

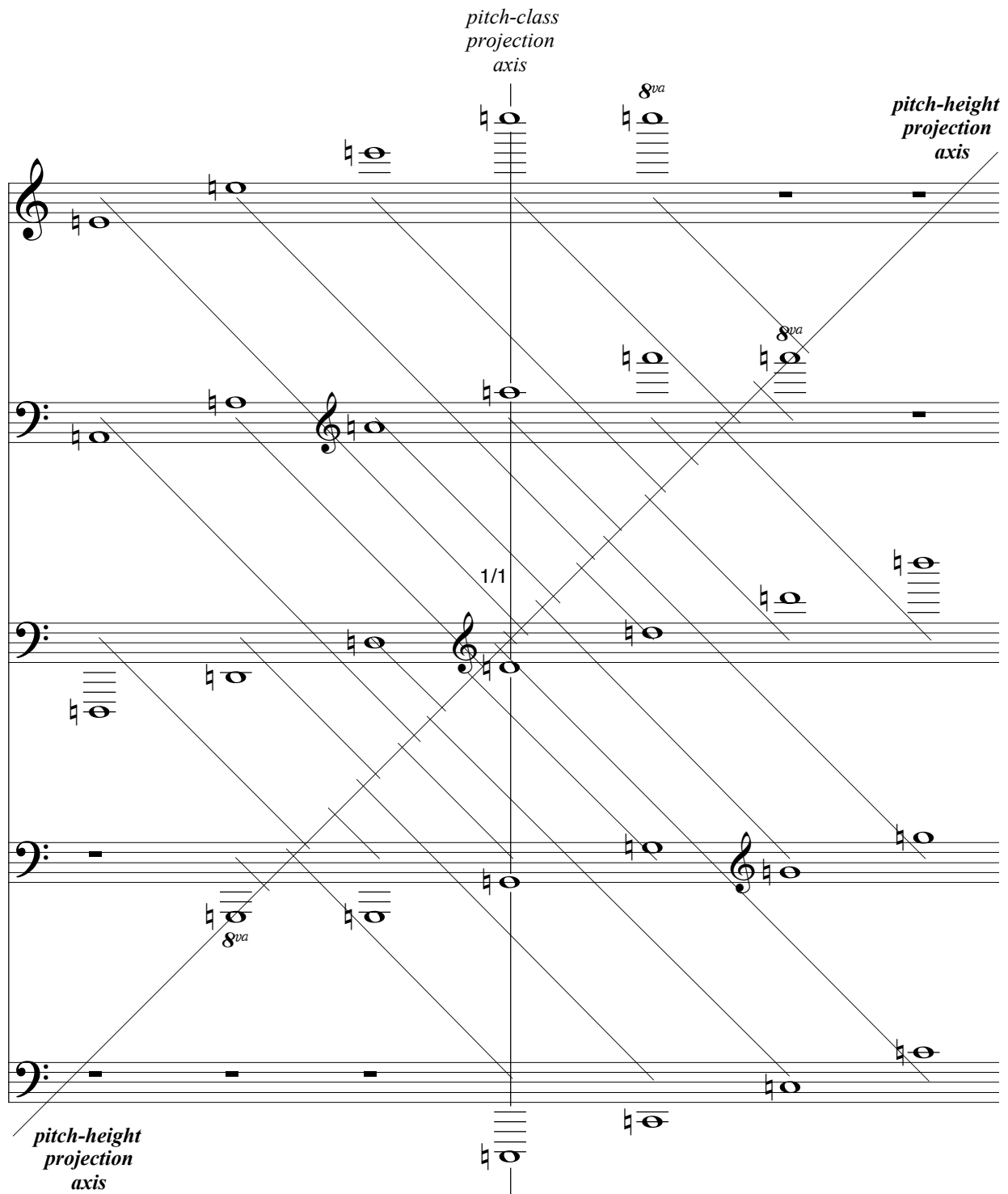
James Tenney

John Cage and the Theory of Harmony

Transcription of Figure 1 and 2

using the Extended Helmholtz-Ellis JI Pitch Notation
designed by Marc Sabat and Wolfgang von Schweinitz

The 2, 3 plane of harmonic space,
showing the pitch-height projection axis
and the pitch-class projection axis



James Tenney

John Cage and the Theory of Harmony

Transcription of Figure 3

using the Extended Helmholtz-Ellis JI Pitch Notation
designed by Marc Sabat and Wolfgang von Schweinitz

The 3, 5 plane of harmonic space
as a pitch-class projection plane
within 2, 3, 5 space

The musical score consists of five staves, each containing a sequence of notes and chords. The notation includes various accidentals (sharps, flats, naturals) and interval markings such as 8^{va} (octave) and $1/1$ (unison). The notes are arranged in a way that suggests a specific harmonic structure, likely related to the 3, 5 plane of harmonic space mentioned in the text. The staves are connected by a vertical line on the left side.

James Tenney

John Cage and the Theory of Harmony

Transcription of Figure 4 and 5

using the Extended Helmholtz-Ellis JI Pitch Notation
designed by Marc Sabat and Wolfgang von Schweinitz

Primary harmonic relations
within the chromatic scale
(diatonic major and diatonic minor)

The image displays three staves of musical notation, each representing a different set of primary harmonic relations. Each staff contains four notes, each with a specific JI pitch ratio written above it. The notes are represented by a treble clef, a sharp sign, and a whole note. The ratios are as follows:

Staff	Ratio 1	Ratio 2	Ratio 3	Ratio 4
Top	$5/3$	$5/4$	$15/8$	$45/32$
Middle	$4/3$	$1/1$	$3/2$	$9/8$
Bottom	$16/15$	$8/5$	$6/5$	$9/5$

Each note is marked with a sharp sign and a whole note. The ratios are placed above each note. The notes are arranged in a chromatic scale from left to right. The first staff has a sharp sign above the first note, the second staff has a sharp sign above the first note, and the third staff has a sharp sign above the first note. The ratios are: 5/3, 5/4, 15/8, 45/32 for the top staff; 4/3, 1/1, 3/2, 9/8 for the middle staff; and 16/15, 8/5, 6/5, 9/5 for the bottom staff.

James Tenney

John Cage and the Theory of Harmony

Transcription of Figure 6

using the Extended Helmholtz-Ellis JI Pitch Notation
designed by Marc Sabat and Wolfgang von Schweinitz

The harmonic containment "cone" in 2, 3, 5 space

