

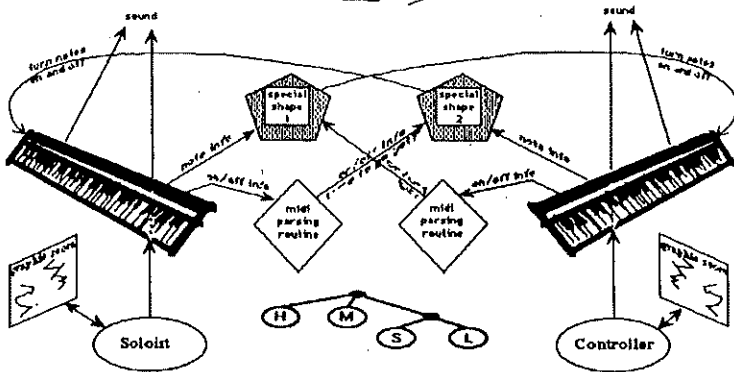
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a compilation of works by various composers produced by Jeanne Parson



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**LEVELS of COMPLEXITY, Jeanne Parson, 1989 -- excerpt.**

*Levels of Complexity* is a computer inter-active suite for two performers: one keyboard player/computer operator and one instrumental soloist. The suite focuses on the basic musical elements of pitch, time and timbre. Each piece in the suite is an exploration of different levels of complexity of these three elements. HMSL, the computer music language developed at Mills, is an integral part of this work. Certain pieces within the work were composed (either in part or whole) using algorithmic compositional routines written in HMSL. In performance, some of the pieces use stimulus-response functions of HMSL: data from the players is fed into the computer to evoke and dynamically alter musical events.

The excerpt on this tape is of part of piece #2 (*Dance*), piece #3 (*Ten*) and piece #6 (*Adled Reminiscence*). In *Dance*, velocity information from the MIDI violin is used by HMSL to "fire off" melodic shapes and to invert and revert (retrograde) the melody of these three shapes. The score for *Ten* was algorithmically generated by HMSL, making considerable use of a special Markov class (designed by Phil Burk) and Markov instrument (designed by the composer). HMSL provides a "synthetic ensemble" background for the two performers. In *Adled Reminiscence* the performers improvise using

melodic material taken from pieces 2-4, supported by an ensemble of HMSL driven synthesizers.

Performed by Steven Lanza, *Xeta* MIDI violin, & Jeanne Parson, keyboards/computer.

**FOGGY VISIONS, Stefan Schramm, Feb. 1988.**

This piece continues the great late 19th century form of programmatic music known as "symphonic Poem", although its concise form and short duration could evoke the term "symphonic haiku". The story-program of this music is based on an epic poem by J.B. Smylbris, the famous biologist and poet from Greenland, about a revolutionary group of ants which tries to reestablish a situation of augmented entropy in the society of ants. Finally its members are eliminated one by one after having been imprisoned in cells especially prepared for them by the white painter ants, a subclass of ants. (Notes by Andreas Mniestris)

**AURORA CONSURGENS, Steven Everett, Sept. 1988 -- excerpt.**  
**Concept** *AURORA CONSURGENS* is a composition for a MIDI grand piano, a Macintosh computer running the *HMSL* language, and sixteen channels of digital tone modules. The model for the work is a 13th century treatise, *Aurora Consurgens*, dealing with the

transformation processes used by Medieval European alchemists. The work, attributed to St. Thomas of Aquinas, is also an important source for many of the theories developed by the Swiss psychologist, Carl Jung, regarding personality growth and dysfunction. The composition adapts the various "washing" stages of metaphysical transformation described in the work. The title translates as 'rising dawn'. The length of the performance is approximately 25 minutes. Completion date was September 1988.

**Structures** These transformations are manifested specifically in the various technical ingredients of music structure, namely proportion, frequency, amplitude, and timbre. All of these structures will undergo nine "washes", continually altering their patterns during the composition. In the beginning stages, the pianist is controlling the transformations then gradually "turns over" control to the computer via *HMSL*.

**Technical Systems** In order to manipulate these structures, two numerical systems of organization have been adopted, an 8x8 magic square (astrological association-Mercury) and an Indian rhythmic tal with variations containing similar proportions (Tintal-16 matra). All specific melodic, timbral, harmonic, and temporal data is derived from a translation of these two sources.

**Interaction** The *HMSL* computer programming environment is used as a control bridge between performer and computer-controlled MIDI electronic instruments. Improvisatory, stochastic and random behaviors are also utilized in this interaction. A computer operator triggers "Actions" from the *HMSL Action Table* during the performance.

**Equipment** The piano used is a 7ft. Yamaha MIDI Grand which functions both as an acoustic instrument and a powerful MIDI controller, 16 channels of Yamaha DX/TX FM synthesis generators, multiple effects units, and a Macintosh SE with 2.5 MB RAM.

**STORMY TUESDAY, Andreas Mniestras, 1989.**

**FILTER\_CLASS, Steven Miller, 1989.**

**MECHANICAL LIFE (for Mark Trayle), John Bischoff, April 1990.** *MECHANICAL LIFE* projects the sounds made by toy noisemakers into an electronic environment. The noisemakers are designed to simulate animal sounds, in this case a bird warble and the buzz of a bee. Samples of these are made on the Amiga and played back in modified fragments using simple transformations provided in *HMSL*.

