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Where Are We Going? Teleological Structures in New Music

Abstract. The beginning of the twentieth century saw some radical changes in compositional thought. The breakdown of tonality in particular had far wider implications than just the emancipation of dissonance and organisation of pitch, extending to formal design and the functionality of material, further challenging pre-existing formal structures. Anton Webern was perhaps the first composer to radically redefine the compositional process in this respect, later influencing the work of Boulez and Stockhausen. How to articulate a formal narrative without functional harmony, however, was one of the central issues, which led to serial organisation. Post-serial thinking further developed a complex network of parametric formal strategies aimed at creating such a dialogue, redefining the function of material and initiating new kinds of formal structures, which similarly require new approaches to listening and perception. How might gesture, density and texture be used to articulate form? How are such structures to be assimilated? How does a composer create a sense of structural narrative? Is this even necessary with new approaches to listening? This paper will examine some of these developments and how they inform my own compositional practice, which involves the complex interaction of parametric layers, with a view to creating a structural hierarchy and meaningful, unfolding dialogue between materials on both the macro and micro levels. My more recent work has further challenged the need for such formal continuity and narrative in an attempt to redefine the structural functionality of material.

Keynotes: Boulez, Webern, Redgate, Ferneyhough, teleology, formal narrative, *Etudes Transcendantales, Le Marteau sans Maître, Drei Kleine Stücke* Op. 11.

My title here refers to the lecture "Where Are We Going? And What Are We Doing?" by John Cage (Cage 1961), which after initially posing the question completely disrupts any sense of narrative by interlocking the text with various other texts inviting an almost Derrida-like reading in a Grammatological sense of intertextuality with various potential meanings. This in itself questions the notion of linear narrative. We are all aware of numerous similar techniques such as Derrida's own non-book *Glas* (Derrida 1974) written in two columns on each page combining texts and typefaces; Samuel Beckett's later prose works which "cut and paste" sentences, words and paragraphs contextually redefining their meaning (Beckett 1986), and the poet Jackson MacLow's systematic chance operations (MacLow 1963). All of which challenge the function of conventional linguistic teleology through narrative and meaning.

In terms of music, the concept of structural narrative has a similar teleological function to that of language guided by functional tonality. However, the beginning of the twentieth century saw some radical changes in compositional thought. The breakdown of tonality, in particular, had far wider implications than just the emancipation of dissonance and organisation of pitch, extending to formal design and the functionality of material, further challenging pre-existing formal structures. If we are to accept that there are "paradigmatic models of particular teleological strategies" in music, which strive towards the final cadence as a "complete fulfillment of a persistently pursued goal, and that sonata form is maybe the pinnacle of such a trend," how do we create this kind of narrative when such structures no longer exist?¹ What is more, are they even necessary within a different structural framework?

Already in his Second String Quartet Op. 10 (1907/8), Schoenberg was moving into atonal areas, further supported with the addition of a text, which took the work into a new and unexpected harmonic area and formal design. How to articulate a formal narrative without functional harmony was one of the central issues, which led to serial organisation. Post-serial thinking further developed a complex network of parametric formal strategies aimed at creating such a dialogue, redefining the function of material and initiating new kinds of formal structures, which similarly require new approaches to listening and perception. How might gesture, density and texture be used to articulate form, for example? How are such structures to be assimilated? How does a composer create a sense of structural narrative? Is this even necessary with new approaches to listening? At this stage in music history, there are many solutions.

As mentioned earlier, experiments with text in literature initiated new approaches to reading unlocking new levels of meaning. In this paper, I will address some of the solutions to creating alternative formal narratives and structural hierarchies in the absence of functional harmonic teleology. These issues have been of

Quoted from *Principles of Music Composing: Phenomenon of Teleology* conference call for papers, 18–20 November, 2020 Vilnius, Lithuania.

central concern to my work as a composer in terms of unfolding processes, which impact both surface material and larger-scale formal structure.

