ANALYSIS

Dysart's Changelings for piano quartet

by Nicholas Vines

The following is an analysis of *Dysart's Changelings* from a theoretical perspective. Extramusical elements, including the choreography required for performance, are explored in the preface to the score.

Certain global characteristics of the work – present throughout at different structural levels – are frequently acknowledged. They are:

- **three-note chromatic cell**: two consecutive semitones
- **registral vector**: a prolonged, mono-directional change in register in one or more parts
- **alternating structure**: continuous alternation between two discrete thematic materials
- **collapsing structure**: repetition of thematic material where iterations generally take less and less time

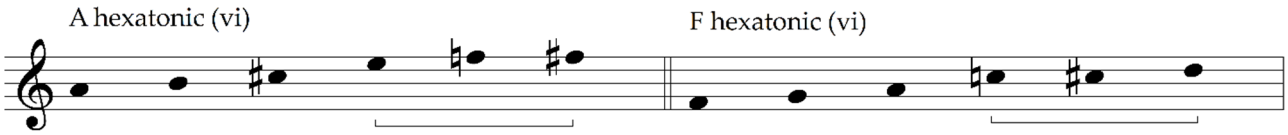
It is also worth noting that discussion of tonality refers only to **functional pitch classes**. While other pitch material is present through glissandi et al, it is effectively ornamental and so addressed differently.

The first mention of a technical term is in bold, as a catalyst for further explanation or exploration. The work's modal resources are summarised in Appendix A, found at the end of the main discourse.

SECTION I: bb.1-42

The Certainty of Steel Columns

This opening section features **bimodality**, the interaction of two distinct **pitch sets** articulated by contrasting register and tone colour. The modes here are transpositions of the same **hexatonic** (six-note mode), ie T T m3 S S m3. Note both are the **global pentatonic** with a **chromaticism** added to form two consecutive semitones (marked), much like the **blues scale**.

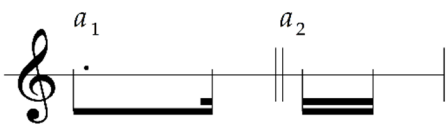


Together the modes make up 9 pitch classes – 7 'white' notes and 2 'black' notes – which allow for both **diatonicism** and **chromaticism**. The two modes have F, A and C# in common, the latter two pitches being treated as the **tonic dyad** of the section.

The structure here comes out of the alternation between two distinct materials, *a* and *b:*

$a_1\ b_1\ a_1\ b_2\ a_1\ b_3$ … (etc)

Material *a* is a short, loud **cluster,** minimally varied. It includes all 9 pitch classes in a closely voiced **tutti**, masking the bimodality, and is characterised by a rising semitone **motif**, C - C#. There are two rhythmic versions of the motif:



Material *b* is an elaboration of Material *a*'s motif. The C is expanded into a unit of three melodic phrases based on the F hexatonic (vi), which includes C. These phrases, performed by the strings, are harmonised in rhythmic unison using **double-stops** – frequently 4ths, 5ths and **open strings** – and include considerable variation in rhythm, metre, articulation, timbre and register. The C# of the motif becomes the 'perfect' or **closed cadence** of the 1st and 3rd phrases, with an **agogic accent** on the tonic dyad (A, C#). In contrast, the 2nd phrase finishes with an 'imperfect' or **open cadence**. From b.34 onwards, 1st and 2nd phrases are omitted and the end of the 3rd is elided into the a_2 motif.

This is all accompanied by a soft, registrally static, ***liberamente*** piano texture, based on the A hexatonic (vi) with occasional reference to the Material *a* cluster. Through contrasting registral, timbral and pitch profiles, the two textural elements of Material *b* articulate the A/F bimodality, while remaining united through the common notes of the tonic chord.

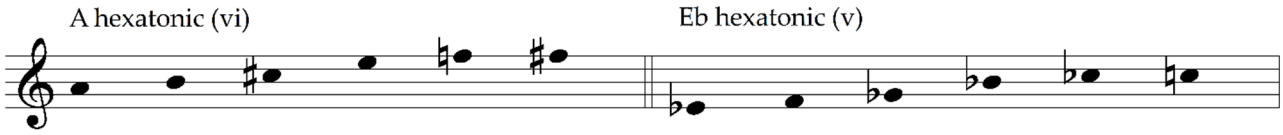
The interaction of Materials *a* – brief, static – and *b* – long, varied – creates the momentum of this section, particulars of which are outlined below. Note especially the collapsing pattern in the length and opening delay of *b*.

