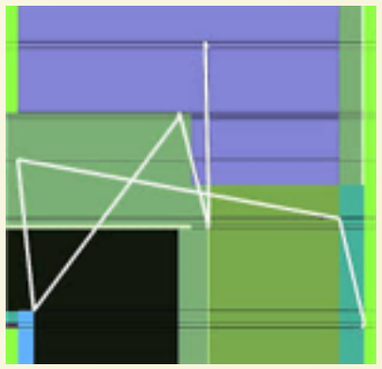
think the image :: generative art

a summer workshop 2020

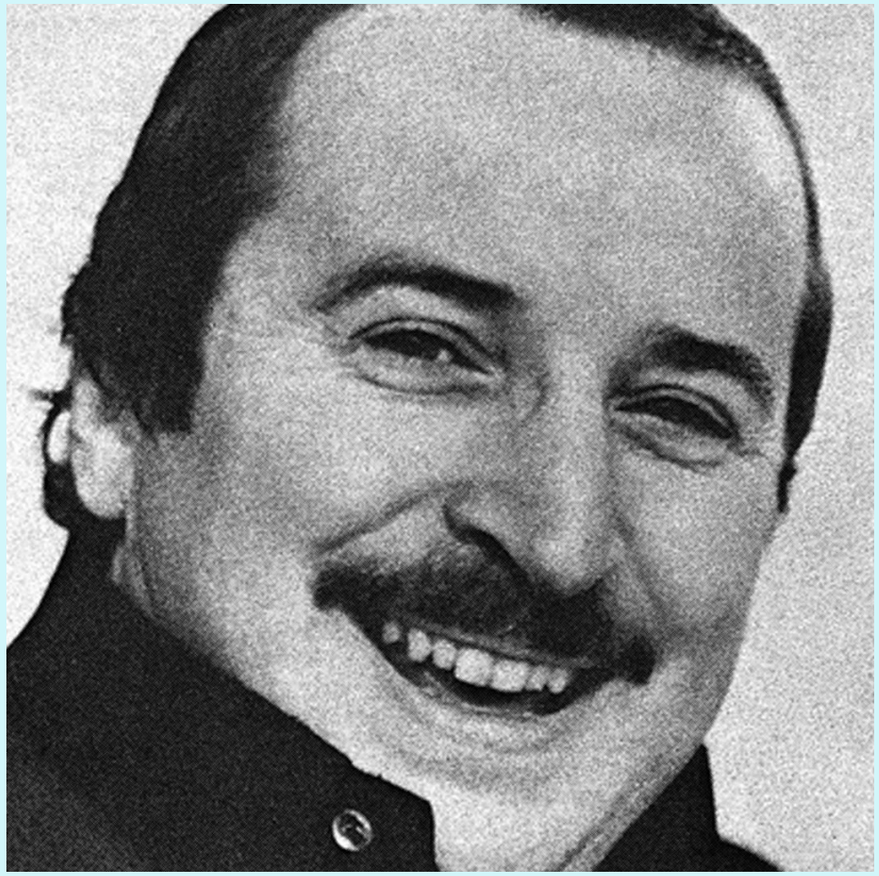
frieder nake



day 2

“Generative Art”

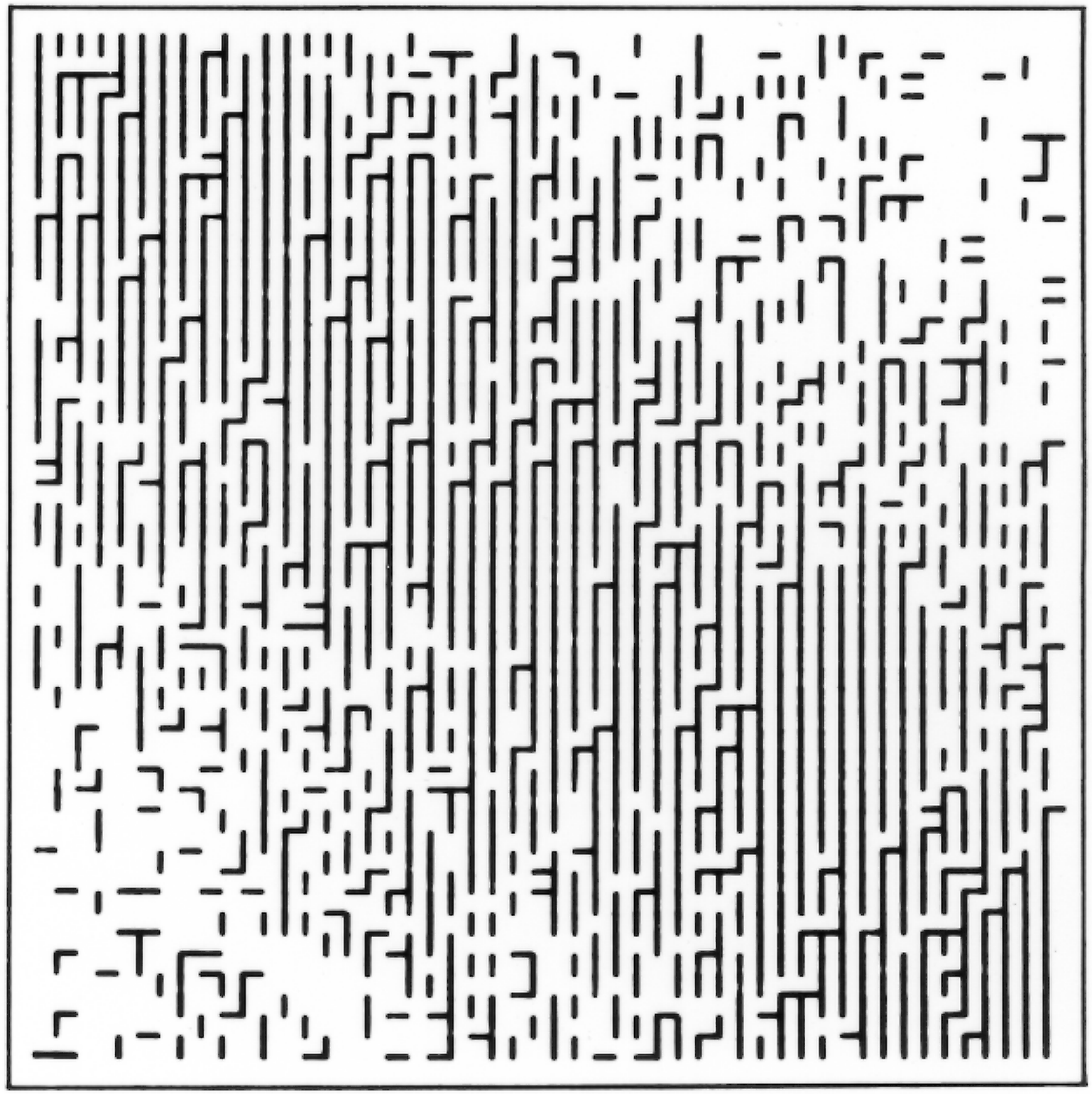
?!?



