

**University of Texas at Dallas
Arts & Humanities
Fall 2013**

Dr. Charissa N. Terranova

Contemporary Art History

AHST 3318-001

(88994)

M-W 2:30-3:45

AHST 3318-501

(88994)

W 7:00-9:45

AH2 1.204

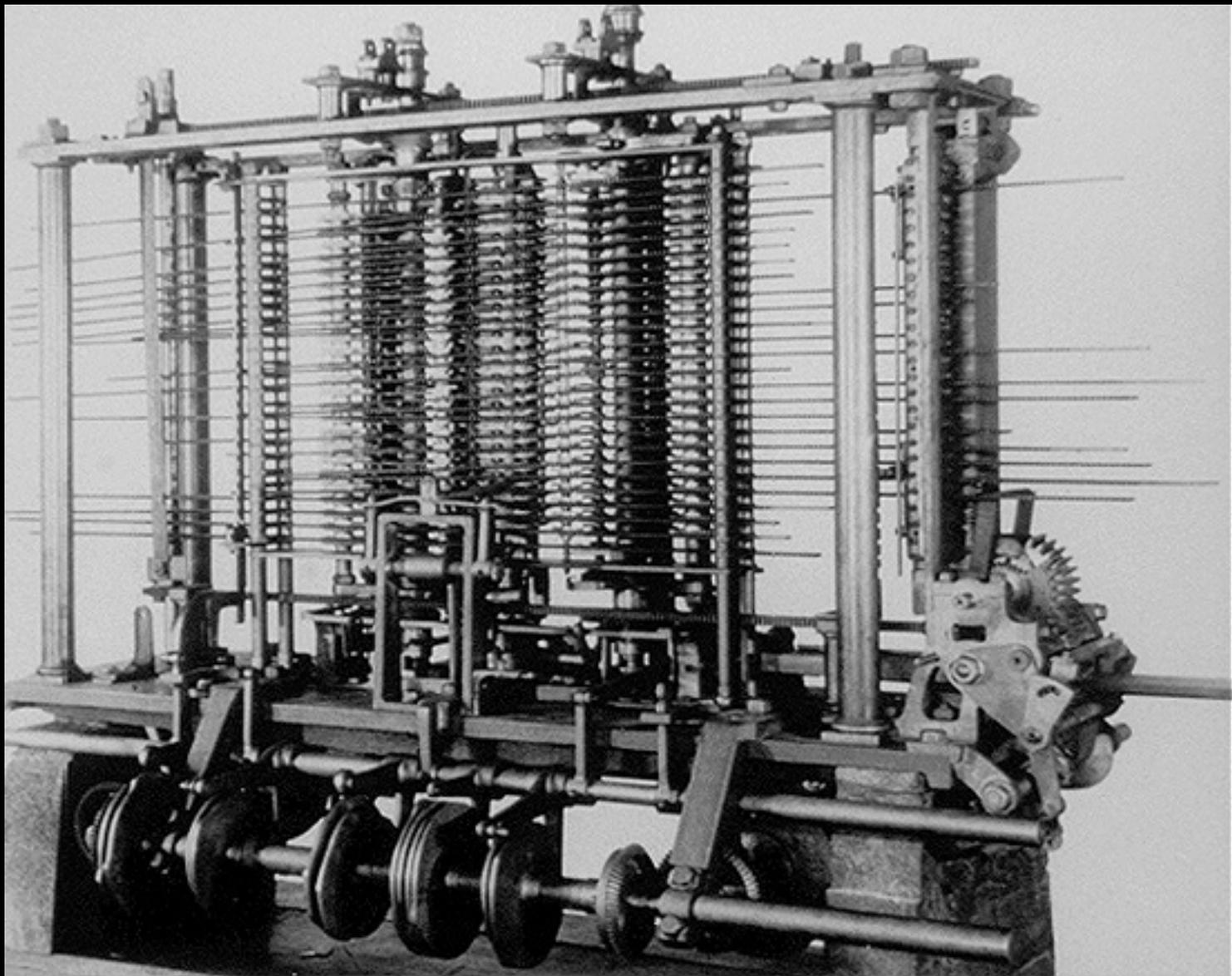
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Office Location: JO 3.920

