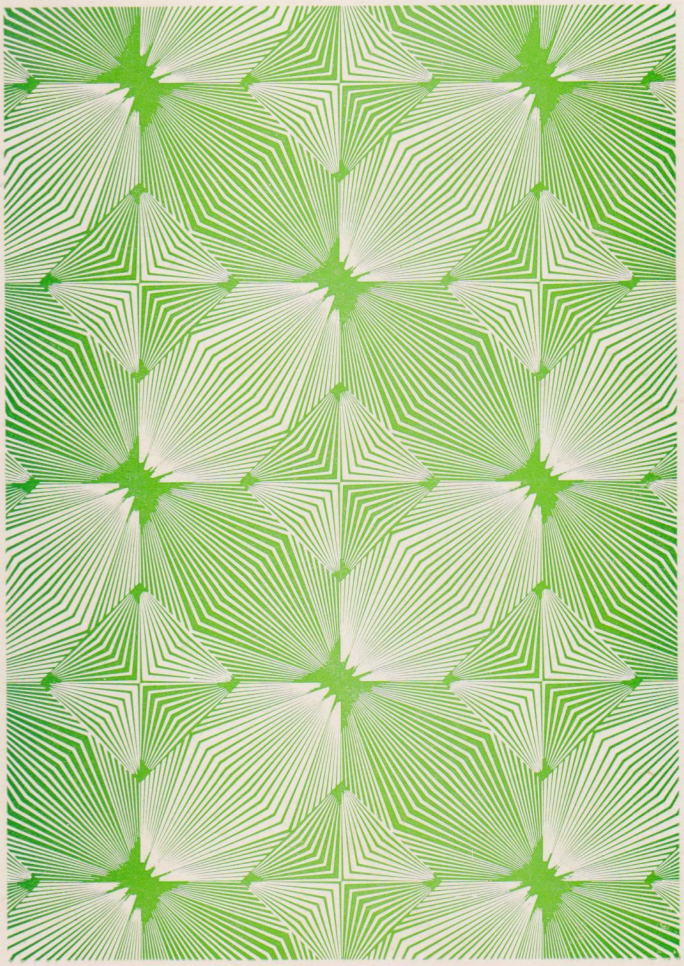
SYNAPSE

AN ELECTRONIC MUSIC MAGAZINE . . .



SYNAPSE

AN ELECTRONIC MUSIC MAGAZINE . . .

MORTON SUBOTNICK INTERVIEW. . . . . Page 2
STAFF INFO & EDITOR'S NOTE . . . . . Page 4
ORGANIZING AN ELECTRONIC CONCERT . . . . . Page 6
COPYRIGHTING ELECTRONIC MUSIC . . . . . Page 8
MANUFACTURER'S LISTING . . . . . Page 10
EPHEMERAL FORMS . . . . . Page 12
PERFORMANCE LISTING. . . . . Page 15
WHAT'S HAPPENING. . . . . Page 18
RECORD REVIEWS . . . . . Page 19
SUBSCRIPTION FORM . . . . . Page 23
BLACK NOISE (A score). . . . . Insert

SECOND ISSUE *APRIL-MAY '76* *Volume 1 No. 2 $1.25*

Morton Subotnick

Did you start-out as a synthesist?

No, I was a clarinetist. I was composing a long time before Electronic Music (EM) came into being. I was interested in EM before there were synthesizers because I was involved in the avant garde music scene of the late Fifties and EM was just part of that scene. Theater music was intriguing to me at the time from two standpoints. One was to earn a living and the other was to write music AS theater (actually what is now Multi-media.) EM and tape music seemed to be a more pure way of doing music FOR the theater too. In '59 I did a score for KING LEAR in S.F. and I used the actual voice of the actor playing Lear to make the storm scene. That was my first thing and it was really successful. A group of us decided that we wanted access to Electronic equipment here on the west coast. The only U.S. studios were at Urbanna in Illinois and at Columbia in New York. We went to the Rockefeller Foundation to get the money to finance a studio here on the west coast. They felt that there wasn't enough interest and it would probably be cheaper for them to fly people back and forth from New York instead of building another studio!

Who were you working with at the time?

Pauline Oliveros and Ramon Sender and I started a studio that was totally independent from any university. Our private enterprise was based in a large building, an ex-Communist headquarters, which we rented out to dance workshops and KPFA radio, who turned one of the auditoriums into a sound studio. Between them, our rent was paid so we did monthly concerts to pay for the engineering.

Were you using Buchla equipment?

No. It didn't exist, nothing existed, no Moogs or anything. Donald Buchla came around the first year and got involved as did several other engineers. We finally ended up with Buchla as he seemed the most tenacious. There were a few Moog devices around and a few other Voltage Controlled (VC'd) devices. I think then that the Moog Oscillator, envelope generator, and keyboard existed. There wasn't a system, just these few studio devices.

Manually controlled studio filters were wonderful. Composers didn't know the value of VC, Moog hadn't suggested or thought of it yet. His idea was to make an instrument – sort of a super organ. At the time, classical EM was being made by cutting and splicing tape. It was very hard to make envelopes this way and that's why the envelope generator evolved so quickly. Once you had these three devices you could start additive synthesis or subtractive synthesis. (The VCA & Ev. Gen were combined.)

Ramon and I were interested in making the ultimate "black box". We wanted a small system that was completely VC'd. To us there was no essential need for sophisticated oscillators, because it didn't matter if an oscillator didn't stay in tune as long as a violin. I was dealing with the music. The perfection of sine tones was of no interest to me. If I had to re-tune the VCOs all the time – it didn't matter. What DID matter was having a system designed around my particular concept of music; that of a parametrical approach stemming from twelve-tone techniques. I wanted to control every parameter separately. The idea of a black and white keyboard was really dumb for me – I didn't care about that stuff. If I wanted a musical instrument like that I'd go back to the clarinet. If I wanted to write things for instruments I didn't have any problems; but, I was really concerned with the basic, theoretical, aesthetic problem of the time: the breakdown of all parameters and the rebuilding of the meaning of Amplitude (volume), Timbre (Tone) time and spatial positioning.

We started from scratch in S.F. and quickly built-up a classical tape studio. Immediately we began looking for an engineer to build us this device. In addition to the manually controllable oscillators, filters and tape recorders we had a Chamberlin keyboard. It's sort of a Mellotron in that it has a loop of pre-recorded tape under each key. We got this just as it hit the market so we took the tapes out and re-programmed them. We were really dealing on an individual basis so any composer could come in and insert a rack of his tapes into the keyboard. He'd be able to work with his own language right there. It was a great idea but the machine wasn't designed for such constant tape replacement. Mills College now has the Chamberlain as well as the tapes.

CONTINUED ON PAGE 20

SYNAPSE

BRETT WEBSTER
EDITOR

BUSINESS MANAGER
BARRY S. COOPER

ADVERTISING & DESIGN
ANGELA SCHILL

ART DIRECTION
DINA NOVAK

NEW YORK CORRESPONDENT
RANDY COHEN

MUSIC ADVISER
MAURY DELL

ELECTRONIC ADVISER
RONALD A. BECKER

PHOTOGRAPHIC COORDINATOR
ANDREW CAFFREY

TYPESETTING
MJL II

SYNAPSE IS PUBLISHED BI-MONTHLY BY CONTEMPO PUBLISHING, P.O. BOX 359, NORTH HOLLYWOOD, CALIFORNIA 91603. YEARLY SUBSCRIPTION: $6.00 U.S. / $7.00 FOREIGN. WE CANNOT BE RESPONSIBLE FOR UNSOLICITED MANUSCRIPTS, PHOTOS, OR SCORES. ALL CONTRIBUTIONS AND ADS SHOULD BE ADDRESSED TO CONTEMPO PUBLISHING, 13273 VENTURA BLVD., SUITE 104, STUDIO CITY, CALIFORNIA 91604, (213) 784-8271. PLEASE INCLUDE A SELF ADDRESSED, STAMPED ENVELOPE WITH ALL UNSOLICITED MS. PRINTED IN THE U.S.A.

EDITOR'S NOTE

With this issue came the decision to go bi-monthly and expand. Therefore, with six issues a year, your cost becomes $6.00 a year. Former subscribers will be credited with a two year subscription.

And, under the heading of things you asked for: a special insert of Bryce Robbley's electronic score has been included. Perhaps next month a Synapse wall poster. Keep asking!

Brett Webster

COMPUTERS

Electronic music and computers have long been on a collision course with each other. Until recently, cost has been one of the most prohibitive factors. The advent of integrated circuit microcomputers, or microprocessors as they are called, has made computers affordable by almost anyone.

One such synthesizer-computer system is shown in the picture above. It is presently being developed by Alex Cima and Peter Hillen.

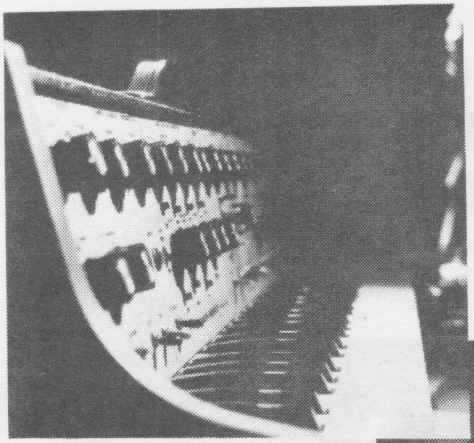
The synthesizer is a Steiner Parker which is ideally suited for this application because all inputs and outputs are readily available for computer control.

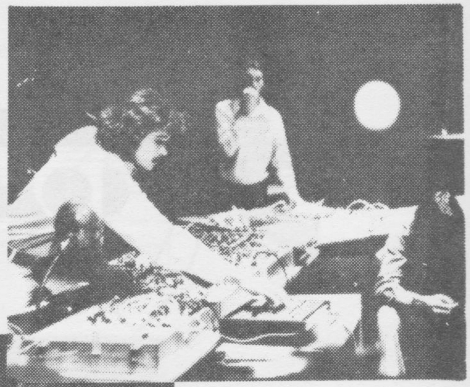
The microprocessor is a National Semiconductor PACE. It is supported by a development system called PACER, which provides power and interfacing to make a complete computer system.

