Analytical Diptych: Boulez *Anthèmes* / Berio *Sequenza XI*

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Large-Scale Motivic Construction: Boulez *Anthèmes* for Solo Violin (1992)

In his conversations with Celestin Deliège in the mid-1970s Boulez recalls his "destruction" of classical formal schema in the *Second Sonata* and in particular what he called the "trope" or large-scale proliferation of a simple text – a favorite form which he used in the second movement of the sonata, and then later specifically in the Third Sonata and more informally elsewhere.

> This is a way of thinking to which I have become very attached, and which I have used again several times, particularly in a later work, the Third Piano Sonata. It involves taking a fairly simple text and causing it to proliferate by running in parallel certain elements of, let us say, type A, always varied and amplified in a given way, with elements of type B, so that the structure of the original simple text can be found again in the larger text in a variation; but this variation will not be mechanical but truly organic, because it is in itself a simplification of even the small motifs that went to make up the original text. Basically this text can be read on two levels: one very simple, the other much more complex.[1]

If not itself a much later instantiation of the "trope," the remarkable *Anthèmes* for solo violin (1992) represents one of the composer's most lucid and elaborate essays in the motivic organicism represented by the earlier form. In its Mallarmean ambiguity, the title evokes at once antiquity, i.e. the simple strophic "anthems" of medieval monody, and common-parlance formal theory, i.e. the notion of a music "en thèmes" which appears prominently among the composer's esthetic writings at the time.[2] Boulez, in a conference with Peter Szendy at IRCAM dedicated to *Anthèmes 2*, notes that the title has no conventional meaning in French but further encourages its liturgical aura by likening the "signal" tones before each section – in harmonics and often with glissandi - to the decorated, outsized capital letters at the beginning of paragraphs in ancient hand-scribed bibles.[3] The fragmentary opening of *Anthèmes*, taken from the violin part of the 1972 version of "… *explosant fixe* …," projects a sparseness yet at the same time a concentrated subtlety of detail which is easily grasped as a guiding axiom for the expansive series of tropes that follow. [4]

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1 *Conversations with Celestine Deliège/Pierre Boulez*. forward by Robert Wangermée, London: Eulenberg, 1976, p. 41.

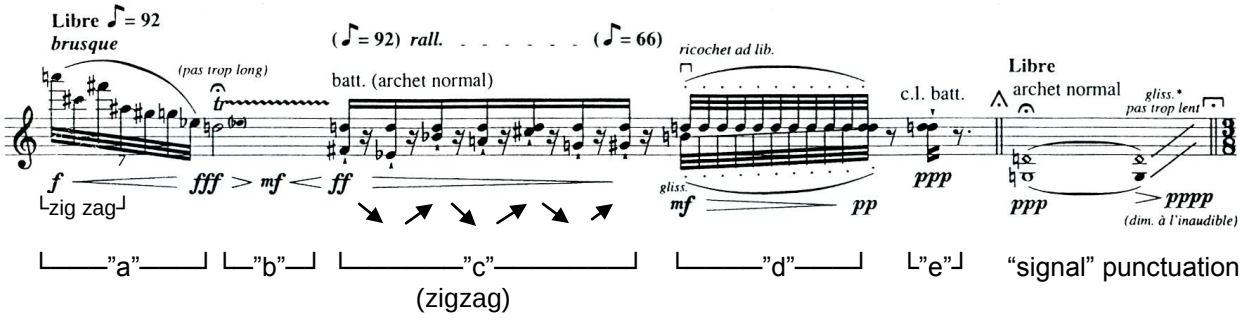
2 See *Jalons (pour une décennie): Dix ans d'ensignement au Collège de France*. Paris: Christien Bourgeois, 1989, in particular section III, chapter 11 ('Le système et l'idée' pp. 316-390) for commentary of specific relevance to *Anthèmes.*

3 Conference published as an appendix in "Understanding Pierre Boulez's *Anthèmes* [1991]: Creating a Labyrinth out of Another Labyrinth.....," 2001, available on the web at http://www.andante.com /reference/academy/thesis/anthemsthesis.pdf, see p. 108.

4 Boulez employs the nondescript term "introduction" with Szendy, but his much earlier notion of a "texte" with Deliège as well as the more analytically suggestive "model" and "premise" will be more useful here. Unlike in the original *Anthèmes* Roman numeral markings of sections I-VI are given in the score of *Anthèmes 2* (again, however, without designation for the opening fragment) and the punctuating "signals" are designated by their appearance before and between the larger sections: /I,

The Model, Form, and Cryptic Dedication

The five gestures which comprise the model (Example 1) trace a number of distinctive relationships in register, contour and dynamics. Registral spikes on the opening A natural and F# are reflected throughout the work and the transference of the seven tones of the initial, generally descending contour ("a") into a zigzag contour in the upper middle register[5] ("c") indicates the latter's importance as a formative element throughout the piece and foreshadows a number of further points of registral reference and invariance. The particular disposition of "c" presents intervallic gaps between E flat and F#, and B flat/C# (see Figure 1) as well as a chromatic wedge from B flat down to A, and G up to G#. The initial four tones of "a" taken in isolation actually anticipate the zigzag aspect of "c" and create a precedent for further such foreshadowings of central ideas at the beginning of individual sections. Idea "d" similarly projects a referential registral segment – the upper mid-register B-C-C#-D - as well as a strict linearity (chromatic or otherwise) which emerges in various guises throughout the work. The reductive "e," conceivably a single echo of "c," is an idealized "tone in isolation" which becomes textural in the pizzicato second section and the tense, virtuosic, bowed *staccatissimi* of Sections III and V. Its unique *col legno* coloration is also reflected in the later sections of the work.



Example 1: Motivic Model of *Anthèmes* mm. 1-2

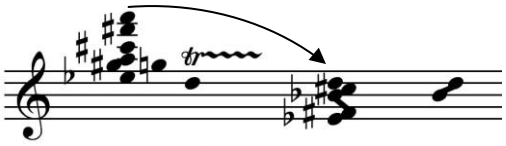


Figure 1: Pitch Registration of Motivic Model, ╲ indicates filled chromatic segment

The positioning of the mysterious "signal" intonations in *Anthèmes* implies an enticingly unbalanced symmetry among the six sections of the work: a second section, as mentioned, is exclusively in pizzicato, a reduced echo of the third section comprises the fifth, and in the sixth, an extensive tripartite commentary and conclusion spans the entire second half of the composition. A schematic representation of the form of *Anthèmes* appears below in Figure 2:

I/II, II/III, III/IV etc. Boulez in *Jalons* pp. 267-269 and 386-388, writes at length concerning the notion of the "signal" as any event which marks a change in the prevailing formal process. The tones and glissandi in harmonics which punctuate the sections in *Anthèmes* would qualify as the most basic and perhaps even naïve examples of "signals" in Boulez's terminology.

5 The descriptive register designations will refer to absolute register rather than register relative to the instrument: mid-register C natural being middle C, upper-register C the C an octave above, high-register C the octave further above, etc. The convenient designation of "upper mid-register" will refer to tones at or around the octave above middle C.

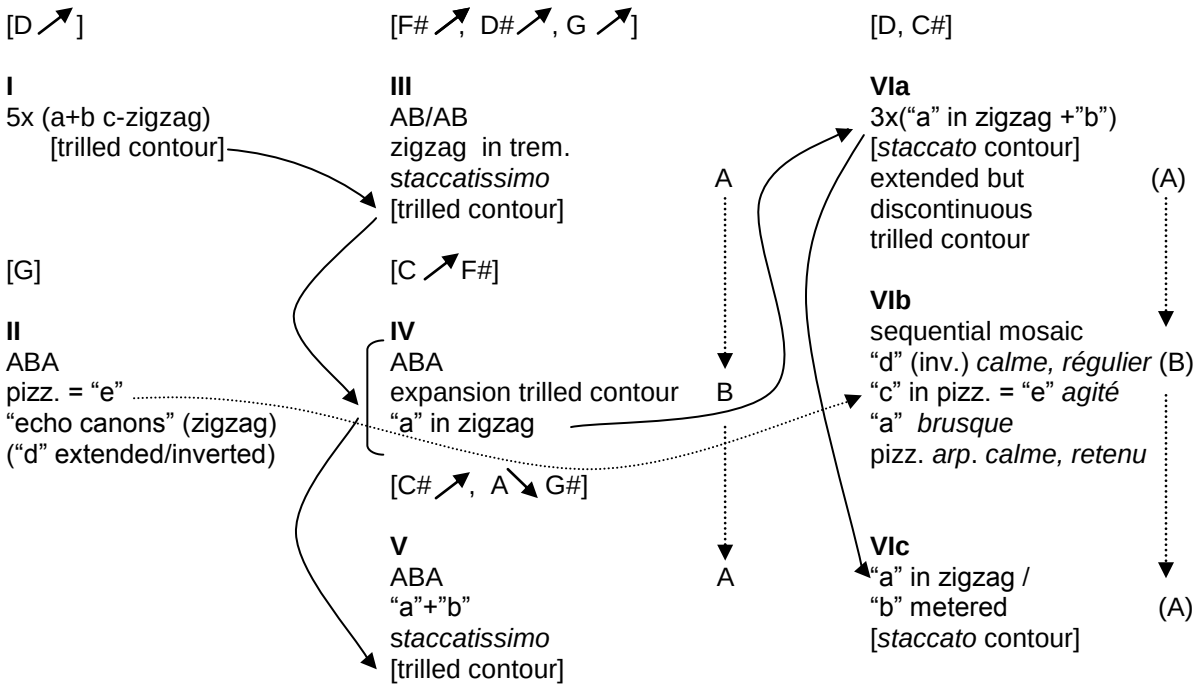


Figure 2: Formal Schematic of *Anthèmes* Pitches, [↗] Indicate Glissando Motions of "Signal" Punctuations

There is much at play on many levels over the entire sectional form of the work. We see in the first line of Section I, in its graceful weave of eighths and triplets, the insertion of a brief but independent zigzag "trilled contour." As indicated in Figure 2, this idea also recurs, though slightly abbreviated, in Section III before its closing phrase. The trilled contour then becomes the subject of the fourth section, framing elaborations of the quick zigzag incipit of "a," itself framed by climactic sustained trills. The trill contour in the attenuated fifth section consists of four tones instead of five and as in Section III, it is abbreviated relative to its initial presentation in Section I. Although the pizzicato second section is seemingly autonomous in its canonic structure, it does reflect the zigzag element of "c" and presents significant reflections of the septuplet linear contours which articulate Section I.

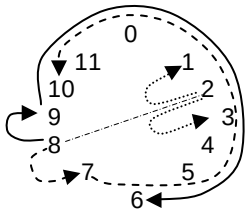
If it can be viewed as one section, Section VI begins suggestively with a virtual repetition of the ascending arabesque from the beginning of Section V, rising to the upper-mid-register D natural of the opening model (instead of the previous upper mid-register C natural) which, in contrast to its non-emphasis in Sections I through V (it is even absent from almost all of Section III), becomes once more a central and persistent element to the end of the work. The trilled contour which is transient in Sections I, III and V and central in Section IV of the first half of the work, is absent in its definitive form in the second half. Nevertheless the trilled tone pervades Section VIa in alternation essentially with the legato zigzag filagree from the central part of Section IV while the ascending contour which actually initiates the section, disappears until the end of VIc.

Section VIb is a sequential mosaic of four contrasting gestural types, its two pizzicato characters bearing a distinct resonance with the second section of the work. A further veiled symmetry is suggested in VIc where the zigzag filagree (both *legato* and *spiccato*) from VIa alternate with pseudo-trill passages in metered 32nd notes. The close of the work dissolves from a prolonged trill on the upper-mid register D natural to a sustained *non vibrato* and then harmonic D (the third natural harmonic on the open G string). The final

nuance however is the “e” element, and not the harmonic timbre. Tingeing the D natural *col legno battuto* with C# it delicately cuts off the harmonic D natural, recalling the terminal gesture of the opening model and contradicting any implicit continuity in the harmonic timbre of the “signal” punctuations which had preceded all of the constituent sections of the work.

The pitch structure of “a” and “b” (hence also “c”) would appear, as in other works,[6] to provide an important intervallic and tonal resource for the composition. It is symmetric about the tritone D/G# with the two minor-third gaps in the chromatic aggregate, as mentioned, omitting B and C natural (which are nevertheless touched upon in the ascending glissando of “d”) and E and F which are completely absent from the model. The seven-note collection of “a,” or “c” minus the D natural, is loosely related to the many septuplet (and longer) scalar arabesques throughout the work as all are composed exclusively of steps of minor thirds, and major and minor seconds.[7] While Goldman points out that the total pitch collection of the “signal punctuations” is that of “c” minus A#,[8] each one-, two-, or three-tone punctuation is different and the accompanying glissandi, in their eerie sliding motions, are suggestive of both “d” and the zigzag contours of “c” (see Figure 2 above). Sections III and V, which are clearly related, are both preceded by three-tone glissando “signals,” and both two-tone “signals” preceding sections IV and VI outline ascending major sevenths.

A final, more abstract model in reading *Anthèmes*, can be found in the tantalizing date in Boulez’s dedication to Alfred Schlee - 19.11.91 - in which the configuration of 1s and 9s is suggestive of some of the formal and intervallic symmetries in the work. Taking the D-G# tritone axis and ascending a semitone, then a major sixth (respectively one, then nine semitones) from G# yields A natural and F# (see Figure 3), and descending the semitone then a major sixth from G# will give G natural and B flat. Commensurate with the central 1s of the dedication, ascending, then descending a semitone from the other pole (D) will yield E flat and C# and thus complete the pitch collection of “a” plus “b” (or “c”) in the model. Looking conversely at the form of the piece, we can see that the unique pizzicato elements in the second section and in VIb (or the second and second last of the significant sections of the work) are analogous in their position to the 9s in the date, as are the sections of the work and parts of Section VI containing “a” and “b,” to the 1s in the date: an intriguing speculation, but perhaps ultimately a peripheral concern in a piece whose richness and complexity obviously far exceed any formula or recipe.



I	II	III	IV	V	VIa	VIb	VIc
1	9	1	(	)	1	9	1
arco	pizz.	arco			arco	pizz.	arco
a+b		a+b			a+b		a+b

Figure 3: 19.11.91 in Interval and Formal Structure, 0=C, 1=C#, D=2, etc.

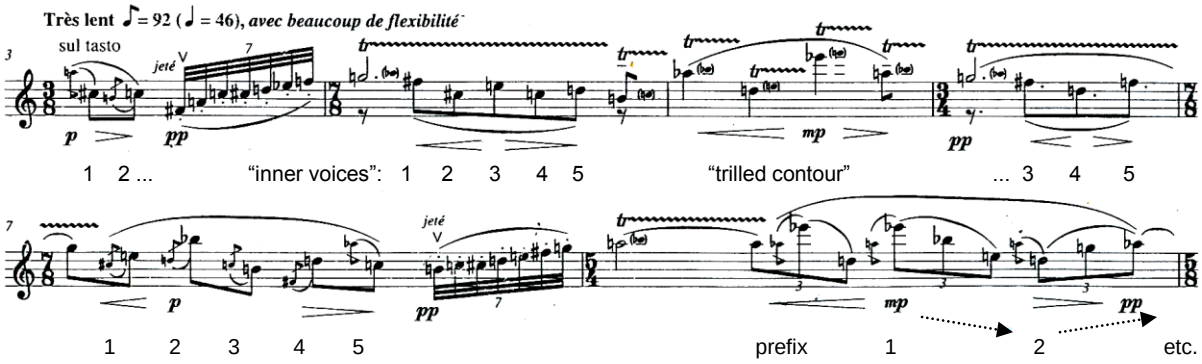
6 Most notably perhaps *Rituel* and *Messagesquisse*, see Goldman *op. cit.*, p. 17.