Monday November 5, 2013

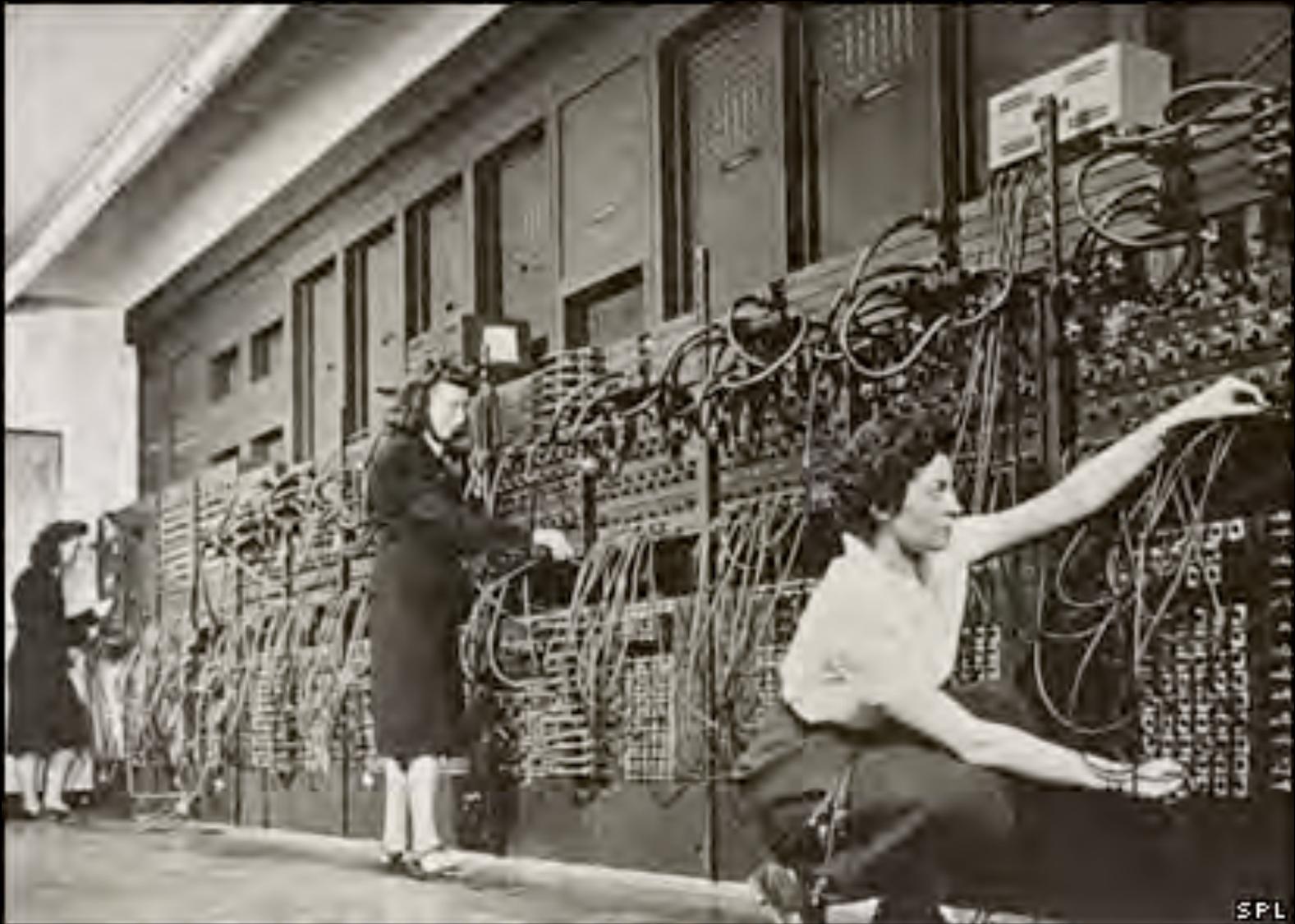
The Rise of the Digital Image in Art: The Bell Labs, A. Michael Noll, and E.A.T.



Babbage Engine 1822/1999

<http://www.computerhistory.org/babbage/>

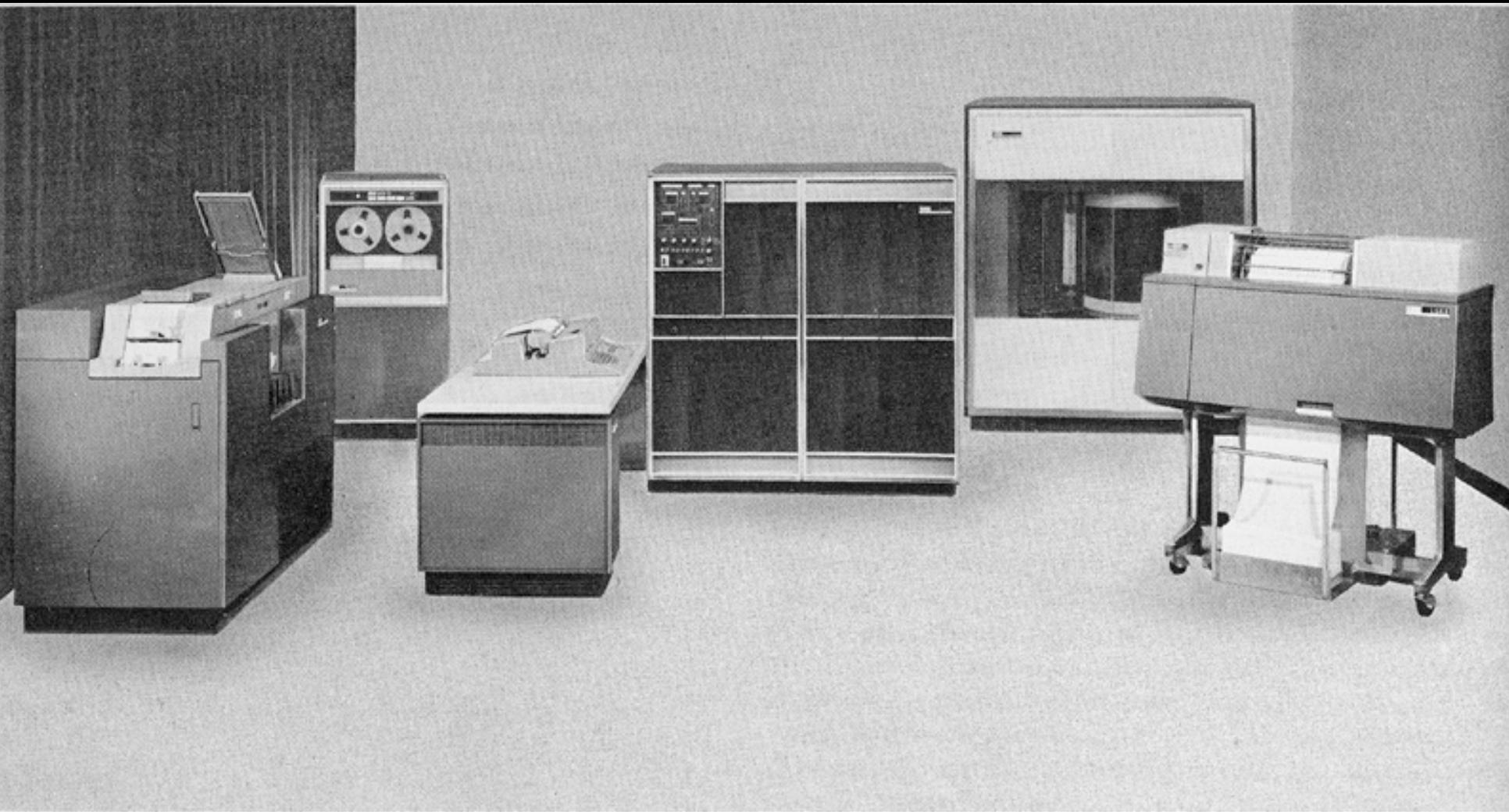
Charles Babbage [1791-1871]



