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Chain or polysyntax: formal punctuation in the music of Witold Lutosławski, based on the example of the *Bucolics* and Postlude No. 1

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Punctuation form

The growing interest among music theorists in the historical theory of form from the Classical period has significantly changed the way we listen to and understand the works belonging to the strict canon of repertoire.[1] We have become aware that the a priori, normative theory of musical forms applied during the twentieth century was an ahistorical approach. In Mozart's time, the idea of form was viewed

[1] Cf. C. Dahlhaus, 'Der rhetorische Formbegriff H. Chr. Kochs und die Theorie der Sonatenform', *Archiv für Musikwissenschaft*, 35/3 (1978), 155–177; M. E. Bonds, *Wordless Rhetoric: Musical Form and the Metaphor of the Oration*, Studies in the History of Music (Cambridge, MA, 1991); S. D. Vial, *The Art of Musical Phrasing in the Eighteen Century. Punctuating the Classical ' Period'* (Rochester, 2008); D. Mirka, *Metric Manipulation in Haydn and Mozart: Chamber Music for Strings (1787–1791)* (Oxford, 2009); also K. Wyglądacz, 'Komponowanie ciszy. Funkcje pauzy w muzyce baroku i klasycyzmu' [Composing silence: the functions of rests in music of the Baroque and Classical eras], *Teoria muzyki. Studia, Interpretacje Dokumentacje*, 11 (2017), 81–110.

differently: the structure of a composition was based on clearly articulated nodal points, determined by a series of cadences and related to the appropriate disposition of thematic elements and the overall tonal plan. In the eighteenth century, these cadences were differentiated and hierarchised in a very elaborate way, with reference to linguistic metaphors: different cadences corresponded to different punctuation marks, with different degrees of 'closure'.

The discovery of this forgotten interpretive path turned out to be a refreshing exercise for our musical imagination. Typical academic analysis was focused on capturing in music that which was already assumed a priori: the realisation of a specific formal norm, or the demonstration of particular sound orders which could not be perceived by the naked ear (e.g. in Schenkerian analysis). The subject of analysis was the poetics, that is, the technical aspect of music; moreover, it was an aspect imposed on music rather than one that could in fact generate it.[2] To restore the idea of punctuation form is to rehabilitate the surface layer of music – that which is the subject of direct aesthetic perception. This of course does not mean that punctuation analysis cannot in its own way lead to issues which were always of interest to analysts, to revealing the hidden structural relations in a work. But this time it should not be possible to detach these relationships from the real musical experience so easily and with such impunity. One might say, half-jokingly, that punctuation analysis, instead of abstract analytical Platonism, offers something like concrete empirical Aristotelianism, where each form is inseparably joined to its material shape and its development through time.

Heightened sensitivity and habits acquired through dealing with punctuation analysis of Classical compositions may be transferred to the world of later music, even to that of the twentieth century – obviously only where this makes sense. One then has to make a number of substantial corrections, but the general principles do not change: first, find the caesurae; then, establish their hierarchy; finally, take a good look at the picture of the form that emerges as a result of applying such a procedure.

The tools of punctuation analysis prove their value in an obvious way in neoclassical music, but in no way are they limited to that style. I would like

[2] This problem, which burdens all modern science, would be described by A. N. Whitehead as the 'fallacy of misplaced concreteness'. The fallacy lies in confusing the concrete with the abstract (see J. B. Cobb, Jr, *Whitehead Word Book* (Claremont, 2008), 15–16; A. N. Whitehead, *Science and the Modern World* (Cambridge, 1926), 64–72). In the case of music analysis, an example of misplaced concreteness seems to be to ascribe to abstract formal schemas the formal status of concrete objects that are somehow primary in relation to the works, while in fact it is the musical form which is the abstraction deduced from the experience of concrete works.

to flesh out this thesis taking as my examples two excerpts from the oeuvre of Witold Lutosławski: from the neoclassical *Bukoliki* [Bucolics] and the 'avant--garde' Postlude No. 1.

Lutosławski: Bucolic No. 2 (1952)

When describing his folkloristic style, Lutosławski listed as one of its distinguishing features the 'rhythmic transformation of motifs and the polymetre that results from combining them with their accompanying elements'.[3] In his commentary to the *Bucolics*, Adam Walaciński adds that 'in comparison with the *Melodie ludowe* [Folk melodies] that preceded them by seven years, they demonstrate a very powerful emancipation of the metro-rhythmic aspect. Here the elaborate polymetre often comes to the fore'.[4] That is precisely what interests us here, and since the metro-rhythmic aspect in the *Bucolics* achieves perfect symbiosis with the melodic phrasing and harmonic processes, the caesurae between consecutive segments of the polymetric patterns may easily be regarded as punctuation phenomena almost in a Classical sense.

The second Bucolic has an ABA' form (see Example 1). The outer sections adhere to a regular periodic structure, while the middle section introduces in this respect a contrast that is strong but not radical, since it is prepared by two bridging bars. This section will be the subject of our analysis. It has seven bars, mostly in 3/4; only the penultimate bar switches to 4/4. The 3/4 metre is imposed on this miniature by the folk theme (borrowed from *Puszcza kurpiowska w pieśni* [Kurpie forest songs] by Revd Władysław Skierkowski). From the formal point of view, the middle part may be regarded as a gradual breaking-up of this metre and the syntactic patterns organised by it, while the reprise restores the initial regularity.