Of course, an extensive discussion of such developments over the last 100 years or so is beyond the scope of this article. We might consider Stockhausen's *Moment* form, for example, or Elliott Carter's structural polyrhythms; the innovations of Spectral music with slowly transitioning timbral changes of spectra, from harmonicity to inharmonicity as a new approach to harmony and timbre (a possibility already predicted by Schoenberg as early as 1911) (Schoenberg 1911); Helmut Lachenmann reinvented the functionality of material through the concept of *musique concrète instrumental*, while Xenakis explored stochastic processes. There are many other such technical developments including minimalism, micro-tonality and electronic music/ sonic art, plus the many variations/combinations of the above. Some works seek to frustrate a conventional sense of narrative, such as the use of chance techniques and open forms; and John Zorn's genre-hopping compositions and "card" pieces or Brian Ferneyough's more recent explorations in discontinuity.

However, for this essay, I intend to focus on the work of three composers Anton Webern, Pierre Boulez and Brian Ferneyhough. They each represent a different period from the 20th century but seem to have a sense of linearity in terms of the development of certain structures, which are closer to my aesthetic as a composer. That's not to say that their music is similar in the functionality of material as such, or the listening process. This further raises interesting questions as to how we listen to music. How many of us are really aware of the structural devices at work, even sometimes in the most conventional music? Is this really part of the listening process?

Anton Webern was one of the first composers to fully absorb the implications of atonality in terms of articulating new formal structures. I would briefly like to examine an early free atonal work, the third of the *Drei Kleine Stücke* for cello and piano, Op. 11, composed in 1914. The work is characteristically only 10 bars long, and just over a minute in duration, which for our purposes makes it useful to analyse.² Example 1 shows the score in its entirety:



Example 1. Webern, Drei Kleine Stücke for cello and piano, Op. 11 No. 3

Webern was very much aware that a new approach to pitch was not only a matter of tonal orientation but also impacts material in articulating form. How do we give pitch a new sense of structural function to support a formal narrative without functional harmony? What are the implications for other aspects of the material?

The 10 bars here can be divided into 3 sections of 3, 3 and 4 bars respectively. The first section (bars 1–3) introduces the basic structural elements. In terms of pitch we have the isolated E flat–F flat trill in the cello bar 1, played *sul pont*. This is followed by a linear chromatic fragment (C–B–B flat), also including a harmonic and within a triplet in bar 2. The piano enters with a single chord (C#–D–F), significantly with F as the lowest note in the bass. This is then answered by the piano in the second section, bars 4–6, with transposition and reordering of the cello's three-note fragment (F#–G#–G). In each case, there is an octave displacement of one pitch (the highest in descending order) adding a sense of teleological tension to the line. This piano phrase is connected by an interval of a minor 6th with the last note of the cello (B μ –F#). The piano segment also has the same, although displaced, rhythmic profile as the cello's phrase in terms of duration in triplets. This leads

² See also Perle 1992 for a discussion of this work.

to the final chord of this section $(E-E_{\flat}-G)$ in bar 6, which is a transposition of the initial piano chord, and also includes the $E_{\flat}-F_{\flat}$ of the cello's first bar. The cello here just has one note, the high F, now the highest note. The opening pitches here have been spread over a wide tessitura with the pitches E_{\flat} , E and F being the only common pitches to both instruments. In bar 1 the E (F flat) was the highest of these pitches and the F the lowest, a relationship, which is now inverted in bar 6. This has the effect of a return to a "tonic" chord after the quasi "modulation" of the central piano segment since this last bar contains both the common pitches and transposition of the chord from the piano in bar 2. Again there is a sense of teleological focus and climax in the gradual expansion of the tessitura, from a semitone trill to the widespread chord in bars 5–6.

