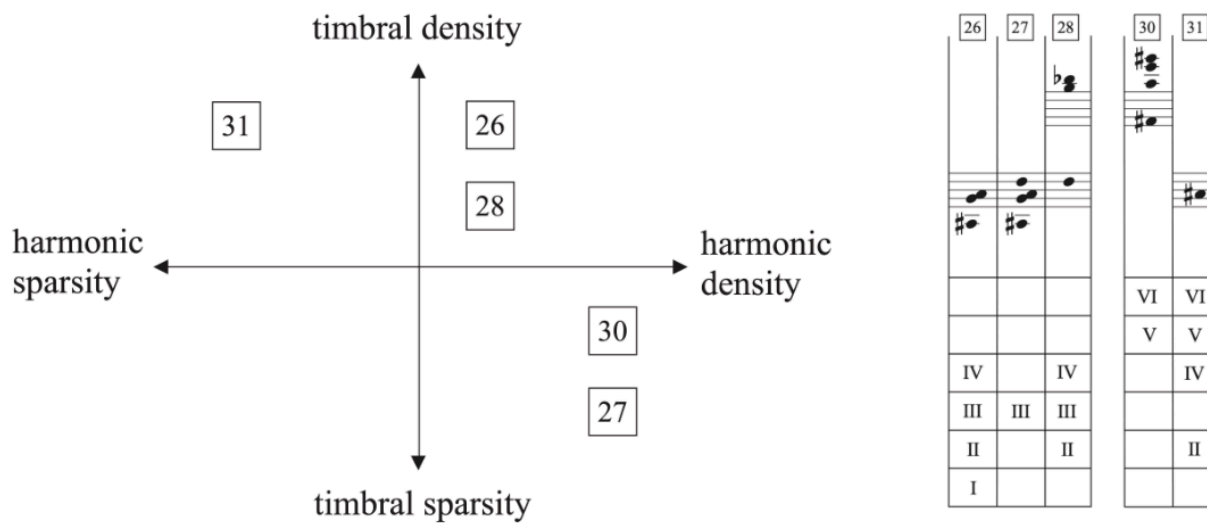


MTO 29.3 Examples: Goddard, “Your Soul is the Whole World”

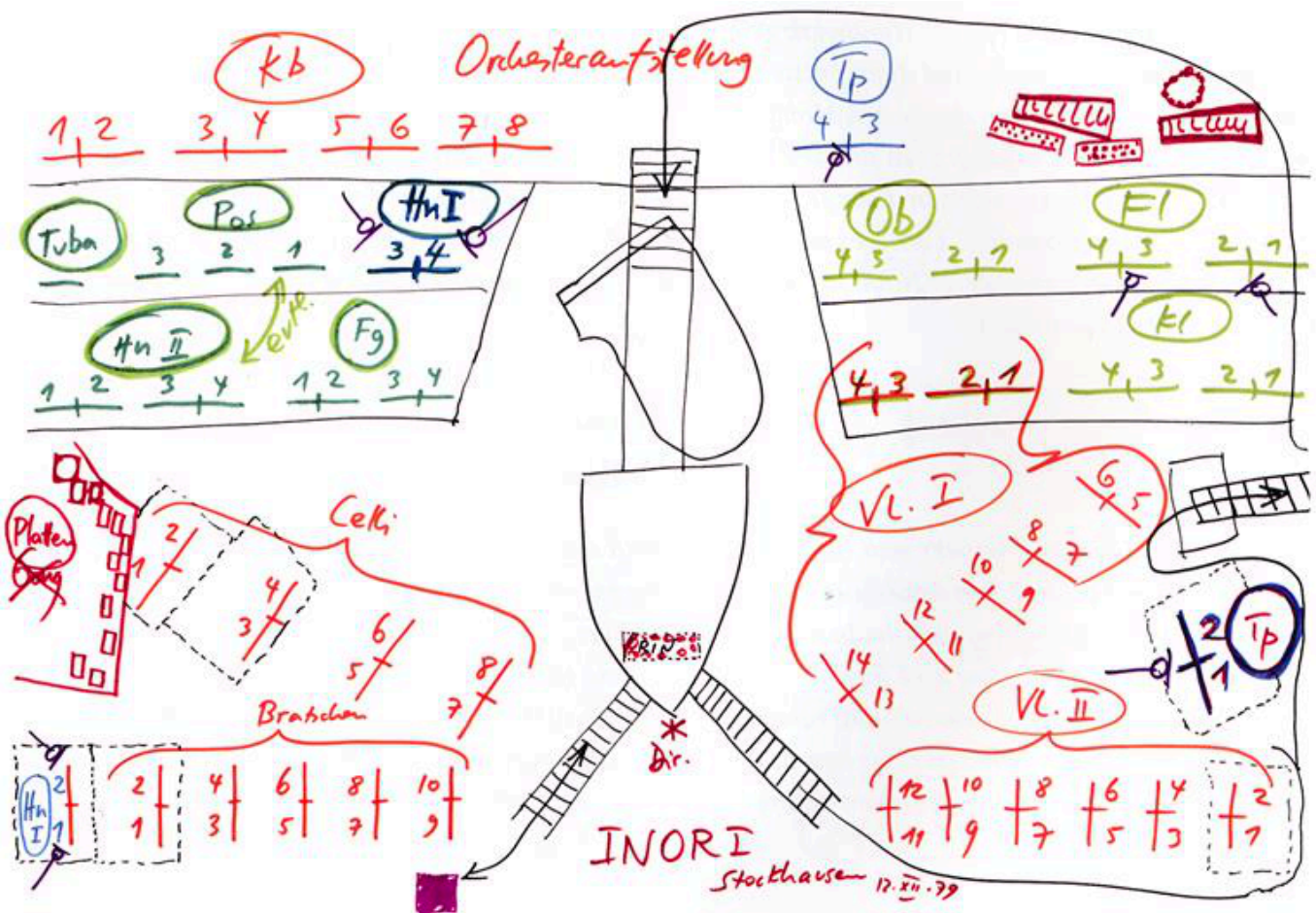
(Note: audio, video, and other interactive examples are only available online)

