SIMON EMMERSON

PIANO PIECE II

(1972)

with electronic modulation

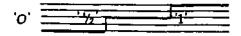
PIANO PIECE II

- 1. Pedal markings are given to elucidate some of the note durations. Additional use of the pedal must not obscure any other indicated durations. Accidentals apply to the notes they precede and immediate repetitions.
- 2. Grace notes are of two types: (a) where written as a "spread chord" (e.g. bars 1-16), they should be played as fast as possible on the beat; (b) where indicated from a grace note beam accompanying a "melody line" (e.g. bars 17-20), the grace notes can be placed freely not necessarily as fast as possible within the durations indicated by the melody, which should be slightly accented within the dynamic written.
- 3. Electronic modulation:

Sine wave oscillator \longrightarrow Ring modulator \longrightarrow Mix ratio '0/½/1' \longrightarrow Power amplifiers and Microphone(s) \longrightarrow (Modulation level) loudspeakers

A mixer with equalisation would normally be needed and the addition of compressors (which might be part of a high quality ring modulator) would improve the quality. A stereophonic version could also be elaborated. Two variables are indicated on the third stave:

- (a) Modulation frequency: a continuously variable size wave oscillator should be used. 'O Hz' is indicated at the start; this may be interpreted as the lowest frequency available on the oscillator to hand but should not be greater than 5 Hz. The frequency is for the most part notated as a pitch. The second performer should tune to the piano and transcribe dial readings onto the score. '5 Hz' is indicated in one section. If no frequency counter is available, this may be fixed by adjusting to a beat frequency of 10 per second when modulated by another tone or sound. Transitions from one modulation frequency to the next should be as even as possible.
- (b) Modulation level: the ratio of directly amplified to modulated sound: '0' unmodulated but amplified; '1' modulated sound colours but does not dominate; '1' total predominance of modulated sound.



The second performer could use the joystick control of an EMS VCS3 or Synthi A synthesiser, pinned to control the relative levels of its two output channels (one direct sound, the other modulated, panned together to mix). Any mixing system may, however, be substituted. All the electronics should be controlled by the second performer. At least two channels of amplification are required, one loudspeaker to be placed each side of the piano.

PROGRAMME NOTE

Piano Piece II was composed between October and December 1971 and revised in 1972. Some ideas from the earlier Piano Piece I are developed: a melodic line is embellished with constellations of grace notes chosen in relation to the modulating frequency such that relatively consonant sounds are produced - these are exactly calculated from the overtone series and its inversion. The melodic line is thus more or less obscured, firstly by the groups of grace notes, secondly by the different degrees of ring modulation used: from none at all (amplified sound only), through colouration, to total dominance of the ring modulated sound. In addition chordal material (in fact very long polyrhythms arciculated by strongly differentiated dynamics) presents a more static picture.

Piano Piece II was first performed by Roger Smalley with the composer assisting, at a concert of the Cambridge Contemporary Music Society on the 26th of November 1971. The revised version was first performed by the same performers at the Victoria and Albert Museum on the 16th of November 1973.

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