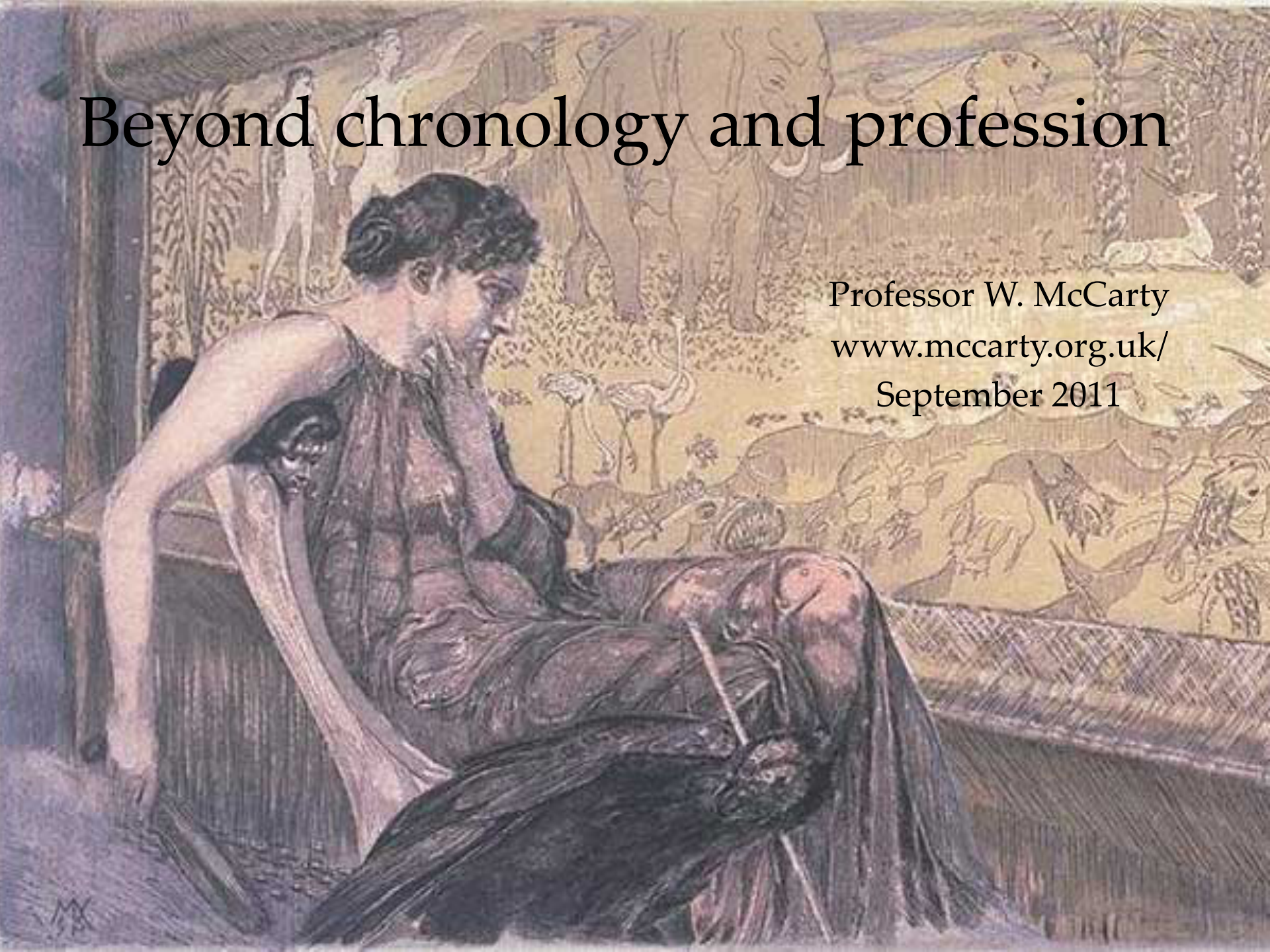
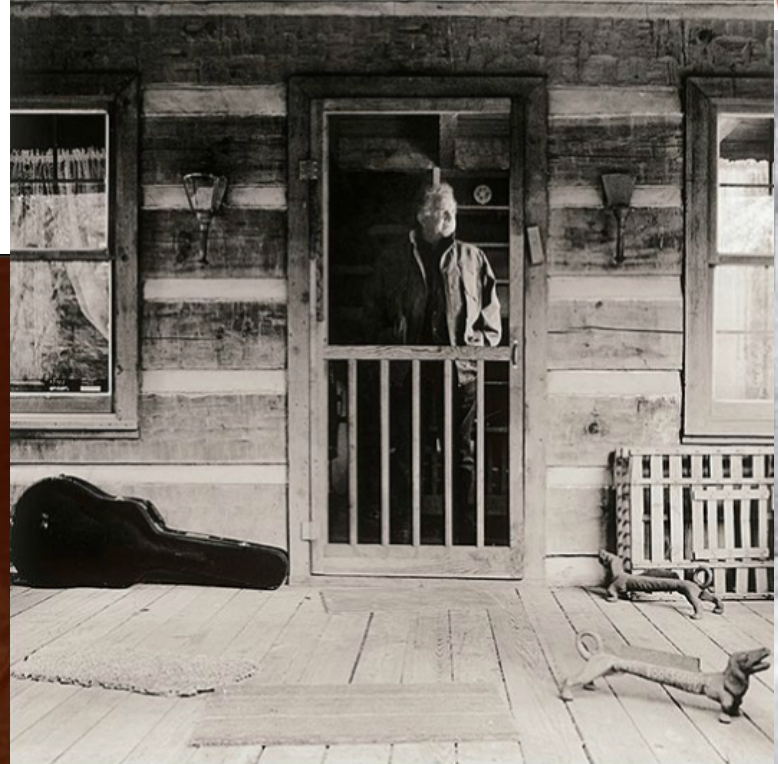
