

ELECTRONIC MUSIC SEMINAR - INTERNATIONAL SAMPLING

PROGRAM NOTES

(in alphabetical order - name of composers)

Jon H. APPELTON

Kungsgatan 8: this piece was composed at the Stiftelsen Elektro-musikstudio built by the Swedish Radio where the composer spent a year (1970) on a Guggenheim Fellowship. A computer is used to store and execute instructions for a large bank of analog equipment. Each event must be specified and in this short piece, there are 2,500 separate instructions. (Fri. 10.30 a.m.)

Hommage a G.R.M. has little to do with the Groupe de Recherches of the O.R.T.F., for whom it is named. It uses a common, ordinary synthesizer which the composer has in his studio in the United States. It shows some jazz influence and is built around a steady underlying pulse which is only heard in the middle of the piece. (Tues. 10.41 a.m.)

Jon Appelon is now Director of the Darmouth Electronic Music Studio in Hanover, New Hampshire. (U.S.A.).

Bulent AREL

Stereo Electronic Music No2 was realized at the Electronic Music Center of Columbia and Princeton Universities, New York (U.S.A.). Tues. 2.43 p.m. and Fri. 2.43 p.m.).

Larry AUSTIN

Caritas: realized on the PDP-10 computer with final electronic processing on the Buchla Electronic Music system in Larry Austin's private electronic music studio in Davis, California (U.S.A.). For more information see the magazine SOURCE No8. (Mon. 12.44 a.m. and Thu. 4.45 p.m.).

Milton Babbitt

Ensembles for Synthesizer (1965) was realized on the RCA Sound Synthesizer. It is the perfect and most complete realization of Babbitt's advanced ideas on total serialization of all musical parameters. (Wed. 3.46 and Fri. 3.46 p.m.).

Occasional Variations was realized at the Electronic Music Center of Columbia and Princeton Universities, New York (U.S.A.). (Wed. 3.35 p.m. and Fri. 3.35 p.m.).

Leslie BASSETT

Triform (1966) was composed at the Electronic Music Studio of the University of Michigan at Ann Arbor (U.S.A.). (Wed. 2.32 p.m. and Fri. 2.32 p.m.).

Leslie Bassett is head of the composition department at the University of Michigan.

David BATES

SST was realized at the Electronic Music Studio of the University of Michigan at Ann Arbor (U.S.A.). (Thu. 11.47 a.m.).

Francois BAYLE

"Je t'a" ou Murmure des Eaux was composed at the Groupe de Recherches Musicales de l'Office de Radio et Television Francaise Paris. (Concrete music). (Tue. 10.00 a.m. and Wed. 3.38 p.m.).

Luciano BERIO

Momenti (1960): both pieces have been composed at the Electronic Music Studio of Radio Milan (Italy). Fri. 10.54a.m.).

Omaggio a Joyce (1959) features the processed voice of Kathy BARBERIAN on texts by J. Joyce. (Mon. 10.30 a.m.).

Lars-Gunnar BODIN

Traces II (1971): Lars-Gunnar Bodin, born 1935 in Stockholm is chairman of "Fylkingen's Music Section" and the piece was realized at the Stiftelsen Elektromusikstudion, Stockholm (Sweden).

Bengt-Emil Johnson wrote: "...Fylkingen's expressed aim (is) to occupy itself with different aspects of the relationship between art and technology.....Not only do writers belong to the group of Linguistic arts, but also technicians, scientists and research workers." (Mon. 11.01 a.m. and Thu. 12.30p.m.).

Ian BONIGHTON

Sequenza (1971): the piece was realized at the Electronic Music Studio of the University of Melbourne (Grainger Centre) where Ian Bonighton has a Teaching Fellowship. The piece was created in a concert version with organ and choir at the Organ Music Festival of Melbourne in May 1971. (Wed. 12.26 a.m. and Thu. 4.24 p.m.).

Colin BRUMBY

Parabasis: Colin Brumby is an Australian Composer living in Brisbane. (Tue. 10.51a.m.).

Tristram CAREY

Sog: Tristram Carey is Director of the Electronic Music Studio in London (England). (Fri. 11.14a.m.).

Joel CHADABE

ModIII (1970): Tue. 11.24 a.m.).

Ideas of Movements at Bolton's Landing(1971)(Thu.3.49 p.m.).

Drift (1970) (Fri. 12.00 a.m.).