In order to discern more clearly the syntactic complexity of this fragment, let us see what its notation would look like if the bar lines were placed in a way that reflects the real phrasal caesurae (see Example 2). In the part of the right hand, the first two phrases still retain the initial metre: both number six crotchets, divided into two equal motifs (3+3). The third phrase has five crotchets (3+2), and the fourth phrase has four (2+2). In the four-crotchet fifth phrase, there is an elision (marked with a caret): its three-crotchet second motif begins on the last note of

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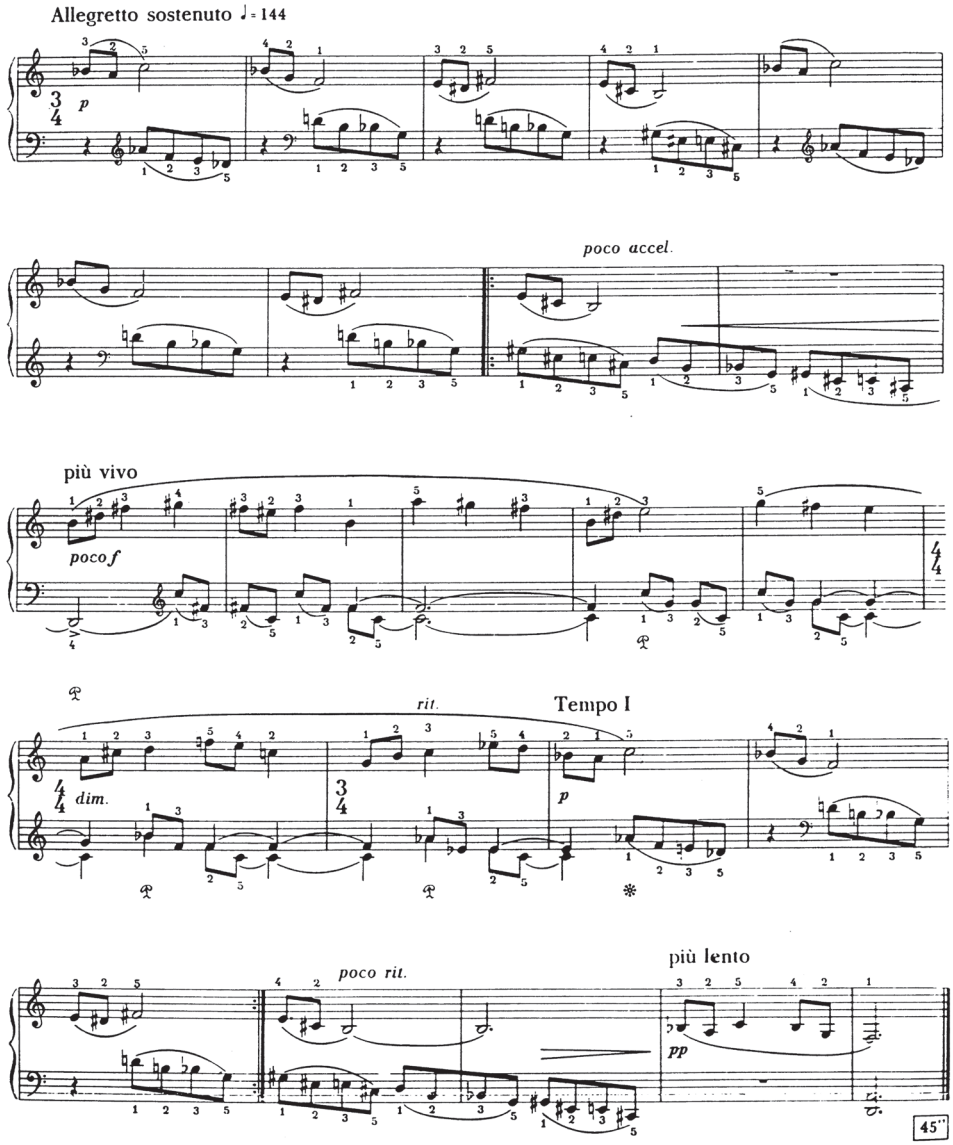
[3] Quoted after A. Walaciński, 'Nota' [Note], in: W. Lutosławski, *Bukoliki* [Bucolics] (Kraków, 1968), 14.

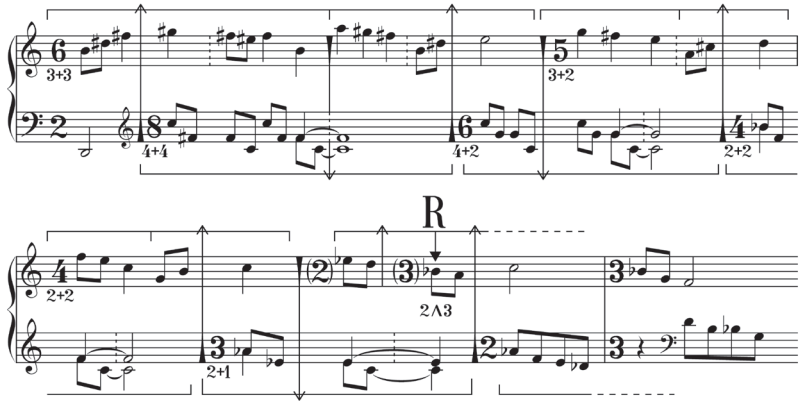
[4] Ibidem.

the two-crotchet first motif. This elision falls at an important juncture in the overall form of the piece: on the beginning of the reprise (R).