The third section, bars 7–10, starts with an isolated piano chord, once again defined by a triplet, the pitches of which are made up of the chromatic fragment in the cello $(C-B-B_b)$ plus an F# maintaining the minor 6th connecting interval which joins the chromatic segments of the first two linear phrases. The cello then concludes with harmonics, connecting it to bar 2 in terms of articulation, but also using the pitches of the first piano chord (D-C#), now the highest pitches, were previously the lowest in the piano. The one pitch we have not discussed is the A harmonic in the cello, bar 8, which concludes all the 12 pitches of the chromatic scale.³ It should also be noted that the last section from bar 7 omits the pitches common to both instruments (E_b-E-F) from the first sections. It's clear how Webern was trying to create a narrative, with a comparable structural articulation to functional harmony, albeit with a very different functionality of pitch. The use of register, linear profile and articulation further support a teleological unfolding.

We can already see the latent aspects of serialism here, which was to develop a little later and help solidify such relationships with its highly structured note rows.⁴ Indeed the pitch structures in this little piece for cello and piano already foreshadow the kind of intervallic relationships to be found in Webern's later note rows. This kind of thinking was aimed at finding an inner logic to pitch structures not determined by functional harmony, but to create a hierarchy and sense of formal narrative. I chose not to discuss serialism *per se* as my focus was on more transitional aspects of language and perhaps something closer to Adorno's concept of a *Musique Informelle* in terms of the unfolding of material and articulation of form (Adorno 1963).

Pierre Boulez later refined such serial structures in his work *Le Marteau sans Maître* (1955), with a view to creating harmonic fields derived from a series through the application of his (by now well-known) chord multiplication system (Boulez 1963). Again this created a harmonic narrative defined by the distribution of harmonic "domains" derived from permutated divisions of the series, which were organised according to a structural hierarchy. A closer look at aspects of the structure in the 1st movement of the work *Avant L'Artisanat furieux* reveals its intended formal narrative.⁵ Example 2 shows the basic divisions of the series and derived chords of harmonic Domain I. As we can see the series is divided into segments through the permutation of a matrix (21243).



Example 2. Boulez, Avant L'Artisanat furieux division of the series into harmonic domains

³ Webern considered a work to be complete when all 12 notes of the chromatic scale have been used (Webern 1960).

⁴ Compare the series from Alban Berg's Violin Concerto (1935) and The Lyric Suite (1925–6), for example; or Webern's own characteristic rows from the Concerto for 9 instruments (1934) and Variations for Orchestra (1940).

⁵ I am indebted to the work of Lev Kolbyakov here, with his extensive analysis of *Le Marteau sans Maître* in *Boulez, A World of Harmony*.

Example 3 shows the resulting Domains I–V from the remaining permutations of the series, which are then further modified by the chord multiplication system, combining the intervallic structure of each domain: chords I+I, I+II, I+III etc. This yields a rich and complex reservoir of harmonic groups further labelled a b c d e, see Example 4.



Example 3. Boulez, Avant L'Artisanat furieux: Domains I-V



Example 4. Boulez, Avant L'Artisanat furieux: final harmonic Domains

After this process, each Domain has a similar set of 25 chords. The next step is to decide how these chords could be distributed throughout the work to create a coherent harmonic narrative. The work is divided into nine subsections using Domains I–V, which are symmetrically distributed. Domains I, II and III form the first, middle and final sections, framing two groups of three sections, each of which contains groups IV and V, framing III and II respectively, which reflects a condensed version of the overall form with II and III in reverse order. Example 5 shows an outline of this structure.

