

**Folio of compositions and the *Selective  
Subtraction of Tone and Rhythmic  
Material* composition method**

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## **Abstract**

The purpose of this thesis is to provide a commentary on eight works composed between 2014 and 2017. In particular, this text includes the main thoughts of the composer regarding compositional process, texture transformation, tone material and form. The pieces in this portfolio demonstrate the development of my compositional practice and personal style, characterised by the importance of pitch and textural elements and the use of gesture. Furthermore, references are made to the composer's *Selective Subtraction of Tone and Rhythmic Material* composition method whenever is implemented.

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## List of accompanying material

Along with the commentary, this folio comprises eight scores and one audio CD.

<b>Title</b>	<b>Dates of Composition (ordered by completion)</b>	<b>Duration</b>
<i>Pyrrhichios</i> , for bassoon, guitar and cello	Oct. 2014 - Jan. 2015	Approx. 7'
<i>Sustaining Love</i> , for bass clarinet, violin and cello	Oct. - Nov. 2014	Approx. 4':30''
<i>String quartet No. 2</i>	Nov. 2014 - Nov. 2015	Approx. 12':40''
<i>Motion, in Two</i> , for violin solo	Feb. - April 2015	Approx. 6'
<i>Subtraction Melody</i> , for clarinet in Bb solo	Nov. 2015 - Feb. 2016	Approx. 8'
<i>Little Mass No. 2</i> , for tenor saxophone, accordion and cello	Feb. - March 2016	Approx. 4'
<i>Sustaining Interruption</i> , for large ensemble	Feb. - June 2016	Approx. 8'
<i>Ongoing</i> , for orchestra	Sept. 2016 - April 2017	Approx. 10'

### Audio CD

*Pyrrhichios*: Gallois – Anderson – De Saram trio, 02/06/15, Sir Jack Lyons Concert Hall (SJLCH), York.

*Sustaining Love*: AMGA ensemble in Hong Kong, 28/04/15, Shatin Town Hall (Cultural Activity Hall). Discrepancies: absent violin part in bars 36-56 1<sup>st</sup> beat.

*String Quartet No. 2*: Diotima quartet, 02/02/15, SJLCH (parts I.II.III) and 16/02/16, room 058, Music Department, University of York (parts IV.V).

*Subtraction Melody*: Dov Goldberg of the Psappa ensemble, “Composing for Clarinet” project, 25/03/16, St Michael’s Church, Manchester.

*Little Mass No. 2*: recorded by the ensemble Regards, after the proposal of MIXTUR festival, 22/04/16, Fabra i Coats, Barcelona.

## **Author's declaration**

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

## **Introduction**

The aim of undertaking this research was to develop my compositional practice and technique while continuing to establish my own compositional method called *Selective Subtraction of Tone and Rhythmic Material*. In addition, I aimed to explore the use of texture, pitch and rhythm in combination with the aforementioned technique, while simultaneously maintaining simplicity in notation.

The thesis consists of four chapters.

Chapter One refers to my influences, focusing on three contemporary composers: Marc Andre (France/Germany), George Aperghis (Greece/France) and Iannis Xenakis (Greece/France).

Chapter Two presents a basic description of my *Selective Subtraction of Tone and Rhythmic Material* composition method, outlining the initial steps of manipulation of tone and rhythmic material and discussing briefly its implementation with examples of specific pieces.

Finally, Chapter Three presents the commentary on the submitted works, which is the main purpose of this thesis.



Paradoxically, for a composer attached to intellectual and philosophical approaches to composition, Andre has influenced my compositional process from a technical perspective. His influence lies in the use of individual figures. As mentioned before, the aforementioned axis in *durch* is formed by the figure of the descending scale repeated several times in an obsessive manner. It is exactly this element of obsession I exploit further. In my *Motion, in Two*, for solo violin, the axis is formed by a motif of two quavers around which the form of the piece is built. The reiteration of these two quavers for a large part of the piece creates the obsession; and this happens to such an extent that obsession tends to become compulsion, taking Andre's axis/obsession element to its extreme.