Bar(s)	Material	Length (beats)	No. of Phrases	Opening Delay (beats)	Main Melodic Instrument(s)	Special Features
1.1	a_1	1	-	-	violin, cello	*double stop* ***glissando***
1.2 – 11	b_1	27	3	5	Cello	*double stop* ***sul ponticello al tallone*** *glissando* ***syncopation***
12.1	a_1	1	-	-	violin, cello	see 1.1
12.2 - 21	b_2	25	3	4	viola, cello	see 1.2 – 11
22.1	a_1	1	-	-	violin, cello	see 1.1
22.2 - 32	b_3	23	3	3	violin, viola	see 1.2 - 11 *repeated semiquavers*
33.1	a_1	1	-	-	violin, cello	see 1.1
33.2 - 35	b_4	8	1 (elided)	2	Strings	see 1.2 - 11
36.05	a_2	0.5	-	-	violin, cello	see 1.1
36.1 - 38	b_5	6.5	1 (elided)	2	Strings	see 1.2 - 11 *repeated semiquavers*
39.05	a_2	0.5	-	-	violin, cello	see 1.1
39.1 - 40	b_6	4.5	1 (elided)	1	Strings	see 1.2 - 11 *repeated semiquavers*
41- 42	$a_2 a_1 a_1$	5	-	-	violin, cello	see 1.1

SECTION II: bb.43-79

Brutalism Tempered by Dappled Light

As Material *b* is an elaboration of Material *a*, this section is an elaboration of Material *b* – specifically the three-phrase subsections (bb. 1.2 - 11, 12.2 – 21, 22.2 – 32) – into Material *c*. The bimodality of *b* is replaced here by sequentially sounding hexatonics, one of the originals (A) and the 'minor' version of Eb, which has an interval pattern of T S M3 S S m3:



Variety comes instead from alternation between these hexatonics, ie Eb(v) (bb.43-55), A(vi) (bb.56-67), Eb(vi) (bb.68-79). Each of these three subsections – Eb(v)1, A(vi), Eb(v)2 – in turn has the three-phrase structure, with the 1st and 3rd phrase ending with a local tonic chord. These tonic dyads are mode notes 5 and 1 (Eb(v) = Cb, Eb; A(vi) = F, A), the inversion of the original 3 and 5 (F(vi) = A, C#).

The rhythmic profile of *b*'s phrases and cadences remains, but is made weightier through global augmentation and a slower tempo. Similarly, the preponderance of parallel 4ths and 5ths in *b*'s melody is expanded, creating a sense of **organum,** and registral exploitation of the ensemble is increased to the full gamut.

There are other significant aspects of Material *b* which are maintained, albeit less obviously. While the bimodality the piano part provided is now absent, its textural character is retained. For one, the middle register of the piano, which sounds fairly consistently throughout, is a static, *liberamente* texture with no rhythmic specificity. This concept is further expanded at every cadence point, where in addition to the strings having their own individual *liberamente* cells, all four parts become **ametric**. The lack of metre gives the strings time to realise their ornate virtuosity while fulfilling choreographical requirements.

The big change in Material *c* from Material *b* is the exchange of instrumental roles, a clear nod to the history of the genre. That is, whereas the strings were melodic and the piano accompanying, the latter is now firmly foregrounded. What's more, the delay which preceded the entry of each previous subsection's melody is now found in the accompaniment (bb. 45-46, 57-60, 69-70), again an aid to choreography.

New gestural elements include the strings' rapid, falling/rising vectors and noodling, which ornament cadential points – Material *d*, a thematic amalgamation of *a*'s motif and the string glissandi and piano chromatic cell of *b* – and a large *glissando* **anacrusis** in the piano to emphasise the onset of 1st phrases.

Here is a summary of the above description, along with further details. Note once again collapsing patterns in the length and the consistent alternation of two thematic ideas to create momentum.

