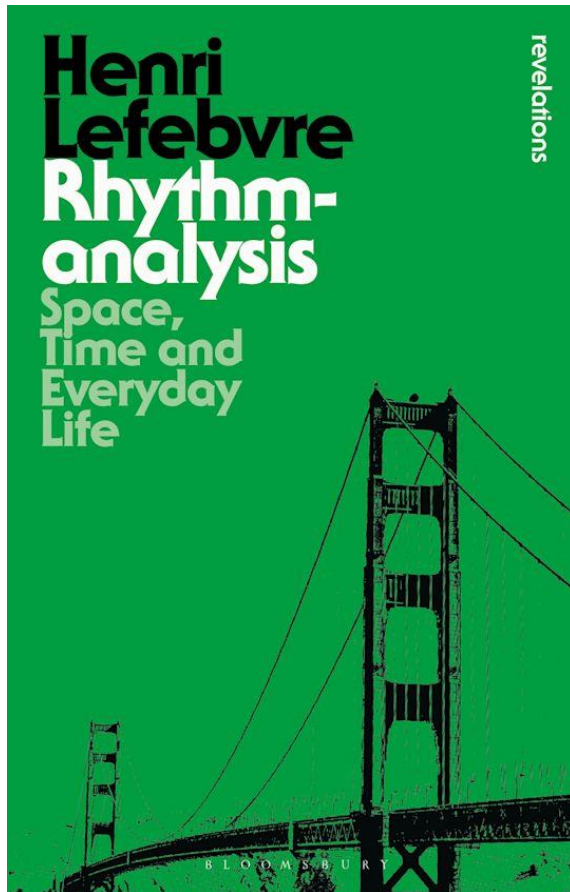
Yuk Hui



- the essence of contemporary technology is to 'consider everything as a standing reserve, as a resource to be ordered and exploited' (Hui, 2021)

rhythmanalysis

A Method for Observing Time and Space



Definition:

- **Rhythmanalysis** is a theory developed by **Henri Lefebvre** that studies the rhythms of everyday life, spaces, and natural cycles.
- It is a tool for observing **how different rhythms interact**, shaping our experience of time, movement, and space.

Key Concepts:

- **Cyclical Rhythms:** Natural, recurring patterns, e.g., day/night, seasons, biological cycles.
- **Linear Rhythms:** Human-made, progress-oriented sequences, e.g., schedules, industrial shifts, digital flows.

Why It Matters in Art and Design:

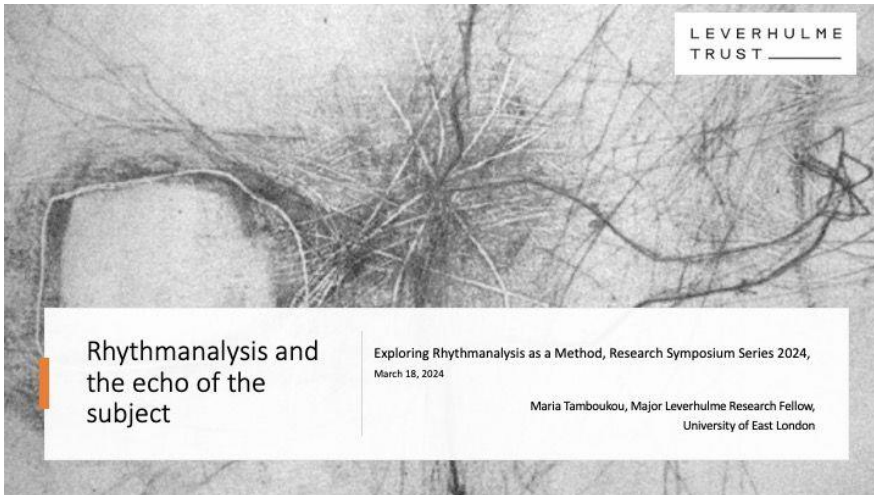
- Rhythmanalysis allows artists and designers to explore **how movement and rhythm** impact perception, from kinetic sculptures to immersive digital art.
- Understanding rhythm helps artists work with time as an element, influencing the viewer's experience.

rhythmanalysis

Key Concepts

Polyrhythmia, Eurhythmia, and Arrhythmia

Cyclical vs. Linear Rhythms: Briefly define cyclical rhythms (natural cycles, e.g., seasons) and linear rhythms (human-made, e.g., schedules), emphasizing how these rhythms coexist or clash in daily life.



Polyrhythmia

- **Definition:** Multiple rhythms coexisting in the same space, often with varying frequencies.
- **Example in Art:** Kinetic installations that combine natural and mechanical rhythms, creating a layered experience.