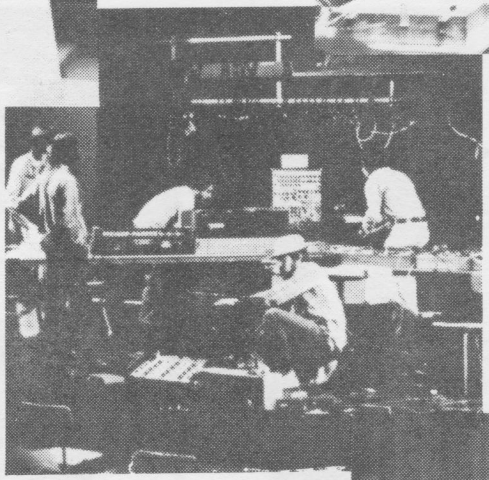
Trying to get these two entities to work together is impossible unless the correct translation medium is used. This comes in the form of analog to digital and digital to analog converters. These elements convert the analog waveforms and control signals from the synthesizer into digital words which are understood by the computer and vice versa.

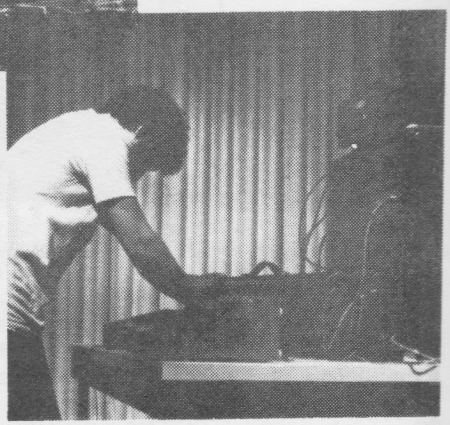
The whole system allows the computer to store waveforms or control voltages to effect a digital echo or a sequencer. Also, the computer can process control voltages to a specific set of rules. Example, monitor the control voltage of one oscillator and calculate the control voltage of a second oscillator to keep it an interval apart without going out of scale.

Although low cost synthesizer-computer systems have their limits, they still open up vast new areas which are yet unexplored in Electronics Music.









Organizing an ELECTRONIC CONCERT

By Alex Cima

The successful production and promotion of a concert is something quite apart and altogether different from possessing musical talent, it requires tact, patience, and a resolute determination to carry one out. Assuming your budget is zero, you have never organized one, and that the concert is likely to be free to the public, you may feel somewhat disgruntled because of the seeming obstacles in your way, take note, it is not so hard!

THE MUSIC:

The nature of the musical material depends on your concept of electronic music. To some people, keyboard glissandos of filtered square waves represent such activities. To others, anything which fails to resemble Mikrophonie I and II by Stockhausen may be disdained. There is more, several composers will not be caught in a "tape" concert without live performers, yet others prefer to work only in the tape studio . . . some realize Bach or Gershwin scores . . . some want to use tape and/or synthesizers in rock, jazz, and as yet undetermined directions. The available equipment, performers, and your own familiarity with the electronic repertoire will most likely decide your programming.

Tape concerts are more interesting if visuals of some sort are incorporated, such as slides or film; roam art departments and find out who works in a compatible medium for your concert. Perhaps you are fortunate enough to find faculty or students with access to synthesizers, in which case either an all-live or tape/live concert could come about. Some works may include acoustic instruments as well. The possibilities depend on your investigative abilities and contacts which you develop through schools and other sources . . . don't overlook dancers. May I suggest the concert be within 60 to 90 minutes of music, and that you pay careful attention to the music which will be submitted for your consideration: compositions in excess of 15 minutes should be truly outstanding while shorter works of a more esoteric nature may be easier on a probably naive audience. Then again maybe not. This subject can only be decided by you and your ears (or perhaps you organized a committee for this purpose). Don't be scared to try different approaches, your resourcefulness and innovative outlook are your best tools. In a 90 minute concert 6 composers each have about 15 minutes for their music, this arrangement has worked well and there is a built in limit which will help you obtain an interesting and varied musical experience.

Who to ask then? The most likely source is a music dept. with an electronic music studio, in fact, recruit from more than one school. Try music dept. faculty, graduate and undergraduate students, some high schools and recording studios, some of your friends, and of course, your own works. Don't be surprised to encounter sticky political imbroglios when you set about to find your masterpieces, some people will not want to play in a "student" concert, or they may attempt to take over its direction and content, or they may not take you seriously . . . well, if you demonstrate that you get audiences, you may see remarkable changes and contrite souls.

THE PLACE:

Somewhere in your community there is an auditorium waiting to be used, perhaps to be found in a school, library, art gallery, or church. For a first effort be satisfied with a "house" large enough for about 100 to 150 people, if more show up then you have a standing-room-only crowd, which is always better than obtaining a house for 400 and only half show up, though the arithmetic may be similar.

Resources: associated students concert managers, deans of community services, cultural committees, music librarians, music faculty, art gallery directors. Commercial houses cost substantial amounts and may not be a realistic alternative for you at this point.

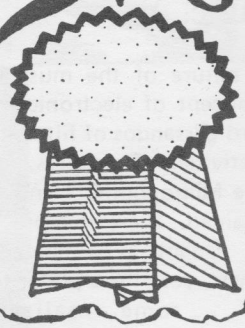
THE EQUIPMENT:

The playback equipment should be the best quality possible, as it will determine the presence or absence of hum and distortion, the saving aspect is that you would not need a super system for 150 people, and if you possess a good stereo set, you may be able to use it. Guitar amplifiers usually suffer in quality.

Basic equipment: Two speakers with separate tweeter and woofer, the latter at least 10"; a power amp approximately 40 watts/channel, assure impedance and power handling capacity compatibility with speakers; try to have two tape decks if possible, 1/4 or 1/2 track depending on the

CONTINUED ON PAGE 17

Copyright Laws



COPYRIGHT PROTECTION FOR ELECTRONIC MUSICAL COMPOSITIONS

BY
DOROTHY PENNINGTON KEZIAH
HEAD, MUSIC SECTION, EXAMINING DIVISION
COPYRIGHT OFFICE

Unpublished electronic works are ordinarily protected against unauthorized use by the "common law" of the various States. This protection arises automatically when the work is created. It requires no action in the Copyright Office.

To secure statutory copyright protection in an unpublished electronic musical composition it is necessary to register a claim to copyright in the work in the Copyright Office. One "copy" of the work should be deposited with an application on Form E and a fee of $6.00. Under the present law, we have no authority to accept magnetic tapes or other phonorecords as "copies" of the musical compositions recorded on them. This practice stems from the Supreme Court decision in the case of WHITE-SMITH V. APOLLO MUSIC CO., 209 U.S. 1 (1908) that perforated pianola rolls were not "copies" of the musical compositions recorded on them. The court defined a copy as a "written or printed record of [a musical composition] in intelligible notation." Under the court's definition, the copy must appeal to the eye and be capable of being read. Thus, to be registrable in Class E, the music must be expressed in a system of notation or other form of written expression that can be visually perceived.

In view of the obvious difficulty in recording electronic sounds in some form of visible notation, we try to keep an open mind as to how the "visible" notation requirement can be met. Standard notation is, of course, ordinarily not adequate, and indeed, provided it is legible, the notation need not be standard for registration purposes. However, the notation should fix (either actually or approximately) in some written and intelligible form most of the actual sounds which consitute the work. The work should be capable of being realized from the score alone, or with the aid of a key.

We have registered quite a few electronic scores to date and the variety of the notational systems employed attests to the ingenuity of the composers of this type of music. We have registered a number of works using copies containing a representational type of notation consisting of drawings and diagrams. Other copies contained alphanumerical indicia, charts, tables or varying amounts of explanatory text. We have registered a few on the basis of deposits of oscillograms and seismograms; admittedly the equipment necessary to produce such scores is not

readily available to most composers. We registered one electronic work using as the deposit copy a non-sound motion picture film of oscilloscope tracings. Creative authors will undoubtedly continue to devise even stranger ways to deposit "copies" of electronic works under the present law. And, provided the scores are visually perceivable, we will, in deciding their acceptability for registration, continue to construe the statute as liberally as possible.

As of possible interest, the copyright law was amended several years ago to make certain sound recordings fixed and published with the required notice of copyright on or after February 15, 1972 subject to statutory protection. Please note that the copyright in a sound recording relates only to the series of sounds of which it is constituted and protects only against dubbing, i.e., only against actual duplication of that particular series of sounds. Copyright in a sound recording should not be confused with, and is not a substitute for, copyright in the underlying musical work of which a performance has been recorded. In other words, the sounds are protected; the content is not. To protect the underlying musical composition it is necessary to secure a copyright in Class E. The copyright secured in Class E protects not only against unauthorized copying but also against unauthorized new versions (arrangements, adaptations), unauthorized public performances for profit and unauthorized recordings.

The application of both Class E and Class N rights where the work is a traditional musical composition seems fairly obvious. It is possible, however, that electronic compositions — at least the type where it might be argued that the work exists only in a performance of it — may present special problems with respect to the application of both Class E and Class N rights.

The deposit problems presented the electronic composer by the present law would appear to be removed under the proposed general revision of the copyright law. The language would appear to permit registration for a musical composition that has not been written down but fixed only in the form of a sound recording on the basis of the deposit of phonorecords embodying the musical work.

IDEA: **Why not record 8 track tapes on double sided recording tape. The tape could then be cut and spliced into a mobius strip for twice as much music in the same amount of tape . . .**

listings:

ALAN LABS: Sequencers, Pitch-to-Voltage, units Acss. Box 434, Van Nuys, CA 91408

ARIES INC.: Modular syn. ** 119 Foster St., Peabody, MA. 10960

ARP INSTRUMENTS: Full Line of Equip. 320 Needham Street, Newton, MA. 02164

BUCHLA: Full Modular Systems. Box 5051, Berkeley, CA 94705

CFR ASSOCIATES: Modular Circuitry. + Accs. * Box F, Newton, NH 03858

CONCERT COMPANY: Portable Polyphonic Syn. Organ Interface. ** 3318 Platt Ave., Lynwood, CA 90262

DAVEL: Mini-sequencer. Box 279 Verdugo City, CA 91246

EU Systems: Full Modular System. 3455 Homestead Rd. No. 59, Santa Clara, CA 95051

ELECTRONIC MUSIC LABORATORIES: Portable Syn. (Electro-Comp Brand.) Box H, Vernon, CT 06066

ELECTRONIC MUSIC STUDIOS: (Amherst MA/London Eng.): Synthi Brand. Full line Systems. 460 West St., Amherst, MA 01002

FARFISA: Syntorchestra portable syn. West LA Music 11345 Santa Monica Blvd., Los Angeles, CA 90025

HAMMOND: Portable Pushbutton Syn. 4200 Diversey, Chicago, IL 60639

HARVEST PRODUCTIONS: (Gregory Kramer): Buchla 100 modular syst. also custom modules. 135 W. Broadway, NYC 10013

IONIC IND.: Portable Syn. 128 James St., Morristown, NJ 07960

KORG: Maxi-Korg, and Mini-Korg Portable Syn. Uni-vox/Merson/ 75 Frost St., Westbury, NY 11590

LYRICON: Clarinet-like Controller + Syn. Selmer Box 310, Elkhart, IN 46514

MOOG: Full Line. Literature and Distribution: Norlin 7373 Cicero Ave., Lincolnwood, IL. 90646.

