

# History of Computer Art

URL: [http://iasl.uni-muenchen.de/links/GCA\\_Indexe.html](http://iasl.uni-muenchen.de/links/GCA_Indexe.html)

## **Part II: Cybernetic Sculptures**

Seminar, 28<sup>nd</sup> April 2014

Danube University Krems

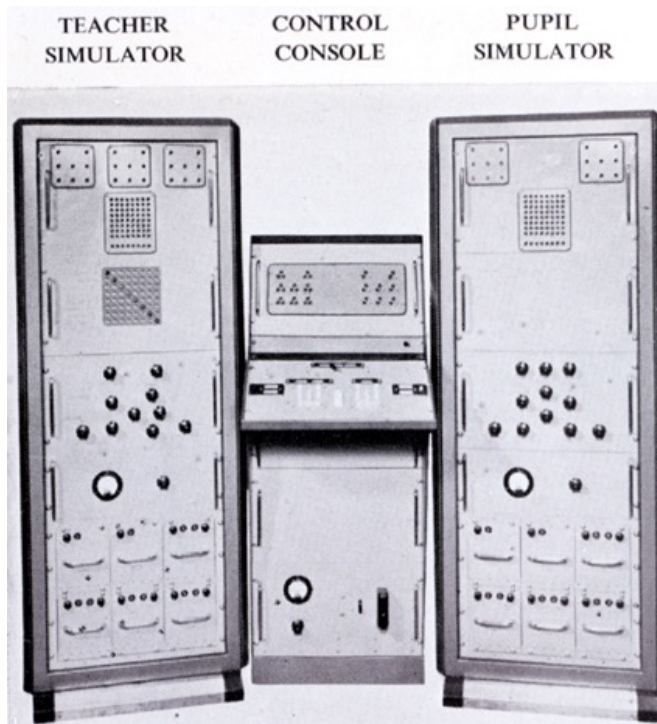
Department for Arts and Image Science

MediaArHistories: Masters of Art

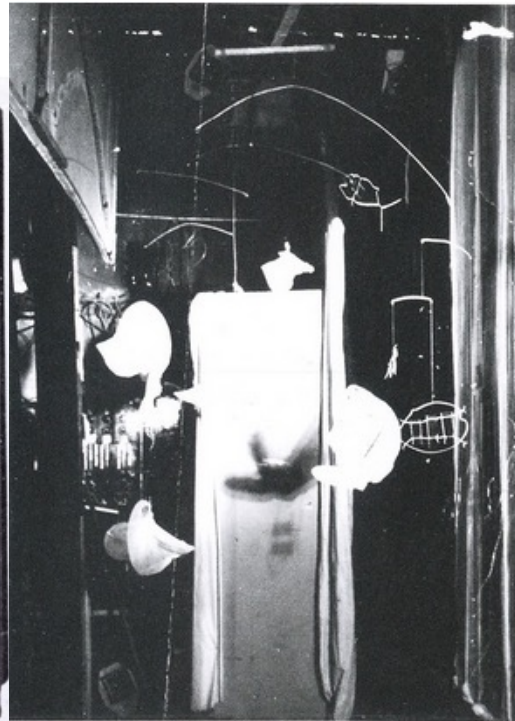
Thomas Dreher

URL: <http://dreher.netzliteratur.net>

# Gordon Pask: Early Works

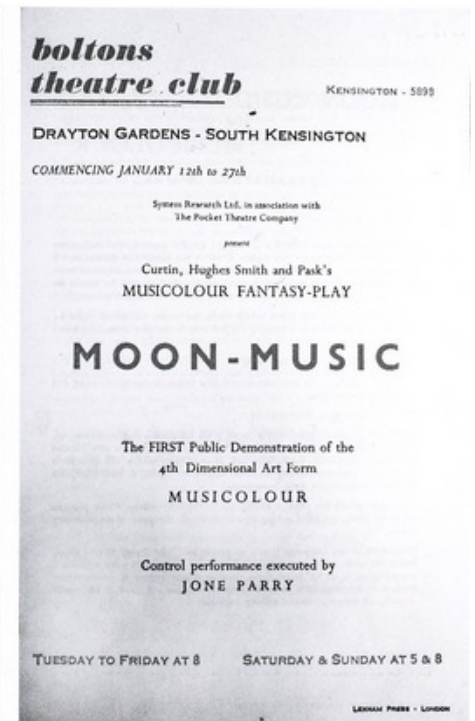


Solartron EUCRATES II, ca. 1956 (Pask: Approach 1961, pl.I 8(i)).



