

INTRODUCTION TO NONTRADITIONAL HARMONY

CASSETTE TAPE CONTENTS

(First words of subsections in typed narrative are underlined)	Tape & Side #	Counter	Total Time
Example 1: Harmonic overtone series	1 1	0	0' 00"
SECTION I INTRODUCTION			
The concept of just intonation music; its three advantages over equal temperament music; outline of ground to be covered	1 1	19	0' 40"
Introduction to second example, a blues style composition played in just ratio tuning and illustrating two non-equal temperament intervals	1 1	144	6' 00"
Ex. 2: A setting of "Danny Boy"	1 1	170	7' 30"
SECTION II THE FREQUENCY RATIO BASIS FOR MUSICAL CONSONANCE			
Explanation of frequency ratio basis for musical consonance	1 1	192	8' 40"
The fundamental intervals of traditional music part 1; octave, fifth, fourth, major and 5:6 minor third; major and minor triads Ex. 3-9	1 1	238	11' 20"
Some history of the intervals of the major and 5:6 minor third	1 1	328	16' 50"
The 6:7 septimal minor third; contrast with the 5:6 minor third; use in dominant seventh chord; example of its use in a blues melody Ex. 10-14	1 1	351	18' 20"
SECTION III THE JUST MAJOR SCALE - WHOLE TONE AND SEMITONE INTERVALS			
Derivation of the just major scale from triads on the tonic, subdominant, and dominant notes; demonstration of the scale Ex. 15 and 16	1 1	443	24' 55"
(end of tape 1 side 1)		489	28' 30"
(start tape 1 side 2)		0	28' 30"
Derivation of interval size for major and minor whole tones; contrast of these intervals; the comma Ex. 17-19	1 2	53	30' 35"

SECTION III (CONTINUED)

	Tape & Side #	Counter	Total time
Discrepancy between the Ds in just major scales on C and F; examples of consonant and dissonant use of Ds Ex. 20 and 21	1 2	184	36' 40"
Diatonic and small chromatic semitones; effect of reversing these intervals Ex. 22-24	1 2	315	44' 30"
The diesis Ex. 25	1 2	414	51' 15"

SECTION IV THE EQUAL TEMPERAMENT APPROXIMATION

History; contrast between singing and fixed pitch instruments	1 2	449	53' 55"
(end of tape 1 side 2)		496	57' 35"
(start tape 2 side 3)		0	57' 35"
Introduction to examples contrasting just intervals with their tempered equivalents	2 3	44	59' 15"
The septimal minor third Ex. 26	2 3	100	61' 40"
The just 5:6 minor third Ex. 27	2 3	181	65' 45"
The just major third Ex. 28	2 3	236	68' 50"
Completion of discussion	2 3	298	72' 25"

SECTION V THE HARMONIC OVERTONE SERIES AND CHORDS BASED UPON IT

Derivation and demonstration of the series Ex. 29	2 3	333	74' 55"
Chords based on lower members of the series: open fifth, major triadic, and dominant seventh chords Ex. 30-33	2 3	396	79' 20"
The dominant ninth chord and chords, intervals, and resolutions based upon it Ex. 34-37	2 3	436	82' 15"
(end of tape 2 side 3)		486	86' 20"
The 7-9-11 chord and related chords, intervals, and progressions Ex. 38-43	2 4	0	86' 20"

SECTION V (CONTINUED)

Tape & Counter Total
Side # timeThe 9-11-13 and 9-11-13-15 chords
and related chords, progressions,
and resolutions Ex. 44-48

2 4 183 94' 35"

An alternative octave scale and a
chord progression based on the
harmonic overtone series Ex. 49 and 50

2 4 277 100' 00"

SECTION VI EXPANSION OF THE REPERTOIRE OF
HARMONIES THROUGH CHORD INVERSIONDerivation of the principle of chord
inversion and the undertone series

2 4 359 105' 20"

Inversions of traditional chords and
of the dominant seventh - tonic
resolution Ex. 55-57

2 4 428 110' 20"

Inversions of chords based on 11 and 13
and inversions of chord progressions
involving these chords

2 4 477 114' 10"

(end of tape 2 side 4)

495 115' 35"

(start tape 3 side 5)

0 115' 35"

Inversions of the scale and chord
progression based on the harmonic
overtone series

3 5 166 122' 45"

SECTION VII CONCLUSION

Summary; practical significance to composers
and instrument designers of technological
advances permitting instrumental just
intonation music

3 5 226 126' 10"

End of demonstration

3 5 306 131' 05"