Example 1. W. Lutosławski, Bucolic No. 2, © Copyright Polskie Wydawnictwo Muzyczne 2013.



Example 2. Middle section of W. Lutosławski's Bucolic No. 2. Revealing polysyntactic patterns,

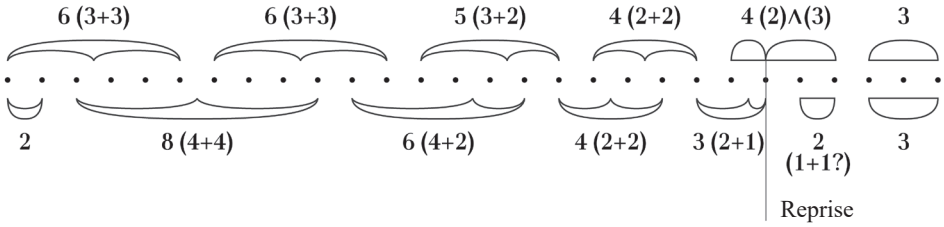


In the part of the left hand, the syntactic pattern is diametrically different: the first bar is filled by a minim. Then comes a sequence of four bars with complex metres, where in the second segment the harmonic figuration presented in the first segment reverberates and fades. This series creates the sequence 8/4 (divided 4+4), 6/4 (4+2), 4/4 (2+2), 3/4 (2+1), after which – now in part A' – there is still a bar in 2/4, before the music returns to the regular 3/4 metre.[5]

This can be illustrated on an abstract graphic diagram: the dots indicate pulse units (crotchets). Above and below are sequences of syntactic configurations of both melody and accompaniment, with the internal division of complex metres marked by a 'beak'. This diagram also presents visually the idea of chaining, present even at such an early stage in Lutosławski's oeuvre.

[5] We learn about the great importance that Lutosławski attached to the non-symmetrical segmentation of phrases by reading his comments on Albert Roussel's Symphony No. 3, one of his favourite twentieth-century scores. Analysing it in a lecture given at the Music Academy in Basle in 1970, he stipulated: 'I will deliberately play [the symphony's] themes in a monodic form, in order to be able to concentrate on their melodic and rhythmic aspects'. This is how Lutosławski describes the two themes of the first movement: 'The first theme […] draws attention by its length. It contains thirty-one measures preceded by three introductory measures. Its first fifteen measures are built of groups of three measures each. […] The second theme […] contains only sixteen measures, which are divided untraditionally into: 4 + 5 + 3 + 4' (W. Lutosławski, 'On Roussel's Symphony No. 3', in *Lutosławski on Music*, tr. and ed. Z. Skowron [Lanham, 2007], 195–196).

Example 3. Graphic diagram of polysyntactic configurations in the parts of both hands.



The development of both these layers is based on the same general principle of reduction. It gradually affects both segments of the complex metres, and it is always the case that the first segment is shortened before the second. However, while in the top layer this process takes place more gently, because it consists of the arithmetic subtraction of one value, in the bottom layer it is more dynamic, since it consists of cutting in half, following the principle of reversed geometric progression: hence the bottom layer has a higher number (8) at its starting point, which in consecutive steps undergoes reduction to 4, 2 and 1. The mathematical principles governing the punctuation of the middle section are shown below in tabular form:

Melody (reduction in accordance with arithmetic progression)	Accompaniment (reduction in accordance with geometric progression)
[6] 3+3 [6] 3+3 [5] 3+2 [4] 2+2 Elision	[8] 4+4 [6] 4+2 [4] 2+2 [3] 2+1 ≈[2] 1+1

One notes the gradual *moving away from*, then *return to* the phrase structures matching the pulse of the nominal 3/4 metre. The accompaniment abandons them at once, although in a manner prepared for by the hemiola which fills the bridge between sections A and B. The melody preserves the shape in accordance with the 3/4 in the first sentence, traditionally made up of two phrases. Even subtler is the transition into the reprise: it is undoubtedly marked by the return of the initial motif, yet that motif passes unnoticed. Or rather it is only revealed in listening *ex post facto*. This is because the point of the reprise is composed into the logic and dynamic of the reduction of section B. These processes come to an end in the first bar of the reprise, which they continue to include. One might compare this to a dizzy spell, after which we regain our balance only in the second bar of

the reprise. From the perspective of punctuation form, two events in particular contribute to the blurring of the point of reprise: first, the elision, which is the effect of the blurring, and not the marking-out of the boundaries; secondly, the fact that the moment at which the phrase punctuation of the melody corresponds to the phrase punctuation of the accompaniment is reached only in the first bar of the reprise. There is no space here for analysing the pitch motion, harmony and texture; one need only emphasise generally that the development of these musical parameters is organically interwoven with the syntactic phenomena, and it is only the synergy of these elements that produces such a marvellous aesthetic effect.

However, let us draw attention to what might appear to be a side issue: the agogics. The reprise is indicated by *Tempo I*, preceded by *ritenuto*. It is easy for a misunderstanding to take place here, which would consist in lowering the tempo below the initial one and beginning the reprise *Subito tempo primo*. Many performers follow this habitual understanding of formal punctuation and do not take into account Lutosławski's modification of it. Yet Lutosławski (whose authorial recording of the *Bucolics* from 1953 is unmatched) wants to achieve a completely different effect: section B should be played *più vivo*. The acceleration is not by leaps but gradual – prepared for by the *accelerando* in the bridge between sections A and B. Its symmetrical equivalent is the *ritenuto* before section A', whose function is a gradual slowing to the initial *Tempo I*. Thus the agogic dispositions help to blur the point of reprise.

