

STEREO  
MS 6566

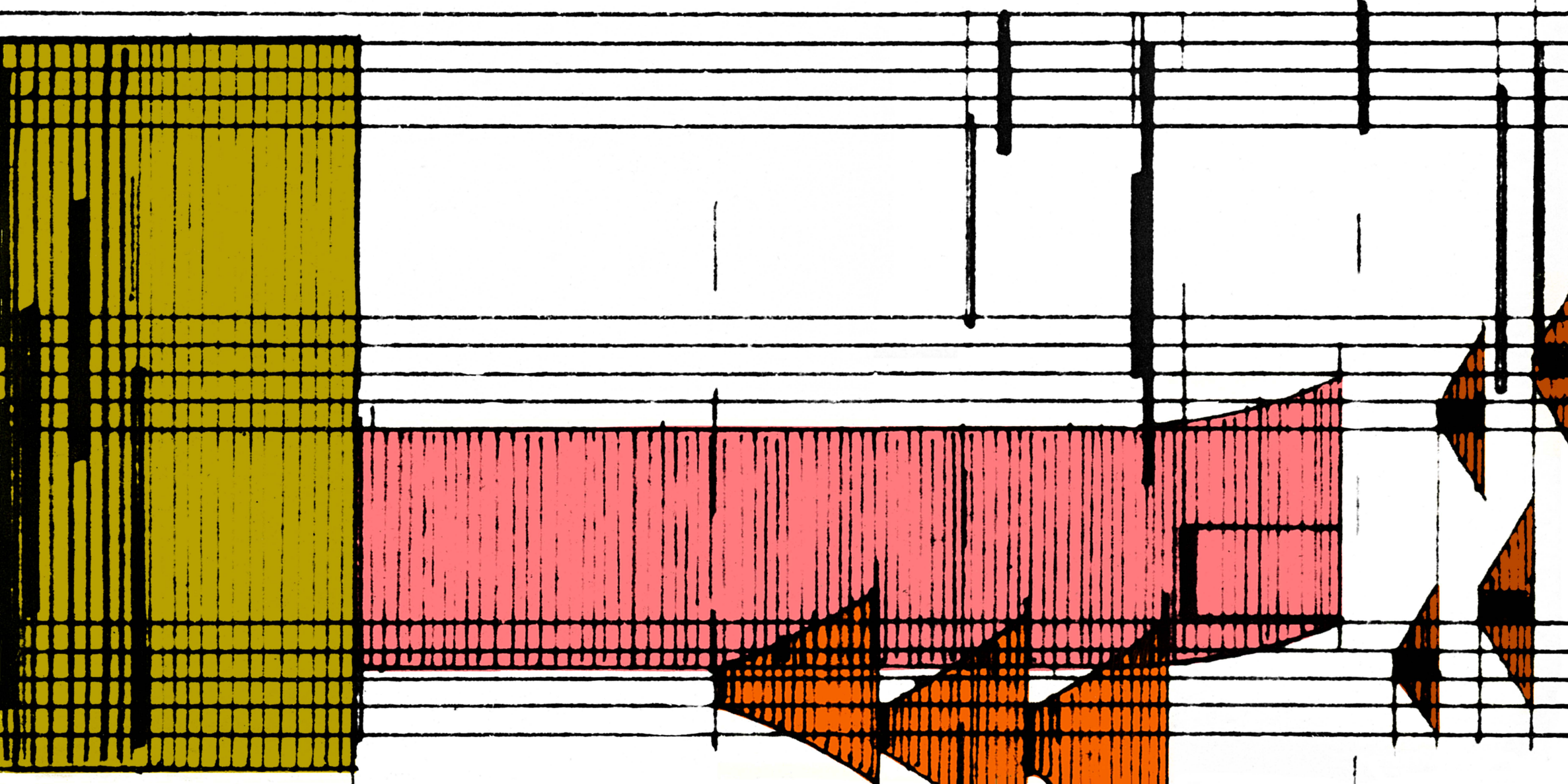
MONO—ML 5966



STEREO  
"360 SOUND"

□ *Otto Luening: Gargoyles, for violin solo and synthesized sound* □ *Vladimir Ussachevsky: Creation—Prologue, for multiple choruses and electronic accompaniment* □ *Bülent Arel: Stereo Electronic Music No. 1* □ *Halim El-Dabh: Leiyla and the Poet, for tape-transformed voice and instruments* □ *Milton Babbitt: Composition for Synthesizer* □ *Mario Davidovsky: Electronic Study No. 1* □

# Columbia-Princeton ELECTRONIC MUSIC Center



**STEREO**  
**"360 SOUND"**

Stereo "360 SOUND" represents the ultimate in listening enjoyment. Every aspect of recording activity has been carefully supervised by Columbia's engineers and craftsmen, using the very latest electronic equipment. Stereo "360 SOUND" creates the effect of surrounding the listener with glorious, true-to-life active sound. It is as if one were sitting in the first row center at an actual performance.

