Geschichte und Ästhetik der audiovisuellen und digitalen Medien II

1945-1960

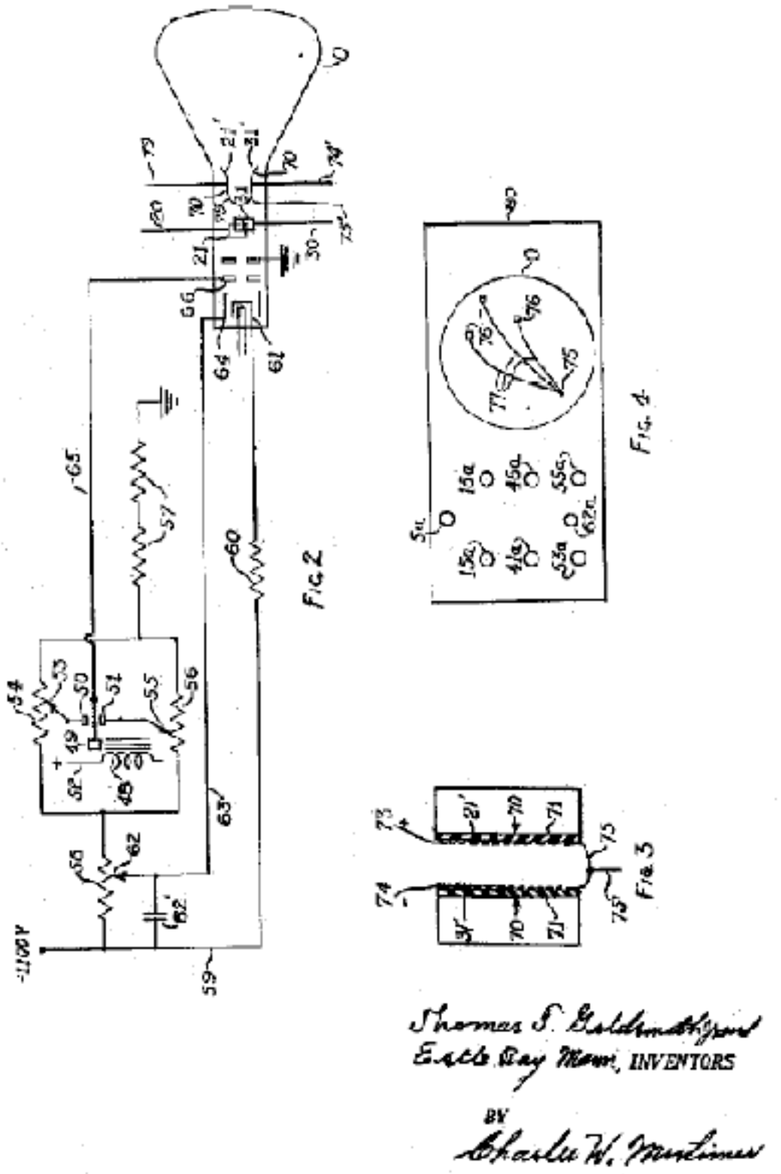
Prof. Dr. Jochen Koubek

Technik-, Kultur- und Spielgeschichte

A Machine for Playing the Game NIM

http://www.youtube.com/watch?v=2NWnmvMOqS0

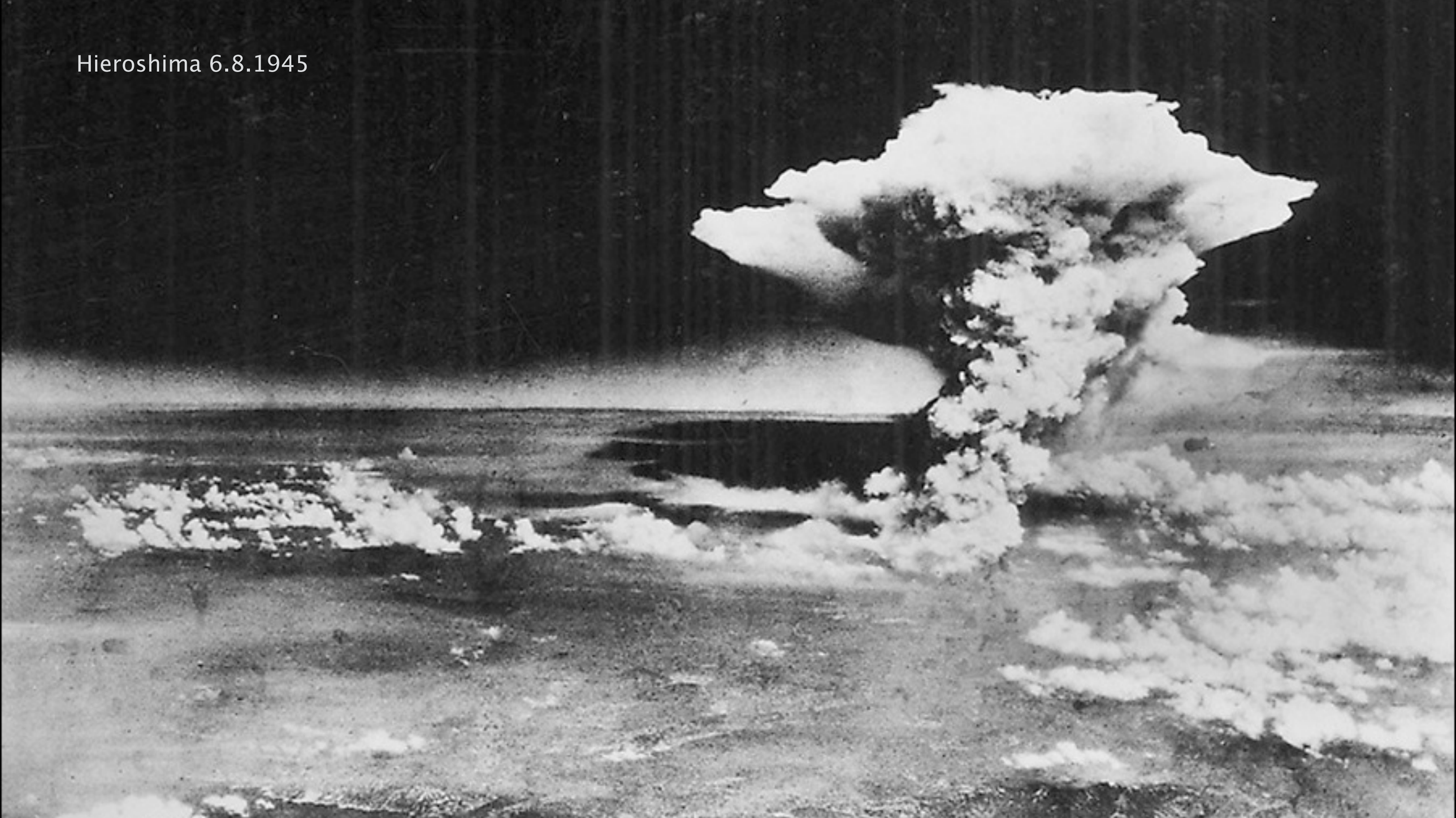
Raymond Redheffer, 1942 MIT

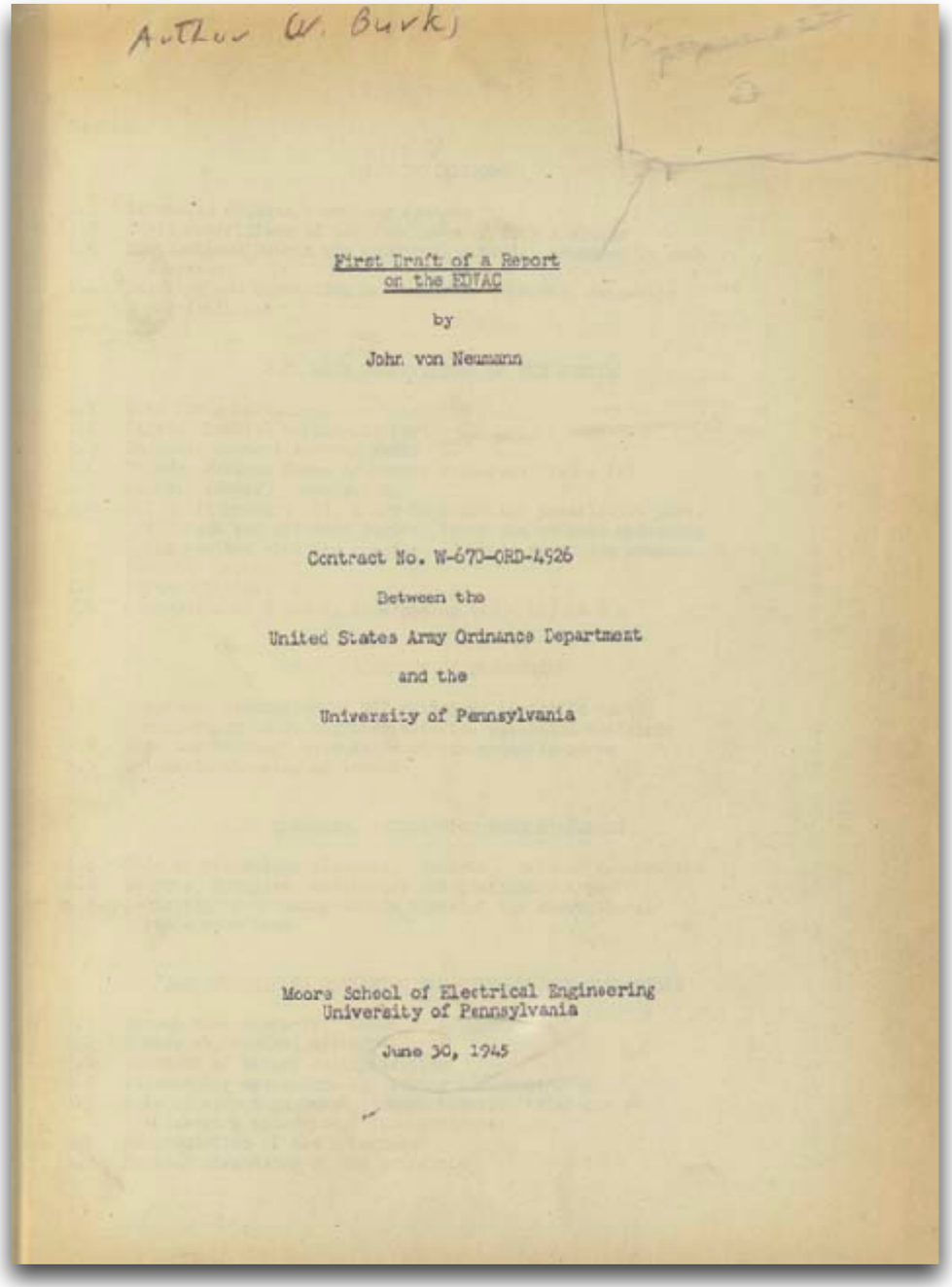


Cathode Ray Tube Amusement Device

»The object of the game is for the player to adjust the controls within a specified predetermined interval of time so that one of the parabolic traces of the beam will start from the gunner's position and hit a selected target or airplane and explode on the selected target.«

T. T. Goldsmith Jr.; Estle Ray Mann, 1947


Hieroshima 6.8.1945



Arthur W. Burks

First Draft of a Report
on the EDVAC

by

John von Neumann

Contract No. W-670-ORD-4926

Between the

United States Army Ordnance Department

and the