<https://mtosmt.org/issues/mto.23.29.3/mto.23.29.3.goddard.html>

Example 1. Plotting harmonic and timbral density in five “moments” of Stockhausen’s *Stop*



Example 2. Stockhausen's seating arrangement for *Inori* (© Stockhausen-Stiftung für Musik, Kürten, Germany)



Example 3. The *Siddhartha* formula

Example 3 consists of six musical segments labeled T through Z, arranged in two columns. The notation is as follows:

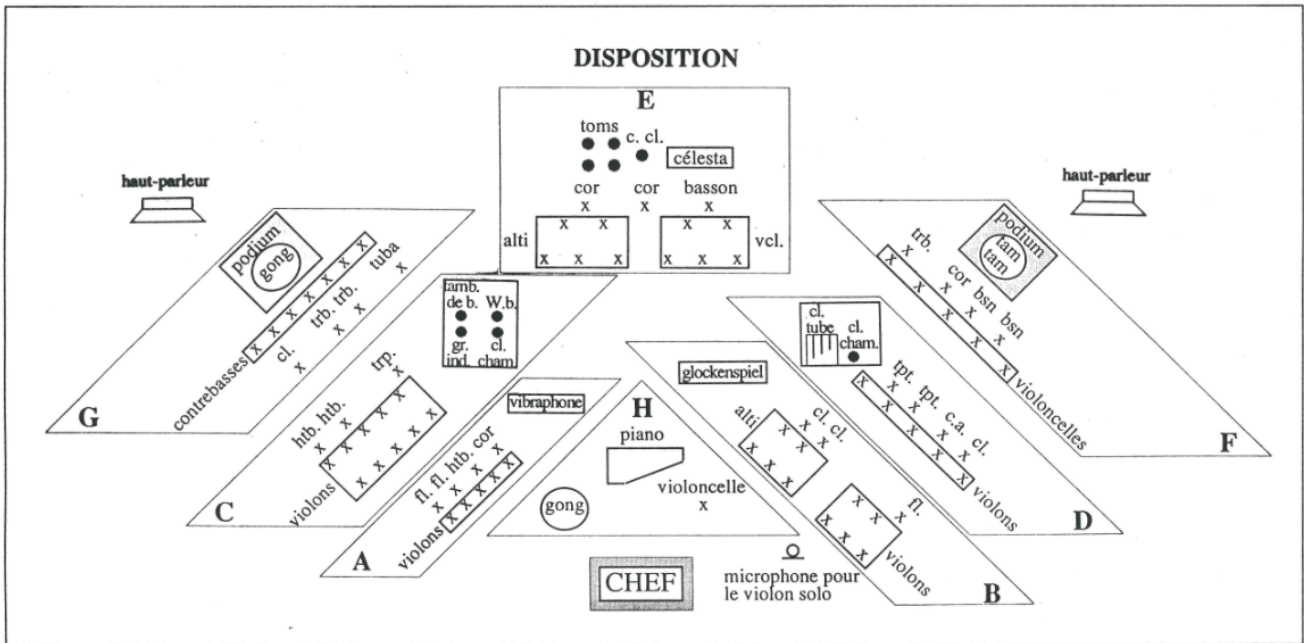
- T:** Bass clef, 2/4 time signature. Notes: G#4, A4, B4, C5.
- U:** Bass clef, 4/4 time signature. Notes: G#4, A4, B4, C5, D5, E5, F5, G5.
- V:** Treble clef, 6/4 time signature. Notes: G#4, A4, B4, C5, D5, E5, F5, G5.
- W:** Bass clef, 5/4 time signature. Notes: G#4, A4, B4, C5, D5, E5, F5, G5.
- X:** Bass clef, 4/4 time signature. Features a quintuplet of eighth notes (G#4, A4, B4, C5, D5) followed by eighth notes (E5, F5, G5, A5, B5, C6).
- Y:** Treble clef, 5/4 time signature. Notes: G#4, A4, B4, C5, D5, E5, F5, G5.
- Z:** Treble clef, 6/4 time signature. Features multiple triplet patterns (e.g., G#4, A4, B4) and eighth notes (C5, D5, E5, F5, G5, A5, B5, C6).