Lutosławski: Postlude No. 1 (1958–1960)

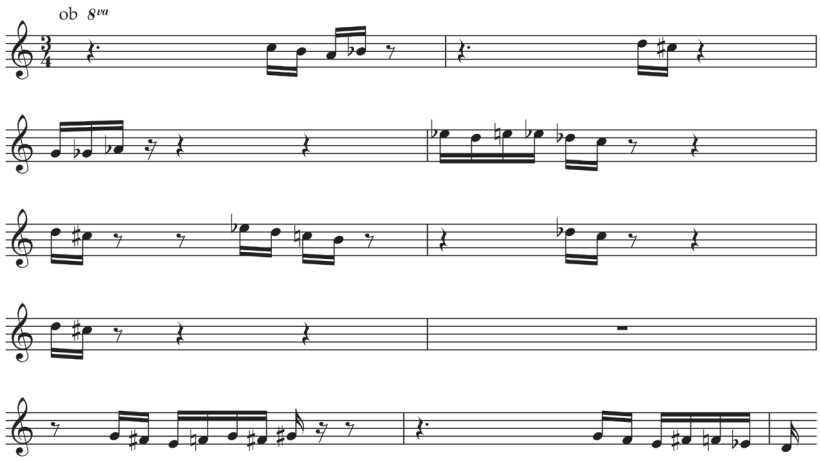
Postlude No. 1 also has the reprise structure ABA'. Here too the formal punctuation is supremely subtle in the transition to the reprise, which continues the energetic processes of the middle section in a manner so perfectly seamless that we should be talking not of the blurring of the reprise point, but of its total elimination. In spite of this, paradoxically, the very existence of the reprise is not in doubt; again we reach that conclusion *ex post facto*, but this time from a much more distant perspective.

At this point, however, we shall be concerned with the most orderly section, the first one, since it will exemplify how the already highly advanced punctuation techniques observed in the *Bucolics* can be developed even further.

The texture of the beginning of the Postlude also has two layers: melody with accompaniment. This theme takes up 11 bars (see Example 4). It is divided into two groups, separated by a bar of a general pause: the first group has seven bars,

the second has three. When we add the bar with the pause, we get the schema: 7+1+3. The musical logic of this configuration might be characterised metaphorically: the first group, made up of a mosaic of eight motifs numbering from two to six notes, represents the search for the theme; the second group, made up of two symmetrical seven-note phrases, with the character of antecedent and consequent, represents its discovery. This configuration appears consecutively in four variants. All four presentations retain its rhythmic structure exactly. They also copy the melodic contour, but in a free controlled manner, because the interval pattern is rescaled: minor and major seconds are dominant in the first presentation, minor and major thirds in the second, tritones and minor ninths in the third, fourths and fifths in the fourth. Each of these presentations is ascribed to specific wind instruments, each has its own type of articulation, and each also has something like a shadow that accompanies it: this is a kind of rhythmic and harmonic smudging, entrusted each time to specific harmonic instruments. Thanks to this set of foreground factors, the division of this section into four segments is perceivable with perfect clarity.

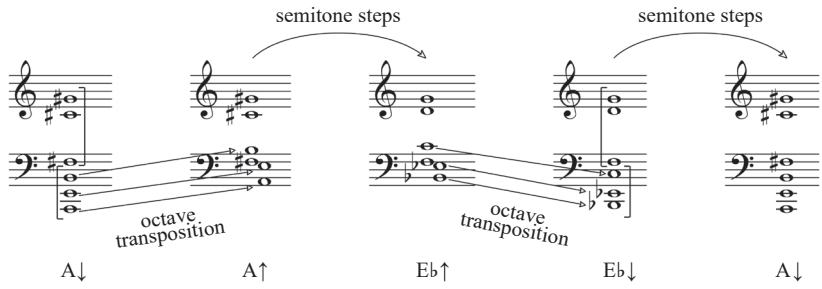
Example 4. W. Lutosławski's Postlude No. 1. First variant of the initial theme.



Far stranger is the accompaniment layer. In terms of the sound material, it comprises two six-note chords which in total create a full twelve-note chord. Both are constructed according to the principle of the harmony of fifths: the first six-note chord builds up the fifths from A to G♯, the second from E♭ to D. The first chord appears in root position, the second is inverted. The aim of this change is to achieve such a form of the E♭ chord which would combine with the A chord in

a way that would be harmonically the most perfect, that is, leading all the voices by semitone steps. In addition, Lutosławski differentiates the two chords in terms of position: the three lowest notes of the basic open position create a subgroup which can be transposed an octave up, with the register of the higher subgroup remaining unchanged. In this way, what is created is a kind of close position of the same chord (the difference between the open and close position is indicated on the diagram using arrows).

