

### MTO 13.4 Examples: Mawer, Exploring Complementation in Bartók's Third Quartet

(Note: audio, video, and other interactive examples are only available online)  
<http://www.mtosmt.org/issues/mto.07.13.4/mto.07.13.4.mawer.php>

**Example 1.** Bartók, String Quartet No. 3, *Prima parte*, mm. 1–6

Moderato ♩ = 88



Violino I

Violino II

Viola

Violoncello

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**Example 2.** Pc-set and pitch complements (*Prima parte*, mm. 1–6)

Segment A      Vn I      8-1      Segment A'

4-1

6-1

C# - E      E#/F - B#/C

G5 (chroma)

Detailed description: This musical score shows three staves: Vn II (Violin II), Va (Viola), and Vc (Violoncello). The Vn II staff has a treble clef and contains notes G4, A4, B4, and C5. The Va staff has a treble clef and contains notes G4, A4, B4, and C5. The Vc staff has a bass clef and contains notes G2, A2, B2, and C3. Annotations include 'Segment A' above the first two notes, 'Vn I' above the next four notes, and 'Segment A'' above the final two notes. Interval labels '4-1' and '6-1' are placed above the Vn II staff. Below the staves, two brackets indicate pitch sets: 'C# - E' under the first two notes and 'E#/F - B#/C' under the next four notes. A larger bracket below these two sets is labeled 'G5 (chroma)'.

**Example 3.** Bimodal complementation and symmetry (*Prima parte*, mm. 1–6)

4-1

3-7

pitch symmetry

Chromatic      Pentatonic

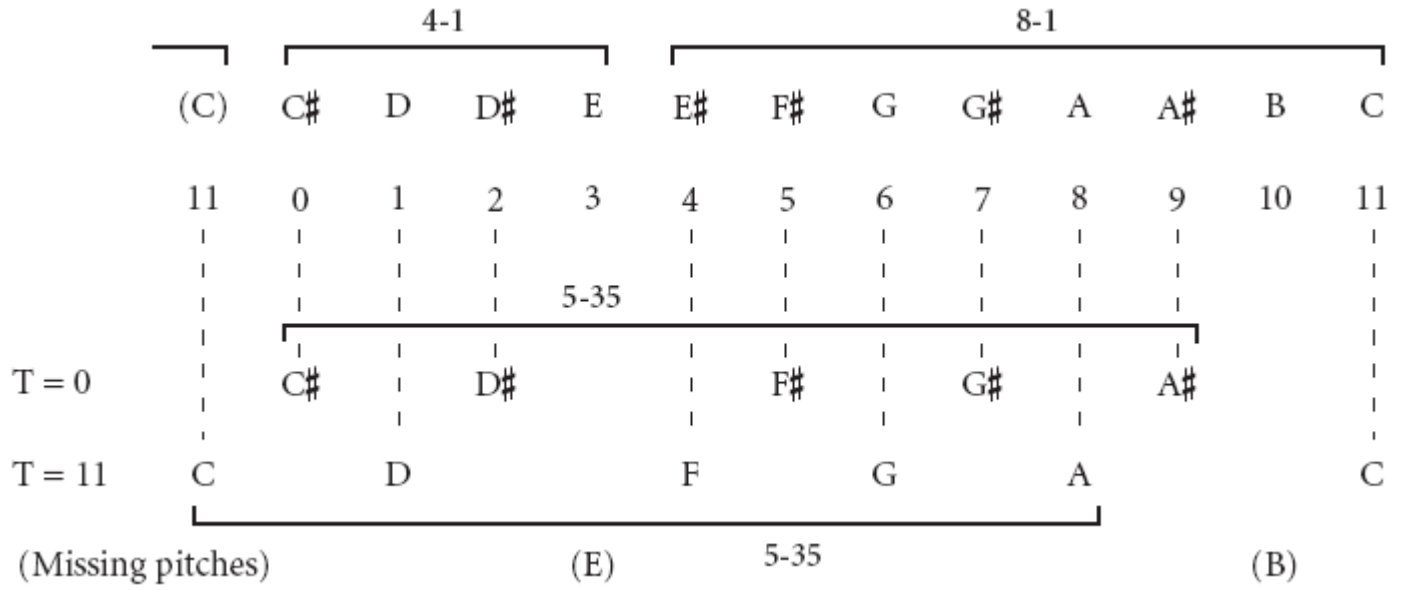
G5 (chroma) (SG II)      G11 (dia) (SG IV)

Detailed description: This musical score shows two staves: Vn II (Violin II) and Vc (Violoncello). The Vn II staff has a treble clef and contains notes G4, A4, B4, and C5. The Vc staff has a bass clef and contains notes G2, A2, B2, and C3. Annotations include '4-1' above the first two notes of the Vn II staff and '3-7' below the first two notes of the Vc staff. A bracket labeled 'pitch symmetry' spans the last four notes of both staves. Below the staves, two brackets indicate scales: 'Chromatic' under the first two notes and 'Pentatonic' under the last four notes. Below these brackets are labels: 'G5 (chroma) (SG II)' and 'G11 (dia) (SG IV)'.