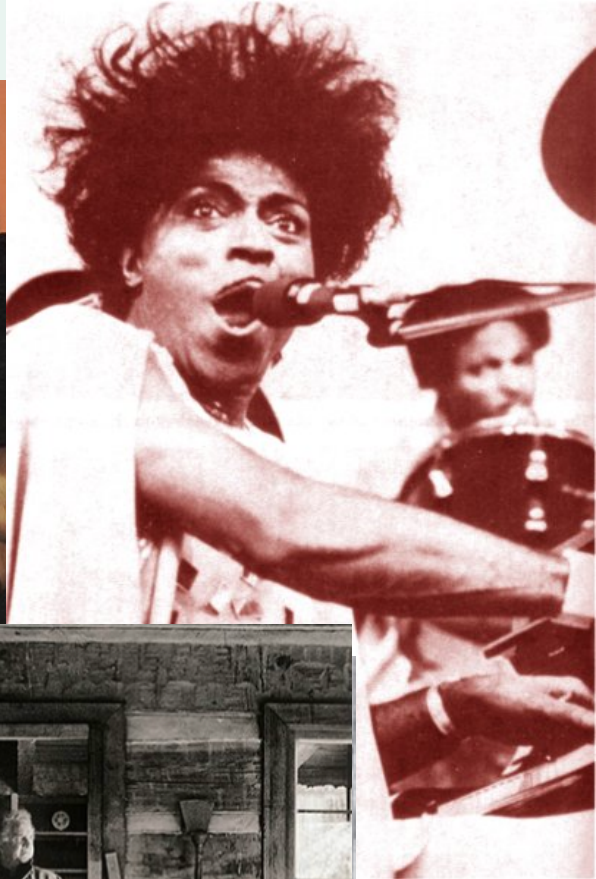
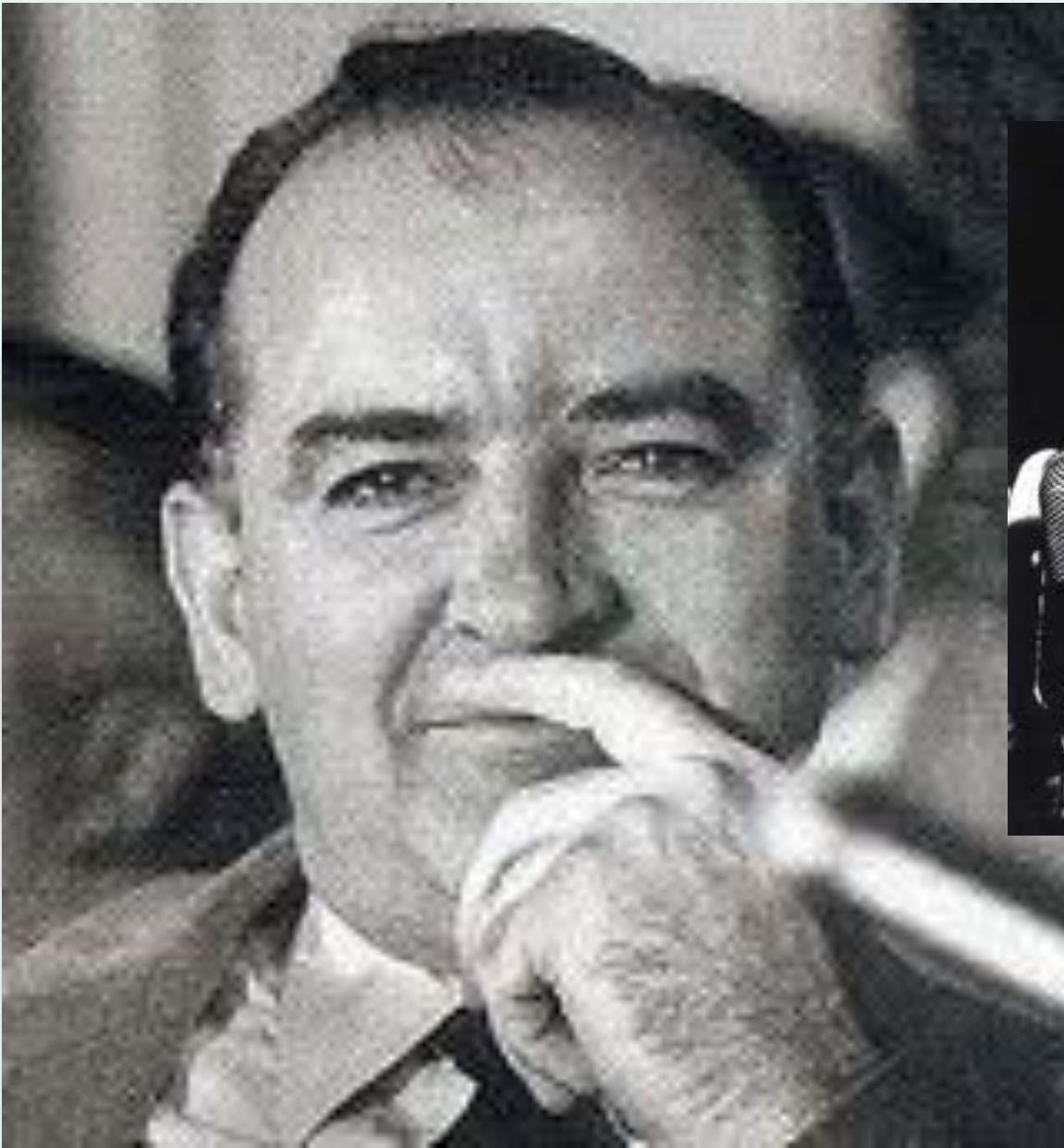