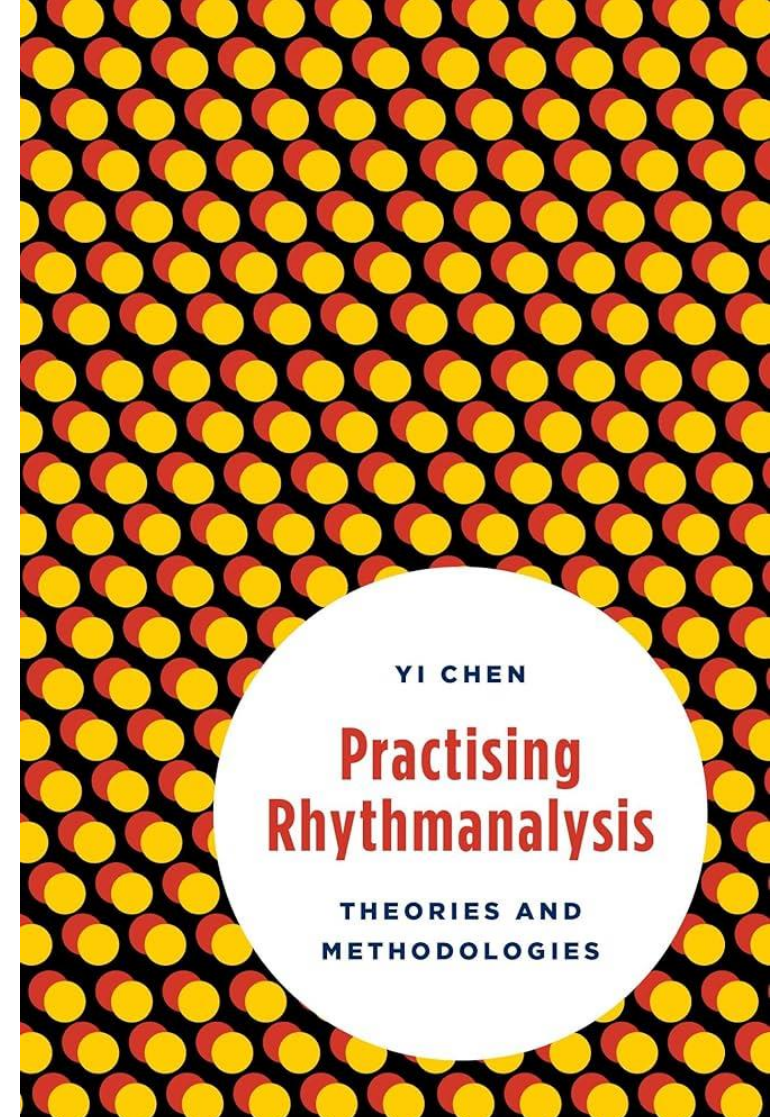
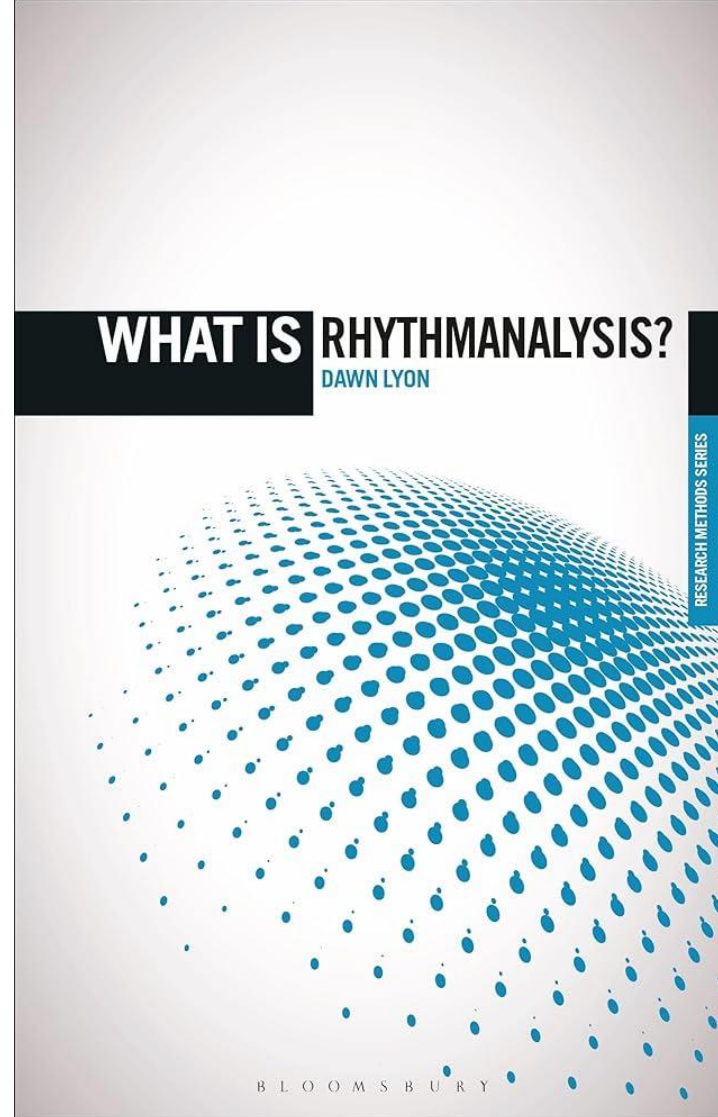
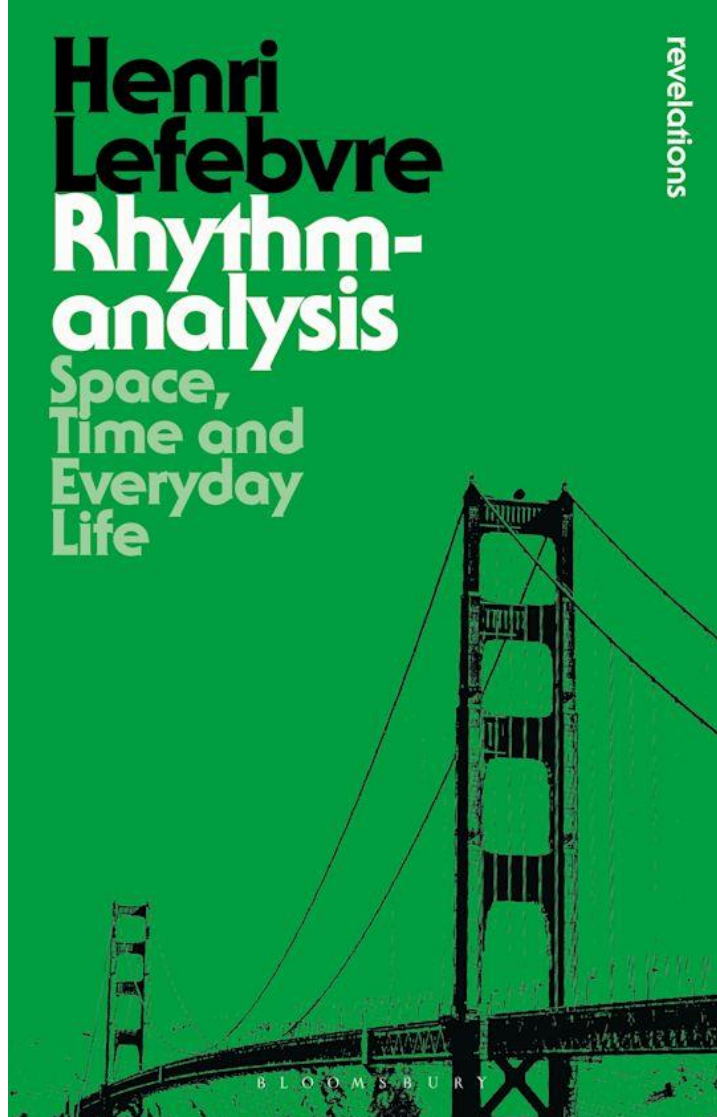
Eurhythmia