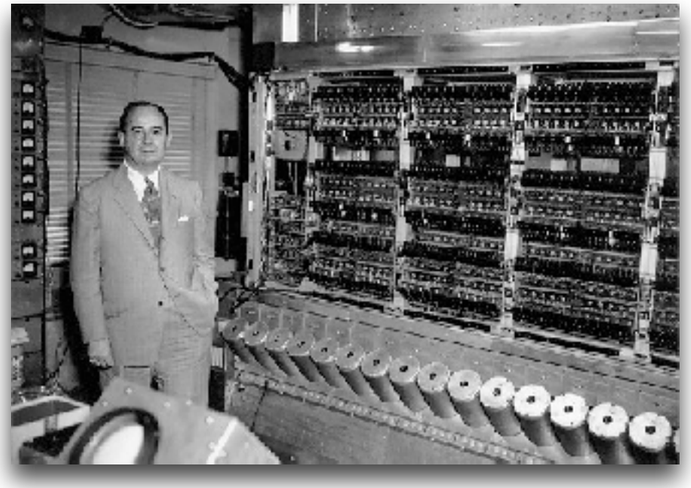
University of Pennsylvania

Moore School of Electrical Engineering
University of Pennsylvania

June 30, 1945

EDVAC

turing-vollständiger (nicht spezialisiert)
elektronischer (nicht elektromechanischer),
binärer (nicht dezimaler)
Digital- (nicht Analog-) rechner mit
variablem, (nicht festem)
intern, (nicht extern)
zusammen mit (nicht getrennt von) den Daten
gespeichertem (nicht gestecktem) Programm und
automatischem (nicht manuellem)
sequentiellem (nicht parallelem) Programmablauf



John v. Neumann

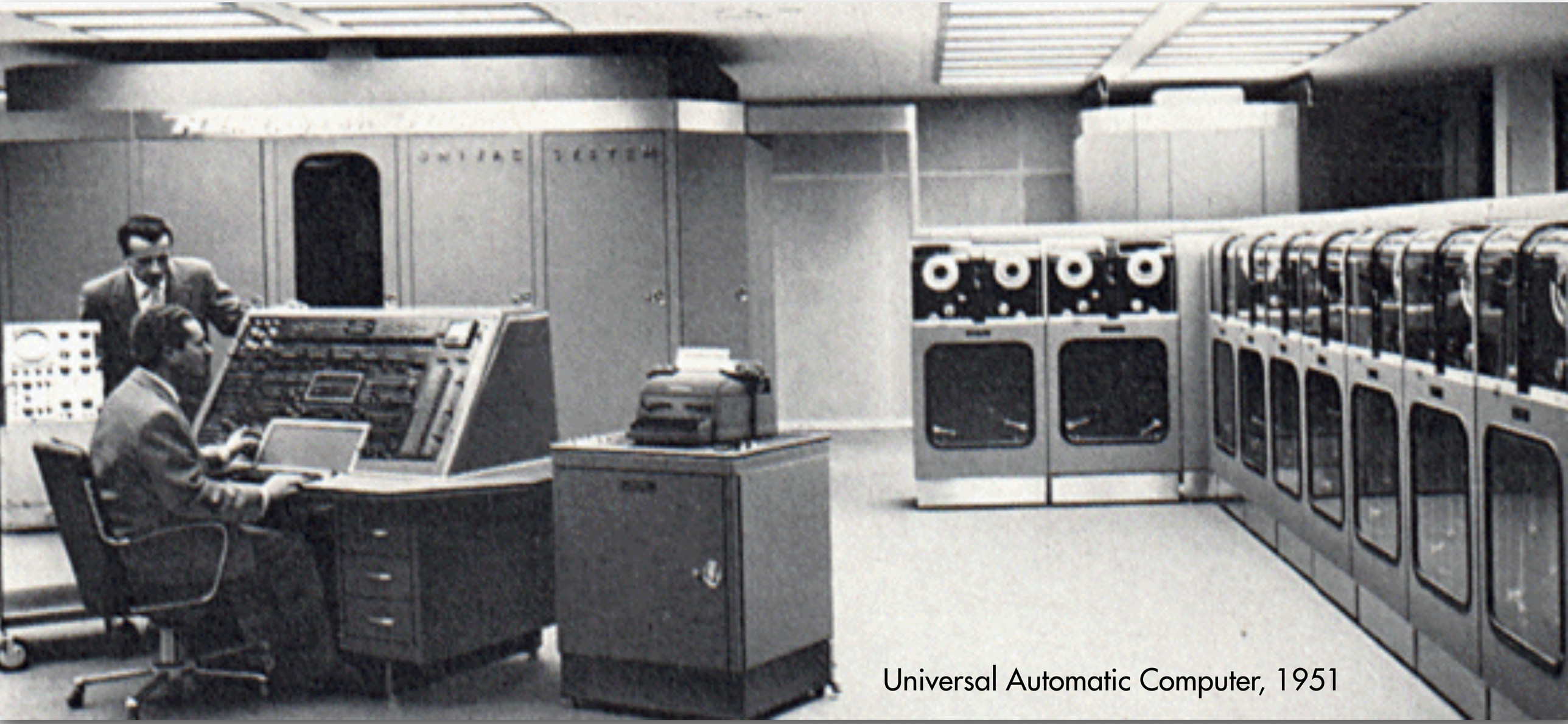
Visionen

»Where a calculator on the ENIAC is equipped with 18,000 vacuum tubes and weighs 30 tons, computers in the future may have only 1,000 vaccuum tubes and perhaps weigh 1.5 tons.«

Popular Mechanics, March 1949

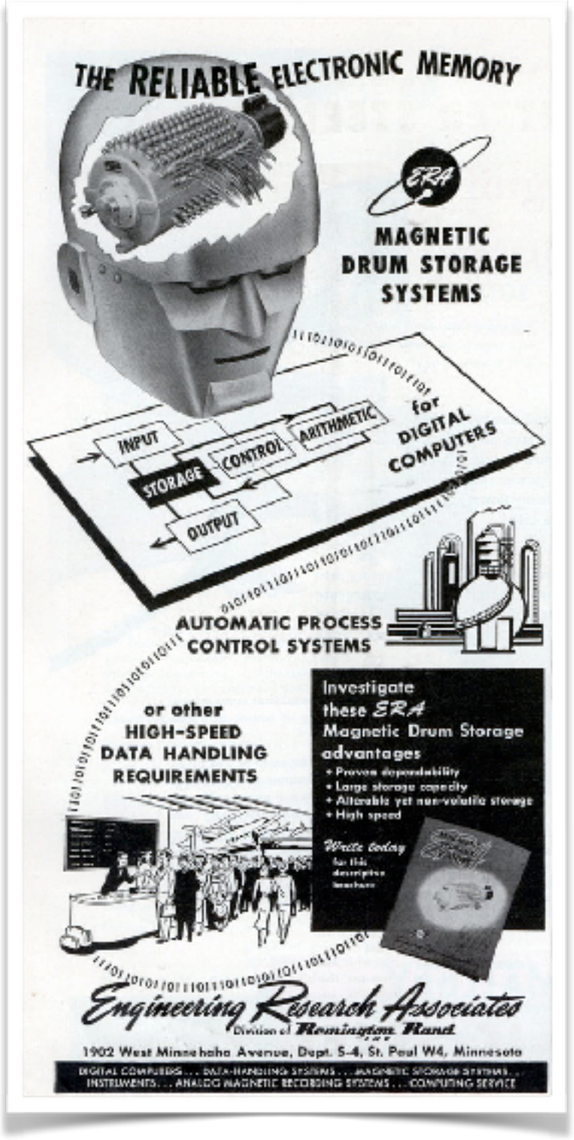
1947 erfinden William Shockley, John Bardeen, Walter Brattain den Transistor