Bar(s)	Subsection (mode)	Phrase No.	Length (beats or secs)	Cadential Dyad	String Contour	Special Features
43	transition (Eb(v))	-	3	-	-	Based on *a*'s motif *double stop* ***tremolo*** *glissando*
44-46	Eb(v)	1	9	-	-	-
47			5"	Cb, Eb	down	*tremolo glissando* ***flared crescendo***
48-50		2	5.5	-	oblique	
51			3"	F, C	down	
52-54		3	7	-	oblique	
55			5"	Cb, Eb	down	
56-60	A(vi)	1	8.5	-	-	-
61			4"	F, A	Up	see b.47
62		2	3	-	oblique	
63			2"	E, B	Up	
64-66		3	7	-	oblique	
67			4"	F, A	Up	
68-70	Eb(v)	1	6	-	-	-
71			5"	Cb, Eb	down	see b.47
72		2	1.5	-	oblique	
73			3"	Eb, Gb	down	
74-76		3	6	-	oblique	
77			5"	Cb, Eb	down	
78-79	transition (Eb(v))		4.5	-	oblique	new material (*t*) see b.47

SECTION III: bb.80-110

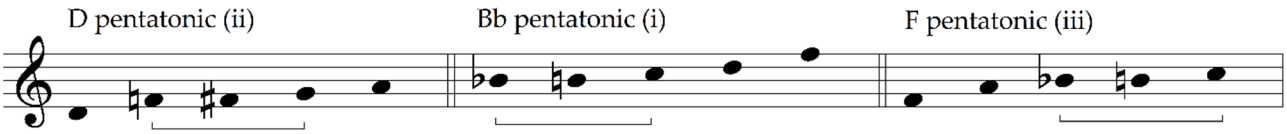
Staggered Louvre Blades

This section is largely ametric, extending the freedoms of the previous part. Yet again, form is created through alternation between two ideas, in this case, *e* and *f*.

Material *e* is based on the melodic components of *b,* notably their double-stopping, wide range, roving contour and pseudo-diatonicism. Rather than melody and accompaniment, however, the texture here is **heterophonic,** where the piano and at least one string part play essentially the same line, but with divergent rhythmic, harmonic and articulatory detail. The strings are foregrounded, being spatially separated and consistently more active, giving them a strong soloistic feel.

Material *f* is a tutti texture derived from the boxed elements at the end of *d* (which in turn comes from the *a* motif). It is non-hierarchical - that is, there is no obviously prominent line – a product of the bustling interaction of the string parts. Each iteration ends with a metred piano gesture (chord/glissando, *liberamente* chromatic cell or cluster), which coordinates the ensemble's move back into *e.*

Like *c* and *d*, Materials *e* and *f* share a harmonic palette, in this case, a series of discrete **pentatonics**:



These three modes are conflations of a major triad and the ubiquitous three-note chromatic cell, but with the placement of the latter being different for each (marked). This creates both tonal unity and variety, a further extension of the divergence between *c* and *d*'s hexatonics. Similarly, like *c* and *d*'s equivalents, the pentatonics occur sequentially – D(ii) (bb.80-91), Bb(i) (bb.92-100), F(iii) (bb.101-110) – evoking the three-phrase structure of *b* and *c*.

A further tonal elaboration is evident in the piano tail of Material *f*, which in addition to the pentatonic, uses extraneous pitch classes. This increase in pitch density gives the gesture a **dominant**-like function, further contributing to its ensemble function.

The following table summarises the above description with additional detail. Note the collapsing pattern in the length of *e* versus the blossoming pattern in the length of *f*, a cross-like structure which creates both interest and momentum.

Bar	Subsection (mode)	Material	Length (beats or secs)	Additional Pitch Classes	Main Melodic Instrument(s)	Special Features
80	D(ii)	*E*	8"	-	Cello	double-stop
81		*F*	2"	-	-	*sul ponticello tremolo*
82			1	C		*glissando flared crescendo*
83		*e*	7"	-	Viola	see b.80
84		*f*	3"	-	-	see bb.81-82
85			1	C, C#		
86		*e*	5"	-	viola, cello	see b.80
87		*f*	5"	-	-	see bb.81-82
88			1	Bb		
89		*e*	6"	-	Violin	see b.80
90		*f*	4"	-	-	see bb.81-82
91			1	Bb, B		
92	Bb(i)	*e*	4"	-	violin, viola	see b.80
93		*f*	6"	-	-	see bb.81-82
94			1	A		*pizzicato (snap, norm. & l.h.)*
95		*e*	5"	-	viola, cello	see b.80
96		*f*	5"	-	-	see bb.93-94
97			1	Db, E, Gb, G, A		
98		*e*	3"	-	violin, cello	see b.80
99		*f*	7"	-	-	see bb.81-82