Joel Chadabe is Director of the Electronic Music Studio of the State University of New York at Albany (U.S.A.) and the three pieces were done at this studio and are completely automated in the sense that there's no tape splicing. The studio (system design by Joel Chadabe, engineering and construction by the R.A. Moog Co.) features a Moog Synthesizer, 8 sequencer systems, 1 four-digit clock and 10 decoder/delays.

Gustav CLAMAGA

Two part Invention No8 (1970) was composed at the Studio Voor Elektronische Muziek des Rijksuniversiteit, Utrecht Holland. (Mon. 10.37 a.m.).

Bruce CLARKE

Synchronisms 2000: Bruce Clarke is Director of the Melbourne Workshop Studio which has the second imported Moog Synthesizer in Australia. (Tue. 12.13 p.m.).

Mario DAVIDOVSKY

Electronic Study No3 (In Memoriam Edgar Varese): One of the chief exponents of the aesthetic and technical approach identified with the Columbia-Princeton Electronic Music Center, Mario Davidovsky displays the types of sounds that have become most characteristic of this studio. This electronic study proceeds as a series of events organized primarily in terms of pitches, rhythms, and timbres. (Tue. 4.02 p.m. and Fri. 4.02 p.m.).

Hugh DAVIES

Shozyg I + II(1968): Shozyg + and Shozyg II are stereophonic instruments for live electronic performance, constructed by Hugh Davies in the summer and autumn '68. They are built inside book covers which also contain performance instructions. The original ShozygI was built inside the final volume of an encyclopedia, SHO-ZYG, hence the title. Shozyg I + II can be performed in several different versions. The present recording, played by Richard CRTON and Hugh DAVIES, was made in the summer of 1969 and issued on a record in the magazine OU, 36/37. (Mon. 10.50 a.m. and Wed. 4.31 p.m.).

Quintet (1967-68): for 5 performers, 5 microphones, 1 sine/square wave generator, 4-channel switching unit, potentiometers and 6 loud speakers. Four musicians stand each at one corner of the room, in front of a loudspeaker, holding a microphone which is connected directly to it. The fifth performer has an oscillator in addition to a microphone, as well as potentiometers to control the level of each of the five microphones. All the sounds are produced by acoustic feedback, with the exception of a solo section in the middle of the work, where the oscillator is used to modulate the microphone feedback. This recording is played by "The Gentle Fire." (Mon. 3.43 p.m.).

Spring Song(1970): Solo performance by Hugh Davies on a Springboard, originally designed as a film score to which Harvey Matusow subsequently added the visual images. The instrument uses four long, narrow springs that are stretched to different lengths across a board of wood chosen for its resonant qualities. The sound of the sound of the springs is picked up by magnetic pickups, as in an electric guitar. (Wed. 10.42 a.m.).

Hugh Davies is Director of the Electronic Music Workshop at the University of London Goldsmiths' College, and is a member of the Gentle Fire and the free jazz quartet Music Improvisation Company.

Charles DODGE

Changes: the piece was commissioned by the Serge Koussevitzky Music Foundation for performance at the Library of Congress. The work used a digital-to-analog converter at the Bell Telephone Laboratories, and was computed at the Princeton Computer Center and at the Columbia Computer Center. (Mon. 4.07 p.m.)

Earth's Magnetic Field : (1970): To indicate the average of magnetic activity for Earth, the Kp index has been established; this index represents the average of the magnetic changes, which are measured at a selected group of magnetic observing stations on Earth and may take on any of 28 distinct values. The succession of notes in the music corresponds to the natural succession of the Kp indices for the year 1961. Musical interpretation of the magnetic data was originally conceived by Messrs. Boller and Ungar and implemented by Carl Frederick; the indices were computer-programmed into a form suitable for music synthesis by Stephen Ungar. The computer "instruments" for the performance were programmed by Charles Dodge using a general-purpose sound synthesis program written by Godfrey Winham at Princeton University. All the sounds were computed into digital form using the IBM/360 model 91 at the Columbia University Computer Center, and were converted to analog form at the Bell Telephone Laboratories. (Tue. 3.04 p.m. and Fri. 3.04 p.m.). Charles Dodge is director of a research project in computer sound synthesis at the Columbia University Computer Center.

