Grand Prize of Ars Electronica

Thursday, September 13th, 1984, 8:00 p.m.
Brucknerhaus, Medium Hall

An international jury will award for the fourth time the Grand Prize of Ars Electronica to the most original and future-oriented new development in the field of electronical sound production. The contestants of the "Grand Prize" are offered the opportunity to present their instruments to the public in the afternoon. The prize will be awarded during the evening event.

Participants:
Martin Hurni (Switzerland)
Walter Schröder-Limmer (FRG)
Hans-Werner Schwarz (FRG)
Manfred Seifert (FRG)
Dorothy Stone (USA)

Jury:
Dr. Robert Moog (USA), chairman
Tom Darter (USA)
Dr. Klaus Buhlert (FRG)
Dr. Heinz Josef Herbort (FRG)
Leo Küpper (Belgium)

Moderator: Walter Zimmermann (FRG)

The prize has already been awarded to:
Bruno Spoerri with the "Lyricon", Nyle Steiner with the "Electronic Trumpet" and to Ivan Tcherepnin (USA).

The conditions for entries were developed by Dr. Robert Moog. Here is a survey:

Rules of the Grand Prize Contest of Ars Electronica, 1984
by Robert Moog The Grand Prize Contest of Ars Electronica provides an arena for those performers of music on electronic equipment, whose music combines originality of concept, command of technical resources, and a high level of musicianship. The following rules are based on the proposition that a new artistic medium is valuable only to the extent that artists are able to use it to create appealing works of art that point toward an interesting and exciting future.

WHO IS ELIGIBLE: Any performer or group of performers may enter the Grand Prize Contest.

PERMISSIBLE INSTRUMENTS AND EQUIPMENT: The following types of entries are permitted:

a) Musician who perform on electronic sound-producing, and modifying equipment that they have built themselves,

b) Inventors who perform on their own electronic instruments

c) Musicians who perform on equipment that was custom-built in collaboration with an inventor.

Acoustic sound sources may be used, providing most of the sound material is electronically generated or processed.

CRITERIA FOR JUDGEMENT: Since the contest is intended to recognize performers and/or inventors who combine musical creativity, mastery of electronic instruments and polished musicianship, the judges will apply the following criteria to all entries:

CREATIVITY OF CONCEPT: Performances based on musically valid original compositions or novel interpretations will be rated more highly than conventionally-oriented performances.

COMMAND OF TECHNICAL RESOURCES: Suitability of equipment, and quality and originality of performance technique, will be considered.

EXCELLENCE OF MUSICIANSHIP: The extent to which the performance transcends technical display to become an artistic statement, will be assessed.

THE TROPHY:
Altmüller—Bogner
The Great Prize of Ars Electronica is to commemorate the participant selected to be the best by the judges. It is a figure about 3 inches high, made of gold and silver, on a triumphal column, performing a dance of joy. This transparent column contains oscillators responding to clapping. When the audience applauds the artist upon being awarded the prize, the trophy will light up. The celebrated winner will find himself in the live limelight of applause.

Martin Hurni

"After a longer experience with electronic musical instruments I became aware of the fact that their limitations today are less in the sector of sound production, but rather in the playing relations between the musician and the instrument. My custom-made SYNTHOPHONE is the result of this realization. As far as sound is concerned, the SYNTHOPHONE is fully variable, as it can serve as an input for almost every existing electronic instrument in three dimensions: fingering patterns, lip pressure and wind dynamics are used as independent parameters, which allows the musician to use the traditional, but also new playing techniques. Due to the appearance being identical to a saxophone, the instrumentalist can start from the playing techniques he has already learned and concentrate primarily on the musical expression. In connection with computer-musical instruments rather extensive programs may be prepared in the studio, which are played live at the performance with added improvisation on the SYNTHOPHONE."

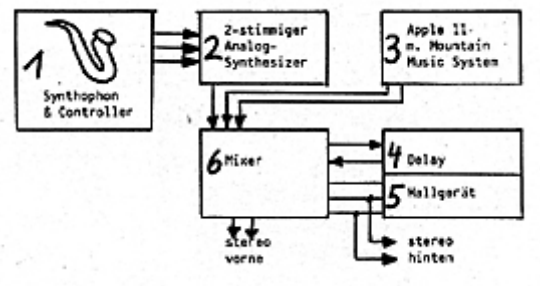
(Martin Hurni)

Instrumentarium for "Ikaros and Daedalus"

1. SYNTHOPHONE

Saxophone-like instrument, delivering a control signal for fingering pattern, lip pressure and wind dynamics each, and may be used freely; the default setting is 1 V/octave for pitch,

timbre and vibrato, but each of the three control outputs may be used unusually (e.g. fingering pattern for timbre control, wind dynamics for pitch control etc.).



2. SYNTHESIZER

The custom-made synthesizer PROTEUS I is specially suitable for use with the synthophone, because besides being equipped with a plugfield it is designed to store the control settings.

3. APPLE 11 WITH MOUNTAIN MUSIC SYSTEM

Variable orchestration and the possibility of storing sequences in the computer allow the live performance of previously designed large compositions.

4. IBANEZ ANALOG DELAY

Sound transformation for synthesizer and computer signals in the area of time.

5. MXR 01 REVERB

Programmable Digital Reverberator used for various space simulations in the composition.

6. BERGBOW MIXER

The mixer outputs lead to the pair of front loud-speakers. If a quadro-PA system is available, two channels should be lead from the reverberator directly to the rear speakers.