Customer Service: Academy St. (Box 131) Williamsville, NY 14221.

NORLIN: See Moog.

OCTRON: Portable Modular Syn. 1346 Bayport Ave., San Carlos, CA 94070

OBERHEIM ELECTRONICS: Polyphonic Portable Syn. + Accs. 1549 9th St., Santa MOnica, CA 90401

OZNIE: Portable Modular System. Process Electronics, Box 7, Centerville, PA 16404

PAIA: Patchcord Syn. portable + Accs. * Box 14359 Oklahoma City, OK 73114

POLYFUSION: Modular Systems. 6 Cindy Dr. Williamsville, NY 14221

PROCESS ELECTRONICS: See Oznie.

ROLAND: Beckman, Portable line / Semi Modular. 2117 Yates Ave. LA, CA 90040

SEQUENTIAL CIRCUITS CO: Digital Sequencer 7150 Rainbow Dr. No. 7, San Jose, CA 95129

SERGE: See Tcherepnin.

STEINER-PARKER: Full Line. 2258 South, 2700 West, Salt Lake City UT 84119

SYN-CORDION: (Cat Brand) Portable Syn. 32-73 Steinway St., L.I.C., NY 11103

SYN-KEY: Card Reading Portable Syn. SPG 117 W. Hintz Rd. Wheeling IL. 60090

SYNTHI: See Electronic Music Studios . . .

SYNTORCHESTRA: See Farfisa.

TCHEREPNIN: SERGE MODULAR MUSIC, 1107½ N. Western, Hollywood, CA. 90029

TOTAL TECHNOLOGY: See Octron.

YAMAHA: Portable Syn. Nippon Gakki Co., Ltd. Hamamatsu, Japan

360 SYSTEMS: Accessories, Guitar Synthesizer. 2825 Hyans St., Los Angeles, CA 90026

CONSULTANTS:

SYNAPSE
Box 359
North Hollywood, Ca.

LECTRON MUSIC LAB
Box 1594
Hollywood, CA 90028

as well as the schools listed below . . .

SCHOOLS:

BOSTON SCHOOL OF ELECTRONIC MUSIC
326 Dartmouth Boston, MA 02116
(617) 261-1634

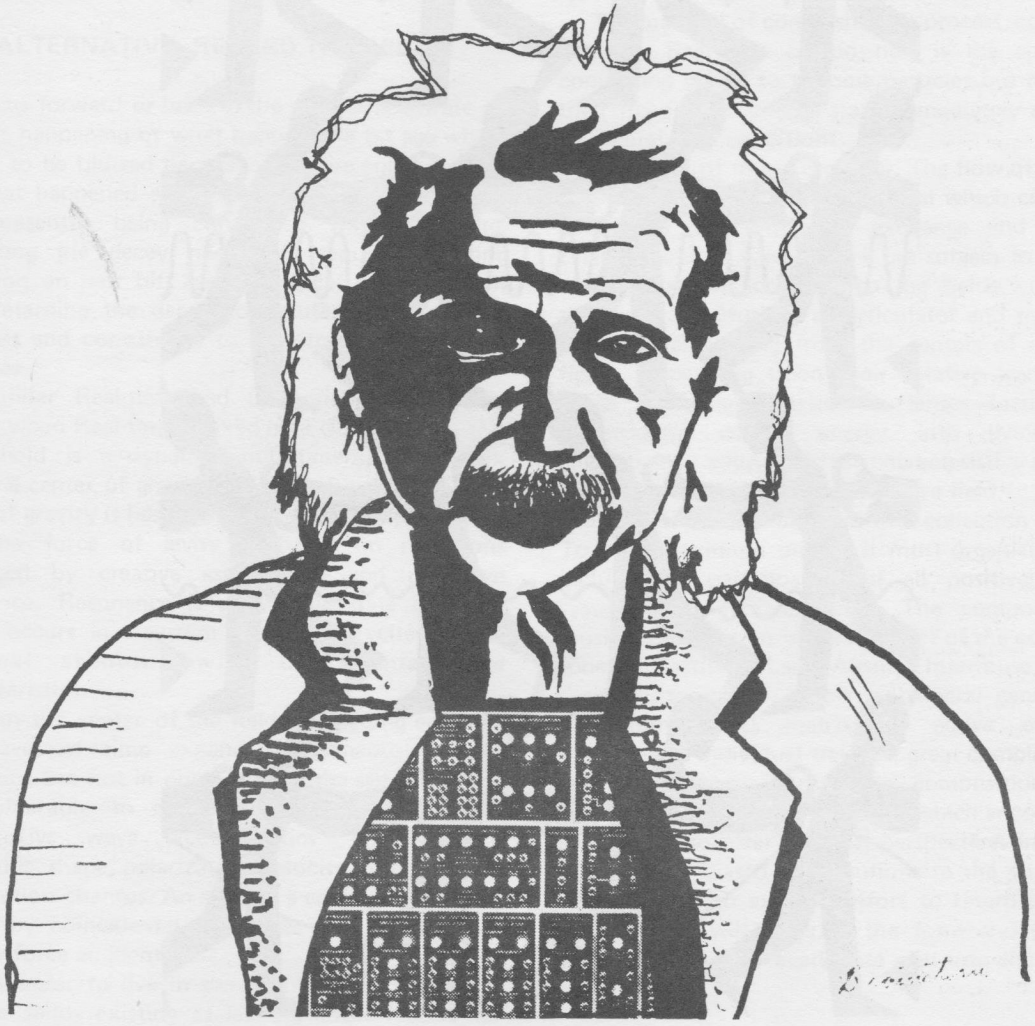
CONTEMPO MUSIC GUILD
13273 Ventura Blvd., Studio City, CA 91604
(213) 784-8271

SOUND ARTS
2825 Hyans St., Los Angeles, CA 90026
(213) 487-5148

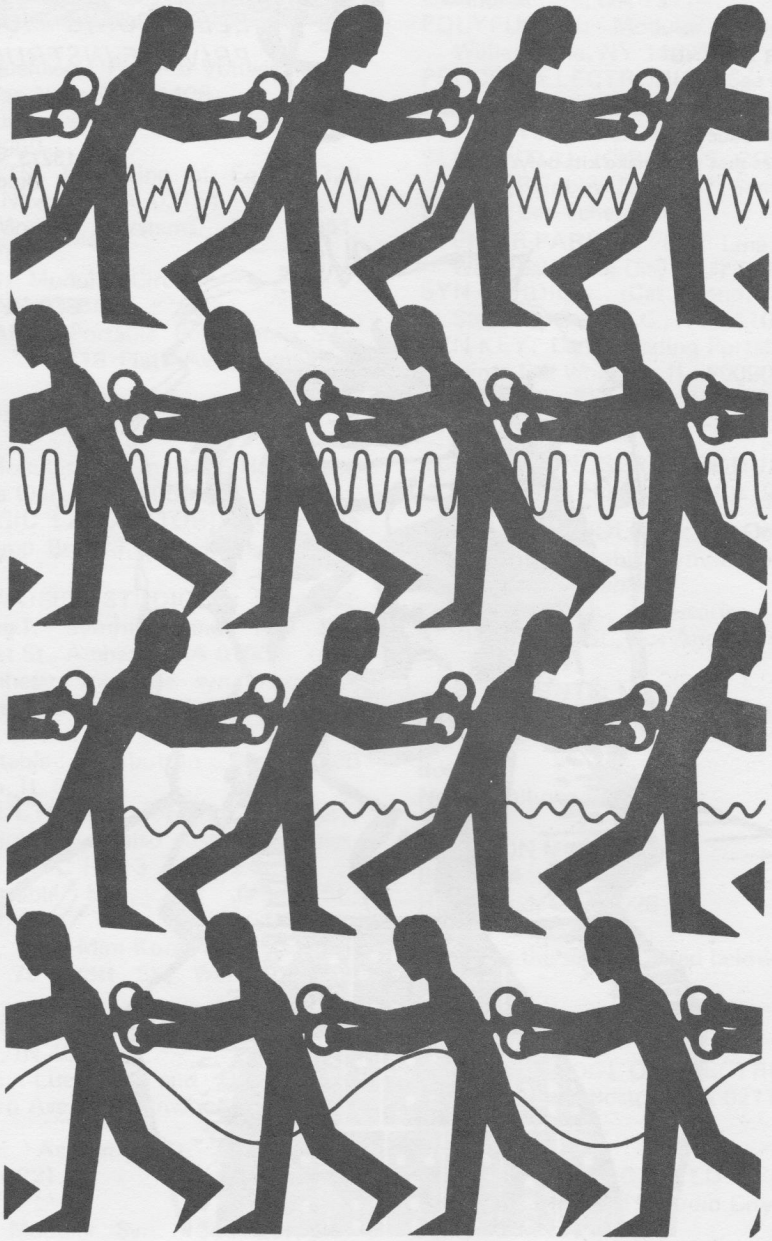
SHERWOOD OAKS EXPERIMENTAL COLLEGE
6353 Hollywood Blvd. Hollywood, CA 90028
(213) 462-0669

MANUFACTURER LISTING

NOTE: ** indicates that a company makes Kits and a finished product.
* indicates that they make kits only.



EPHEMERAL FORMS



EPHEMERAL FORMS; MOTHER MUSING'S FLIGHT PATTERNS

Discovering the air waves above the meeting of hills the flight of the hawk is an ephemeral form. Though often motionless to the eye the hawk's event is based on streaming analog computations of invisible fluctuations in the passing air currents which speak the cosmic language of instantaneity. The hawk and the real-time composer/performer are students of that language.