Another piece in which I use this element is *Subtraction Melody*, for solo Bb clarinet. It is used in two cases. The first refers to the sustained Bb of the opening around which various melodic elements occur. The axis is the sustained note and its repetition yields the obsessive character.

The second one refers to the way I use the upward melodic line of bar 43. After this bar, the line is repeated in progressively shorter versions, evolving into motifs of two to three notes. This line forms the axis, whereas the obsession comes from two of its characteristics: its upward trend and the strategically selected notes used in the motifs. This selection was realised with the goal of maintaining the connection between motifs and the melodic line. The general upward trend of the continuous differentiated motifs underpins this connection and thus, the listener perceives an obsessiveness in the melodic line's upward motion.

If Mark Andre influenced me in matters of compositional technique, then George Aperghis's influence lies in the complementary way he uses the instruments. The opening of *Contretemps* (2005/6), for soprano and ensemble reveals this unique aspect of Aperghis's music (example 2). The resulting texture is a sound mass with clear direction that results from the complementary character of the instruments. Each one plays a distinct role in the completion of the sound entity.

*Example 2: George Aperghis, Contretemps, bars 11-12*<sup>4</sup>

The musical score for George Aperghis's *Contretemps*, bars 11-12, is presented for a chamber ensemble. The score includes parts for Flute (Flb.), Clarinet (Cl.), Bass Clarinet (Cl. b.), Bassoon (Ba.), Saxophone (Sax.), Cor Anglais (Cor.), Trumpet (Trp.), Piano 1 (Pno 1), Piano 2 (Pno 2), Peit Triangle, and Grand Triangle. The tempo is marked as quarter note = 69-72. The music is in 3/4 time and features complex rhythmic patterns and dynamic markings such as *ff*, *f*, and *sfz*. The Peit Triangle and Grand Triangle parts are marked with *ff* and play a steady, rhythmic pattern.

In my opinion, it is precisely this aspect of instrumental character that contributes most to the fluidity of the form of Aperghis's pieces, and it is the aspect I investigate most in my own works. In this case, the purpose of my composition portfolio was to find a way for individual elements to work together to create an inseparable and robust, yet versatile sculpture. In example 3 a texture of complementary sounds is illustrated from my *Little Mass No. 2* (bars 21-26). Even in terms of density and tone material, all layers are part of the same unified whole, to such an extent that this passage could easily have been written for a single instrument (losing of course much of its colour).

<sup>4</sup> Aperghis, G. *Contretemps*, for soprano and chamber ensemble, 2005/06, editions DURAND: bars 11-12.

Example 3: Little Mass No. 2, bars 21-26

Another example where the instruments are used in a complementary way is the last two bars of *Sustaining Love*. In reality, these figures are parts of a single melodic line (example 4). As is obvious in the example, this line was distributed among the instruments after some minor changes in the pitch register.

Example 4: Distribution of the single melodic line among the instruments, Sustaining Love, last two bars

However, if I had to choose the composer who has influenced me the most, I would undoubtedly point to the figure of Iannis Xenakis. His work has always been a part of my musical life and accounts for much of my musical language. Most important of

all, Xenakis instilled in me an interest in exploring the density of musical texture within the context of a composition. Already in his early works, Xenakis tried to create solutions to compositional problems dealing with rhythm and pitch. An example of such an early piece is *Le Sacrifice*. Written in 1953 for orchestra, it is the first work in which he strove to look at the aspects of music “from above,” setting their organisation and manipulation in a more general framework.<sup>5</sup> Thus, rhythm became density,<sup>6</sup> which he approached through a scientific view, opening the door to the application of mathematical laws into music composition. This brilliant idea became his signature for the rest of his creative period.