Beyond chronology and profession

Professor W. McCarty
www.mccarty.org.uk/
September 2011







Senator Joseph McCarthy



Ronald Reagan
testifying before
McCarthy, 1947

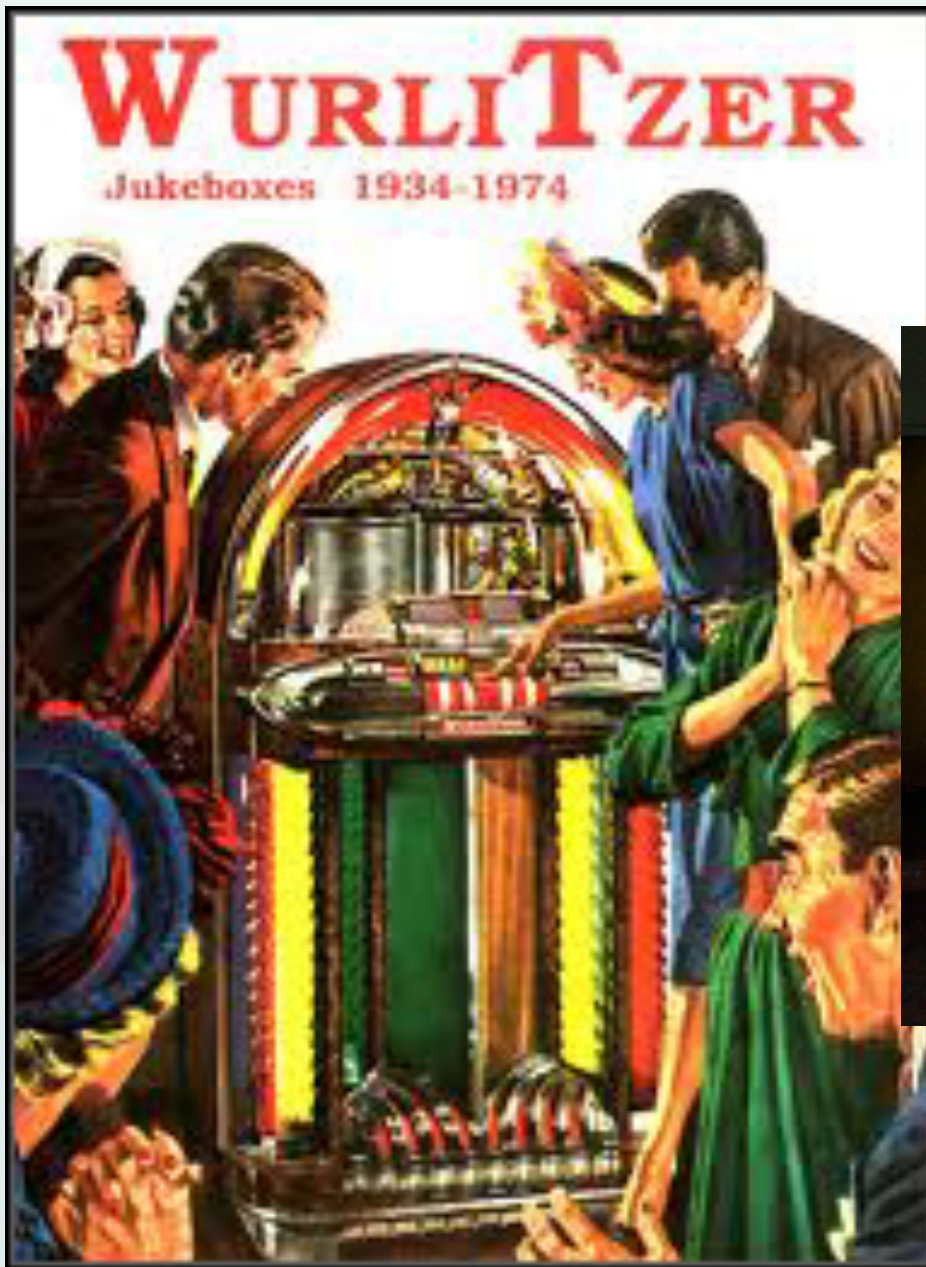


U.S. Civil Defense film,
Archer Productions, 1953

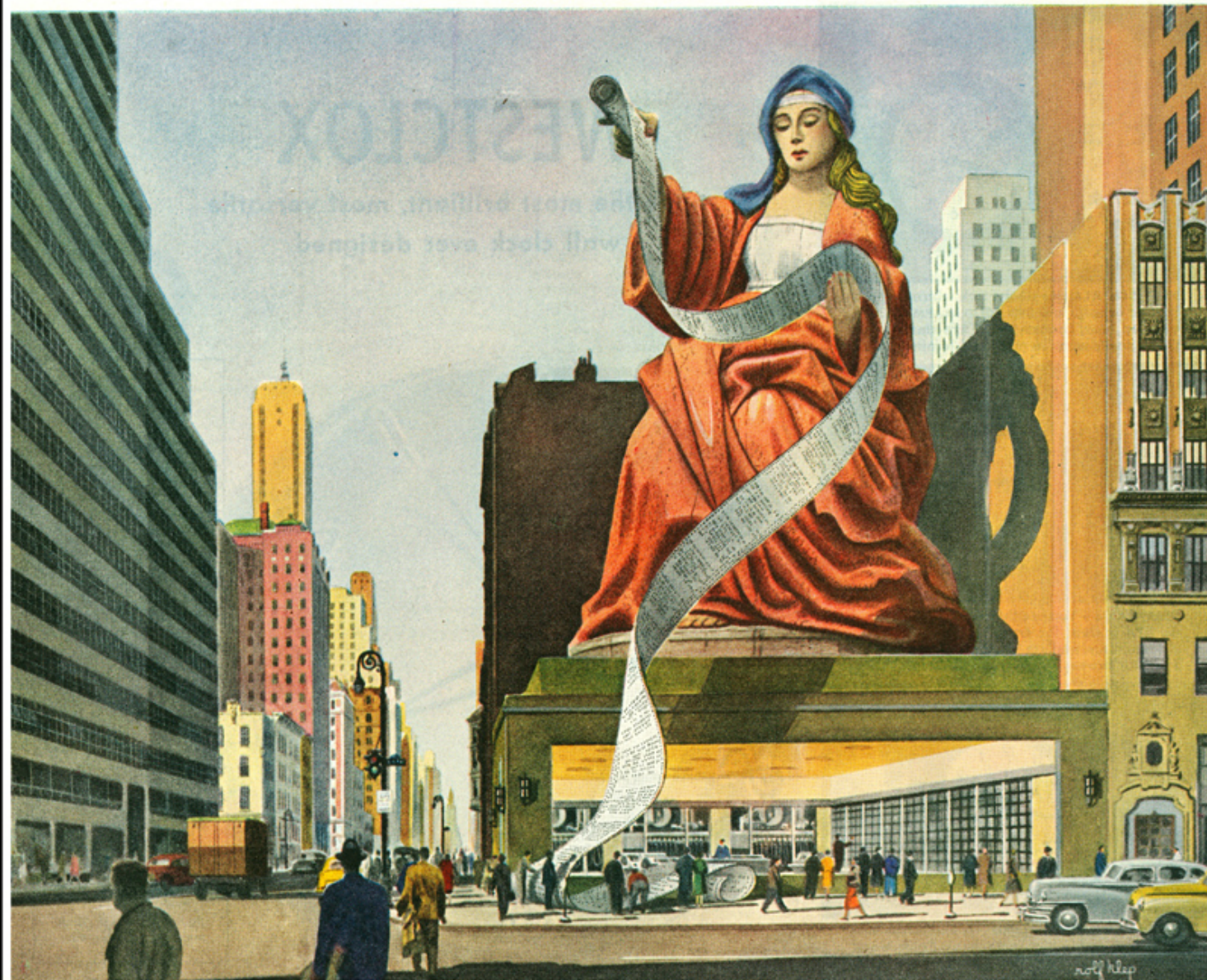
Atomic bomb test, Nevada Proving Ground
(Operation Upshot-Knothole), 1953.
Elapsed time = 2.6 seconds.

"We must be ready, every day, all the time"





Book vending machine, Hamburg



INTERNATIONAL BUSINESS MACHINES, famous name in office equipment, builds some of the world's most complex and efficient machines. Shell Industrial Lubricants are used in many operations.

