



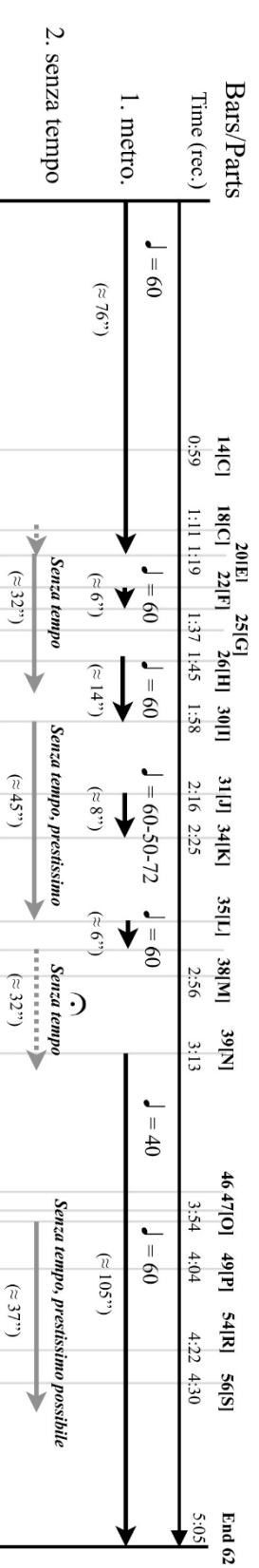
A JOURNAL OF THE SOCIETY FOR MUSIC THEORY

### **MTO 31.1 Examples: Lavastre, György Ligeti's Chamber Concerto**

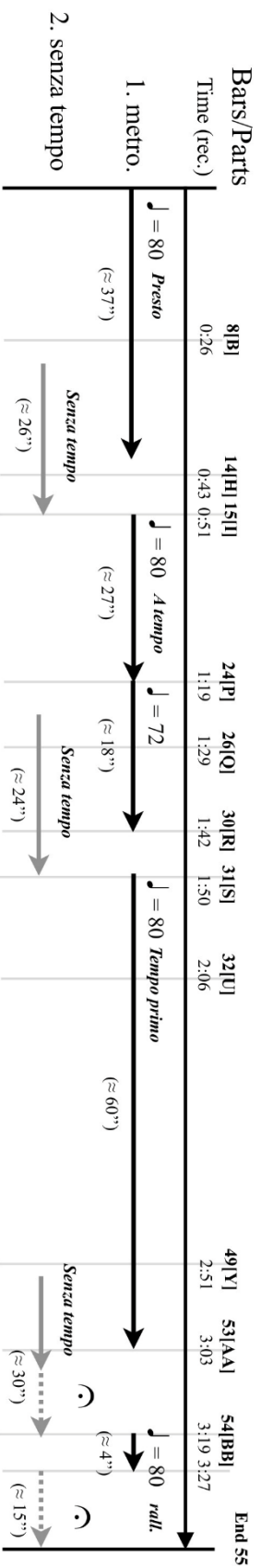
(Note: audio, video, and other interactive examples are only available online)

<https://www.mtosmt.org/issues/mto.25.31.1/mto.25.31.1.lavastre.html>

**Example 1.** Metronomic and *senza tempo* strata of the first movement. Black arrows represent the metronomic stratum. Full gray arrows represent passages composed of grace notes, and dotted gray arrows represent passages of held sounds or silences. Time indications correspond to Pierre Boulez' s 1983 recording of the *Kammerkonzert* with Ensemble Intercontemporain.