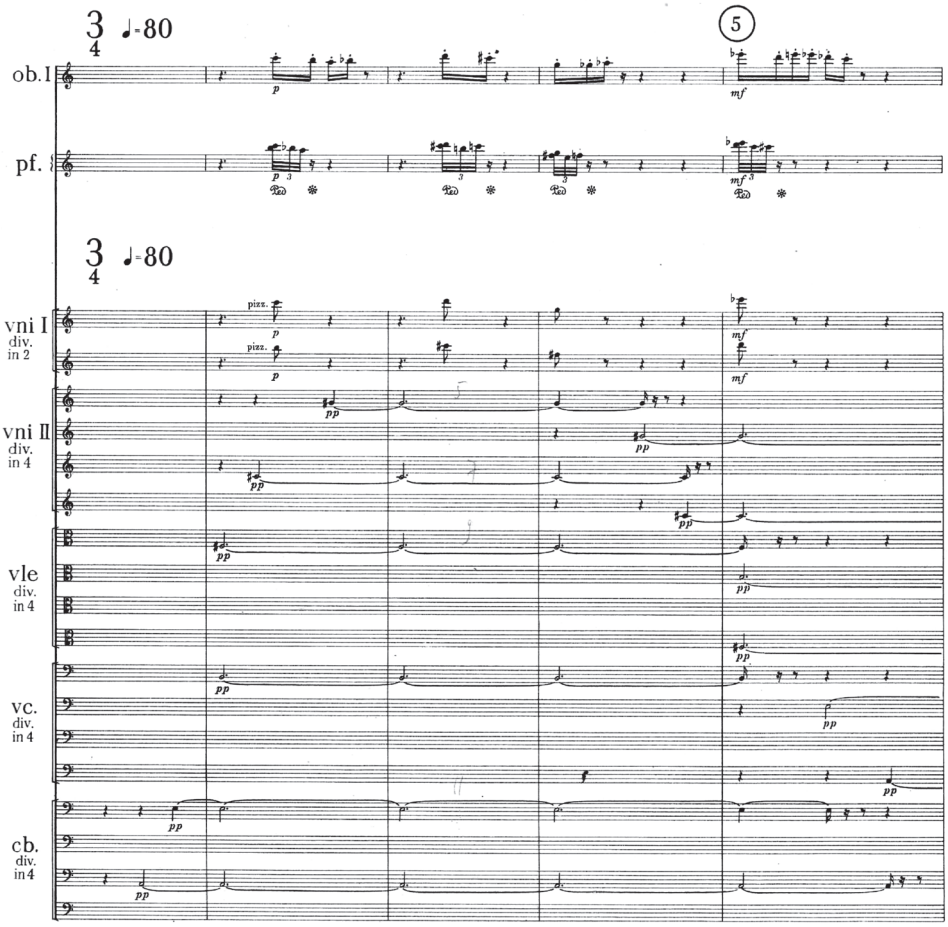
Example 5. Chords creating the accompaniment layer.



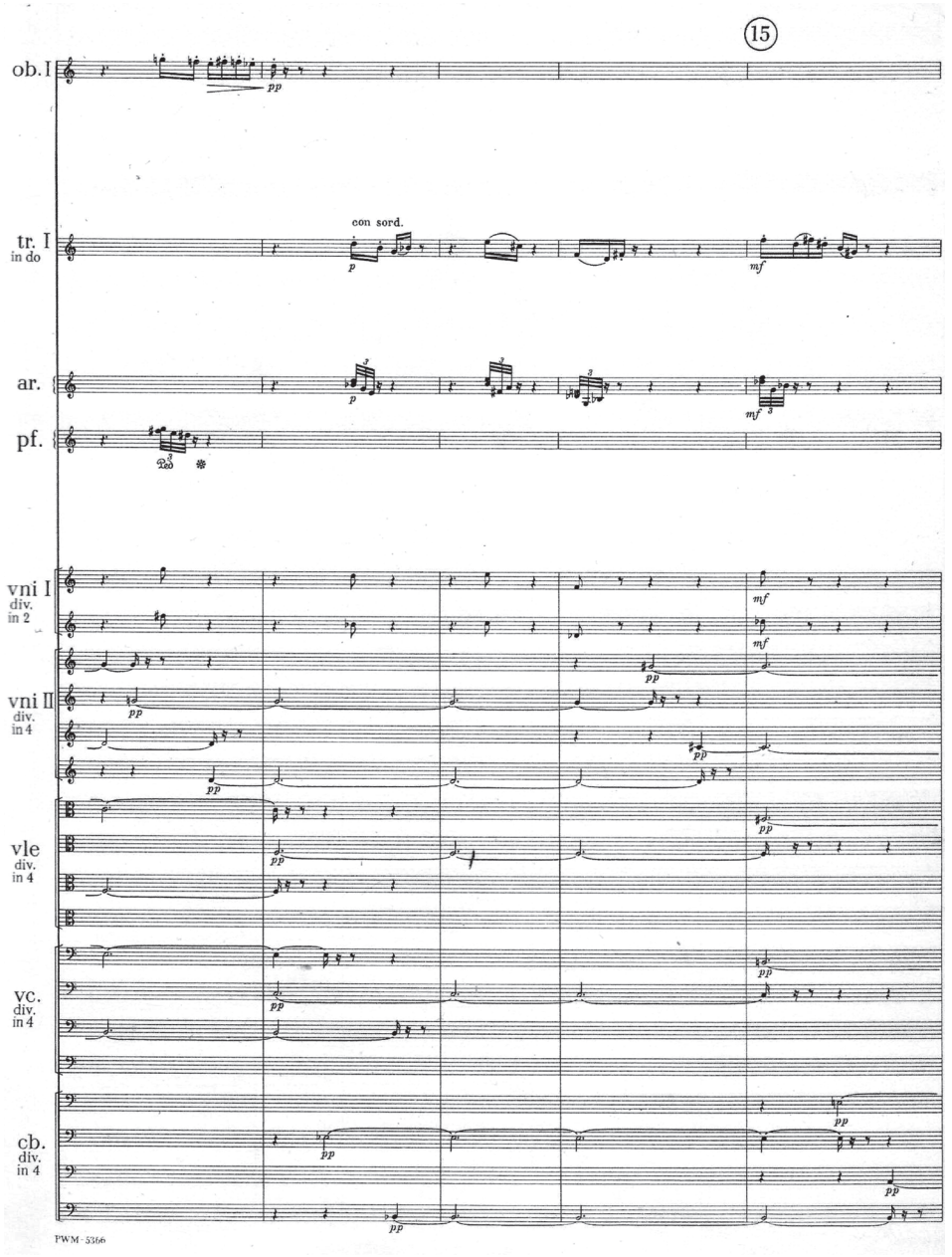
Harmonic material designed in this way allows Lutosławski to produce unusual punctuation in the accompaniment layer, which consists of a sequence of 12 six-note chords. However, they do not follow each other in the traditional manner but overlap each other gradually, in a way that is reminiscent of old-style film punctuation, where the montage of two scenes involves their interpenetration: while one shot fades out, the next one emerges. Such a *temporal* metaphor is a good description of the *aural* experience. But when we *look* at the score, it is rather a *spatial* metaphor that comes to mind: the visual arrangement of the accompaniment resembles a mosaic of contiguous geometrical figures, trapeziums and parallelograms (see Examples 6a and 6b). These are figures devoid of straight angles. If they had them, there would be neither the interpenetration of planes nor the subtleties of punctuation, which will be briefly discussed now.

