

Solo String Lines: Linear Construction in the String Concertos of Lutoslawski

The bulk of Lutoslawski's oeuvre consists of orchestral works that are very personal and highly original, works that redefined orchestral thinking in the 20th century. There are also a few chamber pieces in the early and middle periods, but no real concertos, or works with opposition of large forces against a soloist until the *Cello Concerto* (1969), which comes at a point in his career where the composer is concerned with creating a unified style. The two subsequent works for solo strings and orchestra with which this paper will be concerned with, namely *Partita* and *Chain 2*, both composed in the mid 1980s, exemplify a unified and well controlled style that grows directly out of the *Cello Concerto*, and is kept consistent and highly personal. This paper will seek to demonstrate how Lutoslawski's style for solo string concerto writing is planned and executed. Unlike most analytical writings on Lutoslawski's music that are extensively concerned with vertical construction and harmony, this will focus on the horizontal plane, and will examine how the individual linear motion is handled, especially in a period such as his mature period, where textures are much more focused and crystallized, and where the line itself is much more prominent and personified.

Generally speaking, *Chain 2* and *Partita* are much more closely related to each other than to the *Cello Concerto*, since they're very close chronologically, and both written for the same instrument (violin), and even the same performer (Anne-Sophie Mutter). They are meant to be performed as part of the same program, with *Interlude* inserted between them. The *Cello Concerto*, however, still

belongs with the other two stylistically, despite their fifteen-year age difference. Moreover, a direct thread can be traced among the three works, and (knowing Lutoslawski's obsession with careful stylistic planning and deliberate compositional aims) one could go so far as to reconstruct the kind of planning, sketching and pre-compositional thinking that the composer was always meticulously working on.

The composer's late style is characterized by a simplification of the more dissonant, 'modernist' experimental writing of his middle period. The refinement of the style, also known as the 'second path', were carefully designed and tried out on smaller pieces until the style was fully developed. It will be shown how part of this planning was the development of a personal style for solo string linear writing. Hence, the three pieces under the microscope share principles of pitch and rhythm organization, a gestural repertoire on which they draw, and formal structure, as well as ways in which the soloist interacts with the orchestra.

Generally, the string soloist is assigned one of two kinds of music. Either a driving, goal-oriented, usually fast and loud kind of passage work of climactic nature, or a slower, more reflective kind of music that focuses on the moment and draws attention for its expressive power. Both kinds of music are intended to show the virtuoso abilities of the individual, as is the convention with concertos throughout the classical canon. Lutoslawski, however, almost segregates the two kinds of music by assigning different gestures and types of instrumental techniques, some of which are also particular to this composer. He then uses a modular combinatorial technique that assembles blocks from the gestural repertoire to create phrases. Gestures that appear in all three works are:

- ◆ Use of microtones and glissandi.
- ◆ Idiomatic use of harmonics.
- ◆ *p* - *f* gestures.
- ◆ Use of double-stops (or chords).
- ◆ Repetition of single pitches or small cells.

The fact that all of the above mentioned gestures appear in the introductory cadenza of the *Cello Concerto* is a strong argument in favor of establishing a trajectory of these gestures than can be traced along the three pieces, as if the composer gave us a catalogue of them in a very exposed section of the piece.

Microtones and glissandi are grouped together as ways to escape the confines of equal temperament on one hand, and add identity and expressivity to the soloist on the other. Equal temperament is not left behind, of course, but kept as a frame of reference. There are three ways in which these gestures function in the music: 1) as ornaments to a single pitch, as used in folk music; 2) to connect pitches (glissandi) and outline contour (these have specific departure and arrival points); and 3) for pitch pattern compression (microtones).

Examples of glissandi used ornamentally can be found in *Cello Concerto* at fig. 124, where the soloist slides off the pitches of a descending semitone pattern spanning a major 3rd, without connecting the pitches themselves. The gesture is repeated at rehearsals 135-136. A similar gesture is used in the first movement of *Partita*, at measure 59, this one connecting the pitches of an ascending semitone pattern that also covers a major 3rd. Microtones used ornamentally can be found at the introductory cadenza of *Cello Concerto* (1st page, 6th system down), where a pitch is followed by a microtonal inflection that is repeated several times.