The electronic environment is composed of a sequence of sonic textures produced on a Yamaha TX81Z and built up from "jobs" in HMSL that continually drive TX voice parameters in precise patterns. Each texture unfolds in 2 stages: an attack stage and a decay stage. The attack stage serves to introduce the texture at full volume (view from outside); the decay stage drops inside the texture and moves at a lower, variable volume (view from inside). Both are extended in time and occasionally fold back on each other. The mechanical nature of the noisemakers is complemented by the mechanistic transformations occurring within each texture. All sound highly electronic.

#### **SUNSPOTS, Steve Curtin, 1988.**

*SUNSPOTS* is a version of a piece from my November 1988 thesis concert. An Ensoniq ESQ-1 with patches generated by Opcode System's Patch Factory was used for most of the sound. The floating metallic tone near the end of the piece was generated by a Mirage sampler based on a recording of the Mills tower clock bell. For this version I am using my "MetaGuitar" to control the Macintosh, with its body-mounted trackball for faster control access. The HMSL program that generated the notes is called "ParaRhythms", in which each string of the MIDI guitar has interactive control of the pitch, repetition frequency, panning location, volume and pitch of six of the ESQ's output channels.

This is a real-time recording of my interaction with the program. There were no overdubs.

#### **A WET DAY FOR HARRY, Andy Bridle, 1989.**

In this piece, HMSL is used as a real-time sample editing tool in conjunction with AMPLE, a Forth-like music language which runs on a 6502-based system. AMPLE is produced by Chris Jordan/Hybrid Technology. AMPLE's new expander unit, Music 3000, gives 32 8-bit channels of sound. All the music for *A WET DAY FOR HARRY* was produced using this Music 3000 expander; the speech and sound effects were sampled with a FutureSound 500 and processed on the Amiga using HMSL. Speech sounds (recorded from the television) are progressively scrambled and unscrambled, in real-time, and mixed with sampled water sounds. The sounds of water were recorded on a magical day around the shores of the Llyn Idwal in the mountains of the Snowdonia National Park, North Wales.

#### **INTERFERENCE (cranked and crammed) for live performer and nerve fragments, Nicholas R. Didkovsky, 1989.**

This piece is a series of controlled collisions between live performer and pre-programmed

musical material. The piece gradually transforms the pre-programmed (target) material into the live (source) material through a mutation algorithm. At the beginning of the piece, the live performer and pre-programmed material are entirely independent. Gradually, the live performance gains influence over the pre-programmed material, so that by the end of the piece, the pre-programmed material has been completely transformed into the live performer's improvisation.

Excerpts of Didkovsky's compositions for the band Doctor Nerve were selected as the target material for this version of the piece. Fragments from "Splinter", "Trash", and "Armed Observation" are heard.

Performed by Ann La Berge on flute and Nick Didkovsky as computer controller.

### **POPULAR PHONETICS: Cliffs & Streams, Carter Scholz -- excerpt.**

*POPULAR PHONETICS* is an electronic instrument of 76 phonemes based on my speaking voice. The instrument is played with a group of sliders, the settings of which can be recorded by the system at any time, providing a number of "scenes" in the aural landscape among which the program can later divagate.

The density, regularity, duration, bandwidth, and harmonic complexity of utterances can be played in real time, as can the proportion of voiced-to-unvoiced and simultaneous-to-sequential ("cliffs and streams") sounds. This excerpt explores some of the less speechlike utterances of which the system is capable.

The tuning system is based on n-equal (n+1-128) divisions of the 7/4 interval.

### **POINT to POINT, Thomas Miley.**

This is an interactive piece for computer and performer, and uses HMSL. The computer interprets the performer's musical gestures and maps these phrases in to a 60-tone microtonal scale, then triggers a synthesizer, which is tuned accordingly. The program basically runs in two modes -- a melodic and a harmonic constructive mode. The melodic mode interpolates pitch and note duration and constructs phrases through the 60-tone pitch space, while the harmonic mode analyses the phrases being played and "decides" which of the notes being played are the most prominent. This "decision" is based on finding the notes with the greatest delta or difference from the surrounding notes in terms of volume, pitch and duration. The harmonic line is drawn from these prominent notes, and utilizes random methods to determine line direction, duration and silence. The performer chooses the program's current performance mode by his method of

playing. This recording was done in one pass with no over-dubbing.

**STUDY for 'ZONES', David Rosenboom, 1984.**

*STUDY for 'ZONES'* was commissioned by the Ontario Science Centre in Toronto as part of a major exhibition on the arts and technology in August, 1984. The work was realized in their Computer Music Studio using an ensemble of MIDI controlled synthesizers.

As the title implies, the work is a study in the techniques of melodic and rhythmic transformation used in the larger work, *ZONES OF INFLUENCE*, for percussion, computer music system, and auxiliary keyboard and melody instrument parts. All the sounds heard in *STUDY...* were electronically produced through synthesis -- both digital and analog -- or sound sampling and re-synthesis techniques.

The musical composition data used in *STUDY...* was generated with the aid of an original prototype of HMSL, then run on the Texas Instruments 9900 microprocessor. Shapes and shape transformations are manipulated as primary entities in the composition's organizational structure. This data was then used in two ways. Information about pre-composed shapes and rhythmic structures was loaded into one of the earliest MIDI sequencer programs written for the

Apple II computer. This was in turn used to drive the ensemble of synthesizers. Interactive performance aspects of the piece were controlled using the Touche (a digital keyboard of the composer's design).

**Produced by Jeanne Parson  
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[HMSL was written and developed by Phil Burk, Larry Polansky and David Rosenboom at the Mills College Center for Contemporary Music (CCM), and is distributed by Frog Peak Music].