

Photo gallery with descriptive texts about selected episodes in the creative life of David Rosenboom

A. Chernysheva with D. Rosenboom

This gallery captures pivotal episodes in the creative life, collaborations, and research of David Rosenboom over the period from 1967 to 2022. It contains both historical and more recent photographic records of important events and projects with explanatory notes.

The project was curated by Anastasia Chernysheva – <https://history.illinois.edu/directory/profile/ac79> –, who also researched and drafted descriptive texts that were then edited by David Rosenboom. This document preserves in pdf form writing and images originally formatted for online display. Consequently, some images appear across page boundaries.

For a research reference, consult the finding aid for the Archive Collection: <https://davidrosenboom.com/archive-collection>.

Proposed reference: Chernysheva, A. with D. Rosenboom (ed.) (2023) Photo gallery with descriptive texts about selected episodes in the creative life of David Rosenboom.



Time / Think Dog!, 1967-69



Neurona Company, 1969



Ecology of the Skin, 1970



Douglas & BCD 1971



Douglas Show 1972



ICES 1972



Light - Torongo 1972-74



Vancouver Piece 1972



Mectronic 1974



Maple Sugar 1975-79



OBI - Music Gallery Editions



On Being Invisible '77



J. Jasmine - Western Front



Buchla & Rosenboom 1978



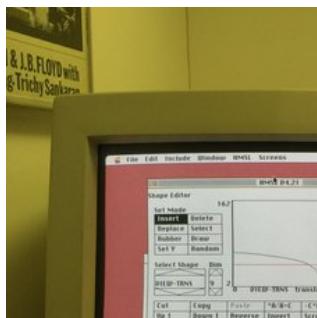
Las Ondas Cerebrales 1978



Touché, 1979-80



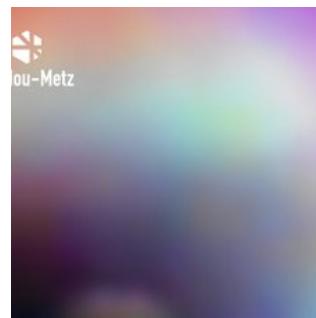
ItB (The Story) Filming 1980



HMSL 1980s-1990s



Ringing Minds Premiere 2014



Cosa Mentale 2015-16



MillerComm at UIUC 2022



Prop Music UIUC 2022



Mills College Fest 2022

Time Think Dog

Time / Think Dog! 1967-1969. Through these years David Rosenboom was a percussionist in the experimental rock group *Time*, later renamed as *Think Dog!* He co-founded *Time* in 1967 with his fellows from Urbana, Lynn Newton, and Tom McFaul.

In 1968 the group moved to Buffalo following Rosenboom's departure from UIUC to join the Center for Creative and Performing Arts. at SUNY Buffalo, directed by Lukas Foss and Allen Sapp. Complemented by the guitar player Richard Stanley, the group recorded their debut album "Before There Was Time" (1968) that mixed rock-n-roll influences with features of new music. Moving to New York in 1969, Rosenboom, who played percussion, left the group, recording with the band only one track that was later included in the second album "THINK DOG - Dog Days" that compiled recordings made in 1969-70.



"Before There Was...TIME" album cover—(released both on vinyl and CD).



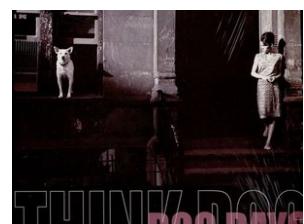
David Rosenboom with drum set in his rooming house in Urbana, IL



"Before There Was...TIME" album cover back showing track listing



"Before There Was...TIME" Side B label.



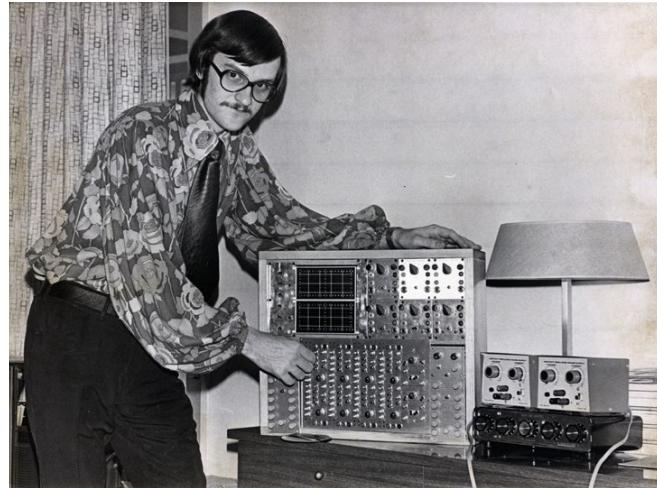
"THINK DOG - Dog Days" album image

Neurona

In 1969, a year after moving to New York from Buffalo, David Rosenboom established the **Neurona Company** with his high school and university friend trained in physics, William Rouner.

The Neurona Co. advertisements asserted the electronic musical modules it proposed, would contribute to the "great synthesis" when dichotomies of arts and sciences, humanists and engineers, nature and technology will be transcended. And, in the context of electronic experimental music and the new media art, a multimedia musician-scientist will be that specimen combining different skillsets and perspectives, just like a Renaissance "universal man." Of course, the prototype here was Rosenboom himself.

The proposition of Rosenboom and the mission of his company was to argue that the use of technology in arts would drastically expand human creative capacities, rather than alienating artists from their craft by "mechanizing" the creative process. While the dichotomy of using machines for creative realizations might seem to lack substance from today's perspective, back in the late 1960s, the use of electronics for art-making was a subject of hot debates and a certain resistance.



NEURONA COMPANY

FOR THE LAST SEVERAL MILLION YEARS . . .

DAVID ROSENBOOM
PRESIDENT

WILLIAM ROUNER
VICE-PRESIDENT

...we've been in training. Mother Nature, believing we're ready as we'll ever be, is slowly handing over the controls of the earth to us. It is now our responsibility to make it work! We need technology to do it and for this reason it must be made accessible. We need to take science out of the hands of the military-industrial complex and give it to the people whose goals are things that work, "doing" with the greatest ease, and sending through systems the kind of energy that will direct their aims in the best way possible. NEURONA Company seals the bond between artists and technology, a bond which is one large hope for the humanization of government, industry, and the imminent instantaneous communication network that will link all men.

NEURONA COMPANY OFFERS:

DESIGN AND DEVELOPMENT SERVICE FOR MEDIA ARTISTS

NEURONA COMPANY people can provide the best custom multi-media engineering for realizing your technological ideas and solving your problems with projects and shows. The most advanced research techniques and production processes are employed to bring you scientific and electronic concepts that are up to date and even of the future. We stay with you throughout all stages, initial estimate to manufacture. Our scientists, engineers, and artists can take on any project regardless of the amount of research required or technical complexity necessary. Whether it be for design, development, production, or manufacture, everything is specifically tailored to your requirements. So bring your technological media problems to NEURONA COMPANY, be they applying improvisations to cybernetics, putting performance into programming, planting a synthesizer on the moon, or just plain special effects engineering.

MULTI-MEDIA PRODUCTIONS - THINGS AND EVENTS

NEURONA COMPANY, producer of ideas, developing an institution capable of realizing media ideas in the belief one can "produce" his and others' ideas in the way he would "perform" musical "pieces." Our goal is producing our ideas and even commissioning ideas from other media people, taking advantage of available commercial distribution methods.

NOTHING IS TOO BIG FOR THE NEURONA SCIENTIST-ARTIST-COMPOSER-ENGINEER!

1024 Avenue of the Americas, New York, N.Y. 10018 (212) 279-8094

There were 4 basic modules developed by the company:

- A small Omnivoila module, a voltage controlled wave shaper/modulator priced at \$77, derived from Rosenboom's earlier voltage controlled, chaotic, frequency divider instrument.
- A combination oscillator, phase shifter, adder/multiplier inspired by the parameters of Fourier Synthesis.
- An Analog Computer contained eight programmable operational amplifier computing sections, each featuring addition, subtraction, multiplication, division, differentiation, integration, logarithmic processing, antilogarithms processing, comparator function, sample-hold function, and other functions obtained via the connections of feedback components, and two programmable differential amplifiers.
- A Digital Controller described as a digital computer optimally designed for live performance. (Though designed and partially prototyped, this module wasn't fully realized before the company closed operations.)

Despite the promising claims about making technology available (in terms of skill as well as price) for artists, the company didn't have financial success and ended in 1970. After that Rosenboom moved to York University, joining as a founding faculty of its Department of Music. (Neurona instruments are described in Rosenboom's article: In support of a systems theoretical approach to art media. 1972. In: *Proceedings of the Fifth Annual Conference,*

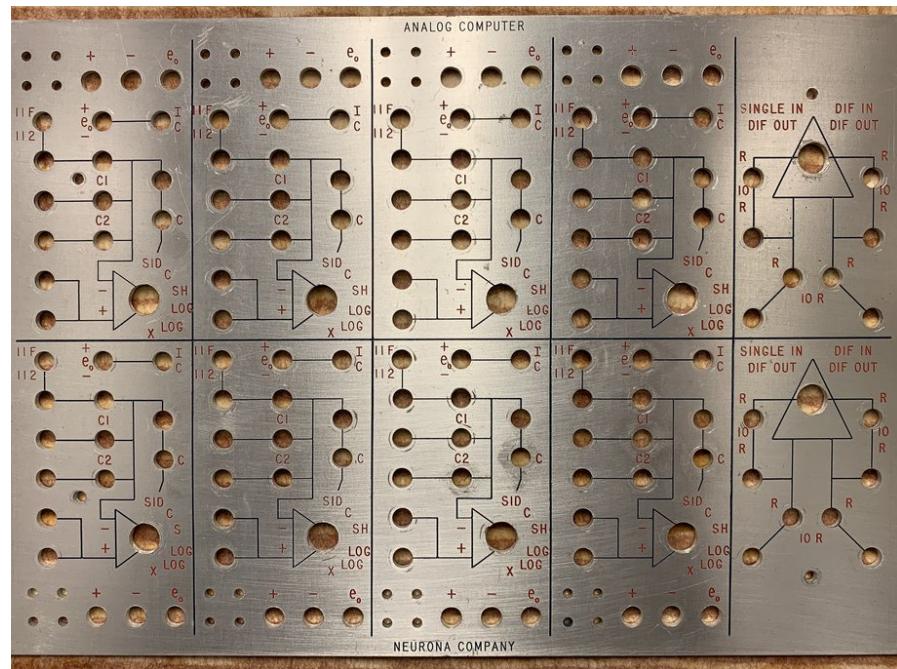
NEURONA MAKES A SOFT MACHINE **\$77**

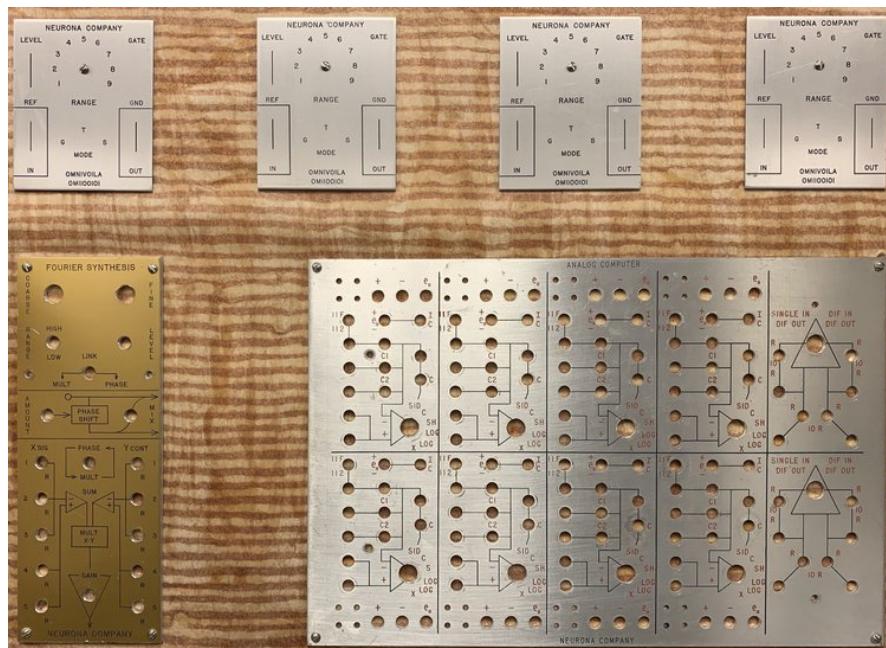
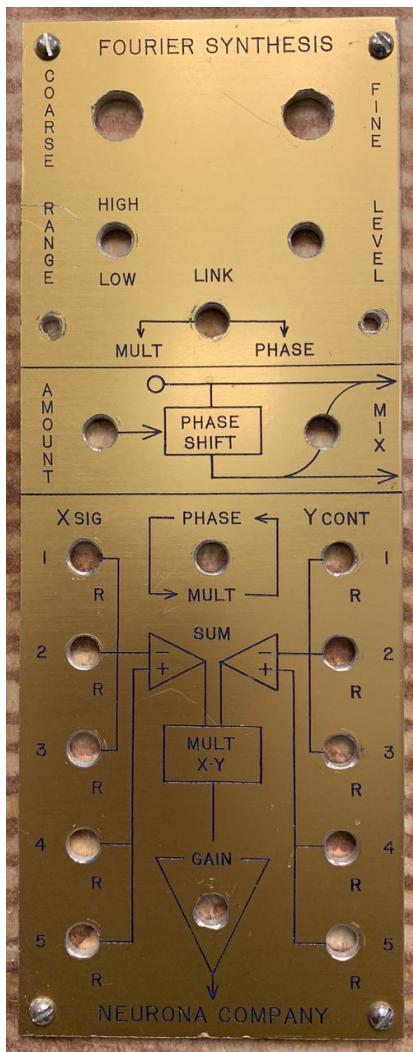
You can explore an indescribable array of sound. Did you ever think ELECTRONIC MUSIC could be so cheap.

OMNIVOILA Model OM1100101
Feed it anything and it generates harmonics, shapes waves, gates, oscillates, triggers, and modulates, (voltage controlled). Micro-miniature, less than 10 cubic inches, and may be battery powered. Do it in the road!

We offer:
MULTI-MEDIA PRODUCTIONS, shows and things for any task, MODULAR WHOLE SYSTEMS, DESIGN AND DEVELOPMENT SERVICE.
Custom artistic and technological media engineering. Ask for estimate and about peripheral equipment, briefcase synthesizers and other lines from
NEURONA COMPANY
(VV-1) 1024 Ave. of the Americas, New York, N.Y. 10018 (212) 279-6094
Humanization through the scientist-artist bond.