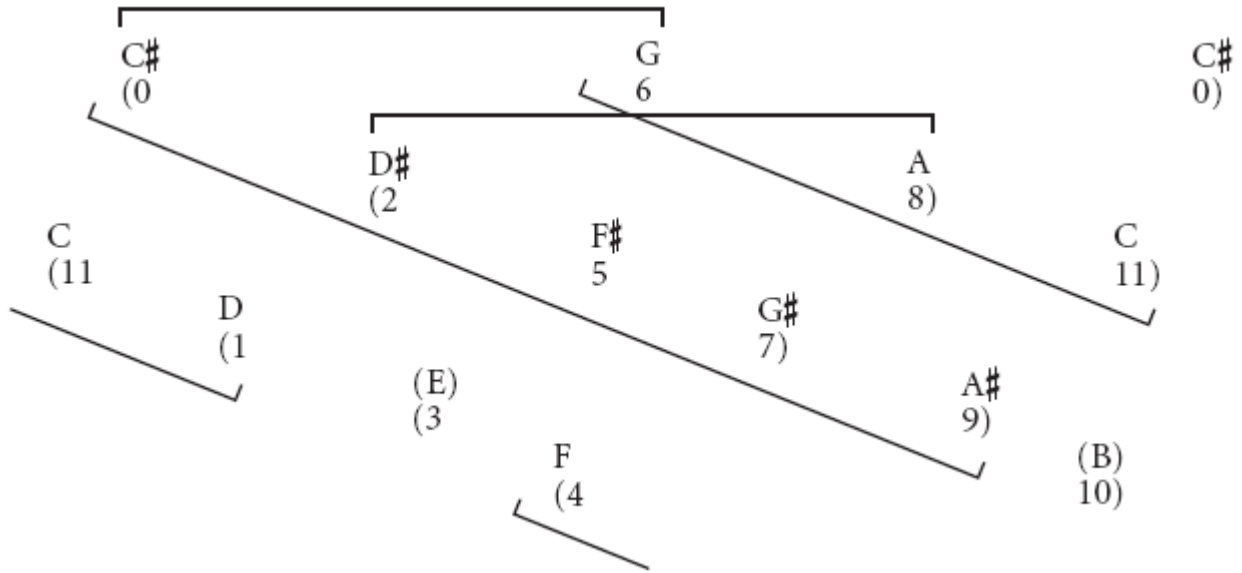
**Figure 1.** Chromatic/pentatonic matrix

CHROMATIC AXIS ↓		PENTATONIC AXIS (2 – 3 – 2 – 2) →					
	T	(0	2	5	7	9	Pc)
C#	0	C#	D#	F#	G#	A#	5-35 (mm. 6–20) 4-23 (mm. 1–6)
	11	B#/C	D	E#/F	G	A	
Segment A' 8-1 (mm. 2–6)	10	B	C#	E	F#	G#	
	9	A#	B#	D#	E#	G	4-23 } 3-7 } (mm. 2–5)
	8	A	B	D	E	F#	
	7	G#	A#	C#	D#	E#	
	6	F#/G	A	C	D	E	
Segment A 4-1 (mm. 1–6)	5	F#	G#	B	C#	D#	
	4	E#	F#/G	A#	B#	D	3-7 (mm. 4–5)
	3	E	F#	A	B	C#	
	2	D#	E#	G#	A#	B#	
	1	D	E	G	A	B	
	0	C#	D#	F#	G#	A#	

**Figure 2.** Superimposed pentatonic collections (on C# and C) with chromatic (on C#)



**Figure 3.** Tritonal relations from interaction of pentatonic (C# and C) and chromatic collections

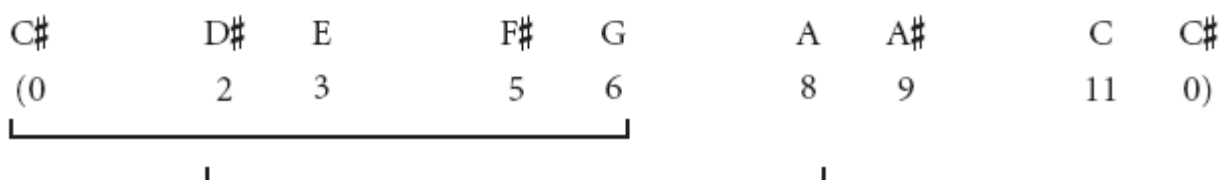


**Figure 4.** Octatonic perspective

Pentatonic segments (C# and C):



Octatonic collection on C# (including C):



**Example 4.** Aspects of modal synthesis (*Prima parte*, mm. 1–6)

G5 (chroma)

4-1 (C# – E)      Chromatic      4-1 (G# – B)

4-23 (C#, D#, G#, A#)  
Pentatonic

G11 (dia)

**Example 5.** Chromatic contradiction and symmetry (*Prima parte*, m. 37)

Musical notation for Example 5. The Vn I staff (treble clef) shows a sequence of notes: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter). The Vn II staff (bass clef) shows a sequence of notes: G3 (quarter), F3 (quarter), E3 (quarter), D3 (quarter). Brackets above and below the staves indicate a 4-1 interval. An 'Axis of symmetry' is indicated by a vertical line between the two staves, with arrows pointing to the notes G4 and G3, and a bracketed box containing the notes A4 and F3.

**Example 6.** Rhythmic reversion (*Prima parte*, mm. 37–38)

Diagram illustrating rhythmic reversion. On the left, 'Pattern 1: "short-long/long-short"' shows two measures. In the first measure, Vn I has a quarter note followed by a dotted quarter note, and Vn II has a dotted quarter note followed by a quarter note. In the second measure, the roles are reversed: Vn I has a dotted quarter note followed by a quarter note, and Vn II has a quarter note followed by a dotted quarter note. Vertical double-headed arrows connect the notes between the staves. On the right, 'Pattern 2' shows a single measure where Vn I has a quarter note followed by a dotted quarter note, and Vn II has a dotted quarter note followed by a quarter note. A large 'X' is drawn over the notes, and a curved line connects the notes between the staves, indicating a reversion of the rhythmic pattern.

**Figure 5.** Schema to show reordered 4-1 segments (*Prima parte*, mm. 43–44)

