REPORT ON THE STUDY TOUR TO THE UNITED STATES AND CANADA IN THE FRAMEWORK OF THE UNESCO FELLOWSHIP FOR STUDIES IN ELECTRONIC MUSIC

May, 1958

(a) A visit to the UNESCO office, Paris, in order to fix details for the study tour to the United States.

(b) Performance of the electronic music composition, "Exodus", and explanations on the work for invited guests to the Broadcast studio, UNESCO House.

(c) Performance of the same work in the studio of the BBC, London. A discussion with the Chief Engineer, Dr. Alexander, about technical and artistic problems in electronic music.

June, 1958

(a) Filing of programmes, complete with all the details in the office of the I.I.E. in New York.

(b) Meeting with the Director of UNESCO in the United Nations Office.

(c) First meeting with Professor Ussachevsky, Head of the Music Department and the Electronic Studio of Columbia University.

(d) Meeting with Professor Milton Babbitt, Head of the Music Department, Princeton University.

(e) Period of practical work in the electronic studio of Columbia University under the guidance of Engineer Dr. Mausé.

(f) Visit to the electronic music studio of Louis and Bebe Baron, New York.

(g) Meeting in the Rockefeller Foundation office and discussion of financial problems in connection with the building of the necessary equipment.

(h) Several meetings with Mr. Nathan Haynes, President of General Amplifier Company; discussions of technical problems about time coding, drum memory, and combined oscillation.

(i) Meeting with Professor Etsold of the Berlin University; discussion of keyboard system to ease the process of pitch regulation.

(j) Several meetings with Chief Engineer Otto Popelka of the Magnapan Electronics Co.; discussion of a new kind of sound production instrument.
which assembles different processes of sound production for
tape recording.

(k) Performance of "Exodus" in the NBC studio.

(l) Performance and discussion on "Exodus" with the dancer, Martha
Graham.

(m) Performance and discussion on "Exodus" with the dancers, Meta
and Hari.

July, 1958
Washington

(a) Meeting with Engineer Henrik Colmus, of the Bureau of Standards;
discussion on sound modulation instrument, based on transistors
which will produce a great variety of harmonics to a sinus tone,
through light beams

(b) A visit to the Library of Congress; discussion about electronic
music with the Director, Dr. Spivak, and Mr. Waters. Performance
of "Exodus".

Boston

(a) Several meetings with Professor Melvin Clark Jr. of M.I.T.; planning
an electronic music instrument for music lovers. Several lectures
by Professor Clark on basic technical problems in electronic music.

(b) A visit to the electronic music studio of M.I.T. and discussion
with the composer, Arcolini Ferrati, Head of the Studio.

Brandeis University

(a) Lecture by Professor Eabitt on twelve tone system and electronic
music; Meeting with Professor Shapiro, Head of the Music Department.

New York

(a) Meeting with Mr. Abraham Frisch; explanation on his new method of
magnetic nails, (transfer of sound waves from on tape with the help
of magnetic nails). Theoretical thoughts based on the Schillinger
System.

(b) A visit to the Collosseum where an automation exhibition was being
held. Several discussion there about computer machines and newest
techniques in tape recording.
Allentown
Visit to the Allen Organ Company; discussion with Chief Engineer, Mr. Jerome Markovitz on problem of tone colours.

August 1958

Illinois University
Meeting with Professor Adam Miller, composer and teacher on the staff of the University's music Department. Performance of his composition, executed on the Illiac Computer Machine. Explanation on the Random Information Process in composing music through a computer machine.

Chicago
(a) Meeting with Professor Hans Tischler, of the Roosevelt University; discussion on the aesthetic aspects of electronic music.
(b) Meeting with Professor Leonard Mayer, of the University of Chicago; discussion about Information Theory and Communicative System.