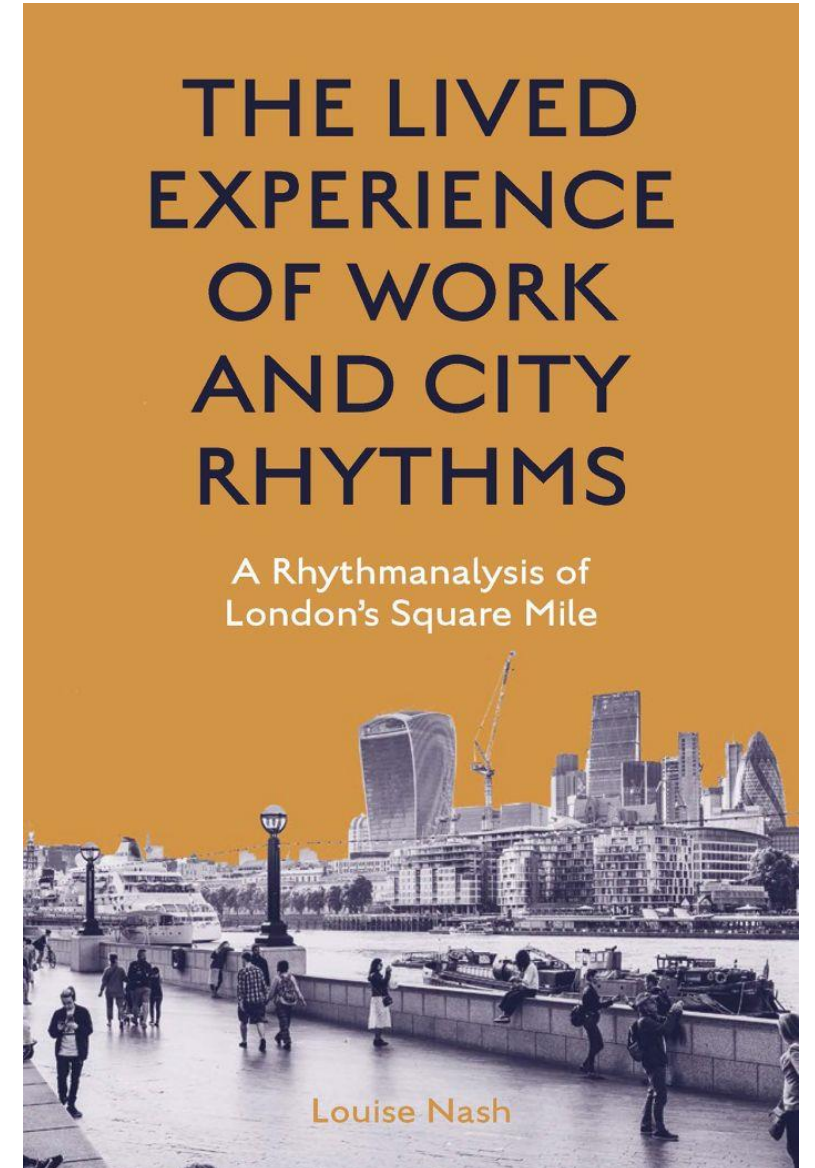
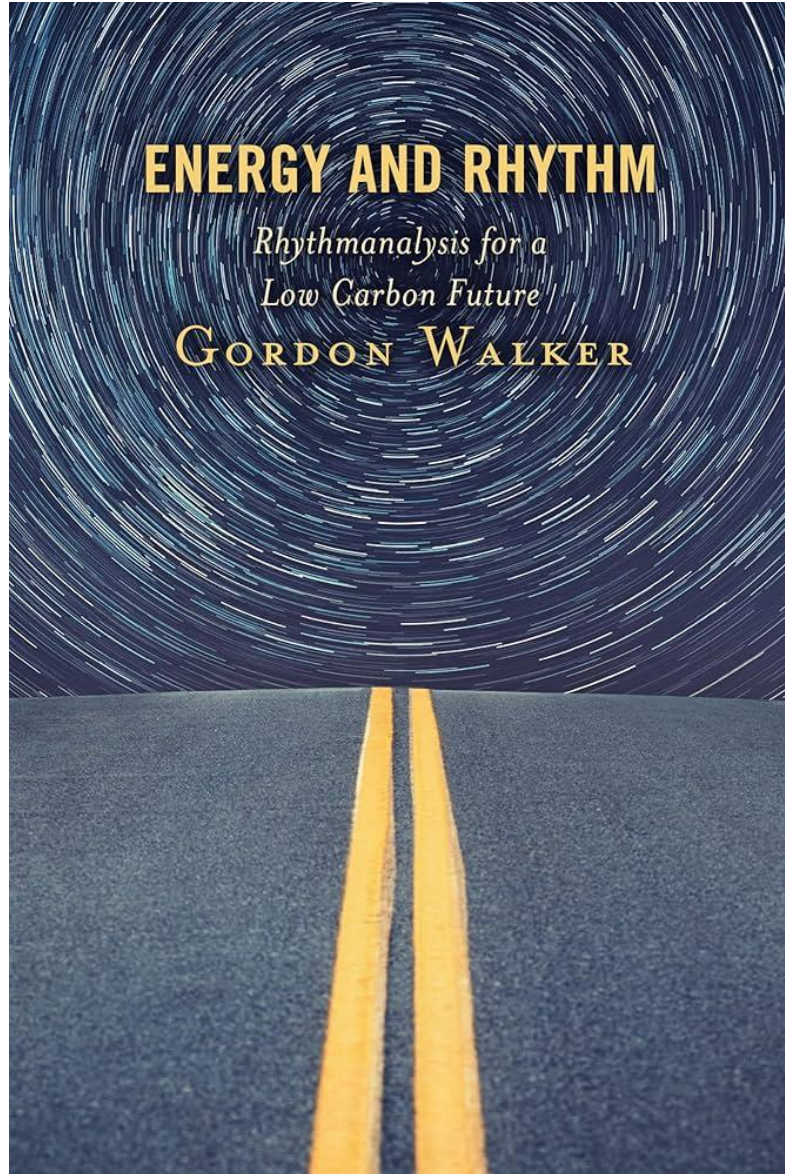
- **Definition:** Harmonious rhythms that create a balanced, flowing experience.
- **Example in Art:** An installation where natural and human rhythms synchronize, producing a calming, meditative effect.