April, 1970, The American Society of University
of Composers.)





PUTTING PERFORMANCE
INTO PROGRAMMING

NEURONA

NEURONA COMPANY seals the bond between artists and technology, a bond which is one hope for humanizing government, industry, and the imminent instantaneous communication network which will link all men.

NEURONA COMPANY offers: 1-Objectives. Things that work, "doing" with the greatest ease, the everything device. 2-Modular Systems. New and growing lines of specialized computer modules beginning with the OMNIVOILA series of multiple function modular devices for electronic music and multi-media. Ready soon will be COMON, a series of communication oriented modules and OMNICOMP, home computer software systems. 3-Design and Development Service for Artists. NEURONA people can provide custom multi-media engineering, quality research, and applications of future production processes to your ideas. We stay with you, initial estimate through manufacture. So bring your technological media problems to NEURONA COMPANY. 4-Multi-Media Productions. In the belief one can "produce" his and others' ideas in the way he would "perform" "pieces." Our bourn? Producing our ideas and even commissioning ideas from other media people.

NEURONA MAKES A SOFT MACHINE

WILLIAM ROUNER
VICE-PRESIDENT

DAVID ROSENBOOM
PRESIDENT

COMPANY

--NOW AVAILABLE--
From the OMNIVOILA series of multiple function multi-media modular devices:

ANALOG SYSTEMS VOLTAGE CONTROLLED HARMONIC GENERATOR-WAVE SHAPER
Model OML100101 \$77.00

Featuring: Compact - approx. 3½" x 14" x 2". IC construction. Power - +8 and -8 VDC, may use two 9 volt transistor batteries, tolerates widely varying supply voltages. Spectrum - DC to over 50 KHz. Accepts wide range of control voltages. Perfect for analog computer output or synthesizer systems. Works well as basic module of integrated system or with other equipment.

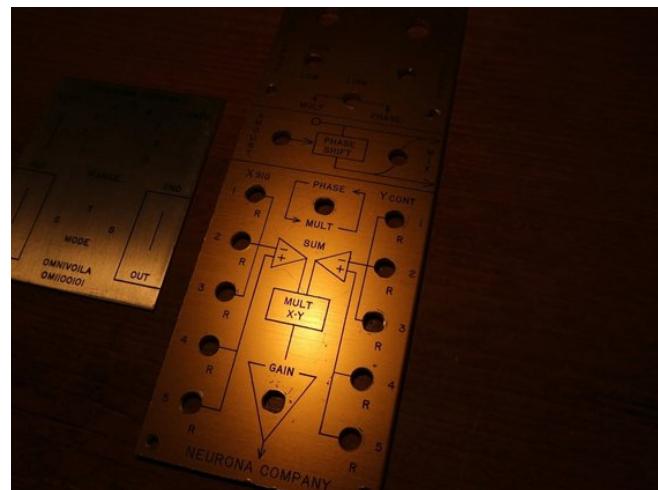
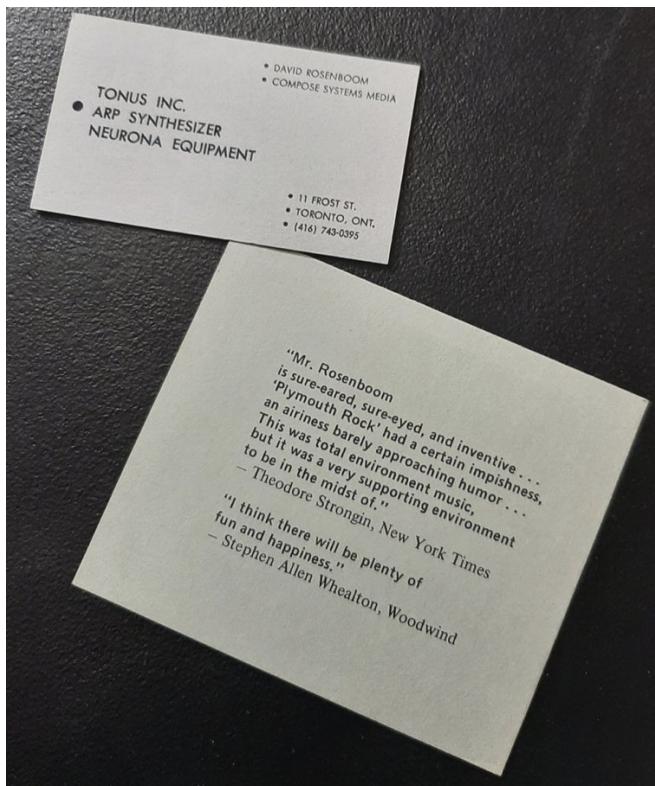
Operating Modes, (switch selectable):

A-Harmonic Generator. Many octave harmonic series built from fundamental tone of external oscillator. Individual tones selected by control voltage.
B-Wave Shaper-Analog Gate. Input waves "drawn" into other shapes by additive harmonic control. Gating and shaping simultaneously voltage controlled.
C-Voltage Controlled Oscillator. D-Schmitt Trigger.

Peripheral equipment also available: Power Supply for 115 VAC, Manual DC Control Voltage Source Network. Please inquire about these and other configurations including ministudios packageable in briefcases. Please order by contacting:

NEURONA COMPANY

Dept. S1, 1024 Avenue of the Americas, New York, NY 10018 (212) 279-6094



Ecology of the Skin

On December 4th, 1970, the first large-scale brainwave musical work (and installation) of David Rosenboom called *Ecology of the Skin* at Automation House, New York was presented. The title was a metaphor for skin as a boundary separating individuals from their external environment and ecology of the boundary between the internal & external worlds.

For the performance of the piece, EEG monitors built by Rosenboom were attached to the heads of up to ten participants to detect alpha as well as different forms of coherent waves (smooth waves of alpha, delta, theta, beta); an electronic music system utilizing detection and analysis equipment, an ARP 2500 synthesizer, a Vox electric organ, and auxiliary devices, was used to both translate brainwave performers' EEG activity into electronic sounds and interact with them musically. EEG signals from participants processed through individualized electronic circuits was also used to generate visual imagery projected from an oscilloscope.

The installation included phosphene stimulation stations. Attendees could apply very low-current voltage stimulators on their temples, near the eye muscles, to stimulate visual patterns that a person normally sees when



Rosenboom (center with equipment) and four attendee/participants at *Ecology of the Skin*, Automation House, New York, NY. Two participants (front left) are wearing headbands securing EEG electrodes.

closing their eye and pressing the eyeball. The colorful bursts of geometric patterns this produces is curious, since variations can give us an impression of the functioning of an individual's neural structure.

A lecture on *Ecology of the Skin* was later given at the University of Illinois Urbana-Champaign (1971) and another performance of the piece was staged at the University of California San Diego during the same year.

For more see the NY Times article from Nov. 25th, 1970 devoted to Rosenboom:
<https://www.nytimes.com/1970/11/25/archives/music-draws-strains-direct-from-brains.html>

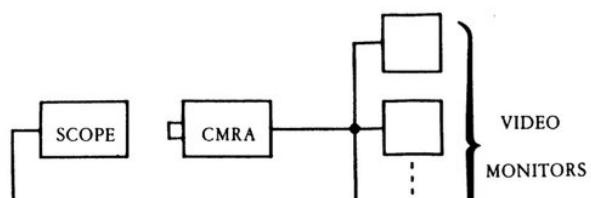
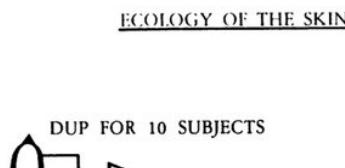
Photos are by Peter Moore.

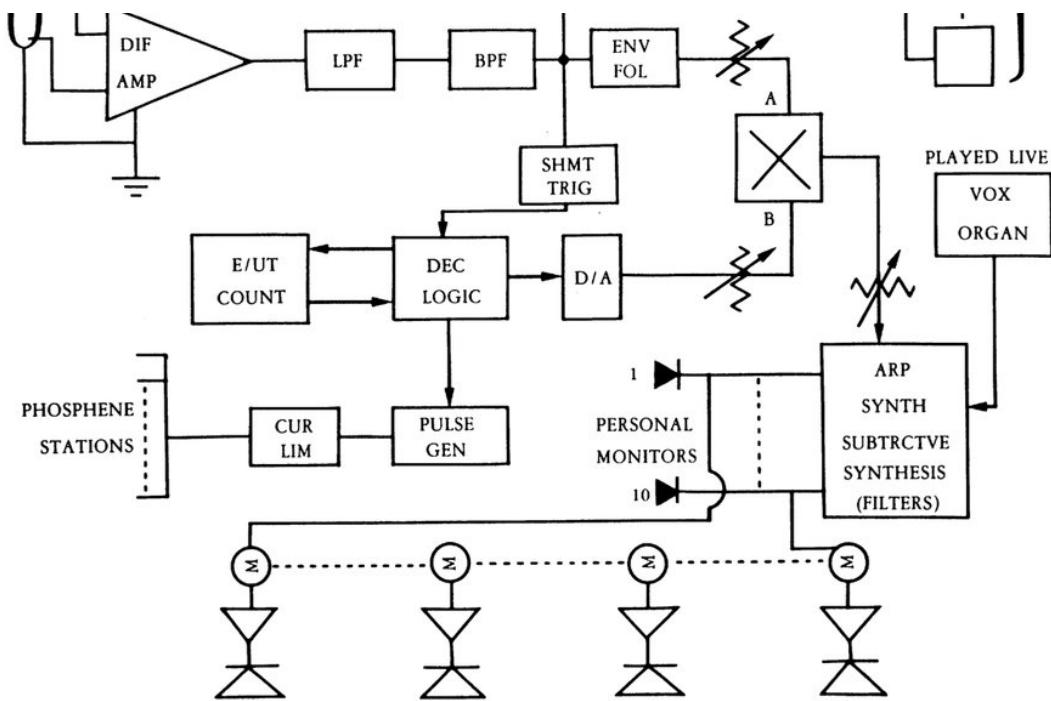


Rosenboom preparing equipment for *Ecology of the Skin*. Small boxes with circuit boards exposed are portable EEG amplifiers designed and built by Rosenboom.



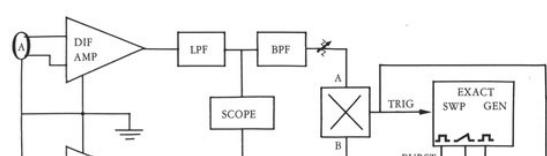
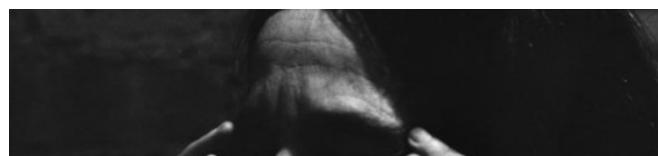
Rosenboom at ARP 2500 synthesizer.





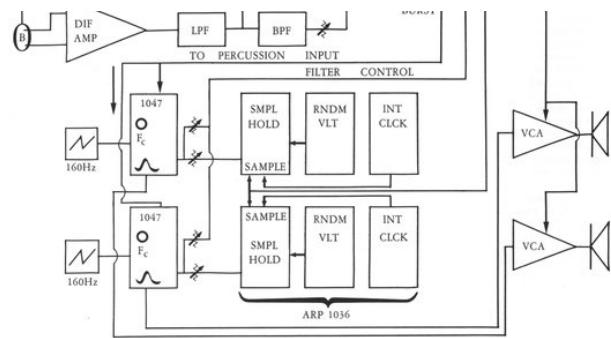
Ecology of the Skin (1970)

Signal flow diagram for Ecology of the Skin.





Ecology of the Skin attendee applying electrodes at a phosphene stimulation station.



Signal flow diagram for later performances in which sound sequences were triggered by synchronous EEG activity among pairs of participants. This is called "dual contingent feedback."

First appearance at Mike Douglas Show in 1971. After several well-covered in media performances of *Ecology of the Skin*, which premiered in December 1970 at Automation House in New York, the brainwave work of David Rosenboom came to the attention of a producer of the show.



Though the catchy titles used by the authors in The New York Times ("Music draws Strains Direct from Brains" or "think a melody") were only partly corresponding to reality, they attracted a lot of public interest and became a factor of Rosenboom's appearance in the episode, along with the actors Hermione Gingold and Terry Thomas. In the course of the talk with Douglas, the musician-scientist used the chance to clarify misconceptions about the use of biofeedback in musical performance. In the conversation, Rosenboom also shared a description of his new technological development: *Biophysical Computing Devices (BCD)*.



According to the proposal for BCD Corp. to be created, the goal of the company was to make: "A device that provides knowledge of the results of any behavior considered as influencing or modifying further performance by the organism." Along with producing patentable biofeedback equipment for specialized uses, BCD Corp. planned to design individual wearable biofeedback devices: "Wearable comprehensive "BIOCOMP", a watch-sized Biological Computer giving feedback from a complete electro-physiological scan of the entire organism, only possible by utilizing our new circuit developments."

(Citations from the project proposal of 1971 "Biophysical Computing Devices (BCD Corp.)", written by David Rosenboom and kept at his archive.)

Douglas Show 1972

February, 1972. Appearance of David Rosenboom on Mike Douglas Show with John Lennon and Yoko Ono as co-hosts, and Chuck Berry joining them. The featuring was preceded by personal meetings of David with the couple. As the story goes, David was staying in New York, in between his first and second years in Canada as a faculty at York University, and one day John's representative called him, because John and Yoko were seeking to learn about Rosenboom's recent use of brain biofeedback for musical performance. This was likely prompted by the recommendation of John Cage who lived in the same area and/or pioneering ethnomusicologist Fred Lieberman. After private meetings, they demonstrated results in an episode during the week-long series of shows hosted by John and Yoko. This programming by John and Yoko, supported by Mike Douglas, was a monumental development for American daytime television. (These images are snapshots taken by Rosenboom of his television screen when the show aired.)