Bars	1-10	11- 20	21- 32	33-41	42- 52	53- 60	60- 68	69-80	81-95
Domains	I	V	III	IV	II	V	II	IV	III
No of groups	15+15	16	14	14+15	15	14	15	15+15	16+14
No per section	30		60		15		59		31
No of domains	1		3		1			1	

Example 5. Boulez, Avant L'Artisanat furieux: formal plan of harmonic distribution

Each of these Domains is further defined by a specific approach to the layout of the material and distribution of the groups according to a matrix. We will examine the first two sections. In the first 10 bars, Domain I is divided between two duos, flute/vibraphone and viola/guitar of 15 groups each.⁶ Example 6 shows the route through the matrix for each group, the guitar and viola being a retrograde of the flute and vibraphone (where ea, db, bc, cd, de etc, are results of chord multiplication as shown in example 5). Further, there is a gradual cross-over of the number of groups: 5–4–3–2–1 (flute/vibraphone) and 1–2–3–4–5 (viola/guitar).



Example 6. Matrix distribution of domains between the duos in section I bars 1-10 of Avant L'Artisanat furieux

The next section, bars 11–20, has a rather different approach in terms of the route through the matrix, which has significant consequences in terms of the harmonic structure. In this instance the 16 groups from Domain V are shared between all four instruments, see Example 7. It can be seen from the groups | de ce be ee | dd ed | dc cc bc ec | db cb bc eb | ea da | that each has a focus on one harmonic field: in the first group e; the second d; third c; the fourth b and the fifth a. The overall grouping of the domains also has a structure 4 | 2 | 4 | 4 | 2.

This is in contrast to the more mixed configurations of the first section and is also reflected in the overall instrumental texture.

ea	^{eb} ▲	ec ∕	ed	ee ∕ ▲
ba	bc	bc	bd	be
ca /	cb	cc	cd	ce
da 🖡	db 🖡	dc	dd 🖡	de T
ea 🔻	eb	ec	`ed 🔻	ee

Bars 11-20 (16 groups) Domain V

	Domain V - bars 11-20 (16 Groups)																
e d c										b							
de	ce	be	ee	dd	ed	dc	сс	bc	ec	db	db cb bc eb e						
	4	1		2	2		4	1			4	1		2	2		

Example 7. Matrix distribution of domains between all the four instruments in section I, bars 11–20 of Avant L'Artisanat furieux

This brief discussion of *Avant L'Artisanat furieux* shows not only the overall harmonic narrative but also the approach to defining and distributing material within the larger-scale form. The distribution techniques give the harmonic clarity a further sense of focus and also define the textural aspects.

⁶ This grouping into duos reflects the specific instrumentation of the work, which combines sustaining instruments with percussive/plucked instruments: voice and non-pitched percussion being further extensions of this in subsequent movements.

Brian Ferneyhough Etudes Transcendantales – Song II

Brian Ferneyhough's music is famous for its complexity on many levels. The surface appearance of the scores is perhaps the most immediately striking and frequently discussed in terms of performative issues. However, the structural organisation of the music is equally detailed with a complex symbiotic relationship between the more immediately assimilable surface and a complex unfolding of subcutaneous parametric processes, which articulate the larger-scale form.

The *Carceri d'Invenzione* cycle of works from the 1980s is a clear example of how such strategies spread across a large cycle of seven works of various instrumentation from solo pieces (*Superscriptio* for solo piccolo and *Intermedio alla Ciaccona* for solo violin) to larger ensemble works such *Carceri d'Invenzione* I, II and III.⁷ The overall cycle itself has a strong formal narrative defined by both the instrumentation and cross-fertilisation of materials, such as the eight underlying chords on which the whole cycle is based. The fifth work in the cycle is the *Etudes Transcendantales*, a collection of nine songs, scored for soprano, flute, oboe, cello and harpsichord in various combinations. I have chosen one song from this cycle for our discussion here, which has a surprisingly clear formal design by Ferneyhough's standards; *Etude II* is scored for just three of the instruments: voice, oboe and cello.⁸

The *Etude* is divided into alternating sections of *Commentaries* and *Recitatives* (ABABABA) each with individual unfolding narratives. The basic structure can be seen in Example 8.