Andrzej DOBROWOLSKI

Music for Magnetic Tape and Oboe Solo (1965): the material of this composition consists entirely of microphone recordings of oboe sounds. The composition consists of five non-autonomous sections which differ from each other in both the sound material used and method of organisation. The sound material realized on tape is set against an equivalent solo part for oboe, which is meant for "live" performance by the instrumentalist during the concert. The composition was realized by Eugeniusz Rudnik at the Polish Radio Experimental Studio. (Fri. 12.17 p.m.).

Joan EATON

Blind Man's Cry: the tape of Blind Man's Cry is a recording of a live performance - ie., nothing is pre-recorded - by Miciko Hirayama, soprano, John Eaton, Syn-Ket and Syn-Mill, Jay Williams, Moog Synthesizer, and Wilson Allen, sound mixing and tape recorders. It is a setting of a poem by Tristan Corbier, translated by Patrick Creagh, of a blind man's existential cry to the heavens, relieved only when he recalls the blessed state of the dead who died in God. The instruments are all especially adapted for live performance: the Syn-Ket has three keyboards sensitive to pressure and sideways motion, and all the synthesizers are controlled by pedals. (Wed. 4.09 p.m. and Fri. 11.45 a.m.).
John Eaton is associate professor of composition at Indiana University (U.S.A.).

Donald ERB

Reconnaissance (1967) is a composition in 5 movements for violin (Bonnie Douglas), double-bass (Rand Forbes), piano (Ralph Grierson), percussion (Kenneth Watson), Moog Synthesizer (Michael Tilson Thomas) and Moog polyphonic instrument (L. Stein) conducted by Donald Erb. The composer writes: "I simply wrote a piece for six instruments and regarded the electronic ones as equal partners, no more, no less. To me the electronic instruments in conjunction with our traditional ones are capable of producing a chamber music that is rich in new possibilities. (Wed. 12.41 p.m. and Thu. 12.43 p.m.).

John EXTON

Go Boil Your Head in E Flat (1971): (Wed. 2.12 p.m.).
One Way Ping-Pong (1970): (Wed. 10.52 a.m.).
Both pieces were composed at the Electronic Music Studio of the University of Western Australia.

Luc FERRARI

Heterozygote (1963-64) (Fri. 12.32 a.m.).
J'ai été coupé: (1969) (Thu. 11.07 a.m.).
Both pieces were realized at the Groupe de Recherches Musicales de l'O.R.T.F., Paris (concrete music).

Jack FORTNER

Nocturne (1967) is a wedge-shaped design, which (after the initial burst of activity) progresses from an area of slight density and non-movement to a climax which is extremely violent and composed of many layers of sound. In addition to purely electronic sound sources, Nocturne presents concrete materials derived from his instrumental music. (Tue. 12.05 p.m. and Wed. 2.36 p.m.).
Jack Fortner is a member of the faculty of the School of Music, University of Michigan, Ann Arbor (U.S.A.).

Jean-Charles FRANCOIS

Harmonics (1970) is a concrete piece using the recording of the harmonic sounds of 2 cymbals, 2 cow bells, and a gong. (Mon. 2.33 p.m.).

Pieces Anales et Doctiques (1971) is a big collage of diverse materials and quotes using all the different methods available in the Grainger Centre Studio and presenting the sounds in the triviality of their anecdotic characteristics. Each "Piece" demonstrates the simplicity of Electronic Music and its availability to the ordinary amateur of music. (Thu. 2.59 p.m.).

Ken GABURO

Fat Millies Lament (1966): (Mon. 10.45 a.m.)
The Wasting of Lucretia (Mon. 2.29 p.m. and Fri. 11.56 a.m.)
Both pieces were composed at the University of Illinois.

Gerald GLYNN

Collage I: (Tues. 12.32)
Collage II: (Wed. 11.26 a.m.).
Résonances: (Wed. 3.19 p.m. and Mon. 11.25 a.m.).
Musique Eclatée: (Fri. 10.26 a.m.).
The four pieces were composed at the Groupe de Recherches Musicales de l'U.R.T.F. during the year Gerald Glynn spent in Paris in 1970. Résonances is a concrete piece using the recording of the sounds of a piano played inside. Musique Eclatée is the contribution of Gerald Glynn to a collective piece for the Festival d'Avignon 1970.
Gerald Glynn is now living in Brisbane.

Pietro GROSSI

Unending Music 1 (predetermined music)
(Wed. 12.36 and Friday 12.27).

Unending Music 2 (random music): (Mon. 3.34 p.m.).