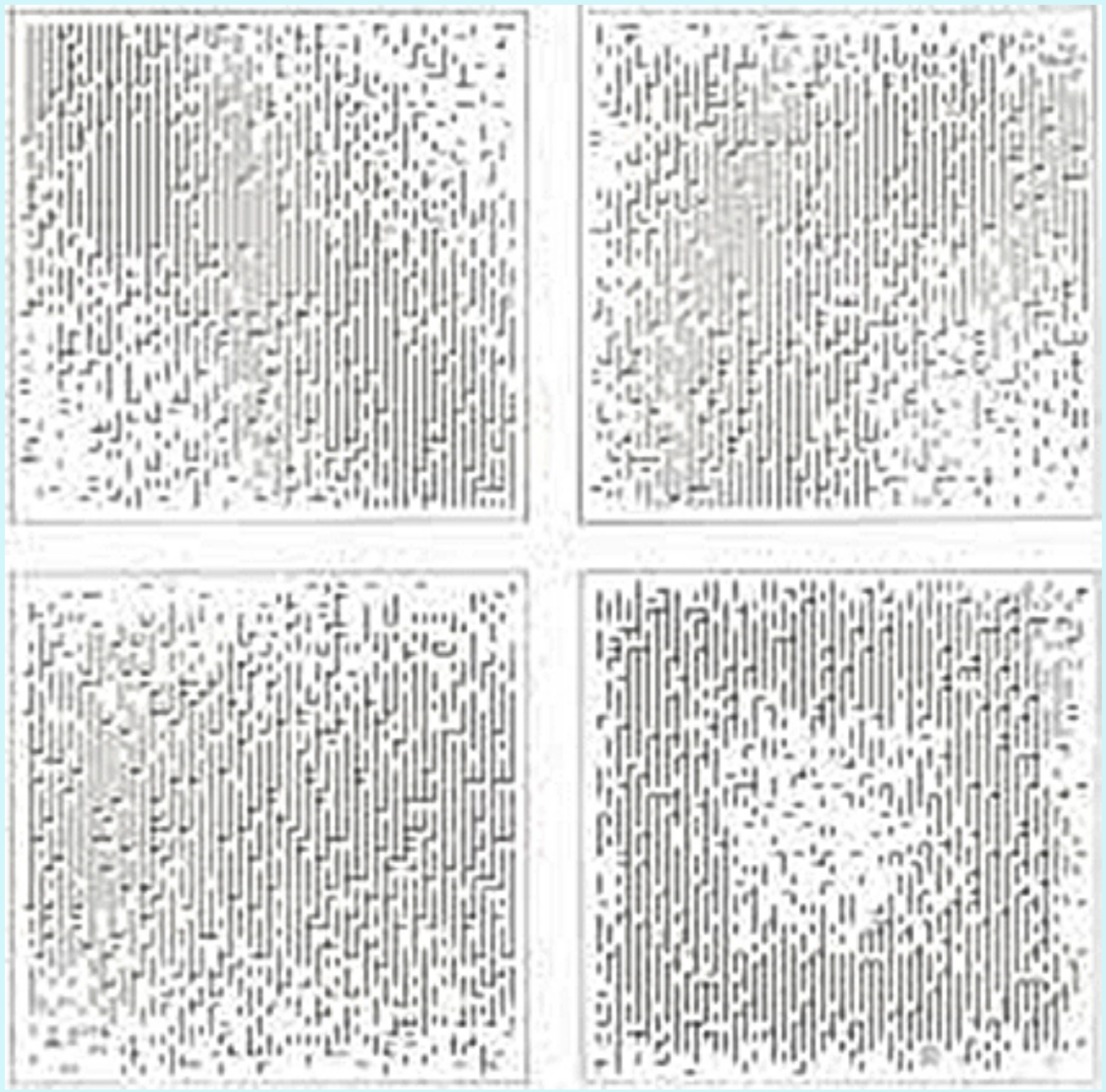
Karl Gerstner (1930-2017)