Columbia's studios have been designed with uniform sound characteristics and are equipped with sixteen-channel consoles and custom-calibrated multi-track

tape machines engineered and built to Columbia's own specifications. The microphones used are chosen for their individual sound properties depending upon the orchestration, the artist and the concept of the producer of the recording. Some of the microphones are: the Sony C37A; Telefunken-Neumann's U67; U47; M49B; KM54A; KM56; the AKG's C60, C12 and Electro Voice 655C. Only high-output tape affording maximum signal to noise ratio is used. Such tape, of great tensile strength and thickness, additionally aids in the elimination of print-through and reduction of distortion and hiss.

The reduction of the original multi-track tape to the final master tape is per-

formed on editing consoles hand-tooled by Columbia's engineering staff to accommodate any number of channels. The transfer of master tape to master lacquer is made via a Westrex or Ortofon cutter installed on a Scully lathe equipped with automatic variable pitch and electronic depth controls. Before production is begun, a master pressing is compared to the final tape (A-B checked). It is only after the recording has passed this critical test that Columbia's engineers give the final approval for manufacture, secure in the knowledge that each Stereo "360 SOUND" disc will have the same full-bodied, multi-dimensional sound as that originally recorded in the studio.

Library of Congress catalog card number R64-1017 applies to this record.

Stereo—MS 6566  
Monaural—ML 5966



## Columbia-Princeton Electronic Music Center

INTRODUCTORY REMARKS TO A PROGRAM OF WORKS PRODUCED AT THE COLUMBIA-PRINCETON ELECTRONIC MUSIC CENTER, GIVEN AT THE MC-MILIN THEATRE OF COLUMBIA UNIVERSITY ON MAY 9 AND 10, 1961:

Your presence here, at a concert of electronic music, is a compliment to the composers, as well as to the two Universities that sponsor their work; and while I extend to you a welcome on behalf of the Universities I also wish to convey the composers' hope that you will be as gratified by hearing their works as they are by your willingness to listen.

No doubt your expectations are mixed. You are ready to be surprised, to have your curiosity satisfied, and possibly even to experience snatches of enjoyment as you would at an ordinary concert. If that is your state of mind I am fairly sure you will not be disappointed. But it may be that you are here in a mood of combined trepidation and resistance: this, after all, is the Age of Anxiety. . . . Or you may be bent on proving that electronic music is not music—doing this by the most painful test of endurance, or else you may be feeling caught because you have been brought by a friend and friendship is dearer to you than prudence.

If for these or any other reasons you are ill at ease, allow me to suggest a very few considerations which should make you more serene, while leaving you your full freedom of opinion, your entire right to dislike and reject. I suggest, to begin with, that we are not here to like or approve but to understand. And the first step to understanding a new art is to try to imagine why the maker wants it the way it is. That is interesting in itself, even if we ultimately disown the product. To understand in this fashion does not mean to accept passively because someone says that the stuff is new and therefore good, that many believe in it, that it's going to succeed anyway, so it's best to resign oneself to the inevitable. This kind of reasoning has gone on about modern art for some thirty years and nothing has been more harmful to the arts. It is an inverted philistinism, which eliminates judgment and passion just as surely as did the older philistinism of blind opposition to whatever was new.

What then is the decent, reasonable attitude to adopt? Very simple: make the assumption, first, that the old style—whatever it is—has exhausted its possibilities and can only offer repetition or trivial variations of the familiar masterpieces. I do not suggest that you should be convinced that your favorite music is obsolete. I invite you to assume that it may be: for by trying to think that it is, as the new composer obviously has done, you will begin to discover what he is up to. By way of encouragement let me remind you that you make this very assumption automatically four or five times in every classical concert, in order to adjust your ear to the changes in style between Bach and Mozart, Mozart and Richard Strauss, and—if you can—between Strauss and Alban Berg. If styles and genres did not suffer exhaustion, there would be only one style and form in each art from its beginnings to yesterday.

But, you may say, electronic music is something else again; it is out of bounds; the jump is too great. There is no semblance of scale, the sounds are new, most of them are in fact noises. Ah noise! Noise is the most constant complaint in the history of music. In the heyday of music it was not only Berlioz and Wagner who were damned as noisy. Mozart before them and Haydn, and even earlier Lully and Handel. I suspect that the reason Orpheus was torn to pieces by women is that he made horrendous noises on his lyre while they were washing their clothes at the river in what they thought was melodious silence. The argument of noise is always irrelevant. The true question is: does this noise, when familiar, fall into intelligible forms and impressive contents? To supply the answer takes time. One hearing, two, three, are not enough. Something must change in the sensibility itself, in the way that a foreign language suddenly breaks into meaning and melody after months or years of its being mere noise. As a veteran of the premiere of Stravinsky's *Sacre du Printemps* in Paris, I can testify to the reality of the change. At the end of the piece, the conductor Pierre Monteux turned around amid the furious howls of the audience and said that since they had liked the piece so much he would play it again. The response was no better and the police had to quell the tumult. But now, fifty years after, the young accept those hammering rhythms and dissonant chords as if they were lullabies. They relish them while dallying in canoes, at the movies to accompany Disney's abstractions, and at the circus, where the music is used for the elephants to dance to.