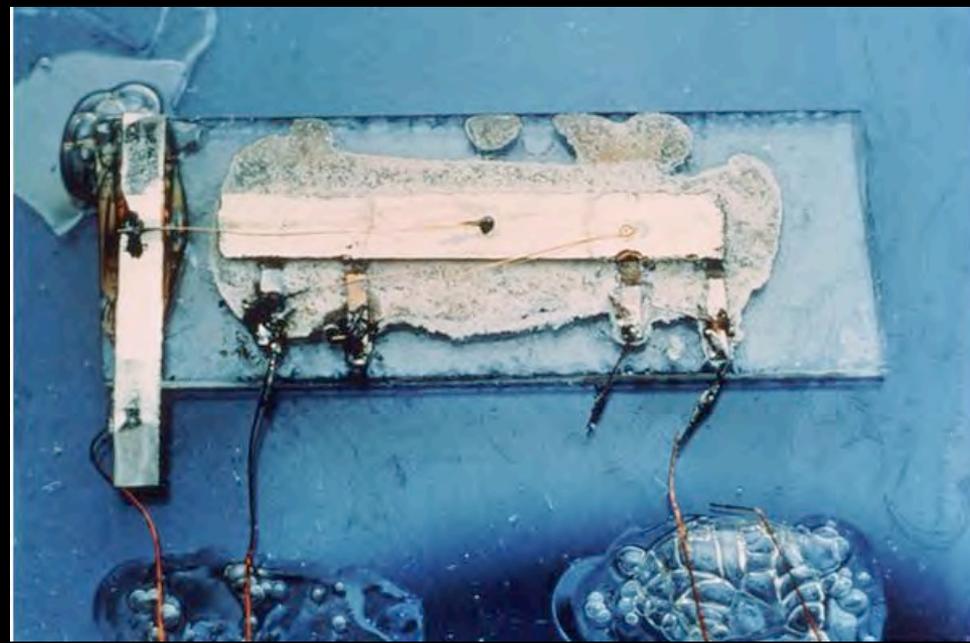
ENIAC [Electronic Numerical Integrator and Computer] Computer at the University of Pennsylvania, 1946, conceived by John Mauchly and J. Presper Eckert



ENIAC vacuum tubes

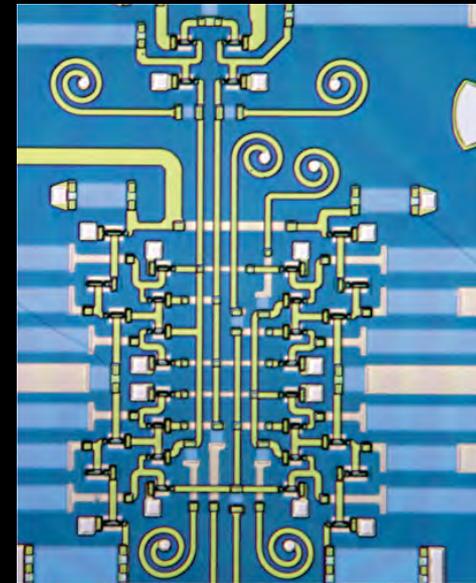


IBM 1401 Data Processing System, 1959



Jack Kilby's original integrated circuit, 1958

The Bell Labs team of John Bardeen, Walter Brattain and William Shockley won the 1956 Nobel Prize in Physics for their work in developing transistors.



Integrated Circuit 1958



Microprocessors and personal computers, 1970s



Ben F. Laposky with
oscilloscope, 1956



Ben Laposky, Oscillons, 1956



James Whitney, Yantra, 1950-57

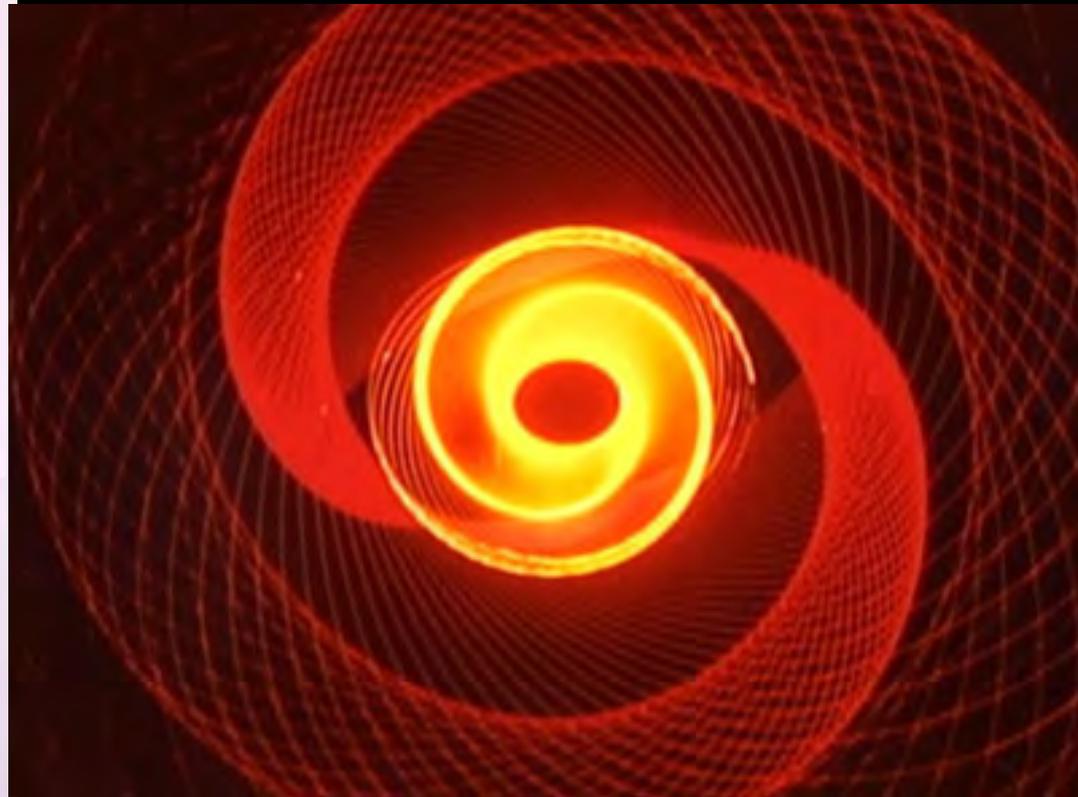
<http://www.youtube.com/watch?v=3ISnowrJvCM>