Mike Douglas being fitted with EEG electrodes – Yoko and John looking on



Yoko and John being fitted with EEG electrodes while David explains

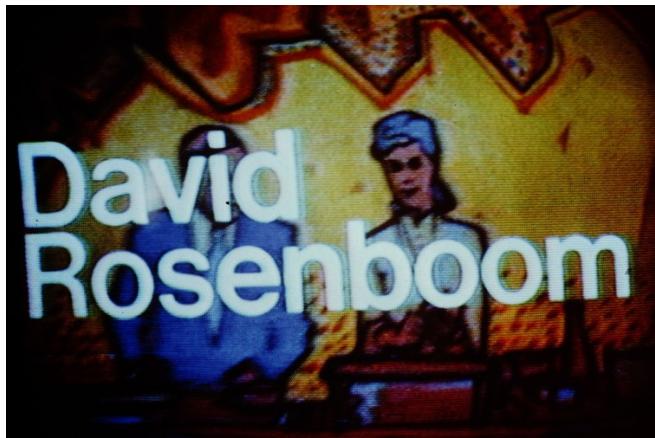




Mike Douglas introducing David



Chuck Berry in conversation with everyone—technical assistant Kurt Munkacsi behind David



Introducing the episode

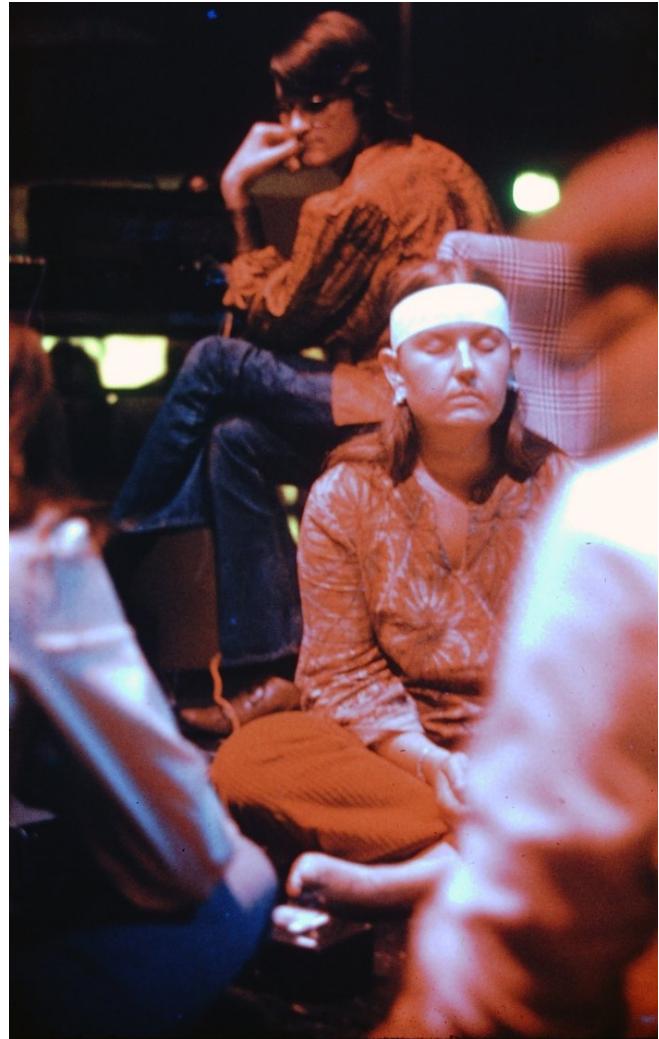


David on screen

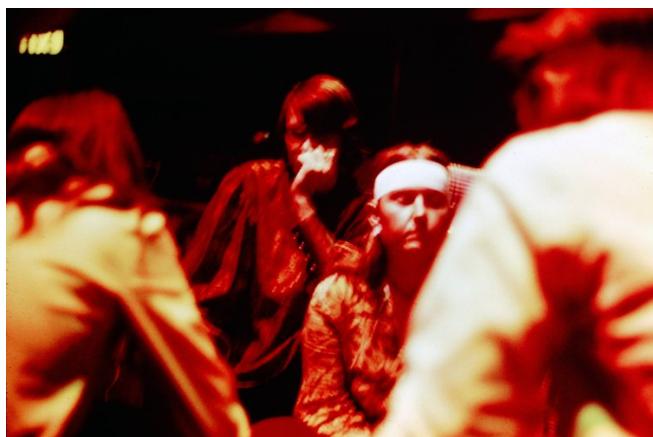
ICES

The 1972 International Carnival of Experimental Sound (ICES), referred to by the author Dave Thompson as "The Avant-Garde Woodstock" is an iconic festival in the history of experimental avant garde art that took place at the Roundhouse in London in August of 1972, bringing together more than 300 artists from over 20 countries for a 16-days event series. David Rosenboom was one of the participants in the festival. Together with Pat and Alan Strange and their electronics group Biome, he performed the ground-breaking brainwave music piece *Portable Gold and Philosophers' Stones (Music from Brains in Fours)* on August 25th.

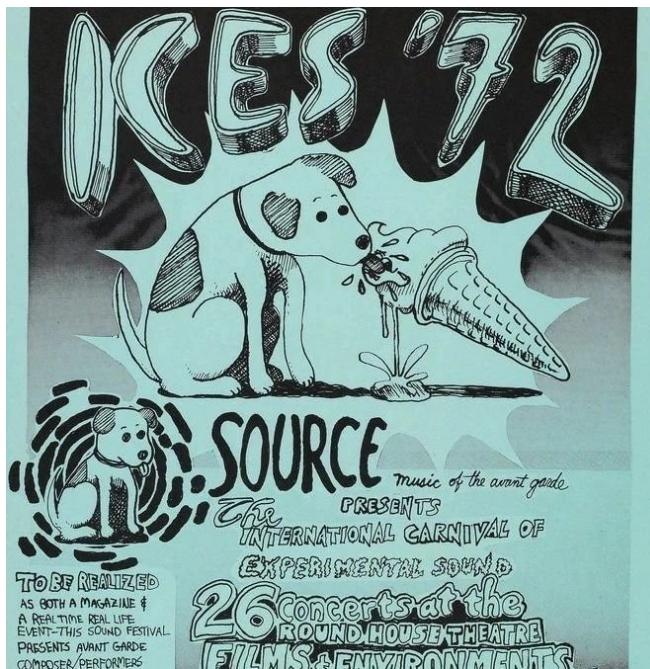
Learn more about the history of the ICES:
<https://www.thewire.co.uk/in-writing/the-portal/ices-72-and-harvey-matusow-portal>



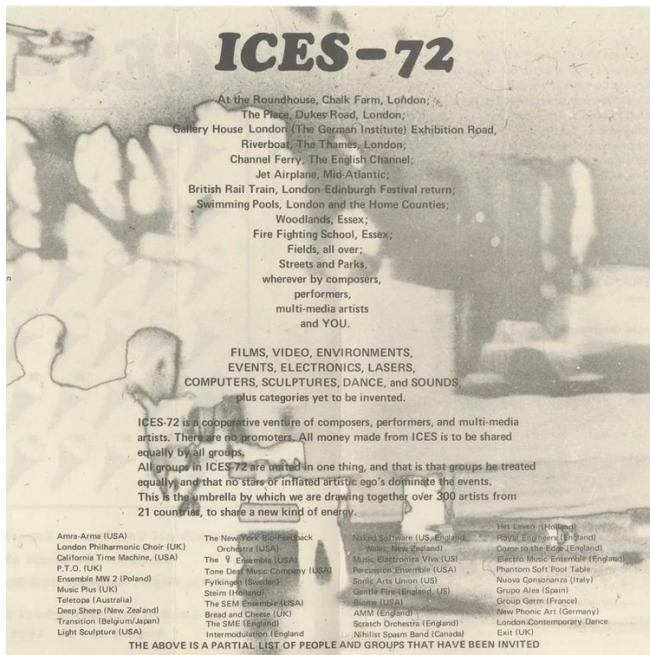
David Rosenboom and Pat Strange participating in a performance of Rosenboom's "Portable Gold and Philosophers' Stones (Music from Brains in Fours). Pat Strange was part of the group BIOME that also included Alan Strange, Marilyn McCarty, and Frank McCarty.



David Rosenboom with Pat Strange wearing EEG electrodes
headband and ear clips



ICES festival poster



ICES aspirational announcement

Light - Toronto

Light-in-Toronto:

A short story of the Light I and II improvisation groups brought together by David Rosenboom in 1972-73, while at York University.

Light I (1972) was a constellation of Jon Hassell (trumpet), J.B. Floyd (keyboards), Rick Homme (bass), Terry Clarke (percussion) and David Rosenboom (composer-keyboards), helped by David McKenzie as technician. The collective was conceived as a cross-stylistic improvisation group working with minimal pre-composed starting points and cyclical pattern-related materials – expanding them into larger forms improvisationally. Light I performed only one time during the 2nd season of the New Music Concerts series at the University of Toronto on December 15th of 1972. Compositions How Much



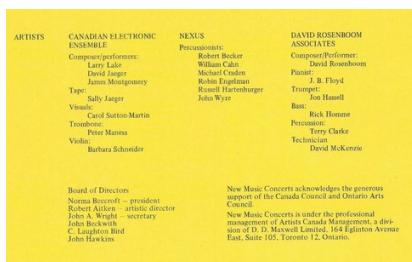
David Rosenboom



J.B. Floyd and John Hassell



Terry Clarke and Rick Homme





*Better If Plymouth Rock Had
Landed On the Pilgrims and
Portable Gold and
Philosophers' Stones were
separately performed on that
evening. The name "Light,"
given post factum to the group
presented in the program as
"David Rosenboom
Associates," was probably
inspired by the project Light
Inc. of Hassell.*

David Rosenboom and Kathy Moses

Bruce Pennecook, Terry Clarke, Kathy Moses and J.B. Floyd



David Rosenboom



Bruce Pennecook, David Rosenboom,
Terry Clarke, Kathy Moses and J.B. Floyd

In 1973, after the leave of Jon Hassell, Rosenboom reassembled the group with two new members, Kathy Moses (flute) and Bruce Pennecook (saxophone), and continuing members, Terry Clarke (percussion), Rick Homme (bass) and J.B. Floyd (keyboards). Light II performed a concert at Burton Auditorium, York University, and at a DaySpring Festival in the same year. Later, in 1974, they were recorded for a radio broadcast by the

Canadian Broadcasting
Corporation (CBC) in Toronto.

The collaboration was
documented by Rosenboom in
Lightmotifs (1972) – a score
containing notations of patterns
used as the basis of pieces
developed through improvisation
by both Light I and Light II.

Read more about the New Music
Concerts series here: [https://
music.library.utoronto.ca/blog/
new-music-concerts-nmc-turns-50](https://music.library.utoronto.ca/blog/new-music-concerts-nmc-turns-50).





Light II (Rick Homme not shown) in rehearsal at Burton Auditorium, York University, Toronto, 1973

Vancouver Piece

Vancouver Piece (1973) was the second biofeedback art installation created by David Rosenboom. Developed for the Sound Sculpture Show that took place at the Vancouver Art Gallery in February of 1973, the work surpassed *Ecology of the Skin* (1970) in the complexity of its design. The sound sculpture required the construction of an entire environment within the gallery space.



Upon entering a dimly lit artificial environment, the sense of time and space somewhat dissolved. Participants could navigate the space following white noise sound cones and low-intensity red or green lights, which guided them to the center of the room – to an aluminized mylar mirror system. Yet, nothing happened until participants chose to sit on the floor in the center of sound cones, seeing each other through the two-way mirror system.



Once electrodes got attached to participants to monitor their EEG Alpha wave output, the magic started to happen. When one person began to produce Alpha brain waves – their face was illuminated with red or green light. This Alpha-emitting participant started to see themselves in the mirror system, while the other person – who didn't produce Alpha – also saw their counterpart. If the two participants reached synchrony in their Alpha

wave bursts, their faces became illuminated and superimposed in the mirror system. They began to see the two faces superimposed – somewhat experiencing the dissolution of identity. Meanwhile, wisps of a faint light were racing around the room as Alpha waves were produced:

"Sonic vibrations in a closed space arrange the air in standing, high and low-pressure patterns forming an invisible air pressure sculpture." (Rosenboom in "Biofeedback and the Arts...", 1975, p. 154)

But what happened if a participant didn't choose to be wired to the system? In this case, the room played back other people's previous experiences.

An entire history of the exhibition was captured by John Grayson in his *Sound Sculpture* book and the sounds of sculptures in the exhibition were released by A.R.C. on vinyl in 1975.

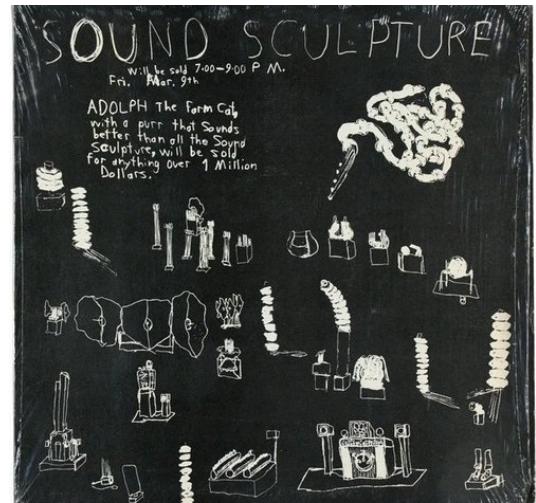


DAVID ROSENBOOM

Born in 1947. Educated at in the United States. Curator, Faculty of Fine Art Toronto, and Director of Search Centre's 'Laboratory of Aesthetics' in Toronto. An musician, composer, conductor, Rosenboom now manent home in Toronto. to his book 'Biofeedback a of early experiments', liste on page 195.



David Rosenboom



Portable Gold and Philosophers' Stones II – brainwave musical device (1974)

One of the earliest brainwave musical instruments was created by David Rosenboom for the Medtronic Archive, currently the Bakken Museum in Minneapolis. Though it's not clear whether the instrument commissioned was presented in the planned installation, a few words can be said regarding the uniqueness of this "portable gold."

The system was designed as a portable biofeedback device for live musical performance – a suitcase that might be used by up to four performers. The instrument, the form of which was inspired by the Buchla Music Easel, was conceived specifically to be a portable device allowing brainwave music to be performed anywhere.