7 The only major second appears indirectly as a minor seventh in the opening collection between C# and E♭.

8 See Goldman, *op. cit.* pp. 86-89

I: Très lent *avec beaucoup de flexibilité*

The anaphoric nature of Section I with the five-part model is clear: its structure is delineated in five phrases, each with an anacrusis septuplet ("a") leading to a sustained trilled tone ("b") and gently meandering 5-component contours in eighths and/or triplet eighths ("c").[9] The first, and most extensive intervention of the 5-tone trilled contour in mm. 4-6 breaks up the initial trill on G natural and includes two series of undulations beneath the sustained trill. Among the less obvious structurings (see Example 2), the two isolated tones in m. 3 can be grouped with the three-tone undulation beneath the trill of m. 6 to also make a five-tone group, and the expansive and more complex second phrase presents a prefix anticipating the high E flat and the upper mid-register D natural of its second and third undulations. Without this prefix, the phrase would have five zigzag contour elements like the first phrase in m. 7, articulated by grace-note tones, but with the first two unidirectional triplet motions as linear expansions of single-tone contour segments. The shortened fourth phrase (not shown) can conversely be seen to contain five elements counting all the grace-note tones equally with the eighth and triplet-eight tones. While the pitch structure of the linear septuplet arabesques varies in their apparently free concatenations of semitones, whole tones and minor thirds, they all, with the exception of the first, outline a minor seventh (the profile of "c" without the D natural) with their trilled tones.[10]



Example 2: *Anthèmes* mm. 3-9

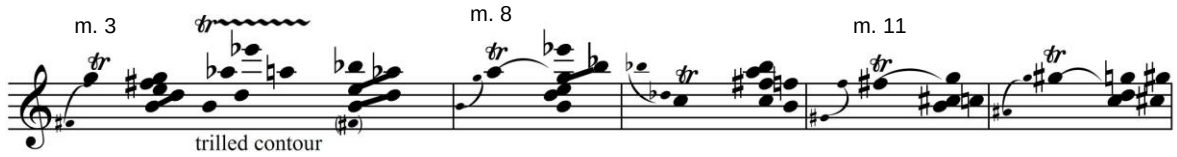


Figure 4: *Anthèmes* Section I, Registral Design (indicates filled chromatic segments)

Integral to the linear structure of the section is the static registration of tones and the concentration of different chromatic segments in different registers as illustrated in Figure 4. Note how the isolation of E flat in the high register creates filled chromatic segments in the first phrase from upper mid-register B to D, and E natural to B flat. As a

9 Note the initial presence of the zigzag "c" element in m.3 as an anticipation of the central figures of the phrase, mimicking the anticipatory zigzag motion of the beginning of "a" in the model.

10 The interval structure of the opening septuplet arabesque of the trope would be analogous to the others if it were placed in close position with its F# scalicly next to its F natural.

general rule, the contours of each zigzag phrase in Section I, while touching intermittently and alternatively on tones in one of these aggregate segments, explore more consistently the semitone structure in the other. Following its anticipatory appearance in the trilled contour of m. 5, E flat occurs only in m. 8 as a transient, third registral pole in the expansive second phrase. A partial zigzag contour is defined by the five sustained trill tones, G↗A↘C↗F#↗G#, in which the chromatic segment (F#-G-G#-A) is reflective (an octave higher) of that in "c" of the model. The final two phrases in mm. 12-14, in their lower aggregate segments seemingly reverse the very opening descent in m. 3 from the D natural of the model to C# and C natural, back upward from C to C# but stop short of returning to the central D.

II: *Rapide, très rhythmique, rigide*

The pizzicato "echo canons" of Section II seem to embody some of the eventual transformations of *Anthèmes* into *Anthèmes 2* with its live electronic control of the echo of specific pitches. Boulez's comments in the IRCAM lecture with Pierre Szendy are most pertinent:

> There is a compression. There are three lines which are in rhythmic delay, and which are conceived as such, but which are gathered together in the violin so that the violin plays a line but this line is composed of three lines which are bundled together, as could be said, as if you had a cable. And there, obviously, in order to prolong this with Andrew Gerszo (in charge of the electro-acoustic realization), it was augmented. That is to say that this possibility was enlarged in undoing the cable and in multiplying it. In as much as one hears the same notes which arrive, or not, which begin again, etc. [.] ... it wanders in space and it is arranged so the [dynamic] level in the loud speakers is approximately that of the violin so that you do not know which plays what at any moment. You are completely lost in a type of sonic labyrinth with some things naturally which are louder than others.[11]

As in Section I, Section II begins with a fragment which anticipates its central section. The first "echo canon" is marked initially with a *sf* E natural but begins with the twice repeated (echoed) E flats (see Example 3). Also interwoven into the first cannon is an extra four-tone strand descending from B flat to A natural, anticipating tones 12 and 13 of the canon, then echoing G# - B, or tones 7 and 6 of the longer strand. The initial echo canon thins out and ends with emphatic *sforzandi* on high-register D flat.

The process of the central part of Section II is more fragmentary and complex: a clear longer-range echo appears between measures 31 and 37 beginning with the high-register F#, the only pitch class not involved in the opening canon. Inner strands from the initial fragment in m. 31 drop out in its more condensed echo in m. 38 which overlaps into the beginning of the closing canon. The initial tones of the closing canon, G-D-B (mm. 37-38)

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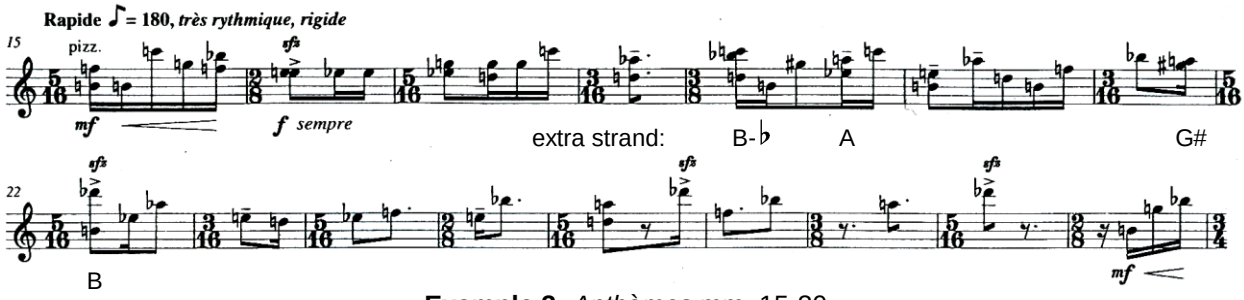
[11] Il y a une compression. il y a trois lignes qui sont en décalage rythmique, qui sont conçues comme tel, mais qui sont ramassées dans le violon, si bien que le violon joue une ligne, mais cette ligne est composée de trois lignes qui sont mises en faisceau, si je peux dire, comme si vous aviez une torsade. Et là, évidemment, pour prolonger ça, avec Andrew Gerszo (le responsable de la réalisation électro-acoustique), on a augmenté. C'est-à-dire qu'on a élargi cette possibilité en dénouant la torsade et en la multipliant. Si bien qu'on entend souvent les mêmes notes qui arrivent, qui n'arrivent pas, qui recommencent, etc. [.] ... ça se balade dans l'espace et on s'arrange pour que le niveau dans les haut-parleurs soit à peu près qu'avec le violon, si bien que vous ne savez plus qui joue quoi, à quel moment. Vous êtes complètement perdu dans une espèce de labyrinthe de son, avec naturellement, des choses qui sont plus fortes que d'autres. Conference by Pierre Boulez on *Anthèmes 2,* with Pierre Szendy (IRCAM, Paris, October 21, 1997) in Goldman *op cit.* p. 121.



Example 3: *Anthèmes* mm. 15-30

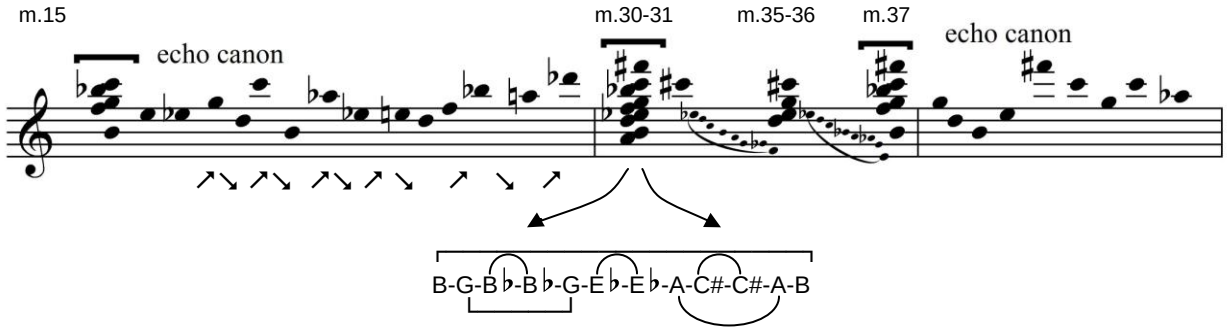


Figure 5: *Anthèmes* Section II, Registral Design with Insert of "Echo" Structure of m. 31

also appear among the accented upper tones in the first fragment of the central section (m. 31) - F#-C-B♭-G-D-B - and what is essentially reduced in m. 38 from mm. 30 and 31 is a series of single-tone echoes written out in the insert of Figure 5 with variable delay on different tones, the shortest being the immediate echoes of B♭, E♭ and C#, and the longest, of course, from the B natural at the beginning of the sequence to the B natural at the end.

In mm. 32-36, between these two fragments and at the heart of the central fragment of the section, are three further echoes of the culminating D♭ of the first echo canon (now C#), the first and third of which evoke pseudo-scalic descents beginning with E♭-D-C natural (three of the first four tones of the first canon) against repeated E flats – a rhythmicized reversal perhaps of "d" of the model, or even a descending linearization of "c." The two repetitions of the C# in mm. 34 and 35 each acquire an E natural prefix and, respectively, suffixes of G and D – three of the first four tones of the closing canon. While the B natural of m. 37 echoes that of m. 31 it is also tempting to hear it with its following G/B flat as a symmetrical echo of the initial rising B-G-B♭ of m. 30.

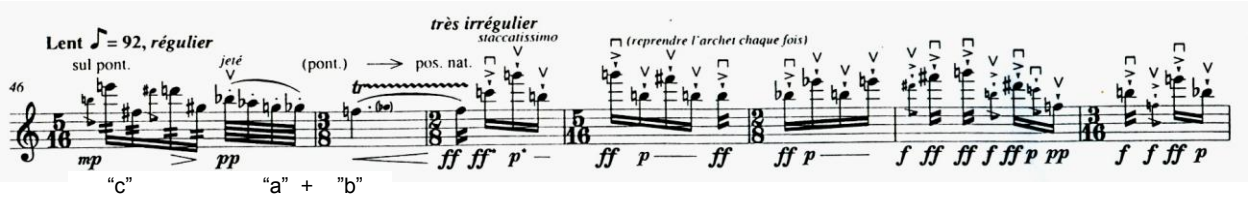
The closing canon does not unfold without apparent deviation: in m. 41 what should be D natural in the third strand appears as B natural (a likely misprint which is corrected in *Anthèmes 2*). The third strand however lacks E flat and a second C natural somewhere in the final two measures, and given an embryonic fourth strand (the G-B only) abandoned in m. 42, this is likely part of a closural deterioration of the essential generating process of the section.

III: Lent, *régulier/ très irrégulier*

In Section III the initial anticipatory figure is expanded to an opening idea of a small AB/AB: a smooth *sul ponticello* tremolo zigzag ("*régulier*") linking to an anacrusic contour and sustained trill which alternates with the tense, quasi-serialized *stacatissimo*

attacks ("*très irrégulier*"). The latter project independent structuring in parameters of pitch/register and attack/dynamics: four discrete registral poles on F, B flat, E flat and F# (with chromatic deviations, see Example 4) vary freely with the four dynamic levels (*ff, f, p, pp*) linked to the two bowing (down bow / up bow) and two accent types, which yields four discrete dynamic/articulation combinations. The registral poles are also active in the *régulier sul ponticello* tremolo/trill phrases and each pole is associated with one of the sustained trills in these phrases: the first "*régulier*" phrase pauses on a trilled upper-register F, the second has trills on both high-register F# and upper-register B flat and the intervening trilled contour (reduced from Section I to just its initial and central portions) is clearly contoured to the E flat with its inner tones shifting chromatically from A flat to A natural and leading to the emergent trill on the B flat pole in m. 60. Boulez's comments on the contrast at the heart of this section reveal his concern for the aleatoric elements of the sound structure:

> Here also, we can have an opposition – without coordination, this time – between a very intentional gesture and gestures which are completely without intention. ... And it is a contrast, always, between the loud sounds and the soft sounds. There is a contrast of tempo, I wrote on purpose '*extrêmement irrégulier'* :[12] it has to be as if it were ataxic, that one would have the impression [that the violinist] is no longer in control of his movements. This is a type of ataxia, but which is realized with numerical values. The sonic essence of this "ataxia" is realized in an aleatoric manner, and it is there that it gives place to another form of ataxia. It is the same thing, but completely by chance.
>
> I said aleatoric, but the values are not chosen in any way, of course. For the pitches, there is a pool [of values] which is very precise, and the choice is made within this pool. There is also a pool for the rhythmic values, because if one were to put any value, naturally, one would not have this result. The values are written in such a way that there is repetition of the very short values in relation to the longer ones: it is here that short values are favored in relation to long values etc. It is simply a question of proportion, but I wanted you to know that they are not to be taken as if in a lottery ... There is, all the same, a little more selection than (if one trusted) simply pure chance.[13]



Example 4: *Anthèmes* mm. 46-51

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12 This is the expression mark as it appears in *Anthèmes 2*; in *Anthèmes* it is *"très irrégulier".*

13 Là aussi on peut avoir une opposition - pas de coordination cette fois-ci - entre un geste qui est très volontaire et des gestes qui sont complètement sans volonté. Et c'est un contraste, toujours, entre des sons très forts et des sons très *piano*. Il y a un contraste de tempo, j'ai écrit exprès '*extrêmement irrégulier*': il faut qu'il soit comme ataxique, qu'on ait l'impression [que la violoniste] ne contrôle plus ces mouvements. C'est une espèce d'ataxie, mais qui est réalisée avec des valeurs numériques. Cette ataxie va être réalisée en fond sonore d'une façon aléatoire, et c'est là qu'elle va donner lieu à une autre forme d'ataxie. C'est la même chose, mais c'est complètement le hasard.