JAMES STEWART
KIM NOVAK
IN ALFRED HITCHCOCK'S
MASTERPIECE

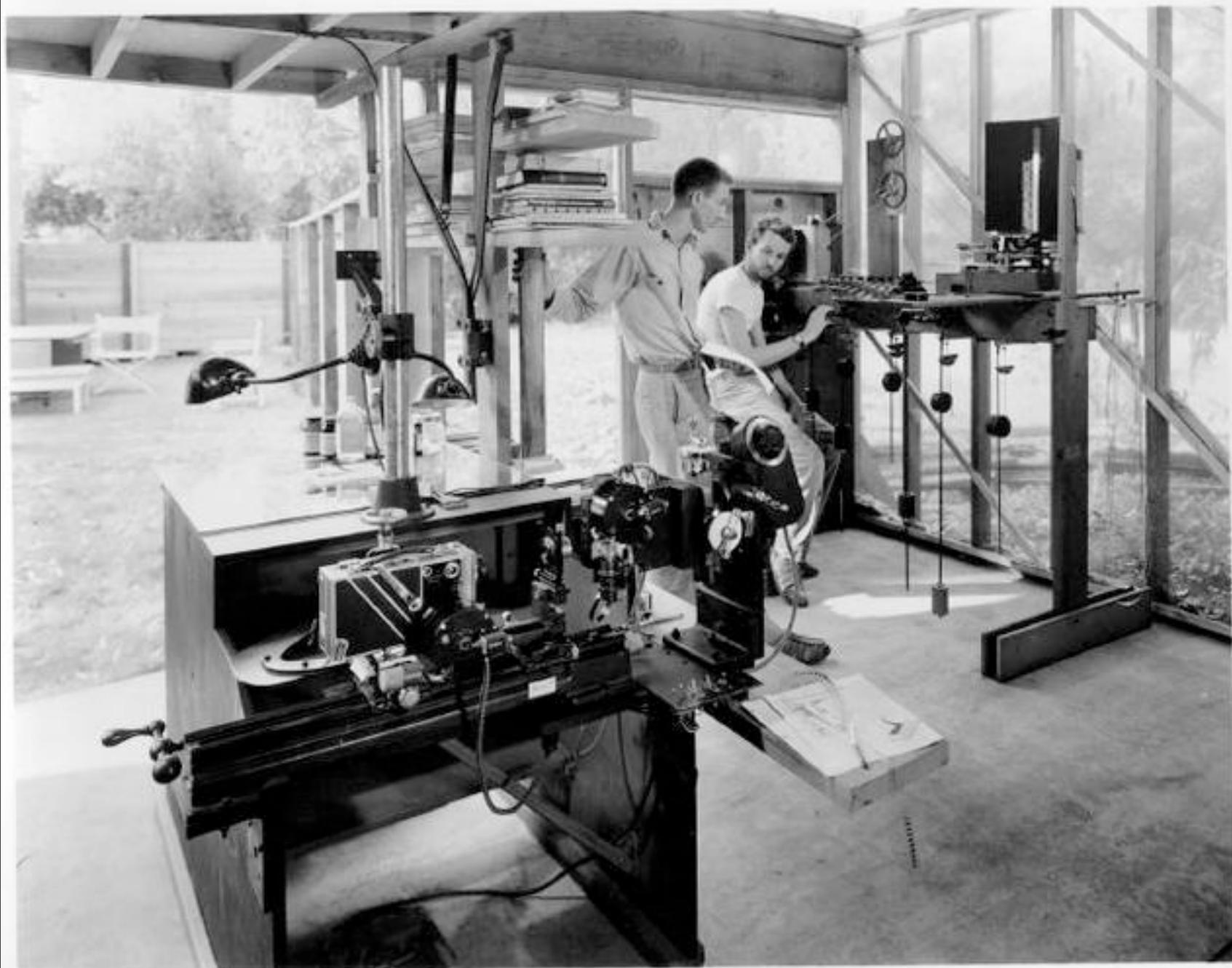


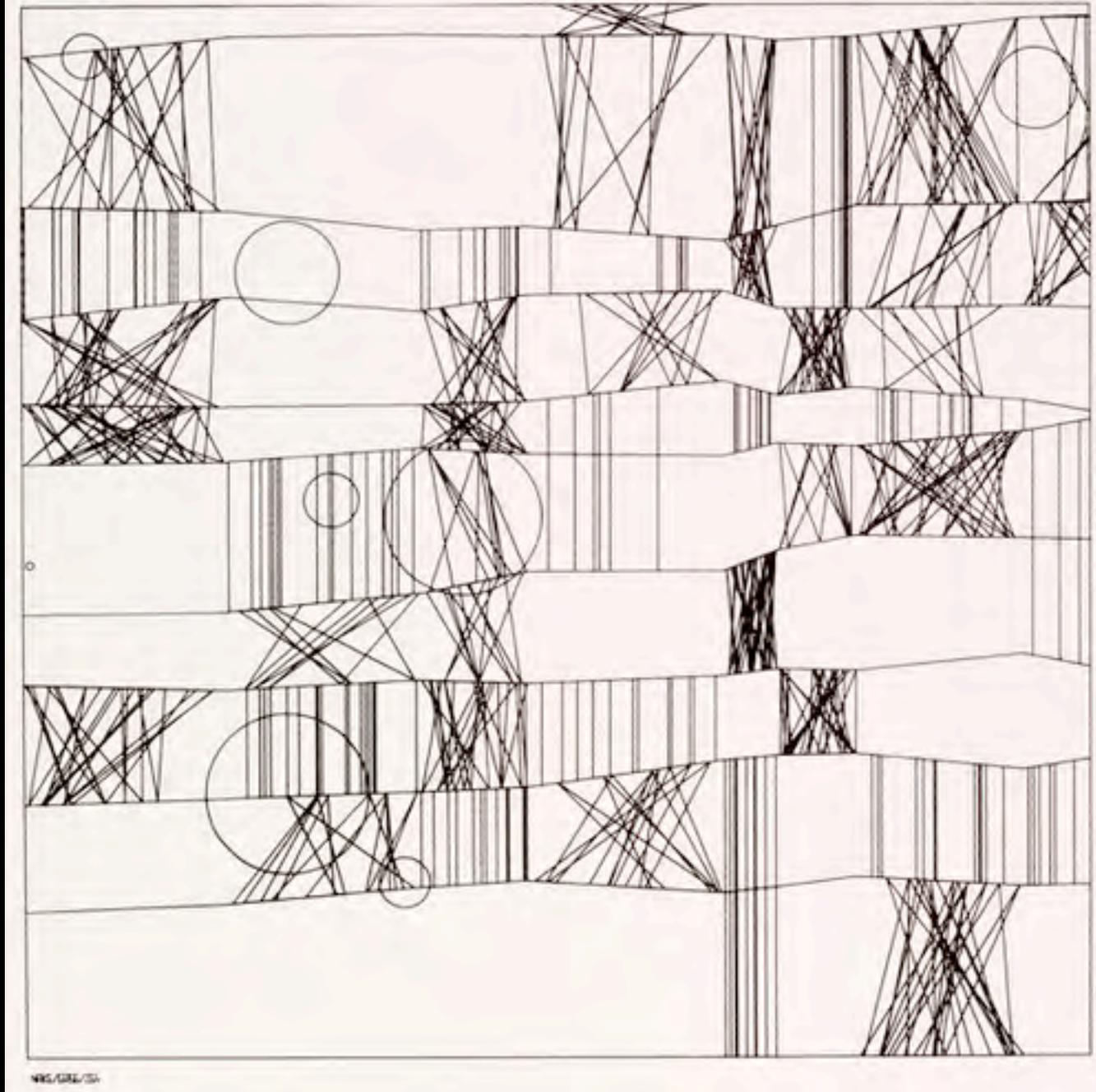
'VERTIGO'

EMPRESA DEL CINE TOM MELUQUE HEARY JONES KEES HITCHCOCK ALER COPPEL & SHARLES TAYLOR TELVA VIDUA



Saul Bass and John Whitney, Title Sequence to
Alfred Hitchcock's Vertigo (1958)
<http://www.youtube.com/watch?v=5qtDCZP4WrQ>