1964 | 1968

2007



Walk through Raster
Series 2.1-4
1966



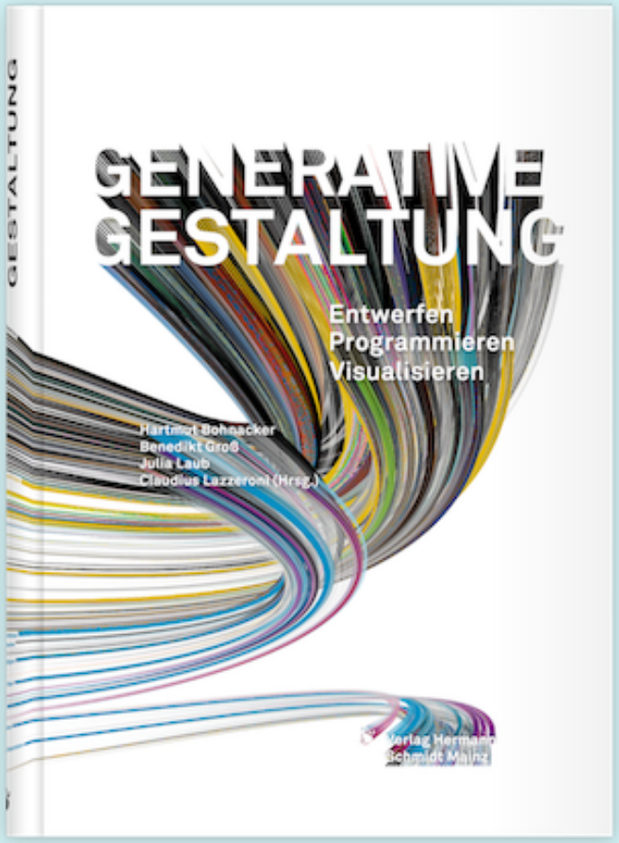
Walk through Raster, Series 2.1, four modes. 1966

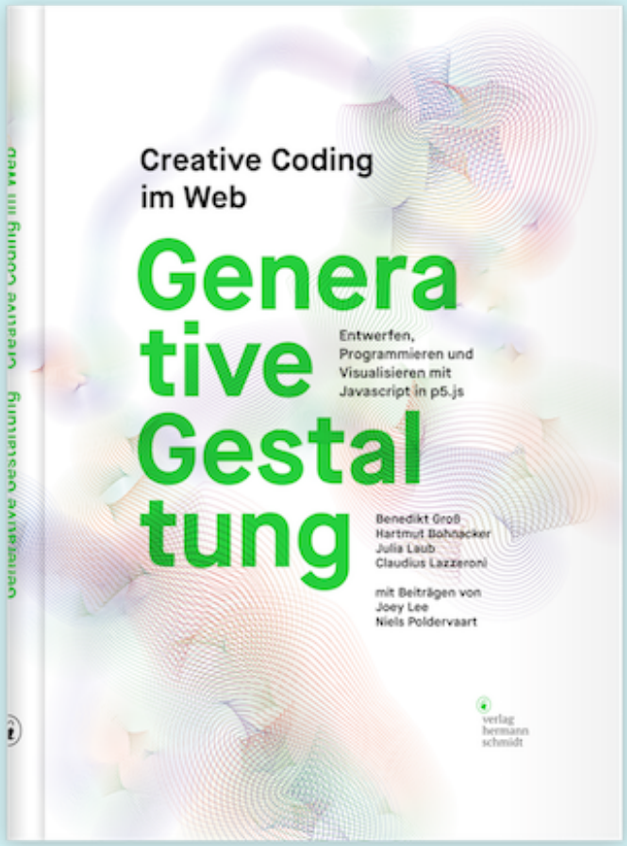
Hartmut Bohnacker

Benedikt Groß

Julia Laub

Claudius Lazzeroni





2009

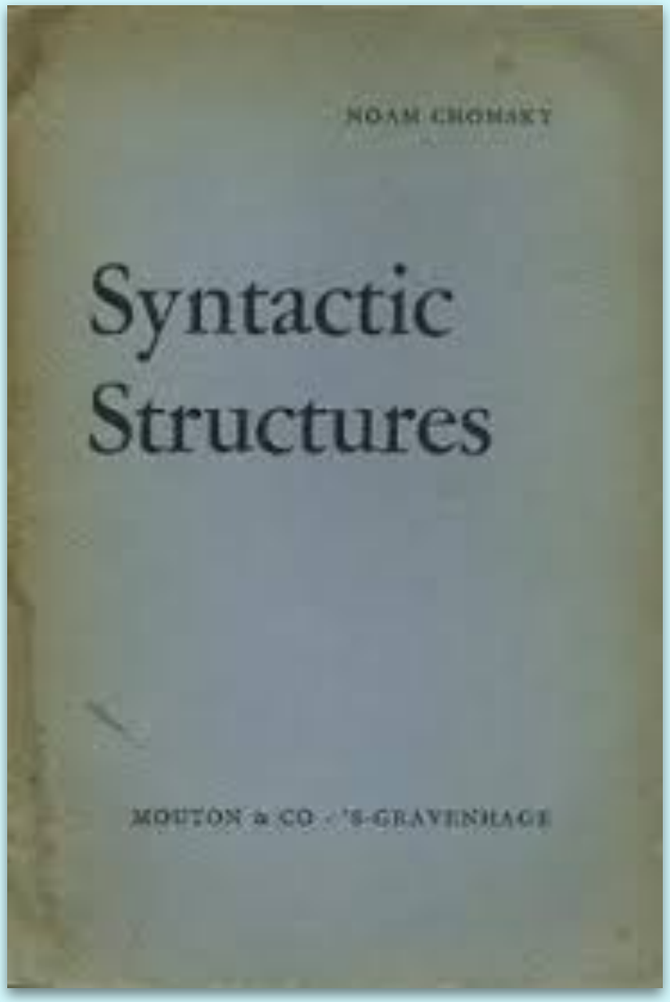
“Math, Code, Graphics

I’m an interaction designer and amateur programmer
interested in math exploration and data visualization.
I’ve done some things
that might also be interesting for others.”