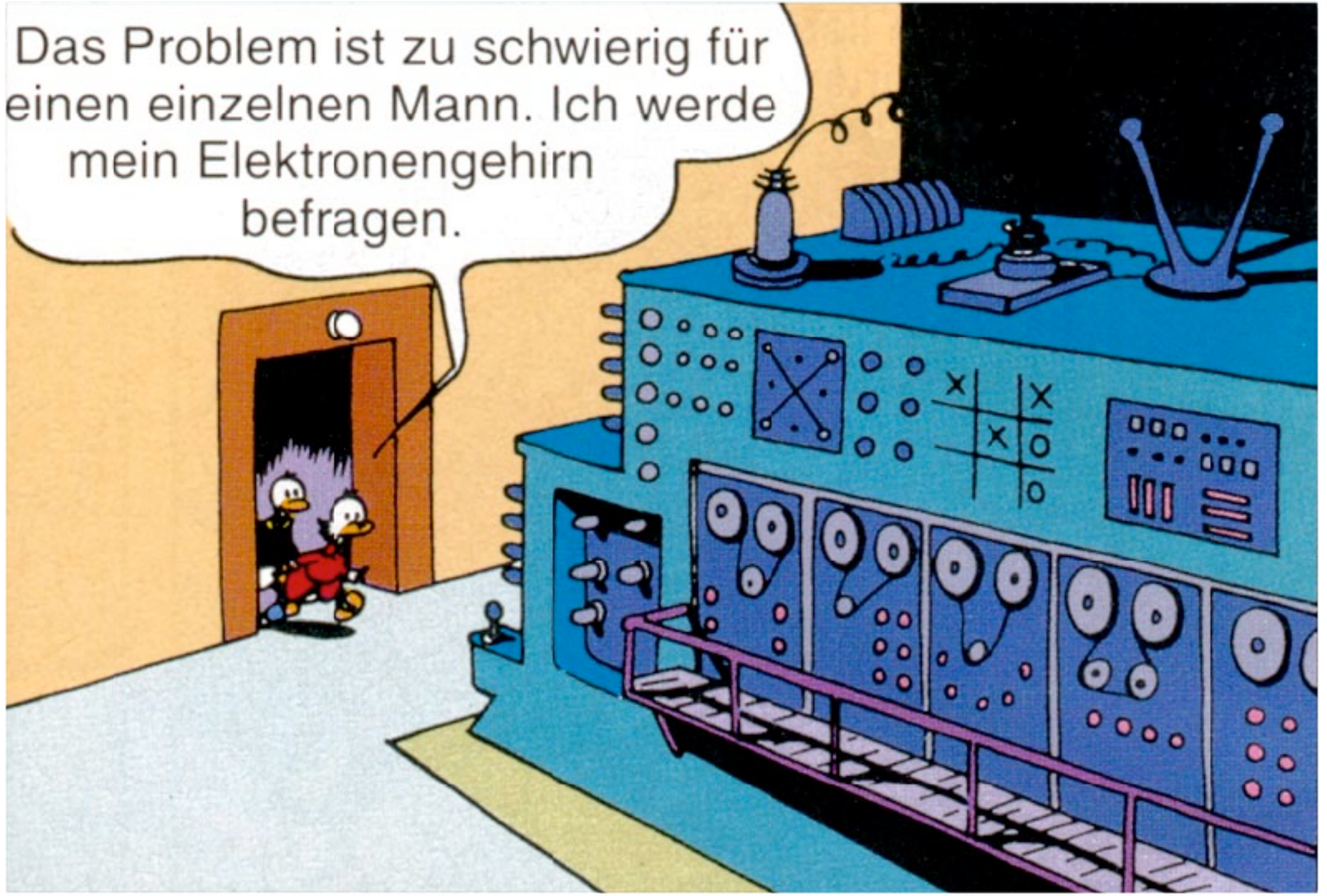
UNIVAC



Universal Automatic Computer, 1951

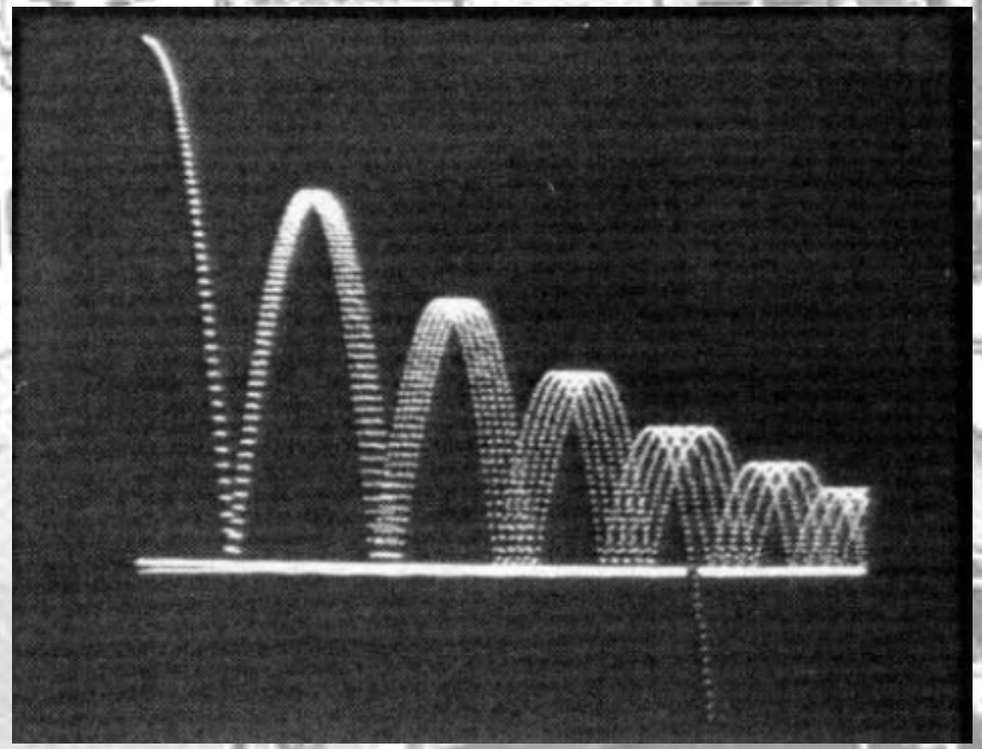
Elektronengehirn





Whirlwind

1945-1952



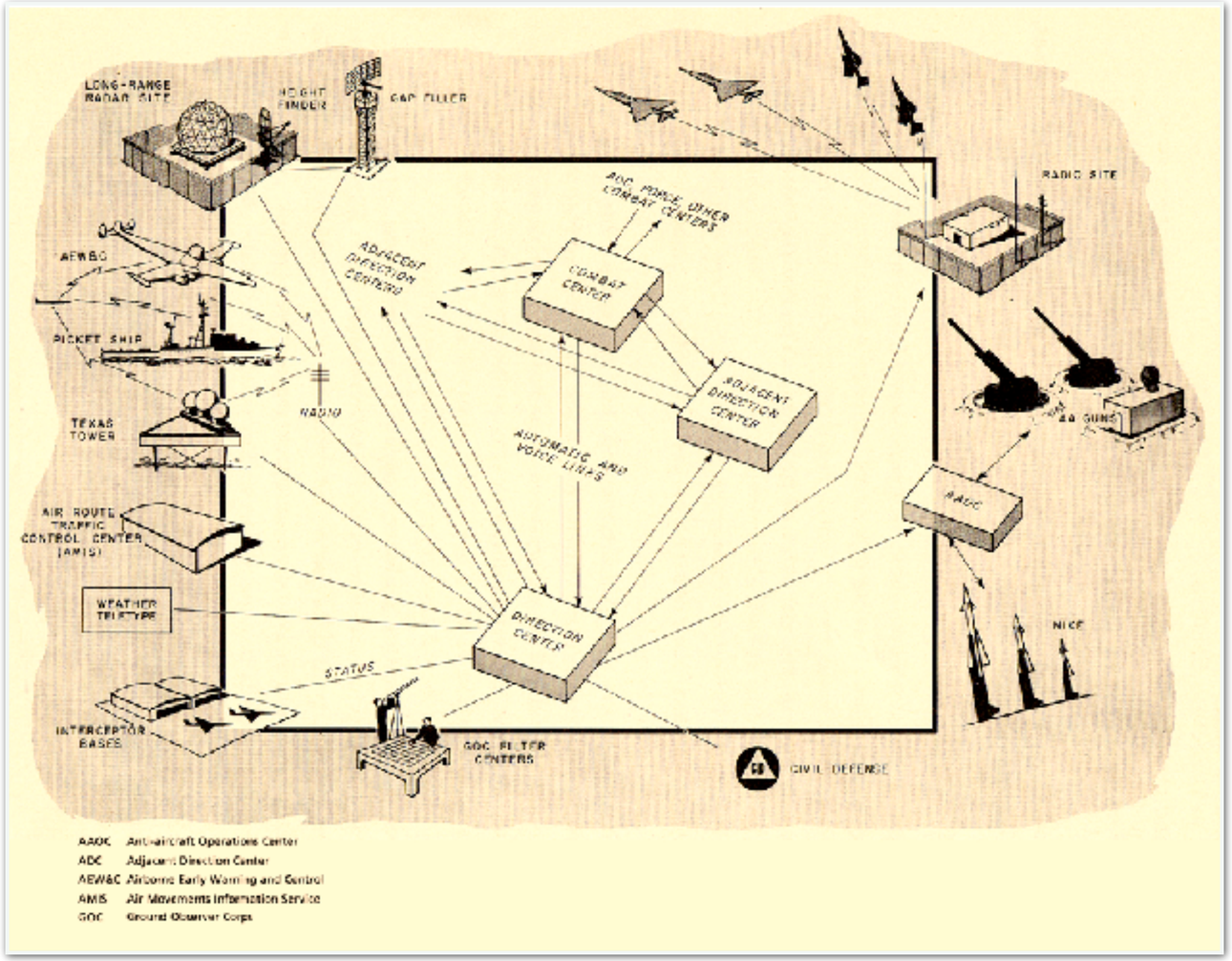
Adams; Gilmore: Bouncing Ball 1949

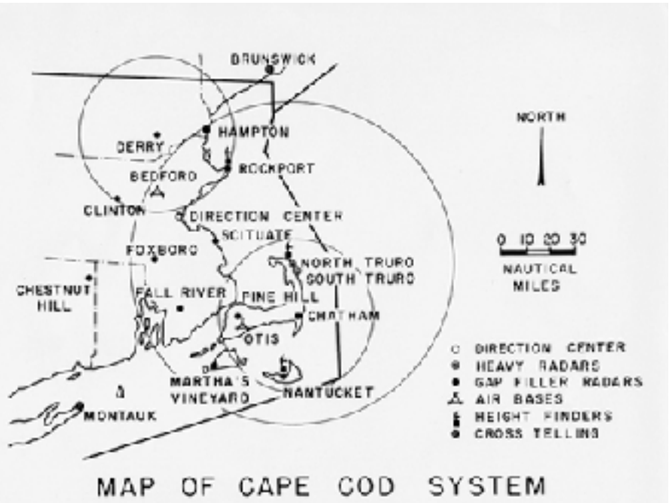
SAGE

Semi-Automatic Ground Environment, ab 1952