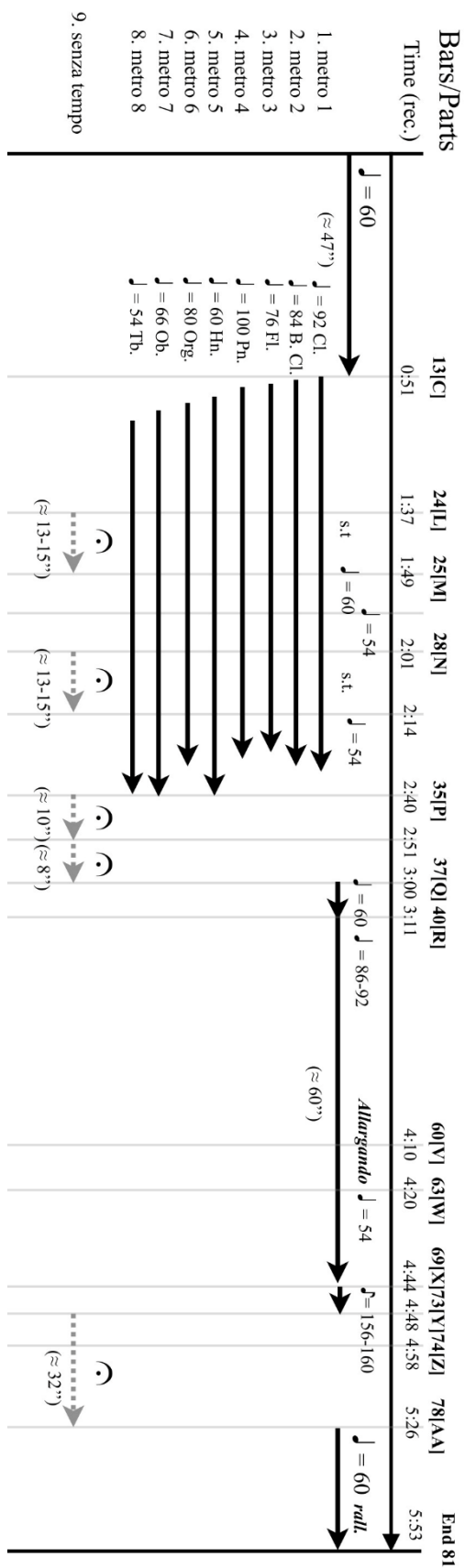
### Example 2. Metronomic and *senza tempo* strata of the fourth movement