About the composition "Ikaros and Daedalus"

"Ikaros and Daedalus" is a SUITE for SYNTHOPHONE & COMPUTER-ACCOMPANIMENT with the movements:

— Master Daedalus — Encounter with King Minos–In the labyrinth — Flying high–Mourning for Ikaros The instruments of the classical Greece were the LYRA and the KITHARA, string instruments both, and the AULOS, a kind of double oboe. In the suite "Ikaros and Daedalus" the SYNTHOPHONE represents something like an AULOS of the 20th century, while the COMPUTER-ACCOMPANIMENT takes over the functions of the KITHARA. Naturally I do not try to imitate antique instruments, but rather to realize new sound ideas, corresponding to the instrumentation. Special consideration is given to the spatial dimensions of the different movements, which are simulated with a digital reverberator and will be changed several times during the performance.

The computer-accompaniment is stored as a composition, the musical themes of the SYNTHOPHONE are only predetermined in their motives and will be subject to further development by improvisation.

Although extensively used, it will not be possible to present the SYNTHOPHONE's numerous possibilities in a single composition.

Walter Schröder-Limmer
"Synthetic Landscape"

The cycle "Synthetic Landscape" (1977/79) simulates an acoustical-visual landscape. There are tones, sounds and noises, similar to real acoustical events without trying to imitate these. Visually digitalized landscapes are created, which are additionally modulated, structurized and abstracted. In certain areas the landscape seems to be reconstructed, but this turns out to be a fallacy, for over the seemingly real landscape there vaults an artificial plastic rainbow.

Computer and Synthesizer

1. The signal is clipped up into six different shades of brightness in the digital matrix. Every brightness-value is then attributed colours, simultaneously a background-colour is determined.

2. The signal appears only at the edges, these may be printed small or bold face, positive or reverse.

3. In the Flip-Flop unit lines are produced in relation to the brightness degree, the result is a shadowy abstraction of the original image.

4. A delayed image is produced in the Delay, in combination e.g. with "Edge", optical effects of echoes are the results.

5. In the Overlay Gate different qualities of overlay and offset–impressions may be produced.

6. The invert unit inverts all elements accordingly.

7. If signals from the digital matrix (DSM) are transmitted to the analog matrix (ASM), so-called "Halo" effects are created, comparable to the train of a comet or complicated shifts of brightness.

Also the video-synthesizer has an analog input for LF-signals. This "audio-input" leads to the analog matrix and here the tones arriving can be used for the control of patterns and shapes. Thus we get a rhythmical influence on the image up to the level of oscilloscope-like modulations.

Hans-Werner Schwarz
The Ballex System

Descriptive survey:

The Ballex system is used for the transmission and transformation of dance-movements into control functions for music-synthesizers. The motional sequences, in this case, result in immediate changes in sound, which–made audible by a PA system–are received by the

dancer, who, reacting, will further influence the sound production. So we have the case of a control-loop in cybernetical sense, apt for the design of electronical music especially through its optical-acoustical connections.

The Ballex system consists of the movement perception sensor unit, the transmission unit, and a device for the transformation and adaptation of sounds as well as of a synthesizer with amplifier and PA system.

The sensors transform the movements of e.g. arms and legs into proportional control tensions. Both sensors and transmission unit are installed so as not to hinder the flow of movement.

In sequence to the input-side of the transmission unit we have an adaptation section, where the signals are adapted according to the needs of synthesizer control. The movement-generated signals thus may be used for the control of modules like VCO, VCA, VCF etc., they may be added to or modulated with other control tensions and trigger or gate functions may be deducted from these tensions.

Manfred Seifert
"Vertonte Zärtlichkeit" (Musical Caress)

A woman sits in the chaiselongue, dressed in her morning-gown. The actor approaches her (monotonous speech-song "I love you"). He presents her a flower from neon-tubes (light pulse controlling the rhythmical beating of the heart).

She repeats the "I love you" (short duet). A record-player beside the chaiselongue with romantic music is turned on (soft background music, harmonical). The woman lies down. The actor kneels beside her and starts touching her body with slow movements (the woman is wearing a flesh-coloured bodystretch equipped with electronic contacts).

The woman lies motionless (heart rhythm beating harder and increasing in speed).

The movements (strains) of the actor become faster too, disharmonic, active, uncontrolled.

The woman gets up and starts playing drums, which are standing beneath the chaiselongue (rhythmically, as a symbol for the cohabitation). The actor tries to match the rhythm and "plays on the percussion playing woman" (trying to reach a maximum of harmony).

(Manfred Seifert)

Dorothy Stone
Description of Ghost Electronics

The ghost box is a unique method of blending electronics with live performance so that the effect of the electronics is not audible unless the performer is making a sound.

The ghost score consists of two objects: a tape and a small package of electronics. The tape contains high frequency audio signals which are not amplified but act as controls for the electronics. The electronics package consists of a stereo locator, ring modulator, amplitude control, and filter. In addition, I use a volume-wah pedal and octave divider.

The ghost score idea was conceived by Morton Subotnick, designed by Don Buchla, and constructed by John Payne at the California Institute of the Arts. I became intrigued with this idea after performing Subotnick's Parallel Lines for piccolo solo with ghost electronics. I had worked in electronic studios for many years, studied basic electronics with John Payne, and so John and I set out to build a system, using the original ghost idea, that would be especially suitable for my needs in a live performance situation. Basically, we modified the system to have much greater flexibility over a wide range of applications.

This is my first piece using this system, and I am looking forward to further experimentation with it.