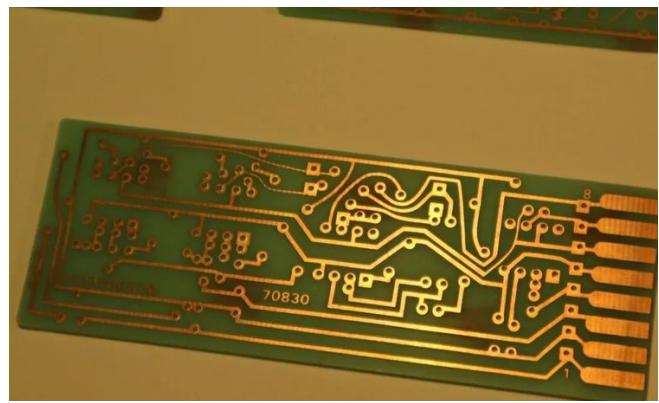
Compositionally, it followed the idea of Rosenboom's earlier piece, *Portable Gold (Music from Brains in Fours)* of 1972. On a regular basis, that piece required the use of EEG electrode headbands, four brainwave amplifiers (one for each performer), analysis equipment, and a specialized sound synthesis system. However, not all performance settings allowed Rosenboom to use all the equipment specified – or even more sophisticated devices



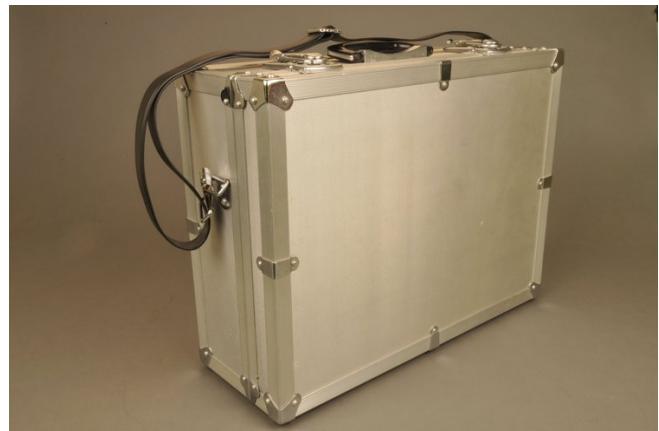
he purchased for the Laboratory for Experimental Aesthetics at York University. So the development of an instrument that was easy to carry around and that encompassed the functions of the various electronic devices necessary for Rosenboom's brainwave performances was a necessary next step in the development of his performance practice.

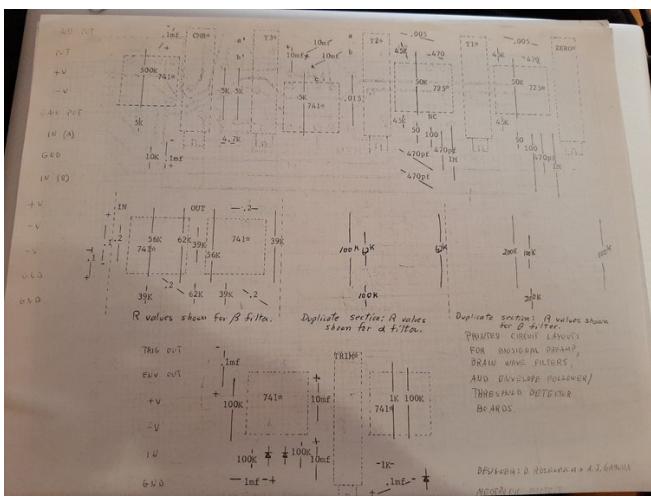
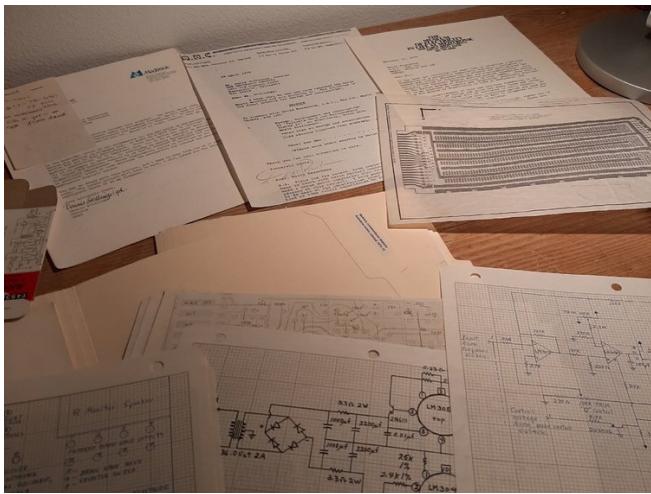
Collaboration of the composer with Medtronic began in 1973 and was finalized in 1975, yet with a promise of continuation that didn't happen. Design of this brainwave musical device was one of four proposals made by Rosenboom, yet only the instrument design was financially supported.

(Photos of the instrument and scans were kindly provided by Adrian Fischer, Curator of Exhibits and Collections at the Bakken Museum: <https://thebakken.org/>



Extra circuit boards still in the archive of David Rosenboom





THE
MUSEUM
OF ELECTRICITY
IN LIFE AT MEDTRONIC
6120 EARLE BROWN DRIVE
MPLS, MN 55430
612 781-6061

December 30, 1975

David Rosenboom
A.R.C., Box 541
Maple, Ontario L0J 1E0
CANADA

Dear Sir:

It has been our intention for some time to establish a private foundation of a scientific humanistic character, including the museum and library documenting in objective publications the entire histories of electrotherapy and electrophysiology. Very recently the Internal Revenue granted foundation status to The Bakken Museum of Electricity in Life (BMEL). This entity is to be regarded as legally and (gradually) physically distinct from The Museum of Electricity in Life at Medtronic, Inc.

With the establishment of this new tax-free foundation it is necessary that we design and print new order forms and letter-head. These new forms will be available in early January. We beg your indulgence during this transition period and hope you will allow us to reserve items by mail or telephone until the official paper instruments are available.

Naturally, due to the favorable tax situation, almost all of our future purchases will be made by the BMEL. Thank you.

Sincerely,

M Henry
Madeleine Henry

ets

P.S. Our official name and address:

The Bakken Museum of Electricity in Life
3055 Old Highway Eight
Minneapolis, MN 55418

All shipments may be directed to:

The Bakken Museum of Electricity in Life
6120 Earle Brown Drive
Minneapolis, MN 55430

Maple Sugar

This photo series taken in 1975 on the grounds of a farmhouse in Maple, Ontario captures the summer concert series that started the performance art group Maple Sugar (1975-1979). Among the permanent members of the collective were David Rosenboom, Jacqueline Humbert, and George Manupelli. Other core members of Maple Sugar were Michael Byron and Mary Moulton. The group at different times included various friends and faculty of Rosenboom at York University: James Tenney, Eugene Tellez, William Winant, and many others.

The group performed across many venues in Canada, including York University, where it was based, A Space Gallery, Art Gallery of Ontario, and the Music Gallery in Toronto, as well as in the US. Though dissolved in 1979 with the move of its key members to California, the collaboration proceeded in work on the recording and further performances of "J.Jasmine...My New Music" (1977), the film for Rosenboom's composition "In the Beginning V (The Story)" made by Manupelli in collaboration with Rosenboom in 1981 and featuring Humbert, Winant, and Jean Moncrieff as the main actors.

The photo series presented here so far depicts the "Video in the Garden" installation by Paul



"Video in the Garden" by Paul Campbell (no. 7)



"Projections" by Jacqueline Humbert and Terrill Maguire (no. 10)

Campbell (no. 7); audio rope tricks of David Rosenboom nos. 6, 9); David Rosenboom, Michael Byron, Jacqueline Humber, Ellen Band, and Dian Roblin (under scenic names – Dave Charles, Rosy Dawn & the Vi-Breasts) doing "experiment in extravagant floorshows" (no. 10); "Projections" made by Jacqueline Humbert and Terrill Maguire – designed for four slide projectors, a 12-foot cheesecloth cube suspended in a dark, outdoor setting, and a dancer to interact from within the cube with the light beams, creating a matrix of shadows and images on a 360-degree projected panorama.



Audio Rope Tricks by David Rosenboom (no. 6)



Audio Rope Tricks by David Rosenboom (no. 9)



David Rosenboom wearing keyboard tuxedo by Jacqueline Humbert



Dave Charles, Rosy Dawn and the Vi-Breasts

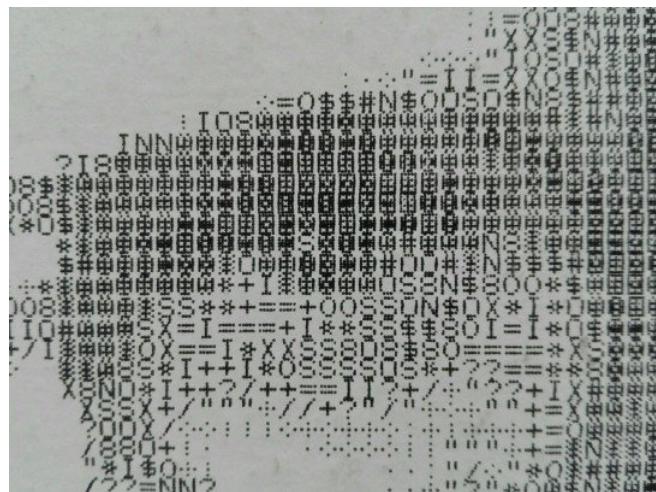
OBI MG Editions 1977

The version *On Being Invisible* (1976-77) that appeared on vinyl from Music Gallery Editions (with the cover designed by George Manupelli) was from a live performance that took place in February of 1977 at the Music Gallery, Toronto. The recording included two tracks a bit longer than 20 min, marked with Part I and II subtitles. These were excerpted from longer performances. During the concert, David Rosenboom used self-designed equipment for brain signal analysis combined with a Princeton Applied Research Correlation Function Computer and an Interdata mini-computer interfaced with electronic hardware custom-made for him by Don Buchla.

The exploratory intent driving *On Being Invisible I* (1976-77) was finding out if it was possible to see signals in EEG representing how the human mind parses and organizes musical sequences, creating structures – ideologies, or forms stored in memory. Rosenboom was interested in seeing if the signal can represent how attention shifts from one phenomenon to another. He was interested in the changes, or parsing points, guiding the formation of auditory gestalts in the brain when well-differentiated auditory events occur. (This interest in the perceptual structure created by the central engine of the nervous system was



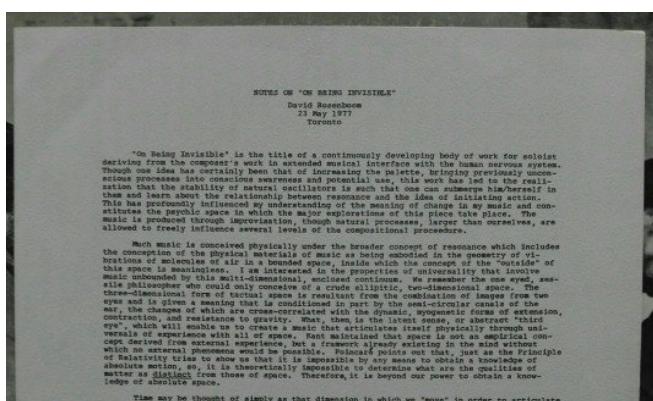
Manupelli's design with a pixilated image made of printed ASCII characters and an imbedded "invisible hinge."



partially inspired by the *temporal gestalt theory* of James Tenney.)

Attempting to understand better the meaning and functioning of auditory evoked responses/*event-related potentials* in the brain, in their connection to music, Rosenboom was looking for indicators of shifts of attention in the electroencephalogram and the temporal form auditory processing takes ,when sound travels from the ear to brain. So, the greater ambition of the OBI I design was recording event-related potentials and creating a self-organizing musical piece based on the idea of a *biocybernetics paradigm* – a feedback loop between signal-computer/processor-listener/performer – all affecting each other and provoking change in a chain.

Putting it simply – his question was: how does attention function in creating the perceived structure of music? And vice versa, how can learning to volitionally re-direct attention in various ways affect sonic output produced by a wired-in brainwave performer? In *On Being Invisible*, the performer chooses when to act invisibly as a part of a larger biocybernetic feedback loop and when to initiate change through shifting attention.





Manupelli specified this photo for the back of the cover showing the passing of an "invisible ace."



On Being Invisible

On Feb. 28, 1977, *On Being Invisible* (*OBI*) was performed at the Western Front in Vancouver. Stills from the black and white video shot there, capture David Rosenboom playing a touch-sensitive keyboard (Buchla 200 Electric Music Box), and also improvising in real-time with his brainwaves. The EEG output was sonified by a hybrid computer sound synthesis system. So in this neuromusical work, Rosenboom continued exploring ways to relate information processing in the human nervous system to aesthetic experience and possibilities of using biofeedback to create music.

Invited by Martin Bartlett, one of the founders of the performance space in Vancouver, Rosenboom gave a concert in two parts. The first involved the EEG system described above. In the second part of the live performance, he used his voice, finger cymbals, a monkey drum, and a reed instrument to activate the software.

A recording of the concert has been released for the first time by Black Truffle Records on the double-vinyl release of the historic album, *Brainwave Music*: <https://blacktruffle.bandcamp.com/album/brainwave-music>. Videos from the concert can be watched on Rosenboom's Vimeo channel (Part 1: <https://vimeo.com/719642072> and Part 2: <https://vimeo.com/719647772>) or YouTube channel (Part 1: <https://www.youtube.com/watch?v=FHOhbmfUZg> and Part 2: <https://www.youtube.com/watch?v=0-ApQyhcvbA>).



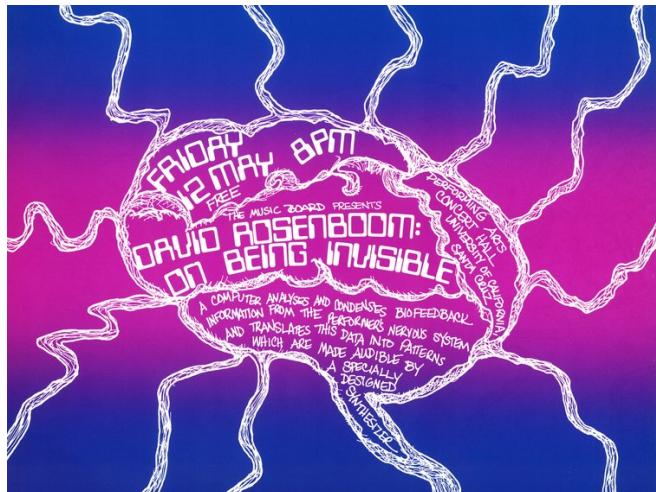
On Being Invisible was originally to be premiered at the Music Gallery in Toronto in 1976. But due to an electrical catastrophe that led to computer failure, the concert had to be canceled, while the audience was already gathered at the front door. Since the organizers had prepared beer for attendees, they were all invited inside. People gathered around the non-functioning set of equipment, looking at it with sad faces, as if they had come for a funeral.

(See colored picture.)

After rebuilding the equipment, Rosenboom performed the piece at the Music Gallery in 1977, and a recording was published on vinyl by Music Gallery Editions and later re-released on CD by Pogus Productions: <https://davidrosenboom.com/on-being-invisible>

On Being Invisible was performed later in other venues. A poster for one in Santa Cruz, California is shown here.





J. Jasmine – Western Front

April 8 and 9, 1978. David Rosenboom (piano, electronics, violin), Jacqueline Humbert (vocals), and Sam Ashley (voice) performing "Songs of J. Jasmine" at Western Front, a performance venue in Vancouver.