– Hartmut Bohnacker

Roman Verostko (b. 1929)

Generative Grammar



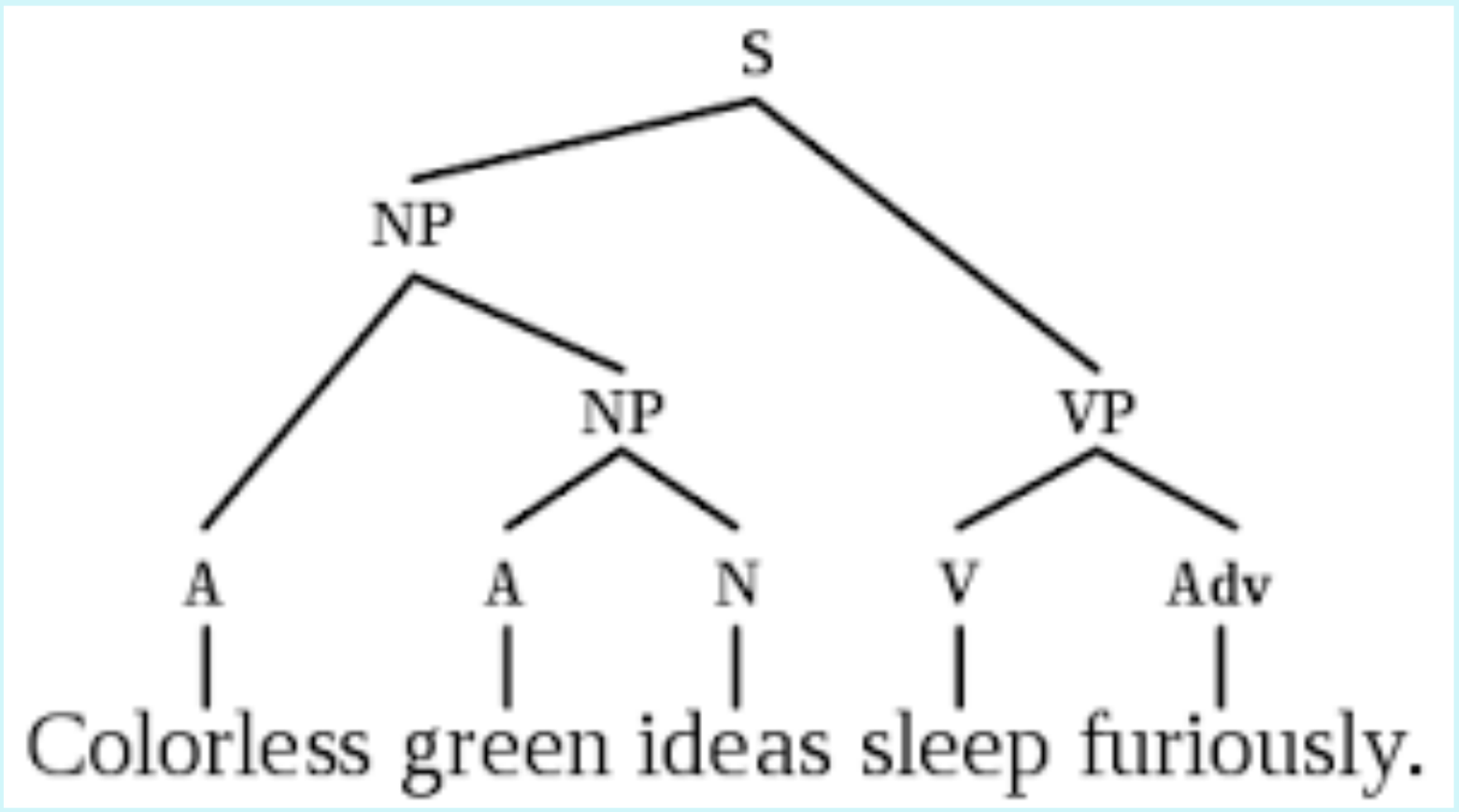
1957

Time Magazine 2011:

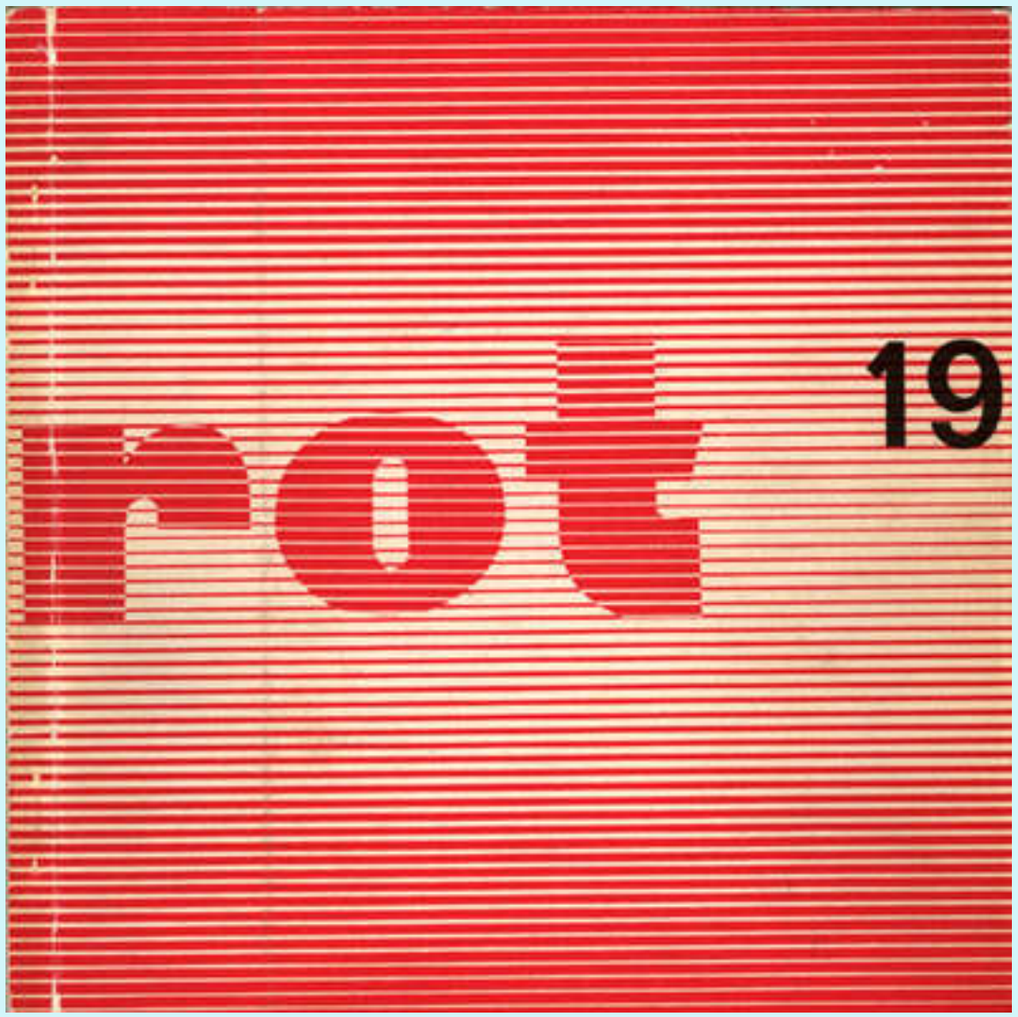
among the 100 best
non-fictional
English books
ever written

Noam Chomsky

b. 1928



Generative Aesthetics

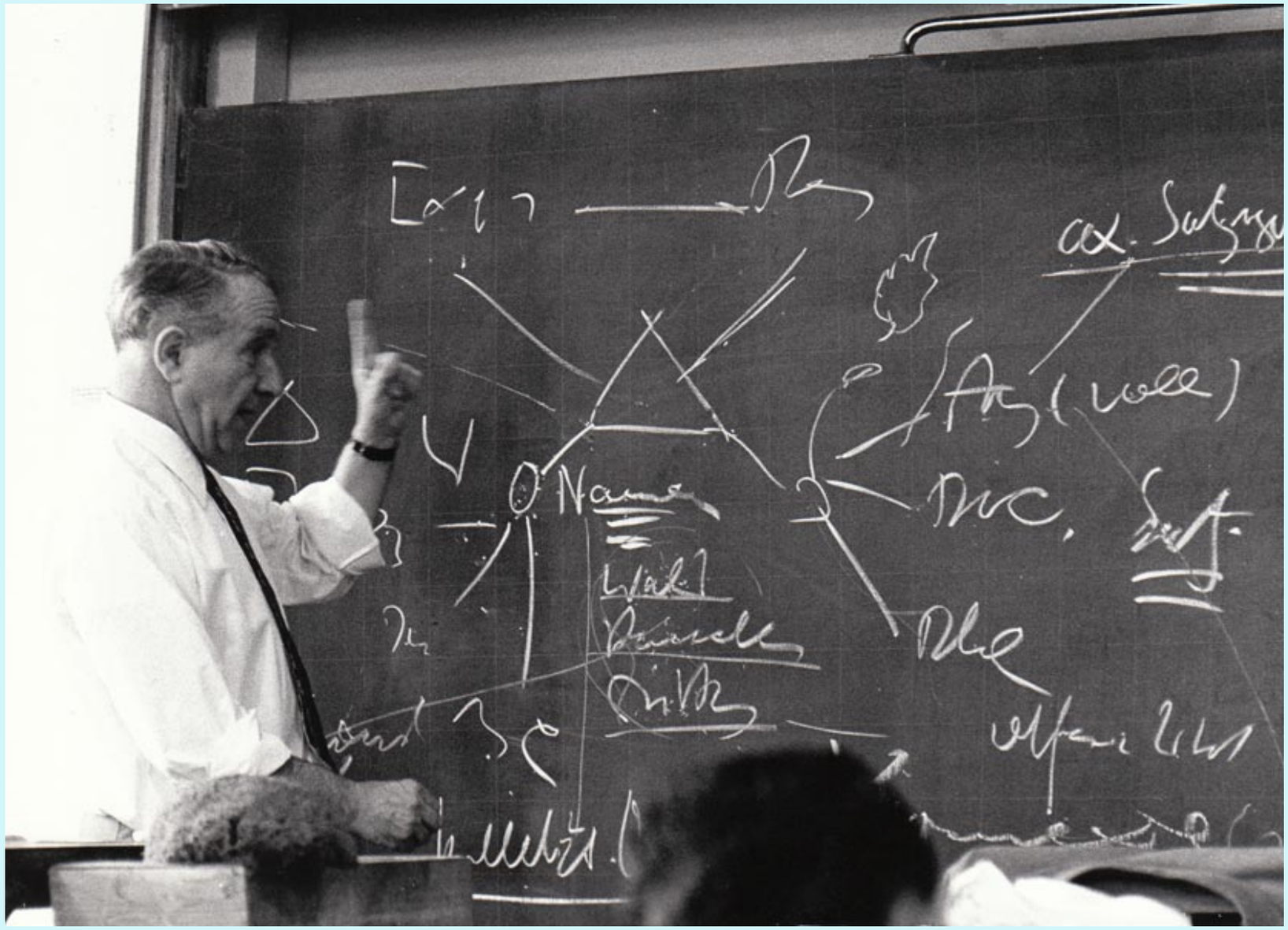


max bense:
projects of generative aesthetics

generative aesthetics is the total
of all operations, rules, and theorems

whose application
to a set of material elements,
– that may function as signs –

can consciously and systematicly
generate in that set
aesthetic states
(distributions or patterns).