Arrhythmia

- **Definition:** Conflicting or discordant rhythms that disrupt harmony, creating tension.
- **Example in Art:** Disruption caused by external factors, like an urban environment intruding on a peaceful space, or the clash of industrial and natural sounds.

Everywhere where there is interaction between a place, a time and an expenditure of energy, there is rhythm.





Rhythmanalysis: Clock Time and the Body

Lefebvre's linear vs cyclical rhythms

Time Clock Piece (1980–81)

Tehching Hsieh

The performance artist made himself punch a clock every hour for a year, in a work now recognised as seminal

Hsieh's rigorous documentation of time, where he punches a clock every hour for a year, explores the tension between *clock time* (objective, measured) and the *lived duration* of time as experienced by the body. The project highlights the human struggle to conform to artificial rhythms imposed by timekeeping devices,



Tehching Hsieh | Time Clock Piece (One Year Performance 1980–1981)

NOWNESS
presents

Rhythmanalysis: Clock Time and the Body

Lefebvre's linear vs cyclical rhythms

Marina Abramović



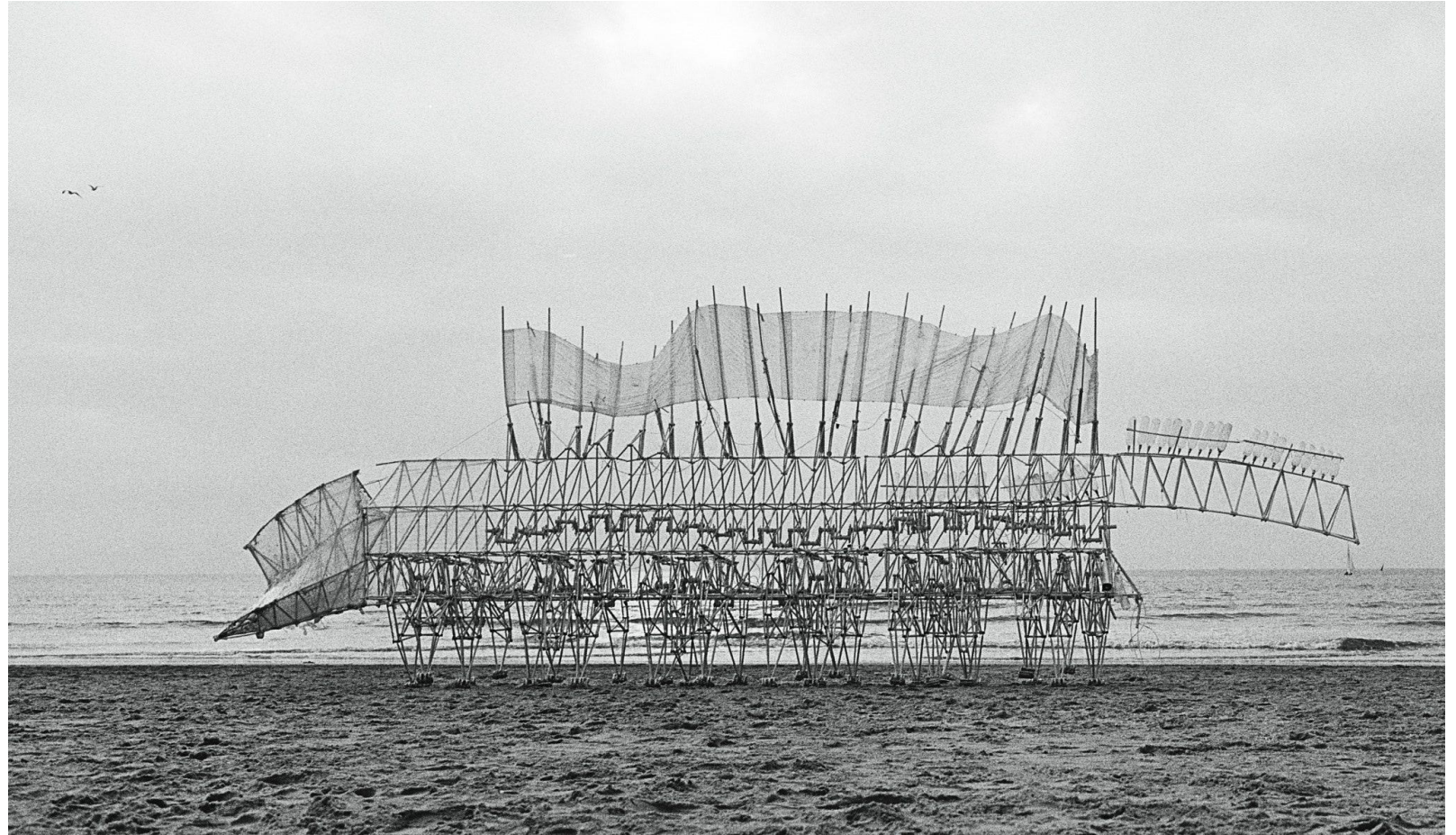
The Artist is Present 2010



7 Minutes of Silence 2016

kinetic art

complexity, systems

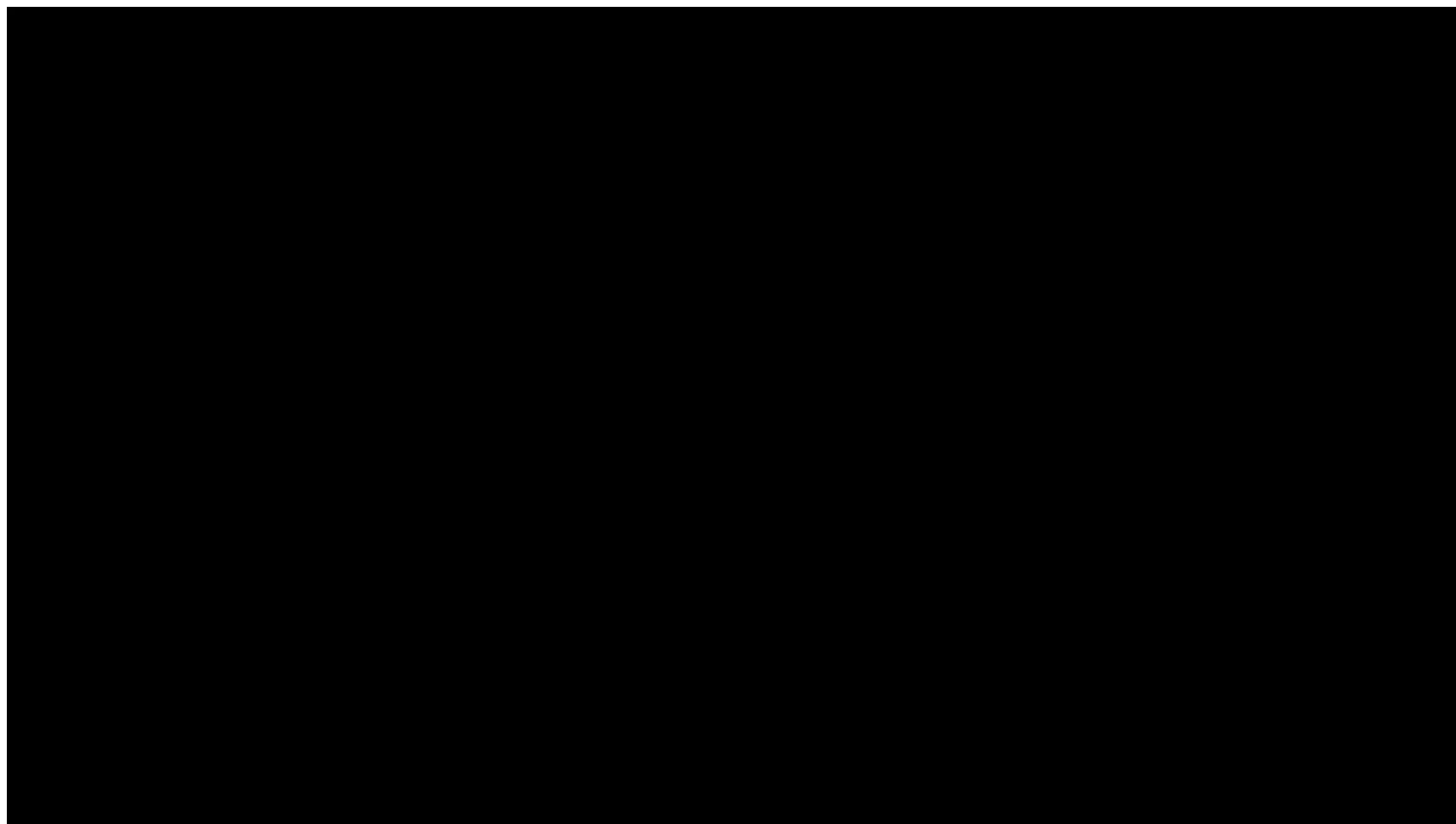


Jansen's Strandbeests—"beach animals," in Dutch—are essentially accumulations of stiff plastic tubes, but, animated by the wind, they assume a shiver-inducing air of autonomy. "The Strandbeests themselves have let me make them," Jansen says.

Strandbeests

wind-powered sculptures

Theo Jansen



LIMITS OF CONTROL RAIN ROOM (2012) AND IMMERSIVE ENVIRONMENTS



Immersive Art and the Perception of Rhythm



Random International, *Rain Room*, 2012, water, injection-molded tiles, solenoid valves, pressure regulators, custom software, 3-D tracking cameras, steel beams, water-management system, grated floor. Installation view, Museum of Modern Art, New York, 2013.