ALTERNATIVE: RETARD THE DECAY

Focus forward or back to the side. Concentrate on what is happening or what happened a bit ago which is sure to be blurred because you were concentrating on what happened a different bit ago while the bit ago presently being considered was happening. Retarding the decay necessarily requires focusing attention on past bits ago. A singular preoccupation with retarding the decay constitutes the pursuit of the past and contributes to the atrophy of creative faculties.

Consider Real-time and Clock-time. The future shocks when Real-time is fixed by a clock.

A field is a dynamic multidimensional matrix having a center of gravity and a center of levity. The force of gravity is based on regeneration requirements and the force of levity is based on radiations produced by creative assimilation and reflective resonance. Resonance is a dynamic state of being which occurs in a system when it is excited by an external stimulus with coincidental wave characteristics.

From the center of the field the leading edges of the waves of time expand simultaneously in all directions but not in phase, nor at the same rate, yet are vulnerable to crossing currents according to interactive wave characteristics — frequency, amplitude, shape, polarization, velocity, direction and acceleration changes. An event is a collection of fields joined by coincidental properties serving to create and reinforce an identity.

It is easier to live in the past than in the future because fields existing as leading edges receive far fewer messages in the form of reflections and emanations from future events (which occur ahead of the average time) than from past events. The past carries with it the accumulation of reinforcements to such a degree that it takes on weight and assumes the power and clumsiness of gross matter whereas the future is senses in ephemeral forms without the aid of established linguistic systems other than intuitive symbolic analogues of ancient archetypal truths.

The past is comfortable habit. The beauty of the future is that it is immaterial and can only be known during the instant and can only be relatively located. There are no tools to measure it, to weigh it or compare it. The future appears in ephemeral forms having a halflife of instantaneity.

The material of composition is process, continuous activity. Real-time composition is the activity of convincing waves to become particles but respecting their freedom to change state immediately according to general field conditions.

The stuff of music is energy. The flow of energy is based on a difference in potential which creates the conditions for symbiosis, exchange and synergy. Energy flows in waves which are subject to complex transformations according to the fields with which they interact. Music is an articulator and transporter of waves emanating from the centers of individual fields. Depending upon their relative transparency those field can function as lenses focusing and organizing cosmic energy into living forms continuously adjusting their characteristics according to the current state of the collective field.

Music is always one field in a collection of fields. To have maximum impact it must organize itself to include the participation of all positively biased systems and free elements. The composition of musical events is an integral aspect of the composer's sphere of activity. Larry Austin's Intermuse, an event designed to create a new, ephemeral center for a multi-dimensional matrix of active composers representing individual fields of great complexity and focusing power, is real-time composition of an extremely high order. A process which encourages its subsystems to offer personal perspectives in the way of positively biased contributions to the art of living sound needs no external effort to retard its decay. Internally it will generate the form and power to resonate truly and reverberate well into the past and future.

Real-time is all we know. Clock-time is all we cannot know because it is impossible to measure anything with a tool larger than the thing being measured. There can be no tool to measure the instantaneity of real-time; by definition the tool would defeat itself. Instantaneity, the body of ephemeral forms, is here and gone simultaneously.

Events are fields which have found a center. Real-time is what we understand as the flow of events, the living process. It has an ephemeral form whose changing elements and subsystems maintain continuity with past events, provide the energy for current events and create the base for future events.

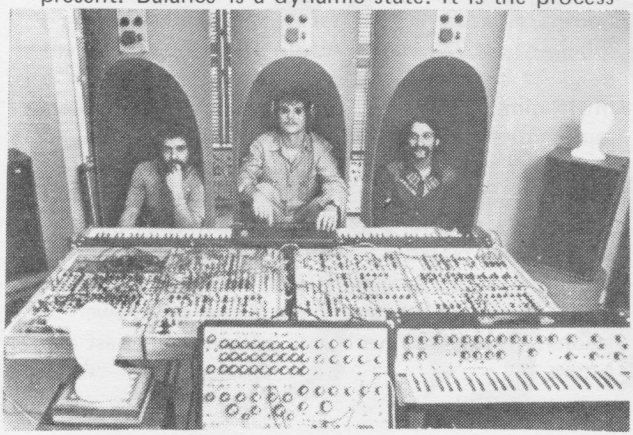
Past events collect in the unconscious and echo eternally. In unmeasured time with the grace of God they will resonate with one another and reinforce a pattern of partials which sets the universe to ringing. Eureka! The discovery of another natural law. A new sensor to receive nourishment for the system. A quantum leap. Inspiration. Prana. A breath of fresh air. A whole new ball game! With new rules, embraced as they are sensed to be true and old rules discarded when they are no longer consonant.

The offspring of past events are created by the intersection of matrices, spheres of reference with mutual though previously unknown areas of attraction. Past events and their offspring function as a tuner to receive and process current radiations and reflections. Though guided by the predisposition of existing fields the tuner at its finest has a range and accuracy which expand and improve with stimulation and assimilation.

Real-time is fed by the future and focused by the past. To maintain regeneration the future and the past must be balanced on the leading edge of the present. Balance is a dynamic state. It is the process of simultaneously receiving and adjusting to current information passing through the field. The limits of the range in which balance operates are themselves dynamic states subject to general field influences. The limits are extended according to the level and character of current stimulations and past assimilations.

A continuing search for a metatheory of music has led to the notion that the power of music to influence or communicate is based on the principle of resonance. On every structural level music is characterised by wave behavior, that is, the evolution of dynamic forms that are analogous to all that we sense as the movement of life. Music creates a field of sublime power by influencing wavicles not yet identified, specifically those of life fields which are responsible for organizing and controlling all physical, psychological and spiritual attributes.

Imagine discovering an instrument that is modeled on the flow of life; that can serve as a direct extension, radiator, and articulator of a composer's view; that embodies the collected thoughts of visionaries in the sciences and the arts; that invites the composer to enter into a circuit with activity and meditation; that beams energy to the composer's center which transforms and reflects it into unique and ephemeral forms analogous to that center's perspective, biases, inclinations and tendencies. Imagine that instrument. It is an electronic wave instrument, a synthesizer by what ever name it is called – Sal-Mar, Buchla, Synthi, Pinzarrone, Beck, Moog, Sekon, Tcherepnin . . . they all produce electric waves which offer a synthesis of perspectives, a virtual history of science and art to the real-time composer/performer who needs to continue his song and dance.



PERFORMANCES

THIS COLUMN IS A MONTHLY LISTING OF ELECTRONIC MUSIC PERFORMANCES, FESTIVALS, AND CONTESTS THROUGHOUT THE U.S. PUBLISHED FREE-OF-CHARGE AS A SERVICE TO THE ART.

LOS ANGELES:

May 1, 8:45 pm
PHILLIP SPRINGER
Recent works.
Quad. LIVE & TAPE.
Ebell Fine Arts Auditorium
743 S. Lucerne Blvd.
(213) 454-5275

May 17, 24, and 31, 9 & 11 pm
ELECTRONIC JAZZ/ROCK FEST
The Cellar, 1st & Vermont
(213) 487-0419 LIVE
Adm. $2.50

May 13, 11:00 am
LEM
Synthesizers: Alex Cima, Doug Lynner, Bryce Robbley. Los Angeles Valley College. Monarch Hall,
5800 Fulton Ave., Van Nuys, Calif.
(213) 463-8772 LIVE.

May 4 - 7
AUDIO ENGINEERING CONVENTION SOCIETY
Electronic Music Seminars May 4, at 2 and 7 pm. Los Angeles Hilton, 930 Wilshire Blvd., CA

SAN DIEGO, CA:

April 19, 8 pm
RON PELLEGRINO LIVE
U.C. San Diego, Mandeville Recital Hall, La Jolla, CA

June 4, 8 pm LIVE
GORDON MUMMA & RON PELLEGRINO
1750 Arch St., Berkeley, CA

June 20, 8 pm
JACK LOGAN & RON PELLEGRINO
Old First Church Center for the Arts, San Francisco, CA LIVE.

OAKLAND, CALIFORNIA:
MILLS COLLEGE
(415) 635-7520

April 17, Sundown to Mid-Evening
PAULINE OLIVEROS
Outdoors throughout the Mills College campus. The text will be distributed at the concert hall at sunset. FREE.

April 23, 8 pm
MULTIPLICITIES Concert Hall,
Multi-Doodah art festival of cosmic hearts and diamonds 3ES into a dralisnd expanded dimension with Ravel Retrograde, V.I. Howdahdoodah Art Gorilla, and the Electronic Energy Exchange. FREE

May 15, 8 pm
PAT KELLY Concert Hall,
A concert of tape art.
Audio and Video and Film.
FREE

May 4, 4 pm
DAVID ROSENBOOM artist in residence. Informal Talk: Musical interface with Human Nervous System. Lucy Stern Pav. FREE.

May 13, 8 pm
DAVID ROSENBOOM
Results of 10 day Artist in residency. Concert Hall. FREE

NOTE: the 1976 National Computer Conference Art Exhibit (June 7-10) is looking for computer-generated music and visual art. Write: American Federation of Information Processing Societies, Inc.; 210 Summit Avenue; Montvale, NJ 07645.

MASSACHUSETTS:

April 2, Afternoon-Evening,
the BOSTON ELECTRONIC MUSIC ENSEMBLE
Afternoon EM Workshop, Evening Concert.
Hampshire College, Amherst, Mass.
(617) 261-1634 BSEM LIVE

NEW YORK:

April 23,
ELECTRONIC CONCERT
Film & LIVE.
Daria Semegen, Program Director
Music by Arel, Carpenter, Butterfield,
Underhill, Thomaston, and others
Contact. Electronic Music Studio
State University of NY at Stony Brook,
(516) 246-5671 Long Island.

SAINT LOUIS:

April 25, 8 pm
ELECTRONIC CONCERT
Tape, Live, Video, Light,
God-Knows-What-Else!
Washington University,
Tietjens Studio, Rm 4,
6500 Forsyth, St. Louis,
Missouri, 63105
Bring a floor pillow,
Free.

WISCONSIN:

May 7, 8 pm
RON PELLEGRINO
Lawrence University Recital
Hall, Appleton, LIVE

musical material obtained, ask tape concert participants to supply their own take up reel, as this facilitates a smooth concert by allowing you to rewind afterwards, label all reels!

More elaborate: A mixer, synthesizers, microphones, other instruments, dancers, and visuals. Perhaps a quadraphonic environment by doubling the speakers and obtaining another amp.