SAGE

Semi Automatic Ground Environment



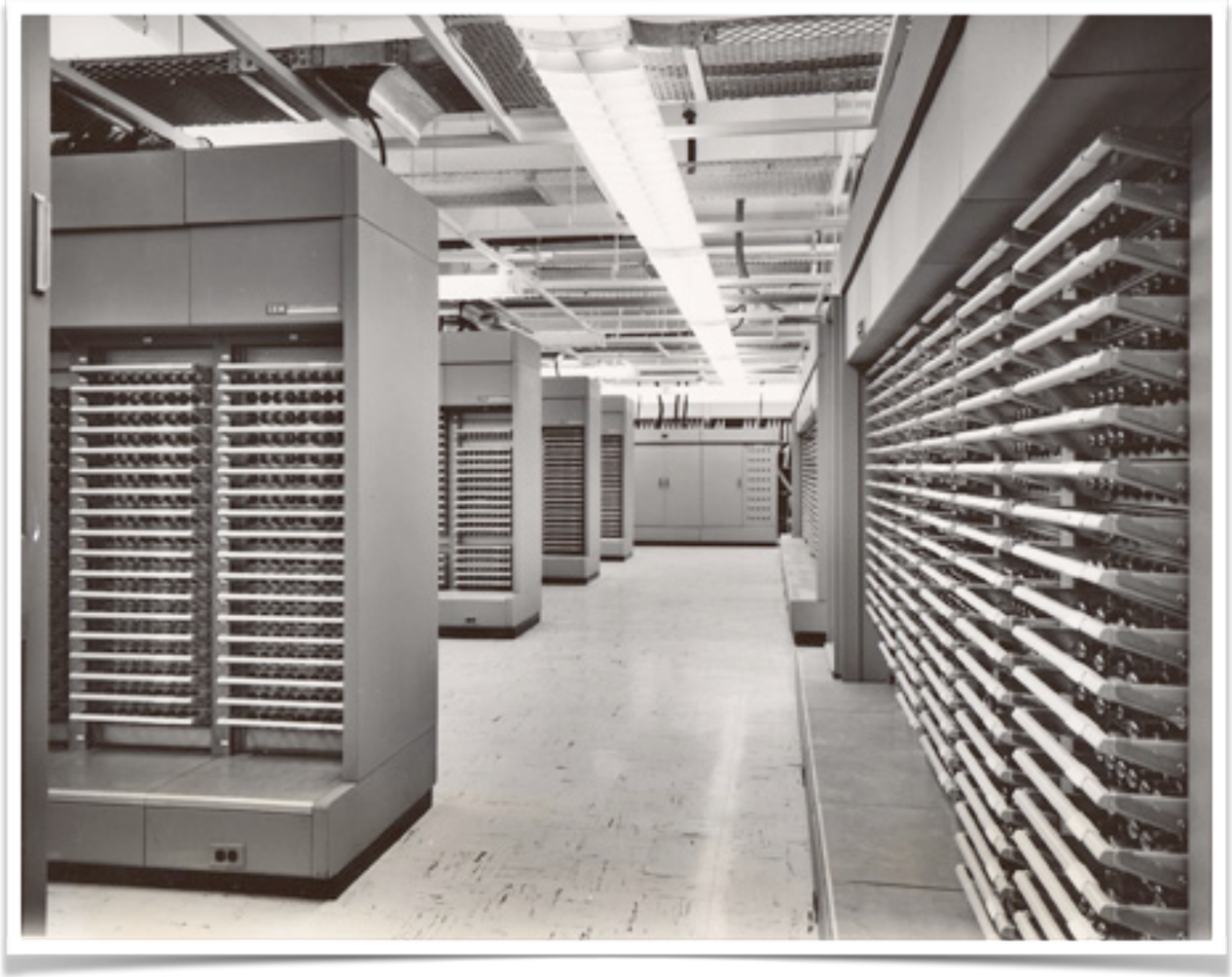


MAP OF CAPE COD SYSTEM

SAGE und die nationale Luftverteidigung

Wirkungen

Wegen der Entwicklung von Interkontinentalrakten war SAGE aus militärischer Sicht bereits während seiner Konstruktion veraltet. Dennoch waren die technischen Einflüsse enorm:



IBM: AN/FSQ-7, 1958

Magnetkernspeicher

Grafische Bildschirme

Lichgriffel

Echtzeit-Simulationen

A/D- und D/A-Wandler

Redundante Systeme

I/O-Puffer

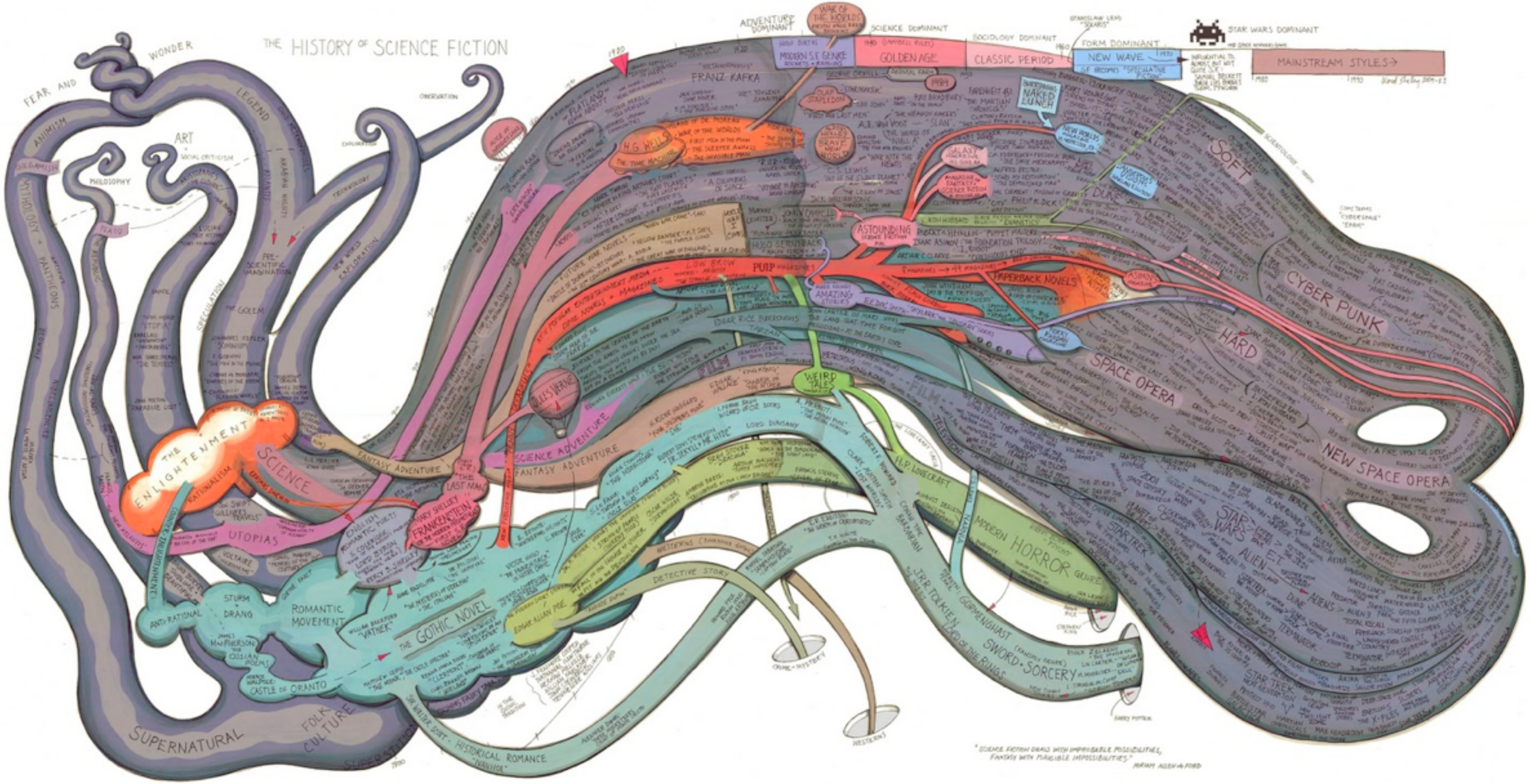
Mehrprozessorsysteme

IBM 7090, SABRE

Programmierer

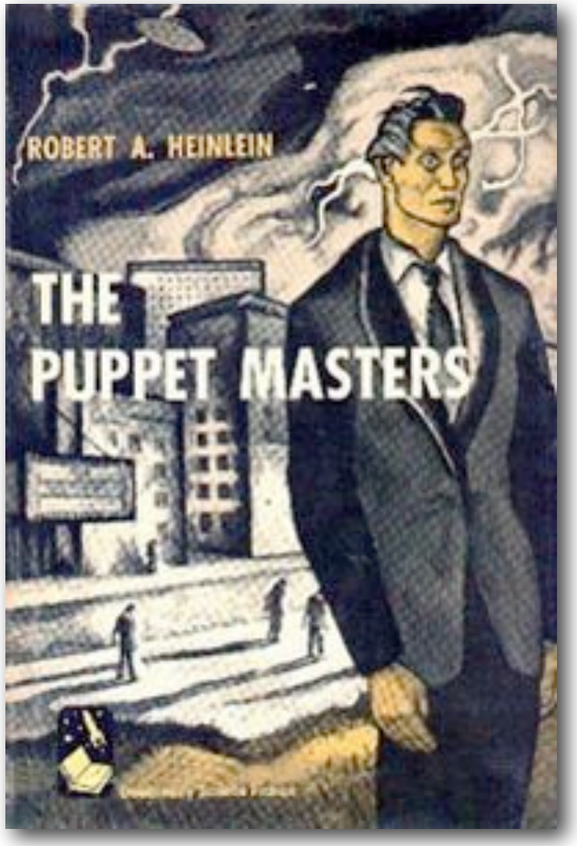
Digitale Datennetze

Modems



http://www.wardshelley.com/paintings/pages/fullpics/HistSciFi2.jpg

Golden Age of Science Fiction

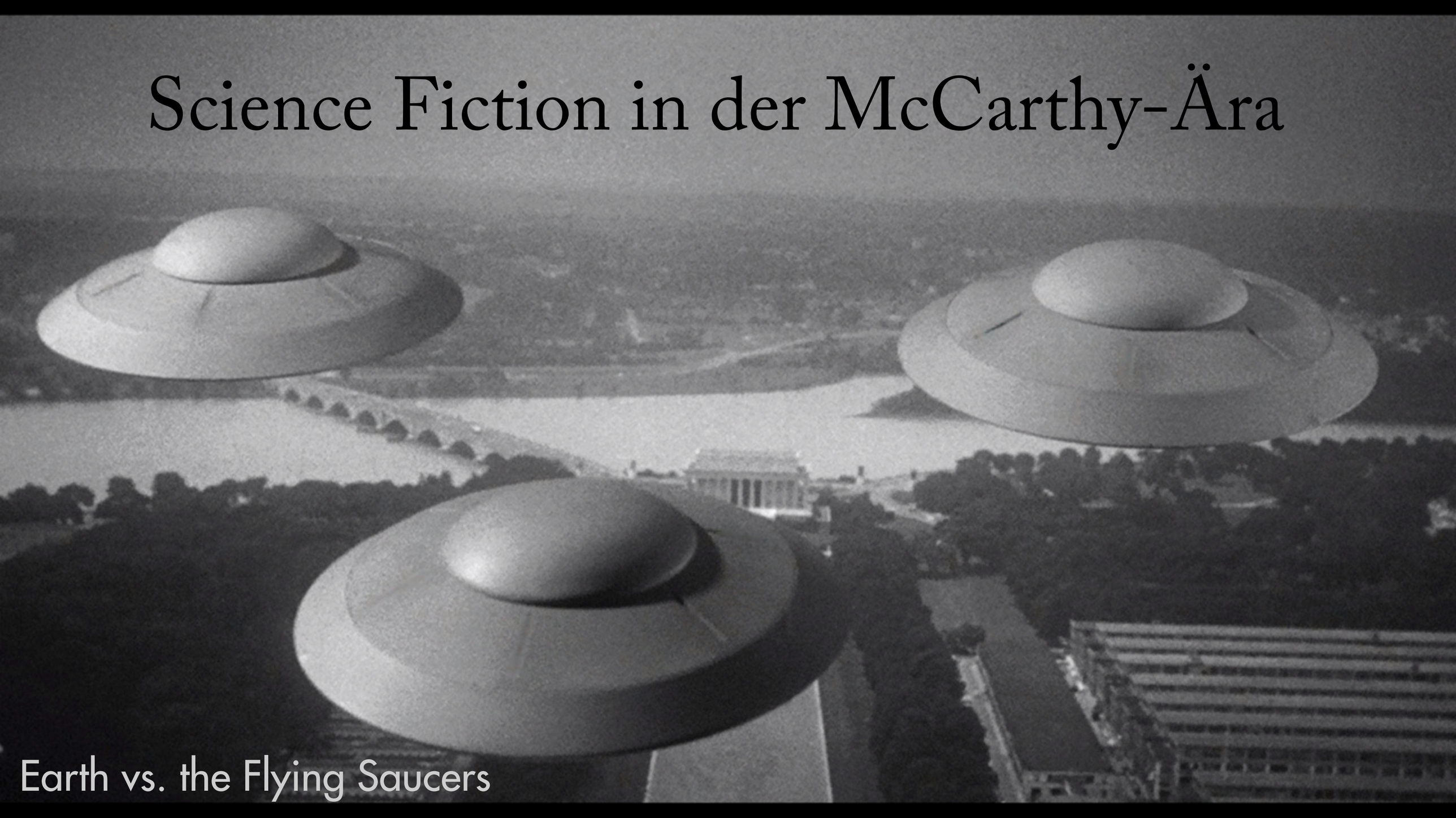


1950

1951

1953

Science Fiction in der McCarthy-Ära



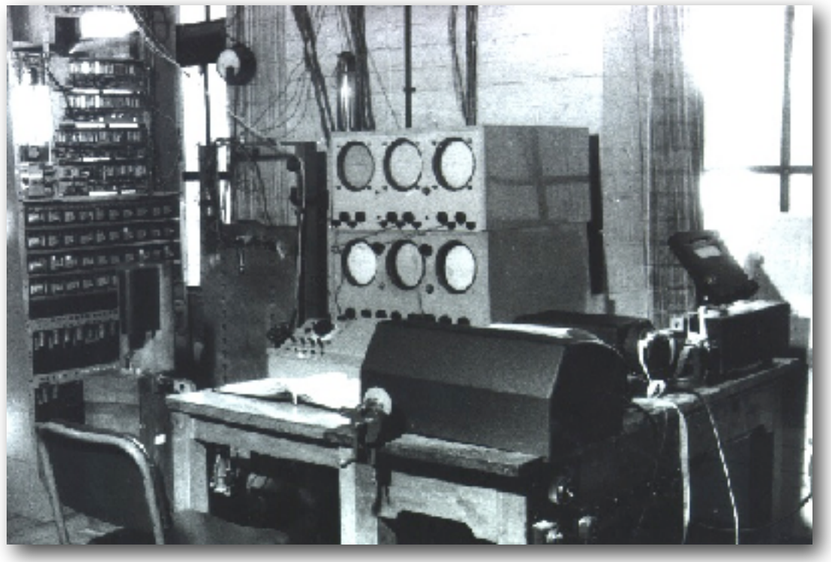
Earth vs. the Flying Saucers

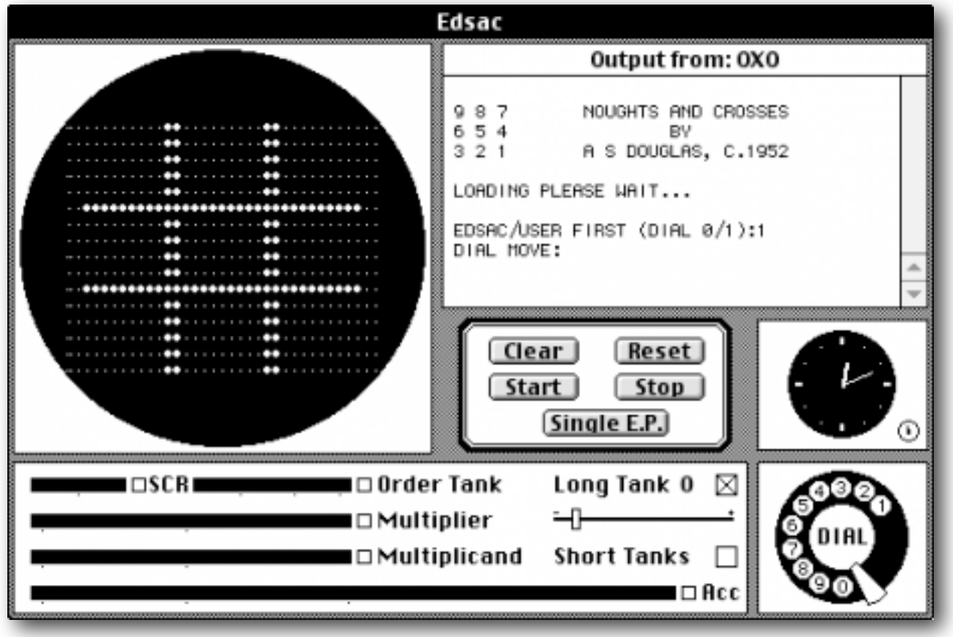

A FASCINATING ADVENTURE INTO THE UNKNOWN!
THE INCREDIBLE SHRINKING MAN
GRANT WILLIAMS · RANDY STUART
APRIL KENT · PAUL LANGTON · RAYMOND BAILEY
JACK ARNOLD ..... RICHARD MATHESON ..... ALBERT ZUGSMITH