The use of glissandi as a non-tempered way of outlining contour, or simply getting from one pitch to another without outlining any intervals (or outlining all intervals) other than the ones formed by the departure-arrival points, is extensive in all three works. The cadenza of the *Cello Concerto* introduces the glissandi on the first page, 5th system, and again on the second page, 3rd and 4th system. It also appears later in the piece at [6 cues before] rehearsal 36, also at [5 cues before] rehearsal 44. The same gesture appears in *Chain 2* at [1 meas. after] 51 and at 111-112. *Partita* also has several appearances of this type of gesture, for example: 1st movement at measure 21. The two violin pieces, however, introduce a new spin on the glissando gesture, by adding a precise control of change of pitch over time. This kind of metered glissando gesture appears several times between [1 meas. after] 56 and [2 meas. after] 58 in *Chain 2*, and extensively in the 4th movement of *Partita*, at measures: 58-63, & 78-90. In both cases, the composer limits and controls the distance traveled and the time it takes to get there, i.e. the outer interval, and the precise number of eighth-notes (in *Partita*), or eighth-note triplets (in *Chain 2*). The glissandi in *Chain 2* are limited to tritones, major 3rds, and major 2nds that later include minor 6ths (inverted major 3rds), and they take either 2, 5 or 8 eighth-note triplets (or an additive combination thereof) to get there. In *Partita*, the intervals are major 3rds, minor 3rds, and perfect 4ths, and the time units: 3, 4, 5 and 8 eighth-notes.

The third function of microtonal use transfers pitch patterns to the level of micro-intervals, usually quarter-tones, but also unspecified intervals produced by duplicating regular fingering patterns in very close positions. A characteristic passage that functions this way is in the first movement of *Partita*, between

measures 33 and 36. An ascending group of semitones (B-C-C#) is expanded every time it reappears (this technique will be illustrated later in the paper), the first two times by adding extra semitones (D, D#), and then by adding quarter-tones. Also, interpolated between these expanding half-step ascents are groups of quarter-tones that always begin a major 7th below the last pitch of the chromatic ascents (as if continuing the line from the octave below). These quarter-tone groups have the same contour, namely going up by two quarter-tones and coming back down by two. This shape is a compression of the two measures immediately preceding (mm: 30-31), only at the level of the quarter-tone.

The *Cello Concerto* cadenza features many quarter-tone-filled passages, but one passage in particular functions just like the above-mentioned passage in *Partita*. Beginning at the bottom system of the first page of the cadenza, and carrying over through the first system of the second page, the composer uses the same system of interpolating two groups of pitches: one fixed (B, B \flat , B \sharp) and one varied, but with consistent contour (either ascending or descending).

Another microtonal passage that functions as an intervallic compression is found in *Chain 2*, between figures [before] 8 and 12. Here, among a general environment of descending and ascending half-step runs, the composer inserts 4-note patterns of non-specified microtonal pitches resulting from placing the left-hand fingers as closely together as possible on the fingerboard. The result is a cell that is recognizable yet constantly varied in pitch content, which can be controlled with great precision, since its starting pitch is always an equal temperament pitch.

The Cello Concerto is the most ambitious piece as regards Lutoslawski's microtonal experimentations, and it served as a springboard for a more refined use of them in later pieces. He subsequently limited their use, and revised the fingering problems, but the concept remained the same. As Peter Petersen mentions in his article *Microtones in Lutoslawski's Music*:

It is clear that that Lutoslawski wanted the distinction between true glissando and the glissando simulated by scale segments. The very finest degrees of differentiation are important in Lutoslawski's microtonal world. Even if those of us with normal hearing can scarcely detect the difference between a true glissando and quarter-tone progression in a high register, played fast and *pp*, and furthermore veiled by the technique of aleatoric counterpoint, nevertheless the composer values the realization of distinct pitches, sometimes even at the same time as a glissando is being played in another part (Skowron, pg. 346).

It's clear to me that Lutoslawski makes such minute differentiations because of his very careful way of planning things out and considering all possibilities. In fact, his microtonal thinking is very advanced, and is ultimately abandoned only because of his obsession with things being very playable and idiomatic for the instrumentalists. Even the few times it does appear in orchestral parts in the Cello Concerto, it's laid out with extreme care, and it has a dramatic purpose, such as a reconciliation with, or echoing of the soloist.

Let's turn our attention to the composer's use of string harmonics. This technique is also used in a very idiomatic way, and even though Lutoslawski isn't the first composer to use harmonics as a way of extending a string instrument's range upwards, he definitely uses them in a coherent stylistic way that is similar among the different pieces. As far as natural harmonics go, there are two very similar passages in *Chain 2* and *Partita* that use the exact same pitches in a very similar context. These are between figures 6 and 8 in *Chain 2*,

and measures 42-45 of the 5th movement in *Partita*. The *Cello Concerto* uses similar natural harmonics at the last system of the cadenza before the first brass interruption. In this context, though, the harmonics provide a way of coloring a repeated pitch in an additive way. On the first page of the cadenza we see a very clever use of artificial harmonics that follow a pitch by a two-octave jump. At figure 116 this technique allows the soloist to jump above all other pitches in the orchestra, giving it registral dominance. The exact same gesture appears in figure 114 in *Chain 2*. In fact, a generalization for Lutoslawski's use of harmonics would be that they provide wide skips in pitch with very minimal left-hand motion, in fact with the left-hand staying in the same position in all instances. Finally, a tremolo harmonic glissando is used in at figure 45 of the *Cello Concerto* to combine more two gestures into a new one.