J'ai dit aléatoire, mais les valeurs ne sont pas choisies n'importe comment, bien sûr. Pour les hauteurs, il y a un réservoir qui est très précis, et le choix se fait à l'intérieur de ce réservoir. Pour les valeurs rythmiques, il y a aussi un réservoir, parce que si on mettait n'importe quelle valeur, naturellement on n'aurait pas ce résultat. Les valeurs sont écrites de façon à ce qu'il y ait des répétitions de valeurs très courtes par rapport à des valeurs plus longues : c'est là que les valeurs courtes sont favorisées par rapport aux valeurs longues, etc. C'est simplement une question de proportion, mais je voulais que vous sachiez qu'on ne va pas tirer ça comme au loto... C'est tout de même un peu plus choisi que [si on se fiait] simplement au pur hazard." Goldman, op. cit. p. 123

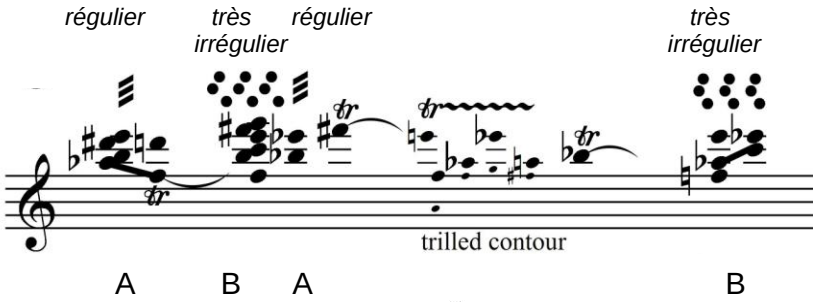


Figure 6: *Anthèmes* Section III, Registral and Formal Design: = Tremolo Timbres, = S*taccatissimo* (indicates filled chromatic segment)

Indeed, interesting long-range pitch and articulation/dynamic distributions can be noted in Section III. The grace-note character which embellishes the initial tremolo contours of the "*régulier*" phrases is suppressed at the beginning of both *staccatissimo* sequences but re-emerges more insistently as these progress. In the unfolding of the *staccatissimo* sequences the first begins with only dynamics of *ff* and *p*, and only in the upper three registral poles, the *f* dynamic arising only with the first grace note and *pp* with the first upper-register F natural. In the second *staccatissimo* sequence, we see the same delay of the entrance of the first (and only) *f* value and the *pp* level is similarly held until the exclusive shift to *pp* and *p* dynamics which close the section. The virtual disappearance of the *f* dynamic in the second *staccatissimo* sequence parallels the absence of the upper registral pole on high F#. The intriguing structure of these passages lend themselves to the breakdown presented in Figure 7 which further shows the equilibrium of dynamic constituencies between *ff* and *p* and in the lower three registral poles. A further binary balancing can be seen in the compensation for the shorter *staccatissimo* sequence in the second "*régulier*" by its longer *régulier sul ponticello* tremolo and the inclusion of the trilled contour in the second half of the section.

Registral Pole	1st Phrase	2nd Phrase	dynamic	1st Phrase	2nd Phrase
F#	9		*ff*	14	8
E♭	7	7	*f*	7	1
B♭	15	11	*p*	13	2
F	5	3	*pp*	2	4

Figure 7: Distribution of Pitch Level and Dynamic/Attack Values in *Staccatissimo* Phrases of Section III

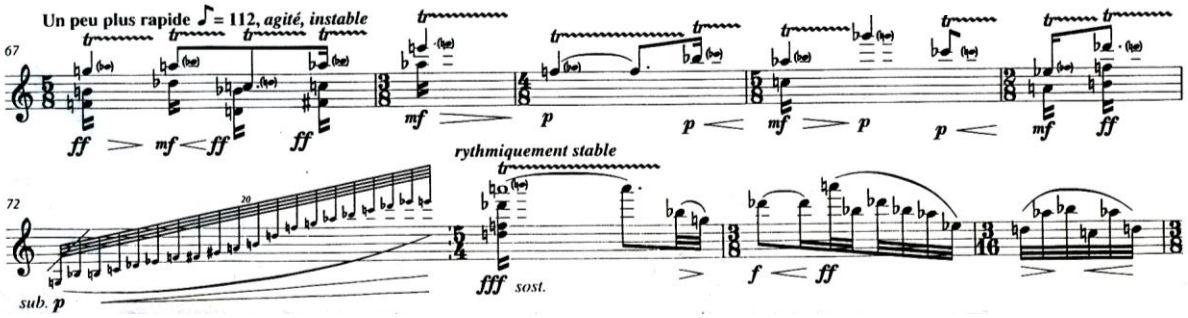
In the evolving pitch structure of Section III, D natural, present only fleetingly in the first measure, is absent throughout the rest of the section and the first "*régulier*"/ "*très irrégulier*" alternation contains neither A natural nor C# which are directly asserted at the beginning of the second "*régulier*" section in m. 56. The trilled contour, in its descent through E natural, also appears to facilitate the passage of the F# as the uppermost pitch polarity to E♭.

IV: *Un peu plus rapide, agité instable*

In Section IV the trilled contour is raised from its embedded roles in Sections I and III to the developmental foreground. The central part of the ABA form of Section IV, is actually a magnification of the miniscule zigzag oscillation from the beginning of "a" of the model (see mm. 73-74, Example 5, note the actual replication of the contour of "a" in m. 73), extended, contoured and articulated into symmetrical parts by *sforzandi* accents on high-

register A natural and upper-register A flat (see Figure 8). Trills on these pitches, respectively at the beginning and end of the central part of the section, are also the goals of the most protracted anacrusic arabesques in the entire piece - 20 tones and 10 tones respectively. The first of these arabesques introduces the lower registral limit of the instrument, the open G string (m. 72, see Example 5), a twelfth below the central D which is in turn a twelfth below the upper registral limit of the high-register A natural.

The sporadic double-stop accents accompanying the two extensive contours reflect the “c” of the model and, except for the accent on the climactic A natural, project various whole-tone sub-groupings. The trilled contours themselves (Figure 8), the first consisting of 12 tones, and the second of 18, present quasi-serial structuring in their sequences of durations. The first contains only five durations of 1, 2, 3, 4 and 7 sixteenths, the second, seven, filling in the missing 5- and 6-sixteenth increments in the durations of the first. The first extended contour contains no D natural (also absent for almost all of Section III) but repeats A flat. The second contains all twelve pitches of the aggregate with repetitions of B, C, C# and E, F, F#. The redundancy in the second contour arises from its initial five-tone segment, D♭-C-F-F#-B, of which, following an intervening G natural, the last four tones are repeated in permutation (C-B-F#-F) and followed by E natural in anticipation of the eventual final tone of the entire series/contour and then C#, repeating its initial tone.



Example 5: *Anthèmes* mm. 67-70

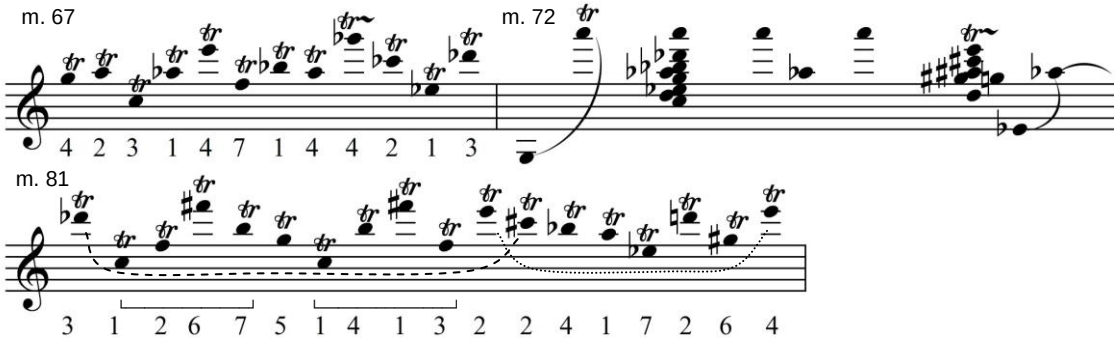


Figure 8: *Anthèmes* Section IV: Reduction of Trilled Melodic Contour with Rhythmic Values (in ♪s)

Without its repetitions, the tones of the second trilled contour suggest a twelve-tone series in which both constituent hexachords can be generated via alternating fourth and tritone super-positions starting on the initial tone (D flat) and the final tone (E natural). As this directly reflects the chromatic tritone structure of the initial the trilled contour of m. 5, the entire 18-tone contour of mm. 81-88 can be seen as a culmination of this germinal intervention in Section I.

V: Lent, *régulier avec beaucoup de flexibilité/ assez irrégulier mais rhythmique*

The dénouement, in Section V, of the initial half of the first half of the work evokes temporary closure through recall of the linear septuplet arabesques and the very slight melodic figures inflected with grace-notes from Section I. In its concise ABA structure however, the clearer 'echo' is of Section III and once more, of the trilled contour. Registral poles on upper mid-register C natural, F# and high-register D♭/C# are projected in the trills and *staccatissmo* attacks and in the latter, a descending chromatic line is traced from G# through G natural and F# to F natural (see Figure 8) - a registration which is repeated in the closing arabesque of the section and which also persists significantly in Section VI. The central D natural returns finally in its original register in mm. 94-95 immediately before the trilled contour (the D naturals of the end of Section IV and the beginning of Section V were respectively above and below the central register). The trilled contour of mm. 94-95, of only four tones, adjoins the trill on the upper pole D flat and the structure of the ending is strictly symmetrical with the beginning of the section, reversing the direction of the initial anacrusic arabesque from the trill to its rhythmically empty resolution.

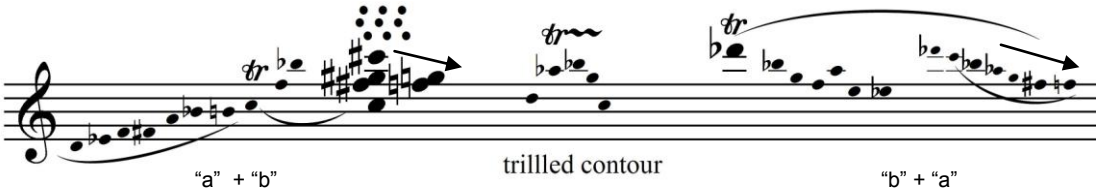
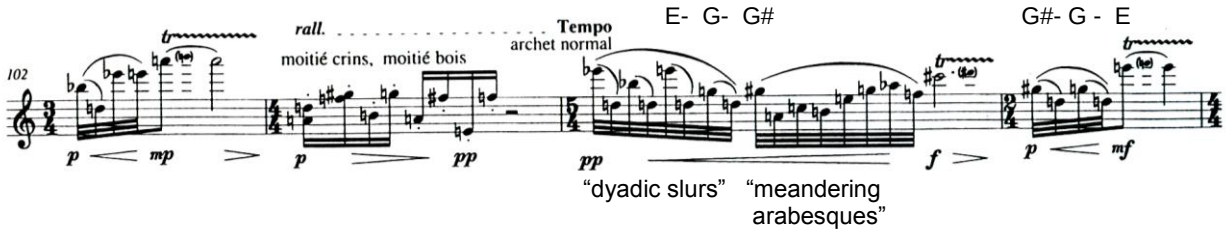


Figure 8: *Anthèmes* Section V: Registral Reduction

VI: Lent
calme régulier / agité / brusque / calme, retenu
calme, mais sans trainer, d'un mouvement très régulier

VIa (Lent) focuses exclusively on the sustained trill and anacrusic undulating figurations (as in the central part of Section IV), slurred here in descending skips to the now persistent upper-mid-register D natural. Over the course of VIa, four arabesque/trill sequences are articulated by three descending contours in zigzag staccati ("*moitié crins, moitié bois,*" see Example 6 and Figure 9). The first arabesque/trill phrase is the most extensive, with an initial pair of preparatory motions to sustained trills on upper register G# and high-register E♭, before the beginning of the more consistent dyadic slurs. Within the anacrusic arabesques in all phrases there is consistent alternation of the descending dyadic slurs with ascending, or subtly meandering contours in single slurs (see Example 6).



Example 6: *Anthèmes* mm. 102-105, mm. 104-105, Second Arabesque/Trill Sequence

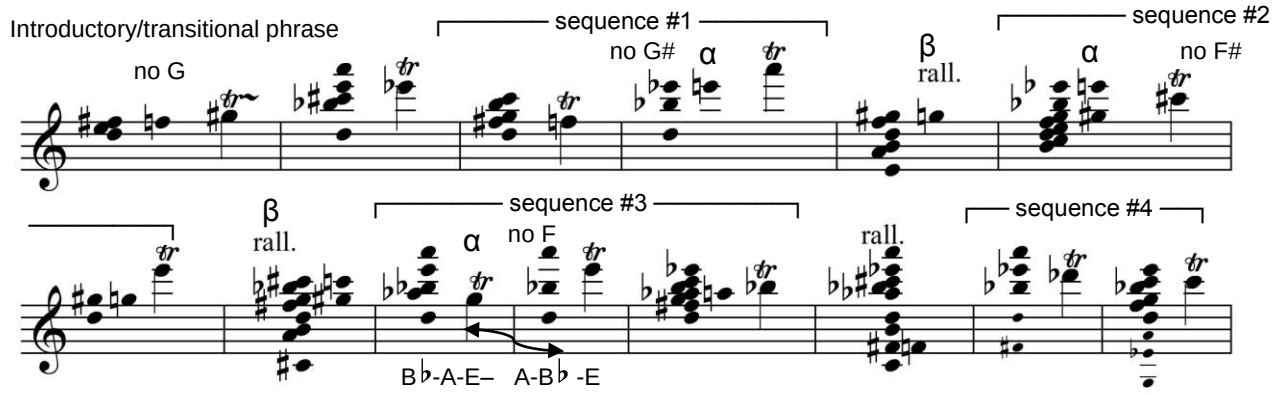


Figure 9: *Anthèmes* Section VIa, Registral Reduction

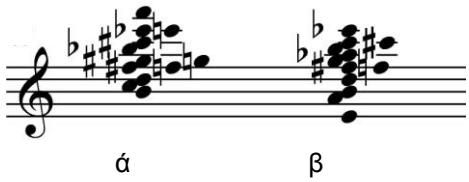


Figure 10: ά and β Pitch Registrations

The entire section has distinctly transitional characteristics. The arabesque/trill figures slow down in rhythmic intensity from the first sequence to the last and the zigzag staccati conversely quicken and gradually open out in register from first to last. The fixing of pitch registration which was a constant factor in previous sections varies in this section, perhaps as a reflection of the registral shift between “a” and “c” in the model, but distinct registrations are applied to the arabesque/trill and zigzag staccati phrases, indicated as ά and β respectively in Figure 9 and isolated in Figure 10. While the essential difference between the two registrations is in the placement of A and E, pitches can also be observed to shift in register in the anacrusic arabesques between the descending dyadic slurs and their freer, singly slurred, and “meandering” counterparts.