The diagram (Example 7) shows the formal course of the first section of Postlude No. 1: the four presentations of the theme at the top, all 12 figures of the accompaniment below.

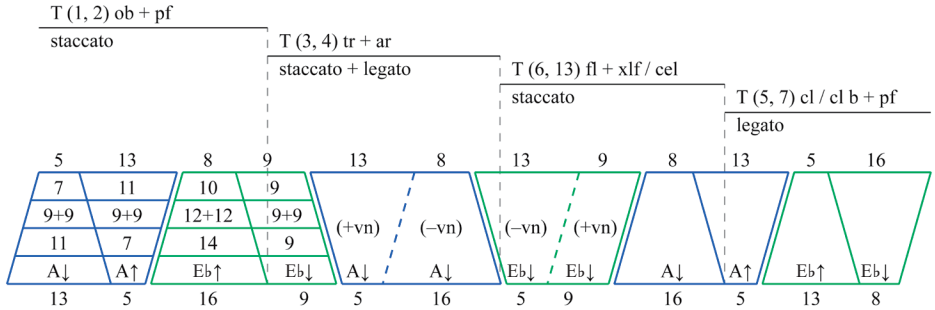
Example 6a. W. Lutosławski, Postlude No. 1, bars 1–5. First figure of the trapezium, © Copyright Polskie Wydawnictwo Muzyczne 1964.



Example 6b. W. Lutosławski, Postlude No. 1, bars 10–15. First figure of the parallelogram,



Example 7. Formal course of the first section of Postlude No. 1.



Top layer: four presentations of the theme with characteristic features marked: dominant intervals, instrumentation, articulation, register. Bottom layer: 12 accompaniment figures and their characteristic features: shape of the figure, size of the figure (expressed in the number of crotchets in the six textural layers), harmonic form (type of interval and transposition (or its absence) of the bottom three-note group), instrumentation (absence of violin marked in figures 6 and 7).

The measure of the size of each figure is the length of its top and bottom base, expressed by the number of crotchets.[6] There are four types of such figures,

[6] Martina Homma adopts one bar, and not one crotchet, as the measure of the duration of consecutive chords. Twelve chords then form the sequence 3–3–4–3–3–4–3–3–4–3–3–4; ignoring the effect of transposition, i.e. adding up the duration of chords with the transposed and non-transposed bottom group, Homma obtains the simplified schema 6–7–7–6–7–7. However, this is an indistinct and averaged picture which does not reflect the subtleties of the 'blurred' caesurae (see M. Homma, *Witold Lutosławski: Zwölfton-Harmonik – Tonbildung – 'Aleatorischer Kontrapunkt'*, Cologne 1996, p. 211 [589]). Criticising Homma's analysis, one may refer to a statement by Lutosławski himself. He attached great importance to identifying the correct analytical 'module'. This term, in his understanding, refers to the 'largest segments of musical form, arising from its natural division and possessing the same length. A module is thus a relative unit of duration, similarly to rhythmic values such as semibreve, minim, etc.' (W. Lutosławski, 'Kilka problemów z dziedziny rytmiki' [A few issues concerning rhythm], *Res Facta*, 9 (1982), 114). The music of the Classical period was characterised by the use of long segments of the same length (particularly in dance forms: Haydn's minuet, as analysed by Lutosławski, consists of five 32-bar modules). Earlier music (Lutosławski quotes examples from the Middle Ages) and later music (beginning with Beethoven, peaking in the twentieth century) moves away from such large-scale symmetry. This means that the length of the module gradually shortens to a smaller group of bars, one bar, a pulse unit or an even smaller rhythmic value, until finally, the 'module, becoming increasingly smaller, gets close to zero, that is, total disappearance' (ibidem, 121). Using Lutosławski's terminology, one should thus say that Homma erroneously assumed that the module of Postlude No. 1 is one bar. In fact, as the above analysis shows, it is one crotchet.