Musicolour, Boltons Theatre Club, South Kensington 1954.

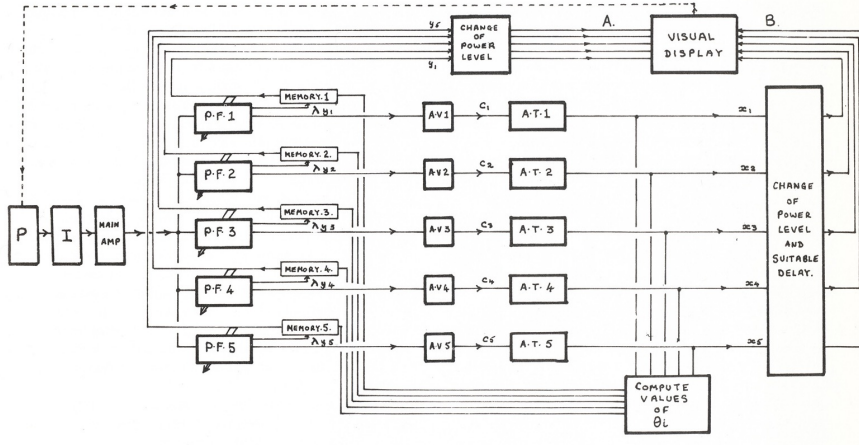
Left: Stage with a projection screen for Musicolour.



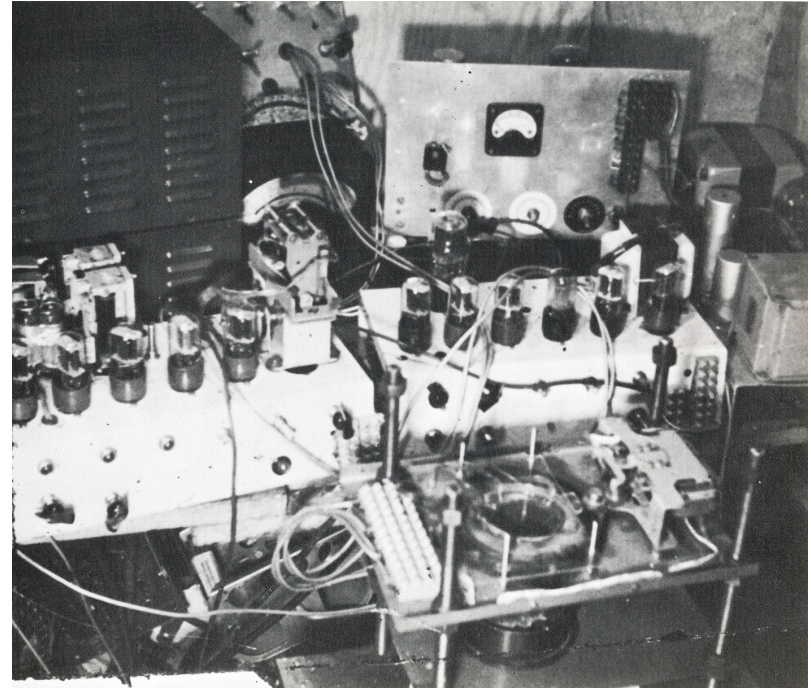
Right: Moon-Music, playbill (Rosen: Control 2008, p.139).