UNSPEAKABLE HORRORS FROM OUTER SPACE PARALYZE THE LIVING AND RESURRECT THE DEAD!
PLAN 9 FROM OUTER SPACE
BELA LUGOSI
VAMPIRA
LYLE TALBOT
A J. Edward Reynolds Production
Produced and Directed by Edward D. Wood, Jr.
THE MAN WITH THE X-RAY MILLAND
THE THING
from another world
H.G. WELLS' THE TIME MACHINE
ROD TAYLOR · ALAN YOUNG · YVETTE MIMIEUX · SEBASTIAN CABOT · TOM HELMORE
GEORGE PAL
The INCREDIBLE becomes Real!
The IMPOSSIBLE becomes Fact!
The UNBELIEVABLE becomes True!
"THE DAY THE EARTH CAUGHT FIRE"
THIS ISLAND EARTH
2½ YEARS IN THE MAKING
THE SEAS MASTER-BEAST OF THE AGES- RAGING UP FROM THE
BILL TRAVERS · WILLIAM SYLVESTER
JOHN LORING and DANIEL HYATT · EUGENE LOURIE
FRANK KING and MAURI
ER STRIKES!
OR 100 FEET HIGH!
TULA!
FORBIDD

Nimrod

Ferrati, 1951

Noughts and Crosses (OXO)