Example 4. Six scalar dilations of the *Siddhartha* formula

Example 4 shows six scalar dilations of the *Siddhartha* formula, each on a single staff with numbered notes (1-13) and a specific ambitus:

- Scale 1 (ambitus: 12 semitones):** Notes: G#4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6.
- Scale 2 (ambitus: 16 semitones):** Notes: G#4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6.
- Scale 3 (ambitus: 20 semitones):** Notes: G#4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7.
- Scale 4 (ambitus: 24 semitones):** Notes: G#4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7, D7.
- Scale 5 (ambitus: 26 semitones):** Notes: G#4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7, D7, E7.
- Scale 6 (ambitus: 31 semitones):** Notes: G#4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7, D7, E7, F7, G7.

Example 5. Vivier's suggested seating plan (© 1976 by Boosey & Hawkes, Inc. All Rights Reserved. Reprinted by Permission)



Example 6. Group composition by instrumental family

	A	B	C	D	E	F	G	H
W.W.:	2 fl. 1 ob.	1 fl. 2 cl.	2 ob.	1 ob./C.A. 1 cl.	1 bsn	2 bsn.	1 b.cl.	
Brass:	1 hrn.		1 trp.	2 trp.	2 hrn.	1 hrn. 1 trb.b.	2 trb. 1 tba.	
Perc. (1 player each):	vibr.	glock.	tamb., w.b., Iranian bells, Iranian camel bells	tub. bells, Iranian camel bells	4 toms, b. drum, cel.	tam-tam	gong	pno., gong
Strings:	5 vlms.	5 vlms. 5 vls.	5 vlms. I 5 vlms. II	5 vlms.	5 vls. 5 vlcs.	5 vlcs.	7 cbs.	1 vlc.

Example 7. The continuum of orchestral configurations in *Siddhartha*



Example 8. Comparing group entries on the first page of the score to the opening pitch contour of the formula

à Michel-Georges Brégent
Siddhartha
 1976
 Claude Vivier
 1948-1983

The image shows a page of a musical score for 'Siddhartha' by Claude Vivier, composed in 1976. The score is divided into sections A through G. Large red letters 'W', 'V', 'U', and 'X' are placed above specific musical phrases. A red line connects these letters, tracing a path through the score. To the right of the score, a separate musical staff shows a pitch contour with a red box highlighting a specific interval.