San Francisco
(a) Meeting with Engineer Thomas Yaski; discussion on borderline cases in electronic music, i.e. music therapy and brain influence.
(b) Visit to the Ampex Factory, Redwood City. Meeting with Engineers Snyder and Longfellow. Discussions and explanations of new methods in Stereophonic Recording, Multitrack Recording.
(c) A visit to Varian Associates in Palo Alto; discussion with Chief Engineer Mr. Carnahan, in connection with the "Light Beam" ideas of Mr. Calman of Washington.
(d) Lecture on electronic music for a specially invited circle in the home of Mr. H. Popper.
(e) Round table conference on electronic music, over station KFPA of Berkeley University. The participants were: Professor Kirschenr, composition; Professor Imbar, performance; Professor Shifrin, sociology; Mr. Allan Rich, Chairman, and myself.
(f) Performance of the Vortex System in the San Francisco Planetarium.
(g) Dance performance by the dancer Anne Halprin, which was danced entirely to electronic music. Discussion on artistic aspects in connection with this music after the performance.

F. Professor Singer
Ottawa, Canada

A visit to the National Research Council; discussion of several aspects of electronic music with Chief Engineer Mr. Hugh Le Caine and Mr. John Bowsher. Negotiations for acquiring Mr. Le Caine's Multitrack Recording Machine.

September, 1958

New York

A meeting with Professor Ince of Columbia University and another meeting with Professor Ussachevsky.

Ottawa

A meeting with Engineer Mr. Gonand Kendall; discussion on his new method of wave scripts. Second meeting with Mr. Hugh Le Caine and the director of the Microwave Section, Dr. Miller.

New York

(a) Meeting with two publishers; discussion of the technical problems involved in the printing of electronic music notation.

(b) Performance of "Exodus" in the office of Mr. David Wadlinger, Director of I.L.E.

(c) A lecture on electronic music for the Claudio Arrau Circle in New York.

London

Visit to the electronic music workshop of the BBC, Maidavale; discussion with Chief Engineer Miss D. Cram on several technical and aesthetic aspects of electronic music.

Paris

Final talks in the administration office of UNESCO.
Paris shop all three stores
Music to Oscillate By

Composer Tells of Electronic Works

By Carolyn Ammerman

The composer of tomorrow's music, Tal said, may be required to know more about electro-physics and logistics than he does about counterpoint and harmony.

So believes Joseph Tal, the 45-year-old composer of modern music.

The German-born Israeli pianist-composer who is touring the United States under a UNESCO grant, is reluctant to discuss his music as the product of this atomic age.

"People hear the word 'atomic' and think of something that will kill them," he said.

The music he is composing for oscillating instruments, still in the process of invention here and in Europe, will not kill the sudden Tal insists.

It may momentarily shock the audience, Tal said, particularly the one he played in the Bach-Beethoven-Rimsky-Korsakov period.

"It's all new," Tal said, the new auditory experience will not prove lethal. It may even be an exciting emotional experience.

Tal pooh-poohs the current French-German backdrop of contemporary music as an expression of con-temporary sounds set within the traditional, monocentric approach to be the modern German musical concept built on pure electronic frequencees.

"I do not like that which is music," he said, "nor do I care for the aesthetic projects of that logical mind I still believe in the human being.

TOMORROW"

It is Tal's belief that the musical media for tomorrow's "will be electronic and during his three-months stay in this country, he has been concurring with engineers about their composition.

"This is the idiom of modern times," he said.

So far, Tal has composed one experimental composition employing the "tape of music" as a source of electronic sounds, taped recorded work called "Tape." For what he used he described as "a device for a large electronic instrument -- an oscillator he obtained in Israel.

The piece, which performed in Israel and Europe, is "controversial," Tal said.

"It requires," he said, "the addition of a sinew to a tape recording and Mozart would have been interested.

Tal, who occasionally is called upon to carry arms for his adopted homeland, sees the average listener is being deep into the atomic age.

"We cannot live in motion," Tal said. "The present is here and the future is at the corner. And both are being planned into the technologically present and future.

"We cannot live in motion," Tal said. "The present is here and the future is at the corner. And both are being planned into the technologically present and future.