Don't forget all necessary cables, connectors, extension cords, fuses, and other paraphernalia, try a dry run a day or two before the event to insure you have thought about all these items . . . list them. Allow time for a sound check, get there early as there will always be surprises (no AC outlets nearby, wrong connectors, blown fuses, ad infinitum), then balance speakers and find the best loudness level for each piece. By the way, some stores may be nice enough to provide you with some or all of the equipment in exchange for an adequate program note to that effect.

THE PROMOTION:

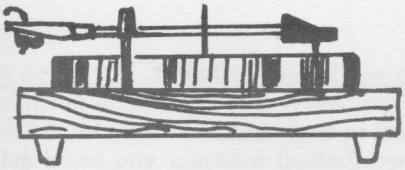
Once you have organized the music, the house, and the equipment, you are in a position to advertise your adventure. The above functions are those of the producer, now let's see if you may call yourself a promoter.

Promotion people attempt to obtain free publicity, this includes newspaper calendar sections, radio and t.v. public service announcements (events must be free to the public), perhaps a friendly reporter from t.v. radio, school, or community newspaper could publicize your concert. Purchased publicity is outragously expensive, with column inches in newspapers running about $50, and radio spots running that much for 60 seconds or less; when you consider that an advertising campaign has to be repetitious and comprehensive (in several media) in order to be effective, you realize the tremendous budget which needs to be allocated. Attendance is strongly influenced by publicity, if this is your first concert, at least print an effective poster with a photo or art work . . . print several hundred, say 200 to 500, and put them up in bulletin boards at schools, markets, record and music instrument stores, bookstores, poles . . . mail them to friends and people you think may be interested in the program you have organized. Mailing and posting should be done about two weeks before the event. Perhaps the participants may share the cost of advertising and any donations would be distributed accordingly, however, do not count on obtaining donations of substance. Don't forget to let SYNAPSE know about it! There never is enough publicity. At your concert you should have an area where the audience may leave their addresses for information regarding future events.

If you are successful, you will have pleased (challenged?) the audience, exposed interesting and significant music, developed new friendships with individuals who share your interests, and you will have established important ties with commercial entitites. Good luck.

"THE WHAT'S HAPPENING COLUMN"

The Arp sequencer hits the dealers this month as well as a dual stack-rack for any electronic keyboards . . . Electro-Harmonics (an effects pedal co.) is trying to get the Beatles to play together again . . . Roland's semi-modular synthesizer should be out soon. Pictures of the system are already at many Roland dealers . . . Acoustic and RMI both have new mixers designed for keyboards and synthesizers . . . Steiner-Parker Synthesizers has moved to 2258 South 2700 West, Salt Lake City, Utah 84119 (801) 486-0812 . . . Cortlandt Electronics is offering a "Digital Music Composer" Kit for low-budget endeavors, 114 W. Broadway, NYC 10013 . . . If you're interested in EM & Computers try ON-LINE, Newsletter for the computer hobbyist, 24695 Santa Cruz Hwy., Los Gatos, CA 95030 . . . Aries Synthesizers has expanded their line to include joysticks, matrix switches, encapsulated modules and-the-like . . . Do you know about Contemporary Keyboard Magazine? Box 907 Saratoga, CA. 95070, the magazine for all keyboard players . . . What is the perfect environment for Electronic Music? How about an isolation tank? In Los Angeles one can rent time in an 8 x 4 x 4 foot box. It's light tight, sound proof, and easy to get in and out of. Inside the experience lies naked in a foot of very salty, buoyant, water. What's it like floating in a sensual void for an hour or two? Imagine if all sensory inputs can't register anything and slowly Electronic Music is piped in through speakers or headphones; the music would probably motivate one to self-induced hallucination. Bizzare? (213) 398-8792 . . . Lectron Music Labs now offers light sculptures. They are EROS (Electro-Rotary Optical Sculptures) designed by J. Courtnay Heater and James Yurchenco of Stanford. For info contact Lectron Music Labs.



SEASTONES Ned Lagin/Phil Lesh
Round Records (RX 106)
San Rafael, Calif. 94902
Distributed by United Artists

I sure wasn't expecting it. Ned Lagin and Phil Lesh (Grateful Dead bass player) have joined forces in SEASTONES, a unique album which integrates several electronic techniques (concrete, analog, and digital) into a forward leap. The album features several synthesizers, microprocessors (Tntel 808), an Interdata mini (7/16), plus Jerry Garcia, Grace Slick, David Crosby. The music is abstract, where sustained tones and strong electronic manipulations of instruments (electric guitar and piano, voice) blend into laid back, hypnotic seduction. The compositions are simply marked by Roman numerals, the common thread of sustained clusters sometimes achieved by frequency and ring modulation, mixed in and out softly; in many instances it becomes hard to distinguish oscillators from external sources. Ned doesn't dwell on his events, he changes them often, maintaining texture while introducing variety. There is modest use of panning, substantial use of reverb, atonality, and juxtaposition of ideas. The music downplays dynamic extremes or climaxes, stressing development and stating its compositional ethic, demands more thought than action from the listener.

MOTHER MALLARD'S PORTABLE MASTERPIECE CO. (MMPM)
David Borden, Steve Drews, Linda Fisher
Earthquack Recording Co.
1191 East Shore Dr.
Ithaca, New York 14850

Mother Mallard's represents an extension of traditional instrument synthesis, drones, and ostinatos. Clearly guided by the spirit of Terry Riley's A RAINBOW IN CURVED AIR (Columbia) and Richard Grayson's OSTINATO (Orion). They depart from the above sources, reaching a dimension of their own.

David Borden's EASTER is characterized by the use of strong sequencer rhythms, enveloped filtered noise, sustained tones with square wave modulation, canons, and quasi-dissonant blues licks. Steve Drew's CERES MOTION uses considerable repetition, high timbres, sustained chords, canons in 2 chord changes, imitation of bass, and strong rhythmic figures . . . all of which convey the sensation of possible travel along the asteroid. TRAIN is the shortest and most endearing in concept. The train metaphores are quite interesting, rendering the entire piece an allegory. Soft sine and square waves give the alluding train whistle an Inca flute quality, low frequency pedal tones sound like wheels in the distance, a distinct Doppler effect is successful in giving the impression of motion towards proximity by increasing amplitude over time. Impressionistic in its use of extreme ranges.

NEW ORGANIZATION IN STUDENT ELECTRONIC EDUCATION

Bozeman Junior High School
309 North 11th Avenue
Bozeman, Montana 59715
(408) 587-8277

ESEA Title III Project NOISEE (New Organization In Student Electronic Education) deals with the problems of introducing Electronic Music into the classroom emphasizing creativity over technical aspects. The project will produce a Syllabus in the form of ILAP's (Individualized Learning Activity Packages). It will deal with the areas of:

1. Learning tape record techniques 2. Composing with tape recorder techniques 3. Learning to operate a synthesizer 4. Composing with synthesizer and tape recorder 5. A set of listening guides

There will be a dissemination workshop at Bozeman Junior High School June 28-29 for one graduate credit through Montana State University. Participants in the workshop will work with and receive copies of the Syllabus. Paul Nelson, Project Director.

Tell us about your works for electronics and orchestra.

Around the time of "Silver Apples" I mapped-out a series of works including some instrumental works. They were just outlines which I shelved until I had the time and resources to do. The idea was for several violins to have contact mikes on them. The outputs would go through envelope.

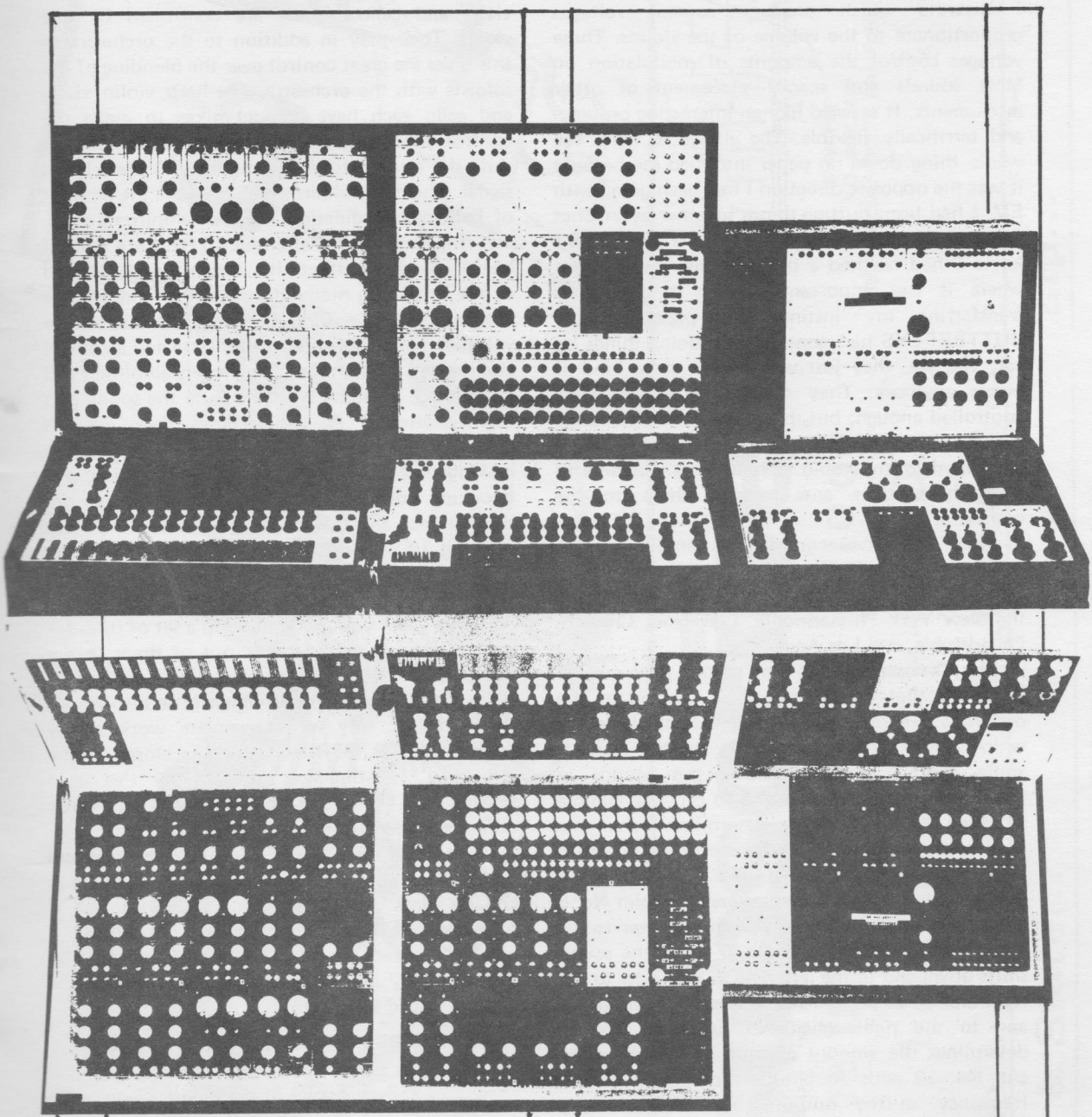
We also got stuff from the phone company. We turned a dial into a sequencer: when you dialed 3 it would key 3 different relays which would result in 3 pitches and so on . . . The problem with it was that all the timing was in the dial. We couldn't really alter the speed of the sequence. We were trying to deal theoretically with the problems of this "box" we believed would eventually happen. The idea was to build a bank of many envelope generators and lots of inverting processors and lots of oscillators. Filtering would be minimal because the system was basically additive. Everything that the VC'd synthesizer is now – was in our minds. The idea was to do it cheaply because for the price of 1 Hewlett-Packard oscillator you could get 7. For the price of 1 Moog envelope generator you could get 4. This is the direction that we finally went with Buchla. He really understood our needs and built the first "box" in 1964 for $500. The first keyboard had 12 keys. It wasn't intended to deal with plain diatonic music. It simply dealt with 12 events in time. It used touchplates and each of the 12 keys had to be tuned separately. The idea of having equal tuning between one key and the next was so limiting. It's only one idea out of all the things you could do with a keying device. It seemed silly to spend the money to do it when all you needed was to turn the knobs for that. That was the idea, and by '64 we had it!