# Gordon Pask: Musicolour 1953-57

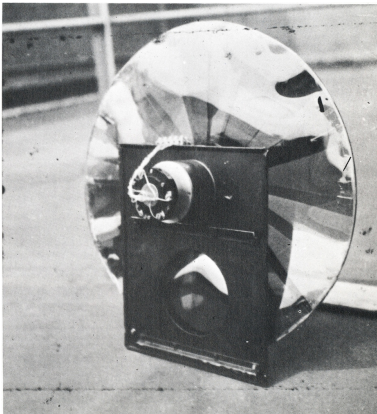
Fig. 26 Outline of a typical Musicolour system.  $P$  = Performer,  $I$  = Instrument and microphone,  $A$  = inputs,  $y_i$ , to visual display that specify the symbol to be selected,  $B$  = inputs,  $x_i$ , to the visual display that determine the moment of selection.  $PF$  = property filter,  $AV$  = averager,  $AT$  = adaptive threshold device. Memories hold values of  $(y_i)$  and  $(x_i)$ . Control instructions for adjusting the sequence of operation are not shown. Internal feedback loops in the adaptive threshold devices are not shown.



Circuit diagram (Pask: Comment 1971, p.79, fig. 26).



Electrochemic system (Pask: Comment 1971, p.85, fig.31).



Projection wheel controlled by a servomechanism (Pask: Comment 1971, p.81, fig.27).

## Nicolas Schöffer: CYSP 1, 1956



Left: exhibition, Institute of Contemporary Arts, London 1960.

Image source: URL: <http://www.olats.org/schoffer/img/cyspica2.jpg>



Image Source:  
<http://www.thecentreofattention.org/exhibitions/feCYSP1sm.jpg>

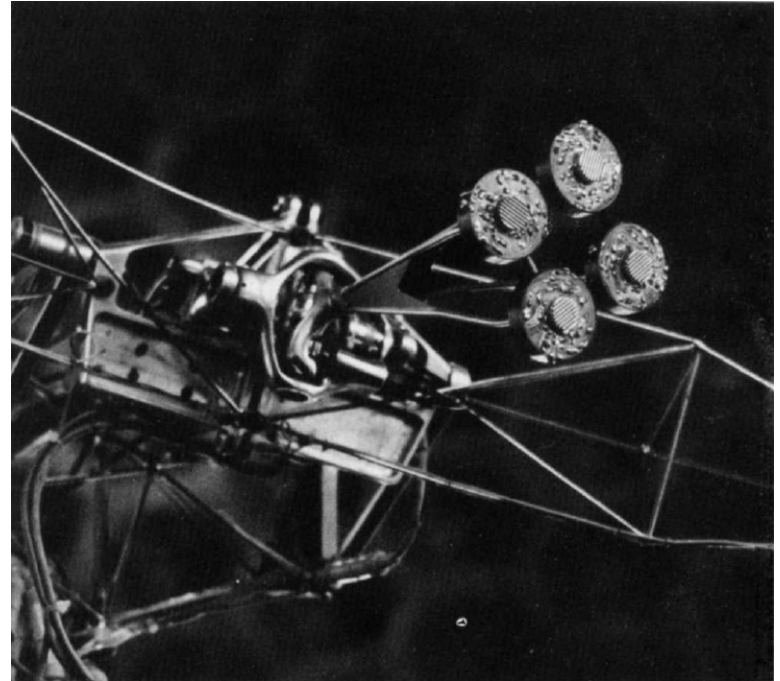


# Edward Ihnatowicz

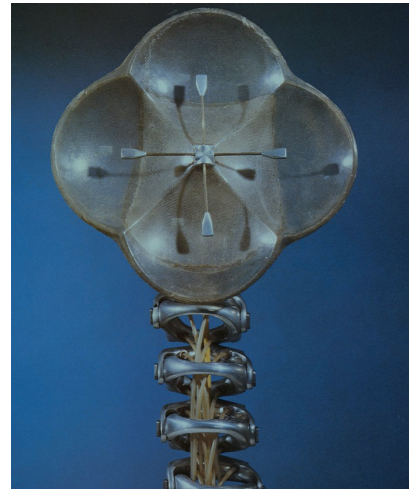


Top Left: The Senster, 1970, in Evoluon, Eindhoven.