100			1	C#		*pizzicato (snap, norm. & l.h.)* *col legno battuto spiccato*
101	F(iiI)	*e*	4”	-	violin, viola	see b.80
102		*f*	6”	-	-	see bb.93-94
103			1	Db, D, E, Gb, G		
104		*e*	2”	-	strings	see b.80
105		*f*	8”	-	-	see bb.99-100
106			1	Db, D, E, Gb, G		
107		*e*	1”	-	strings	see b.80
108		*f*	9”	-	-	see bb.99-100
109-110	transition (F(iiI))		6	F#	piano	Piano tail extended using *t*

SECTION IV: bb.111-135

Brutalism Tempered by Dappled Light Once Again

This part is a truncated version of Section II, much of the commentary for which is relevant here.

The main alteration is the exclusion of the third main subsection, mirroring II and IV’s internal collapsing pattern at a macroscopic level. Note also the modest reduction in the length of 2nd phrases, which contributes to the shrinking feeling.

The table below details these changes.

Bar(s)	Subsection {mode)	Phrase No.	Length (beats or secs)	Cadential Dyad	String Contour	Special Features
111	transition (F(iii))		3	-	-	continuation of *f*
112-115	Eb(v)	1	7.5	-	-	-
116			5”	Cb, Eb	down	*tremolo* *glissando* ***flared crescendo***
117		2	3	-	oblique	
118			3”	F, C	down	
119-121		3	7	-	oblique	
122			5”	Cb, Eb	down	
123-125	A(vi)	1	6	-	-	-
126			4”	F, A	up	see b.116
127		2	1.5	-	oblique	
128			2”	A, C	up	
129-131		3	6	-	oblique	
132			4”	F, A	up	
133-135	transition (Eb(v))		5.5	-	oblique	*version of t*; see b.116

SECTION V: bb.136-165

Staggered Louvre Blades Once Again

This part is a truncated version of Section III, much of the commentary for which is relevant here.

One significant alteration is the substitution of III's latter two main subsections with three shorter ones. Note the mode order is inverted; that is, D(ii) Bb(i) F(iii) becomes D(ii) F(iii) Bb(i) D(ii). This reflects another big change, the registral inversion of the texture: while III built from low to high, this section starts with the violin and accumulates downward. The upward and downward vectors of III and V respectively are macroscopic articulations of the rising and falling nature of Material *d*.

Another difference is the substantial development of the final transitional gesture (*t*), through repetition, combination with Materials *d* and *a,* and culmination in a general pause. This is in preparation for the notably contrasting character of Section VI.

The table below details these changes.

Bar(s)	Subsection (mode)	Material	Length (beats or secs)	Additional Pitch Classes	Main Melodic Instrument(s)	Special Features
136	D(ii)	*E*	7"	-	violin	double-stop
137		*F*	3"	-	-	*sul ponticello tremolo*
138			1	Bb		*glissando flared crescendo*
139		*e*	5"	-	violin, viola	see b.136
140		*f*	5"	-	-	see bb.137-8
141			1	C, C#		*pizzicato (snap, norm. & l.h.)*
142		*e*	6"	-	viola, cello	see b.136
143		*f*	4"	-	-	see bb.137-8
144			1	C		
145		*e*	4"	-	viola	see b.136
146		*f*	6"	-	-	see bb.140-1
147			1	C, C#		
148	F(iii)	*e*	2"	-	viola, cello	see b.136
149		*f*	8"	-	-	see bb.140-1
150			1	-		*col legno battuto spiccato*
151	Bb(i)	*e*	3"	-	strings	see b.136
152		*f*	7"	-	-	see bb.149-150
153			1	C#, E, F#, G, A		
154	D(ii)	*e*	1"	-	strings	see b.136
155		*f*	9"	-	-	see bb.149-150
156-8	transition (D(ii) + F (iii))	*t*	7	-	piano	bimodality – 9 pitch classes
159	(A(vi))	*d*	6"	-	-	*tremolo glissando*
160-1		*t*	3.5	-	-	*flared crescendo*
162-5	chromatic	*a*	8 +	-	-	cluster – 12 pitch classes