Unending Music 3 (random music): (Tue. 12.23)

Pietro Grossi is working on computer music at the NCUCE (Centro Nazionale Universitario di Calcolo Elettronico) and his aim is to do music at the remote terminal in real time. The three pieces were realized with the DCMP (digital computer music program) at the CNUNE of the University of Pisa (Italy).

Sten HANSON

L'Inferno de Strindberg (1971): Sten Hanson, born in Sweden in 1936, is chairman of Fylkinens Linguistic Arts Section (see L.G. BODIN) and is interested in sound poetry treated extensively in an electronic studio. Hanson writes: "The sound poem appears to me as a homecoming for poetry, a return to its source, the spoken word, the rhythm and atmosphere of language and body, their rites and sorcery, everything that centuries of written verse have replaced with metaphors and advanced constructions. The sound poem is perhaps also a way back to contact with the larger public that bore the traditions of poetry in ancient times."
(Wed. 4.20 p.m. and Thu. 4.34 p.m.).

Keith HUMBLE

La Legende (1970) was commissioned by the Australian Broadcasting Commission as an entry for the Italia Prize and is based on a poem by Pierre-Albert Birot which is sung by Loris Synan along with electronic sounds, processed choral sounds and processed orchestral sounds.
(Tue. 2.00 p.m. and Fri. 2.00 p.m.)/

Entr'acte I : (Tue. 11.44 a.m. and Fri. 11.40 a.m.)

Entr'acte 2: (Mon. 2.56 p.m.)

Entr'acte 3: (Mon. 12.02)

Moto perpetuo: (Wed. 3.25)

The three entr'actes and the Moto Perpetuo are all very short extracts from several Nuniques (1968-71)

Bengt Emil JOHNSON

Lecture on ... (1970): Bengt Emil Johnson, born in 1936 in Sweden, is a writer, composer and broadcaster. He has published four books of concrete and visual poems. He has worked with text-sound compositions since 1963, all produced at the Swedish Radio. (See L. G. Bodin). (Tue. 11.07 a.m. and Fri. 12.32 p.m.)

Mauricio KAGEL

Transición I (1958-60): Wed. 2.44 p.m.)

Gottfried Michael KOENIG

Funktion Orange (1968): G. M. Koenig is Director of the Instituut voor Sonologie Rijksuniversiteit, Utrecht (Holland). Wed. 4.42 p.m. and Fri. 10.00 a.m.)

Włodzimierz KOTONSKI

Aela (1970) was composed at the Polish Radio Experimental Studio. (Wed. 3.03 p.m. and Thur. 10.40 a.m.)

Jos KUNST

Expulsion (1968) was composed at the Studio voor Electronische Muziek des Rijksuniversiteit, Utrecht (Holland). (Mon. 12.26 p.m. and Thur. 11.21 a.m.)

Leo KUPPER and Exequiel VIRASORO

Innominé (1971)

Leo Kupper: Computer programming and electronic instrumentation.
Exequiel Virasoro: play of the dynamic attenuators.
The composition has been realized at the Studio de Recherches et de Structurations Electroniques

Auditives, Bruxelles (Belgium).
(Wed. 10.59 a.m. and Thu. 11.31 a.m.).

Alvin LUCIER

I am sitting in a room was realized by Alvin Lucier, speaker and electronics, in his living room at 454 High Street, Middletown, Connecticut. See the magazine SOURCE No7 p.60 for description of compositional process. (Mon. 3.18 p.m. and Tue. 11.49 a.m.)

David LUMSDAIN

Bourdon with a Bell: David Lumsdain is an Australian composer, living in London (England). (Mon. 11.42 a.m. and Mon. 2.58 p.m.).

Stanley LUNETTA

"moosack machine"(1970): realized by the composer's analog/digital computer music system in Sacramento, California (U.S.A.).
The moosack machine is a sculpture that produces, mixes and processes electronic sound. In the present version, the machine routes these sounds to four speakers placed in corners of a room and also to an audio transducer contained in the sculpture in the center of the room. See SOURCE no8 p.46 for description of circuits. (Wed. 2.30 p.m. and Thu. 10.50 a.m.).

Ian MACDONALD

anSoc was composed at the University of Adelaide Electronic Music Studio (South Australia). (Mon. 12.08)

Ivo MALEC

Luminetudes: realized at the Groupe de Recherches Musicales de l'O.R.T.F., Paris (Concrete music). (Mon. 12.13 and Thu. 12.06).