Image source: URL: <http://www.dse.nl/~evoluon/senster3k.jpg>



Top Right: The Senster, 1970, four microphones.



Bottom Right: SAM, 1968 (Ihnatowicz: Cybernetic Art 1986, Cover).

# Reactive Installations with Computing Processes (II)



Pask, Gordon: Colloquy of Mobiles, 1968  
(installed at "Cybernetic Serendipity", Institute of Contemporary Art, London 1968. Pask: Comment 1971, p.90,97, fig. 34,40).

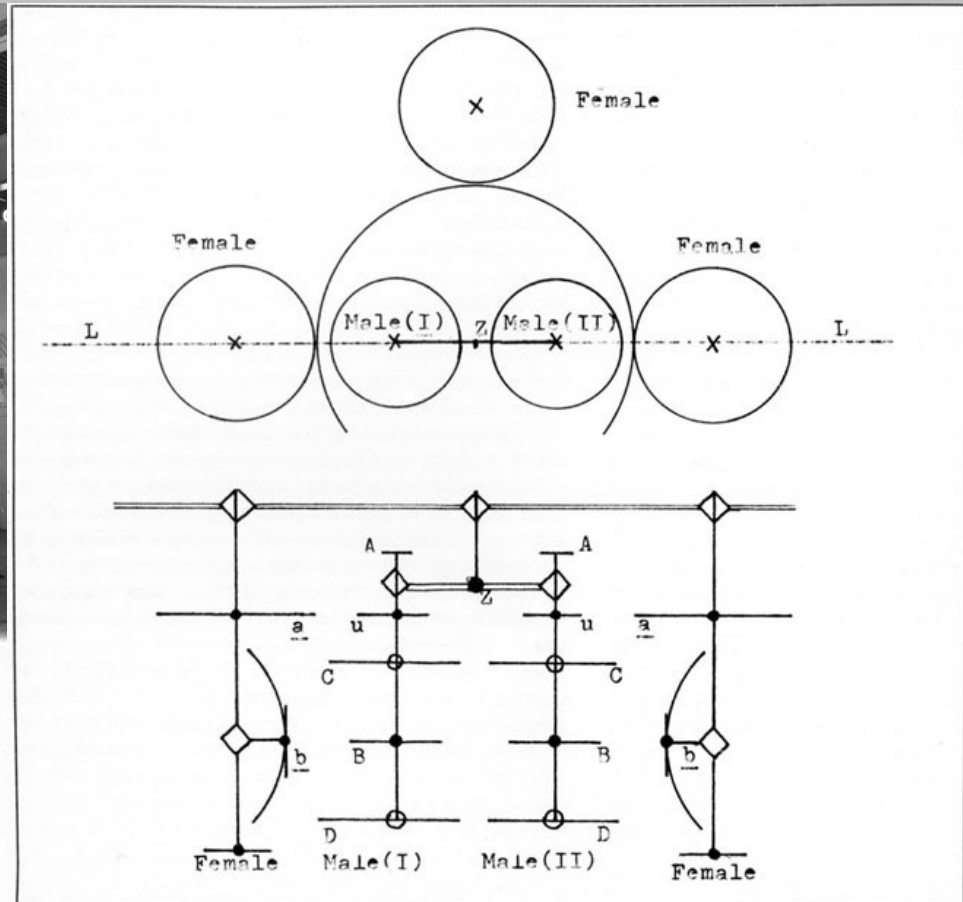
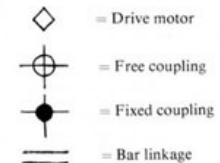