SECTION VI: bb.166-187

Lofty Contemplation of A Glazed Façade

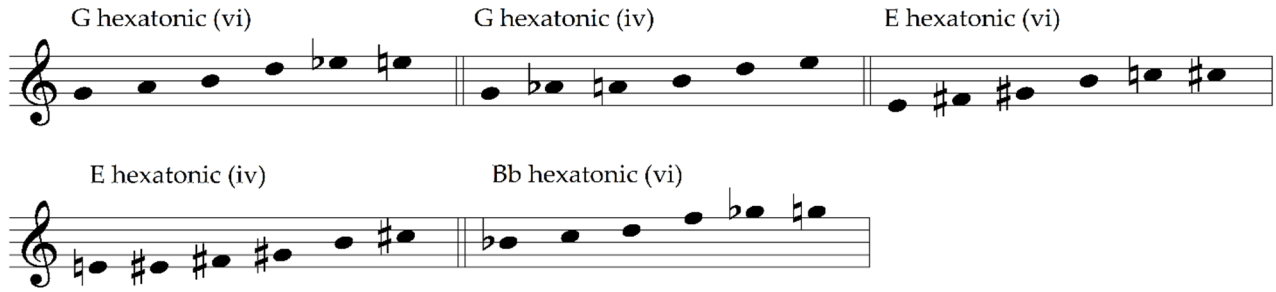
While previous sections are essentially descriptions of architectural features, VI is more the contemplation of one. This is motivated by the singular ability of the glazed façade to transform through its interaction with light. Consequently, the solidity of three-phrase structures and direct alternation between materials is replaced here with more drawn-out, fluid constructs. For one, there are now no metric elements.

All events are derived from Material *g*, articulated as ensemble tuttis throughout this section (bb. 169, 173, 176, 179, 180, 182-4, 186-7). Note the clear delineation between the strings in their high registers with harmonics, along with the textural 'glue' of the upper piano with its internal glissing, and the low/ medium register chords of the piano.

The top part of this texture is strongly reminiscent of Material *f*, with its internal thematic diversity. Unlike *f*, however, its bits and pieces are developed, in this case into gestures leading up to the full articulations of *g*. These precursors are an accumulative series of solo string figures, which are texturally, timbrally, temporally and spatially isolated.

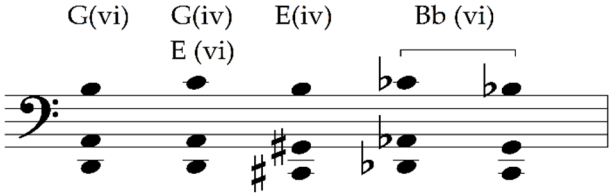
The alternation between transparent solo and rich tutti alludes to similar structures in previous sections. Nevertheless, the duration of the overall syntactical unit, the frequent incorporation of silence and the somewhat unpredictable nature and number of gestures makes this process more conceptual than experiential. Similarly, while the characteristic collapsing process is evident here – through the systematic decrease in, and eventual disappearance of solo events – it takes too long to be readily noticeable.

There is also considerable elaboration of past tonal systems with modal resources being expanded to five hexatonics.



Three of the hexatonics are in original form from Section I (vi), while the others are new, if closely related to the original (iv). They appear in the string and upper piano parts in the following sequence: G(vi), G(iv), G(vi), G(iv), G(vi), E(vi), E(iv), E(vi), Bb(vi), Bb(vi).

In addition to the modes are independent pitches which act as harmonic foundations for the tuttis.



Initially, D and A act a intermittent **pedal points** under G(vi) and (iv), a role amplified by the former belonging to the latter. They persist through E(vi), but are modally extraneous here, initiating movement in the bassline through to the next section. The resultant chromatic consecutive perfect 5ths reflect both the recurring three-

note chromatic cell and the organum of Materials *b* and *c*. Naturally, all these pitch sets appear in the left hand of the piano (the only low register), though they are often reinforced in the upper voices.

Another important tonal principle is the **natural harmonic series.** In order to produce maximum 'glow' – evoking the play of light on a glazed façade – the voicing of harmonies in the tuttis mirrors natural resonance as much as possible. This is aided by the harmonic foundations being partials 2, 3 and 7 of the relevant series, except for the first, which excludes 7. The phenomenon also increasingly informs the choice of modal pitch classes, to the point where the last sonority strongly resembles the **tempered** series on C. All this alludes to the renewed interest in 'naturally' based harmonies over recent decades, as epitomised by the aesthetic of **spectralism**.