Oracle on 57th Street

Saturday Evening Post, 16 December 1950: IBM World Headquarters, 57th Street and Madison Avenue, New York. The Selective Sequence Electronic Calculator (SSEC, nicknamed "Poppa" by passers-by) was in the front window.



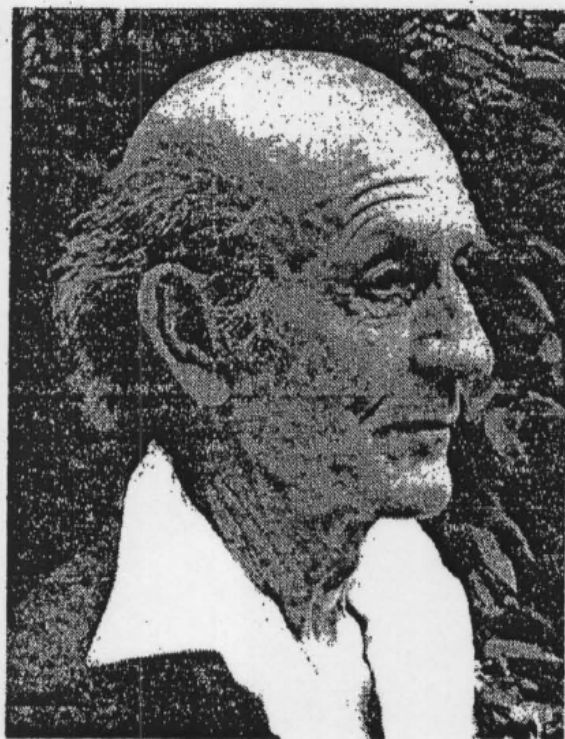
Control room,
Semi-Automatic
Ground Environment
anti-aircraft
system (SAGE), active
late 1950s to 1980s.

On screen is a portion
of the East Coast of
the U.S.

T.L.S.

THE TIMES LITERARY SUPPLEMENT

THURSDAY 23 APRIL 1970 • No. 3,556 • ONE SHILLING AND SIXPENCE



‘LITERARISM’ VERSUS ‘SCIENTISM’