Max Bense (1910, Strasbourg – 1990, Stuttgart)

was a German philosopher, writer, and publicist,
known for his work in philosophy of science, logic, aesthetics, and semiotics.

His thoughts combine natural sciences, art, and philosophy
under a collective perspective
and follow a definition of reality,
which – under the term *existential rationalism* –
is able to remove the separation between humanities and natural sciences.

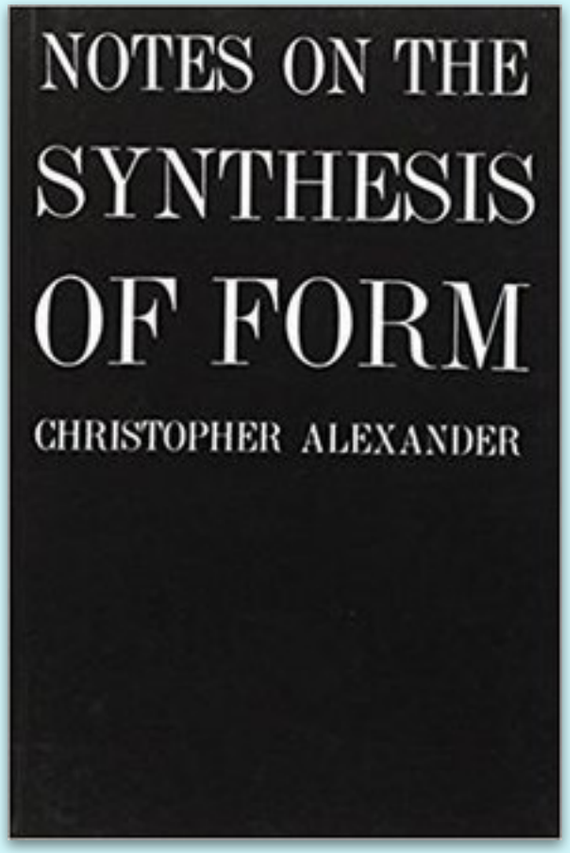
In the morning we looked at some works
in the context of “generative design / art”

Karl Gerstner
Frieder Nake
Hartmut Bohnacker et al.
Roman Verostko
Noam Chomsky
Max Bense

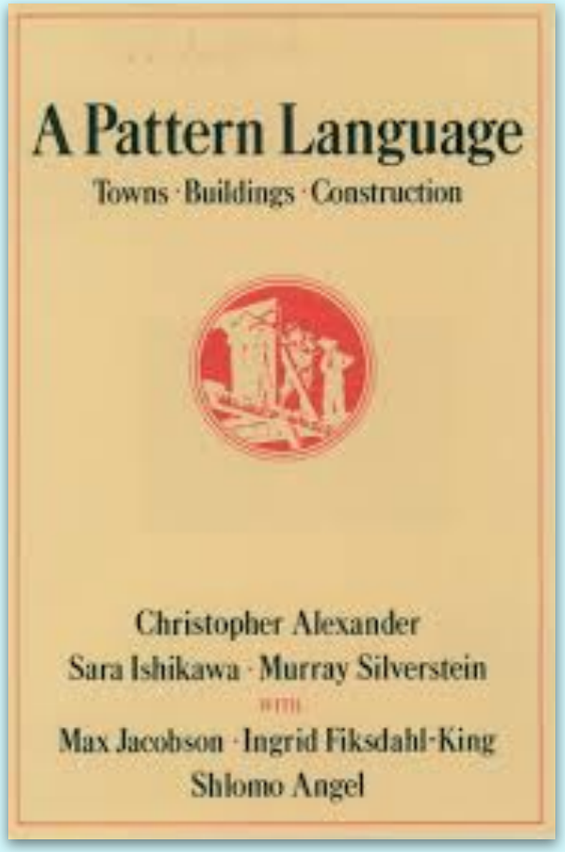
plus now

Christopher Alexander
some more of **“Walk through Raster”**

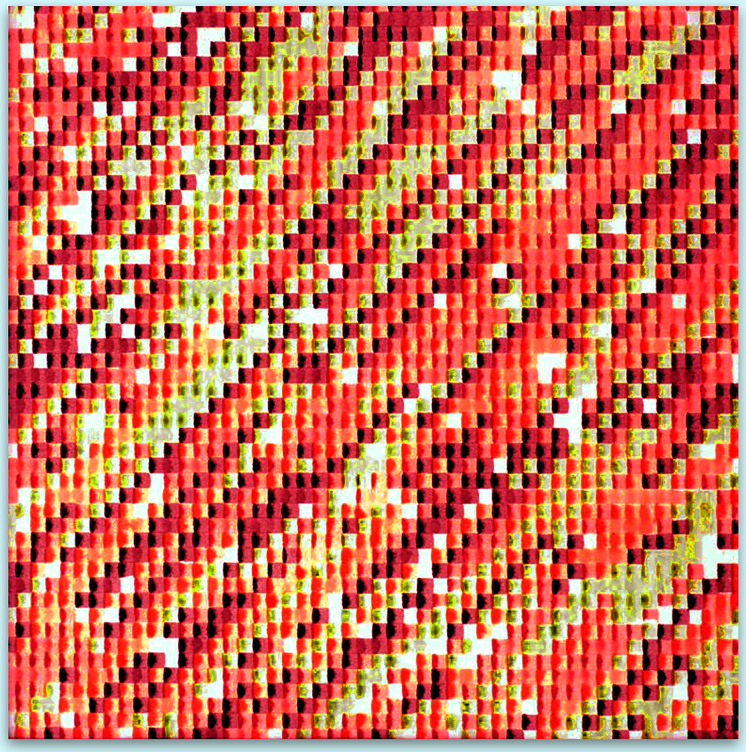
Christopher Alexander (b. 1936)