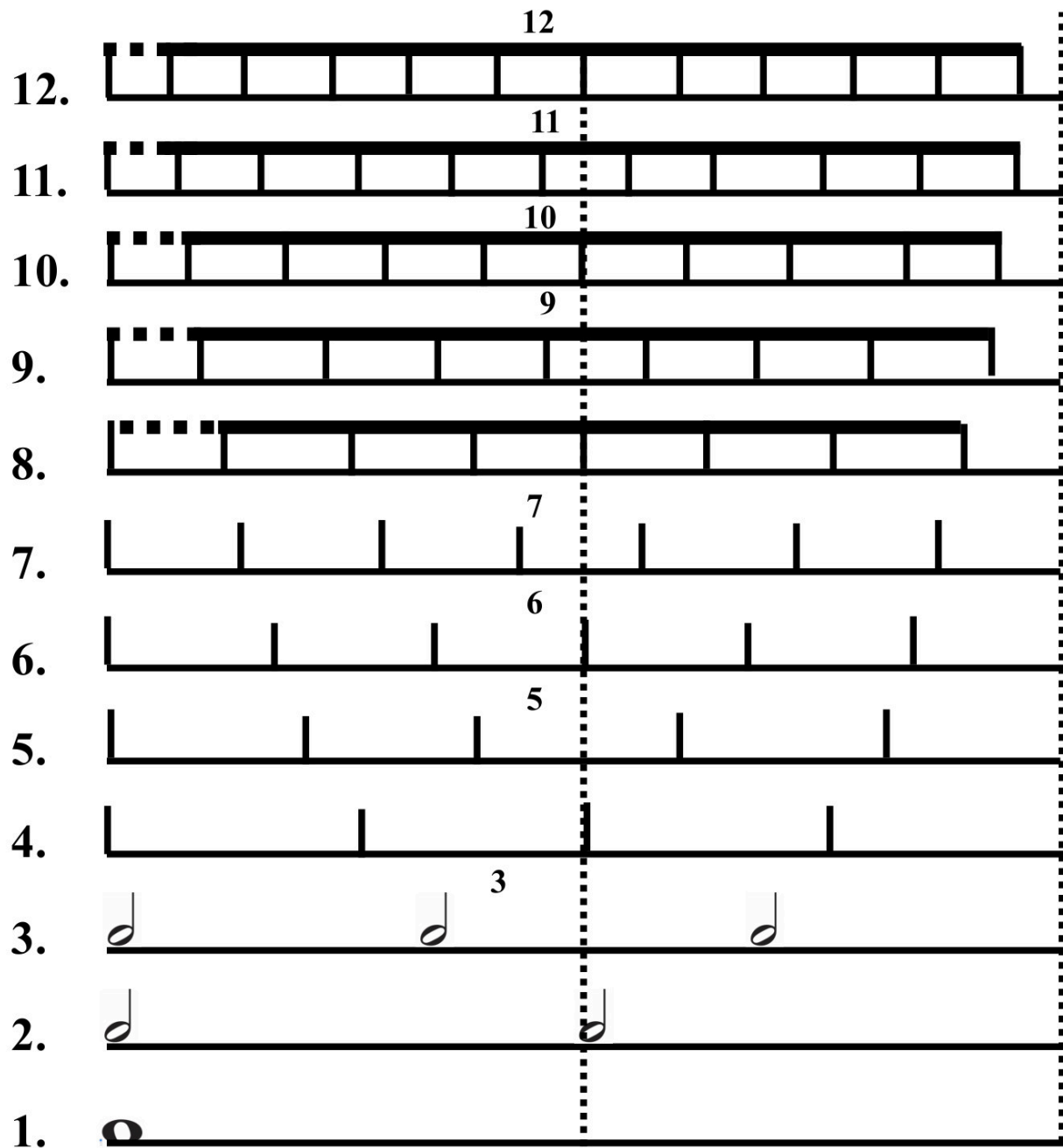
**Example 3.** End of the *senza tempo* stratum of grace notes for piano and celesta (Letter F, movement I)

The image displays a musical score for two instruments: celesta and piano. The celesta part, labeled 'Clavi-cemb.' on the left, features a treble clef and a key signature of one flat. It contains a continuous, rapid sequence of grace notes (semibreves) in the right hand, while the left hand plays a single, sustained semibreve note. The piano part, labeled 'Pf.' on the left, also has a treble clef and one flat key signature. It mirrors the celesta's right-hand part with a similar rapid sequence of grace notes, and its left hand plays a sustained semibreve note. A dynamic marking of *pppp* (pianissimo) is placed above the piano's right-hand staff. Both staves conclude with a double bar line and a repeat sign.

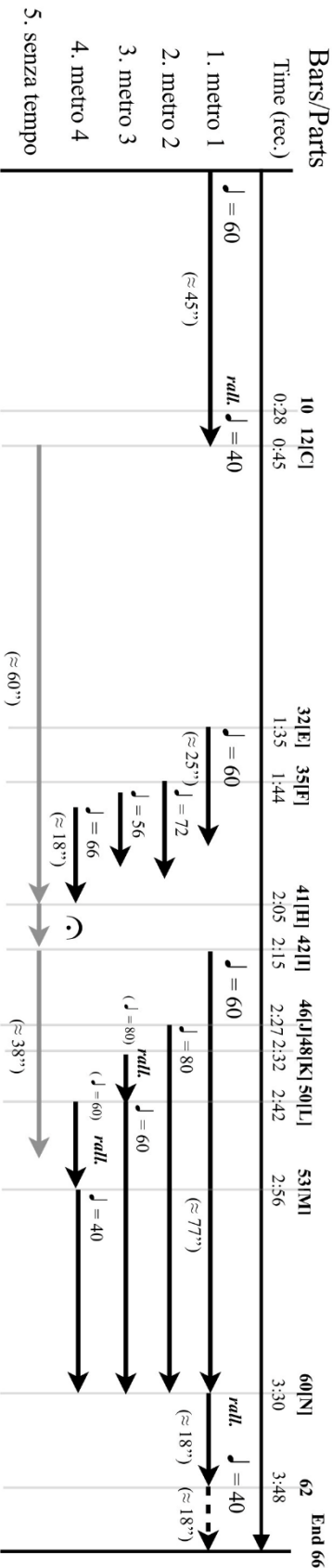
Example 4. Metronomic and *senza tempo* strata for the second movement



