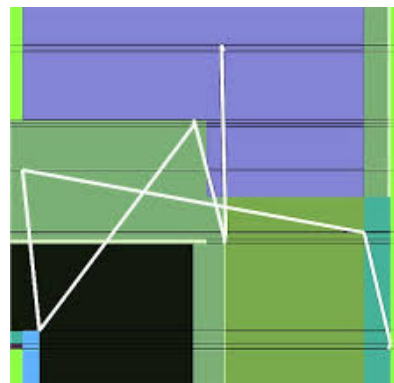


# THINK THE IMAGE: GENERATIVE ART

A workshop, a bit different  
Frieder Nake  
Summer 2020

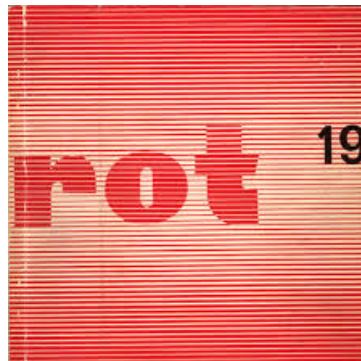


## Outline & Conditions for Credit

(FN 15/26 July 2020)

The term "generative" for the first time appeared in contexts of aesthetics, art, or design in 1965. On February 5 of that year, the first exhibition ever of drawings generated by programs running on a computer and shyly claiming the right to be called "art", opened at the "*Studiengalerie* der Technischen Hochschule Stuttgart" (later: University of Stuttgart). The works were put together under the title *Computer Grafik*, and Georg Nees from the Siemens Company at Erlangen was the mathematician-artist who had written the programs. This day became the date of a small revolution.

A small booklet was published for the occasion. It became no. 19 of Max Bense's series of publications that appeared under the title, *rot*. The no. 19 contained (some of) the graphic works on display at the *Studiengalerie*, together with short formulations of the algorithms Nees had written and used, and a text by Max Bense under the title, "*projekte generativer ästhetik*". This text was later translated into English (in 1968) and re-printed several times.



Later in 1965, two more exhibitions of "computer art" were organized, one in New York (at Howard Wise Gallery), the other one in Stuttgart (at Galerie Wendelin Niedlich). Algorithms had been developed to calculate images that galleries were willing to show with the claim, *this is art!* In case you are interested in the question of whether anything was sold (as some sort of acceptance as "art"): Nothing from the first two exhibitions mentioned; but some of Nake's drawings were sold from the third show. So, a tiny part of the art market may have paid an atomic attention.

Soon, more such events happened, some first reactions appeared in print and other media, and already in 1968, two international events took place that forced the world of art to accept the fact that now the algorithmic principle, and the digital form, had appeared in the great field of art with its fantastic traditions. The two events were *Cybernetic Serendipity: The Computer and the Arts* in London, and *Tendencies 4: Computers and Visual Research* in Zagreb.

Today, more than fifty years later, nobody is surprised to see images of algorithmic origin being sold for crazy amounts of money. Looking back, we can say – and I will, indeed, maintain – that what we now call "digital media" has its beginnings then, in the mid-1960s. The term, "digital media", was, of course, not yet used then. Computers were machines, not media.

To some extent, our workshop will take a look at this history. Not so much as an act of historiography, but more in an attempt to understand deeply, what happened then, and how that may have bearings on what we do today in art and media. My claim will be that the *algorithmic revolution* (as it happened by the time) in its first appearances of aesthetic forms, was really about *thinking images* (and other material objects or processes). The *making* of visual objects is pushed into the background. Postmodern thinking starts. The semiotic dimension of the world becomes as important as its materiality. Digital media appear at the far horizon.

Our challenge will be writing good and beautiful code (in Processing) for interesting artistic results. We will engage in two activities usually considered to be far apart from each other: Thinking algorithmically as well as aesthetically. (A short brush-up on the programming language and system, *Processing*, will be included.)

### Conditions for Credit Points

There is one necessary condition that I always assume must be satisfied for you to get credit. Since you are students, what you do is: you study. To study means: to try harder. Harder than others. You like mastering difficulty, don't you? Others may say, you devote time and attention to gaining more knowledge of some subject matter. As long as you share your time with us, and actively participate in what we do, you should have no problem getting credit. But I know, some of you find this to be too general a condition, perhaps also too weak, and they want to be asked something more specific. They want to get a topic and task they can work on at home. *Voilà*, here we go!

You may collect four points of credit or six. They are for the module "Topics in Digital Media". What you do is, write an essay. The essay should be about an artist from the field of generative art. It may also be on an event or an institution from the field. In any case, the essay should concentrate on a selection of works, which works you are asked to study from the points of view of their aesthetics, their algorithmics, and of thinking them. – I will provide a list of artists, events, and institutions for you to choose from. But you may suggest your own artist, institution, or event. The essay should have a length of about 10 pages (in the case of 4 CP). It should be clearly structured and formulated, and well documented (references, quotations, images). If you want to gain six points of credit, we agree on some extra work. – Deadline for submission is the 15th of September 2020.

## Schedule for the Week

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<i>Monday</i> 27 July 20	<i>Welcome! – Making images. Thinking of an image. Thinking images. Brushing up our knowledge of Processing. A simple example.</i> 10 to 12 on the lawn in front of MZH 12 to 13 lunch break 13 to 14 individual work on assignment 14 to 16 online
<i>Tuesday</i> 28 July 20	<i>Generative aesthetics. Generative art. Generative everything. Your first project.</i> 10 to 12 at the university / on the lawn in front of MZH 12 to 13 lunch break 13 to 14 individual work on assignment 14 to 16 online
<i>Wednesday</i> 29 July 20	<i>Re-programming works of 1965. Probability, random variables, random numbers.</i> 10 to 12 at the university / on the lawn in front of MZH 12 to 13 lunch break 13 to 14 individual work on assignment 14 to 16 online
<i>Thursday</i> 30 July 20	<i>Manfred Mohr &amp; Vera Molnar: Cubes, hypercubes, squares. Art &amp; generative art.</i> 10 to 12 at the university / on the lawn in front of MZH 12 to 13 lunch break 13 to 14 individual work on assignment 14 to 16 online
<i>Friday</i> 31 July 20	<i>Harold Cohen &amp; Casey Reas: rules, fantasy, artificial intelligence. No art without the digital.</i> 10 to 12 online 12 to 13 lunch break 13 to 14 individual work on assignment 14 to 16 at the university / on the lawn in front of MZH

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Let us hope to get into the university when we need because of the weather (but it does not look like that). Let us hope for warm and friendly weather conditions! Each one of the five days will consist of a mixture of history and theory, of specific analyses of works, and programming exercises. We meet at 10 a.m. and adjourn at 4 p.m., but don't be afraid, there will be breaks.