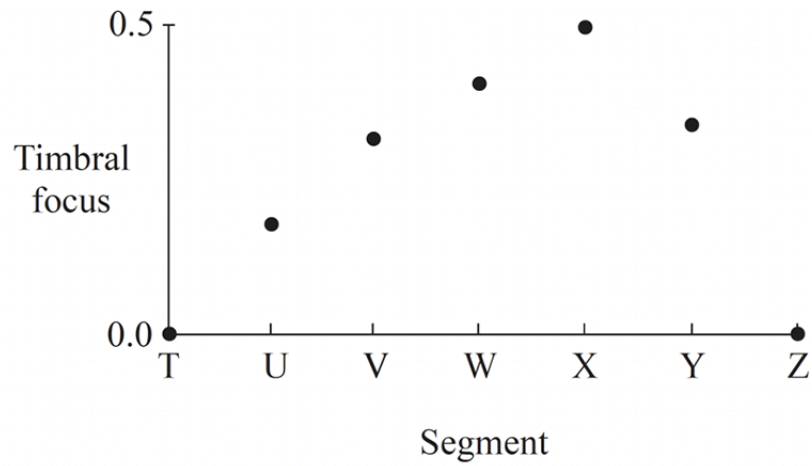
Example 9. Segment U of the second formulaic statement (m. 43)

f pp f mf >
 Fl.
 2 Cl.
B Glock.
 5 Vlns
 5 Alti
F Cor
f pp f mf >

Example 10. Measuring timbral focus in the second formulaic statement (mm. 42–70)

Segment:	T	U	V	W	X	Y	Z
Timbral focus:	$(1-1)/2 = 0.0$	$(2-1)/6 = 0.17$	$(3-1)/7 = 0.29$	$(3-1)/5 = 0.4$	$(4-1)/6 = 0.5$	$(3-1)/6 = 0.33$	$(2-2)/4 = 0.0$

Example 11. Plotting the evolution of timbral focus in the second formulaic statement (mm. 42–70)



Example 12. A reduction of Segment Z from the second formulaic statement (mm. 72–77)

2 fl + vib.
(Group A)

2 bsn + 5 vc
(Group F)

solo vc
(Group H)

f *p* *f* *p* *f* *p* *f*

pp *pizz.* *arco* *pizz.* *arco* *pizz.*

p *f* *p*

arco *pizz.* *arco*

Example 13. Segments T and U from the fifth formulaic statement (mm. 204–205)

The image displays a complex orchestral score for Example 13, covering segments T and U of the fifth formulaic statement (mm. 204–205). The score is organized into seven main sections, labeled A through G, each containing multiple staves for different instruments. The tempo is marked as sfz (sforzando) and the time signature is $\frac{3}{4}$. The score includes various dynamics such as pp (pianissimo), p (piano), f (forte), and mf (mezzo-forte). Red arrows and brackets highlight specific musical elements and dynamics. The score is divided into sections A through G, each with multiple staves for different instruments. The tempo is marked as sfz (sforzando) and the time signature is $\frac{3}{4}$. The score includes various dynamics such as pp (pianissimo), p (piano), f (forte), and mf (mezzo-forte). Red arrows and brackets highlight specific musical elements and dynamics. The score is divided into sections A through G, each with multiple staves for different instruments. The tempo is marked as sfz (sforzando) and the time signature is $\frac{3}{4}$. The score includes various dynamics such as pp (pianissimo), p (piano), f (forte), and mf (mezzo-forte). Red arrows and brackets highlight specific musical elements and dynamics.

Section A: 2 Fl., Cor, Vibra., 5 Vlns. (I, II, III, IV, V), Picc., 2 Cl., Glock., 5 Vlns. (I, II, III, IV, V), 5 Alt., 2 Hrb., Tip., Gr., Tamb., 5 Vlns. I, 5 Vlns. II, H Gong.

Section B: 2 Fl., Cor, Vibra., 5 Vlns. (I, II, III, IV, V), Picc., 2 Cl., Glock., 5 Vlns. (I, II, III, IV, V), 5 Alt., 2 Hrb., Tip., Gr., Tamb., 5 Vlns. I, 5 Vlns. II, H Gong.

Section C: 2 Fl., Cor, Vibra., 5 Vlns. (I, II, III, IV, V), Picc., 2 Cl., Glock., 5 Vlns. (I, II, III, IV, V), 5 Alt., 2 Hrb., Tip., Gr., Tamb., 5 Vlns. I, 5 Vlns. II, H Gong.