Bohdan MAZUREK

Epitah (1968): realized at the Polish Radio Experimental Studio. (Mon. 2.49 p.m. and Wed. 12.19)

Paul MARTIN

Electronic Study: realized at the University of Adelaide Electronic Music Studio (South Australia). (Wed. 2.58 p.m.).

George NEWSON

One under the Eight: realized at the Electronic Music Studios, London (England). (Mon. 12.36).

Pauline OLIVEROS

If of IV was made in July, 1966 at the University of Toronto Electronic Music Studio. The composer writes: "It is a real time studio performance composition (no editing or tape splicing), utilizing the techniques of amplifying combination tones and tape repetition. The combination-tone technique was one I developed in 1965 at the San Francisco Tape Music Center." (Tue. 12.36 and Thu. 2.32 p.m.).

Richard ORTON

Kiss (1968-70): realized at the Electronic Music Studios, London (England). (Mon. 3.56 p.m.)

Luis de PABLO

"We" is an extensive collage of electronic sounds, voices, crowd noises, street noises, folklore, Gregorian plain-chant etc. and was realized in Spain. (Mon. 4.23 p.m.)

Bernard PARMEGIANI

Thalana II: realized at the Groupe de Recherches Musicales de I'O.R.T.F., Paris (Thur. 4.06 p.m.)

Gerald PLAIN

Golden Wedding (1969): realized at the Electronic Music Studio, University of Michigan, Ann Arbor (U.S.A.), Golden Wedding is dedicated to his parents on the occasion of their Golden Wedding Anniversary and in the words of the composer "is made up of 'concrete' materials, as well as those that have been generated by electronic means. The work can be thought of as being in two sections that are highly contrasting in their mood and sense of movement". (Mon. 11.14 a.m.)

Luctor PONSE

Radiophonie II (1969): realized at the Institut voor Sonologie Rjksuniversiteit, Utrecht (Holland) (Mon. 2.00 p.m.)

Mel POWELL

Second Electronic Setting: realized at the Electronic Music Center of Columbia and Princeton Universities, New York (U.S.A.). (Tue. 4.08 p.m. and Fri. 4.08 p.m.)

James K. RANDALL

Lyric Variations for Violin and Computer: (1968) the piece was composed at Princeton University and Bell Laboratories and the violin part is played by Paul Zukofsky. The composer writes: "... (the work) has typically arisen from a primary level of elaborately structured pitch-time configurations, notwithstanding its complex expressions of the idea of "pitch" and notwithstanding the tendency of its gradually-evolving individual sound-events to trivialize the idea of "attack-point". (Tue. 4.13 p.m. and Fri. 4.13 p.m.)

Howard REES

Bedtime Stories (1971): collage realized at the Electronic Studio-Workshop, Falmouth School of Art (England). (Tue. 11.13 a.m. and Thu. 12.19).

Cassette Piece 7, for Carol, at the I.C.A. (1970): realized real time on a VCS 3 at the Davies-Wyman Private Studio, London (England). (Wed. 11.30 a.m.).

Mark REINER

Phlegethon is a live-recording of burning Saran Wrap at the University of California (U.S.A.), Davis. Phlegethon is one of the three rivers in the Underworld and consists of flames instead of water. See SOURCE No7, p. 53. (Thu. 12.00 and Thu. 2.53 p.m.).

Eugeniusz RUDNIK

Dixi (1967): realized at the Polish Radio Experimental Studio. (Mon. 12.03 p.m. and Tue. 10.46 a.m.).

Boguslaw SCHAFFER

Symphonie (1966): the composer writes: "I called (my composition) "Symphonie", not in an attempt to invoke that spiteful spirit of contradiction which as a means of finding one's individual approach to art has long since passed from use, but simply from a personal conviction that this term could find new applications today - since after all I was concerned with the simultaneous sounding of materials originating from quite various technical sources, which is true "sym-ponic" composition. The work at the studio was based on a score which, unlike normal graphic scores, did not merely indicate certain sonorous events, but constituted a link between the composer and the realiser (Bohdan Mazurek) the latter's participation in this case being of a higher creative order than usual. The Symphonie is not based on "pure" material but on material which had already gone through the first stages of composition. The work was realized at the Polish Radio Experimental Studio and is published by the Polish Music Publishers." (Thu. 2.00 p.m. and Fri. 10.36 a.m.).