Etudes Transcendantales Song No 2 Formal Plan																					
Recitative			Com	men	tary		Recitative		Cor	nme	nta	ry		Recitative		Со	mn	ienta	ary		Recitative
♪ =36	Su	Subito agitato =45					♪=36	Subito agitato 👌=51						♪ =36	Su	bito	agi	tato.	♪=5	56	♪ =36
						Rall				Rall							Rall molt				
10	2	3	2	5	4	3	14	7	5	9	5	4	4	15	4	3	3	2	2	5	17
8	8	16	10	16	12	8	8	16	24	16	8	12	8	8	8 10		8	12	8	16	8
	6 bars							6 bars						6 bars							

Example 8. Ferneyhough, Etudes Transcendantales, Formal Plan of Song II

The work starts with the first Recitative, a 10/8 bar with a tempo mark of \mathcal{I} =36. Each successive Recitative has an increased bar length, 14/8, 15/8 and 17/8, whilst maintaining the same tempo marking. These frame the three *Commentaries* of six bars each, which have changing time signatures (derived from the first 6 bars of *Etudes I*) with an increase in tempo each time: $\int = 45, 51$ and 56 respectively, and marked *subito agitato*. These clear sections however are blurred by quasi transitions defined by ritardandi at the end of each Commentary returning to the tempo of the Recitative, and also introducing an early appearance of the Recitative material in the cello. The *ritardandi* further have an increase in length from one to two to three bars, gradually "eroding" the material at the end of each Commentary. This structural narrative is further articulated by an unfolding gestural surface, which defines each section in terms of material. The Recitatives, for example, feature two kinds; an explosive quasi-solo cello material in the low register, with wide-ranging dynamics and articulations (harmonics, glissandi, pizzicati, and double/triple stops), combined in contrast with the oboe and soprano which is sustained initially with a constant *pp* dynamic marked *non crescendo* and articulated by *sfz-pp* mordents on each note. The oboe here uses quartertones, which are absent in the voice part. The next appearance of the Recitative (14/8, bar 8) sees a return of the cello material, which enters in the last bar of the first Commentary. This time the oboe is ornamented with grace note groups replacing some mordents and a changing dynamic profile with increased registral ambitus, while the soprano now has quartertones within the mordents and more fragmentary material through the introduction of rests and a constant dynamic, as in Recitative one. In the next Recitative appearance (15/8, bar 15), the cello starts 2 bars early in the previous Commentary and has the same elements reordered with new ones added—specifically many more harmonics. The oboe part is now even more elaborate, with trills, smorzandi, inflectional glissandi and alternative fingerings on the same pitch; the soprano now has fully integrated quartertones, even a more fragmented rhythmic

⁷ Carceri d'Invenzione Cycle order: Superscriptio, Carceri d'Invenzione I, Intermedio alla Ciaccona, Carceri d'Invenzione II, Etudes Transcendantales, Carceri d'Invenzione III, Mnemosyne.

⁸ I have discussed the whole *Etudes Transcendantales* cycle in more detail in Redgate, Roger (2001), *Ferneyhough's Etudes Transcendantales*, Contemporary Music Review, Vol. 20, Harwood Academic Publishers, pp. 79–100. See also Toop, Richard (1991), *Ferneyhough's Etudes Transcendantales: A Composer's Diary*, Eonta, Vol. 1, No. 1, London.

profile, but is marked *quasi parlando* and *quasi p sempre*. In the fourth and final Recitative (17/8, bar 22) the oboe and soprano drop out completely leaving the cello unaccompanied, which enters with the Recitative material halfway through the previous Commentary, 3 bars early. It's clear to see a gradual unfolding of the gestural elements giving each Recitative a sense of formal function and direction.

Compare examples 9 and 10 as the first two appearances of the Recitative material.