His first attempt at organizing musical elements “from above” was inspired by the field of architecture, Xenakis’s chosen field of study before he devoted his career to music. In *Le Sacrifice*, the sonic impression of a waving, continuously rolling texture corresponds to the visual impression of the West façade of the Monastery of La Tourette, whose undulating glass panes he initially drew on paper<sup>7</sup> (example 5). For its design, Xenakis drew progressions of rectangles that varied in width.<sup>8</sup> Transferring this idea from designing buildings to designing sounds, he created a superimposition of these progressions, in which the density of the rectangles per length unit was translated into rhythm<sup>9</sup>. Thus, he created the first examples of a purely Xenakian polyphony that tends to eliminate the meaning of the individual elements of the sound, drawing the listener’s attention instead to the overall result of those elements.<sup>10</sup>

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<sup>5</sup> Sterken, S. 2007. “Music as an Art of Space: Interactions between Music and Architecture in the Work of Iannis Xenakis.” *Resonance: Essays on the intersection of music and architecture*, vol.1: 35-36.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*, 37.

<sup>8</sup> *Ibid.*

<sup>9</sup> *Ibid.*

<sup>10</sup> Hoogewind, M.J. 2000. *Compositional techniques of sound mass in selected works of György Ligeti*. California State University. 34.

Example 5: Front view of La Tourette Monastery



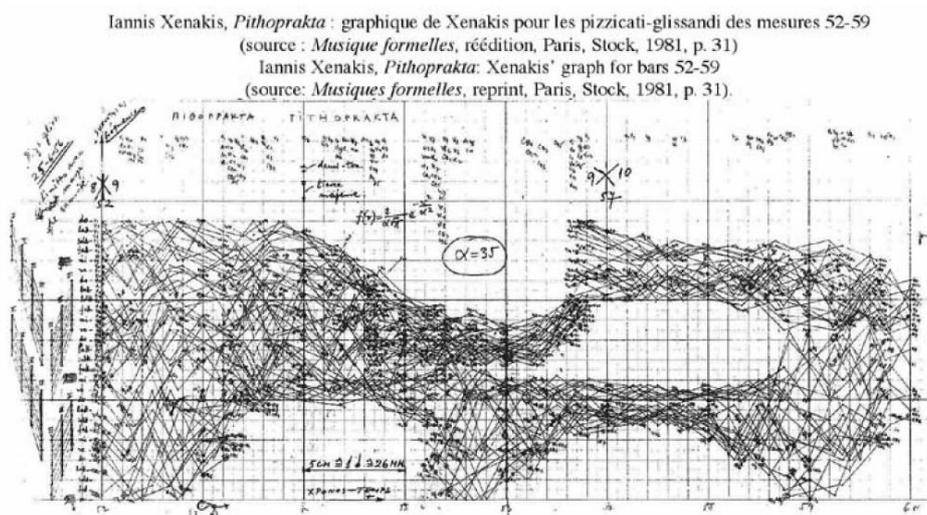
Apart from the use of rhythm as a tool for the creation of polyphonic structures, pitch generation and manipulation was amongst his major contributions in music. Here, stochastic theory proved an important tool. Probability distributions were introduced in *Pithoprakta* (1954) as an attempt to better manipulate the sound masses used in the piece.<sup>11</sup> For bars 52-59 alone, Xenakis calculated approximately one thousand glissandi (example 6). He also preferred not to place them intuitively on a conventional staff in the first place, but rather to distribute them in time by drawing a graph of their distribution on graph paper.<sup>12</sup> Thus, he created an innovative means of communicating his initial scientific thought through sheet music, incorporating mathematical laws into music composition.

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<sup>11</sup> Luque, S. 2006. *Stochastic Synthesis: Origins and Extensions*. Institute of Sonology, Royal Conservatory, The Netherlands. 8.

<sup>12</sup> Solomos, M. 2004. "Xenakis as a sound sculptor." *welt@musik — Musik interkulturell, Institut für Neue Musik und Musikerziehung Darmstadt*, vol. 44: 161-169.  
<http://www.univ-montp3.fr/~solomos/xenakas.html>

Example 6: Xenakis's graph of the pizzicato and glissandi in bars 52-59, Pithoprakta<sup>13</sup>



However, it is his way of connecting micro and macro elements in order to shape the texture of his pieces that sparked my interest in finding a more general compositional framework. An interesting example appears in bars 10-62 of *Jonchaies*, in which the pitches of the tone material are used massively in order to cause textural nuances. The material is a xenakian sieve (example 7). Actually, he uses the pitches of the sieve to create individual melodic lines. Though it may seem a monotonous passage based on a single immutable scale, the sound in fact changes constantly, precisely because of the way individual lines generate heterophony through their ascending and descending motion. This effect often arises from a sound mass and exemplifies the composer's determination to explore massive, non-rhetorical sounds.