The misconception and the menace

BY F. R. LEAVIS

A PUBLIC LECTURE GIVEN IN
THE UNIVERSITY OF BRISTOL

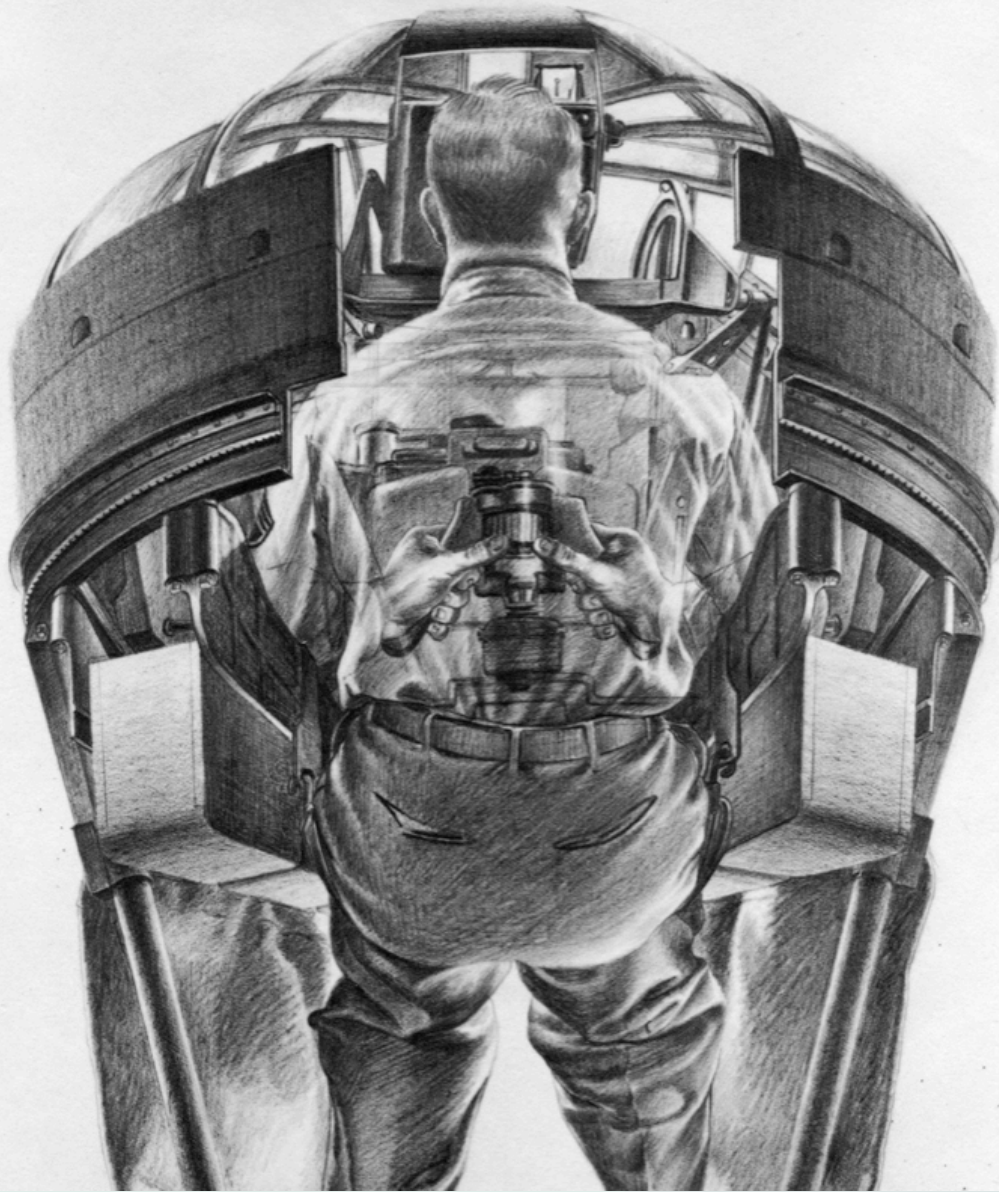
THE COMPUTER can in no way lift the responsibility from human shoulders." That reassuring statement caught my eye on the front page of the first issue

might be in place as to ends, hasn't been forgotten; the reassurance, accordingly, is thrown out—or thrown in; but the idea of its being required that it should mean some-

criteria, the statistical: "quality", that is, will look after itself. Clear implication? "Clear" isn't, perhaps, the right word; it might suggest that in any educated company,

formula. "Literarism versus Scientism", as my own. The term "literarism" was in fact coined by the late Aldous Huxley for use against me, and I quote it as rerepresenta-

that description, with its context of assumptions, is a dismissal. There's perhaps no reason why we shouldn't read them; they have, one gathers, what is claimed pre-eminently for



Alfredo Crimi, drawing of the Sperry Ball Turret, 1943.

MECHANICAL BRAINS WORKING IN METAL BOXES, COMPUTING DEVICES AIM GUNS AND BOMBS WITH INHUMAN ACCURACY

A great many of the best and boldest brains fighting this war do their work not in men's heads but in metal boxes. These are mechanical brains, the useful though pesky counterparts of the cinematic robots that go around with stoppage joints on their legs and electric coils sticking out like hair on their steel heads. The boxed brains are computing devices which 1) take certain conditions into account, 2) go through some mechanical mathematics and 3) quickly give an answer which automatically aims a gun or directs an airplane or drops a bomb.