**Example 5.** Superimposition of harmonic divisions, called a spectrum of “duration-formants.” A whole note is taken as the fundamental duration. Figure adapted from Example 5 in Stockhausen’s “. . . how time passes . . .” (1957, 17)



Example 6. Metronomic and *senza tempo* strata for the third movement.



**Example 7.** Duration of metronomic (m.) and *senza tempo* strata (s.t.) and cumulative time in seconds for each movement. Each line indicates a page of the *Chamber Concerto* (Edition Schott). Times in brackets in the *senza tempo* stratum correspond to times simultaneous with the metronomic stratum.

Mvt. I				Mvt. II				Mvt. III				Mvt. IV			
p.	m	s.t.	Time	p.	m	s.t.	Time	p.	m	s.t.	Time	p.	m	s.t.	Time
1	12	/	12	31	16	/	16	61	8	/	8	87	18	/	18
2	8	/	20	32	16	/	32	62	6	/	14	88	6	/	24
3	8	/	28	33	15	/	47	63	6	/	20			(0.75)	
4	12	/	40	34	/	8.45	55.5	64	6	/	26	89	6	(6)	30
5	12	/	52	35	/	6.25	61.7	65	6	/	32	90	6	14.75	36.75
6	12	/	64	36	/	6.63	68.3	66	14	/	46			(6.75)	
7	8	/	72	37	/	8.44	76.8	67	/	7	53	91	9	/	45.75
8	4	7.65	79.5	38	/	4.44	81.2	68	/	7	60	92	6	/	51.75
		(1.15)		39	/	14	95.2	69	/	7	67	93	6	/	57.75
9	4	(6)	85.5	40	/	8.44	103.6	70	/	7.5	74.5	94	6	/	63.75
10	2	6	91.5	41	/	4.44	108.1	71	/	6.5	81	95	6.66	/	70.4
		(1.5)		42	/	14	122.1	72	8	(8)	89			(0.75)	
11	/	7	98.5	43	/	7.78	129.9	73	7	(7)	96	96	5	(5)	75.4
12	6	(5)	104.5	44	/	10	139.9	74	7.3	(7.3)	103.3	97	5	(5)	81.4
13	6	/	110.5	45	/	22	161.9	75	2.3	/	105.6	98	15.3	8	103.7
14	2	17 (1)	128.5	46	/	12	173.9	76	/	9	114.6			(1.3)	
15	/	/	/	47	10.8	/	184.7	77	8	(8)	122.6	99	18	/	121.7
16	4	(4)	132.5	48	10.8	/	195.5	78	6	(6)	128.6	100	12	/	133.7
17	3.7	15.7	148.2	49	8.1	/	203.6	79	6	(6)	134.6	101	6	/	139.7
		(3.7)		50	5.4	/	209	80	13.6	(11.6)	146.2	102	6	/	145.7
18	6	/	154.2	51	5.4	/	214.4	81	15.6	/	161.8	103	6	(4.3)	150
19	/	22	176.2	52	5.4	/	219.8	82	12	/	173.8	104	6	(6)	156
20	39	10	215.2	53	5.4	/	225.2	83	12	/	185.8	105	/	13	172
21	4	(1.5)	219.2	54	5.4	/	230.6	84	12	/	197.8	106	6	15	193
22	6	(6)	225.2	55	7.2	/	237.8	85	10	/	207.8				
23	6	(6)	231.2	56	13.33	/	251.1	86	27.2	/	235				
24	6	(6)	237.2	57	13.33	/	264.4								
25	6	(6)	243.2	58	5	/	269.4								
26	6	(6)	249.2	59	/	32	301.4								
27	6	(6)	255.2	60	20	/	321.4								
28	6	/	261.2												
29	6	/	267.2												
30	20	/	287.2												
T	220.7	136.9	287.2	T	162.6	158.9	321.4	T	193	97.9	235				