Example 9. Ferneyhough, Etudes Transcendantales, Recitative I



Example 10. Ferneyhough, Etudes Transcendantales, Recitative II

The intervening Commentaries have a similar sense of unfolding with quite different material, through the use of a high register, with the cello now predominantly in the treble clef, emphasising the early entry of the Recitative material in the low register. In contrast to Recitative I, in Commentary I the oboe now has no quartertones, the cello however has quarter-tonal "commentaries" around shared pitches with the oboe. The soprano also has inflectional quartertones and the introduction of *parlando*. In the next Commentary (bar 9) the oboe material is rhythmically filtered to include long notes, rests and grace note groups.

A full outline of this unfolding and the compositional processes behind it are beyond the scope of this article. However, the previous discussion illustrates the structural narrative and dialogue across the contrasting sections (Recitatives/Commentaries), each of which has a sense of teleology and formal function defined by an elaborative unfolding of material and gestural surface.

Roger Redagte +R and String Quartet No. 4

Finally, I would like to explore how such approaches to form and material have informed my work. A feature of the works we have examined here is the notion of process, which might be considered as an alternative to development, as a gradual unfolding of material, requiring a different kind of listening process. Materials are further often defined by the interaction of various parametric layers unfolding independently.

The first work I would like to discuss is +R (1991, rev 1994), for solo clarinet. For reasons of space, I will focus just on the opening section (a quasi exposition), which in any case serves as a model or template for the larger-scale formal structure.⁹ A sense of teleology here is provided by the interlocking of two contrasting

⁹ For a more detailed discussion of this work, see Redgate 2017.

materials articulated by the systematic erosion of one, the rather static A material, and the increasing length and richness of the second B material. Each material further has a specific set of temporal relations in terms of bars, tempi and time signatures, providing a template for the unfolding filtering process of each subsequent bar cycle. Example 11 shows the basic overall plan of the first cycle.

Tempo) = 120						Tempo) = 120
7	5	3	2	4	6	8	2
16	16	16	16	16	16	16	8

Tempo) =120					Tempo 👌 =80
7	2	5	4	3	6	3
16	16	16	16	16	16	8
		Permuta				

Tempo	Å=120				Tempo ♪=60
6	3	4	5	2	4
16	16	16	16	16	8
	Ret	rograde	of 2		

Tempo	Tempo ♪=120 2 5 4 16 16 16 Middle of 2			♪=Tempo 48
2	5	4	3	5
16	16	16	16	8
	Midd	e of 2		

Tempo) [▶] =120		♪=Tempo 40
4	3	2	6
16	16	16	8
N	liddle of	1	

Tempo) [}] =120	
2 16	3 16	Next cycle
Ro	of 5	

Example 11. Redgate, +R for solo clarinet, formal plan for section one

The process here will be clear. There is a gradual reduction of the A material in terms of the number of bars (7, 6, 5, 4, 3, 2) with each appearance, losing the longest bar length each time (8/16, 7/16, 6/16 etc), and ending with the two shortest bars (2/16, 3/16). The B material is always one bar long but increasing in length with each appearance (2/8, 3/8, 4/8, 5/8, 6/8), but with a slower tempo mark each time.¹⁰ The relative rhythmic density of these bars, however, increases. Both materials are defined by very different characteristics: the A material is at a constant tempo/dynamic moving across the whole range of the instrument and is based on a harmonic plan similar to the Boulez chord multiplication system, enabling the chords (harmonic fields) to gradually slide over each other. In contrast, the B material is initially restricted to a limited low register, which increases in range and includes quarter-tones (absent from the A material) and is more linear in construction The B material also has a richness of playing techniques and gestures (flutter tongue, tremolo, glissandi, scale-like passages, varied dynamic profiles, grace notes). It was a condition from the outset that this material would add a new element in each appearance, texturally and gesturally unfolding. To illustrate this process Example 12 shows the first 20 bars of the score.

¹⁰ The tempi here are related to the relative proportions of the time signatures of the material A.



Example 12. Redgate, +R, first 20 bars of the score

The intention here was to create an opening section, which sets up the kind of processes used to further articulate the next 7 cycles/sections, at times introducing new materials whilst also transforming others. These kinds of processes give the music a teleological structural narrative, guided by process and transformation, rather than "development" and functional harmony.