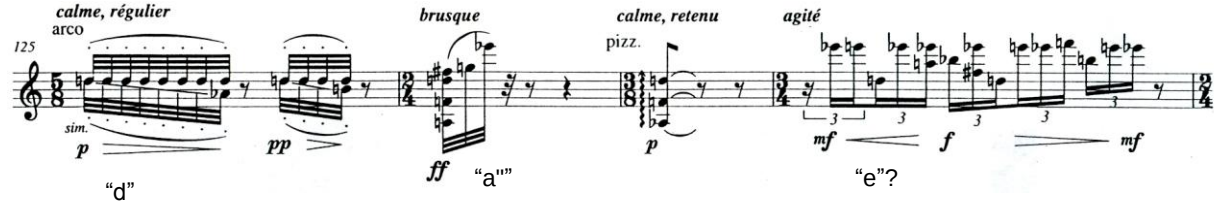
As in the trilled contours of Section IV, and indeed, as in the pitch content of the opening model itself, much of the pitch organization of VIa can be associated with incomplete and/or redundant 12-tone structures. The registration of the 12 tones in the contour outlined by the sustained trills, reflects the “stable” α registration, but lacks B and F# and doubles C# and E, the doubled first and last tones of the closing trilled contour of Section IV. The initial preparatory phrase of mm. 98-99 and the subsequent three arabesque/trill sequences articulated by the *staccato* interjections all lack single tones from the complete aggregate: respectively G, G#, F# and F natural, the four tones which comprise the central chromatic cluster in the α registration. In competing principles, the more concise closing phrase of mm.111-112, reflects the pitches of the second arabesque sequence of mm. 100-102 and so is without G#, as well as the F# and B which, as mentioned, are lacking from the long-range contour of sustained trills. A certain ABA pitch structuring permutes tones 3-4-5 (E-G-G#) of the second arabesque/trill sequence as its closing tones (G#-G-E, see Example 6) and in the third arabesque/trill sequence (mm. 107-108, see Figure 9) a similar redundancy arises between the B♭-A-E natural of the initial phrase and the A-B♭ E of the second suggesting an AAB grouping over the three phrases of the sequence. The final phrase can also be regarded

as a composite of the slurred oscillating arabesques with the staccato character in the descending register of its grace-note figures.

The gradual registral expansion of VIa also foreshadows the expansive mosaic of VIb which is based on a cycling of four distinct timbral and gestural characters in which a certain general design emerges in their number of appearances:

calme régulier (ricochet)	- 11 (including m. 43)
agité (pizz.)	- 10
brusque (arco)	- 9
calme, retenu (pizz.)	- 8

Figure 11: Number of Appearances of Mosaic Characters in Second Part of Sixth Section



Example 7: *Anthèmes* mm. 125-128

Practicality may have limited the alternation between arco and pizzicato articulations, hence the general pairing of the *agité* and *calme, retenu* characters. A certain symmetry is seen in the overall sequence in the exclusion of arco articulations in mm. 121 – 124 and of pizzicato articulations in mm. 133-135 (see Figure 11). The double *calme, retenu* pizzicati in m. 121 are similarly balanced by the double (arco*)* ricochet gestures in m. 125 and a structural periodicity accumulates toward the middle of the larger sequence and disintegrates toward the end. The sequence begins with alternations of single pizzicato and arco characters but introduces the first pizzicato *calme régulier /agité* pair in the sixth and seventh elements of the mosaic (mm. 118, 119) and four-element groupings (either mixed 2+2, or the 4-element pizzicato or arco groupings as in mm. 121-124 and mm. 133-135) persist from the fifth element until the virtually the last of the 37-element sequence. The second last of the 4-element groups finally breaks the pizzicato *agité* / *calme retenu* pairing and the 37th gesture mistakenly designated as *calme, retenu* (it is corrected as *calme régulier* in *Anthèmes 2*) appears to be unattached to any 4-element subsequence. In the more abstract structuring of process in the work the four-way dialogue of characters in VIb can be seen to correspond to that of the four registral poles and dynamic/attack characters in Section III.

In addition to the alternation of distinctive sound qualities, the longer sequence traces significant metamorphoses between and within character types. The most transparent of these are the *calme, régulier* ricochet glissandi of varying lengths from the central D natural. This sequence of final tones of these motions are summarized in Figure 12. Note the spanning of the minor seventh (upper-mid-register D down to mid-register E), the structuring of the tonal space in semitones and whole tones, and also the five-part zigzag contour structure – all found in the elements of Section I.

The pizzicato *calme*, *retenu* is the most persistent character, repeating, in each gentle iteration, the central upper mid-register D natural with ostensibly free-variation of the lower accompanying harmonies. The relative invariance of this element seems to be a factor in the direction of the tonal/structural narrative in the overall sequence and in the form of the entire piece at this point.

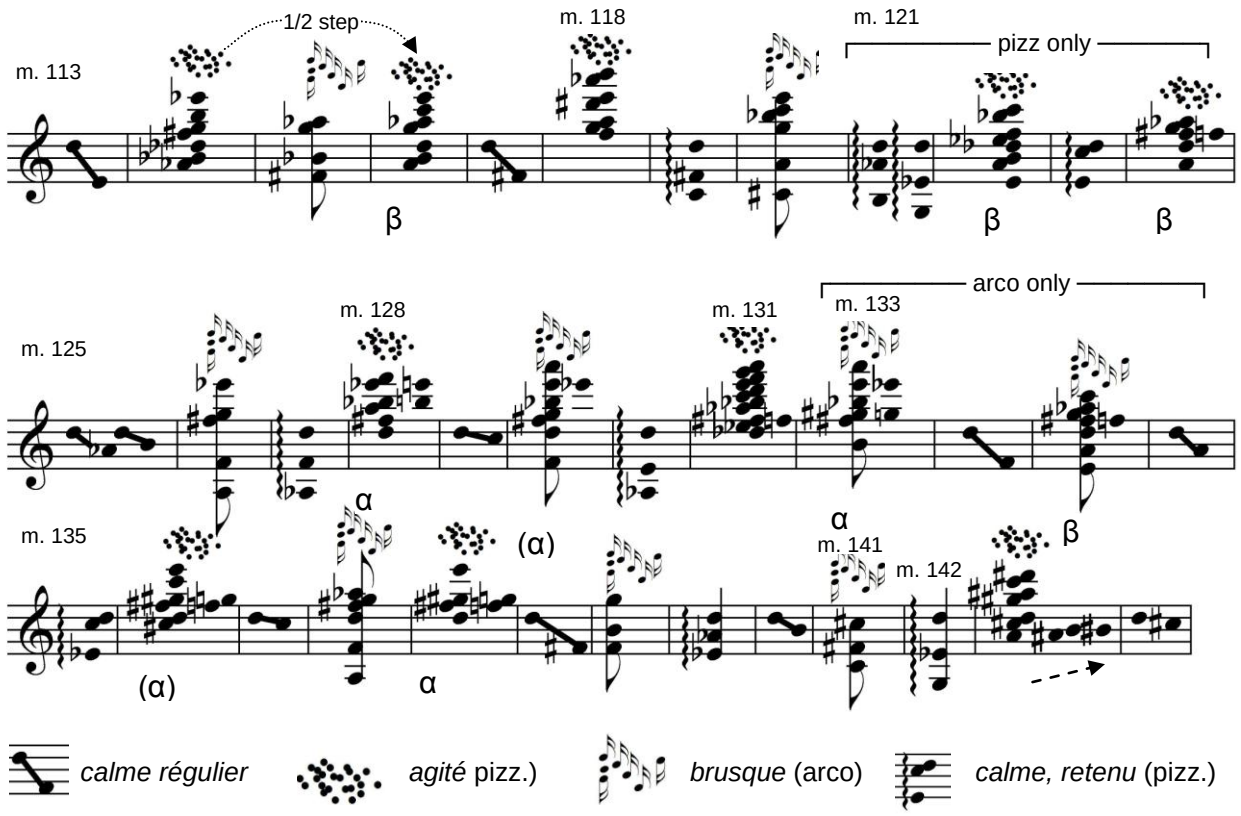


Figure 11: *Anthèmes* Section VIb, Mosaic Reduction, (α) (β) indicate altered registrations (not all bar lines are actual in score)

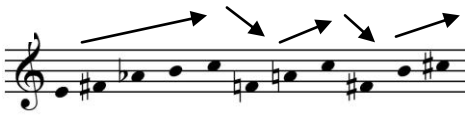


Figure 12: Successive End-Tones of Ricochet Glissandi in VIb with Resultant 5-Part Contour Structure

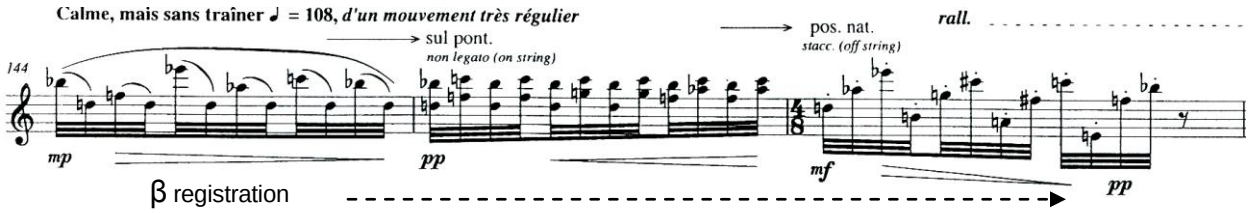
The *brusque* character, clearly related to the opening gesture of the model, undergoes a dramatic expansion and contraction over the course of the mosaic, apparently in tandem with the complex and more intricate development of the pizzicato *agité* character. The latter was actually foreshadowed in the contrasting *moitié crins, moitié bois* staccati of VIa and retains its β pitch registration (see Example 6);[14] the first appearance of the *agité* character in the mosaic in m. 114, however, is actually a semitone displacement of the β registration which is restored in the following appearance in m. 116. This is anticipatory of further shifts of the *agité* character in its registration and alternations to come in the mosaic with the α registration. The next entrance of *agité* in m. 118 displaces the B natural of the β registration two octaves upwards (actually exceeding the limit of the extreme high-register A natural of all previous registrations) and brings the A natural and A flat to an octave above their fixed-register position. At m. 122 the *agité* character presents the E flat and D flat in the upper mid-register, positions to which they return - after iterations of the normal ά and β

[14] The staccato of the *agité* character are very suggestive of the earlier "echo" processes in the work. Each *agité* clump would appear to have its own profile in terms of the number of repetitions for particular tones as in the less systematic echo structures of the central part of Section II.

registrations in mm. 124 and 128 – with other transformations of registration including a climactic surge of E, F, G and A natural into the high register at m. 131 which is coincidental with the most intense and elaborate expansion of the *brusque* character of m. 133.

Subsequent developments of the *agité, brusque* and the ricochet *calme, régulier* characters are all directed to the ultimate convergence of the mosaic on the central D natural including the drop of the C# in the *agité* in m. 136 to the upper mid-register below the central D natural and, following the descending slip of *calme régulier* to B natural in m. 141, the reduction of *brusque* character to a single triple-stop attack, similarly taking the C# out of its β registration into the upper-mid register (all other upper tones of this character are in their position in the β registration). After the final *calme, retenu* in m. 142 the closing *agité* drops A# down into the developing upper-mid register to join the ascending chromatic line from A natural rising to A#, B, B#, C# against a close oscillation between D and C# before converging on the final D-C# dyad

VIc is based on a confluence of characteristics derived in summary from the closural linear developments of VIb and in symmetry with VIa. It similarly projects aspects of the α and β registrations and their linear transformations as well as an alternation of the dyadic slurs ("*position natural,*" like those in VIa) with *sul ponticello* metered trills, also in 32nd notes, and a staccato contour also as in VIa (see Example 8).



Example 8: *Anthèmes* mm.144-146

The double stops of the *sul ponticello* pseudo-trill oscillations are positioned in large part at four registral poles - upper mid-register D, F# and high-register B♭/C and E♭ - and underpinned by ascending or descending linear motions of various lengths, in veiled suggestion perhaps of the earlier ascending septuplet pseudo-scalic figures of Section I and descending ricochet glissandi of VIb (see Figure 13). The structural rhythm of this alternation (see Figure 14) traces the varying ratios between the dyadic slurs ("*sul* ponticello") and the metered pseudo-trill oscillations ("*position naturale*"), from their opening parity through the suppression of the dyadic thirty-seconds to a single oscillation in m. 151 and their progressive return to near parity at the end of the section.

The first of the staccato contour punctuations, gives the complete and likely definitive 12-tone articulation of the β registration, followed immediately with a second contour which mimics, through the upper-mid and lower-mid registers, the shape of "a" in the very opening model. The *position natural* / *sul ponticello* alternation is later punctuated by ascending arabesques, in mm. 154, 156, 161, like the septuplet contours of the first section which emerge in the closing developments. The last of these is a partial recall (without the six upper tones) of the pre-climactic sweep of the middle of the fourth section in m. 72. Note in Figure 14 that each type of punctuation (the scalic, and staccato contours) appears three times in the course of VIc. The final *pianississississimo* D/C# represents both an echoing of the end of VIb and a subtle balancing and faintest possible contradiction of the prolonged trill with E flat of the model in the final measures. It differs significantly from the *col legno battuto* unison D naturals of "e" of the model since the C# reverses the motion

inherent in “d” and reflects the motion away from the central D in m. 3 which was the first step in the remarkable tonal adventure of the composition.