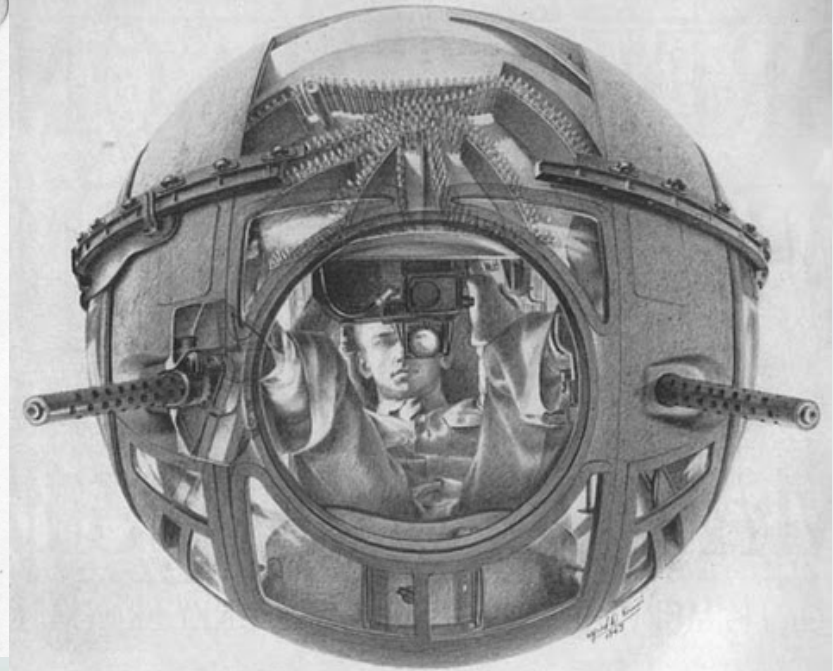
For a great many years the Sperry Gyroscopic Co. of Brooklyn, N.Y. has been in the business of building mechanical brains and putting them up in metal containers. Today Sperry's business is as

far-flung as the war itself. Sperry bombights help drop bombs on our enemies. Sperry gyroscopes guide airplanes everywhere over the world. Sperry gunights help knock enemy planes out of all the skies. Sperry control apparatus fires guns on land and sea.

One of the newer Sperry gadgets is the automatic gunight which is used in U.S. bomber gun turrets. The way this sight and turret work is shown in the drawings on these pages. The gunner lines up his target with two vertical hairlines in the sight. The trick is to keep the enemy plane exactly focused within these lines, which are moved in or out by means of a range knob as the target approaches or recedes. As he follows the target in its course, the sight automatically makes deduc-

tions from this "tracking" process, which it translates into the relative course and speed of the target. Taking this data, the range data and other factors like the weight of .50-cal. bullets, the gears and levers and circuits that make up the mechanical brain arrive with inhuman speed at an answer. The answer is expressed at the critical moment when the gunner presses his trigger and fires his .50-cal. machine gun at a target. The gunner's accuracy is not 100%. But it is far higher than it ever has been before in the short-lived history of combat aviation.

Sperry's involvement in aerial war goes back to the very beginning of war planes. The history of its development of the precision bombight is described in the series of drawings on pages 60-64.



The ball turret underneath a big bomber operates on the same principles that governs the turret explained in detail on opposite page. Peering through his automatic computing sight, the gunner swings his turret horizontally in a complete circle and vertically from the posi-

tion shown here, where guns are parallel to bottom of the plane, to position in which the gun point straight down. The bullets feed into .50-cal. guns through the system shown in cutaway part of the drawing. Electro-hydraulic mechanism of turret is made by Sperry.