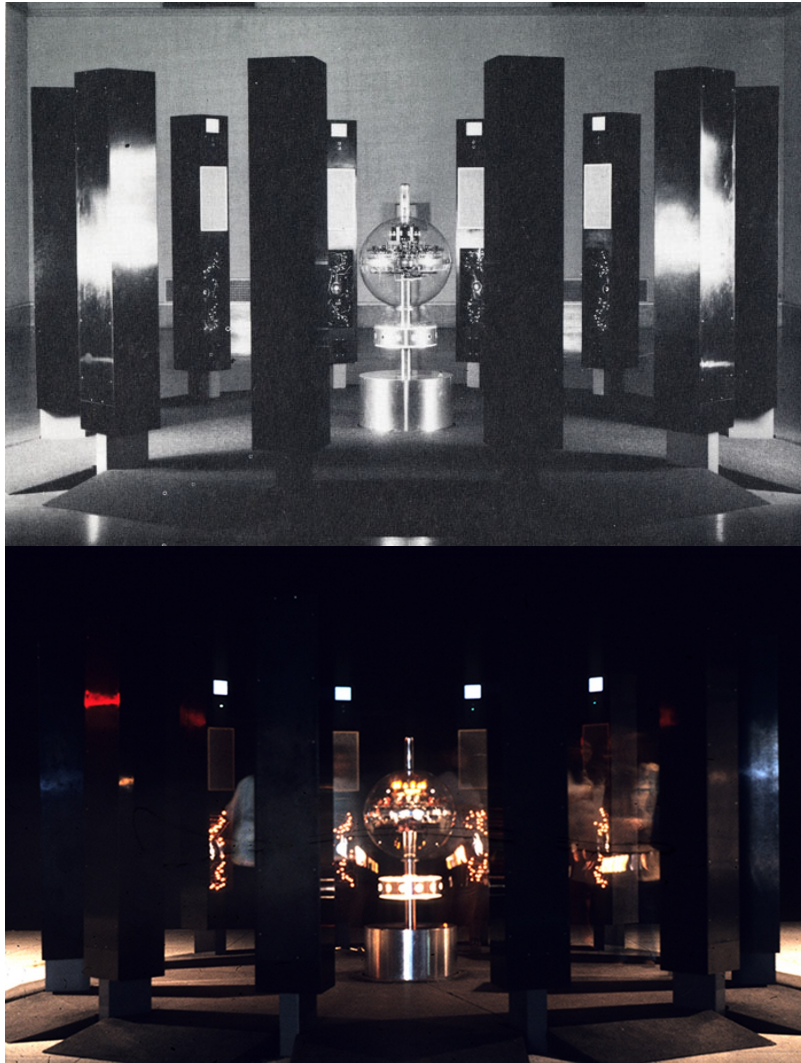
Fig. 34 A rough sketch of powered mobiles.

- a Horizontal plan
- b Vertical section taken through line L in horizontal plan.
- A = drive state display for male
- B = main body of male, bearing 'energetic' light projectors O and P
- C = upper 'energetic' receptors
- D = lower 'energetic' receptors
- U = non-'energetic', intermittent signal lamp
- a = female receptor for intermittent positional signal
- b = vertically movable reflector of female
- Z = bar linkage bearing male I and male II