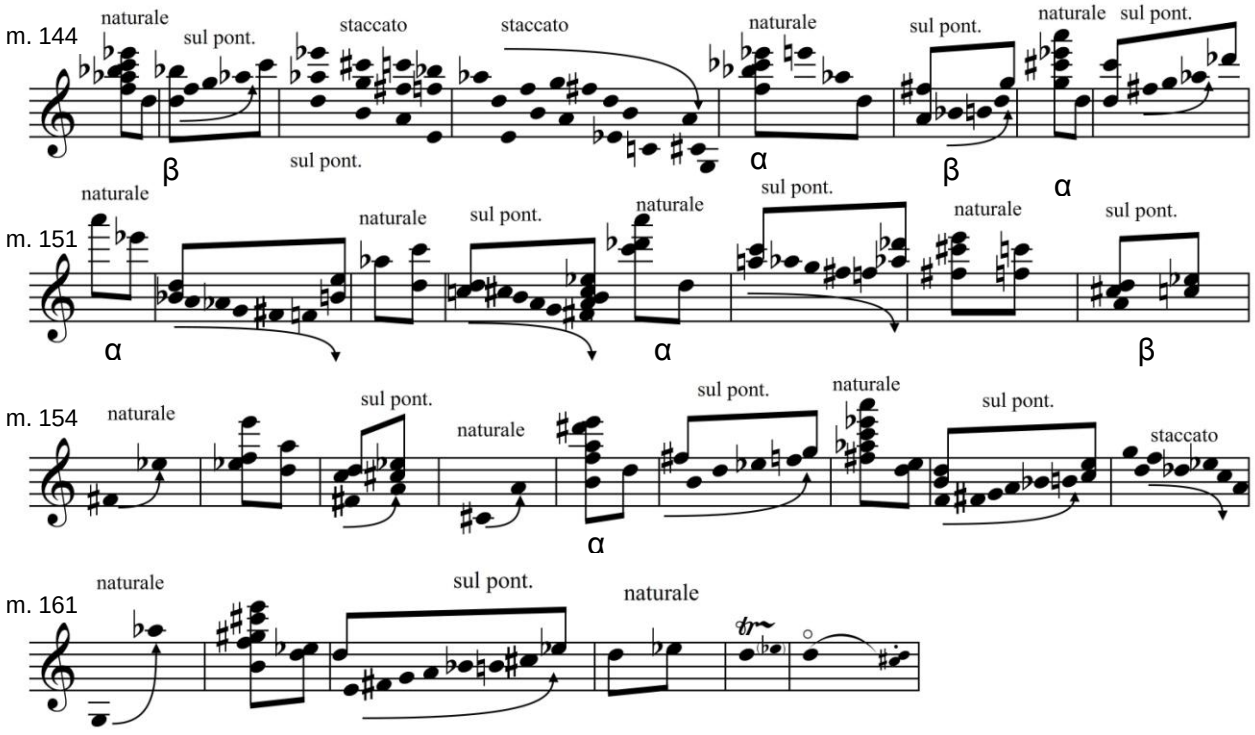


Figure 13: *Anthèmes* Section VIc, Linear/Registral Reduction

Measure #s	scalic contours	*Sul pont.*	*Pos. naturale*	staccato
144-147		6	6	6 9
148-149		5	4	
150		5	3	
151		1	7	
152		2	8	
153		3	4	
154		3	3	
154-155		3	4	
155	3	3	4	
156-157	3	4	2	
158-160		5	6	4
161-164	3	6	8	

Figure 14: Duration in 𝅘𝅥𝅯s of Alternating of Structural Timbres in Section VIc

Mosaic, Gestural Flux and Multi-Dimensional Continua: Berio *Sequenza XI* for Guitar Solo (1988)

Berio's plain yet comprehensive comments in the liner notes on *Sequenza XI* reveal much about later stages of his musical language:

> In *Sequenza XI* for guitar I was concerned to develop a dialogue between the heavily idiomatic harmony that is bound up with the tuning of the instrument and a "different" harmony, the passport between these two far-flung harmonic territories being the interval of the augmented fourth. In *Sequenza XI*, two instrumental and gestural styles are also present, one having its roots in the flamenco guitar traditions, and the other in that of the classical guitar, the passage between these two "histories" being my more experimental vision of the instrument. The dialogue between the two harmonic dimensions on the one hand, and the two technical and gestural ones on the other, is pursued through a continuous process of exchanges and "transcription" of clearly recognizable figures.[15]

Where notions of "polyphony," "focus" and commemorative evocations of Grock (the clarinetist/mime/clown from Berio's youth) figure in Berio's earlier commentaries on the *sequenza*s, his later reflections, as in the above citation, abound in practice- and literature-related concepts of "gestural style," "histories" and "transcription." Consistent throughout the *sequenza* series however, is the issue of "dimensionality" and its implication for quasi-serial parametric structurings of pitch and gestural resources. In comparison with previous works in the series the *sequenza* for guitar is perhaps most similar to the viola *sequenza* (*Sequenza VI*) in its expansive textural image, and its brute-force explorations of chordal tremoli. At the same time however, it also explores the intimate, pitch-specific timbral qualities of the instrument in the same focused manner as the *sequenzas* for violin (*Sequenza VII*) and clarinet (*Sequenza X*). In the equally essential issue of virtuosity, Berio touted the fiendish difficulties of *Sequenza XI* in his famous christening of "*il maledetto,*" though at the same time seemed surprised to see how badly the intense chordal tremoli would deform the tuning of the instrument – a situation for which he integrated a "re-tuning" episode prior to the culminating passages of the piece.[16] Aside from Berio's "outing" of his flamenco concept in the liner notes, the guitar *sequenza* does not explicitly probe the composer's remarkable relationship with folk music, yet the understated, delicate and lyrical elements of the work are often suggestive of more refined folk idioms amid the haunting kaleidoscope of intense, pointed and richly varied arabesques and extended effects.

Figure 15 summarizes important axes and trajectories of the gestural materials of the *sequenza*. The chordal tremoli and *rasgadi* represent maximums of iterative string crossing, as opposed to the expansive lyrical lines which can be taken as minimal instances in this dimension, with the various shades of filagree and arabesque in between. Iterative, non-string-crossing gestures include the single-tone tremoli and *rasgadi, "*left-hand trills,"[17] and an intriguing "hybrid" is seen in the idiomatic melodic lines with repetitive open-string accompaniment which will be referred to here as the "*serenata*" character. Structured timbral colorations are found in the glissandi and plucked harmonics in isolation or passing proliferations,

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15 *Sequenzas*, Deutsche Grammophon, 1998, CD liner notes, p.20.

16 See Mark Porcaro, "A Polyphonic Type of Listening In and Out of Focus: Berio's *Sequenza XI* for Guitar," in *Berio's Sequenzas: Essays on Performance, Composition and Analysis.* ed. Janet K. Halfyard; with an introduction by David Osmond Smith. Aldershot, England/Burlington, VT: Ashgate, 2007, pp.255-274, see p, 273.

17 Also referred to as a "three-note-trill" in Porcaro, *op. cit.* They involve striking or plucking the string with the free fingers of the left hand in the "hammer on/pull off" technique of popular music.

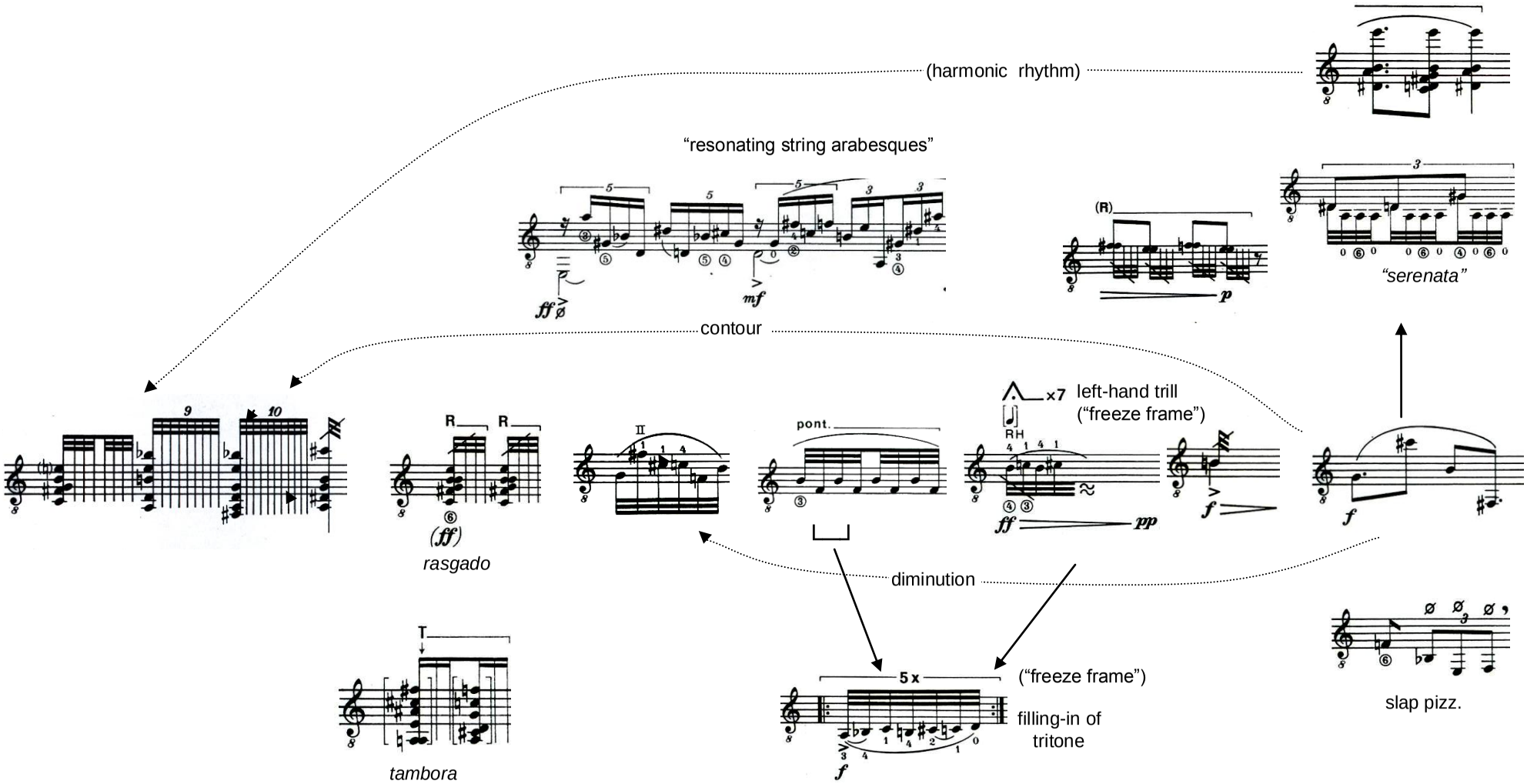

Figure 15: Map of Gestural Resources and Transformation of *Sequenza XI*
Horizontal Axis = Harmonic/Rhythmic Density, Vertical Axis = Harmonic/Timbral Complexity

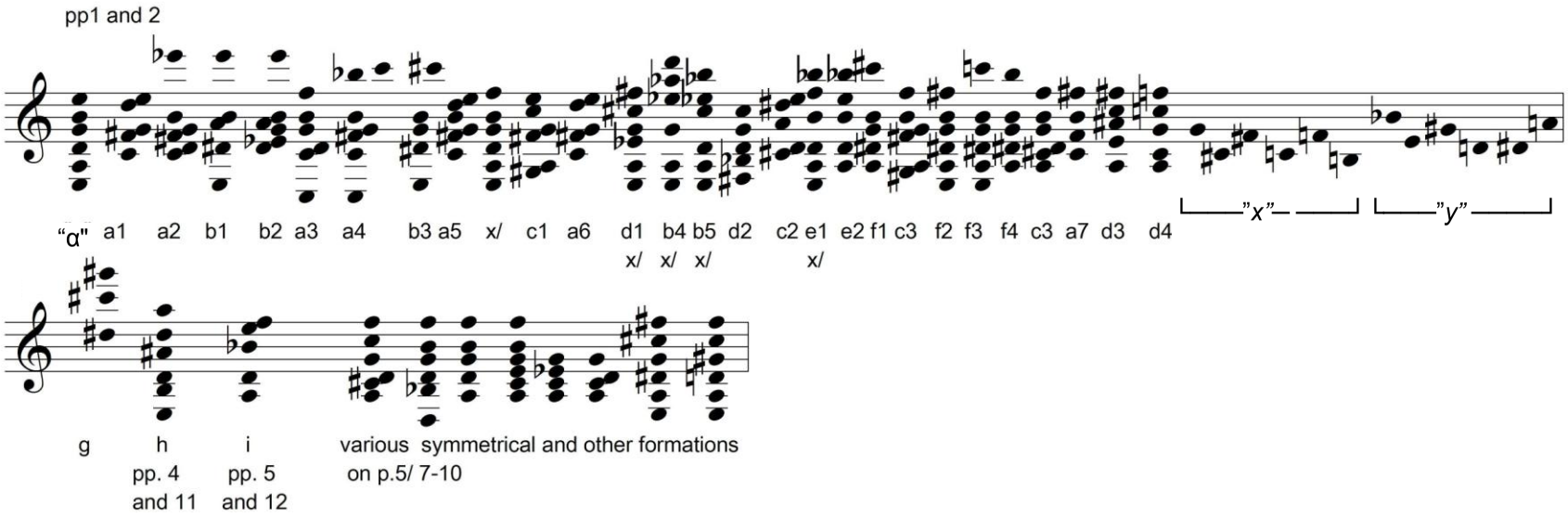

Figure 16: Principal Tremolo Chord Stream Structures in *Sequenza XI*

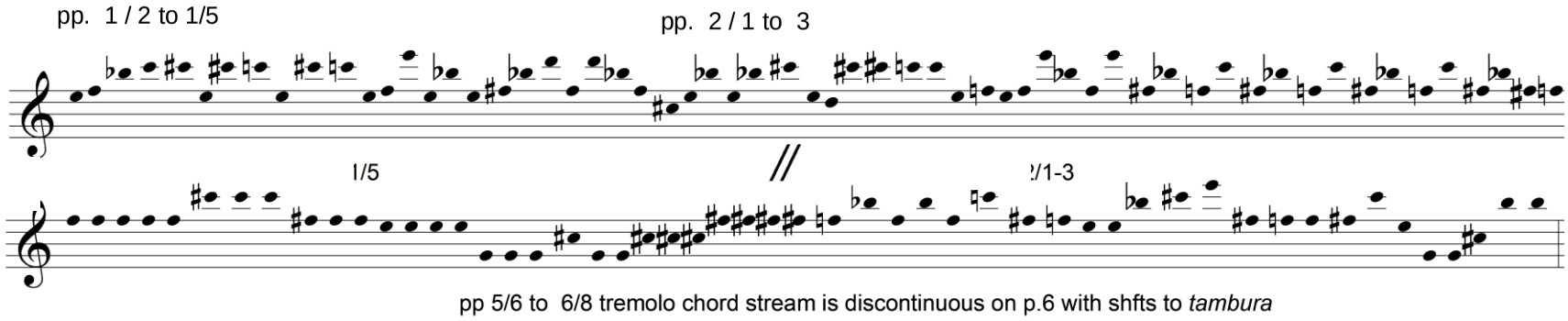

Figure 17: Upper –Tone Motions of Tremolo Chord Stream in *Sequenza XI*

and also in the essentially transient use of *vibrato* and slap pizzicati. The more persistent tuning "effects" on page 8, echo, with obvious challenges, the chordal glissandi of the immediately preceding pages, and the lyrical pitch glissandi from the opening passages of the work, and finally, a uniquely delicate and "inward" dimension of the instrumental soundscape emerges in the muffled *tambora* palming of chordal sonorities above the sound hole – an ethereal and perhaps even ghostly reflection of the full instrumental timbre.

The harmonic network of the *sequenza* presents the most challenging structural relationships of the piece. It derives from the three basic formations in Figure 16. The first, which is elemental and symbolic of the instrument, is the open-string sonority designated as "α"; the second is the artificial but also harmonically generic and equally historic series of chromatic tritones - i.e. a series of tritones in descending semitones, G-C#, F#-C, F-B etc. within a twelve-tone row[18] indicated simply by "x" and "y" for its constituent hexachords. The third is designated with Roman letters and comprises the great variety of sonorities in which the elements of the first two formations are combined; "α" and "x" / "y" thus represent polarities in a continuum between the complete absence and the maximal saturation of the tritone, again, with many shades and variations in between. Like the other elements in the harmonic palette, the un-transposed and minimally transformed twelve-tone series and its hexachords appear throughout the work in various stages of integrity and prevalence and they saturate the narrative of the filagree and arabesque elements.

Integral to the unfolding of harmonic color of the *sequenza* and the augmented fourth "passports" which Berio mentions, are the semitone shifts upward from open-string tones i.e. shifts from the high or low E strings to F naturals, to E flat from the open D string, and to or from B flat above the A string. These arise, of course, in all gestural characters but are perhaps more pronounced in the lyrical and chordal tremolo passages. The upper tones of the composite (i.e. "a," "b," "c," etc.) harmonic structures are limited to a particular collection of pitches which can be seen in Figure 17. Of these, the upper-register B flat, F and F#, and high-register E natural also function as conspicuous focal points in an extended "tonal scaffold" in the work on a par with the lower open-string tones and their upper chromatic neighbors.