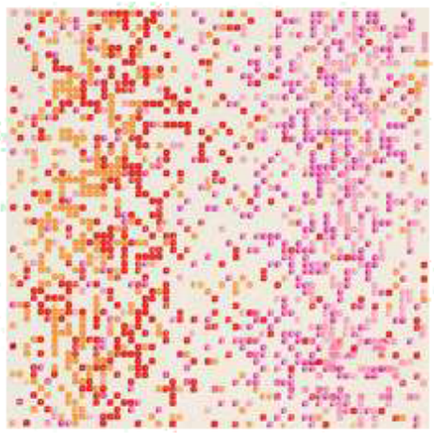
1964

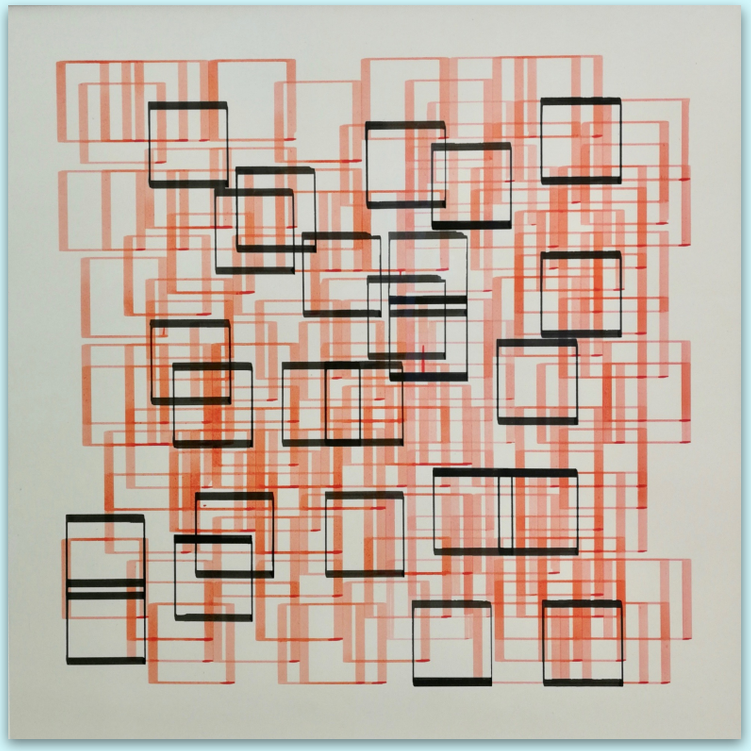


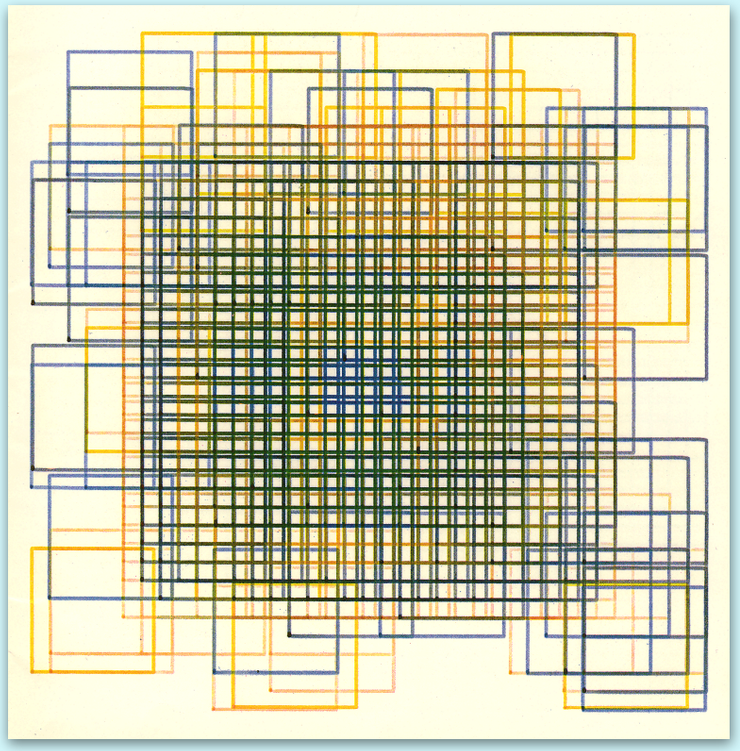
1977

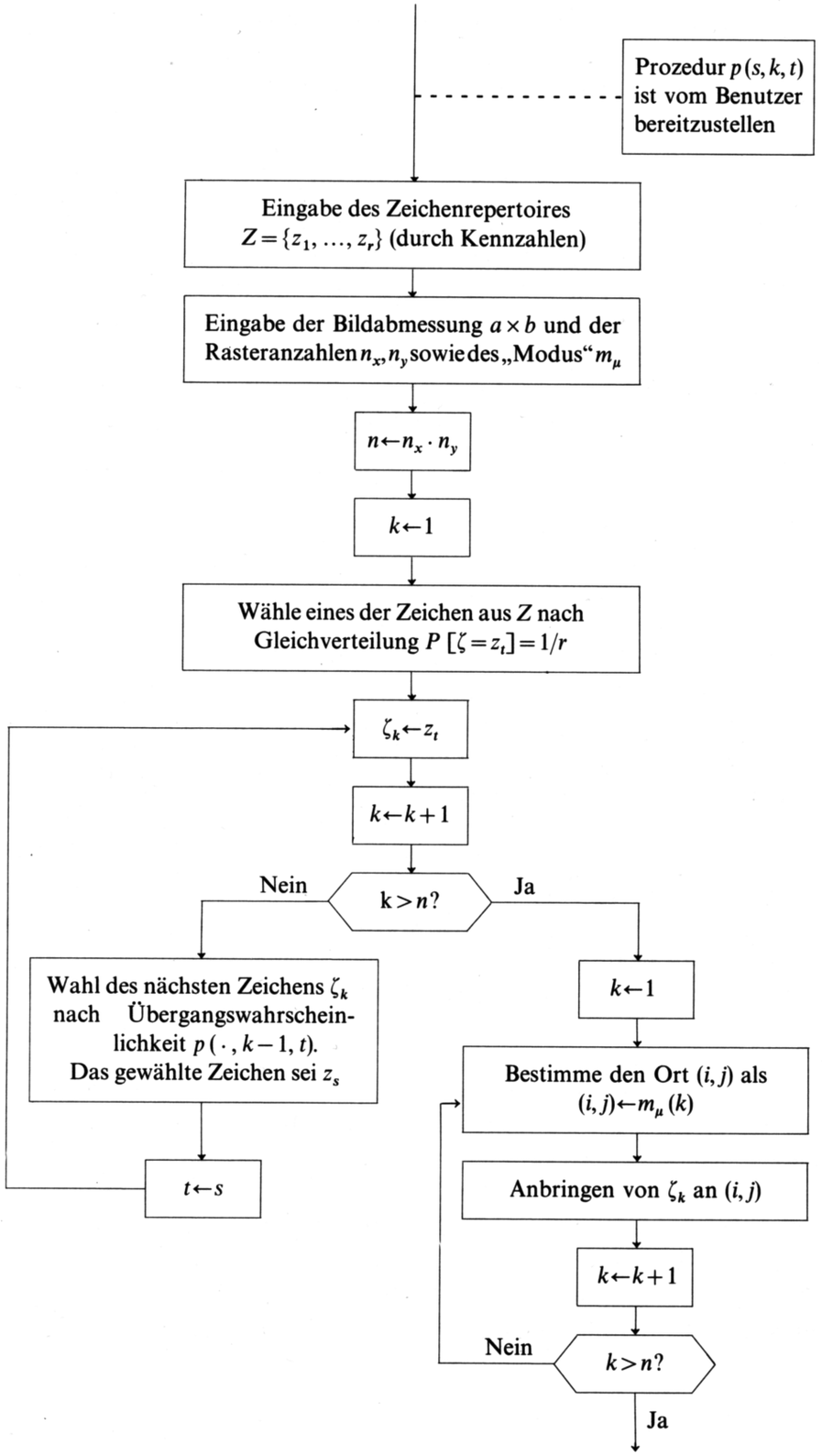


Frieder Nake
Walk-through-Raster, 1966. examples of four different parameter settings









Frieder Nake: WALK_THRU_RASTER (MARKOV_CHAIN) 1966

(sorry for the German)

language: infinite use of finite means
(Wilhelm von Humboldt)

the **generative principle**:
extend this from language to other fields
with a finite base

in particular:
algorithmic generation

algorithms are finite descriptions of infinite sets

A portrait created by AI just sold for $432,000.

But is it really art?

Jonathan Jones

The Guardian 26 Oct. 2018

An image of Edmond de Belamy, created by a computer, has just been sold at Christie's.
But no algorithm can capture our complex human consciousness.

From a distance, Portrait of Edmond de Belamy, which has just sold at Christie's in New York for $432,000 (GBP 337,000), looks almost plausible. Up close, however, the paintwork becomes a grid of mechanical-looking dots, the man's face a golden blur with black holes for eyes. Look into those eyes. They show no sign of feeling or life. Did a computer make this?

The answer is yes. The first artwork generated by AI to be sold at Christie's, its impressive price would seem to suggest that in future we will get computers to make art for us. Robot van Gogh will harmlessly cut its ear off and robot Picasso will be a genius, minus the misogyny.

Is this the future, AI art visionaries, such as the French collective Obvious, which programmed this "painter" by getting it to compare its own work with 15,000 pre-20th century portraits, have in mind? Or are they just, God forbid, making a fast buck from gullible art collectors? Because believing the algorithm that knocked this up to be in any meaningful way an "artist" is like thinking your voice-interaction programme is out to get you. Dream on. Computers would need to replicate human consciousness before they could replicate the funny thing humans do called "art".

Art is a way in which human consciousness expresses itself, and is equally true of the earliest cave art, Rembrandt's portraits and Duchamp's urinal. And that is what is missing from Portrait of Edmond Belamy. Art is a way, humans communicate ideas, perceptions and feelings to each other. It has no existence outside the human passion to communicate. So, in what meaningful sense can an AI replica of certain physical traits of old master paintings be called art?

For a robot to really make art, it would need an autonomous mind that was emotional as well as rational. No AI developer has yet claimed to be anywhere near achieving that and if they ever do, their creation will probably have better things to do than paint portraits – like destroy humanity. Maybe afterwards robots will invent their own kind of art, but it won't be some poor pastiche of human genius. It will be beyond anything we organics could imagine.