barbican

4 Oct 2012 - 3 Mar 2013

**Random International
Rain Room**

Tomás Saraceno

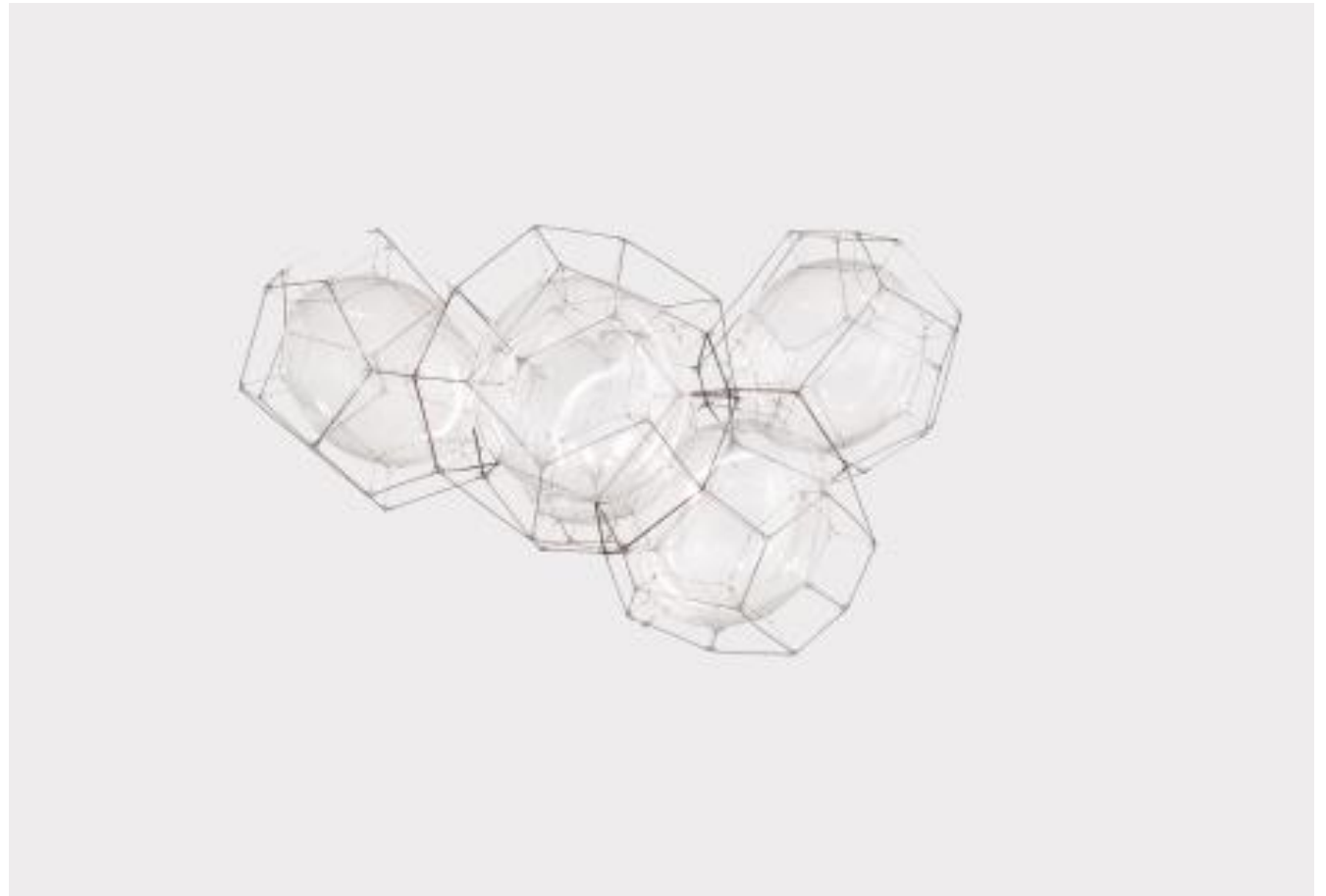
Hybrid Webs





Cloud Cities

Stillness in Motion — *Cloud Cities* is about becoming airborne, not to fly but to float in the air at the speed of solar aerostatics, from cumulonimbus cities to the cosmic web. *Aerocene* is an invitation to shape a post fossil-fuel epoch, in a cloudscape of interconnected spheres of practices that include open, participatory platforms of knowledge production and distribution; models; data; and sensitivity to the more-than-human world. These airborne cities floating among the clouds (just as Earth floats in the cosmic plane) call for scalable mental, social and environmental ecologies.



Tomás Saraceno, *Cloud Cities Thermodynamics of Self-Assembly/005*, 2015; San Francisco Museum of Modern Art, Accessions Committee Fund purchase; © Tomás Saraceno; photo: courtesy the artist and Tanya Bonakdar Gallery, New York



cosmic rhythm, data transmission, and delay -
mirrors *digital rhythm* analysis.

Earth-Moon-Earth (2007)