All but two of the songs performed were written by Jacqueline Humbert (aka J. Jasmine) in collaboration with David Rosenboom for the album "J. Jasmine - My New Music." One song on the album, "Rented Car, Painted Woman, Borrowed Time," was written by their friend, experimental filmmaker George Manupelli. Another, "Oasis In the Air," was written later for the film "Almost Crying", written and directed by Manupelli. The album was originally created for the 16th Ann Arbor Film Festival arranged by Manupelli. All the songs were subsequently rereleased in vinyl, CD, and digital forms, most recently by Unseen Worlds Records (New York).

The performance on April 8th was comprised of two sets: a solo improvisation by David Rosenboom and the trio performing the songs "Wild About the Lady," "Clear Light," "Androgyny," and "Younger Lady." On April 9th, the trio performed "Oasis In the Air," "Broke and Blue," "Grand Canyon Heartache," "Rented Car, Painted Woman, Borrowed Time," "Androgyny (return)," and "Strong Arms."



Jacqueline Humbert (a.k.a. J. Jasmine)



David Rosenboom

Source: Western Front legacy website: <https://legacywebsite.front.bc.ca/events/songs-of-j-jasmine>



David Rosenboom, Jacqueline Humbert (a.k.a. J. Jasmine), and Sam Ashley



Sam Ashley, wearing suite designed by Jacqueline Humbert



Jacqueline Humbert (a.k.a. J. Jasmine) and Sam Ashley



David Rosenboom

Rosenboom & Buchla – Collaboration 1978

Donald Buchla and David Rosenboom at Music Gallery (Toronto) in 1978 performing *How Much Better if Plymouth Rock Had Landed on the Pilgrims, Section V (Humanity)*.

The performance followed the release of the album "Collaboration in Performance" in 1978, recorded at 1750 Arch Records, Berkley, CA.

The recording featured two compositions:

- *And Out Come the Night Ears* created in 1978 for piano and Buchla 300 Series Electric Music Box—(released on the CD *Future Travel* by New World Records in 2007)—,
- *How Much Better if Plymouth Rock Had Landed on the Pilgrims, Section V (Humanity)* – composed and performed originally in 1969. The 1978 version was adapted for performance with two Buchla Series 300 Electric Music Box instruments. Conceptually the new version follows the idea of developing a set of cellular patterns in cyclical structures to create emerging forms of melody and rhythm. As the story goes, in 1977-78, while spending the summer in California, Rosenboom had been teaching Buchla to play the piano. Despite initial enthusiasm to learn the analog instrument, Buchla faced a certain frustration with



David Rosenboom and Donald Buchla with two 300 Series Electric Music Box Systems at Music Gallery, 1978



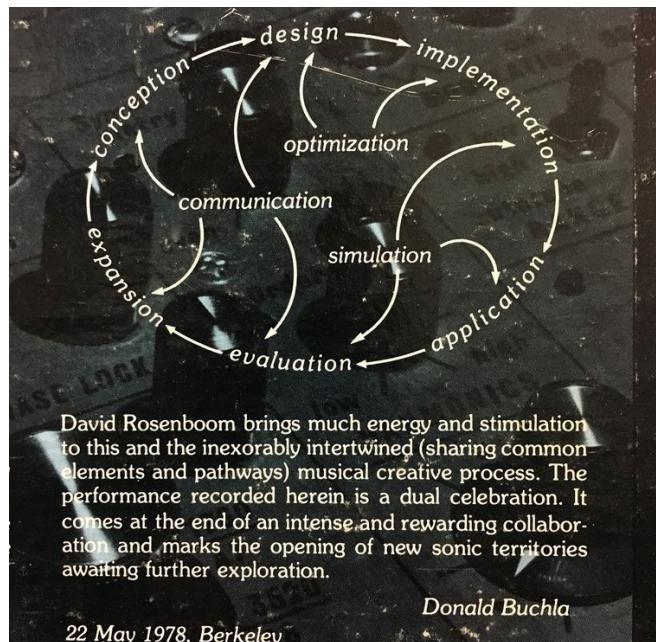
David Rosenboom and Donald Buchla with two 300 Series Electric Music Box Systems at Music Gallery, 1978

reproducing musical patterns on the piano himself. The engineering mind sought optimization of the task – as a result, patterns from *Plymouth Rock* . . . were programmed into the Buchla system, releasing its designer from the necessity to reproduce combinations proposed by Rosenboom in a traditional fashion.

Performance photos by Judy Whalen; album cover design by Jacqueline Humbert.



Rosenboom & Buchla – Collaboration in Performance, 1750 Arch Records, from front of vinyl jacket, 1978



David Rosenboom brings much energy and stimulation to this and the inexorably intertwined (sharing common elements and pathways) musical creative process. The performance recorded herein is a dual celebration. It comes at the end of an intense and rewarding collaboration and marks the opening of new sonic territories awaiting further exploration.

Donald Buchla

22 May 1978, Berkeley

Rosenboom & Buchla – Collaboration in Performance, 1750 Arch Records, from back of vinyl jacket, 1978





Rosenboom and Buchla from photo shoot for album cover, San Francisco, CA, 1978, album cover closeup



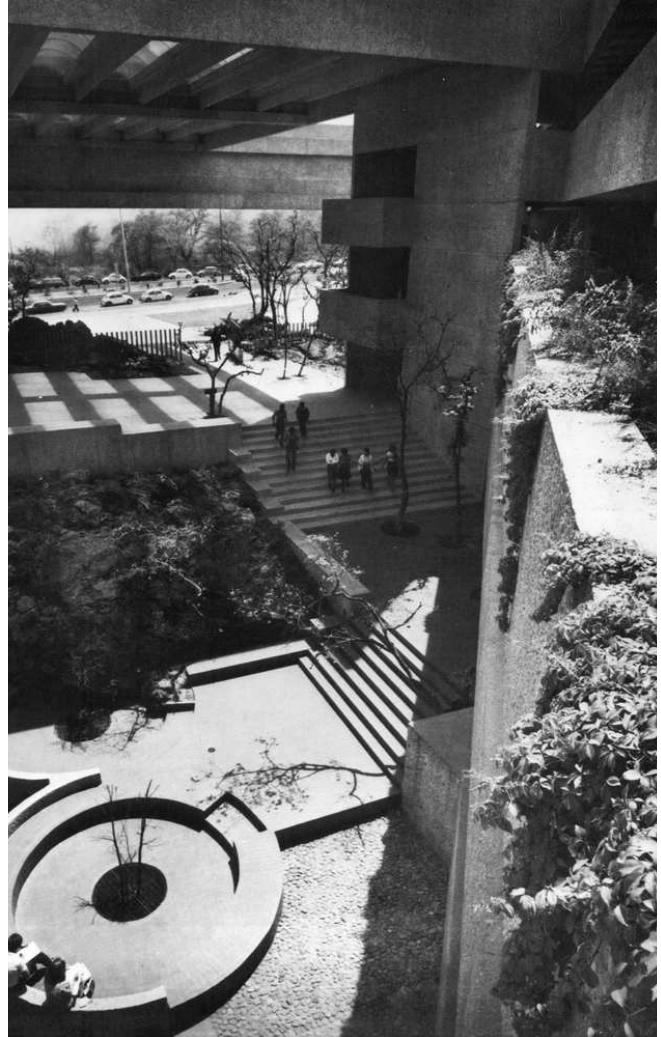
David Rosenboom and Donald Buchla with two 300 Series Electric Music Box Systems at Music Gallery, 1978

Las Ondas Cerebrales

December 14, 1978. David Rosenboom performs *On Being Invisible* (1977) as "Las Ondas Cerebrales en Concierto" at the College of Mexico. The concert took place in the outdoor space of the College, with Rosenboom sitting "isolated" in the center of the rotunda and with an audience looking from top down on him. Altogether enclosed by brutalist architecture, creating the feeling of a panopticon.

In this performance, Rosenboom used the Buchla 300 Electric Music Box, hybrid, micro-computer-controlled analog system, plus self-constructed EEG acquisition and analysis equipment. The 300 Electric Music Box would be later employed for the performance and recording of *In the Beginning* (1979-80) series.

The concert followed the seminar "Seminario Internacional de Estudios en Creacion Musical y Futuro" organized by the composer and researcher Julio Estrada at the National University of Mexico on behalf of the Institute for Investigations in Aesthetics. In addition to Rosenboom, two other composers represented North American institutions in the Seminario: Iannis Xenakis and Pauline Oliveros.



This image from: Heyer, P., Zabludovsky, A., & de León, T. G. (1978). Mexican Architecture: The Work of Abraham Zabludovsky and Teodoro González de León. New York: Walker and Company.



Touché

In 1979, Donald Buchla invited David Rosenboom to collaborate on the design of a new, keyboard instrument with digital sound generation and hybrid, computer controlled, analog outputs. The result was the Touché, released in the spring of 1980.

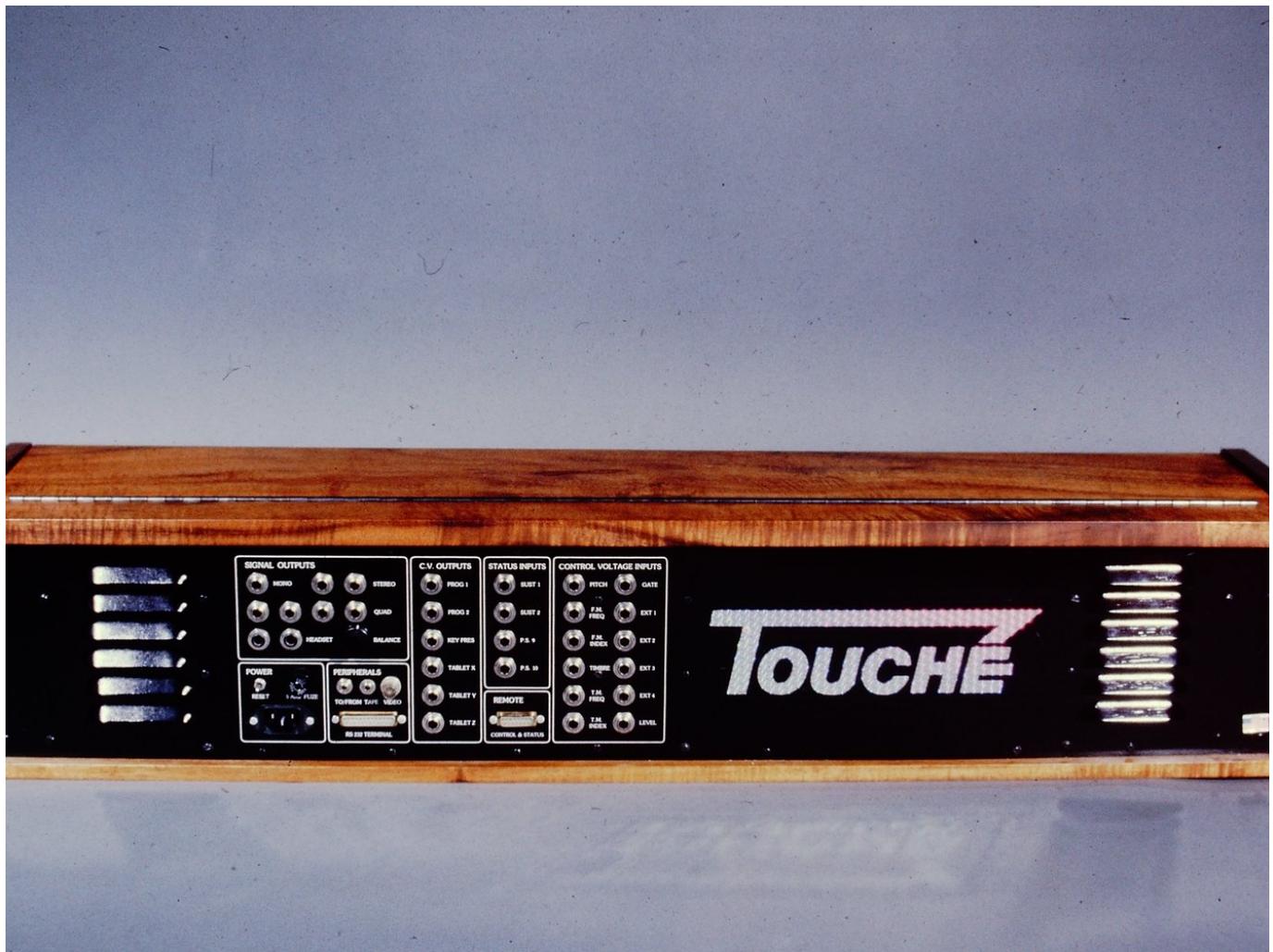


Front of the Touché

Among particular traits of the instrument are:

- flexibility in use – highly programmable (64 programmable function parameters available), a library of “instrument” structures that could be stored as “presets”;

- responsiveness – broad ability to program multiple stimuli and response structures in performance;
- non-linear waveshaping – getting an enormous range of sound with efficient means of control, i.e. using a small number of knobs.



Back of the Touché

The guiding idea of the instrument design was to optimize it for live performance. The hybrid, digital-analog nature of Touché assumes the following. On the digital side: a sound generating engine produced a wide range of timbre of sound possibilities with non-linear wave shaping techniques. On the analog side: a programmable analog circuit called Multiple Arbitrary Function Generator (MARF) enabled extensive control of all sound synthesis parameters.

Rosenboom's recordings Future Travel (1981) and Daytime Viewing (1983) offer extensive exposure to some particular sound worlds created with the Touché.