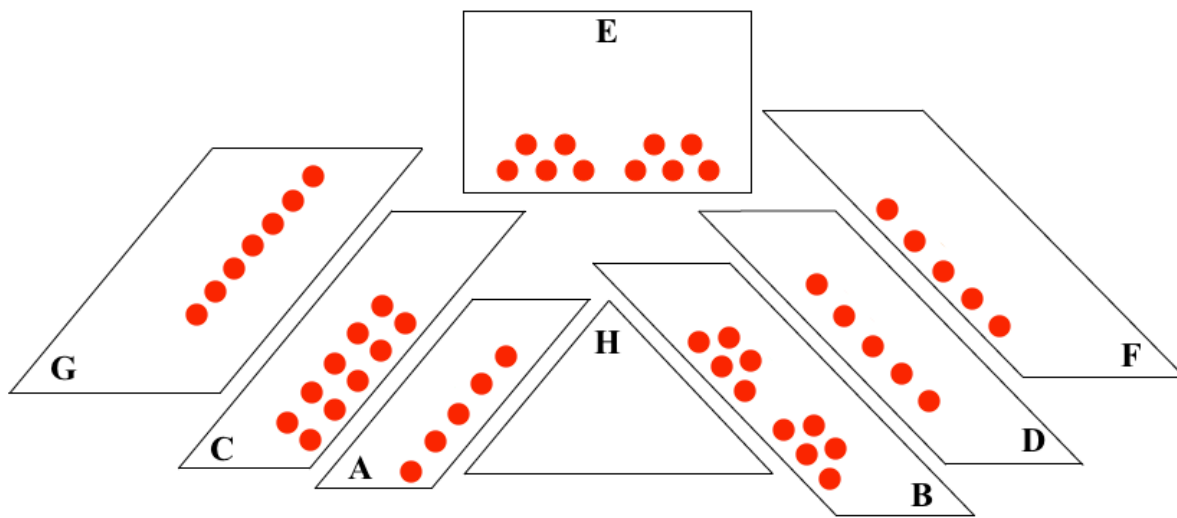
Section D: 2 Fl., Cor, Vibra., 5 Vlns. (I, II, III, IV, V), Picc., 2 Cl., Glock., 5 Vlns. (I, II, III, IV, V), 5 Alt., 2 Hrb., Tip., Gr., Tamb., 5 Vlns. I, 5 Vlns. II, H Gong.

Section E: 2 Fl., Cor, Vibra., 5 Vlns. (I, II, III, IV, V), Picc., 2 Cl., Glock., 5 Vlns. (I, II, III, IV, V), 5 Alt., 2 Hrb., Tip., Gr., Tamb., 5 Vlns. I, 5 Vlns. II, H Gong.

Section F: 2 Fl., Cor, Vibra., 5 Vlns. (I, II, III, IV, V), Picc., 2 Cl., Glock., 5 Vlns. (I, II, III, IV, V), 5 Alt., 2 Hrb., Tip., Gr., Tamb., 5 Vlns. I, 5 Vlns. II, H Gong.

Section G: 2 Fl., Cor, Vibra., 5 Vlns. (I, II, III, IV, V), Picc., 2 Cl., Glock., 5 Vlns. (I, II, III, IV, V), 5 Alt., 2 Hrb., Tip., Gr., Tamb., 5 Vlns. I, 5 Vlns. II, H Gong.

Example 14. Instrumentation for the complete seventh formulaic statement (mm. 251–302)



Example 15. A reduction of Segments T, U, V, and W from the seventh formulaic statement (m. 251–260)

Example 16. A reduction of the climactic passage from mm. 371–380

The image displays a musical score for six staves, labeled A through F. The score is a reduction of a climactic passage from measures 371 to 380. It features six scales, labeled Scale 1 through Scale 6, which are played in a sequence across the staves. The notation includes various rhythmic values, accidentals, and dynamic markings, with 'ff' (fortissimo) appearing prominently. The staves are arranged vertically, with A at the top and F at the bottom. The music is written in a single system, with the scales and their corresponding notes clearly delineated across the staves.

Example 18. A unified spatial model of the transforming formula in *Siddhartha*