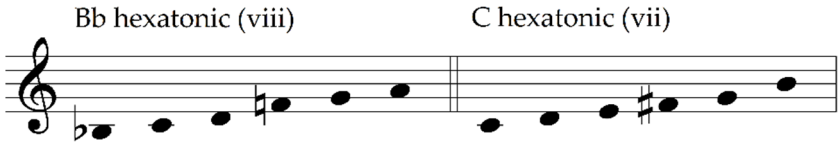
Below is a table summarising the above, along with additional detail. The contrast between this clear visual representation of alternation and collapse with the opacity of their aural realisation is worth noting.

Bar	Subsection (mode)	Bass Pitches	Length (secs)	Silence	Instrument(s)	Special Features
166	G(vi)	-	5	Y	cello	sul tasto grace note
167			5	Y	violin, viola	glissando harmonic (artificial)
168			5	Y	violin, cello	sul tasto grace note glissando harmonic (artificial)
169			5	Y	tutti	see b.168
170		D, A, B	9	N	tutti	see b.168
171	G(iv)	-	5	Y	violin	see b.166
172			5	Y	viola, cello	see b.167
173			5	Y	tutti	see b.168 tremolo
174		D, A, C	10	N	tutti	see b.173
175	G(vi)	-	5	Y	cello	see b.166
176		D, A, B	10	N	tutti	sul tasto grace note glissando tremolo harmonic (artificial & natural)
177	G(iv)	-	5	Y	violin	see b.166
178			5	Y	viola, cello	sul tasto grace note tremolo harmonic (artificial)
179		D, A, C	11	N	tutti	sul tasto grace note glissando tremolo harmonic (artificial)
180	G(vi)	D, A, B	11	N	tutti	see b.176
181	E(vi)	-	5	Y	viola	see b.166
182		D, A, C	12	N	tutti	see b.176
183	E(iv)	C#, G#, B	12	N	tutti	see b.176 ½ col legno battuto
184	E(vi)	D, A, C	13	N	tutti	see b.176
185	Bb(vi)	-	5	Y	violin	see b.166
186		Db, Ab, Cb	13	N	Tutti	see b.183
187	Bb(vi)	C, G, Bb	14	N	Tutti	see b.183 ½ col legno tratto

SECTION VII: bb.188-215

Future Civic Potential

As the ***attacca*** suggests, this section is an extension of the previous one. The tonal world here is a clear development of VI's final sonority into the interaction of two new, diatonic hexatonics.



Similarly, the string parts, which exploit both modes in amalgam, are explosive continuations of VI's final *liberamente* bar. Gone are the harmonics, sul tasto and fingered tremolo, to be replaced with extreme loudness, single-pitch tremolo, repeated semiquavers, rapid **arpeggiation** and open-string and stopped harmonies. Their momentum is only broken through sudden, staggered termination – in response to choreographical needs – but after a brief break (b.212), they return energetically with the arpeggio figure in the same order.

The piano part also runs on from the previous section, with the bass 5ths moving down by step to Bb and F, and the expansion of the organum idea into more overt **power chords**. These chords are presented metrically in harmonic spaces which use five pitches from either Bb(viii) or C(vii). Alternating with that are rapid, *liberamente* iterations of two three-note chromatic cells derived from both modes (Bb, B, C; E, F, F#), which sound simultaneously. While the cells remain static in the upper register, the chords have an upward vector through sequential inversion, in preparation for the climax at the beginning of Section IX.

Below is a summary of the above. Note all four global elements are present here.