When did the touch plate originate?

From the start. It was Don's idea. We didn't care what they were, we just didn't want a black and white keyboard because they were oriented for an even tempered scale. The idea was to have 10 or 12 separate events. I didn't believe we could go beyond 12 events and still hold them in our minds. With the touch plates you weren't just starting something, by putting more of your finger on the plate you could get more voltage. That' plus the use of switches, seemed the most logical way to do it.

How are you progressing?

I decided in '63 that if I was really to produce a studio piece I'd have to develop a personal technique. I didn't think I could write orchestra pieces (Now I know I can. It took me 7 months full time to do it.) I couldn't do both so, I gave up writing all of that stuff. I took some commissions and did the best I could on them but my main interest was in developing an electronic palete. I worked at this day and night developing theoretical techniques for equipment that didn't exist yet. Eventually after three years of hard work with the equipment I felt up to doing SILVER APPLIES OF THE MOON. It was my first album.



Followers which produce control voltages proportionate to the volume of the violins. These voltages control the amounts of modulation on Mort sounds and spacial placement of other instruments. It seemed like an interesting problem and terrifically flexible. The ability to write the whole thing down on paper intrigued me because it was the opposite direction I had been going with EM. I had been putting things together by instinct and ear. When I finished FOUR BUTTERFLYS I knew I had reached a point in my development where it was important for me to go on by transferring my instincts to paper. FOUR BUTTERFLYS had gone beyond doing things by ear, you see, they just weren't the same kind of pieces anymore. They suffered from not being controlled enough; but, being too controlled to be the spontaneous kind of out-growth I had developed in my studio technique. It was time to take these ideas and transfer them to the orchestra.

Then I got two commissions simultaneously, one for the L.A. Philharmonic, and the other for a Bicentennial affair with the Boston Symphony, the New York Philharmonic, Cleveland, Chicago, Philadelphia, and Los Angeles.

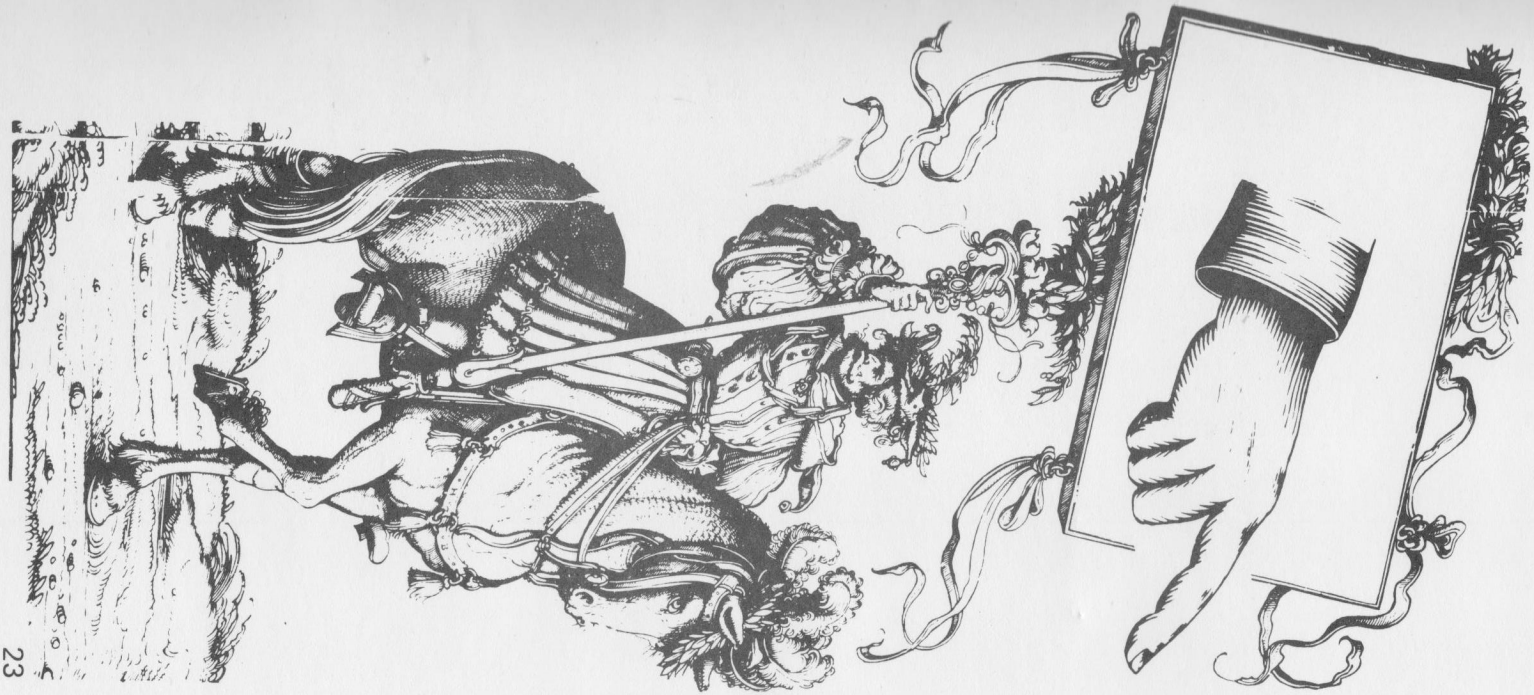
The Orchestra itself: the strings play quarter tones so that there's a lot of beating in the orchestra. There is a group of 4 control violins, which act as a master mixer on the orchestra. If violin No. 1 plays it allows the sounds at microphone No. 2 to pass and so on. The volume at which the violinist plays determines the volume of a section of the orchestra's output. Pizzicato mixings are nice. The sounds pass into a frequency shifter and out to stereo speakers. If Violin No. 5 plays the sound shifts up in pitch and over to the left of the auditorium. If No. 7 plays the sound shifts down and to the left. The sound shifts to the right and up in pitch if No. 8 plays and goes down and to the right when No. 9 plays. No. 10 determines the amount of shift in the frequency and No. 12 adds Amplitude modulation to the frequency shifted outputs. You see it's very complex. This was called TWO BUTTERFLYS for Amplified Orchestra. My new piece, BEFORE THE BUTTERFLY, amplifies only 7 solo instruments. (They are trumpet, trombone, a percussionist who plays 4 instruments, violin, viola, and cello.) These are controlled by one violin. They play in addition to the orchestra so this gives me great control over the blending of the soloists with the orchestra. The harp, violin, viola, and cello each have contact-mikes to make the control very precise. The sound is automatically shifted a quarter tone and mixed with the original signal. There is a violin which controls the amount of balanced modulation between amplitude mod. and ring mod. This is at about 40 Hz. for a kind of heavy breathing effect. It's a rich quality instead of the usual ring modulator distortion. Sometimes the musicians re-enforce the orchestra (i.e. a flute will play a high D from the orchestra and a control violin plays a D harmonic which gets amplified and modulated; blending with the flute the sound gets slightly altered) At other times they play as soloists or regular instruments. It's like a group making live music concrete with scraping and knocking from the violins and strange sounds from the trumpet and trombone. I'd like to do a piece utilizing 70 performers and 70 channels of sound. Each player would control the spatial location of someone else.

When I was young, I'd develop a set of rules for a particular work and break out of them before the piece was even over. Now I've developed a more personal set of rules which I use throughout several pieces. My most complete work is my newest: UNTIL SPRING which is closer to the individual, painting-like, individuality I've been striving for. I'm in the process of writing a book on it also called UNTIL SPRING.

If someone listened to one of my records and said "Gee, I'd like to learn more about this guy and his ideas" then I'd offer a whole lot, but, if someone said, "Who is this Morton Subotnick?" I wouldn't need to answer him because I'm supported by an electronic music sub-culture. I wouldn't need to go into it . . .

RECORDS BY MORTON SUBOTNICK:

Silver Apples of the Moon
The Wild Bull
Touch
Sidewinder
Four Butterflies
Until Spring



subscribe!

SYNAPSE

SYNAPSE
P.O. BOX 359
NORTH HOLLYWOOD, CALIF. 91603

12 ISSUES ---------- $10.00

1 YEAR ---------- $6.00

Name... Address...

City & State... Zip...