The alternation in the opening line between a1 and b1 sonorities based, respectively around mid-register tritones C-F# and D#-A (the second and last tritones of the 12-tone row), permeates the harmonic character of the opening *come preludiando* and persists through the wide variety of sonorities of the *improvisamente, violento* tremolo chord streams. Composite structures evolve which are based on lower open strings and tritone and fourth sonorities in the upper strings and *vice versa* and certain sonorities such as "d1," while traceable in part to "α," are complete or near-complete harmonic shufflings of chromatic tritone structures. It is interesting, for example, that at the culmination of the second tremolo chord stream intervention at page 2/3 (page two line three) a formation, "d3," is reached which is only remotely traceable to "α" via *whole-tone* alterations of open-string elements. Also distinctive is the variety of symmetrical formations in subsequent tremolo chord streams on page 5. The function of the array of harmonic formations of the *sequenza*, however, can only be fully understood in terms of their relation to the overall narrative design and the "dialogue" with the linear and gestural dynamics of the work.

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[18] See Porcaro, *op. cit.* pp. 266-267; "x" outlines, a chromatically descending series of tritones from G natural: G-C#, F#-C, F-B, as mentioned above and, "y," another series chromatically descending from B flat - E but permuting the order of the D#-A and D-G#, giving B flat- E, G#- D, A-D#.

Form

While obvious formal articulations are skillfully blurred and avoided in this work, discussion is nevertheless served by viewing it in four larger sections (see Figure 18). An opening ABABA alternation, (pp. 1/1 – 3/3), of the *come preludiando* and *improvisamente violento* (chordal tremolo) characters exposes the fundamental dynamic axis of the piece as well as most of its essential gestural characters which arise transiently in the section's closing elaboration of the *come preludiando* character. Departing from the two initial characters, a more focused mosaic of arabesques (3/3 to 4/5) gives way eventually to the more fluid *serenata* character (4/5 – 5/5) which, destabilizes amid increasing "flashbacks" of the earlier elements and in its turn dissolves in a cadential fixation on the left-hand trill on upper-register B♭. A third section is marked by the most forceful and intense incursion of the chordal tremolo in the piece (5/6 to 5/9) which briefly weakens, returns, and gives way to a pair of similarly structured and punctuated episodes: a dramatic development and registral growth from lower-mid-register chromatic/scalic riffs and the "re-tuning episode" centering closely around open-string and attendant chromatic elements. The climactic development and coda of the work (top of page 9 to the end of the piece at 12/7) involves a final, more attenuated return of the chordal tremolo which decomposes into a static harmonic field in which a peculiar metric contrapuntal sequence ascends chromatically and recedes to intense focused, cyclical reiterations of the 12-tone row. The disintegration of the row cross-fades with increasing "flashbacks" to the coda and an expansive, though unsettled denouement in the opening lyricism.

1/1–3/3	3/3 -5/5		5/6 – 8/9		9/1-12/7
A(BA)BA	mosaic of arabesques	→ *serenata*	B → linear arabesques	→ "re-tuning" episode	B → metric cpt.→12-tone row → A coda

Figure 18: Schematic Reduction of *Sequenza XI*; A - Lyrical "*libreramente*" B - Chordal Tremolo *violento"*

Mark Porcaro has commented effectively on Berio's notion of the "dialectic of the focus and out-of-focus of things" with conjecture on its relation to aspects of Berio's other notion of "polyphonic" listening.[19] What can be loosely inferred as "in focus" are whatever elements are maintained consistently in ear of the listener. Thus a lengthy span of chordal tremolo, though obviously varying in its harmonic details, maintains this particular gestural character "in focus." A passing foreshadowing or recall of this character will obviously be "out of focus" and there are also passages of fluctuating and unsustained focus in many points in a work; generally, in the *sequenzas*, focus, at least on a particular gestural character, is not allowed to remain, unrelieved for too long a time.

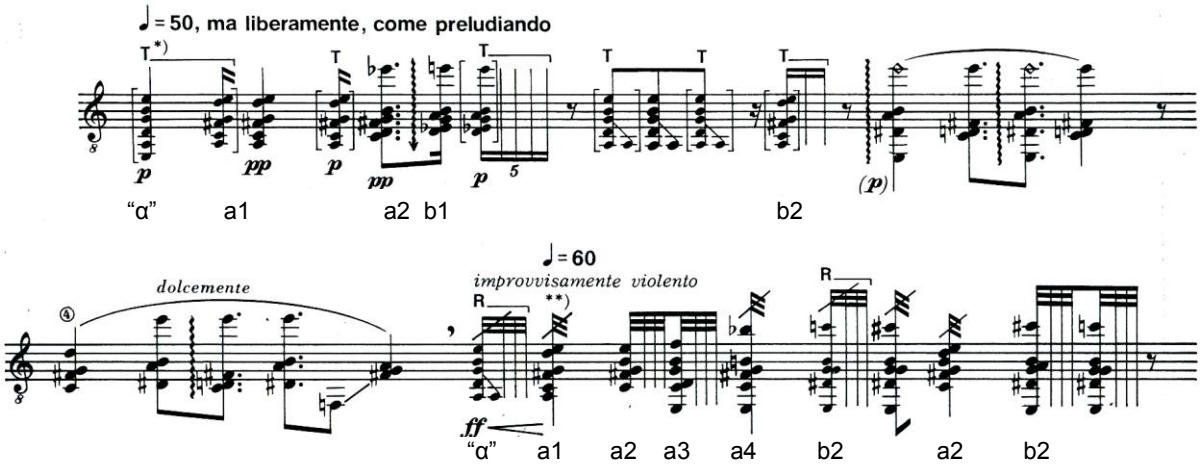
It is useful, however, to distinguish a number of syntactic relations within these larger lines. As just mentioned, the most prevalent of gestural characters is rarely monolithic; the interjection of the *rasgado* riffs within the chordal tremolo, for example, provides immediate and various fluctuations in the consistency of this character (see ahead in Example 9). Intermediate stages arise between stable motivic/gestural conditions in the

[19] See Porcaro, *op.cit.,* in particular his schematic on pg. 272. While an intriguing and pertinent representation of Berio's concept of form, it avoids the multi-leveled dynamic interaction of characters and materials upon which the present narrative is based. Berio's illustration moreover - the relative social "in" and "out of focus" of individual and group experience - (see Porcaro p. 257) would appear to be tangential to what Porcaro pursues analytically and what is viewed here as "gestural flux" and "mosaic."

form of alternations between pairs of characters (ab-ab) which lose their transitional character upon extension (ab-ab-ab-ab etc.) or take on a developmental guise through variation – ab-ab-cb-cb etc. Immediate fluctuation is at an extreme when there is no obvious repetition in the succession of characters (i.e. a-b-c-d-e-f etc.) but many of the slower lyrical passages of S*equenza XI* involve a similar sequential diversity but with a persistent, if not predictable, reiteration of elements within a "quasi-cyclic" mosaic (abcdebadcebacedb etc.) While transitional syntax is by far the norm in this *sequenza*, imposing, contrastive and sustained shifts of character are essential to its formal design as in the various pre-emptive entries of the chordal tremolo. A unique extension of the notions of "focus" and "flux" can be seen in the many instances of literal repetition of a particular gesture – indicated in the score with x4, x5, x6 etc.[20] These create what will be called a "freeze frame" within the larger process, temporarily focusing on the instantaneous form of a particular gesture – a new level of interruption and hence a new inflection within Berio's familiar long-range manipulation of materials.

Pages 1/1 to 3/3

The very opening of the *sequenza* deals with the subtle activation of the instrument, shifting from the dull (*tambora*) palming of the open strings to the elegantly arpeggiated oscillation of "a" and "b" sonorities adorned in high crystalline harmonic E naturals. The cadence, in gracefully drawing its low F natural to the gentle mid-register F#-G-A (page 1/2, see Example 9), adds a further referential color to the serene opening moments.



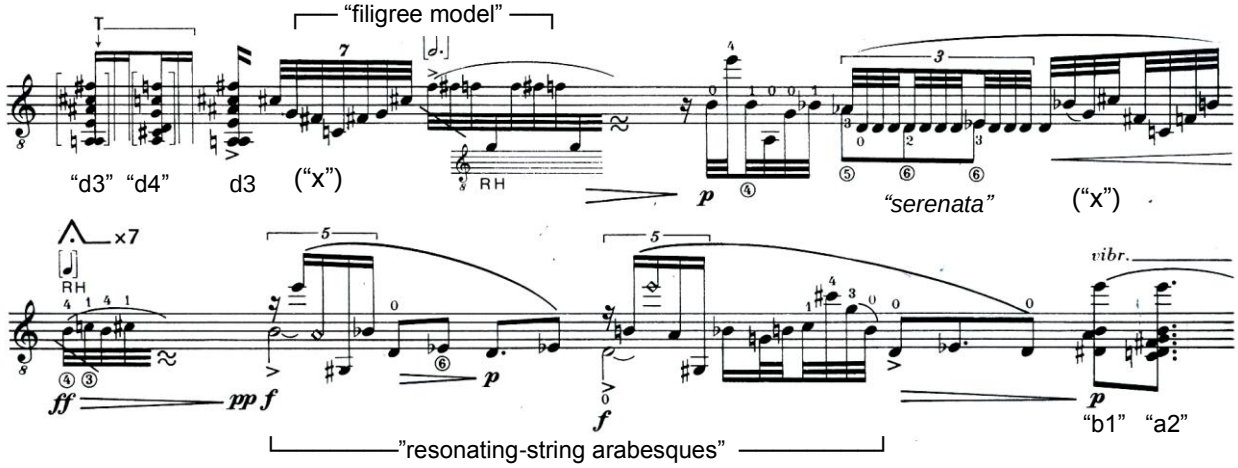
Example 9: Berio: *Sequenza XI* pg. 1/1-2

Although the immediately intrusive *improvisamente violento* echoes the harmonic incipit of the opening, it quickly evolves its own coupling of sonorities and contour tones (see Figure 16). In its mixture of open-string and tritone/fourth components it pursues bold motions to high-register B flat, C and C# in a variety of progressions and relapses

[20] i.e. repeat four time, five times, etc. Note also the "re-tuning episode" fits into the "freeze frame" format since it requires periodic repetitions of the open strings until they are brought into tune.

within the tremolo chord stream, but it is “a4” which seems to trigger the initial breakup (1/5) into the first of many "filagree models” or tritone arabesques (typically of the “x” hexachord) which taper into delicate left-hand trills. An incisive semitone trichord (actually a condensed whole-tone transposition of the left-hand trill), evokes a brief resurgence of the chordal tremolo and clarification of the “a1” sonority but quickly arpeggiates again into the “filagree model,” expanded to 11 chromatic tones (minus B♭) with its left-hand trill at the pitch of the incisive trichord. The first return of the lyrical opening character introduces modest scalic and arpeggiating enhancements, and also a rising inflection of the cadential trichord F#-G-A to A-B-C, reflecting the minor third relation of the tritones in “a” and “b.” It cadences on embryonic semitone motions above the low E and A strings, further developing single-tone lyrical lines within the persistent eight/dotted-eighth structure of the opening chords (1/6).

The more substantial return of the chordal tremolo brings harmonic and contour extensions, the latter arching to high-register E natural and receding to alternations of high-register C with (neighboring) upper-register B flat, F# and F natural which in turn reduce to upper-register B flat and F# and finally just the F# and its lower neighbor F natural (see Figure 17). The closing “d3” sonority of the resurgence is also striking in its tertian F**#** major/minor quality – the doubled open A string being the only retained elements from the opening “α.” As at page 1/4 and 1/5, the chordal tremolo breaks into “filigree models” (the “x” hexachord arabesques plus left-hand trills) but here the trill prolongs the F natural/F sharp alternation of the end of the chord stream (Example 10) and it is interrupted by a pair of new figurations: a diffuse open-string filagree and the first brief hint of the “*serenata*”. The initially diffuse open-string filigree undergoes chromatic alternation and stabilization in a “resonating string arabesque,” retaining one freely vibrating string - first the B string then the D (also later G at 2/6) – against angular chromatic leaps. This latter figure is clearly linked to the *serenata* in its open D string component, and its semitone oscillation with E flat is homonymous with the chromatic shift (D to D**#**) between the returning “b1” and “a2” sonorities. Continued enhancement of the *liberamente, come preludiando* also maintains the lilting eighth/dotted eighth values and projects the chromatic oscillations on the D string downward to parallel motions above the A and low E strings.



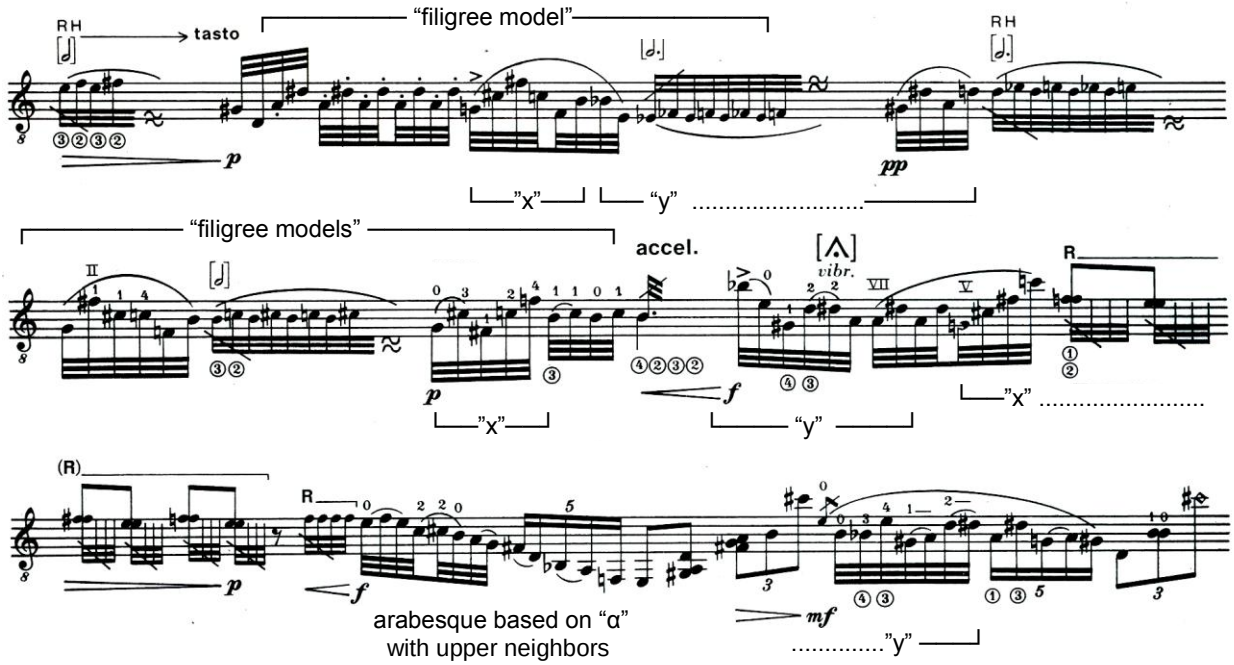
Example 10: Berio: *Sequenza XI* pg. 2/3-4

Following the first “freeze frame” repetitions of “b” (2/5) additional elements enter the gentle circulation of ideas: a soft, sustained, high-register trichord “i”- reflective of “α” in its quartal pitch structure (see Figure 16, its high-register G# provides an upper

registral limit for almost all of the work) - is reiterated several times, a low *rasgado* E string onto isolated slapped pizzicati on mid-register B flat and neighbor F naturals provides violent punctuation of the ongoing serenity, and a swelling single-tone tremolo on upper mid-register B natural (2/8) which skips dramatically up to high-register C natural, forsees a climactic “fixation” of the later stages of the work. As the mosaic attains increasing rhythmic and melodic fluidity, the lilting eighth/dotted-eighth rhythms become rounded to triplet eighths and high E string harmonics return from the very opening and spread into a sonority and cadential arpeggiation in fifth harmonics on the upper strings before the closing “h” trichord (*dolcemente*).