Associations, in short, and assumptions and expectations rule our judgments. They govern our feelings, which we think are altogether spontaneous and truthful. But our sensibility is always more complex and more resourceful than we suppose, and that is why I have ventured to bring to your conscious notice what you knew all the time but might not allow for sufficiently in listening to electronic music for the first time.

The word "electronic" suggests a final objection with which it is well to have come to grips. Most people of artistic tastes share the widespread distrust and dislike of machinery and argue that anything pretending to be art cannot come out of a machine: art is the human product par excellence, and electronic music, born of intricate circuits and the oscillations of particles generated by Con Edison, is a contradiction in terms. Here again the answer is simple: the moment man ceased to make music with his voice alone the art became machine-ridden. Orpheus's lyre was a machine, a symphony orchestra is a regular factory for making artificial sounds, and a piano is the most appalling contrivance of levers and wires this side of the steam engine.

Similarly, the new electronic devices are but a means for producing new materials to play with. What matters is not how they are produced but how they are used. And as to that we are entitled to ask the old questions—do we find the substance rich, evocative, capable of subtlety and strength? Do we, after a while, recognize patterns to which we can respond with our sense of balance, our sense of suspense and fulfillment, our sense of emotional and intellectual congruity? Those are the problems, beyond the technical, which our composers have tried to solve. We shall now attend to their handiwork with pleasure and gratitude (I hope) and certainly with a generous fraction of the patience they have themselves invested in their efforts to please us.

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—JACQUES BARZUN

The Columbia-Princeton Electronic Music Center was established in 1959 with the assistance of a grant from the Rockefeller Foundation. The Center provides three studios for composition and research in the electronic production of music. One studio houses the RCA Electronic Sound Synthesizer and related recording equipment, the others contain specialized equipment for sound generation and modification. Earlier grants from the Foundation made through Barnard College, allotment of space and other assistance by Columbia University have enabled Otto Luening and Vladimir Ussachevsky of Columbia to conduct joint experiments in the medium, with technical assistance from Mr. Peter Mauzey. The Center is jointly administered by Otto Luening and Vladimir Ussachevsky of Columbia University and Milton Babbitt and Roger Sessions of Princeton University.

BÜLENT AREL (Turkey) has taught, and composed symphonies, ballets, and chamber and theatre music. Until recently, he was a research assistant at the Columbia-Princeton Electronic Music Center, having come there on a grant from the Rockefeller Foundation. STEREO ELECTRONIC MUSIC NO. 1, composed of sounds completely derived from electronic sources, is conceived in two general sound groups: undifferentiated continuous sound texture as background, contrasted with more clearly articulated signals. Throughout the work, the motif-derived texture remains as a constant, while the articulated signals are developed and expanded by a process which the composer likens to the growth of the branches of a tree.

HALIM EL-DABH (Egypt) is United States-educated and was awarded a Guggenheim Fellowship in 1959. He has composed symphonies and concertos, and his ballet, *Clytemnestra*, was recently performed by Martha Graham and her company. LEIYLA AND THE POET uses purely electronic sounds sparingly but obtains most of its effects by applying the tape manipulation technique of speed transposition, and electronic reverberation, to the instrumental and vocal materials prepared and recorded by the composer. The work is an incident from a work in progress, Electronic Drama, No. 1. Mr. El-Dabh's libretto, inspired by the ancient Arabic ode *Majnum Leiyala*, is concerned with a madman and a poet who attempt to persuade Leiyala to follow different paths, either that of a free woman or that which would bind her to unbreakable ties. The chorus, when uttering words recognizable and unrecognizable, inflicts opposing ideas on the drama's three characters.