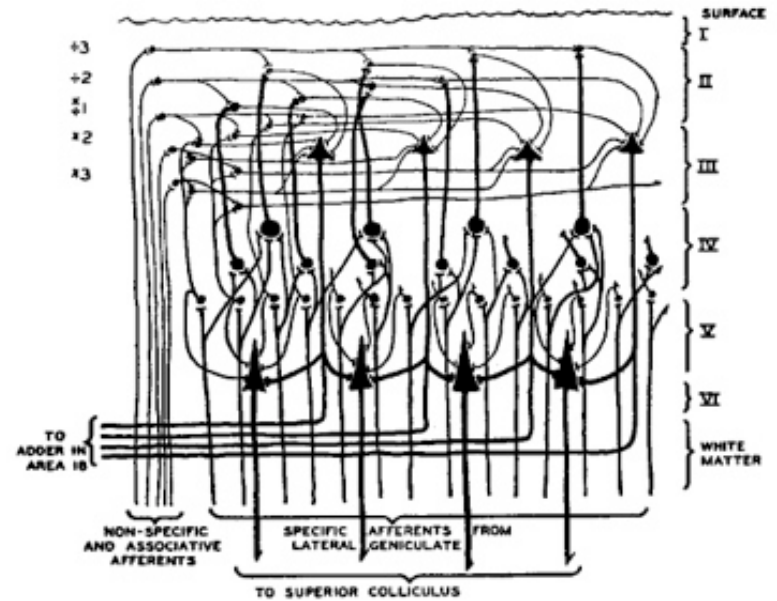
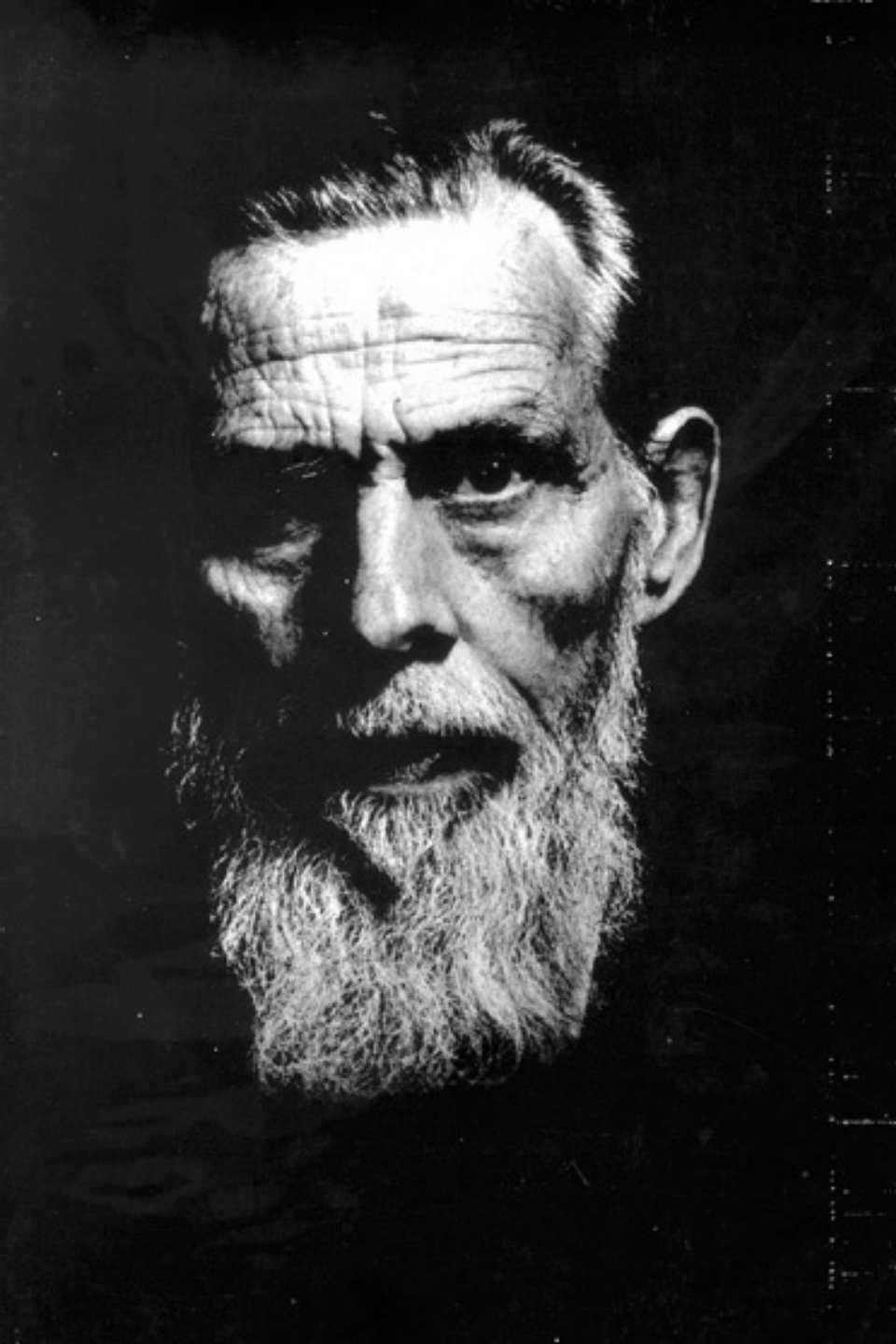
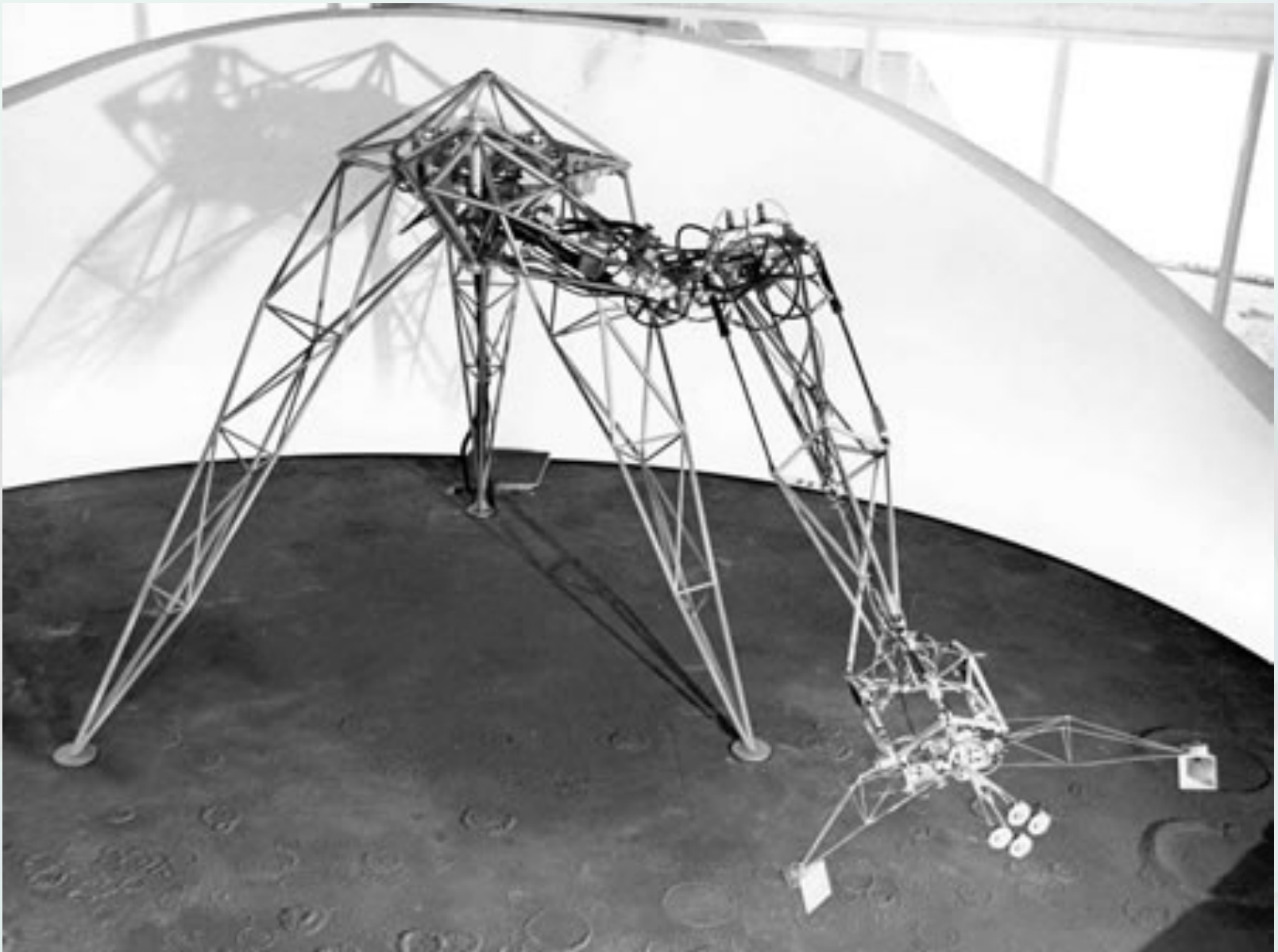