Bar(s)	Length (crotchets)	Piano Mode	Piano Pitch Set	Piano 'Inversion' & Register	Violin	Viola	Cello
188-191	10.5	Bb(viii)	Bb, C, D, F, G	root; lower	Y	Y	Y
192-3	6	Bb(viii) + C(vii)	E, F, F#, Bb, B, C	-	Y	Y	Y
194-6	7.5	C(vii)	C, D, E, G, B	root; lower	Y	Y	(Y)
197-8	5.5	Bb(viii) + C(vii)	E, F, F#, Bb, B, C	-	Y	Y	N
199-201	6.5	Bb(viii)	Bb, D, F, G, A	2nd; middle	Y	Y	N
202-203	5	Bb(viii) + C(vii)	E, F, F#, Bb, B, C	-	Y	Y	N
204-5	5.5	C(vii)	C, D, F#, G, B	2nd; middle	Y	(Y)	N
206-7	4.5	Bb(viii) + C(vii)	E, F, F#, Bb, B, C	-	Y	N	N
208-9.1	4	Bb(viii)	Bb, C, D, F, G	root; upper	Y	N	N
209.2-210	4	Bb(viii) + C(vii)	E, F, F#, Bb, B, C	-	Y	N	N
211	3	C(vii)	C, D, E, G, B	root; upper	(Y)	N	N
212-5	12 +	Bb(viii) + C(vii)	E, F, F#, Bb, B, C	-	(Y)	(Y)	(Y)

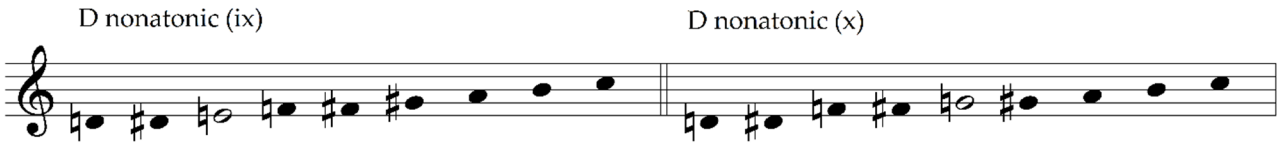
SECTION VIII: bb.188-215

The Permanency of Steel Columns

In this final section of the work, Materials *a* and *b* return. The relative frequency of their appearance, however, is reversed, with the latter occurring briefly and the former significantly developed.

What little *b* material is present is crafted to emulate the original's textural delineation. Material *a,* on the other hand, is given a much more elaborate treatment. For one, its motif now has five rhythmic versions.

Since the new predominance of clusters makes bimodality much less applicable, it is replaced in the first two subsections (bb.216-228.2 and 228.3-237) with sequential **nonatonics**.



Note that without the open-headed notes, both are **standard octatonic**. The addition of an extra, chromatic pitch to a pre-existing mode is also characteristic of Section I, however the greater number of consecutive semitones here makes VIII considerably tenser.

The semitone of motif *a* is mapped sequentially onto the nonatonics to form the first two subsections' foreground. Its rising vector climaxes with the third subsection, multitudinous repetitions of the original Material A gesture in preparation for the coda.

The piece ends with a truncated, inverted version of Section V's concluding transition. While the upward motion in the earlier version creates expectation, the downward motion here provides a thunderous final cadence.

Below is a summary of the above description. Note the relatively steady length of *b's* gestures (bb.216.2-217 being without melody) versus the increase in frequency and corresponding length of *a*. This is a reversal of the relationship in Section I.

Bar	**Subsection (mode)**	**Material**	**Length (beats or secs)**	***a* Rhythm**	***A* Pitches**	**Octave**
216.1	D(ix)	*a*	1	1	D, D#	high
216.2-219		*b*	10	-	-	low
220		*a*	4	2, 2	D, D#	low
221-22			5	3, 5	E, F	low
223.1-.2			2	4	F, F#	low
223.3-224		*b*	3	-	-	low
225.1		*a*	1	1	F, F#	low

225.2-226		*b*	4	-	-	low, middle
227		*a*	2	2, 2	F#, G	low
228.1-.2			2	4, 2	B, C	low
228.3-230.0	D(x)	*a*	4.5	5, 4	D, D#	middle
230.05-231		*b*	5	-	-	low, middle
232.1-232.2		*a*	2	2, 1	F, F#	middle
232.3-233		*b*	4	-	-	low, middle
234		*a*	3	2, 1, 2	F#, G	middle
235-7			9	3, 5, 4, 4, 1	G#, A	middle
238-247	A/F(vi)	*a*	21 +	2, 2, 1, 2, 1, 2, 1, 2, 2, 2, 1, 1, 2, 1, 2, 1, 2, 2, 2, 2, 2, 2, 2	C, C#	high
248	coda (A/F(vi))	*d*	5”	2 (*liberamente*)	C, C#	high, middle, low
249-252	chromatic	*a*	7			low +

APPENDIX A: MODAL FORMS