Biorhythm, 1980-84

Rapoport's seminal work in interactive art began in the 1980s with computer-mediated participatory performances like *Biorhythm*, first performed at Works/San José in 1983. Though she was already making use of computer programming to graph personal information, as in *Bonito Rapoport Shoes* (1978), the artist expanded her engagement with computers to collect and analyze personal data, further exploring the linkages between scientific and computerized systems as well as social and personal realms.

In 1980 Rapoport created a pictorial diary, on each day of the year superimposing a collage of images that captured her feelings on that day's calendar date. Anticipating the future ubiquity of self-tracking—the use of digital applications to trace our exact location, monitor sleeping habits, or even read personalized daily horoscopes to attain self-knowledge through quantitative information—Rapoport used a commercially available biorhythm kit to also track her physical, emotional, and intellectual condition each day. After a year, she compared her personal assessments with the computer-derived biorhythm calculations and found they correlated only on thirteen days of the year.

Applying audience input to her scheme, Rapoport asked visitors to her 1983 *Biorhythm* installation to assess how they felt: good, bad, or intermediate? Next, participants were photographed expressing those feelings with a hand gesture, and a verbal statement was also recorded. They then proceeded to computers to calculate their personal biorhythms. In a final step, visitors saw a palm reader for a mystic analysis.

The artist collected all of this data, comparing the outcomes of technological and psychological—as well as spiritual—systems of assessing the human condition. Rapoport deployed this data in her next project, perceptively titled *The Computer Says I Feel* . . . (1984), which challenged the cogency of self-assessment in the face of technology-based calculations. Though playful in form, *Biorhythm* critically posits the possibility that we might one day consult computers to find out how we feel.

Pink and Gray, 1958
Oil on board
48 x 32 inches
Collection of R. Harwood Beville and Hildy Shandell Beville

Among the first women to earn a master's degree in painting at UC Berkeley in 1949, Rapoport began her career as an abstract painter. She created heavily impastoed canvases like Pink and Gray with a keen sense of color that continued to evolve in her post-painterly career. She earned early recognition with a solo exhibition at the Legion of Honor, San Francisco, in 1963.

Survey Chart No. 19, 1971 Acrylic and graphite on survey chart 22 x 18 in. Berkeley Art Museum

In 1970 Rapoport discovered geological survey charts dating back to 1905 within a second-hand antique desk. Attracted to their visual geometries, she drew directly on them, overlaying the grids and numerical information with stencil markings from her coded Nu Shu language. This invented iconography, inspired by shapes in her personal collection of found objects, symbolized female forms and anatomy to explore gender and motherhood. In this survey-chart drawing, a repurposed pool cue holder resembles an udder, its curvy outline echoing the sinuous graph lines used to represent geological formations.

Pandora's Box, 1971 Various stencils in cigar box 6.5 x 7.5 x 2.5 in. Estate of Sonya Rapaport

In the 1970s Rapoport employed a personal vocabulary of feminine symbols. Here she collected objects like a pool cue holder, a mandarin orange wrapper, and a plastic anatomical model of a uterus in a cigar box, calling it *Pandora's Box*. Creating stencils from the objects, Rapoport

invented a personal lexicon she called "Nu Shu"—named after the Nüshu script derived from Chinese characters that was used exclusively among women in Hunan province of southern China. These found objects became symbolic of an X-chromosome, a uterus, a fetus, and an infant, for example—metaphors for gender and birth, motherhood, and life.

Koch II, 1972-74
Spray acrylic and graphite on canvas
72 x 96 inches
Sonia Fereres Rapaport

Visual components of found survey charts and other representations of scientific information began to figure prominently in Rapoport's large-scale canvases. She copied elements like the coordinate grid and NMR (nuclear magnetic resonance) imaging data, combining them with the biomorphic forms of her Nu Shu language. Apparent in these works is her interest in scientific and linguistic systems, biology and technology, and human interaction with computers, which informed works like *Biorhythm* (1980–84) a decade later.

Beginning, 1974
Acrylic on canvas
48 x 96 inches
San Jose Museum of Art

Rapoport's 1974 solo exhibition at SJMA, *Sonya Rapoport: Recent Paintings and Drawings*, presented sixteen new acrylic paintings and watercolor drawings made using spray guns, tape stencils, acrylics, and pencil. *Beginning*, which was acquired by the museum following the exhibition, incorporates a geological survey-chart grid with a centrally focused pattern of Nu Shu symbols—precise circles and organic forms. Their interplay contrasts a kind of technological order with the artist's personal system.

Dialogue (Organic Profile & Alignment), 1974 Spray acrylic and graphite on canvas 51 x 51 in.

Estate of Sonya Rapaport

Womb Internal, 1975 Acrylic spray on Arches 45 x 60 in.

Sonia Fereres Rapaport

Women of Bangladesh, 1976

Pencil, colored pencil, solvent transfer, and computer print on continuousfeed computer printout paper 15 x 22 in.

Estate of Sonya Rapaport

Habit (#23), 1976

Pencil, colored pencil, ink stamp, and thread on continuous-feed computer printout paper

44.5 x 77 in.