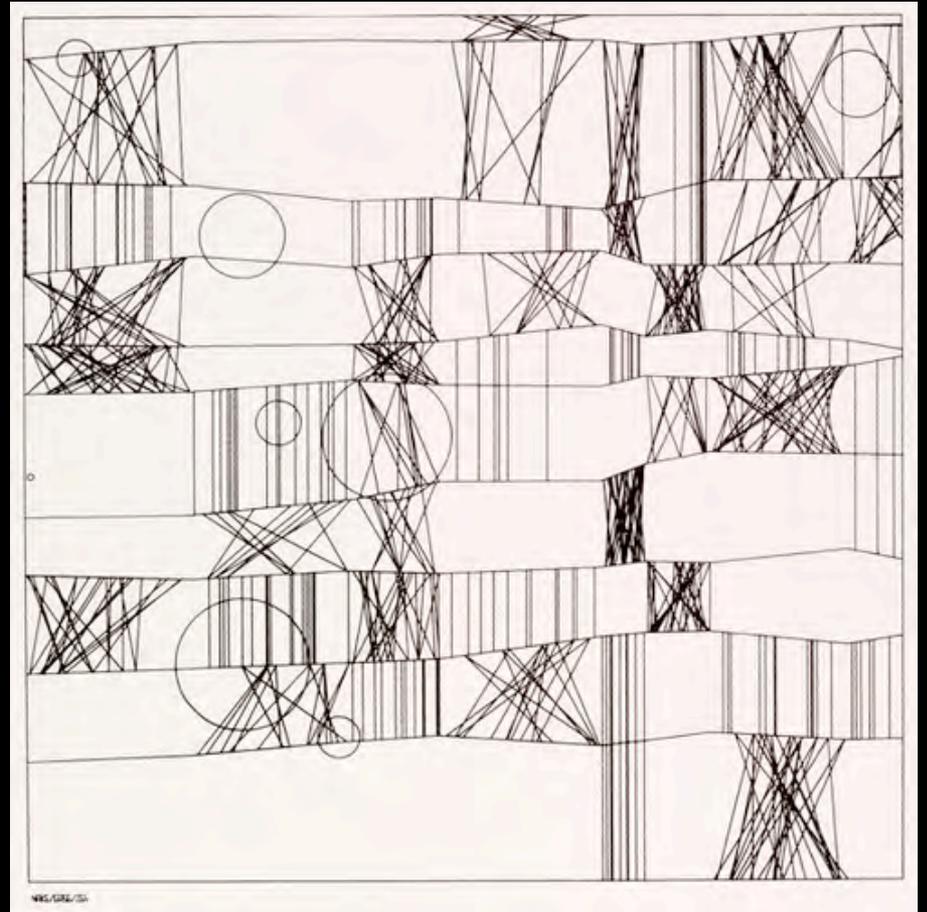


NRS/GRU/55

Frieder Nake, Homage to *Paul Klee* 13/9/65 No. 2, 1965



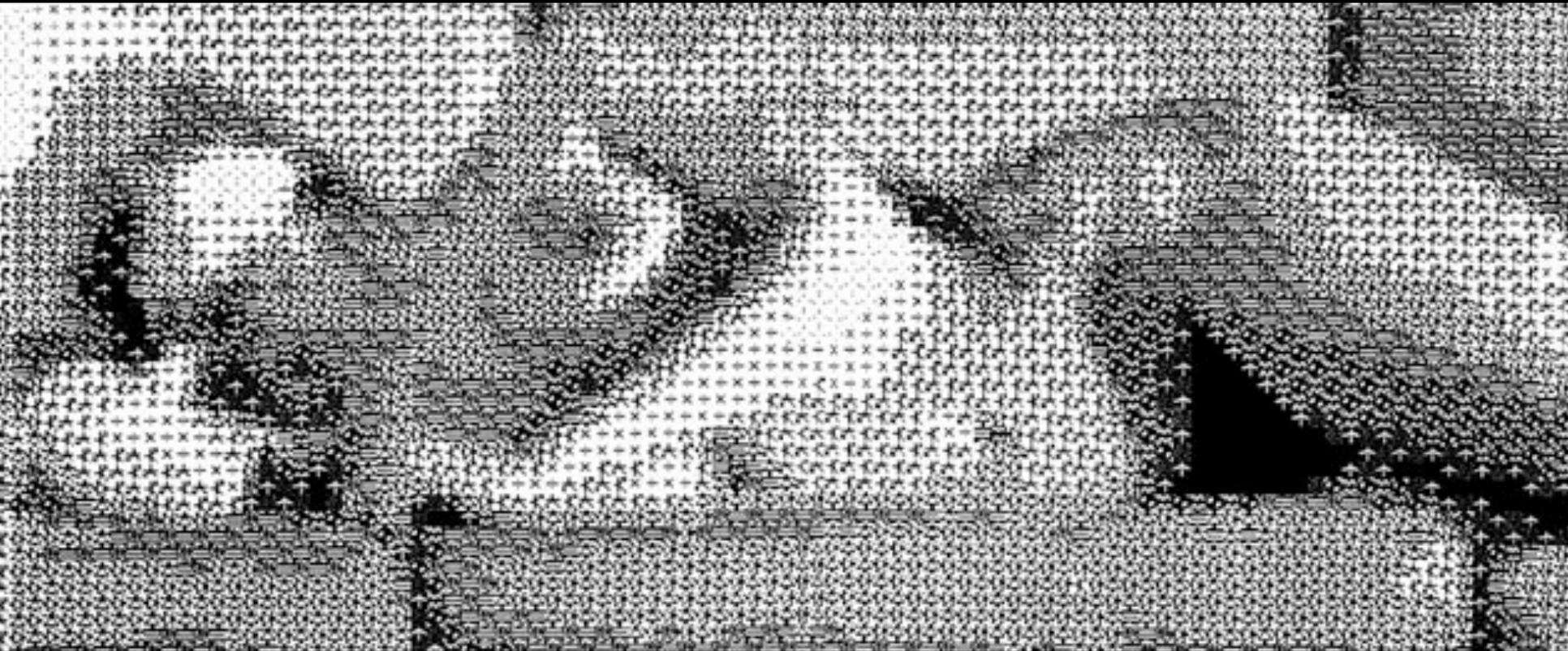
Paul Klee, Haupt- und Nebenwege [Main and Sideways], 1929



Frieder Nake, Hommage to *Paul Klee* 13/9/65
No. 2, 1965

Max Bense [1910-1990]

- *Information Aesthetic* (1957)
- The scientist's creative work to be swinging between "chaos and Gestalt" to reach a "whole" [Ganzes]
- There is "no substance without form" and "no reality without Gestalt idea", or "no ideality without matter" ...
- Bense correctly stated that there are no specific aesthetic signs, rather aesthetic functions fulfilled in given contexts of interpretation. Firmly anchored in the realm of reality, Bense was obsessed with how much of the object represented in an art work is present and identifiable as such in the work. This is where he introduced the notion of semiotic information, i.e., degree of presence of the object in the material embodiment of signs participating in a work of art. The inverse of semiotic information is semioticity, i.e., degree of independence of the object from its representation. Later on, semioticity was to define the conventional nature of aesthetic artifacts.
- As Bense stated, art—and modern art especially—can no longer be grasped along classical lines with terms like proportion, symmetry or harmony, which stress contrasts and reject standards.
- Aesthetic process and physical world tend in opposite directions, and are different in principle: the world of physics is existent, that of aesthetics is constructed. Bense was convinced that a theory was lacking which could objectively evaluate this field and offer a programming of the beautiful.
- His theory took the shape of an attempt to systematize basic aesthetic principles. The *information aesthetics* (1957) was based on the statistical analysis of art objects and consigns the subject—the recipient—to the background by substituting the usage of adequate rules in the aesthetic evaluation.
- Bense would later use the term “generative aesthetics,” which was to be understood as “the compound of all operations, rules and theorems through whose application to a quantity of material elements able to function as signs can deliberately and methodically generate in the latter aesthetic states (distributions and/or arrangements).”