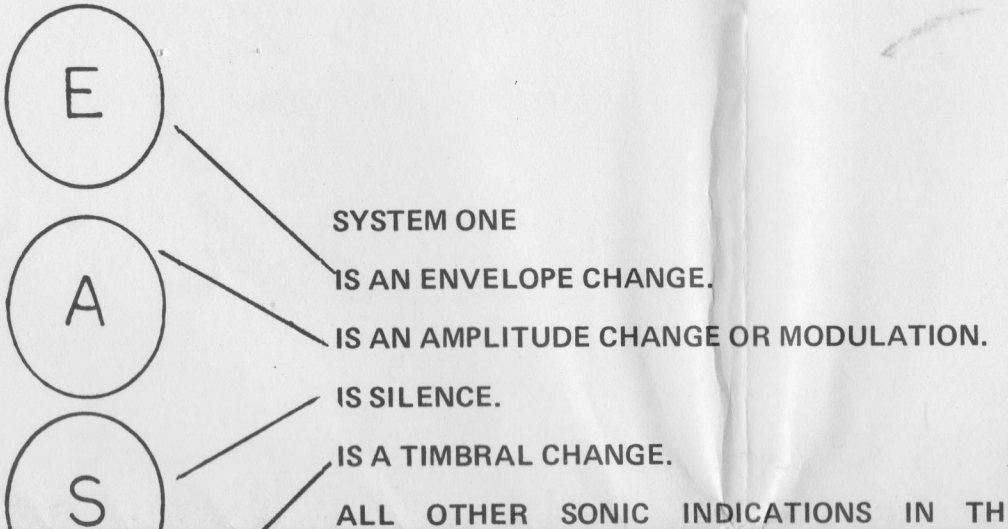
PLEASE NOTE: SUBSCRIPTIONS OUTSIDE OF THE CONTINENTAL U.S. ADD $ 2.00...

BLACK

FOR TWO OR MORE

1. ALL TIME DIVISIONS ARE APPROXIMATE.
2. DYNAMIC CHANGES AND TEMPI ARE AT THE DISCRETION OF THE CONDUCTOR.
3. ANY SYSTEM MAY BE PLAYED AT ANY TIME AND IN ANY ORDER AT THE DISCRETION OF THE CONDUCTOR.

SYSTEM 1.



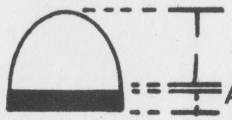
NOISE.

SYNTHESISTS.

SYSTEM 3

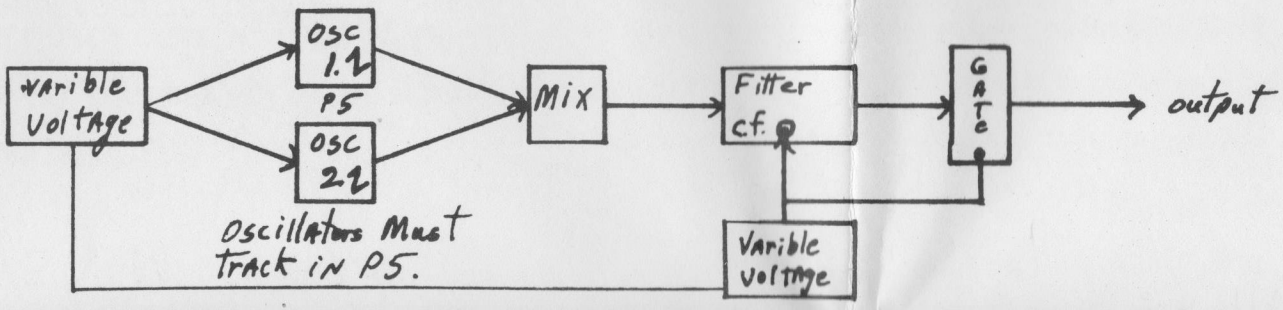
SYSTEM THREE

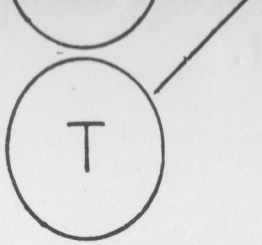
1. ALL HYPERBOLAS INDICATE THE AMOUNT OF CONTROL VOLTAGE APPLIED TO THE CENTER FREQUENCY OF A FILTERED PAIR OF OSCILLATORS TUNED IN A PERFECT FIFTH. THE TUNED OSCILLATORS (BOTH SAWTOOTH OUTPUTS) SHOULD HAVE A VARIABLE RANGE FROM APPROXIMATELY 100 Hz TO 100 Hz. BEFORE THE PIECE BEGINS, EACH PERFORMER SHOULD BE TUNED TO A DIFFERENT PERFECT FIFTH WITHIN THIS RANGE.

ex. 

APPROXIMATE ENVELOPE SHAPE OF A CENTER FREQUENCY VOLTAGE SWEEP.

APPROXIMATE DURATION AND FREQUENCY RANGE.





CONDUCTOR

SYSTEM 2.

SYSTEM TWO

1. ALL PHRASES ARE TO BE PLAYED STACCATO (i.e. SHORT ENVELOPES).
2. NOTE-HEADS MAY BE INTERPRETED AS SINGLE OR MULTIPLE OSCILLATOR OUTPUTS, (i.e. CLUSTERS OF VARIABLE RANGE).
3. VARIABLE REVERBERATION SHOULD BE INCLUDED AT THE OUTPUT OF SYSTEM TWO.

BRYCE

ROB

SYNAPSE

AN ELECTRONIC MUSIC MAGAZINE

SYSTEM 4

SYSTEM FOUR

1. ALL PHRASES ARE TO BE PLAYED STACCATO.

2. NOTE-HEADS MAY BE INTERPRETED AS RING MODULATED OR FREQUENCY SHIFTED OUTPUTS.

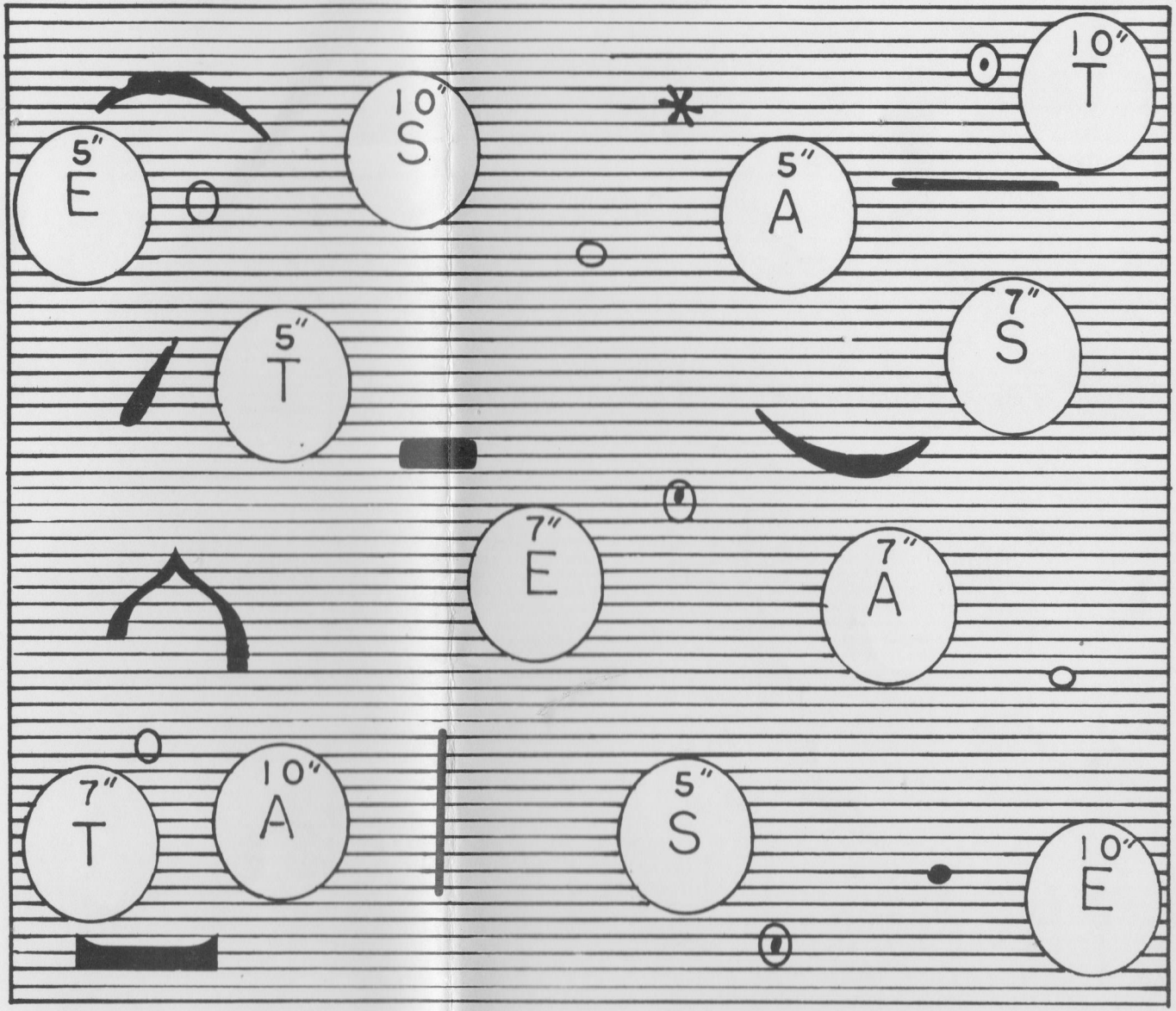
3. EACH PHRASE OCCURS AT A DIFFERENT FREQUENCY RANGE.

BLEY

BLACK NOISE

FOR TWO OR MORE SYNTHESISTS . . .