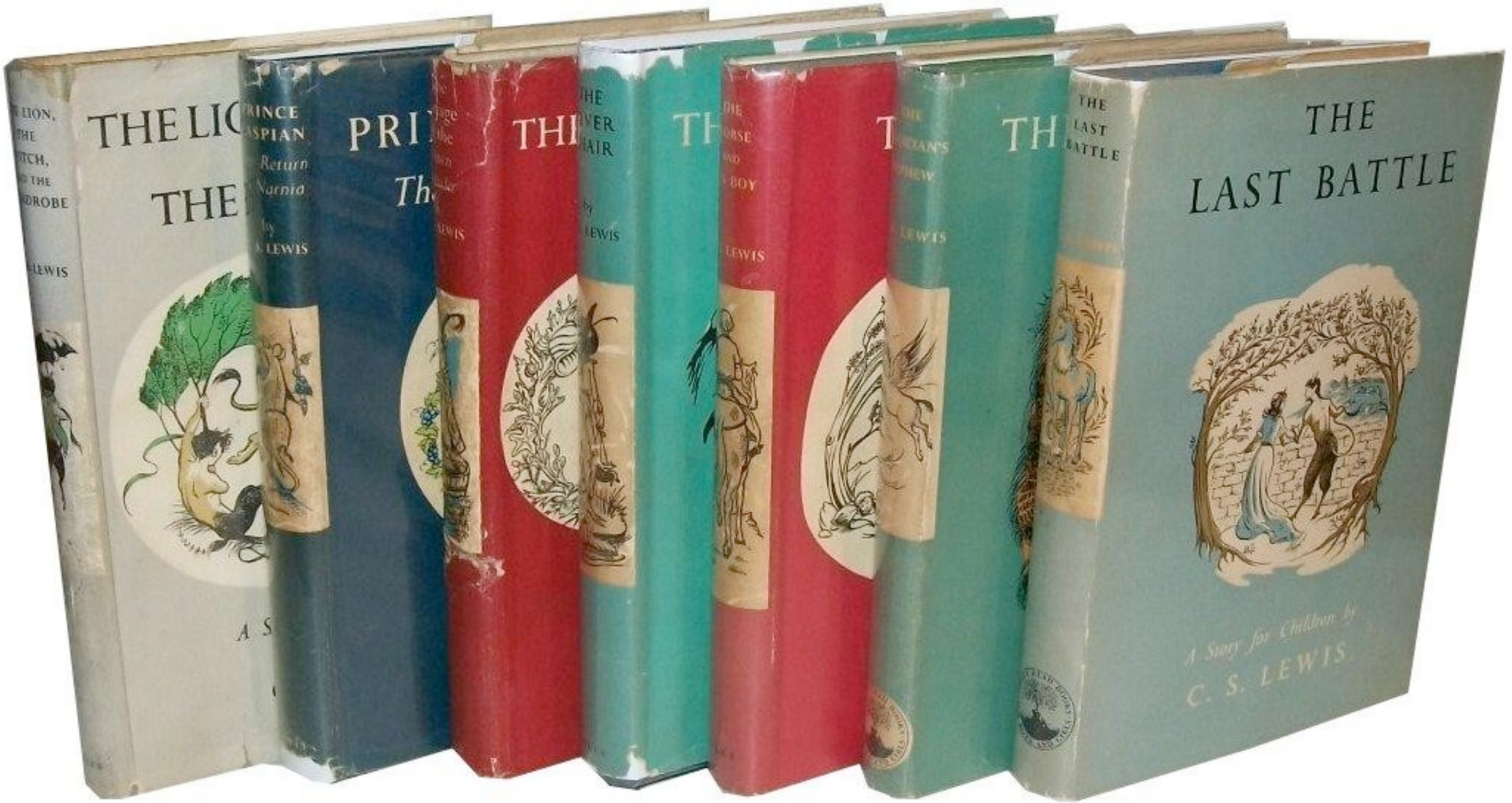
Alexander Sandy Douglas,
1952 EDSAC

Manga

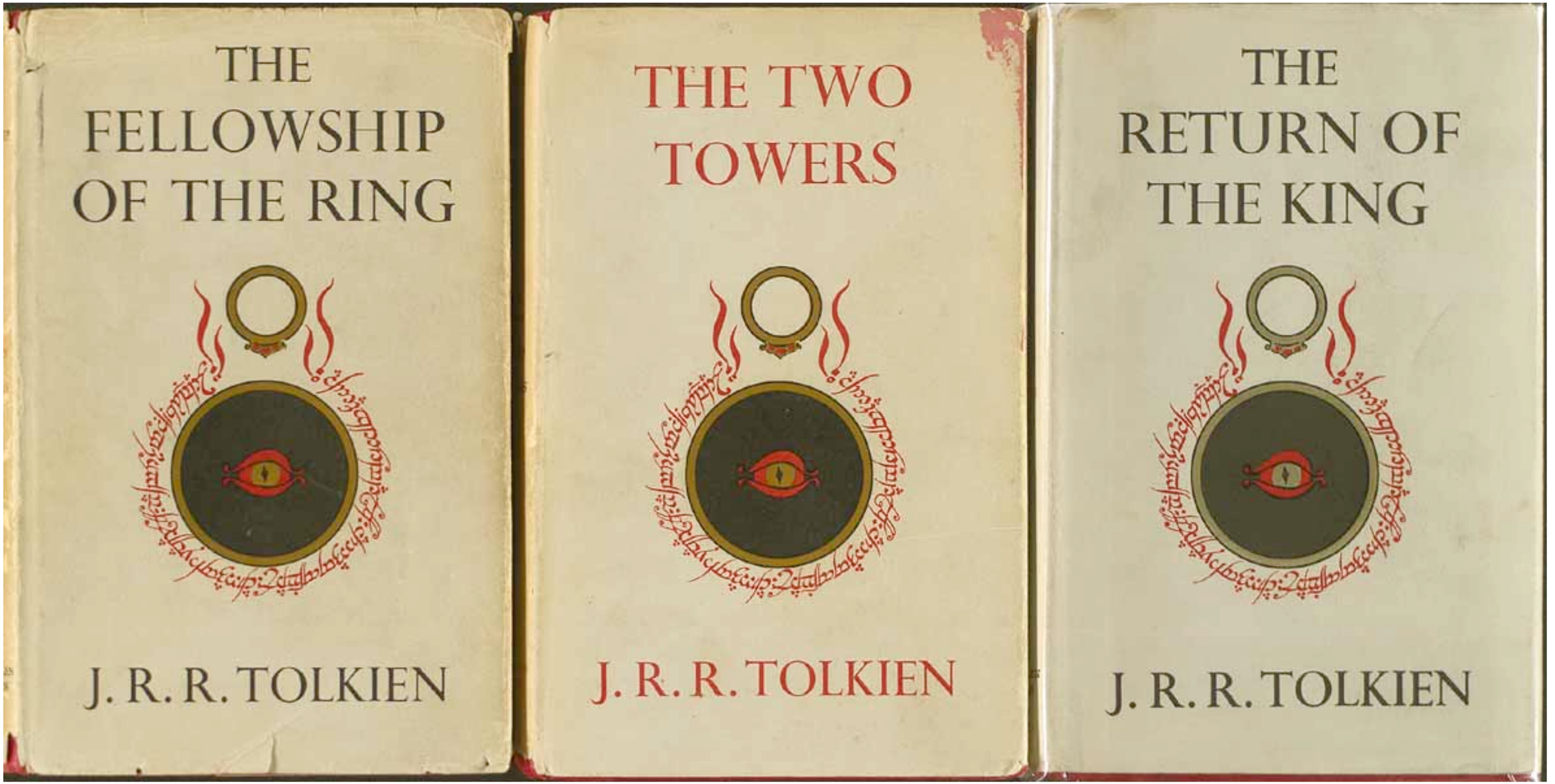
Osamu Tezuka: Astro Boy

ab 1952

Godzilla, 1954



C. S. Lewis: Chronicles of Narnia, 1949-54


THE
FELLOWSHIP
OF THE RING
J. R. R. TOLKIEN
THE TWO
TOWERS
J. R. R. TOLKIEN
THE
RETURN OF
THE KING
J. R. R. TOLKIEN

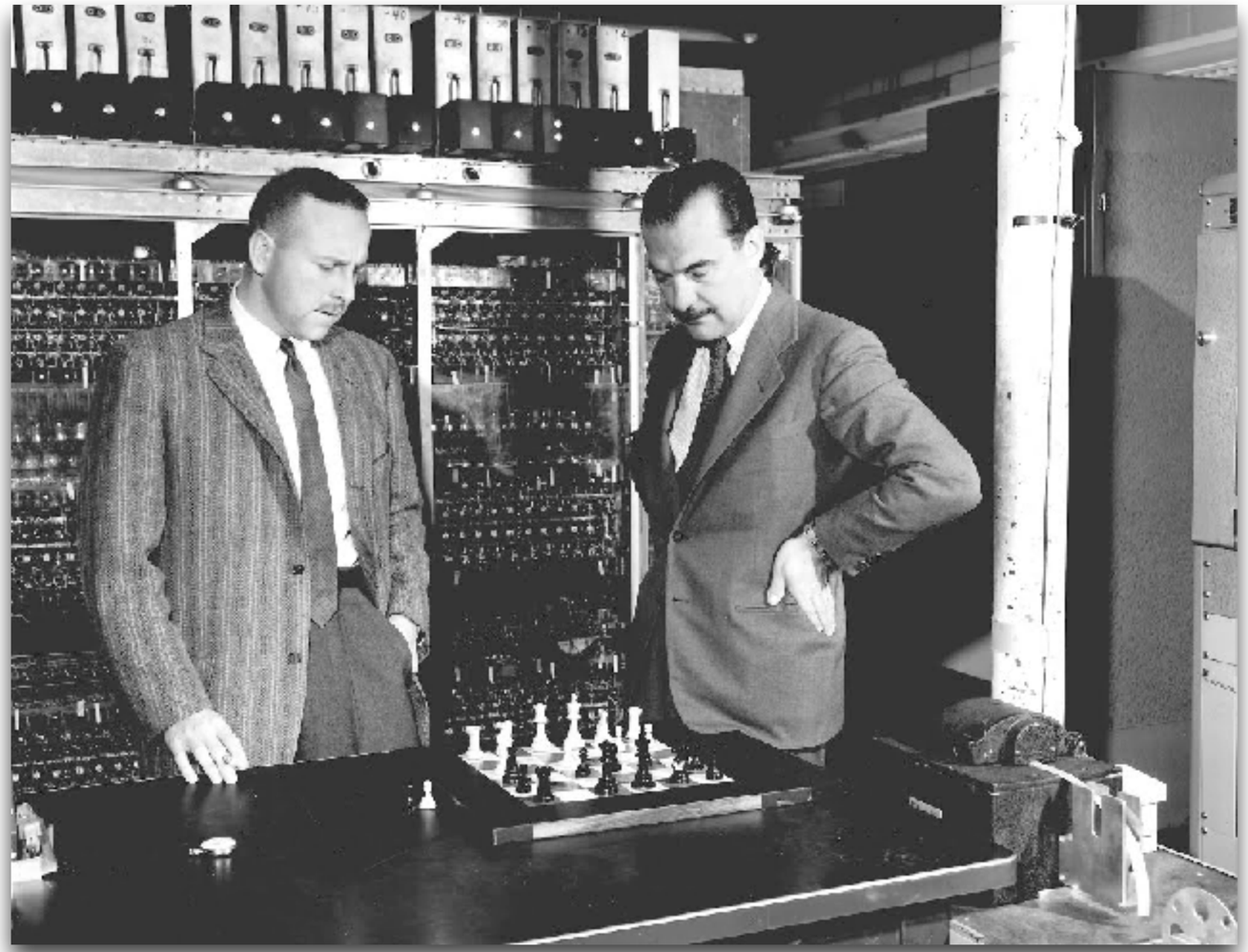
1954/55

Checkers (Dame)

On February 24, 1956, Arthur Samuel's Checkers program, which was developed for play on the IBM 701, was demonstrated to the public on television. In 1962, self-proclaimed checkers master Robert Nealey played the game on an IBM 7094 computer. The computer won. Other games resulted in losses for the Samuel Checkers program, but it is still considered a milestone for artificial intelligence, and offered the public in the early 1960s an example of the capabilities of an electronic computer.

