

## **Live Concerts: STEPHEN FERGUSON MUSIC FOR 25 SYNTHESIZERS (FIRST PREMIÈRE)**

Stephen Ferguson: Synthesizer, Piano  
Sokal: Saxophone, Drums

The opus "Music for 25 Synthesizers" is a première and was composed especially for Linz. It is a polyphonic piece in the sense of the canonic music of the Middle Ages, with one voice recorded 25 times with a different speed. Here I use the independence of multi-track recordings in order to create rhythmic/polyphonic sound relations.

Furthermore I want to illustrate the sociological implications of the contemporary musical electronics by having 24 CASIO-mini-synthesizer played by laymen.

Besides the techniques generally present in my music (contrast between dense polyphony and solo "slow-motion" parts, timbral homogeneity, scale block harmonies and harmonic "windows", use of sound particles, etc.), in "Music For 25 Synthesizers" I use a dialogue and three-way communication between purely acoustic sounds, synthetical sounds and electronically transformed natural (acoustical) sounds. The natural sounds are cymbals, piano-resonances, saxophones and flutes. Soprano sax and piano are manipulated with harmonizer, stereo-reverb and two Digital Delay units.

The opus was recorded in the 24-track studio of the ORF in Vienna and digitally mastered with a Sony F 1 Digital Processor.

The instruments were: PMM Wave Synthesizer, Bösendorfer Grand Piano, Reeds, Flutes and Percussion.

The musicians were: Harry Sokal, saxes, flutes and technical assistance; Joris Dudli, percussion; and the composer, keyboards.

### **STEPHEN FERGUSON'S "MULTI-TRACK POLYPHONY"**

(Thomas West)

The Vienna-based British Composer Stephen Ferguson can be regarded as the leading figure of the young Scottish Avantgarde, and one whose music constitutes one of his country's most original voices since Hamilton or Dalby. His composition, which embraces both instrumental and electronic material, can be styled as "multi-track polyphony" and its primary characteristic is the usage of multi-track tape recorders, in particular 24 and 48 track techniques, to create densely polyphonic music, very often only with the tone-colour of a single instrument.

Ferguson's pieces are mainly written in the form of canons, with scores even having the appearance of a single, conventionally notated voice. The main canonic material is recorded, for example, 24 times, each recording being performed in a slightly different tempo with the aid of a quartz metronome heard over headphones. When all the voices are subsequently mixed from 24 tracks to two, the point of each canonic entry being determined and separately notated, the resulting structure is highly complex, although the individual lines maintain their identity through slight differences of dynamics and phrasing between the playing of each voice. The overall fluctuation in dynamic is, however, synchronized and is read from a

separate dynamics score notated in real time and 'added' to the canonic voice with the aid of a stopwatch. Occasionally a fragment from a voice, or a group of single tones between voices, are accented in order to build secondary or tertiary motivic elements. Although some usage is made of digital delay, harmonizer, stereo chorus and other such devices, the tone-colour of instruments within the works remains largely natural and untreated—the novelty of Ferguson's sound lies in the dense presentation of instruments normally heard in a solo context and, more importantly, the rhythmic-polyphonic relationships created by the combination of the individual lines.

Harmonically Ferguson uses what he terms as "scale-block" harmonies, which describes a process derived from cluster techniques. The canonic lines, when combined in a multi-track, build sets of pre-ordained interval structures whose member notes make up, for example, the scale of F major (although Ferguson uses non-western and micro-interval scales in addition to the scales of Western tonality). This structure may be sustained for a few seconds or for much longer spans of time, but shorter 'scale blocks' are more characteristic. The interval structure or scalic material of all the canonic lines then changes, a process of change which may be simultaneous or staggered. Poles of dissonance and consonance arise from staggered changes, where the two overlapping scale blocks give rise to "blurred", dissonant harmonies in comparison to the more unified interval structure within a single scaleblock. The effect is of harmonic movement within cluster-like masses. In addition to the scale-block technique the composer uses harmonic "windows", as he designates them, which are points in the music where all the voices gradually converge on two particular notes thus forming a clearly recognizable interval.

Rhythm within the canonic lines themselves consists mostly of a regular flow of smaller note values, since more differentiated rhythmic patterns and longer notes would simply get lost in the multi-track canon. It is probably more correct to speak of 'rate of events' rather than rhythm in the conventional sense of the word, and the rate of events (notes per second) is decreased or intensified depending on the entry or sounding out of the individual voices, due to the wide range of metronome values used. When the faster voices are pared away the effect is of a reduction of rhythmic density, while the reduction of slower voices seems to affect textural density alone, due to the phenomenon of rhythmic perception by which we select faster events from most forms of complex acoustic stimuli. The motivic structure of the individual lines is necessarily non-complex, with the use of smaller intervals in order to preserve the perceivable identity of each voice (scalar figures are more likely to be heard, for example, than jagged motivic lines when multiplied through multi-track technique). Typically leaps are then used to project single high or low tones out of the sound mass, a device which Ferguson has quaintly coined "notethrowing". Despite the regularity in rhythm the composer has steered away from the minimalist-influenced "tendency to simplified patterns" which Ligeti commented upon in earlier works such as "Scales" for eight pianos.

Contrasting with the dense multi-track canons are solo passages of great delicacy where single voices are heard, utilizing highly expanded and irregular time values of the order twenty or even forty seconds. A recurrent technique here is the use of sounds whose attack has been chopped off through punch-in recording, in particular piano sounds being often selected. (To overcome technical difficulties in capturing these extremely quiet 'after-sounds' Ferguson has also used digital recording.) Often the solo passages use material directly derived from the main canonic voice, or even statements of the voice itself. The composer has explained his purpose in contrasting passages of great complexity and of very low information content as one of "presenting musical ideas which on one hand over-tax our (speech-related) perceptual abilities and on the other present less aural stimuli than the simplest monophonic

song–music which bounces between the boundaries of acoustic perception rather than remaining stubbornly on one level of complexity".

In live concerts Ferguson uses two methods to perform his works. The first is the use of playback plus live performance, where the main bulk of the material is on tape, the canons and in particular the solos being augmented by live instruments. The second method is the "live multi-track", without tape, where all the instruments are present and the individual players receive their metronome beats over 'walkman' cassette players (for example, the work "Katabiosis" at the ISCM Worldmusicdays 82). Despite the drawbacks of playback in a live concert Ferguson's appearances make an extroverted impression, which the Viennese critic Fritz Walden has described as "musical ecstasy surpassing Ravel's 'Bolero' or Scriabin's 'Poème d'Ecstase'". The composer has remarked in this context that "musicians in new 'art' music should in my opinion be seen to play with the same enthusiasm and conviction as their colleagues in rock and jazz, freed from inappropriate performance practices of the nineteenth century."

Ferguson's major current projects are the composition of a chamber symphony (a live multitrack) commissioned by Austrian Radio and the production of his new LP "Polyphony" (blackplastic 07203), which is to be released before the end of the year.