Use of the *p-f* gesture is quite present in all three pieces, and it's basically one more way of drawing attention to the soloist by altering the dynamic envelope, and along with it the spectral envelope of the pitch. In the *Cello Concerto* cadenza, this is also combined with the artificial harmonics, as seen previously, providing a very dramatic swell of the note. A similar dramatic swell occurs at figure 78 of *Chain 2*, this one going to *ff*. The same principle is also applied to a group of pitches later in the same piece at [3 meas. before] 95 until 96, as well as at [3 meas. after] 101. In *Partita*, this gesture is expanded to include even larger cells, as seen in the 5th movement, at measures 19-21 and 25-28.

Unlike all the above-mentioned gestures, which can be found in both the climactic, fast, driving parts, and the slower, softer, more reflective ones, the use of double stops is almost exclusively reserved for the climactic ones, and usually

as the last way of ‘pulling out all the stops’. This is not exclusive to Lutoslawski of course. It is common knowledge that double (or triple and quadruple) stops need a lot more aggressive bowing in order to sound, which adds a noise element and intensifies the attack of the sound. Interestingly enough, the *Cello Concerto* cadenza doesn’t have any double stops. They’re reserved for later in the piece, where they’re really needed, such as the *furioso* section at figures 90-96. In a similar way, the soloist in *Partita* uses this technique sparingly, and with a new feature. Here, most sections that contain double-stops use those in which one of the pitches stays constant, while the other moves, as in measures 22-25 and 77 of the first movement, or both remain constant (mm: 95, and 98-100), and in the third movement: mm: 28-29. This remains so in the triple stops of the last movement (mm: 115-116). In *Chain 2*, we find double- and triple-stops at the *rude* sections, and here the intervallic content is more contained, thus at figure 23, we find many chords rich in interval class 1, as are the chords at figure 27, while at figure 31, interval class 6 also becomes prominent. Interval class 1 remains very prominent through all appearances of the double/triple-stops, as at figures 61, 78, and from 125 to the end, while at the climactic passage at [2 meas. after] 112 the intervallic content expands while the pitches ascend, drastically intensifying the energy.

As far as single pitch and cell repetition go, one notices that in this style of linear construction, the composer doesn’t aim for the melodic lines to be goal-oriented, even though there are exceptions to this generalization in the *Cello Concerto*. The drama of the piece is achieved by the overall formal construction, and the interaction between the soloist and the orchestra. The individual line of the solo instrument doesn’t therefore aim toward registral climaxes or long

ascents or descents, as is normal in older music. Lutoslawski repeats pitches or small groups of pitches constantly and uses patterns of motion in a spiral way, reversing direction very frequently. There are endless examples of this in all three works, the most striking perhaps being the *Cello Concerto*, which repeats a single pitch as many as twenty times each time it returns. Cell repetition also happens so much that it would be redundant to list here. Another interesting way of recycling material is by sequencing cells. *Partita* has many such examples, notably the three-note chromatic cells at measures 19-25 of the first movement, which are used no fewer than twenty-nine times, followed by the cell [B \flat -A-G-A \flat] at measures 26-28, which is repeated in four different octaves. Later in the same movement, at measures 73-79 two cells, [B \flat -G-D \sharp -E] and [B-A \sharp -G \sharp -A], are alternated at varied pitch levels and later with slightly altered intervallic content, but unmistakably with the same contour and identity.

This would be a good point to take a deeper look into the pitch content of the solo lines of Lutoslawski. It has been known through the writings of Steven Stucky and Charles Bodman Rae that the composer uses devices such as interval pairing, 12-tone pitch complementation, and 12-tone chords to organize his pitch world, and also that vertical symmetry is a favorite feature. It turns out that these devices can be found on the horizontal plane as well. In fact, the horizontal dimension seems to be derived from the vertical by stretching it in time. This works mostly on the local level. The composer designs individual phrases by carefully mapping out the musical space he needs to occupy, and then selects pitches according to either 12-tone set complementation or interval restriction, designs a vertical structure with some kind of symmetry, and then distributes the

pitches linearly, usually with restricted rhythmic patterns as well. Let's look at some instances where this process is clear:

In *Chain 2* the upward run after figure 7 is made up of interval classes 1 and 3, and the whole sequence is symmetrical around a 1-1 group [C#-D-E♭], so the intervals from bottom to top are: 1-1---3-1-1-1-1-3---1-1---3-1-1-1-1-3. This one also reveals another feature that appears in some of the phrases, namely of patterns duplicated in every octave, a feature that adds another kind of symmetry, in addition to that of the overall design. At figure 56 a slightly different version of the process is used: a interval pattern of [2-2-1] is stacked five times, which produces a non-octave-duplicated, but symmetrical vertical structure (the axis being the group in the middle, rather than a single pitch or interval). Then at [3 meas. after] figure 58, a structure of similar content as the one just mentioned unfolds in a different way: groups of intervals arranged symmetrically to a center group, but the whole structure is octave-duplicated. The axis group is [2-1-2-2], and on each side of it are two groups: [1-1-1-2] and one more [2-1-2-2].

Partita displays similar ways of thinking. The passage at measures 25-28 has already been mentioned as an example of octave duplication. It's also a great example of how far one can go with only four pitches.

The concept of additive repetition has been seen before in the *Cello Concerto* cadenza with the microtonal groups. In *Partita* it also comes up in the 5th movement beginning at measure 104. The cell [G-G#-A] comes back with a new pitch added each time, until the pattern is duplicated at the octave, and then the process is repeated with a new cell [C#-D-E♭], interpolated by still another [D♭-C-

D] and then the two are repeated at the octave, and then up a minor 9th, followed by a symmetrical descent [(2-2-2)(1-1-1)(2-2-2)] to close off the phrase at measure 114. A similar example of additive repetition is at figure 35 in *Chain 2* where the cell comes back to the bottom note every time, but a new pitch is added at its tail each time respecting the interval restriction. Finally, a subtractive repetition process is taking place in *Partita*, 1st movement, mm: 62-64, where each repetition takes away a pitch, leaving behind a single D# at the end.

Similar procedures are used in the construction of rhythmic cells. Just like his preferences in certain intervals, the composer seems to favor triplets, quintuplets and septuplets as building blocks, probably to avoid 'square,' predictable patterns. In fact, his whole approach to aleatoric procedures aims at that end. He does however organize rhythm as carefully as any other parameter in his music. Modular construction and symmetry are concerns here as well.

In *Chain 2* at figure 15 we see a rhythmically symmetrical figure (palindrome) using a group of four 16th notes as the axis. Interestingly enough, the pitches in that group are ascending, thereby clouding the symmetrical picture, and a ritard is marked on the last group, further distracting from the obvious.

The repetition of modular material that's been mentioned before happens at the rhythmic level as well. The unusual feature of Lutoslawski's treatment of these blocks, however, is the way he controls the space between them, or simply how far apart in time they are. We usually see him augmenting the distance between them, as in the *Cello Concerto* cadenza, where in the 11th system of the first page the distance between the recurring B's grows from an eighth-note to a dotted eighth-note, to a quarter-note. This happens again on the 4th system of the

second page, this time between a two sixteenth-note group of repeated A's. In *Chain 2*, [3 measures after] figure 101, we see the distance between the sixteenth note groups gradually diminish.

There are of course more features in common among the three pieces, besides the construction of lines. Superficial similarities like the opening tremolo gestures in both the *Cello Concerto* and *Chain 2*, which in both cases are followed by sixteenth-note, perfect 4th-rich figures, or the ways in which the orchestra interrupt the soloist. Most features left untouched have been extensively worked out by other theorists. There is a unified way, for example, that the composer creates his *dolente* passages, also a common practice of using interval classes 2 and 5 for lyrical passages. There are similarities in the orchestral texture, in which in this late style of the composer there is "more differentiation between foreground melodic lines and background harmony" (Rae, pg. 146-7). There are also similarities in the ways the soloist's climaxes are in all three cases preceded by big, catastrophic 12-note-chord climaxes in the orchestra, and there are similarities in the way the orchestra starts acquiring properties from the soloist's material as the pieces progress. There is also a sense of direction that shows growth in the composer's technique between pieces. Refinement of form, and the introduction of the overlapping strands of the chain technique, as well as less frequent use of 12-note chords as Lutoslawski moves into his late period also present differences among the construction of the three pieces. The fact remains however, that they share a common, codified way of linear construction. It is unfortunate that the composer didn't manage to complete the *Violin Concerto* that he left unfinished on his composing desk, for it would surely add more evidence of both similarity and growth in his way of writing for solo string instruments.

The genius of the composer lies in his ability to create a very unique style that can be expressed in as many ways as there are pieces, each one unique, and yet unified, all pointing without doubt to the same composer. The 'second path' is a well thought-out, well-developed product of breaking down and completely reconstructing every parameter imaginable over a long time, and independently of a specific project. And yet there is still a thread to be followed from the very early utilitarian pieces to the late refined masterpieces.

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