Estate of Sonya Rapaport

Rapoport's computer-based practice emerged in 1976, when she came across discarded computer printouts from a room-sized machine in the mathematics department of UC Berkeley and began using them in her art. She gathered swatches of the continuous-feed paper and stitched together the perforated edges with colorful yarn to create large canvases. Using Nu Shu stencils, the artist layered her symbolic language, ink stamps, and solvent image transfers from magazines on top of computer-rendered codes. Themes, stories, and unforeseen associations emerged amid her personal iconography, texts, and images, and the computer code. Rapoport began collaborations with UC Berkeley scientists, anthropologists, and psychologists, graphically transposing their research findings into complex compositions on dot-matrix paper. The computer printouts formed the physical substrate and an aesthetic structure on which the artist interwove scientific, social, cultural, and personal codes.

Dear David (#22), 1976

Pencil, colored pencil, ink stamp, colored type, and thread on continuous-

feed computer printout paper 44.5 x 55 in. Estate of Sonya Rapaport

Hair (#1), 1976

Pencil, colored pencil, ink, and thread on continuous-feed computer printout paper

44.5 x 55 in.

Estate of Sonya Rapaport

This item not in show

She Sells (#15), 1976

Pencil, colored pencil, pen, ink stamp, and thread on continuous-feed computer printout paper

44.5 x 77 in.

Estate of Sonya Rapaport

This item not in show

Bonito Rapoport Shoes, 1978

Pencil, colored pencil, colored type, computer print and solvent transfer on continuous-feed computer print

37 pages in 4 folios, 11 x 14.875" each

Estate of Sonya Rapaport

Rapoport took a computer programming course in 1977 that allowed her to analyze information gathered from the world immediately around her, like the arrangement of objects on her dresser or her shoe collection. The incorporation of personal data into her graphlike drawings marks a pivotal shift in Rapoport's career. No longer relying on ambiguous found data, her visual mappings moved away from abstract representations to reflect more personal, political, and social issues. *Bonito Rapoport Shoes*—a computerized study of forty-one pairs of the artist's shoes based on anthropologist Dorothy Washburn's Anasazi sandal research—incorporated autobiographical data within a systematized process of analysis.

Netweb transparency, Hand Colored, 1979
Print and colored pencil on acetate with paper backing 11 x 8.5 in.

Estate of Sonya Rapaport

Untitled (Pie Chart), 1979
Collage, pencil, ink stamp, and marker on paperboard
12 x 12 in.
Estate of Sonya Rapaport

This item not in show

Biorhythm Calendar: January, 1980, 1980
Multimedia collage on continuous feed computer printout vellum on found calendars with grommets and plastic spines
31.75 x 45.25 in

Estate of Sonya Rapaport

Biorhythm Calendar: February, 1980, 1980 Multimedia collage on continuous feed computer printout vellum on found calendars with grommets and plastic spines 31.75 x 45.25 in Estate of Sonya Rapaport

Biorhythm Calendar: March, 1980, 1980

Multimedia collage on continuous feed computer printout vellum on found calendars with grommets and plastic spines
31.75 x 45.25 in

Estate of Sonya Rapaport

Biorhythm: Postulate and Performance, 1981
Plotter print, pencil, colored pencil, colored type, acetate collage on translucent continuous feed vellum 34 pages in 2 folios, each 11 x 11.75 inches Estate of Sonya Rapaport

Biorhythm Sheet 1: Metabolic Rhythms, 1981 Pencil, colored pencil and plotter on vellum Estate of Sonya Rapaport

"In 1980 I kept a pictorially descriptive diary on a large calendar. . . . I collaged information on the square of each day, I also notated for that day an evaluation of my three biorhythm conditions—emotional, intellectual, and physical. At the end of each month, I compared my own assessments with printouts of a computerized biorhythm program that predicted what my biorhythm cycles should be . . . The success of each month's correlations between my personal assessment and the computer calculation based on my date of birth were described by using a Calcomp plotter to layout xy coordinates on vellum. . . . Each month's plot was illustrated by a color transparency detail of one calendar day of that month. Three plotted lines one for each cycle: emotional, intellectual, and physical. The visual presentation culminated in three spiral Calcomp plots on transparent vellum, one for each cycle, superimposed to reveal the agreement between the technological and personal evaluations of the biorhythm cycle. Only 13 days had identical predications and personal evaluation rhythms for all three metabolic cycles." —Rapoport's "Process(ing) Interactive Art: Using People as Paint, Computer as Brush, and Installation as Canvas," in Leonardo 24, no. 3 (1991): 285-88.

The Computer Overrides All Opinions, 1983 22 photographs and sticker labels on vellum 167 x 31 in.
Estate of Sonya Rapaport

Biorhythm calculator Estate of Sonya Rapoport

A Hand Book, 1986
Plastic gloves, hospital wristbands, cellophane, photocopy and photographic print collage on keyring
14 x 12 x 2.5 in.
Estate of Sonya Rapaport

Biorhythm performance ephemera 12 x 12 x 4 in. Estate of Sonya Rapaport

Video documentation from *Biorhythm* performance at WORKS/San Jose on May 13, 1983
Estate of Sonya Rapaport

The Computer Says I Feel..., 1984 Audio Estate of Sonya Rapaport