3/3 to 5/5

The pervasive “filigree model” prefigures a more consistent sense of mosaic contour and development at this point. Its variation is underpinned by increasingly coherent unfoldings of the 12-tone row at 3/3-4, 3/4-5, 3/5, the last of which at 3/6 anticipates its climactic form on pg.10 (see Example 11). Confined initially to open strings, the delicate left-hand trills transform into the more intense single-tone tremolo at 3/6, on upper-mid-register B natural at the heart of the 12-tone row, and to *rasgado* chromatic neighbor motions above the upper E string (3/6-7). Following a descending arabesque almost completely in upper-neighbors onto open strings (3/7, a reversal of almost the same figure on 1/6) - a fixation on high-register C# in harmonics and *rasgado* tremoli (3/7) initiates a defective form of the 12-tone row (without the initial G natural) which unfolds in discontiguous segments to the initial entry of the “*serenata*” character in a repeated-tone fixation on the open A-D# tritone, the last two tones of the row.

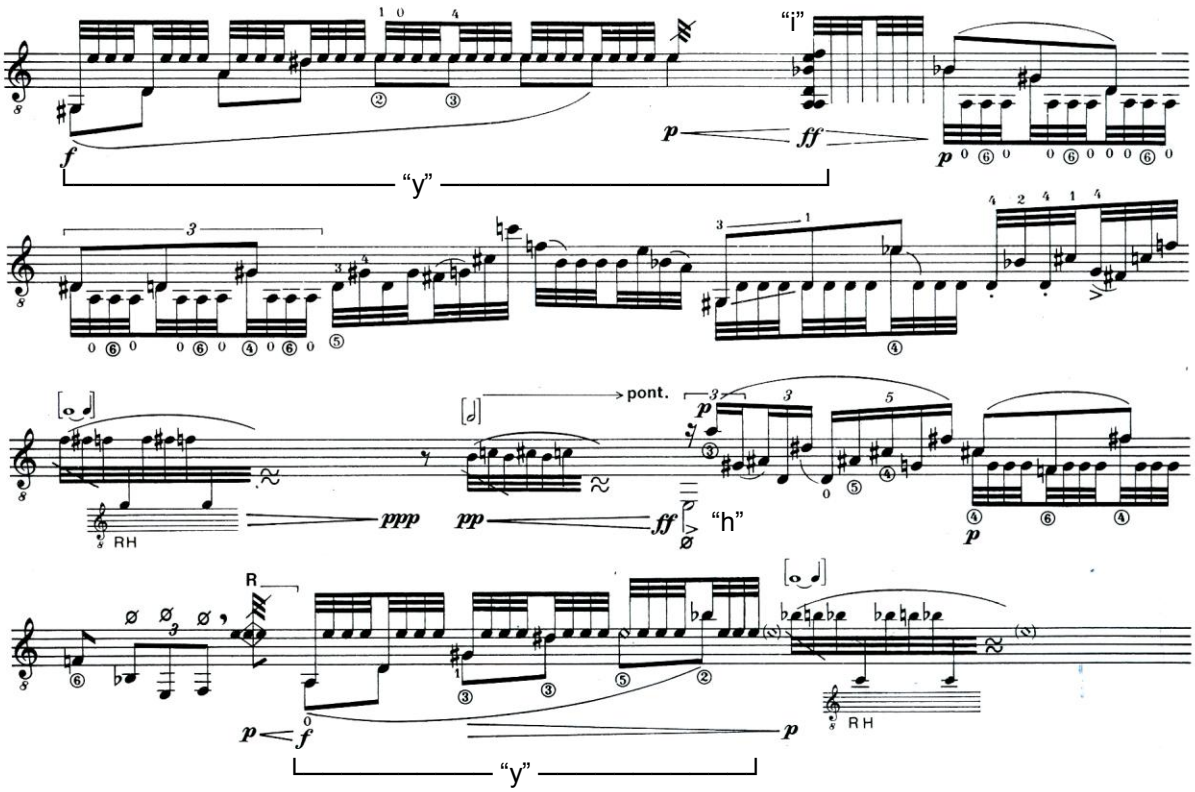


Example 11: Berio: *Sequenza XI* pg. 3/5-7

The full emergence of the *serenata* character is delayed through a lengthy array of conflicting figures including substantial developments of the jagged “resonating

string" arabesques as well as incisive recalls of chordal tremolo sonorities and another undulating "freeze frame" arabesque. The transitional harmonic structures in the "resonating string" arabesques at 4/3 bear the distinction of now being fully chromaticized (involving all 12 aggregate tones but only a vague semblance of the "x" and "y" orderings) and projecting A natural into the upper register (in "h," see Figure 15) where it has not previously been heard.

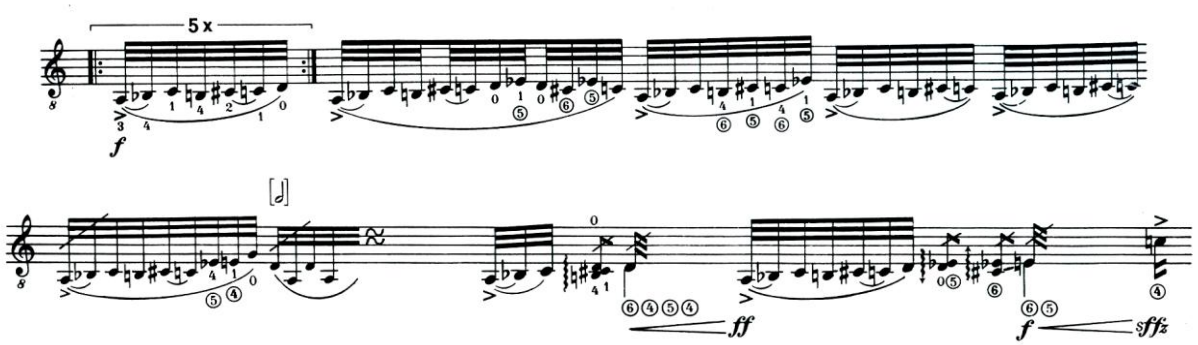
When the "*serenata*" fully emerges at 4/5-6, it immediately presents a clear and uninterrupted unfolding of the 12-tone row and while the twelve-tone row does not reappear in this character, the stability of the "*serenata*" is maintained in fragments and unordered statements of the "x" and "y" hexachords against an assortment of interjected figures (chromatic tritone arabesques, *rasgado* tones and recalls of the chordal tremolo etc.) The most arresting of these is the lyrical descending leap in harmonics, from high-register D# to upper-register E which provokes an eight-fold "freeze-frame" on a left-hand trill on the upper E string. As if attracted by the latter figure, the "*serenata*" then traces an ascending contour through the unordered "y" hexachord to unison repeated-tones and a tremolo inflection on upper-register E natural, before a swelling intrusion of the chordal tremolo, re-asserted from earlier at 4/8, rings its high-register F against the E of the "*serenata,*" (5/1, see Example 12) the B♭ of this sonority ("i") actually completing the "y" hexachord at this point. The resumption of the "*serenata*" is disintegrative and varied (note even the brief glissando among the melodic *serenata* tones themselves in 5/2) - its open-string accompaniment touching on all of five upper strings instead of the earlier focus on G and E and amid a conflicting recall of "h" and brief expansion of the slap pizzicato element. A quick *rasgado* on the upper E-string brings about the unraveling of the "*serenata*" in an another ascending "y" hexachord to a chromatic cadential contour (not shown), purely in left-hand trills on high-register B flat (5/4), and softly ascending in successively wider quavers to B natural, C, D flat and D natural.



Example 12: Berio: *Sequenza XI* pg. 5/1-4

5/5 to 8/9

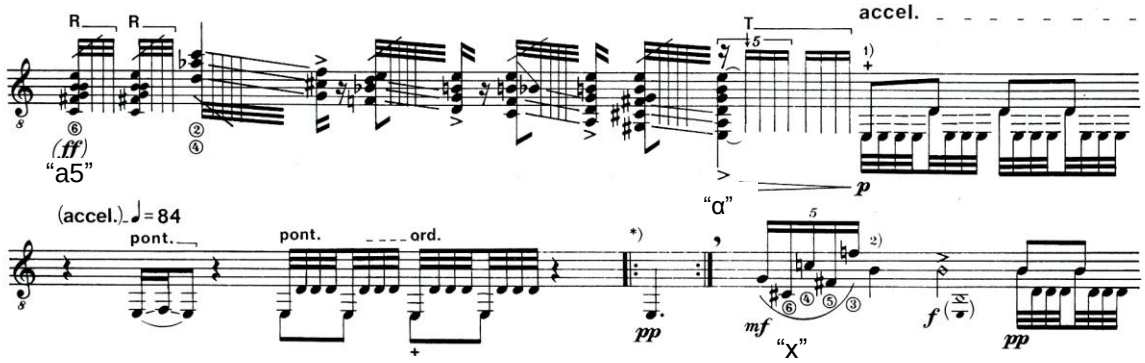
After initial motivic misdirection, it is the insistence of the upper-register F natural (from the chordal tremolo interruption at 5/1) which defines the beginning of the next stage of the *sequenza* in its repetition of a six-fold "freeze frame" in tremolo swells on this pitch - eventually carrying over into the poignant and most prolonged visitation of the chord-stream tremolo at 5/6. The upper tones of the chordal tremolo here are limited to upper-register F, F# and E (see Figure 17 above, these are also pitches of the often-reiterated left-hand trill on the upper open E string) and except for an initial C#, high-register tones are lacking at this point in the upper contour. The chordal tremolo is structured harmonically, as mentioned, in increasingly symmetrical trichordal as well as tertian formations and the dip of the upper-tone line to mid-register G natural (5/8) initiates a gradually unfolding tritone/fourth contour - through upper-mid-register C# to a sustained upper-register F# - before diffusing in rhythmic *tambora* sonorities (5/9 and 6/1 on "a3" and "a4") and once more an alternation of upper-register F natural with B flat from the very opening chord stream (1/2). Further regressions in *tambora* palmings of "a3" and "a4" taper to a brief intimation (*molto espressivo)* of the serene opening (pg. 6/1) and a mix of chromatic tritone arabesques with *rasgado* and *tambora* iterations, also ostensibly from the opening character of the work. The tritone arabesques reduce to dyadic oscillations within the 12-tone row, initially F/B then E/B flat, narrowing to C/E and swelling intensely at 6/5 as the upper major third of the tremolo return of "c1." The briefly resurgent tremolo chord stream circulates about the upper tones of its preceding occurrence (E,F,F#,C#,G) but extends to upper-register B flat and a climactic high-register D natural, descending in chordal (tritone/major third) glissandi into a *rasgado* of "a5" and an undulating 12-tone row which fades further in a chromatic murmur above the open A string.



Example 13: Berio: *Sequenza XI* pg. 7/1-2

The open A string tritone with D# was distinguished earlier in the first tentative entries of the "*serenata*" character (4/1) and it has been subtly present throughout the *sequenza* as a component of chromatic tritone structures and the last tones of the 12-tone row. At 7/1 it functions as a delimiter of intense, concentrated scalic arabesques (Example 13) fomenting a gradual registral ascent and re-incorporation of both past and impending figurations as well as an increasing presence of the 12-tone row. It's relentless wave-like growth intensifies on upper-register B flat of "a4" and extends to high-register G# where it slips to a "freeze frame" trill on upper-register D# and *rasquado* "flashbacks" to a very slightly altered version of "α" (7/9). The outgrowth of the passage is a climactic refraction of its initial concentrated scalic arabesques, into a tritone band (B flat/E natural) in the high register. Descending chordal tremolo glissandi involve once more tritone/major third trichords and *rasgado* interjections of "a5" but each iteration reveals a more complete

presence of “α” until the initial open-string sonority is finally reached in *tambora* echoes at the exhaustion of the descending chordal glissandi (Example 14).

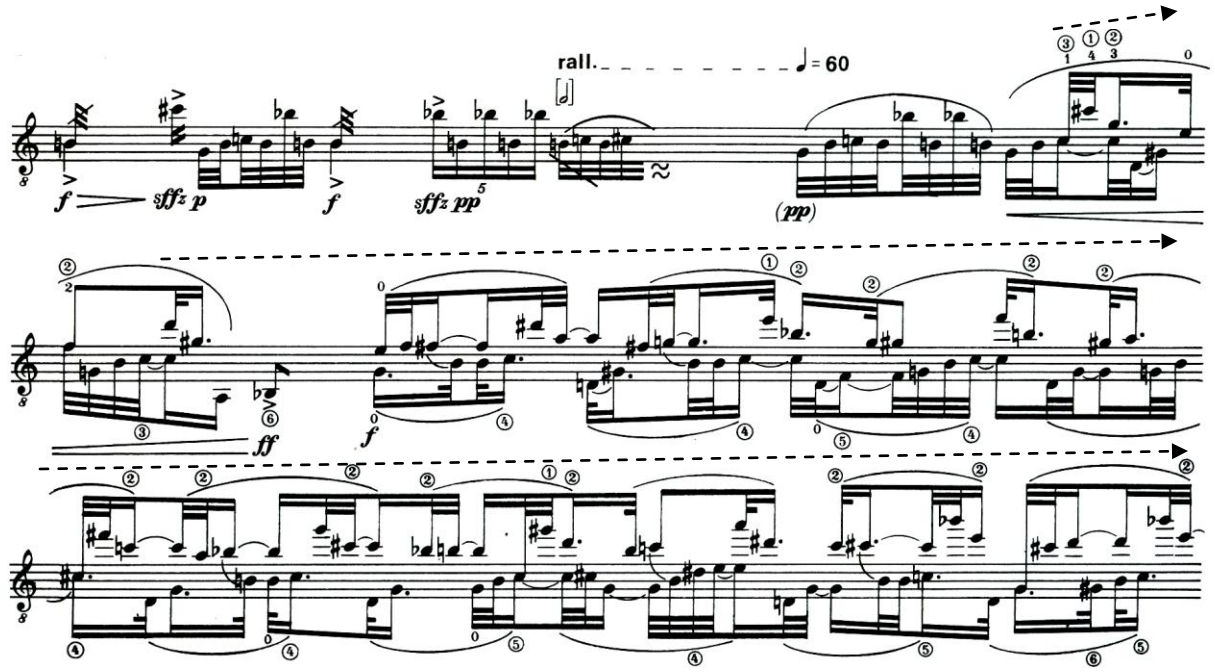


Example 14: Berio: *Sequenza XI* pg. 8/1-2

The subtle resonances of the chordal glissandi in the “re-tuning episode” (in which individual strings are repeated and adjusted with the tuning pin) provides calm and regular alternation with a continued and quasi-improvised mixture of figures: the “*serenata,*” chromatic tritone arabesques, and trilled and more clearly harmonic arabesques. Important among these is the prolongation of the pitch registration based on “a4.” Touched upon significantly in the preceding episode at the beginning of the registral ascent of the scalic riffs (7/6) it centers here, with increasing chromatic and rhythmic agitation, around the open G and B strings extending downward to the open A string and upward to upper-register B flat. Tracing a more restrained upper-mid-register contour (B-C#-D#-E-F), terraced diminuendi in simple (2-note) left-hand trills bring the episode to a close in a sudden, intense left-hand (hammered-on/pulled-off) arabesque onto a slapped open low E string which is prolonged again delicately in left-hand trill murmurings (as earlier on the A string at the bottom of page 6), but here at length, with colorful *ponticello*/*ordinario* vacillations.