"This is for history to decide," he said. "But I must confess I do not believe in it. It is a country of mine in a pioneer land where we breathe to build houses. And so we will in this, the next world, he described the plan that it will give a special role in this, I don't know.

STUDENT".

Tal, who started his career as a student of traditional music in Berlin and has written some of the concertos and conductor of considerable distinction. His works are far better known in this country than they are in the world, not least the Rochester Symphony Orchestra that performed his half-hour "Sulm at Endor," and a second one, "Ammon and Tamar" that was given the first performance in the United States.

Composer of numerous symphonies, concertos and other works, was the 1954 prize awarded by the International Society of Contemporary Music at his Rochester performance. Tal said that all composition procedures are deeply into the future. His next work, he said, will be a full opera in which he will use electronic devices rather than traditional orchestra to back the human voice.

ENGINEERING".

In fact, he is in San Francisco tonight for an engineering conference of the Canadian National Research Council about building the oscillating instruments that will give the new style a name.

Tal, married and the father of two sons, is a professor at the Hebrew University and is on the staff of the Israeli counterpart of the Encyclopedia Britannica. During his two-week stay in San Francisco Tal visited his sister, Gretta Jacobson, at 1293 Third Avenue.
Ottawa 2, 22 August, 1958

Mr. Josef Tal,
c/o Mrs. Joan Davis,
Institute of International Education,
1 East 67th Street,
New York 21, N.Y.

Dear Mr. Tal,

The head of the Microwave Section, Dr. G.A. Miller, who
was out of town during your visit, believes that there would be
a fair chance of a favourable reply to a request for a multiple-track
recorder similar to the one you saw.

He believes that before we present the case to our Director,
we should have a letter from you requesting the multiple-track
recorder, stating the work for which it is to be used, the size of
the electronic music group, or the number of composers involved, the
nature of your plans for the future (for instance, whether a department
of electronic music at the university is being considered), and finally
some notes on your musical career;-- I am sure you can see the sort
of letter that is required.

We should add a few notes on our "multiple-track tape recorder": It is basically a device for combining a number of separate tapes as conveniently as possible. It is not intended primarily for routine applications of combining musical parts played one after the other. (This purpose can be better served by the eight-channel Ampex, Model 300--in which all the parts are recorded on separate tracks on a single tape. An example is heard on Gravesano Record V 8503, "The World is Waiting for the Sunrise", Gravesano Review, January 1956.) The use of separate tapes in an advantage only when each tape must be handled separately, as in Musique Concrete; or when editing or splicing must be done on one or more of the components. We propose to have provision for about ten tapes with single and/or double tracks. A variable-speed drive controlled by a keyboard will provide 37 speeds in the equitempered scale, with provision for obtaining intermediate speeds.

Best regards,

Yours sincerely,

Hugh Le Caine and John Bowsher,
Electronic Music Group,
Microwave Section

HLC: HP
Aide-Mémoire.

The second part of my study trip as Unesco-fellow has been a four-month-visit to the United States and Canada. In course of this research-study in electronic music I have had the opportunity to discuss the problems involved with a large number of top engineers and musicians in the following places: New York, Boston, Washington, Chicago, Alletown, San Francisco, Palo Alto, Redwood City, Ottawa.

At the National Research Council in Ottawa I found the most remarkable apparatus developed by the Canadian engineer Mr. Hugh Le Caine. I understood immediately the importance of this device and started negotiations on acquiring this equipment.

Mr. Le Caine promised me to ventilate the possibility with his authorities. From this followed the change of letters of which I copy here the following parts:

"The head of the Microwave section Dr. G.A. Miller who was out of town during your visit, believes that there would be a fair chance of a favorable reply to a request for a multiple-track recorder similar to the one you saw. He believes that before we present the case to our Director we should have a letter from you requesting the multiple-track recorder stating the work for which it is to be used, the size of the electronics music-group or the number of composers involved, the nature of your plans for the future (for instance whether a department of electronic music at the University is being considered) and finally some notes on your musical career."