katie paterson

[illegible]
$$\begin{array}{c}
|_1|_2|_3|_4|_5|_6|_7|_8|_9|_{10}|_{11}|_{12}|_{13}|_{14}|_{15}|_{16}|_{17}|_{18}|_{19}|_{20}|_{21}|_{22}|_{23}|_{24}|_{25}|_{26}|_{27}|_{28}|_{29}|_{30}|_{31}|_{32}|_{33}|_{34}|_{35}|_{36}|_{37}|_{38}|_{39}|_{40}|_{41}|_{42}|_{43}|_{44}|_{45}|_{46}|_{47}|_{48}|_{49}|_{50}|_{51}|_{52}|_{53}|_{54}|_{55}|_{56}|_{57}|_{58}|_{59}|_{60}|_{61}|_{62}|_{63}|_{64}|_{65}|_{66}|_{67}|_{68}|_{69}|_{70}|_{71}|_{72}|_{73}|_{74}|_{75}|_{76}|_{77}|_{78}|_{79}|_{80}|_{81}|_{82}|_{83}|_{84}|_{85}|_{86}|_{87}|_{88}|_{89}|_{90}|_{91}|_{92}|_{93}|_{94}|_{95}|_{96}|_{97}|_{98}|_{99}|_{100}|_{101}|_{102}|_{103}|_{104}|_{105}|_{106}|_{107}|_{108}|_{109}|_{110}|_{111}|_{112}|_{113}|_{114}|_{115}|_{116}|_{117}|_{118}|_{119}|_{120}|_{121}|_{122}|_{123}|_{124}|_{125}|_{126}|_{127}|_{128}|_{129}|_{130}|_{131}|_{132}|_{133}|_{134}|_{135}|_{136}|_{137}|_{138}|_{139}|_{140}|_{141}|_{142}|_{143}|_{144}|_{145}|_{146}|_{147}|_{148}|_{149}|_{150}|_{151}|_{152}|_{153}|_{154}|_{155}|_{156}|_{157}|_{158}|_{159}|_{160}|_{161}|_{162}|_{163}|_{164}|_{165}|_{166}|_{167}|_{168}|_{169}|_{170}|_{171}|_{172}|_{173}|_{174}|_{175}|_{176}|_{177}|_{178}|_{179}|_{180}|_{181}|_{182}|_{183}|_{184}|_{185}|_{186}|_{187}|_{188}|_{189}|_{190}|_{191}|_{192}|_{193}|_{194}|_{195}|_{196}|_{197}|_{198}|_{199}|_{200}|_{201}|_{202}|_{203}|_{204}|_{205}|_{206}|_{207}|_{208}|_{209}|_{210}|_{211}|_{212}|_{213}|_{214}|_{215}|_{216}|_{217}|_{218}|_{219}|_{220}|_{221}|_{222}|_{223}|_{224}|_{225}|_{226}|_{227}|_{228}|_{229}|_{230}|_{231}|_{232}|_{233}|_{234}|_{235}|_{236}|_{237}|_{238}|_{239}|_{240}|_{241}|_{242}|_{243}|_{244}|_{245}|_{246}|_{247}|_{248}|_{249}|_{250}|_{251}|_{252}|_{253}|_{254}|_{255}|_{256}|_{257}|_{258}|_{259}|_{260}|_{261}|_{262}|_{263}|_{264}|_{265}|_{266}|_{267}|_{268}|_{269}|_{270}|_{271}|_{272}|_{273}|_{274}|_{275}|_{276}|_{277}|_{278}|_{279}|_{280}|_{281}|_{282}|_{283}|_{284}|_{285}|_{286}|_{287}|_{288}|_{289}|_{290}|_{291}|_{292}|_{293}|_{294}|_{295}|_{296}|_{297}|_{298}|_{299}|_{300}|_{301}|_{302}|_{303}|_{304}|_{305}|_{306}|_{307}|_{308}|_{309}|_{310}|_{311}|_{312}|_{313}|_{314}|_{315}|_{316}|_{317}|_{318}|_{319}|_{320}|_{321}|_{322}|_{323}|_{324}|_{325}|_{326}|_{327}|_{328}|_{329}|_{330}|_{331}|_{332}|_{333}|_{334}|_{335}|_{336}|_{337}|_{338}|_{339}|_{340}|_{341}|_{342}|_{343}|_{344}|_{345}|_{346}|_{347}|_{348}|_{349}|_{350}|_{351}|_{352}|_{353}|_{354}|_{355}|_{356}|_{357}|_{358}|_{359}|_{360}|_{361}|_{362}|_{363}|_{364}|_{365}|_{366}|_{367}|_{368}|_{369}|_{370}|_{371}|_{372}|_{373}|_{374}|_{375}|_{376}|_{377}|_{378}|_{379}|_{380}|_{381}|_{382}|_{383}|_{384}|_{385}|_{386}|_{387}|_{388}|_{389}|_{390}|_{391}|_{392}|_{393}|_{394}|_{395}|_{396}|_{397}|_{398}|_{399}|_{400}|_{401}|_{402}|_{403}|_{404}|_{405}|_{406}|_{407}|_{408}|_{409}|_{410}|_{411}|_{412}|_{413}|_{414}|_{415}|_{416}|_{417}|_{418}|_{419}|_{420}|_{421}|_{422}|_{423}|_{424}|_{425