A more recent work is my String Quartet No. 4 – *Six Bagatelles* (2015–), which seeks to explore discontinuity This is a projected six-movement work of which three movements have been completed to date. The work derives its material from the Webern *Bagatelles* for string quartet Op. 9 (1913).¹¹ My starting point was to analyse the Webern pieces in terms of their various parameters and to deconstruct/transform them using my compositional processes. The resulting music bears little similarity to the original Webern. However, my intention here was to explore the potential of continuity through discontinuity. In some respects this aims to frustrate the conventional notion of linear teleology on a local level, projecting this onto a larger scale format across movements, as a kind of filter form, where materials pass from one movement to the next or disappear/ re-appear, cross-fertilizing each other. Each movement, therefore, consists of formal fragments (associated with movements from the Webern), dislocated from a sense of linear development, but which unfold across the work structure as a whole.

Example 13 shows the formal grouping across the movements, where the Roman numerals refer to materials defined by the Webern *Bagatelles*. There is a systematic grouping of movements culminating in movement six, which combines all of the previous materials defined by the filter form.

	Materials defined by the Webern Bagatelles I II III I III V II IV VI													
Movements	I	П	ш											
	I		III		V									
		II		IV		VI								
		П	Ш	IV	V									
				IV	V	VI								
	I	П	Ш	IV	V	VI								

Example 13. Formal groupings across the movements of String Quartet No. 4

¹¹ It was part of the commission brief from the Kreutzer String Quartet to base the work on existing bagatelles of my choice.

Example 14 shows a more detailed distribution of the material in terms of their interlocking and formal units across the first three movements. Again the Roman numerals here refer to specific materials derived from the Webern. The second row is the associated tempi with each material, also related to the Webern. The third row is the distribution of secondary material, which is the retrograde of the primary material, and the fourth row, permutations of time signatures defined by the interlocked formal blocks of the primary material. It will be clear there is a lot more to be discussed here, which is beyond the scope of this article.¹² However, I have tried to provide an overview of my approach to formal strategies, which are aimed at articulating a sense of teleology on both a local and larger-scale formal level.

								_					_				_				_						
Material	I	ш	J	II]]	I	III	I	п		I		п		III I		I		ш		II		D				
Tempo	60	76	1	20	6	0	76	12	120 60			120		0 76 966		.60	44		76		120		76				
Secondary		ш		I	I	1	п		I			I	Π	1	I		I		I	I	ш	1	ſ	п		ш	Ι
groupings									_																		
Time	3	2	5	5	3	3	7	5	5	3	2	2	5	5	2	9	3	3	3	3	2	3	5	3	2	5	2
signatures	8	8	8	16	8	8	32	16	8	8	8	8	8	16	8	32	8	8	8	8	8	16	8	8	8	16	8
Bars	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

I	– II –	III (27	bars)	Structural	phrase	length	7 - 13 - 7	
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I – III – V (32 bars) Structural phrase lengths 1-2-5-8-8-5-2-1

ш	1	[V	I	I		V		I				V				ш		I				V			I	Π	V		Ш	
76	6	0	40	7	6	4	0		60				40			76.		84	60.	96	60	60 44			40	84		76	40		76
ш	V	7	I	п		V				Ι			ш					V				I		V		I	Π	V	I		ш
2	5	5	2	5	2	15	7	3	2	9	13	3	11	5	9	3	2	9	3	3	3	5	2	2	9	5	2	7	11	3	2
8	16	8	8	16	8	32	16	8	8	32	32	8	32	16	32	16	8	32	8	8	16	8	8	8	32	16	8	32	32	8	8
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
								_			I	uses	seco	onda	ry g	roup	ings	- 111	retr	ogra	de										