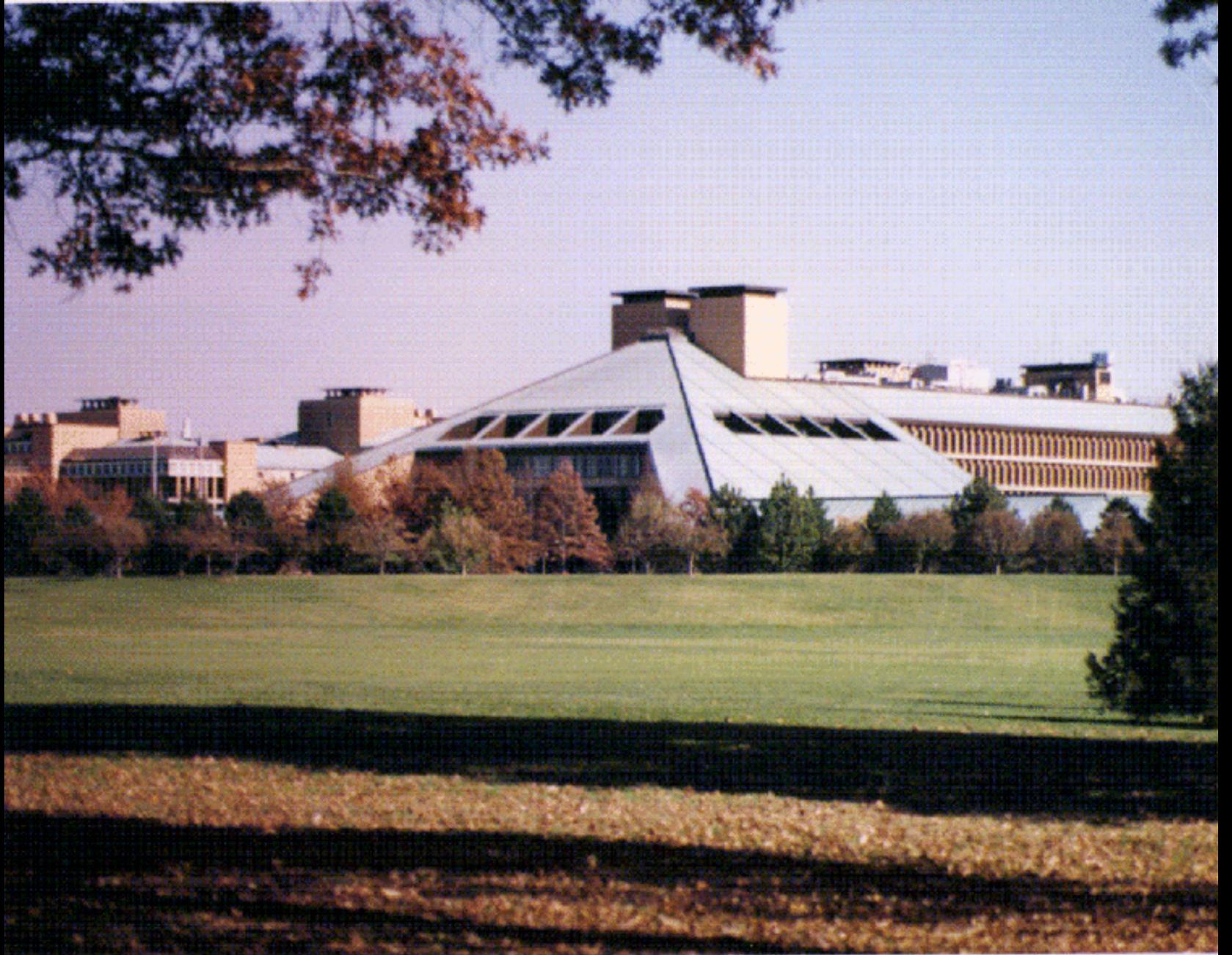


Kenneth Knowlton and Leon Harmon, *Studies in Perception 1*, 1966



Stan Vanderbeek and Ken Knowlton, Poem Field No. 2, Life Like, 1967

http://www.youtube.com/watch?v=BMaWOp3_G4A



Bell Labs, Murray Hill, NJ

BELL LABS MEMOIRS:

Voices of Innovation



EDITED BY A. MICHAEL NOLL
AND MICHAEL GESELOWITZ



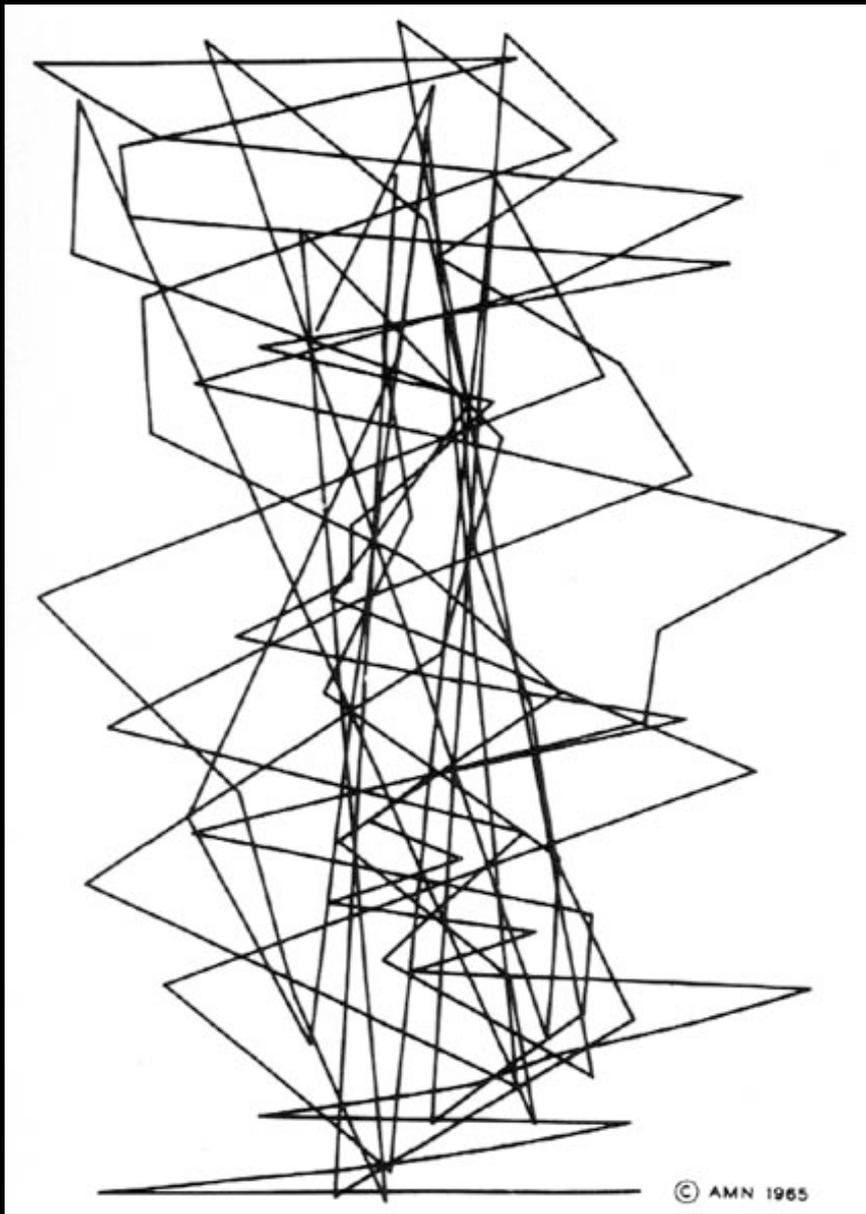
howard  wise gallery



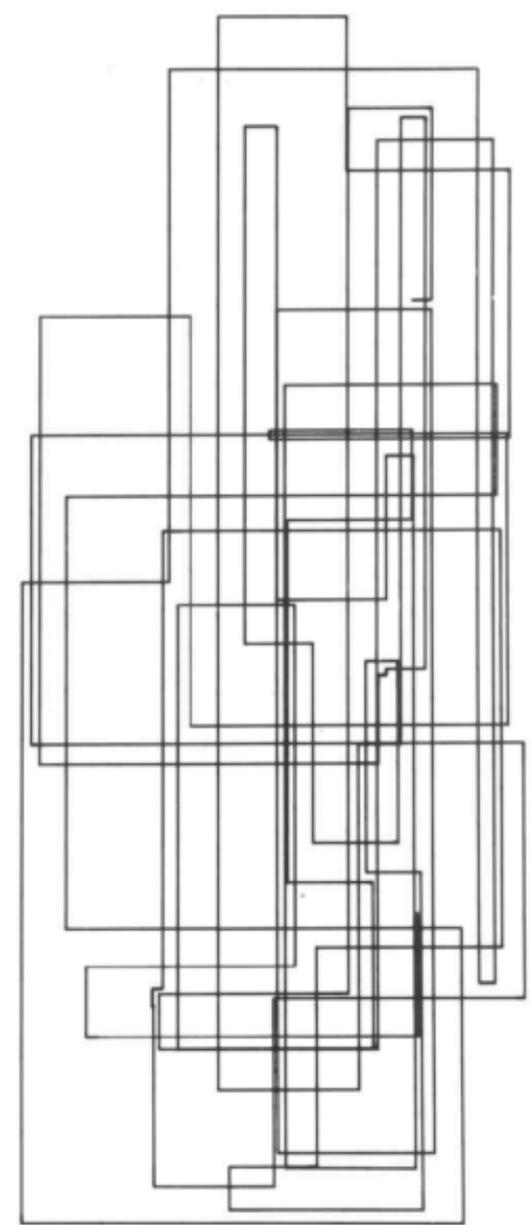
—G. M. Adams—



Exhibition of works by A. Michael Noll and Bela Julesz at the Howard Wise Gallery in New York City in 1965



A. Michael Noll, Gaussian Quadratic, 1962



© AMN 1965

VERTICAL-HORIZONTAL NUMBER THREE (1964)
BY A. MICHAEL NOLL



Mondrian



Noll



In the late 1960 and early 1970's, he constructed interactive three-dimensional input devices and displays and a three-dimensional, tactile, force-feedback ("feelie") device that were the forerunners of today's virtual-reality systems. He also was one of the first researchers to demonstrate the potential of scanned displays for computer graphics.

From A. Michael Noll's website
<http://noll.uscannenber.org/>

EAT

N E W S

Volume 1, No. 2

June 1, 1967

Experiments in Art and Technology, Inc.

9 East 16th Street, N.Y., N.Y. 10003

Experiments in Art and Technology was founded in 1966 by engineers Billy Klüver and Fred Waldhauer and artists Robert Rauschenberg and Robert Whitman.

Billy Klüver, Fred Waldhauer, Robert Rauschenberg, John Cage, David Tudor, Yvonne Rainer, Deborah Hay, Robert Whitman, Steve Paxton, Alex Hay, Lucinda Childs and Öyvind Fahlström

E.A.T. PROJECTS OUTSIDE ART

December 8, 1969

235 Park Avenue South, New York, New York 10003

