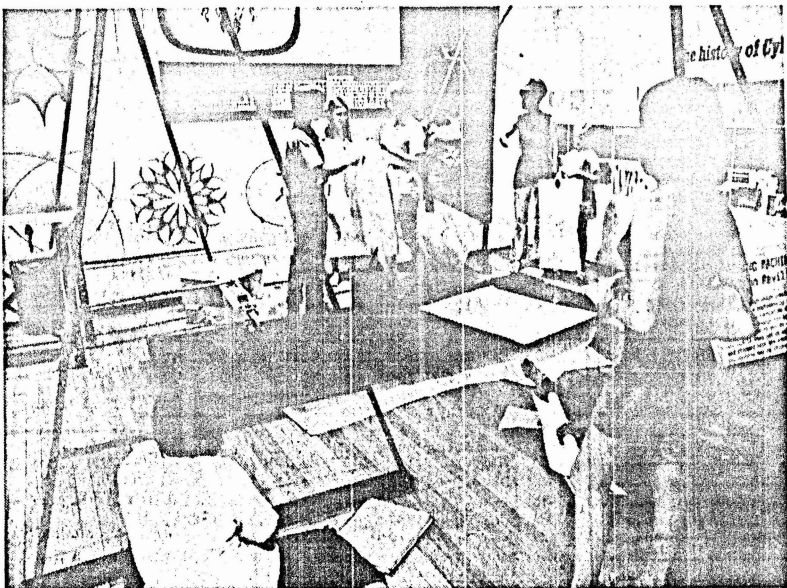


3 Floors of 'Cybernetic Serendipity'



Ron Nelson for The New York Times

Paul Bendheim, a volunteer, at left rear, displays work from John Ravillious's "Drawing Machine" at Dupont Center show

By GRACE GLUECK

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WASHINGTON, July 17—Albert is doing his cybernetic bit at the Corcoran Gallery's Dupont Center. A robot with a stiff buckram face, Albert flicks his eyes and turns his head in response to light signals from a photocell in his mouth.

In a nearby gallery, Charlotte Moorman, cellist, also does her thing (but only on Wednesdays). Bowing her musical instrument, she generates sound waves that ripple the images on a pair of tiny TV sets strapped to her bare breasts (one tuned to

the Apollo flight, the other catching a test pattern).

Miss Moorman and Albert are both exhibits in "Cybernetic Serendipity," a show exploring relationships between the arts and technology that opened this week at the Corcoran Gallery's neighborhood outpost.

They share three floors with a menage of other performing mechanisms — an analogue feedback projection system, an electronic music box, a pattern classifier, several drawing machines, some well-tampered TV sets and a Chromoluxite organ whose lights blink on and off in

response to voice timbre (two rows for men, one for women).

The show also has cybernetic "software"—computer-generated graphics, films and music, plus wall diagrams outlining the history of cybernetics.

The International show (minus such United States additions as Miss Moorman, who recently did her act in New York at the Howard Wise Gallery) was organized by Jaschia Reichardt of London's Institute of Contemporary Arts, where it played last year, reportedly to full houses. It was brought here by the Smithsonian Institution's Traveling Exhibition Service, which intended to display it in Washington before sending it on tour.

But the machines were damaged in transit, and the Smithsonian lost interest. The show, lacking some computer mechanisms too expensive to ship, was rescued by Corcoran Gallery technicians and volunteers who, working for six weeks, restored it for a fifth of the Smithsonian's estimated \$20,000 repair bill.

Why "Cybernetic Serendipity?" Cybernetic was coined by the late mathematician Norbert Wiener from the Greek word "kubernetes," meaning steersman. Today, it refers to systems of communication and control in electronic devices.

Happy Discoveries

The show's exhibits are all produced with a cybernetic device (computer) or are cybernetic devices themselves, producing sound, light and movement in response to outside cues.

Serendipity, coined by Horace Walpole as a term for happy, chance discoveries, is used by Miss Reichardt to describe the aleatory pleasures that cybernetic devices provide when they are used to make "art."

For Dupont Center visitors, the most serendipitous device seems to be John Ravillious's "Drawing Machine," a mechanically operated contraption that turns out large-scale topological doodles. The feat is accomplished by a felt pen poised over a perfectly balanced, gravity-controlled table. As the table swings to and fro, impelled by a serendipitous shove, the pen moves along

its surface to produce the drawing.

Another fascination is Arturo Cuetara's "Kinetic Pressure Painting," a Lucite plinth containing an electrically operated hydraulic jack and a Plexiglass cube. The cube, squeezed with tons of pressure, reacts with prism-like, brilliantly colored stress patterns that the artist (a Washingtonian) compares to expressionist painting.

Wen Ying Tsai, an artist-engineer who is becoming a familiar New York name (he calls his work "Tsalbernetics") has contributed one of his "harmonic sculptures," composed of stainless steel rods whose vibrating motion is too rapid for arrest by the naked eye. Slowed down by strobe flashes, however, they undulate in a beautiful, choreographic pattern.

A Cage Hates Light

There are other playthings — James Seawright's "Scanner" (another American addition, and seen before in New York), a hanging wire cage of a sculpture that hates light and rotates futilely in an attempt to dodge it; an "adjusted" TV set by Nam June Paik (electronic outfitter to Miss Moorman) that transmits four simultaneous color images at different angles on the screen. And there is a whole gallery of "moving image" devices that produce retinal afterimages, Lissajous patterns and moiré effects at the twist of TV-dials.

Miss Reichardt warns in her catalogue introduction not to take the show too seriously esthetically. "Cybernetic Serendipity" deals with possibilities rather than achievements," she writes, "and in this sense it is prematurely optimistic."

She notes also that the exhibition makes two main points: (1) that no visitor, unless he reads all the notes relating to all the works, will know whether he is looking at something made by an artist, engineer, mathematician or architect; and (2) that the advent of computers has stirred "people (i.e., technicians) who would never have put pencil to paper, or brush to canvas . . . to making images . . . which approximate and often look identical to what we call 'art' and put in public galleries."

Possibly. But it's artists, not technicians, who contribute most of the fun.