

LARRY POLANSKY

'IT BELONGS TO HARMONY TO STIR THE PASSIONS'

Jean-Phillipe Rameau (1754)

Harmony will simply not leave us alone. Contemporary composers, owing much to Harry Partch, have begun to take it seriously once more. Composers like Ben Johnston, James Tenny and Lou Harrison are rediscovering the fundamental 'laws' of harmony as sources of musical ideas. Just harmonies (those whose tones are related to one another as relatively small ratios of their frequencies) have been a fruitful area for this renaissance.

The score below is a brief example of how traditional orchestral instruments (namely the strings) may be used to play these harmonies. What is presented is merely a tuning for three violins, three violas, three 'celli and three basses; and the resulting just scale, formed by considering natural harmonics on all strings (up to the seventh harmonic, which is a reasonable performance limit.) The tuning here is one I am using in a large work: Cocks Crow, Dogs Bark (A

Regular Heptadecagon for Just Orchestra and Soloists). The tuning is given in just ratios (after Partch's system) with the approximate tempered pitch above. No primes higher than thirteen are employed.

This type of system seems to represent a wondrous new realm for composers. The reader should refer to James Tenney's Quintet #5 (Spectra for Charlemagne Palestine), Ben Johnston's string quartets and Sonata for Microtonal Piano, and even Cage's String Quartet for examples of how conventional instruments may be used to accurately play the desired intonations.

Finally, I must state that the tuning here is but one example, demonstrated in the hope that others will begin to explore these ideas, and, to paraphrase Partch, that each man might have his own harmonies.

String Tunings from: Cocks Crow, Dogs Bark (A regular heptadecagon for just orchestra and soloists)

Musical notation for string tunings for Violins, Violas, Celli, and Basses. Includes handwritten notes: 'No note that no string need retune very far', '\*b and g are the only two open strings which cannot be used as a natural harmonic on some reference strings (+). However, they are still simply tuned.'

Resulting Scale

(using natural harmonics only up to the 7th)
- v1, v2, v3 only
- vc, cb only
- a-vc, cb and v1, v2, v3

Musical notation for the resulting scale, including frequency ratios and a diagram of the scale structure. Includes the note '(cones per octave)' and '(with thanks to James Tenney)'. Copyright 1978, Larry Polansky.

NOTES

The prototype for this invention was a two-part invention written in the style of J.S. Bach, an exercise in counter-point, written for Peggy Sampson, 1976-1977. This exercise was created in a piano practice module at York University. I became so involved with its composition that I missed the last bus home and consequently had to spend the night sleeping behind the module. The piece was named In Modulium to commemorate this experience.

The present invention (below) is also constructed melodically in a modular fashion, presenting and manipulating thematic modules in the manner of Bach. Harmonically, the piece might be referred to as statistically tonal. Borrowing from the procedures of Milton Babbitt, I utilized a series, certain transformations of which are related as members of hexacordally combinational families. As the piece develops, the set families are transposed according to a system analogous to tonal modulation. In addition, the intervallic content of the set generates melodies which recall those of Western music of earlier eras.

S. SHEPHERD

INVENTION IN MODULUM

Handwritten musical score for 'Invention in Modulium' by S. Shepherd. The score consists of multiple systems of staves with musical notation, including notes, rests, and dynamic markings like 'senza rit.'.

Music Works/only Paper Today

Volume 5 #2 March 1978 Toronto