In my answer I did send my curriculum and a memorandum of which a copy is attached to this letter.

On my second visit to Ottawa I discussed the matter personally with Dr. Miller who informed me about their principal agreement to provide the planned Institute of Electronic Music in Jerusalem with the equipment developed by the Canadian N.R.C.

The building of this machine will take about six to nine months. Meantime a way has to be found for the official procedure of this transaction.

Dr. Miller mentioned the idea of asking the UNESCO to function as mediator. In my opinion that would be the best way of the realization of this project.
Dear Mr. Carter,

I acknowledge with best thanks the receipt of your letter dated November 20th, 58. Since my programme of studies in Electronic-Music as Unesco-fellow has had no precedence, might I be allowed to answer your questions in a different way. I understand that my remarks might be useful for future fellow-students.

I tried carefully to separate two different trends of studies:

1) the technical conditions of the Electronic-Music equipment
2) the artistic consequences involved in the composition
   its reproduction.

Regarding the technical conditions I separated them again into two different approaches:

1) the acquisition of knowledge about existing Electronic-Music-apparatuses.
2) the search for new possibilities in designing these apparatuses, which are based on practical experience in this new technique of composing.

As I already became acquainted with the main existing equipment during the first part of my studies in Europe last year, I concentrated on the search for new possibilities during the second part in the States and Canada. Besides, I came to the conclusion that a far greater cooperation and mutual influence between the engineer of electronics and the composer has to be established. Obviously we are only at the beginning of this comparatively new development and no standards in technical devices are so far existent.
Therefore, upon returning home, I continued immediately in research work, both with engineers and musicians and hope to start experimental work in the very near future.

Concerning the organisation of my programme of studies, both in time and choice of personalities and institutes, I reached all my goals except some unavoidable minor gaps.

In the event of other fellowships in this field, it seems advisable to adjust the programme of studies according to each individual's aims and needs.

The final report on my fellowship will be sent to you in about two to three weeks.

Yours sincerely

[Signature]
Mr. Josef Tal,
House Saidof,
Hassacel Street,
Jerusalem, Israel.
January 21, 1959.

Mr. William D. Carter,
Chief Exchange of Persons Service,
UNESCO House,
Place Fontenay,
PARIS VII.

Dear Mr. Carter,

Enclosed in this letter please find the report of the second part of my study tour to the United States and Canada. I apologize for the delay which was unavoidable due to some technical difficulties.

I would like to ask you to allow me to send a copy of Part III to Professor Hermann Scherchen, (or to do so yourself), as he might be interested in publishing the article in his quarterly, "Gravesiana Review". Professor Scherchen was of great help to me during my studies last year in Europe, and should he be interested in the article, I feel I ought to give him priority.

Part IV, List of Books, has been added with reference to your letter, dated 31 December 1957, No. Ex P/E/745261. The publications are listed in order of preference.

With regard to your letter, dated 20 November 1958, No. EX P/E/815265, I understand that a catalogue of UNESCO publications is being forwarded to me to enable me to select further publications.

I should like to take this opportunity to express my sincerest thanks to all UNESCO officials concerned with my fellowship. Their generosity, understanding and support gave me the greatest encouragement possible for my work. I would like, too, to mention Mrs. Jean Davis, Secretary of the European Department of the International Institute of Education, New York, whose tireless help and advice enabled me to make the best of my studies. Moreover, I should like to extend my deepest thanks to Professor Vladimir Suschavsky, Head of the Music Department, Columbia University, New York, who provided me with all the facilities of the University's Electronic Music Studio, as well as to Professor Melvin Clark Jr., of MIT, Boston, who spent many hours of his valuable time in lecturing to me privately in order to prepare me for further professional discussions.

I hope, soon, to be able to make my first major contribution as composer, and thus contribute myself to UNESCO's artistic aims.

Yours sincerely,

Josef Tal