presented at the very beginning and described on the diagram together with the inner voices, where the lengths of each layer mediating the gap between the top and the base change gradually by two crotchets (the middle layer is marked with a double number, because two notes appear there: the chords are of six notes, and there are five layers in the textural geometric pattern, hence the two middle notes of the chord sound simultaneously). Having presented this pattern, let us ask: what is the hierarchy of these 'oblique' caesurae between interpenetrating chords?

It turns out that there are three keys to their arrangement, which produce a different picture of the formal hierarchy each time. Undoubtedly the most important aurally is the rhythm marked by the changing harmonic fields of A and E♭ chords (particularly audible are the changing notes of the framing voices: A [in the bottom voice] leads to B♭ [in the top voice], G♯ leads to G). From this point of view, this section is divided in the accompaniment layer into three segments, marked by the three sequences of A and E♭ chords. A number of other facts also support such a division. At the end of the first two four-figure groups, there is a parallelogram which makes the group of four that follows it a geometrical inversion of the preceding one (but preserving only the contour relationship, while the dimensions of the trapeziums change). And since on the third occasion, instead of the parallelogram, we have an inversion of the large trapezium, the arrangement of these three segments viewed in this way may be described as ABC. However, if we take into account the octave transposition of the low chord subgroup, we end up with the arrangement ABA. This is because such a transposition, which is a weak punctuation mark, is used only in the outermost groups of four (on the diagram, this is marked with an arrow pointing up). We will not hear it in the middle section (on the diagram, the arrow always points down), which is why the change of two chord positions of the same type is least perceptible there – the difference lies only in the instrumentation of the chord: brighter (with violin) and darker (without violin). This ambivalence to the formal arrangement of the sequence of chords – ABC or ABA – is a very subtle polysyntactic effect that works more on the level of subliminal perception. However, let us note at once something absolutely vital for the foreground perception: that such a tripartite division is at odds with the quadripartite division of the presentation of the theme. This very fact, of divergent punctuation to the melody and the accompaniment, is clearly heard, but impossible to decipher. We thus see that the polysyntactic line of the *Bucolics* is continued in the Postlude, but in a much deeper way.

And here is the second key to interpreting the accompaniment layer. It is a symmetrical mirror image around the axis of the middle trapezium with a base length of 16: the series of figures to the left and to the right of this figure are identical. Such poetics certainly cannot reveal itself on the aesthetic level: such technical procedures cannot be heard at a concert, even subliminally (unlike in the case of the numerology of the *Bucolics*, which can be heard, although obviously not as a number but as a sensory effect). They provide the analyst with the satisfaction that comes from the aesthetic value of the score itself, in a sense disconnected from the sound of the music. But there is another advantage: when we recognise the axial symmetry, we see that outside its logic lies the last figure, which from this (and only this) perspective is an added figure, beyond the system, and as such it is perfectly suited to function as a kind of bridge: that is because it forms the background to which the musical action of section B will make its entry, without disturbing the ideal arrangement that earlier sounded to the end.

And there is still the third, final reading: there is also the possibility of a quadruple division of the accompaniment layer. In this approach, each segment would consist of three figures, and the last one would on each occasion be a large trapezium: placed on its base in the first three cases and on its top in the fourth, again dynamising the music at the moment when section B comes in. If we adopt such a view, we will find a perfect coherence between the formal division of melody and accompaniment, since the ending of the presentation of the theme always coincides with the end of the base of the trapezium (this convergence is shown on the diagram by the vertical broken line). This coherence, like the bipartite system resulting from the axial symmetry, is only revealed when one reads the score, and not just directly but analytically.

However, on the level of direct aesthetic perception, there appear two other elements that link the melody and the accompaniment. First, the last variant of the theme is built on fourths and fifths – the intervals which form the harmonic core of the accompaniment chords. The last phrase of the theme replicates the notes of the chords, achieving total union with them; it is then possible to realise retrospectively that the whole process of the intervallic transformation of the theme travelled all the way from the state of extreme disagreement with the intervallics of the accompaniment up to the state of ideal symbiosis with it. Secondly, the register is lowered across the four presentations of the theme: from the highest, detached from the register of the accompaniment chords, as far as the lowest. Also in this respect, towards the end, there is a perfect melding of the two layers. The further course of this composition demonstrates convincingly the important role of register in form creation, but that is a subject for another occasion.

Lutosławski's polysyntax from an aesthetic-historical perspective

Let us close with three explanations and justification. Why bring into analysis of Lutosławski's music ideas taken from eighteenth-century punctuation form when – in contrast to the intellectually disciplined, aurally clear and unambiguous syntax of the Classical forms – Lutosławski's polysyntax, while intellectually disciplined, is aurally unclear and ambiguous? The reason is that Lutosławski has a strong genealogical bond with the Classics, something he mentioned on many occasions. The approach suggested here may perhaps bring us closer to determining the nature of that bond.