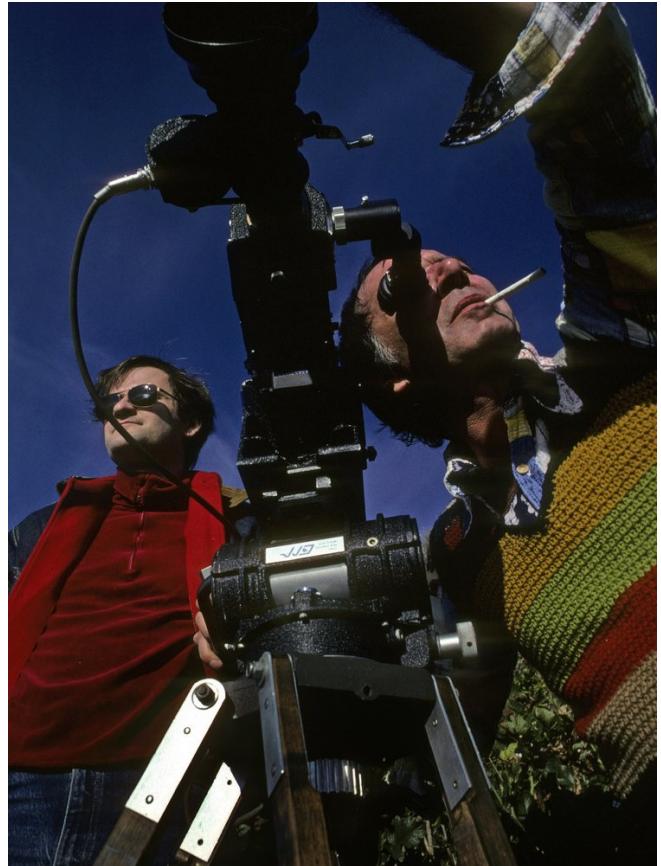
Example of programming screen for the Touché

In the Beginning Filming

"1980 (fall), shooting the film "In the Beginning V: The Story" at Point Reyes, California. A series of photos by Alan Schreiber featuring George Manupelli as the film director, Jacqueline Humbert as an actor, and David Rosenboom as the author of the scenario and music. Among the actors were also percussionist William Winant and dance artist Jean Moncrieff.

The film was created for the last composition in the series "In the Beginning" (1978-1981) by Rosenboom. Conceived as an exploration of resonant phenomena through the progression of symmetries and asymmetries by introducing into compositions linear and non-linear forms, harmonic and subharmonic patterns, and shapes of human expression, the series was a part of Rosenboom's long-term aspiration to model the evolution of the cosmos through composing.

"The Story" unfolds a narrative about human beings striving to double themselves, particularly through religion and technology, and the processes of emergence and evolution of a potentially global consciousness awakening through continuous perceptual differentiation, embodied in new concepts and beliefs. An excerpt of the dialogue created for "In the Beginning V" is featured on the



David Rosenboom and George Manupelli (with camera)

recording "Future Travel" (1981) as the voice part spoken by Humbert.



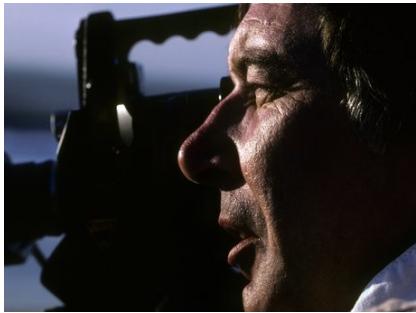
George Manupelli



David Rosenboom and George Manupelli



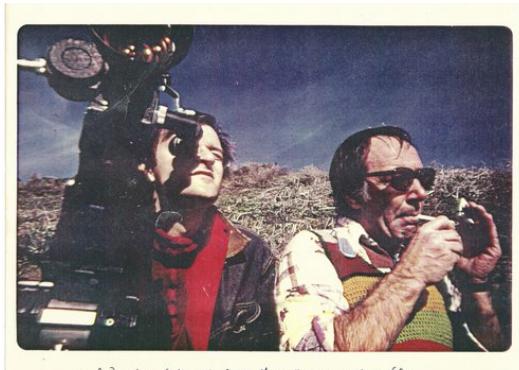
Jacqueline Humbert with clay applied to her face for the filming.



George Manupelli



Jacqueline Humbert waiting on set



David Rosenboom (left) and George Manupelli (right) making film for "In The Beginning II (The Story)" San Francisco area 1980

Document from filming image with hand writing by Rosenboom.

HMSL

1980s-1990s, HMSL (Hierarchical Music Specification Language). Experimental computer music language developed by Phil Burk, Larry Polansky, and David Rosenboom at the Mills College Center For Contemporary Music. Rosenboom first programmed an early template of what became a plan for HMSL data structures using Meta, meta-compilation software from Marinchip Systems, to use with the Touché digital keyboard instrument from Buchla & Associates. He used that in composing his *Zones of Influence*, concert-length composition for percussion soloist and live computer music system. The first releasable version of HMSL was developed in 1983 along with Burk and Polansky to run on the Commodore Amiga personal computer, which was extended to run on the first Apple Macintosh computer in 1985. These versions worked with external MIDI interfaces. The source code came along with the software, allowing users to customize and improve HMSL, along with a library of useful functions.

Over the years, the original designers and a community of software users developed spin-offs of the program. Phil Burk developed HMSL-DSP, a version that could implement real-time digital synthesis and signal processing with Sound Designer digital interface cards made for computers with Nubus interface capability. Robert Marsanyi, along with Phil Burk, developed a graphical interface extension, called Wires. In 1990 David Rosenboom developed his HFG (Hierarchical Form Generator) written with HMSL, and in the early 2000s, Nick Didkovsky released Java Music Specification Language (JMSL), that was inspired by HMSL.

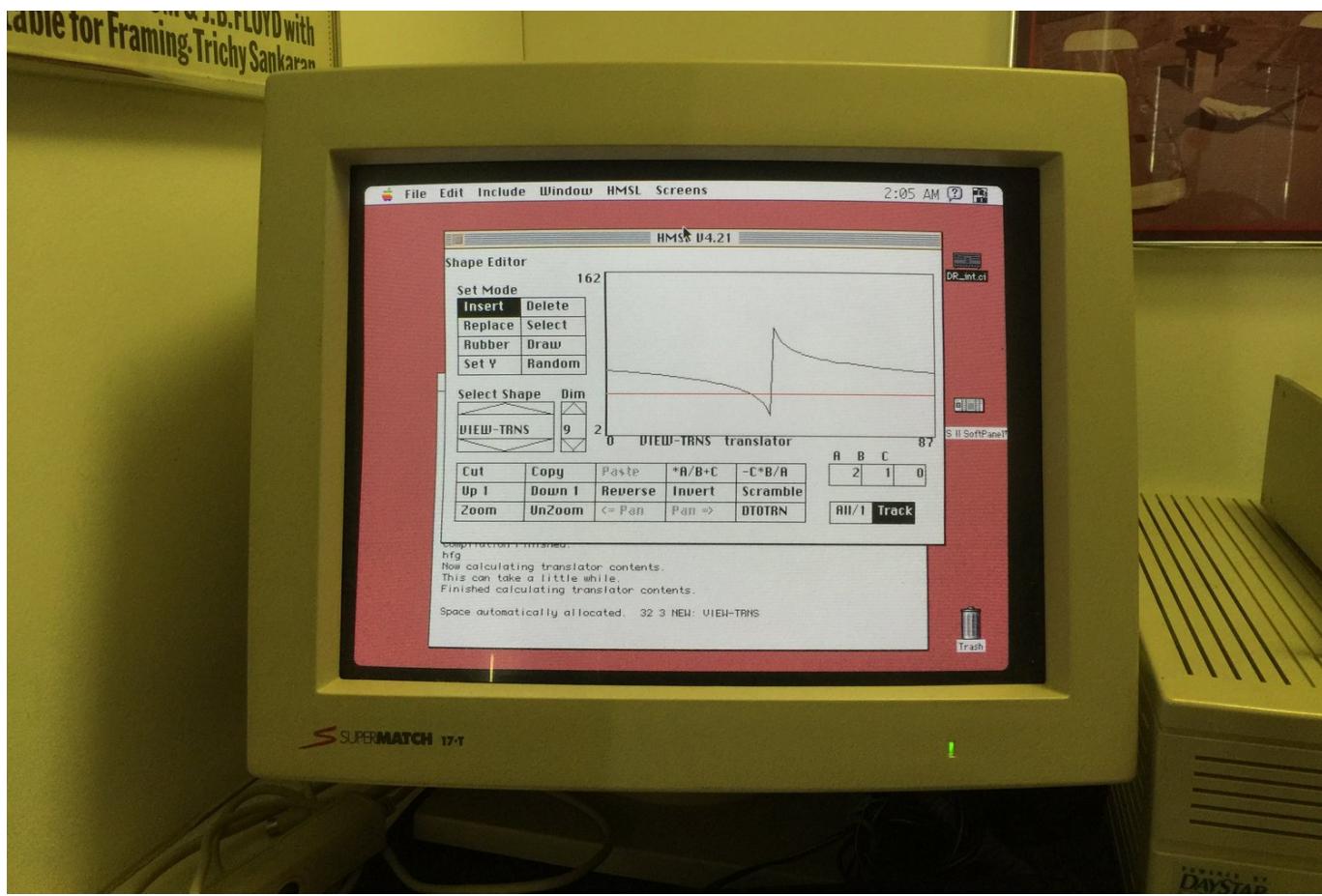
The following are very early video examples of Rosenboom using HMSL in performance and discussing the musical concepts involved:

Improvisation with HMSL - Systems of Judgement, Western Front (1990): <https://vimeo.com/271766924?share=copy>

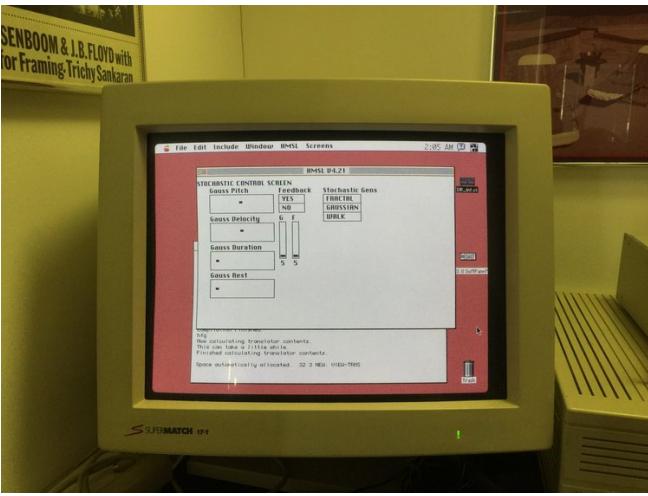
Improvisation with HMSL and Hierarchical Form Generator (HFG), Western Front (1991): <https://vimeo.com/271732371?share=copy>

For a long time thereafter, HMSL continued to inspire a wide community of users to develop an ever-expanding kit of tools for real-time algorithmic composition and performance in experimental music.





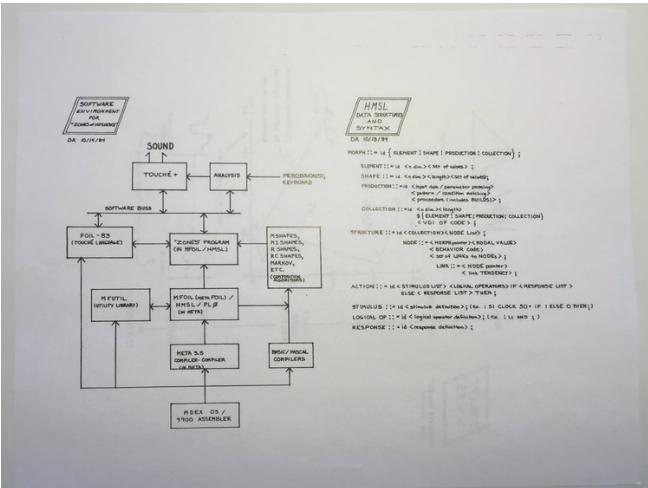
HMSL Shape Editor screen running on a Macintosh IIci computer.



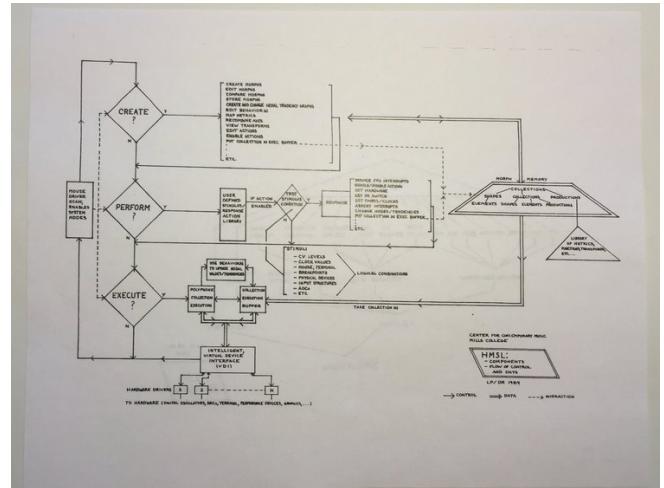
HMSL Stochastic Control Screen



Left: Macintosh IIci running HFG with Rosenboom's data acquisition hardware used to collect EEG signals for his self-organizing brainwave opera, *On Being Invisible II (Hypatia Speaks to Jefferson in a Dream)*, 1994. Right: Macintosh IIsi running It's About to . . . Sound, developed by Rosenboom in collaboration with Mark Coniglio and Stephen "Lucky" Mosco for Rollyhollyover...A Circus, an interactive exhibition at Museum of Contemporary Art, Los Angeles, celebrating the work of John Cage and selected other artists and composers, 1992.

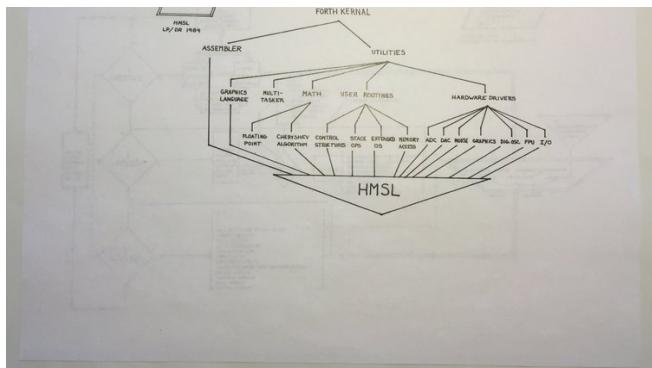


Rosenboom's early template for HMSL running on the Touché for his *Zones of Influence*, 1984, on display at Whitechapel Gallery, London, 2014

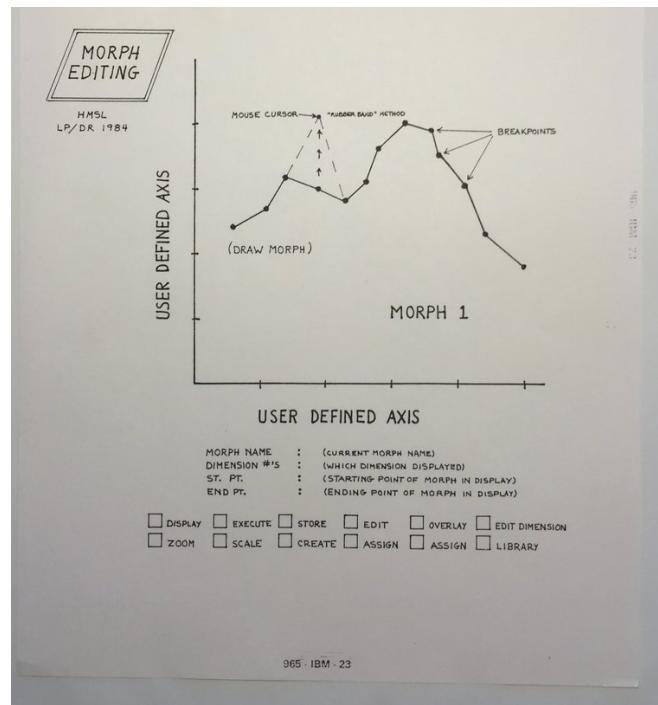


Early diagram for HMSL's components, 1984, on display at Whitechapel Gallery, London, 2014





HMSL's Software Web, 1984, on display at Whitechapel Gallery, London, 2014



Morph Editing—(editing morphological shapes to be applied to compositional parameters)—in HMSL, 1984, on display at Whitechapel Gallery, London, 2014.