}|_{426}|_{427}|_{428}|_{429}|_{430}|_{431}|_{432}|_{433}|_{434}|_{435}|_{436}|_{437}|_{438}|_{439}|_{440}|_{441}|_{442}|_{443}|_{444}|_{445}|_{446}|_{447}|_{448}|_{449}|_{450}|_{451}|_{452}|_{453}|_{454}|_{455}|_{456}|_{457}|_{458}|_{459}|_{460}|_{461}|_{462}|_{463}|_{464}|_{465}|_{466}|_{467}|_{468}|_{469}|_{470}|_{471}|_{472}|_{473}|_{474}|_{475}|_{476}|_{477}|_{478}|_{479}|_{480}|_{481}|_{482}|_{483}|_{484}|_{485}|_{486}|_{487}|_{488}|_{489}|_{490}|_{491}|_{492}|_{493}|_{494}|_{495}|_{496}|_{497}|_{498}|_{499}|_{500}|_{501}|_{502}|_{503}|_{504}|_{505}|_{506}|_{507}|_{508}|_{509}|_{510}|_{511}|_{512}|_{513}|_{514}|_{515}|_{516}|_{517}|_{518}|_{519}|_{520}|_{521}|_{522}|_{523}|_{524}|_{525}|_{526}|_{527}|_{528}|_{529}|_{530}|_{531}|_{532}|_{533}|_{534}|_{535}|_{536}|_{537}|_{538}|_{539}|_{540}|_{541}|_{542}|_{543}|_{544}|_{545}|_{546}|_{547}|_{548}|_{549}|_{550}|_{551}|_{552}|_{553}|_{554}|_{555}|_{556}|_{557}|_{558}|_{559}|_{560}|_{561}|_{562}|_{563}|_{564}|_{565}|_{566}|_{567}|_{568}|_{569}|_{570}|_{571}|_{572}|_{573}|_{574}|_{575}|_{576}|_{577}|_{578}|_{579}|_{580}|_{581}|_{582}|_{583}|_{584}|_{585}|_{586}|_{587}|_{588}|_{589}|_{590}|_{591}|_{592}|_{593}|_{594}|_{595}|_{596}|_{597}|_{598}|_{599}|_{600}|_{601}|_{602}|_{603}|_{604}|_{605}|_{606}|_{607}|_{608}|_{609}|_{610}|_{611}|_{612}|_{613}|_{614}|_{615}|_{616}|_{617}|_{618}|_{619}|_{620}|_{621}|_{622}|_{623}|_{624}|_{625}|_{626}|_{627}|_{628}|_{629}|_{630}|_{631}|_{632}|_{633}|_{634}|_{635}|_{636}|_{637}|_{638}|_{639}|_{640}|_{641}|_{642}|_{643}|_{644}|_{645}|_{646}|_{647}|_{648}|_{649}|_{650}|_{651}|_{652}|_{653}|_{654}|_{655}|_{656}|_{657}|_{658}|_{659}|_{660}|_{661}|_{662}|_{663}|_{664}|_{665}|_{666}|_{667}|_{668}|_{669}|_{670}|_{671}|_{672}|_{673}|_{674}|_{675}|_{676}|_{677}|_{678}|_{679}|_{680}|_{681}|_{682}|_{683}|_{684}|_{685}|_{686}|_{687}|_{688}|_{689}|_{690}|_{691}|_{692}|_{693}|_{694}|_{695}|_{696}|_{697}|_{698}|_{699}|_{700}|_{701}|_{702}|_{703}|_{704}|_{705}|_{706}|_{707}|_{708}|_{709}|_{710}|_{711}|_{712}|_{713}|_{714}|_{715}|_{716}|_{717}|_{718}|_{719}|_{720}|_{721}|_{722}|_{723}|_{724}|_{725}|_{726}|_{727}|_{728}|_{729}|_{730}|_{731}|_{732}|_{733}|_{734}|_{735}|_{736}|_{737}|_{738}|_{739}|_{740}|_{741}|_{742}|_{743}|_{744}|_{745}|_{746}|_{747}|_{748}|_{749}|_{750}|_{751}|_{752}|_{753}|_{754}|_{755}|_{756}|_{757}|_{758}|_{759}|_{760}|_{761}|_{762}|_{763}|_{764}|_{765}|_{766}|_{767}|_{768}|_{769}|_{770}|_{771}|_{772}|_{773}|_{774}|_{775}|_{776}|_{777}|_{778}|_{779}|_{780}|_{781}|_{782}|_{783}|_{784}|_{785}|_{786}|_{787}|_{788}|_{789}|_{790}|_{791}|_{792}|_{793}|_{794}|_{795}|_{796}|_{797}|_{798}|_{799}|_{800}|_{801}|_{802}|_{803}|_{804}|_{805}|_{806}|_{807}|_{808}|_{809}|_{810}|_{811}|_{812}|_{813}|_{814}|_{815}|_{816}|_{817}|_{818}|_{819}|_{820}|_{821}|_{822}|_{823}|_{824}|_{825}|_{826}|_{827}|_{828}|_{829}|_{830}|_{831}|_{832}|_{833}|_{834}|_{835}|_{836}|_{837}|_{83$$