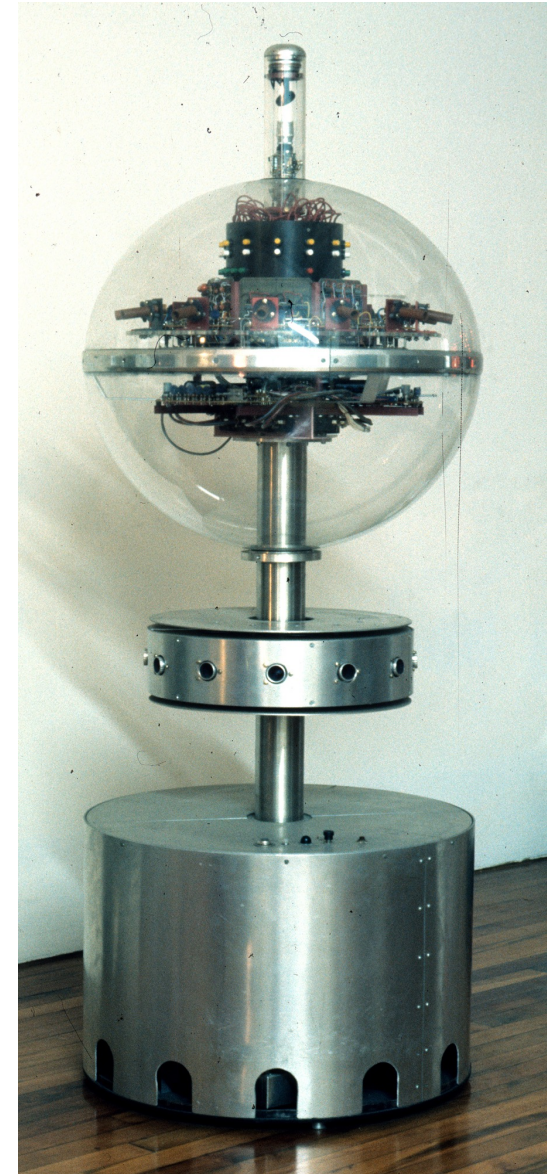


# James Seawright: Electronic Peristyle, 1968



Left, top and bottom: exhibition "The Magic Theatre", William Rockhill Nelson Gallery of Art, Kansas City/Missouri 1968. Photo above: Larry B. Nicholson (Davis: Experiment 1975, p.96). Photo below: James Seawright.

Right: "central unit" removed from the installation. The transparent "plastic sphere" is divided by a "metal band". In the lower half "the circuitry of the sound synthesizer" is visibly installed. Above the "metal band" the 12 photocells are recognisable, "looking a bit like little cannons". The "black metal drum" contains the lamps indicating states of the "shift register" and the "audio synthesizer modules". Above the "metal drum" are the cables of the "patch panel". The "rotating scanner" is located on top of the "plastic sphere" (photo and quotes: James Seawright).



## Vladimir Bonacic: G.F.E. (16,4), 1969-71.



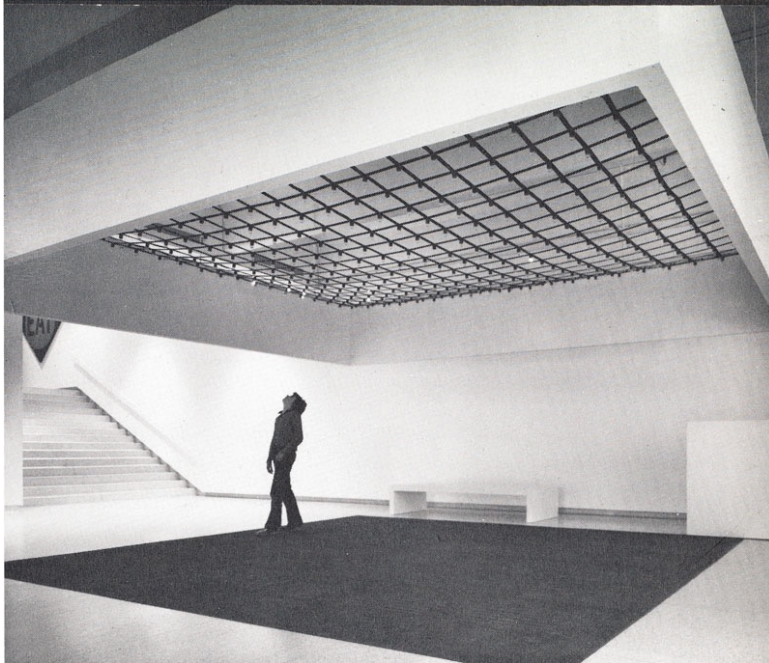
Computer-controlled light and sound installation.