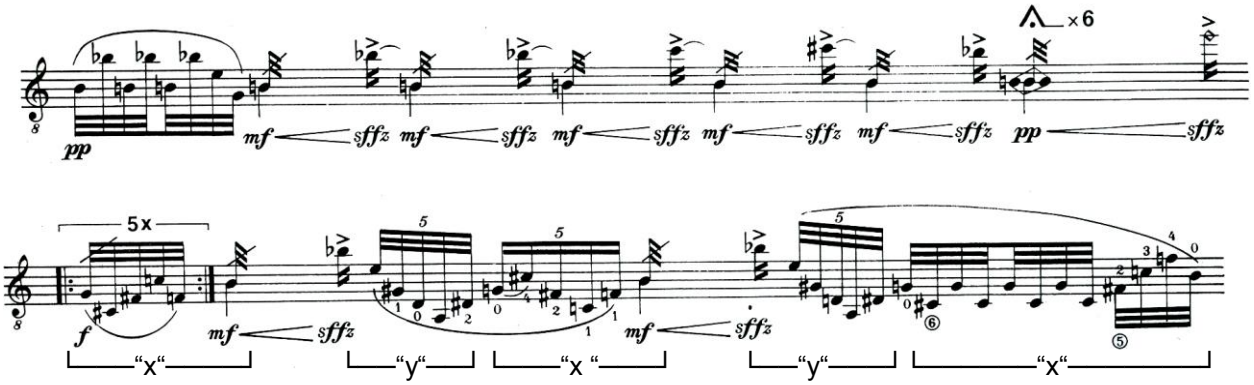
9/1 to 12/7 (end)

The weakening chordal tremolo resumes in *rasgado* and *tambora* colors essentially from where it left off at 6/1, in upper-tone alternations of upper-register B flat and F in “a4” with momentary digressions however, to high-register C#-E and upper-register D-F#. Following a very slightly ornamented arabesque of hexachord “x,” “a4” prevails harmonically over the following development and climax. It focuses initially on major seventh oscillations of the upper-mid register B natural with high-register B flat (p. 9/4) but, amid further tritone tremulations (the lower constituents of “a4”), the oscillation intensifies to upper-mid-register tremolo B naturals and leaps to upper-register B flat and then to C# before de-stabilizing and fading in a left-hand trill on upper-mid-register B natural (Example 15) prior to the entrance of the metric contrapuntal sequence.



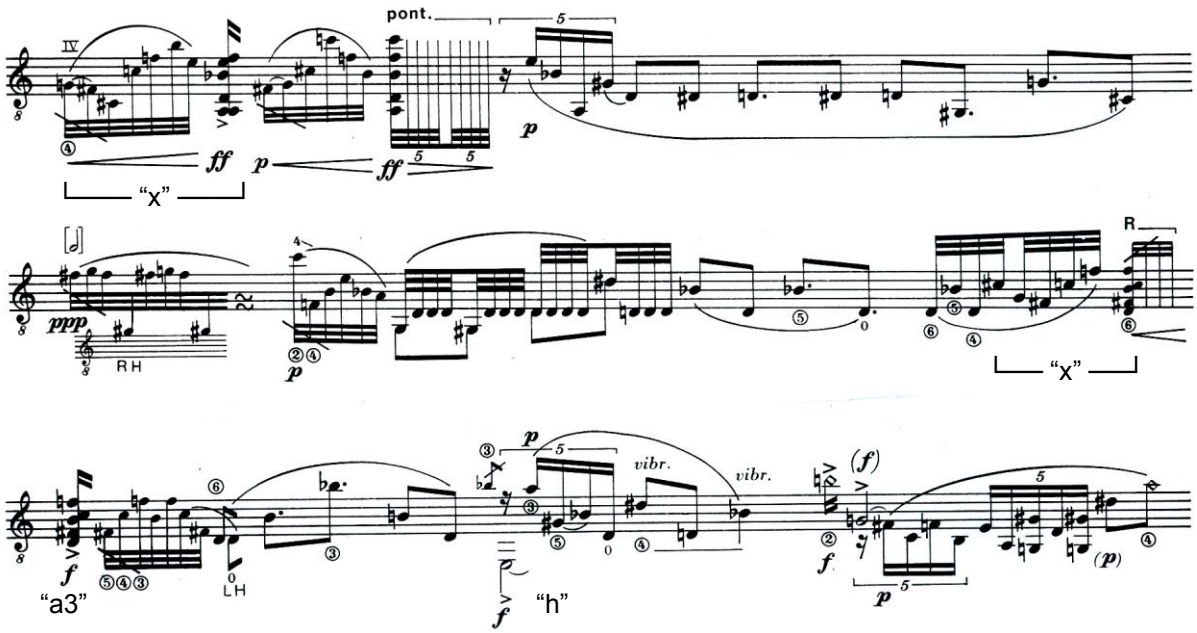
Example 15: Berio: *Sequenza XI* pg. 9/5-7

B flat is emphatically but temporarily pushed to the lower mid-register (9/6, see Example 15) as the metric contrapuntal sequence begins but it regains its inscribed position in the chromatic ascent and even re-emerges an octave higher (9/7) at the linear culmination of the passage, surpassing the previous upper limit of the high-register G# (set by “g” in the opening section of the *sequenza*). While the sequence would seem to be unique in the work, its ascending chromatic line is intimated earlier in the rising chromaticism of the cadential sequence of left-hand trills at 5/4, and, in its ascent from D#-A to B♭-E, it also synthesizes references to the chromatic tritone structure of the 12-tone row and the multi-registral emphasis on B♭ from “a4” and elsewhere in the extended harmonic scaffold. The ensuing recession is further focused on “a4,” once more reducing to dramatically swelling tremoli on upper mid-register B natural and initially skipping to upper-register B flat, but then once more to high-register C natural and C# (as in the opening presentation of the chordal tremolo in 1/2, compare Example 16 with Example 9) and finally to high-register E natural harmonics in a six-fold “freeze-frame” repetition. The evolving structure provides the framework for the extended re-emergence of the 12-tone row starting from a 5-fold “freeze frame” of the first five tones of the “x” hexachord which connects to the tremolo B natural at 10/2.



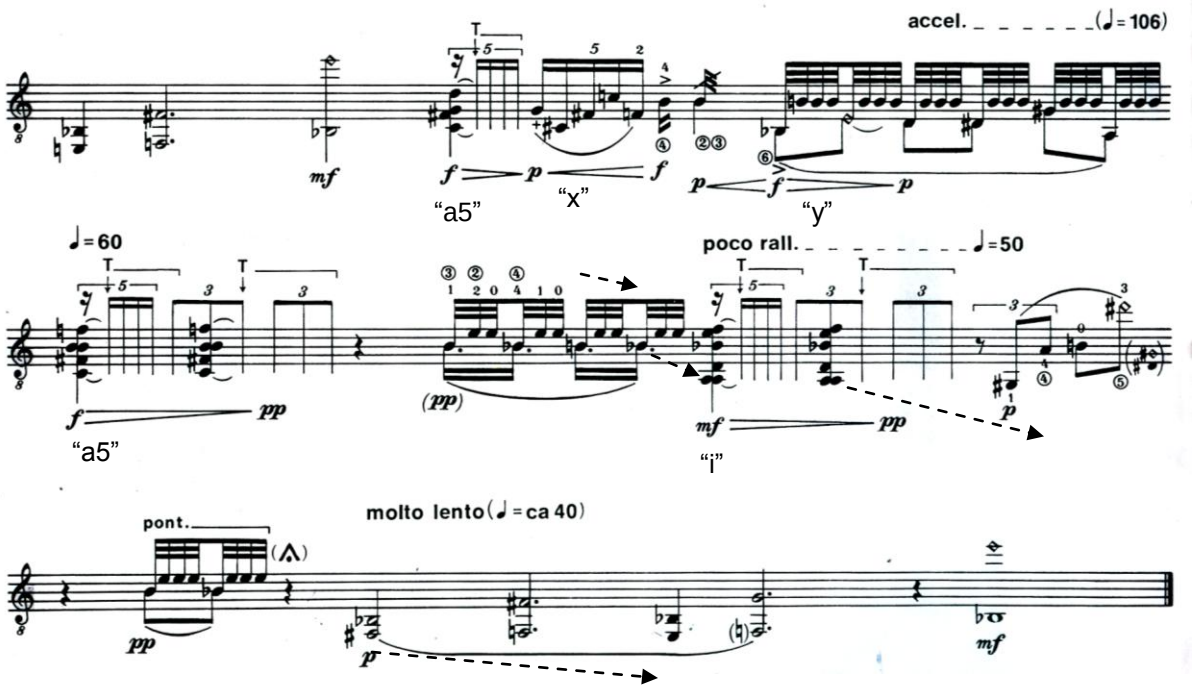
Example 16: Berio: *Sequenza XI* pg. 10/1-2

Centered dynamically around the upper-mid-register tremolo B natural and its skips to upper-register B flat (the two tones straddle the hexachordal partition of the row) the 12-tone row structure unfolds relentlessly with various internal repetitions/"fixations"/ permutations through eight cycles to the second half of 10/6 where the skip from the tremolo B-natural to C natural comes in the midst of a final, more diffuse aggregate unfolding of the row with out-of-order repetitions (p. 10/7), and where the tremolo slips from B to G, with which it was originally connected in anticipatory formations of "a4" (7/6 and 8/6). This final distortion of the series (at 10/6-7) is also once more in the eighth and dotted-eighth values of the returning lyrical character which portend the final stages of the piece.



Example 17: Berio: *Sequenza XI* pg. 11/3-5

While residual row unfoldings persist, the logic of the *sequenza* from this point (pg. 11/1) is increasingly closural. An initial density of recalled filagree fragments merges with the enveloping return of the opening lyricism, both in the lilting eighth/dotted-eighth rhythms and its subtle incidence of harmonics (Example 17). The eventual repeated high E natural harmonics of the opening chords signal the coda - evoking both the opening serenity of the work and the climactic freeze frame with B natural tremolos at 10/1 (see Example 16) - and their accumulation and growth, as in the end of the opening section, into repeated sonorities in 5th harmonics (pp. 11/6, and the "freeze-frame" at 12/1-2), appears to guide the ultimate resolution of the piece. High-register B flat has all but disappeared at this point (p. 11/5, see Example 17) but B flat settles in lower-mid register alternations with B natural (p. 12/1) as upper neighbors gravitating to open-string A natural in concert with similar motions in other registers (Example 18). The fleeting B natural tremolo in the middle of 12/5 - a final distant reverberation of the climax of 10/1 (note its skip downward, instead of upward to B flat and its completion of the "y" hexachord) - initiates a quick series of remote "flashbacks" (principally the *serenata* and the *tambora* iterations) which prepare the closing nuances.



Example 18: Berio: *Sequenza XI* pg. 12/5-7

The gravitation of the B of "a5" - following the final echoes of the *serenata* - to the B flat of "i" in 12/6 (echoed once more from its swell against the *serenata* at 5/1) sinks to the lower octave where it hovers resonantly above the A open string and against the lower F#, settling itself on F natural after touching the low E string. Note too the linear descent from the lower-mid-register A natural of "i," through G# in the lyrical triplet/eighth motion at the end of 12/6, to the F# and F natural in 12/7, ambiguously counterpointed with the rise of the upper F# to the open G. The final transcendental synthesis of the *sequenza* rescores the antepenultimate dyad as the persistent B flat resonates and recedes against its delicate, crystalline, counterpart in the natural harmonic on E.

Ultimately Berio's uncanny sense of "conversation" from his liner notes is enhanced but not significantly improved upon in this view of the *sequenza* as a large-scale dramatic action with a cast of principals and subordinates, plots, subplots, denouements etc. While the fundamental opening polarity of pristine lyricism versus the ragged violence of the chordal tremolo resolves in the eventual diffusion of the chordal tremolo, it is expanded by essentially logical development of materials inhabiting the structural gaps in the polarity i.e. the various arabesques and horizontal unfoldings of harmonic materials in the second section of the *sequenza*. The brief rise of the *serenata* among the arabesques provides relief but, after its dissolution at 5/5, the central conflict is immediately refocused: initially with the attenuating influence of the *tambora* iterations, and then through the development of the fleeting quasi-scalic riff elements - themselves an extension of the liquid left-hand trills ubiquitous among the arabesques - to a vivid resolution of the tremolo chordal glissandi in the *tambora* iterations of the elemental open-string sonority ("α") at 8/1. While the "re-tuning" episode might appear to be formally gratuitous, it does take one of the essential narrative premises of the piece - the opposition of the guitar's historic tuning to the tension and "tuning" of contemporary harmonic and gestural materials - to the very marginalia of the instrument. Moreover, whether the chordal tremolo element is resolved at 9/1-3, its resurgence at this point, subsequent to the "retuning episode," is its last, shortest,

and most unstable appearance, and its final swell from *tambora* to *resgato* at 9/3 gives way to the ascending metric/contrapuntal sequence – an element which seems similarly to embody both narrative and thematic significance.

It is interesting that the departure of the chordal tremolo comes with its ostensible sublimation in the successive leaps upward from the upper-mid-register tremolo B natural and the exposed B natural - B flat seventh of the “a4” harmony in the imposing climactic cycles of the twelve-tone row. This timbral detail in the climax and step-by-step unraveling of the 12-tone row would appear to connect, in some way, the resolution of this significant sub-plot - which has entangled the development of almost all of the arabesque characters - with the tremolo chord stream and the tritone/fourth relationship at the heart of the harmonic dialectic. While the symbolic “α” is never directly present in the final pages (it only appears at the beginning of the work, and before the “re-tuning episode” at 8/1, as well as transiently and incompletely at a number of points in the tremolo chord stream) its remarkable subjacency, particularly in the closing reminiscences keeps B flat in the lower registers, away from the prominent position it occupied in the tremolo chord stream and in the climactic skips from the tremolo upper-mid-register B natural where it presented its most imposing confrontation to the historical harmonicity of the instrument.