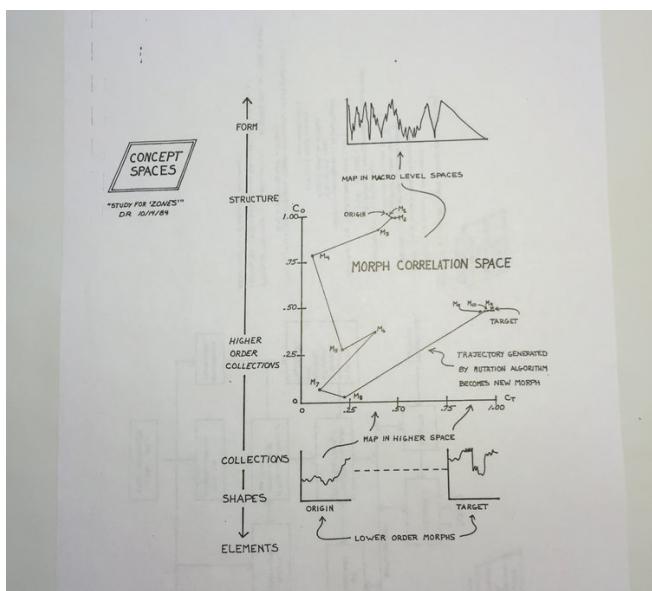
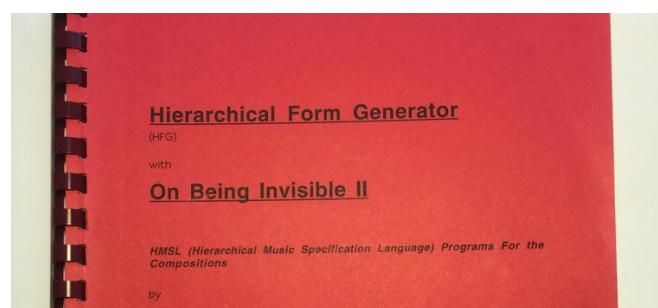
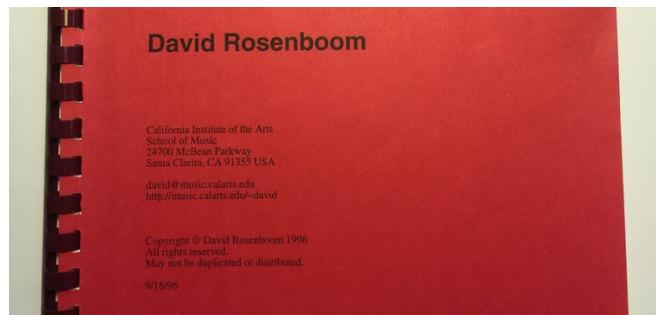
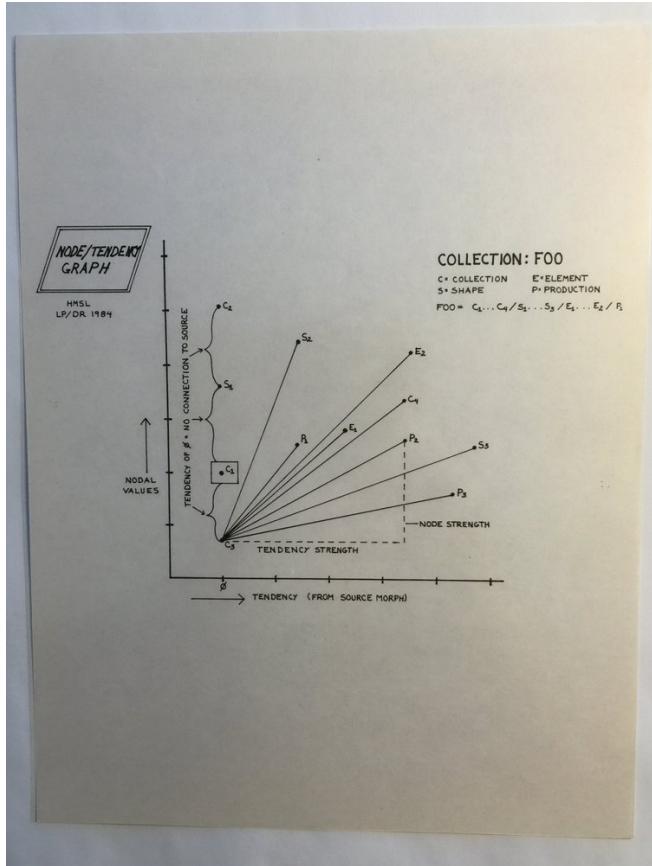


Diagram of "Concept Spaces" for Roenboom's Zones of Influence

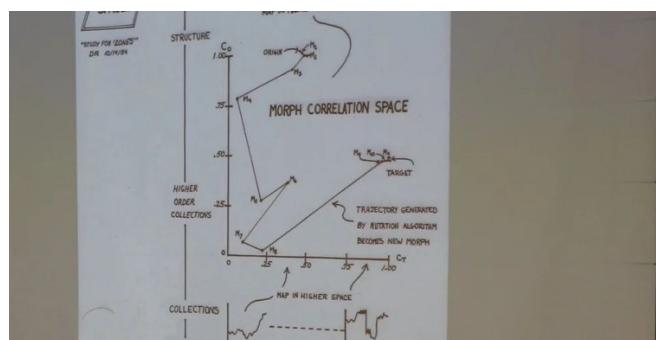
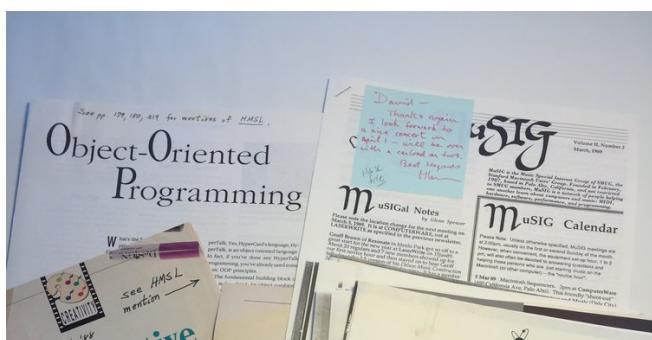




Code sourcebook for Rosenboom's Hierarchical Form Generator (HFG) and his composition *On Being Invisible II (Hypatia Speaks to Jefferson in a Dream)*, 1996



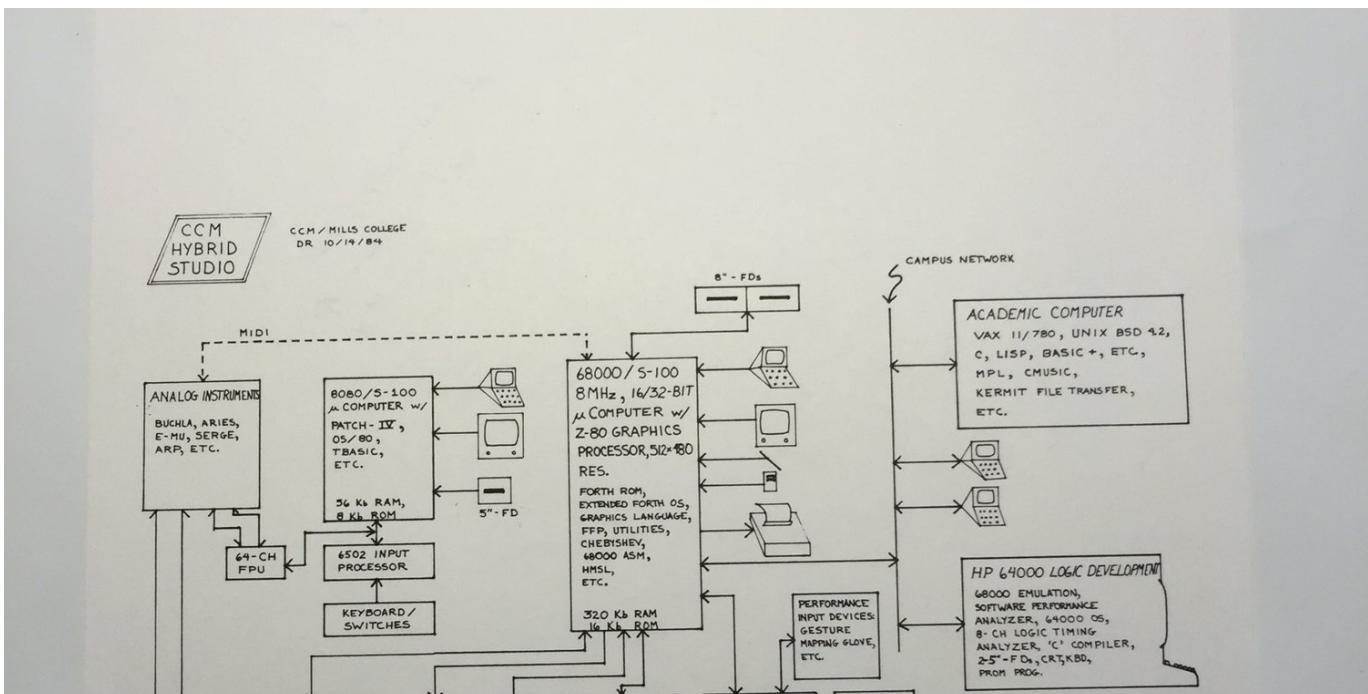
"Node/Tendency Graph"—(ways of establishing tendencies of processes to follow or initiate each other in HMSL)—, 1984, on display at Whitechapel Gallery, London, 2014





Rosenboom lecturing at the University of Illinois about "Concept Spaces" and HMSL., 2022. Photo: A. Chernysheva

HMSL was written about in numerous publications highlighting new directions in computer music.



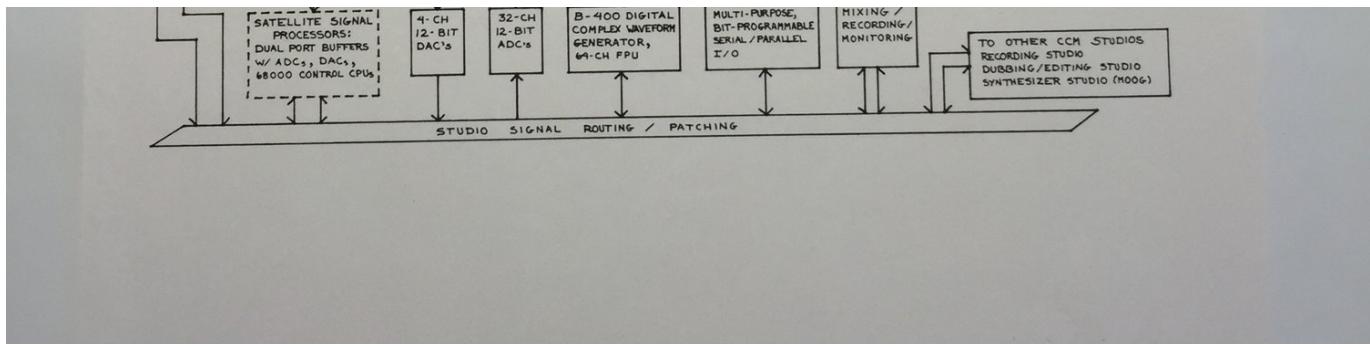


Chart of systems design for computer music tools, including HMSL, in the Mills College Center for Contemporary Music, 1980s

Ringing Minds Premiere 2014

May 31st, 2014. Premier of *Ringing Minds* at Mainly Mozart (Mozart and the Mind) festival in La Jolla, California. The first brainwave piece created since 1995 continues the idea of a brainwave quartet first realized in *Portable Gold and Philosophers' Stones* (1972). While previously working on brainwave pieces independently, for developing *Ringing Minds*, Rosenboom collaborated with computational neuroscientist-entrepreneur Tim Mullen and ethnomusicologist-cognitive scientist Alexander Khalil, both then working at UCSD.



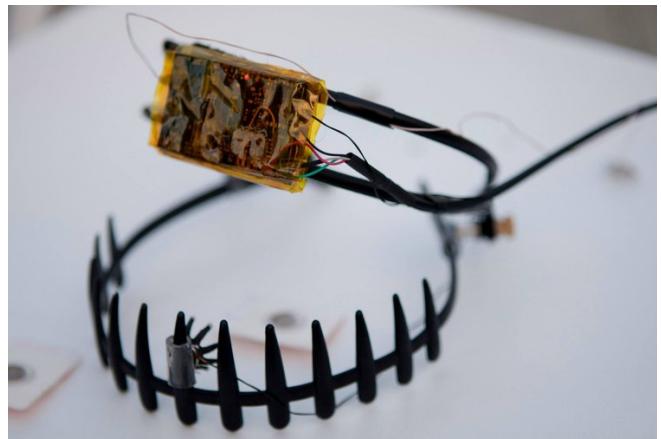
The design of the performance included six main components: (1) four participants wearing EEG headsets, (2) signal processing software, (3) visual feedback display, (4) a custom software-based electronic music instrument driven by a hyper-brain, (5) musicians with violin and lithophone and (6) five-channel spatial audio output. Importantly, the EEG headsets used in the performance were

designed by Tim Mullen based on the idea developed together with Alex Khalil. The custom-made devices are notable for their flexible design with dry sensors and use of miniaturized bio-amplifiers provided by Cognionics Inc. (Mullen et all, 2015, p. 222)

The novel performance elements and scientific techniques introduced in *Ringing Minds* include:

- Hyperscanning technique – electroencephalograms from four active imaginative listeners wearing EEG devices are analyzed as one hyper-brain (comprised of several elements).

- Principle oscillation patterns (POPs) – POPs (deriving from epilepsy research) are extracted from EEG signals to reveal resonant patterns in the hyper-brain, allowing investigation of phenomena of complexity emerging in brain signals concurrently with changes in perceived auditory stimuli. Opportunities to notice the generation of cognitive patterns when subjects/performers are processing incoming auditory signals are enhanced.