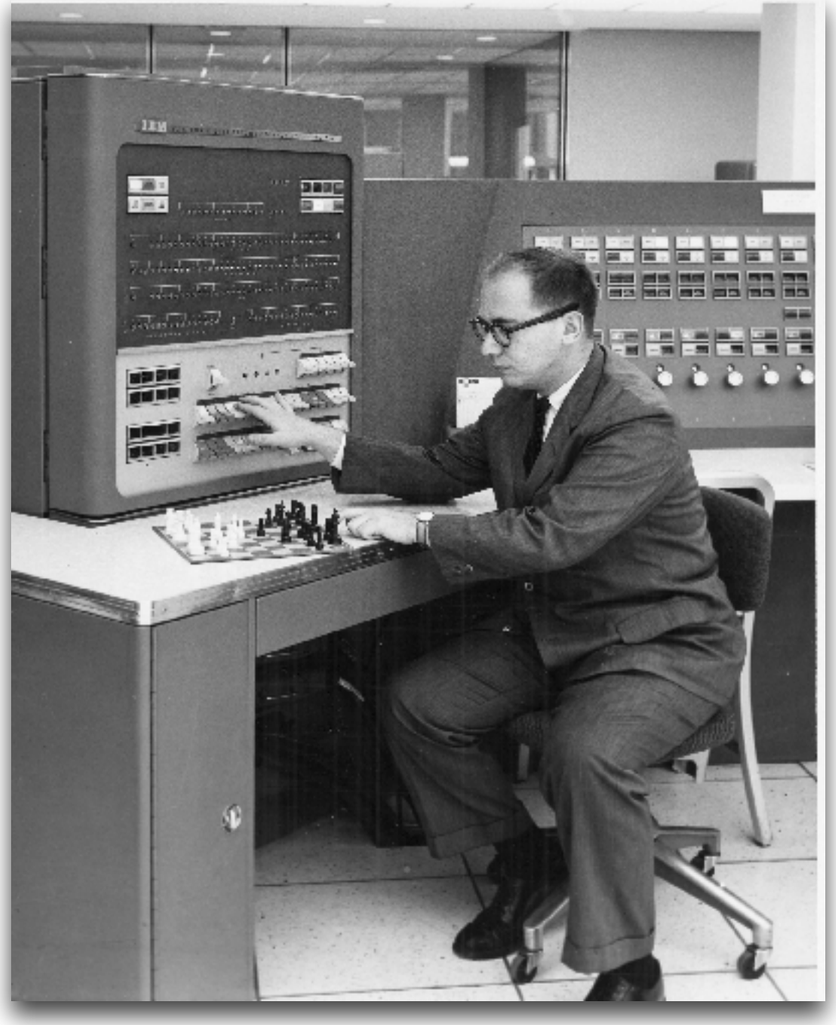
http://www-03.ibm.com/ibm/history/ibm100/us/en/icons/ibm700series/impacts/

Schachprogramme



Los Alamos Chess, 1956

http://chessprogramming.wikispaces.com/MANIAC+I

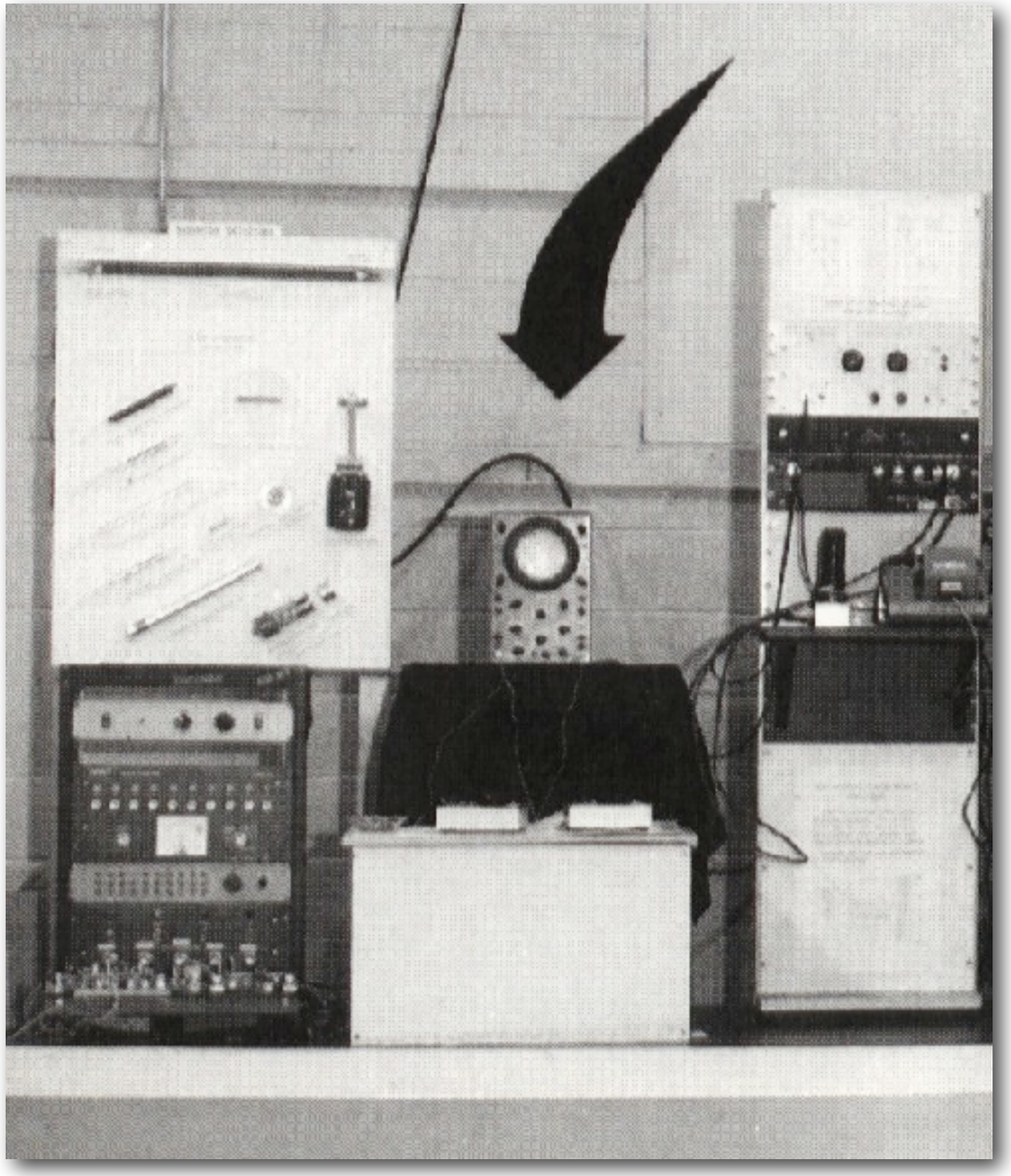


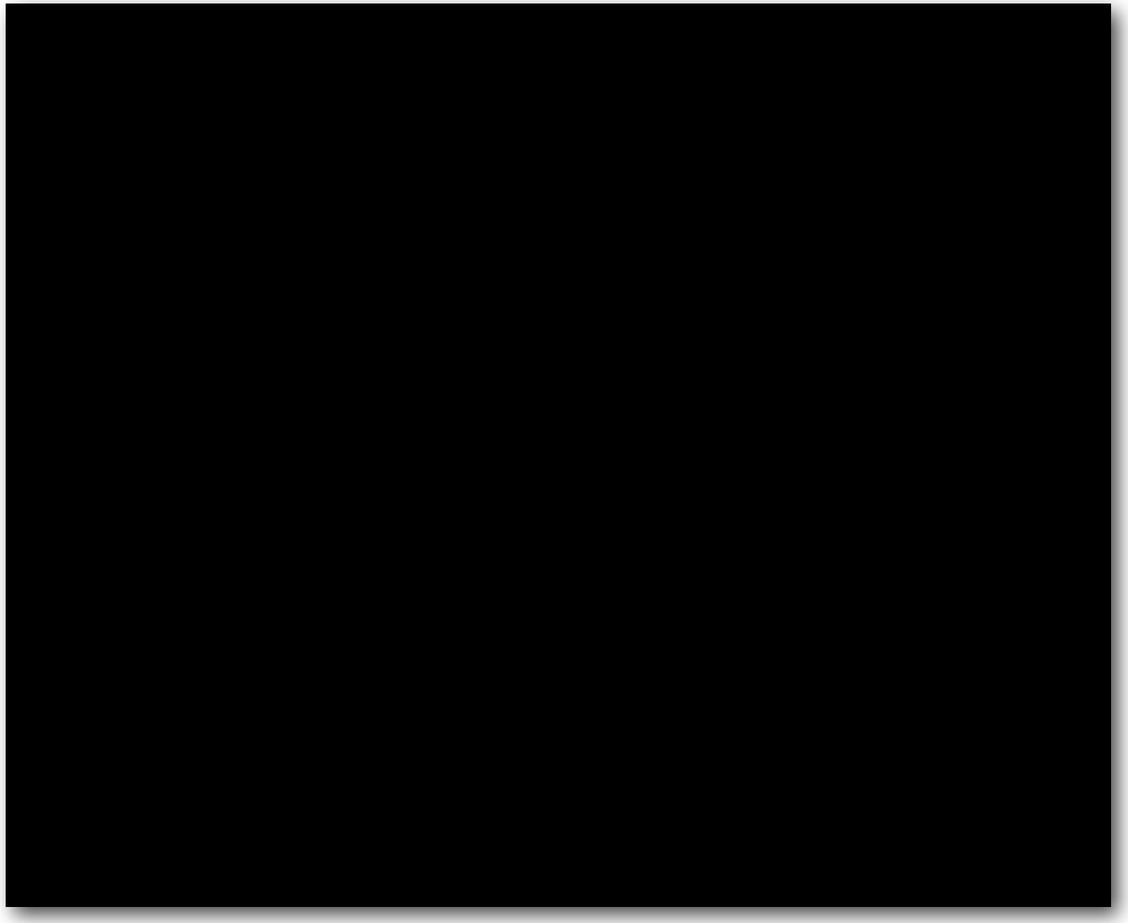
Bernstein Chess Program, 1957

http://chessprogramming.wikispaces.com/The+Bernstein+Chess+Program

Der Sputnik-Schock, 1957

Tennis for Two :: 1958





William A. Higinbotham & Robert V. Dvorak, 1958