Barry W. SCHRADER

Celebration (1971): the composer writes: "the piece was done quadraphonically, and I have mixed it down from the master into stereo. Unfortunately, a great deal is lost by reproducing these works in stereo. The piece was composed entirely on the Buchla modular electronic system, or synthesizer." The piece was realized at the California Institute of the Arts (U.S.A.). (Thu. 10.00 a.m.).

Alice SHIELDS

The Transformation of Ani: realized at the Electronic Music Center of Columbia and Princeton Universities, New York (U.S.A.). (Tue. 4.42 p.m. and Fri. 4.42 p.m.).

Pril SMILEY

Kolosya: realized at the Electronic Music Center of Columbia and Princeton Universities, New York (U.S.A.). (Tue. 4.34 p.m. and Fri. 4.34 p.m.).

Val STEPHEN

Passacaglia Electronica: realized in Mr. Stephen's private studio, Electrogenic Music Recordings, in Melbourne. (Thu. 2.18 p.m.).

Karlheinz STOCKHAUSEN

Kontakte (1960): Realized at the Electronic Studio of the West Deutsche Rundfunk, this work exists in two versions, a four-track version for electronic sound and a version for electronic sound, piano and percussion. The present tape is the electronic sound version mixed from the master in two-track stereo. The electronic sounds were produced by means of an impulse generator; a "tunable indicator amplifier" and an adjustable band filter were also used. For few sound events sine wave generators and square wave generator were employed. Most of the sounds, sound noises or noises were made by various accelerations of rhythmic sequences of impulses. The scale of electronically produced "cambers" contains familiar sounds and noises and mediates among them (like metal, skin or wood etc.). It facilitates transformation of sound from each one of these categories into every other one, and

mutations of sound into completely new, previously unknown sound events. (Wed. 2.00 p.m.).

Peter TAROURDIN

Aboriginal Electronics: (Thu. 10.34 a.m.).

The Gift of Love from "Pacific Rape": (Fri. 10.18 a.m.).

Both pieces were composed at the University of Adelaide Electronic Music Studio (South Australia).

Vladimir USSACHEVSKY

Computer Piece No1: (Tue. and Fri. 2.38 p.m.).

Of Wood and Brass: (Tue. and Fri. 3.57 p.m.).

Both pieces were realized at the Electronic Music Center of Columbia and Princeton Universities, New York (U.S.A.).

Barry VERGOE

Synthesism: (Tue. and Fri. 2.59 p.m.).

Barry Vergoe was born in 1937 in Wellington New Zealand. The work was realized at the Princeton Computer Center and at the Bell Telephone Laboratories (U.S.A.) The composer writes: "Synthesism is a study in the less-typical aspects of computer-generated sound. Much of its material is either derived from or modified by the totally patternless output of a random-number generator. The structural base of the work is an ordered set of sixteen numbers that comprise a geometric series from 1 to 2. This set is projected onto various domains as the compositional determinant - for example; onto the octave to form an equal-tempered sixteen-note series and into the time domain to determine durations or to control successions of varying attack rates".

Martin WESLEY-SMITH

(Fri. 11.19 a.m.)

Vietnam Image: realized at the University of Adelaide Electronic Music Studio (S.A.)

George Balch WILSON (Tue. and Fri. 2.28 p.m.)

Exigencies: realized in four tracks, the piece was completed at the University of Michigan Electronic Music Studio whose director is George B. Wilson, in June of 1968. The present version is a 2-track mixdown of the original.

Arthur WOODBURY

Velox (Mon. 11.31 a.m. and Wed. 11.15 a.m.)

Realized on the PDP-10 computer with final electronic processing on the Moog synthesizer in the Davis Electronic Music Studio, University of California, Davis (U.S.A.).
See SOURCE No.7 p.49.

Charles WOURINEN

Time's Eonium (Tue. and Fri. 4.53 p.m.)

Realized at the Electronic Music Center of Columbia and Princeton Universities, New York (U.S.A.)

Iannis XENAKIS

Orient/Occident (Wed. 2.00 p.m.)

Realized at the Groupe de Recherches Musicales de l'O.R.T.F., Paris in 1960

Peter ZINOVIEFF

July 20th. (Thu. 11.52 and Thu. 2.24 p.m.)

Realized at the Electronic Music Studios, London.

Program notes compiled by Jean-Charles Francois.

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