E.A.T. announces an exhibition, PROJECTS OUTSIDE ART — an exhibition of realizable projects in the environment — and requests submission of proposals.

Projects for the exhibition

- deal with such subjects as education, health, housing, concern for the natural environment, climate control, transportation, energy production and distribution, communication, food production and distribution, women's environment, cooking, entertainment, sports, etc.;
- use state-of-the-art technology;
- recognize, in particular, the scale adequate for the problem undertaken, social and ecological effects, organizational methods necessary for realizing the projects;



9 evenings: theatre & engineering

OCTOBER 12-19-25-26-28-29-30 PM 8:00 PM
170 STREET BROADWAY NYC TELEPHONE 895 5300

PERFORMANCES BY JAMES WOOD FILM TELEVISION TECHNOLOGY BY JACK CHASE CALL 895-5300
FOR TICKETS VISIT WWW.EATNYC.COM OR CALL 895-5300



EAT/John Cage, Variations VII, 1966



EAT/Lucinda Childs, Still from *Vehicle*, 1966

<http://www.fondation-langlois.org/html/e/page.php?NumPage=1734>



EAT/Robert Rauschenberg, Open Score, 1966



Each time Frank Stella and Mimi Kanarek hit the ball the vibrations of the racquet strings were transmitted to the speakers around the armory, and a loud BONG was heard.

<http://www.youtube.com/watch?v=juo0OHsQTWE>





John Cage, Merce Cunningham, Billy Cluver, et. al., Variations V, 1965
<http://www.youtube.com/watch?v=Ca2iVII-N0g&feature=related>