- Evoked responses – event related potentials (ERPs) are recorded in EEGs averaged spatially across the hyper-brain, rather than temporally, to mark responses to significant changes in the auditory environment.
- Sonification of brain activity – music emerges from creation of “a field of ringing” with complex electronic sound resonators driven by data coming from principal oscillation pattern analysis. Concurrently, two musicians playing lithophone and electric violin respond to activity in this sound field, joining the four active imaginative listeners to form an ensemble. In turn, the collective brain responds to sounds created by the improvising musicians – making the resonator field undulate. This reminds of tossing stones of different shapes into a vast sonic lake – allowing us to hear their ever-expanding sonic ripples.



In this interaction, the musical instruments help realize a composition model inspired by the analytical model applied to the EEG signals generated by the performing group. Thus, we have a closed feedback loop.

The technical details and conceptual motifs of the Ringing Minds performance can be found in the article *MindMusic: playful and social installations at the interface between music and the brain* (2015) included in the book edited by A. Nijholt: <https://link.springer.com/book/10.1007/978-981-287-546-4>

installations at the interface between music and the brain (2015) included in the book edited by A. Nijholt: <https://link.springer.com/book/10.1007/978-981-287-546-4>

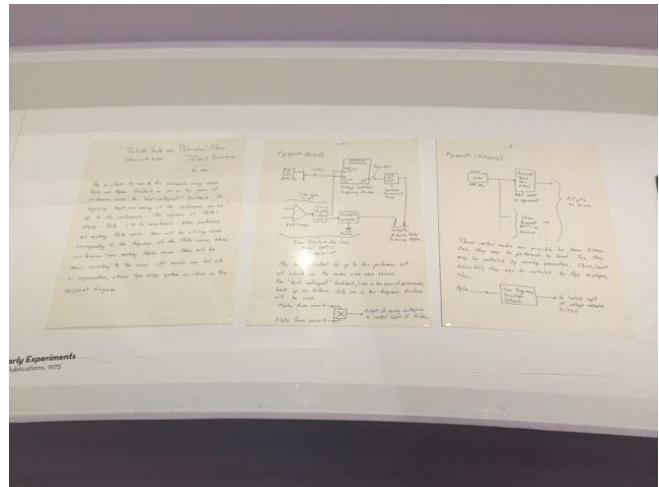
Photo credit: J. Kat



Cosa Mentale 2015-16

"Cosa mentale. Les imaginaires de la télépathie dans l'art du XXe siècle" (2015-16) curated by Pascal Rousseau (contemporary art historian) explored the history of utopian thinking about thought and emotion transmission over more than a century. Taking as a starting point the year 1882, when the word "telepathy" came into use, the exhibition investigated the para-psychological phenomenon that strangely mixes art with science.

Focusing on the artistic imaginary of interpersonal non-linguistic communication, surveying the work of over a hundred avant-garde artists from Vassily Kandinsky to Susan Hiller, it parallels speculative imagination of possibility to "photograph" a thought (1895) and breakthrough scientific discoveries, such as the first electroencephalogram (1924) made by Hans Berger. In addition to considering antecedents to neuroscience and post-war counter-culture artists' obsession with the idea of communion with each other and their audience, the exhibition shows how the wildest products of human imagination (from mysticism to science fiction) anticipated the real forthcoming developments in information technology and telecommunication specifically.



The exhibition unfolded as a sequence of 5

1) Introduction - centered around Rodin's Thinker accompanied by media art of Nam June Paik,

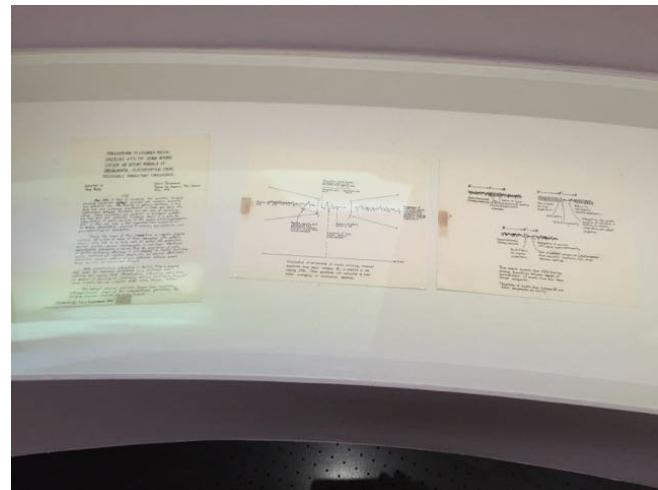
2) Auras - the earliest attempts of visualizing thought and emotional states and their impact on the birth of abstract art,

3) Magnetic Fields - the spread of telepathy in the interwar period and its influence on surrealism,

4) Mind Expander - concurrent influence of cybernetics and psychedelic culture on conceptual art,

5) Telepathy - establishment of telematic and "telepathic" art.

The last chapter featured the brainwave music of David Rosenboom. He was also invited to perform his latest brainwave piece – *Portable Gold and Philosophers' Stones (Deviant Resonances)* (2015) at the exhibition preview on October 25 and the opening on October 27.





INVITATION
PREVIEW

COSA MENTALE

**LES IMAGINAIRES DE LA TÉLÉPATHIE
DANS L'ART DU XX^e SIÈCLE**

Commissaire: Pascal Rousseau

Dimanche 25 octobre 2015
à partir de 12:00

Centre Pompidou-Metz

14:30 : performance *Portable Gold and Philosophers Stones (Deviant Resonances)* de David Rosenboom
15:00 : *The Pompidou-Metz Telepathic Performance, 9am, 25 October, 2015* de Robert Barry

RSVP avant le 20 octobre 2015 :
dejeuner2510@centrepompidou-metz.fr

Cette invitation, valable pour 2 personnes, uniquement ce jour et sur présentation de cet e-mail, vous permettra d'accéder à l'exposition jusqu'à 17:00 et de participer au brunch organisé à cette occasion.



October 3rd, 2022, the opening of Rosenboom's residency as a George A. Miller Visiting professor at the University of Illinois Urbana-Champaign (UIUC) with a lecture called "Neuromusic – Propositions from an Art-Science Convergence" for the MillerComm lecture series sponsored by the Center for Advanced Study at UIUC. In this talk, Rosenboom shared the story of his journey towards the development of the unique compositional approach he calls propositional music that started while he was a student in Urbana in the mid-1960s. He also shared recent insights discovered through various cross-disciplinary collaborations in the last decade. Many of these were related to Rosenboom's acclaimed work on extended musical interface with the human nervous system realized in the form of brainwave music. At present, he is expanding this in scientific and musical research paradigm that he calls concurrent complexity. He views this as a neuro-cybernetic approach to measuring complexity in multi-modal, networked stimulus environments and correlating those to measures of complexity in signals from hyper-brains (several participants "connected" with EEG devices) to produce immersive, creative experiences in a feedback framework that can enable self-organization.

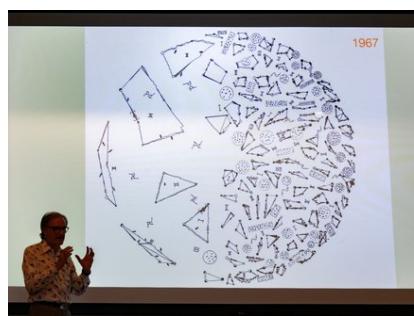
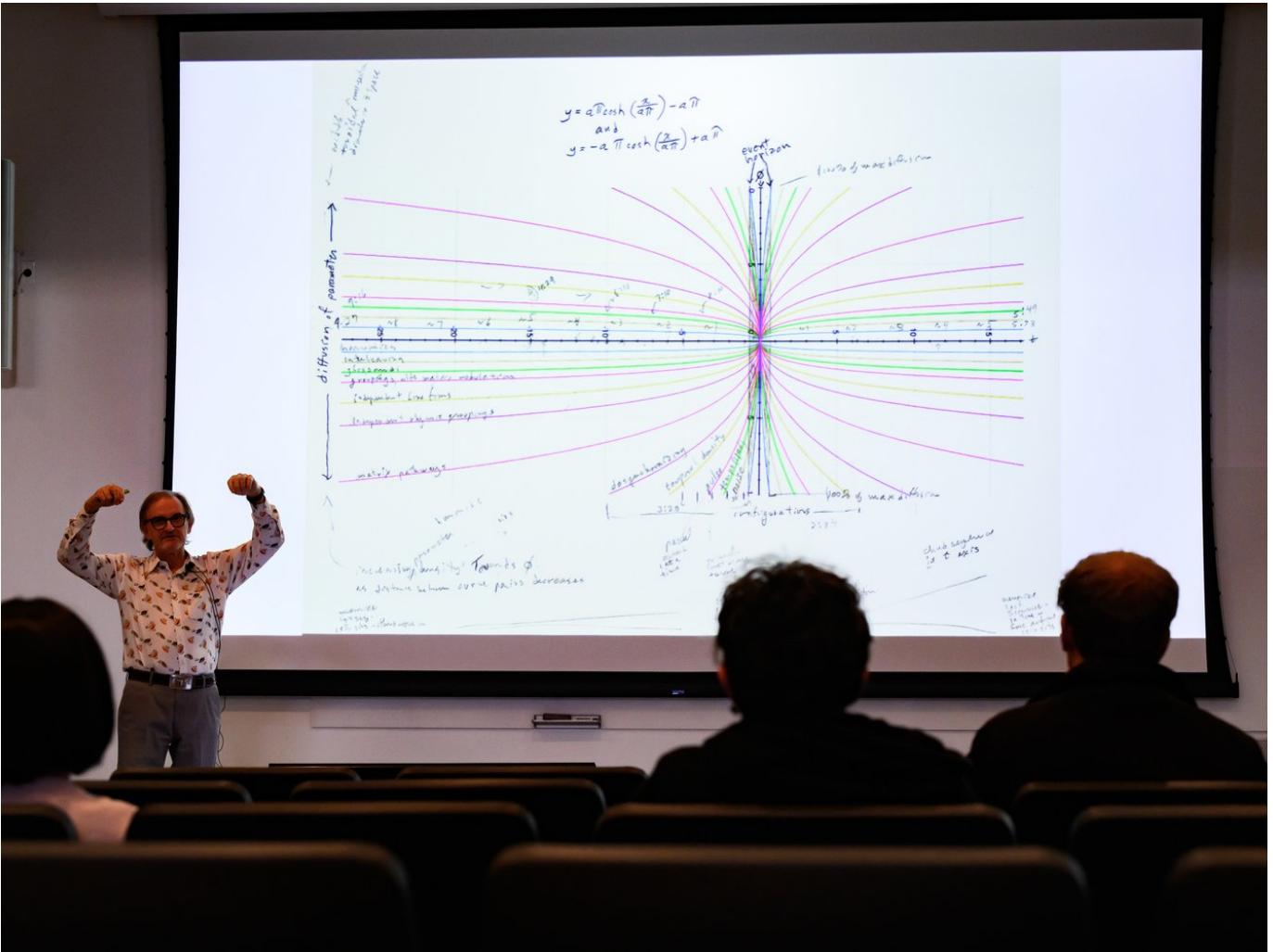


Rosenboom's lecture was followed by a panel discussion with science historian David Sepkoski, composer and instrument designer Carla Scaletti, and physicist and author of science-inspired musical works Smitha Vishveshwara exploring the inherent interconnectedness of arts and sciences and prospects for further cross-pollination among different disciplines.

Read about the residency: <https://davidrosenboom.com/miller-residency-uiuc-2022>

Recording of the MillerComm lecture & discussion: https://mediaspaces.illinois.edu/media/t/1_3od7kfir/35316991

Photo credit: Fred Zwicky





Prop Music UIUC

October 13th, 2022, concert of Propositional Music at the University of Illinois, Urbana-Champaign. This performance was a part of an event series in conjunction with Rosenboom's residency at UIUC as a George A. Miller Visiting Professor. The evening's program included Rosenboom's compositions:

- "Tango Secretum," "Out of Truth (Don't Motto)" with film by Lewis Klahr, "Earth Encomium" with "Nothingness is Unstable," "Keyboard Study for 'ZONES'" — solo pieces performed by David Rosenboom.
- "Portable Gold and Philosophers' Stones (Deviant Resonances)" performed by Rosenboom with Joy Yang and Jake Metz as brainwave performers (a.k.a active imaginative listeners-performers).
- "Hymn of Change" from "Bell Solaris," and "Battle Hymn of Insurgent Arts" performed by the Illinois Modern Ensemble conducted by Stephen Taylor.
- Several pieces were accompanied by live interactive video projections created by Ben Grosser and presented by John Martirano.

Read about the residency: <https://davidrosenboom.com/miller-residency-uiuc-2022>

Photo credit: Fred Zwicky





Mills 2022

April, 2022 – “Music in the Fault Zone” at Mills. Featured in the grand festival subtitled “Experimental Music at Mills College (1939 to the present)” Rosenboom played a part in the Challenge trio recreation – with James Fei and William Winant – and performed his solo work falling into the domain of what he calls propositional music.

Joining the Music Department of Mills College in 1979 and staying in the position till transitioning to CalArts in 1990, Rosenboom headed the Center for Contemporary Music (CCM) for several years – organizing the CCM seminars with invited speakers (of various expertise – from Iannis Xenakis to Heinz von Foerster), using the facilities of the center as a platform for the development of HMSL and for collaborative compositional and performance work. One such collaborative project was the Challenge group (1986-89) – a trio comprised of Anthony Braxton, William Winant, and Rosenboom himself. Given that the body of work created by the group wasn’t well-documented for retrospective appreciation, the performance of the excerpts of “Composition No. 107” written by Braxton – adapted it for winds (Fei), percussion (Winant), and piano with electronics (Rosenboom) – became a unique commemoration of the project.



The concluding day of the Festival at Mills was opened by the recent and recently re-envisioned work of Rosenboom. Starting with "Choose Your Universe" (2019), he proceeded with "Earth Encomium" (2017) and "Nothingness is Unstable" (2017) — accompanied by the video narrative "A Summary of History of Humans in the World." The Summary critically surveys the history of human culture from ancient times to the modern day. Trying to identify the causes of the recurring disarray in human socio-cultural existence, the author makes the claim that commodified ignorance — the self-enchantment with illusions of a political or mystical kind, runs as a red line throughout the entire course of human history. The solo performance was finalized with an exploration of dynamic systems' behavior in the work "Music for Unstable Circuits" composed in 1968 and revisioned in 2018.

Photo credit: Robbi Sweeny