VLADIMIR USSACHEVSKY (United States), born in China and

educated in the United States, composed a number of compositions for conventional instruments before beginning his pioneering work with tape at Columbia University in 1951. Since then, he has done many compositions for tape either alone, or in collaboration with Otto Luening. Together they furnished tape music for the New York productions of *King Lear* and *Back to Methuselah*, and works for tape recorder and orchestra. Mr. Ussachevsky is recipient of a grant from the National Institute of Arts and Letters and two Guggenheim Fellowships. CREATION-PROLOGUE is the first part of a projected extensive choral work. The text is derived from myths of creation: the Prologue uses excerpts from the Akkadian *Enuma Elish*, the most ancient of all, and Ovid's *Metamorphoses*. The work begins in Akkadian, the language of Babylon, implying the chaotic state but giving no description of it. The composer says: "I felt a need of interpolating some such description from another ancient source, and thus the opening lines of *Metamorphoses*, rendered in Latin, are inserted, or musically speaking, superimposed on *Enuma Elish*. I sought to exploit the contrast between the archaic quality of Akkadian and the sound of classical Latin...the antiphonal manner of the performance assists in sharpening this contrast." The composition is written for four full choruses and may be performed in various combinations of live performers and pre-recorded chorus, or simply as an entirely recorded work from two or four tape tracks. Antiphonal treatment of the material is frequently employed, and in several instances a dense dissonant texture is achieved by the use of multi-choral polyphony. In this performance the choral material was prepared by the Little Chorus of Macalester College, St. Paul, Minnesota, under the direction of Dr. Ian Morton. In a few instances the vocal range is enlarged by tape manipulation techniques. The accompaniment is almost entirely electronic in origin and includes a short section produced on the Synthesizer.

MILTON BABBITT (United States), Professor of Music at Princeton, composer, writer and lecturer, has had compositions performed both here and abroad. He received the National Institute of Arts and Letters Award, among other recognitions of his work. COMPOSITION FOR SYNTHESIZER is a purely electronic work. It was created entirely on the Synthesizer and the output has not been subjected to any further mutations or modifications. The composition is less concerned with "new sounds and timbres" than with the control and specification of linear and total rhythms, loudness rhythms and relationships, and flexibility of pitch succession, which can be secured through the programming control of the Synthesizer.

MARIO DAVIDOVSKY (Argentina) studied composition with Maestro Guillermo Graetzer in Argentina and Aaron Copland in the United States. He has written ballet, chamber, theatre and film music. Awarded a Guggenheim Fellowship to study at the Columbia-Princeton Electronic Music Center, he is presently a staff member there. The sounds for ELECTRONIC STUDY NO. 1 were initially derived from three electronic sources: sinusoidal and square wave generators, and white noise. Conversion of these sounds into compositional materials was achieved by use of filters, reverberation chamber and through different recording processes. Basically, the STUDY is built upon five sound mixtures working as a series which is inverted, transposed and interpolated, and the sound mixtures are changed in density and intensity from the original. The material is developed through four carefully timed sections.

OTTO LUENING (United States) studied music in Munich and Zurich. The artistic influence of Andreae, Jarnach and Busoni helped to form his career. He has composed over two hundred works, and is also an active conductor and educator. Since 1952, he has been a close collaborator with Vladimir Ussachevsky in the field of electronic music. GARGOYLES is a composition for violin solo and synthesized sound. The synthesized sound material was produced on the Synthesizer, and later manipulated by tape techniques. The composition consists of a subject and series of short variations, each complete in itself. Some are synthetic and others are for the solo violin. Several variations combine solo and tape. The single tones of the subject introduce different shades of the same type of sound, and continue to accumulate until the end of the piece when the subject is transformed completely. The violin variations function as lyric contrasts to the synthetic ones, which are mostly dramatic and brilliant. The violin solo part is played by Max Pollikoff.

THE SELECTIONS ARE FOLLOWED BY THEIR PUBLISHERS AND TIMINGS

**SIDE I** BÜLENT AREL: STEREO ELECTRONIC MUSIC NO. 1—Bülent Arel.....10:28  
HALIM EL-DABH: LEIYLA AND THE POET—Halim El-Dabh.....5:20  
VLADIMIR USSACHEVSKY: CREATION—PROLOGUE—Vladimir Ussachevsky (ACA).....8:09

23:57

**SIDE II** MILTON BABBITT: COMPOSITION FOR SYNTHESIZER—Associated Music Pub., Inc. (BMI) 10:36  
MARIO DAVIDOVSKY: ELECTRONIC STUDY NO. 1—Mario Davidovsky.....5:50  
OTTO LUENING: GARGOYLES—Otto Luening (ACA).....9:21

25:47

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**COLUMBIA-PRINCETON  
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**Side 1**  
XSM 76245

1. BÜLENT AREL: STEREO ELECTRONIC  
MUSIC NO. 1
2. HALIM EL-DABH: LEIYLAN AND  
THE POET
3. VLADIMIR USSACHEVSKY:  
CREATION--PROLOGUE

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STEREO

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**Side 2**  
XSM 76245

1. MILTON BABBITT: COMPOSITION FOR  
SYNTHESIZER
2. MARIO DAVIDOVSKY: ELECTRONIC  
STUDY NO. 1
3. OTTO LUENING: GARGOYLES

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STEREO