Left and right: Image Source:  
<http://www.darkofritz.net/text/bonacic.html>



# James Seawright: Network III, 1971



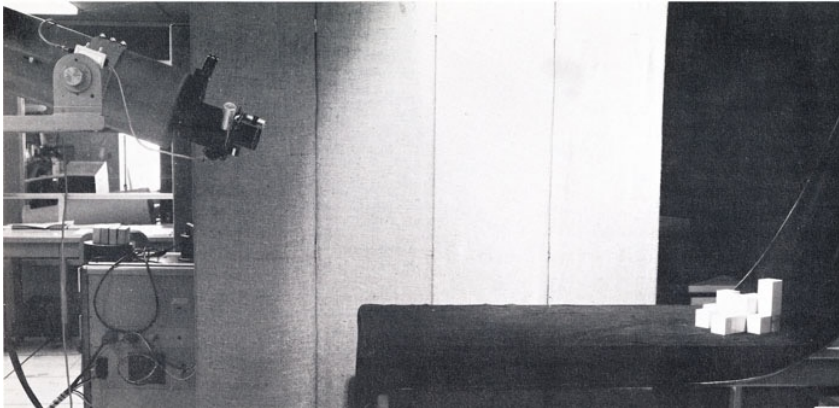
Seawright, James: Network III, 1971, Walker Art Center, Minneapolis 1971.

Left: Davis: Experiment 1975, p.195. Photo:  
Eric Sutherland.  
Right: Image source: URL:  
[http://blogs.walkerart.org/visualarts/files/2011/12/ex1971wns\\_ins\\_027.jpg](http://blogs.walkerart.org/visualarts/files/2011/12/ex1971wns_ins_027.jpg)

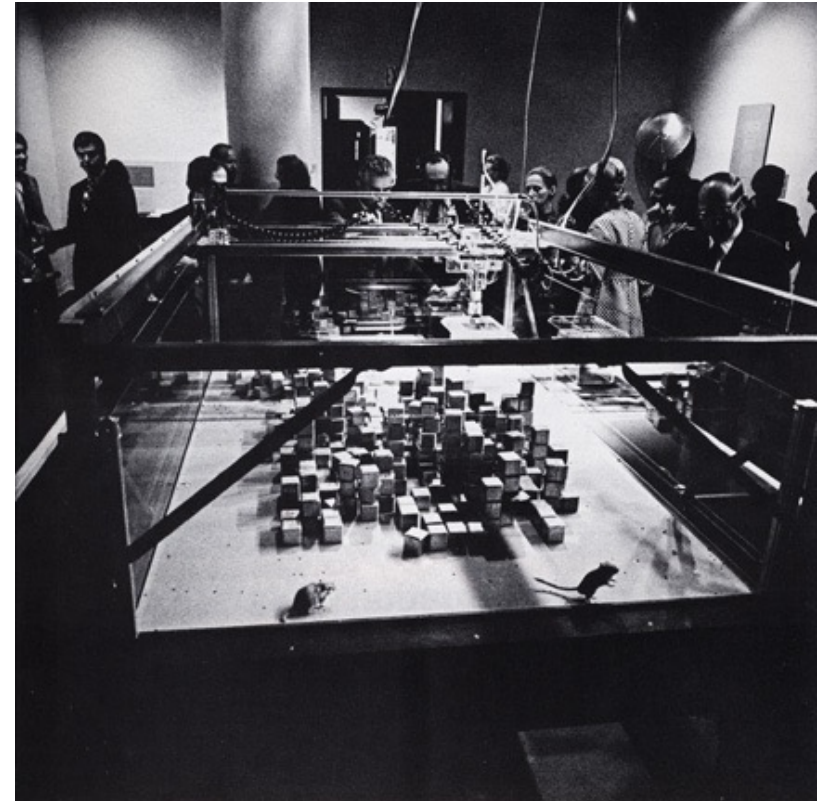
# Nicolas Negroponte and the Architecture Machine Group



The Architecture Machine Group: Urban 5, 1967.



Minsky/Papert Eye, M.I.T. (Negroponte: The Architecture Machine 1970, p.106).



The Architecture Machine Group: Seek, 1970, exhibition "Software", The Jewish Museum, New York 1970 (Negroponte: Architecture 1975, p.46, fig.1).

Bibliography with informations about the abbreviations used in the captions:

Dreher, Thomas: History of Computer Art. Chap. Bibliography. In: URL: <http://iasl.uni-muenchen.de/links/GCA-IXe.html>