Earth-Moon-Earth (Moonlight Sonata Reflected from the Surface of the Moon)

cosmic feedback loops - extending cybernetic thinking to the planetary scale.

rhythmanalysis and
digital complexity

ryoji ikeda
Artist and Data Scientist

abstracted raw data



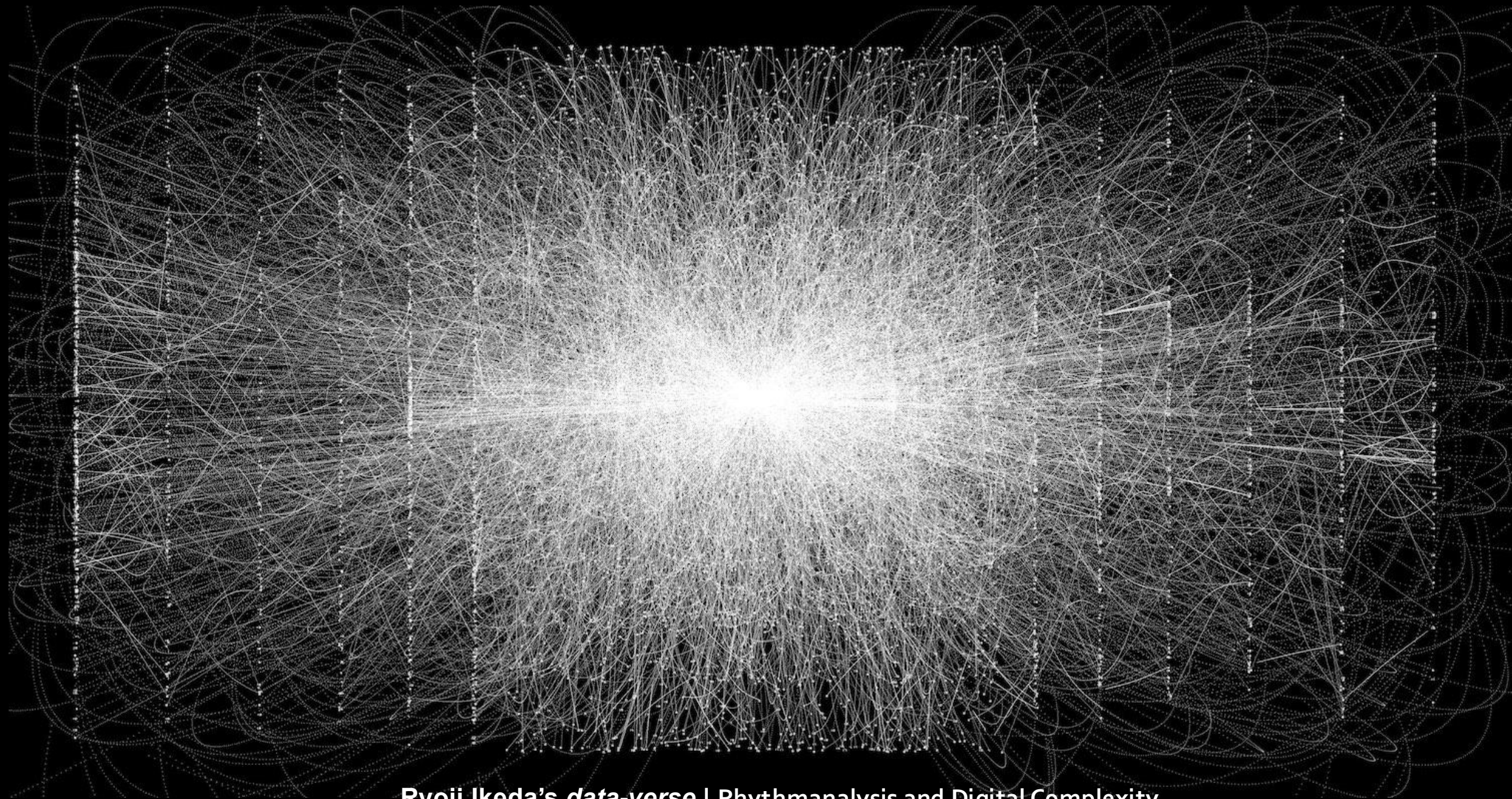
Dataverse (2019)

RYOJI IKEDA

DATA-VERSE TRILOGY

SUPPORTED BY

AUDEMARS PIGUET



Ryoji Ikeda's *data-verse* | Rhythmanalysis and Digital Complexity

Machine Hallucinations

Refik Anadol

Machine Hallucinations can be viewed as a **polyrhythmic system**—the underlying data introduces **linear rhythms** through processing and sequencing, while the visuals themselves evoke **cyclical patterns** that echo natural structures. The work embodies **order within chaos**: raw data, seemingly chaotic, is reshaped into rhythmic patterns, merging digital memory with sensory perception.



Refik Anadol's *Machine Hallucinations* series transforms vast datasets into immersive visual landscapes, using artificial intelligence to reveal hidden patterns within data.

Reflections on Order, Chaos, and Rhythms in Art and Design

- How can Lefebvre's concepts of cyclical and linear rhythms inform the use of time and motion in arts practice?
- In what ways can performance or kinetic art pieces reflect the negotiation between order and chaos, as outlined in rhythmanalysis?
- How can natural forces (like wind in kinetic art or biological rhythms in emergent art) be expressed as systems of order within chaos within arts practice?