**Example 8.** Example of duration-formants according to Stockhausen's text in the string section at letter E of movement III of Ligeti's Chamber Concerto. Double-bass plays formant 3, cello formant 4, violin 2 formant 2, viola formant 6, and violin 1 formant 7.

The musical score for Example 8 shows the string section of Ligeti's Chamber Concerto. The staves are for Violin 1 (Vn. 1), Violin 2 (Vn. 2), Viola (Vla.), Cello (Vc.), and Double Bass (Cb.). The score includes various musical notations such as dynamics (sim., sub. ff), articulation (pizz., sul pont., in rilievo), and tempo markings (♩ = 60). The Cello part has a specific instruction: "sub. ff stark gerissen (Cello mindestens so laut wie Kontrabass) sub. ff vigorously 'torn' (Cello at least as loud as double bass)".

**Example 9.** Table of tempo-pitches "mediation" for the second movement, letters C–K

Part	Tempo	Instr.	Herz	Pitch	Meter	Beats	Time
C	♩ = 92	Cl.	674.7	E5 +1/4	3/4	124	≈ 1'20
D	♩ = 84	B.Cl.	616	D#5 -1/8	2/4	109	≈ 1'17
E	♩ = 76	Fl.	557	C#5	4/4	108	≈ 1'25
F	♩ = 100	Pn.	733	F#5 -1/8	3/4	120	≈ 1'12
G	♩ = 60	Hn.	440	A4	4/4	50	50''+30''
H	♩ = 80	Org.	586	D5	3/4	86	≈ 1'05
J	♩ = 66	Ob. d'Amore	484	B4 -1/8	4/4	44	40''+30''
K	♩ = 54	Trb.	396	G4 +1/8	4/4	40	45''+30''



**Example 10.** Row from the chord of measure 1 (A) and row calculated from tempi (letters C–K) of the second movement (B). An up or down arrow corresponds to an eighth of a tone. If the arrow is included in the accidentals, it corresponds to a sixth of a tone.

**A.**



**B.**



**Example 11.** First page of Mvt. II. The first measure sets out the 8-note row harmonically. From low to high: E (Cb.), F# (B.Cl.), A (Cl.), C# (Vc.), Eb (Hn.), G (VI. 2), Bb (Fl.) and D (VI. 1).

Für Traude Cerha

31

**II**

**4**  
**4 Calmo, sostenuto**

**A**

① (♩ = 60)      ②      ③      ④

Fl. *pp ten.* *morendo al niente*

Ob. d'am. *Oboe d'amore* *dolciss., espr.* *ppp* *mp* *sub.* *pp*

Cl. *pp ten.*

Cl. basso *pp ten.* *morendo al niente*

Cor. (sempre con sord.) *pp ten.*

Trbn. (sempre con sord.) *ppp* *pp ten.*

Org. (Arm.)

Pf.

Vn. 1 *pp ten.* *sul tasto* *ppp* *cresc. poco a poco ord.*

Vn. 2 *pp ten.* *morendo al niente* *ppp* *cresc. poco a poco ord., poco a poco sul pont.*

Vla. *ppp* *cresc. poco a poco - - mp - - (cresc.) - -*

Vc. *pp ten.* *morendo al niente* *pp ten.*

Clb. *pp ten.* *suono reale (zweite Oktave des Grundtons!, klingt wie notiert)* *(second octave of the fundamental, sounds as written)*