Why do I propose the term polysyntax and not polymetre? The reason is that classic twentieth-century polymetre, such as we find particularly in Stravinsky, does not strive to include caesurae within the framework of higher-order syntax logic: it is more of a patchwork, a collage, resembling a Harlequin costume. But Lutosławski does not want to tear up the Classical-Romantic musical syntax; rather, he tries to expand it and make it as flexible as possible. Unlike Stravinsky, he retains the teleological and organic character of musical narration: his ruptured (and within that rupture, internally fragmented) units of musical sense have a tendency to unite, to find a common caesura, being a resting point, a place where the pressures are equalised, a felicitous moment when disturbed balance is restored – even if, as with the reprise of the works analysed here, this point is hidden or practically eliminated. If we were to look for some great model where music would take on features heralding Lutosławski's polysyntax, it would not be any of the twentieth-century composers, but Johannes Brahms.

And why do I suppose that polysyntax would be a good synonym for the idea of chaining? The reason is that the idea of chains, which officially appeared at the beginning of the 1980s, is de facto a development of complex teleological polysyntactic processes that appear in an advanced form as early as the *Bucolics* and the Concerto for Orchestra. Thus the term polysyntax allows us to capture certain enduring features of Lutosławski's language and discern the deep unity of all three periods in his creative output: neoclassical, modernist and (for want of a better word) postmodernist. The transitions between them are like those blurred caesurae discussed above.[7]

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[7] Cf. Lutosławski's commentary to *Preludes and Fugue*: 'One should not use rests between the preludes, since they are composed in such a manner that the end of each prelude may overlap the beginning of any of the others' (W. Lutosławski, *Preludia i fuga* [Preludes and fugue], [text on the dustcover flap], Kraków 1973). The problem of replacing sharp formal caesurae with

ABSTRACT

The growing interest among music theorists in the historical theory of form from the Classical period has significantly changed the way we listen to and understand many canonical works. In Mozart's time, the structure of a composition was based on clearly articulated nodal points, determined by a series of cadences and related to the appropriate disposition of thematic elements and the overall tonal plan. These cadences were differentiated and hierarchised through reference to linguistic metaphors: different cadences corresponded to different punctuation marks, with different degrees of 'closure'. Such an approach can also be applied to Witold Lutosławski, whose music draws on Classical models, transforming them to a great extent. The peculiarity of Lutosławski's syntactic structures lies in his use of several unsynchronised syntactic layers (as can be seen above all in the contrasting melodic and accompaniment layers). However, these different syntactic sequences are interdependent and generate mutual adjustment processes, resulting in a form that is both strictly composed (with the use of mathematical procedures regulating the development of each of the layers and their mutual interactions) and ambiguous in perception (a particularly strong effect of such ambiguity is the blurring of the point of reprise). Comparison of the *Bucolics* and Postlude No. 1 reveals the ongoing development of polysyntactic techniques during the critical period of transition from the neoclassical to the 'avant-garde' phase in Lutosławski's oeuvre.

KEYWORDS: Lutosławski, analysis, punctuation in music, music and mathematics, twentieth-century music

'transitions' and 'transformations' in Lutosławski's 'modernist' phase was discussed by John Casken, based on the examples of the *Trois Poèmes d'Henri Michaux*, Symphony No. 2, *Livre pour orchestre* and *Preludes and Fugue* (idem, 'Transition and transformation in the music of Witold Lutosławski', *Contact*, 12 [1975], 3–12).

BIBLIOGRAPHY

Bonds, Marc Evan, *Wordless Rhetoric: Musical Form and the Metaphor of the Oration*, Studies in the History of Music (Cambridge, MA, 1991).

Casken, John, 'Transition and transformation in the music of Witold Lutosławski', *Contact*, 12 (1975), 3–12.

Cobb Jr, John B., *Whitehead Word Book* (Claremont, 2008).

Dahlhaus, Carl, 'Der rhetorische Formbegriff H. Chr. Kochs und die Theorie der Sonatenform', *Archiv für Musikwissenschaft*, 35/3 (1978), 155–177.

Homma, Martina, *Witold Lutosławski: Zwölfton-Harmonik – Tonbildung – 'Aleatorischer Kontrapunkt*' (Cologne, 1996).

Lutosławski, Witold, *Preludia i fuga* [Preludes and fugue], [commentary on the dustcover flap of the score] (Kraków, 1973).

Lutosławski, Witold, 'Kilka problemów z dziedziny rytmiki' [A few issues concerning rhythm], *Res Facta*, 9 (1982), 114–128.

Lutosławski on Music, tr. and ed. Zbigniew Skowron (Lanham, 2007).

Mirka, Danuta, *Metric Manipulation in Haydn and Mozart: Chamber Music for Strings (1787–1791)* (Oxford, 2009).

Vial, Stephanie D., *The Art of Musical Phrasing in the Eighteenth Century. Punctuating the Classical 'Period'* (Rochester, 2008).

Walaciński, Adam, 'Nota' [Note], in Witold Lutosławski, *Bukoliki* [Bucolics] (Kraków, 1968).

Whitehead, A. N., *Science and the Modern World* (Cambridge, 1926).

Wyglądacz, Krzysztof, 'Komponowanie ciszy. Funkcje pauzy w muzyce baroku i klasycyzmu' [Composing silence: the functions of rests in music of the Baroque and Classical eras], *Teoria Muzyki. Studia, Interpretacje, Dokumentacje*, 11 (2017), 81–110.