II – III – IV – V (33 bars) Structural phrase lengths 5–7–9–7–5

V						IV		III					II V			IV		Ш	V		П	1	7		I	II		IV			п	V
		L	60				76		120 40			40		60		40		120	40			76				60			40			
V	Π		IV		ш			V		V	Π	V			IV		V		II		Ш			IV				V				
4	15	7	13	3	3	13	3	2	5	2	3		11	5	9	2	3	2	2	2		2	2	9	2	7	2	3	11	3		3
8	32	16	32	8	8	32	8	8	16	8	16		32	16	32	8	8	8	8	8		8	8	32	8	32	8	8	32	8		8
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
					-				-				1	Secor	Idar	v 9-7-	7-5-4	5										-				

Example 14. Detailed distribution of material across movements I-III

Example 15 shows the first page of movement I identifying each material.

In this paper, I have tried to outline alternative approaches to teleological strategies in a formal design, which challenge inherited notions and models defined by functional tonality. The "strive toward the final cadence" as a "persistently pursued goal" is replaced by the gradual unfolding and interaction of processes, which redefine the nature and function of the material in articulating form. Harmonic functions are given a new sense of hierarchy and perspective; materials are imbued with an unfolding gestural surface, texture and linearity, which create a clear sense of teleological focus; and larger-scale forms are further given a greater sense of dynamic interaction and functionality defined by such processes and materials, with a stronger sense of narrative and teleology through time than functional harmony. However, this inevitably requires new expectations and listening processes in the assimilation of the material.

¹² For more detailed discussion see Redgate 2017.



Example 15. Redgate, String Quartet No. 4, first page with indicated materials

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Kur link mes einame? Teleologinės struktūros naujojoje muzikoje

Santrauka

XX amžiaus pradžioje kompozicinė mintis išgyveno nemažai radikalių pokyčių. Tonalios sistemos griuvimas sukėlė kur kas rimtesnius padarinius nei vien tik aukščių ir disonansų organizacinė emancipacija. Pokyčiai išplito ir į formodarą bei medžiagos funkcionalumą, taip mesdami dar didesnį iššūkį nusistovėjusioms formos struktūroms. Antonas Webernas veikiausiai buvo pirmasis kompozitorius, suteikęs komponavimo procesui radikaliai naują pavidalą ir šiuo aspektu vėliau padaręs įtaką Pierre'o Boulezo ir Karlheinzo Stockhauseno darbams.

Kaip artikuliuoti formos naratyvą nesant funkcinės harmonijos? Šis bene esminis klausimas atvedė kompozitorius į serijinę techniką. Postserialistinis mąstymas padėjo dar labiau išplėtoti sudėtingą parametrinį formos strategijų tinklą, kurio tikslas buvo sukurti būtent tokį dialogą, suteikiant naujas reikšmes medžiagos funkciškumui ir taip inicijuojant naujas formos struktūras, kurioms, be kita ko, reikalingi ir nauji klausymo bei suvokimo metodai. Kaip muzikinis gestas, tirštumas ir faktūra gali būti panaudojami formos artikuliacijai? Kaip galima asimiliuoti tokias struktūras? Kaip kompozitorius sukuria struktūrinio naratyvo pojūtį? Ar išvis tai yra būtina, turint omenyje pakitusį muzikos klausymo traktavimą?

Šiame straipsnyje nagrinėjama keletas šių naujų plėtojimo alternatyvų apraiškų ir jų įtaka straipsnio autoriaus kūrybai, kuri pasižymi itin sudėtingomis parametrinių sluoksnių interakcijomis, siekiančiomis sukurti struktūrinę hierarchiją ir prasmingą besivystantį dialogą tarp muzikinės medžiagos elementų tiek mikro-, tiek makrostruktūriniuose lygmenyse. Autorius atskleidžia, jog naujausiuose savo kūriniuose atranda prieštaravimų tarp tokio formos kontinualumo ir naratyvo, skirto iš naujo įprasminti medžiagos struktūrinį funkcionalumą.