FIGURE 3. Impulses relayed by the lateral geniculate from the eyes ascend in specific afferents to layer IV where they branch laterally, exciting small cells singly and larger cells only by summation. Large cells thus represent larger visual areas. From layer IV impulses impinge on higher layers where summation is required from nonspecific thalamic afferents or associative fibers. From there they converge on large cells of the third layer which relay impulses to the parastriate area 18 for addition. On their way down they contribute to summation on the large pyramids of layer V which relays them to the superior colliculus.

Walter Pitts and Warren S McCulloch, "How we know universals: The perception of auditory and visual forms" (1947)

Warren Sturgis McCulloch (1898-1969)



Edward Ihnatowicz's *Senster*, a 15-foot interactive hydraulic robot commissioned by Philips, Eindhoven, 1970.

Cybernetic Serendipity

Serendipity

Αἰσθησιμασία

the faculty of making
happy chance discoveries

by means of control and communication machines
both human and electronic

an exhibition

at the Institute of Contemporary Arts
London, England
August 2 - October 29

and other
serendipitous
manifestations

Institute
of Contemporary
Arts

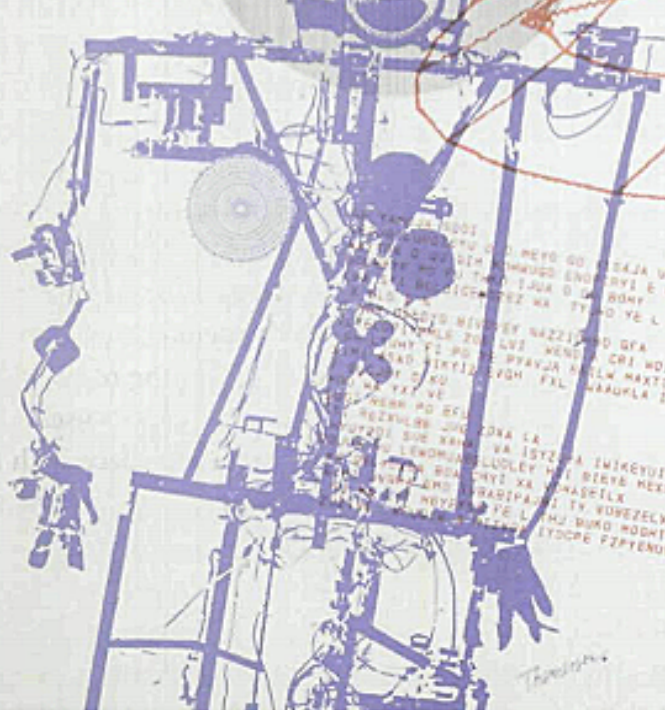
August 2 - October 29



University of London, London, UK

Director: Professor Sir Kenneth
Clyne
Chairman: Sir Kenneth
Clyne
Secretary: Miss
Clyne

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Post Office Box 156



ENERGETIC
SERENDIPITY
LECTURES



August 11 - October 17, 1968
During the course
of the Serendipity exhibition
at the Institute of Contemporary Arts
in London and elsewhere at other
institutions, the following lectures
will be given:

- Thursday August 8
- Tuesday August 13
- Thursday August 15
- Tuesday August 20
- Tuesday August 27
- Tuesday September 3
- Thursday September 5
- Tuesday September 10
- Thursday September 12
- Thursday September 19
- Tuesday September 24
- Thursday September 26
- Tuesday October 1
- Tuesday October 8
- Thursday October 10
- Thursday October 17

Dr. C. W. Ockler
Senior Lecturer in Mathematics,
University of London, London, UK
Member of the Institute of Mathematics and
Statistics, University of London

Professor Robert R. Taylor
Director of the Institute of Systems Studies,
University of London, London, UK
Member of the Institute of Mathematics and
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Dr. R. G. Barron
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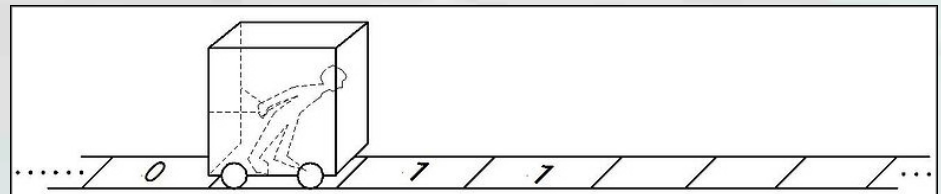
Images from/of 1936



Leaflet on automation, Trades Union Congress, Great Britain



Taylorian factory work depicted by Charlie Chaplin in *Modern Times*



"We may compare a man in the process of computing a real number to a machine which is only capable of a finite number of conditions...." (Turing)

Caspar David Friedrich,
*Der Wanderer über dem
Nebelmeer* (1818)



ἔνθα καὶ ἡματίη μὲν ὑφαίνεσκον μέγαν ἱστόν,
Then by day I would weave at the great web,
νύκτας δ' ἀλλύεσκον, ἐπεὶ δαΐδας παραθείμην.
but by night under torchlight I would unravel it.

Homer, *Odyssey* 19.149-50