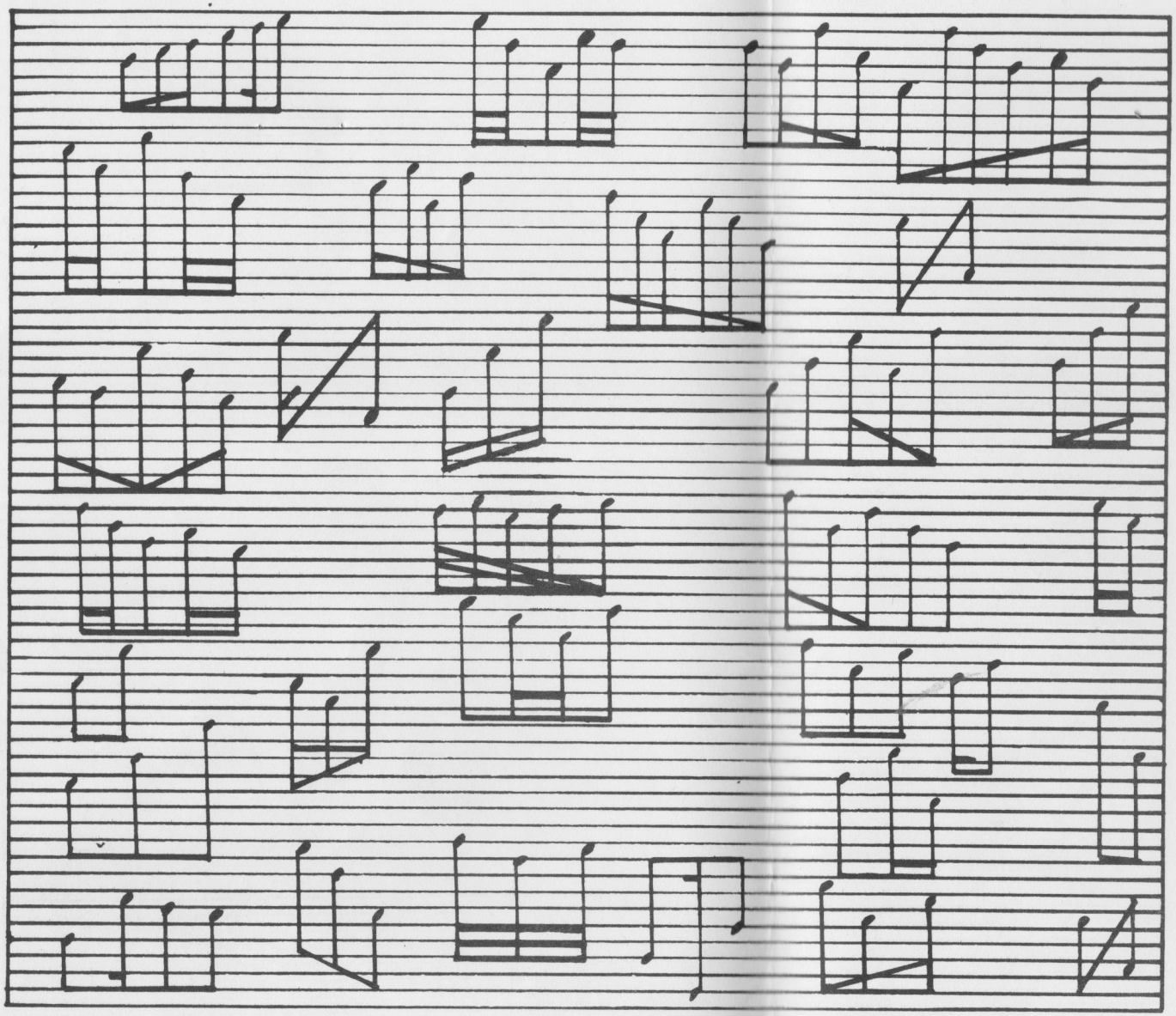
1.



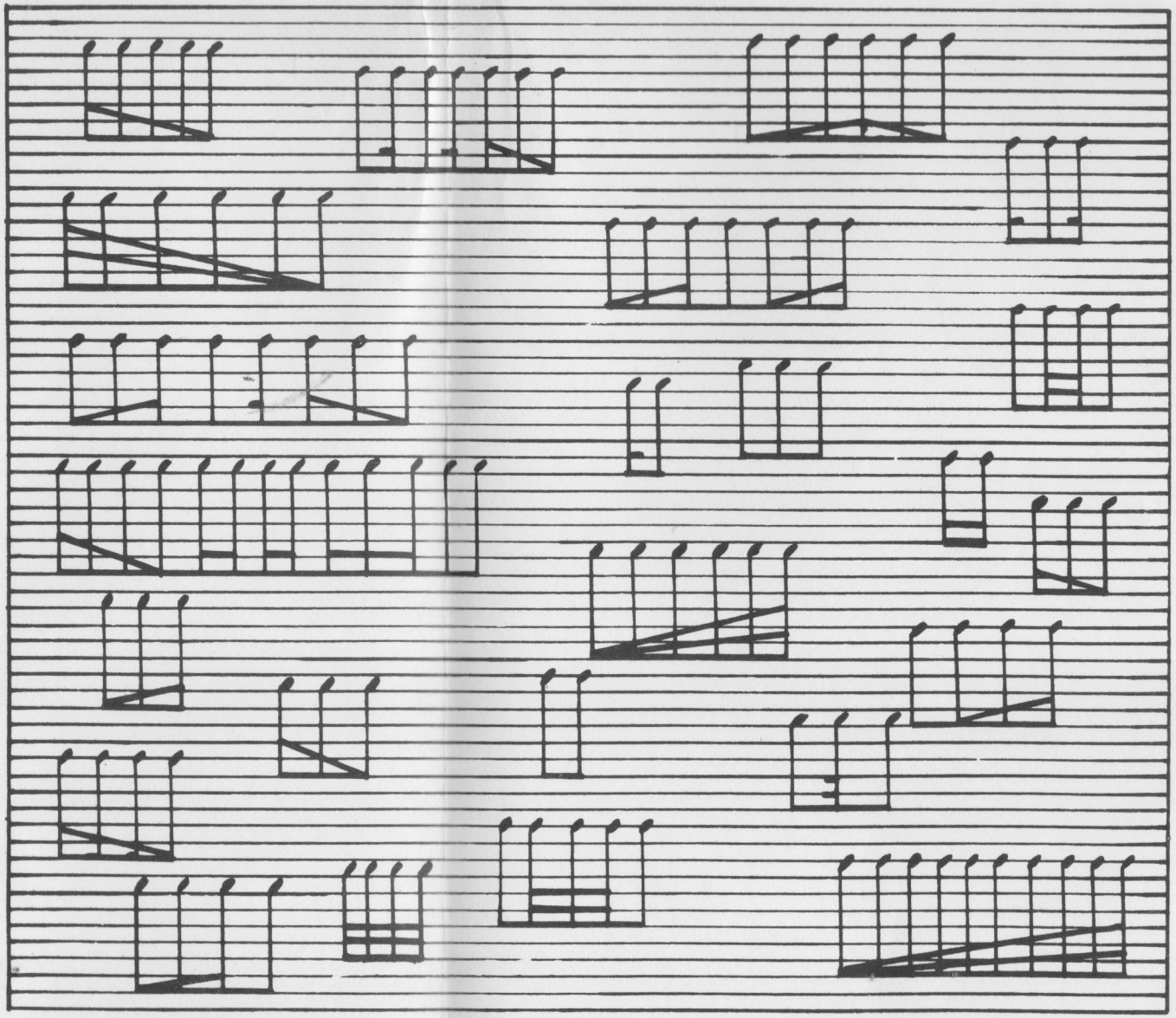
4.

STACCATO.

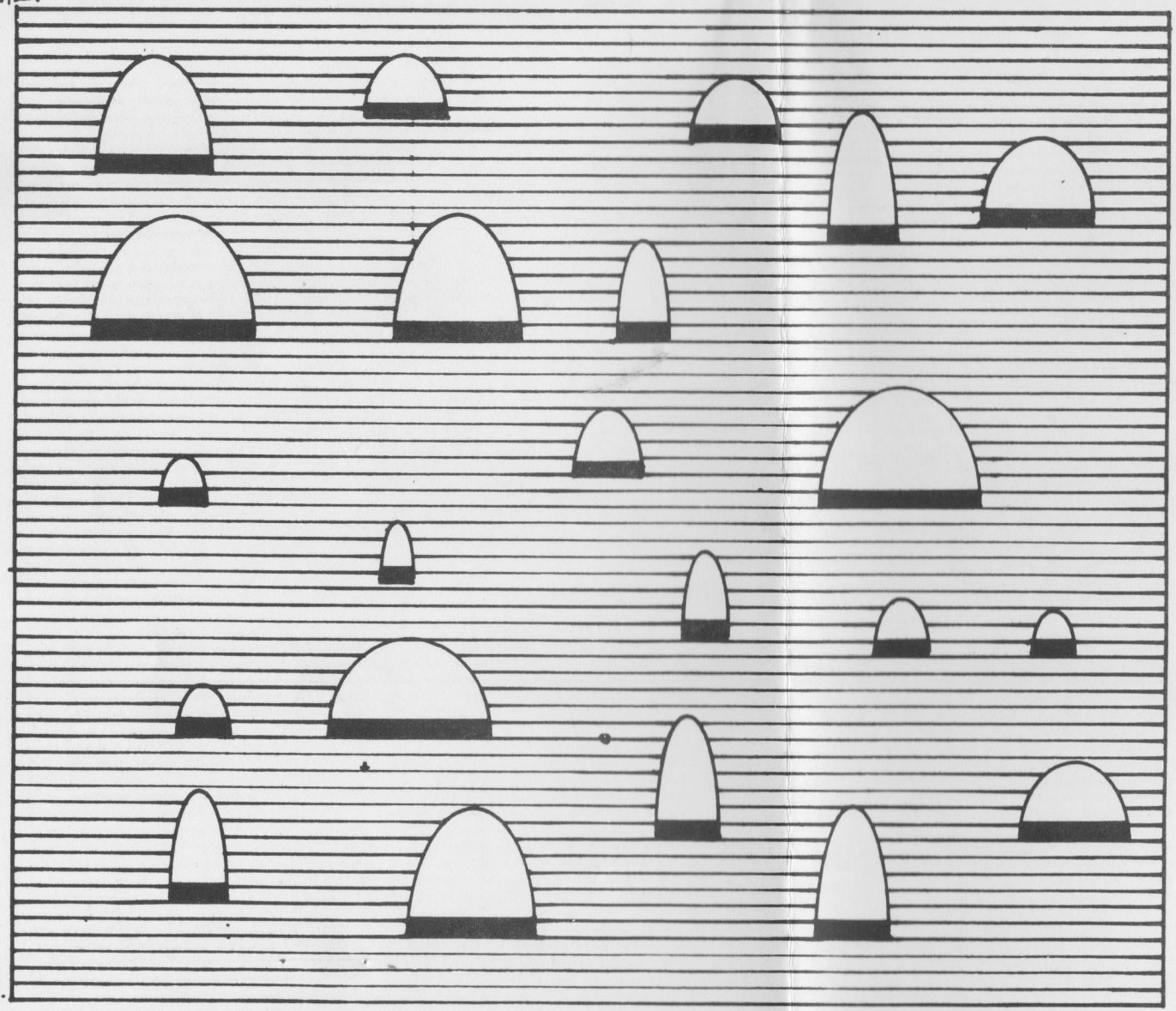
BRYCE ROBBLEY



STACCATO.



1000 Hz. SLOWLY.



100 Hz.