Example 7: Sieve of bars 10-62, Jonchaies<sup>14</sup>



<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

Xenakis's devotion to the general aspects of sound inspired my approach to music composition in both the technical and aesthetical aspect. The technical aspect of this influence comes from the idea that generally, the combined simple elements can give complex sound frameworks, as Xenakis does with glissandi in *Pithoprakta*, producing sound masses, or by using individual lines in *Jonchaies*, producing heterophony. The construction of these frameworks begins from combinations made by elements of only one kind of material (for instance, melodic lines) culminating in combinations of whole structures. In my work, this idea was developed and culminated in the *Selective Subtraction* method of which I will speak in the next chapter. This method is a way to manipulate my material "from above" using subtraction techniques. However, this manipulation has its foundations in the use of micro elements, in the same way Xenakis used micro elements to control the overall form of his pieces as discussed above.

The aesthetical aspect is a topic I would like to discuss in the way I perceive Xenakian aesthetics, having listened to Xenakis's music for a long period of my life: a particularly difficult task, exactly because I have absorbed his music so thoroughly. The best way to show his influence in my works is, I believe, to quote some parts of the submitted works in which I notice that his aesthetical influence is strong, referring briefly to the specific element that connects my work with his.

*String Quartet No. 2*, bars 89-95, *Ongoing*, bars 136-144, *Pyrrhichios*, bars 65-66: ***sff attacks***. This kind of severe attack exists ubiquitously in Xenakis's works, like in *Herma*, for solo piano<sup>15</sup> (example 8). I use them in this part of my quartet for the same purpose Xenakis does: to create an entity of sounds that produces extreme tension.

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<sup>15</sup> Xenakis, I. *Herma*, for solo piano, 1960/61, editions BOOSEY & HAWKES, @1967, 18.

Example 8: Herma, for solo piano, page 18

The image shows a musical score for 'Herma, for solo piano, page 18'. It consists of two systems of music, each with a treble and bass clef. The first system includes a complex notation with a box containing 'AC (f) + ABC (fff) 20 3/4'. Above the treble staff, there are several slurs and markings: '8' over a group of notes, '8' over another group, and a larger bracketed section containing '8', '8', '5', and '8'. The bass staff has an '8' marking and a 'Ped.' (pedal) instruction with an arrow. The second system continues the notation with '8' markings and a '6 8 3' marking in the bass staff. The music features various dynamics like *f* and *fff*, and includes glissandi indicated by wavy lines.

*String Quartet No. 2*, 1<sup>st</sup> movement: glissandi. Glissando dominates in many Xenakis's works as an aesthetic element due to its extended use. Although he uses it, not as a merely aesthetic but as a structural element as well, its characteristic sound defines the aesthetic aspect in many of his pieces. This happens in *Mikka*, for solo violin<sup>16</sup> (example 9), in which the glissando is used to connect the individual pitches, in the same way I use it here (especially in bars 9 and 28) as a passage from one chord/note to another. Inevitably, its extended use characterises the aesthetics of the movement.

<sup>16</sup> Xenakis, I. *Mikka*, for solo violin, 1971, editions SALABERT, @1972, opening bars.

*Example 9: Mikka, for solo violin, opening*

**mikka**  
pour mica salabert  
i. xenakis  
violon solo

an = arco norm.  
# = tremolo très serré (very tight)  
1/4 1/4 1/4 1/4 1/4 tons  
60 MM  
arco glissando partout (every where)

mf  
pp  
ppp  
sff

*Sustaining Love*, bass clarinet patterns, *Motion, in Two*, bar 120 and on, *Ongoing*, leap gestures of the opening, *Subtraction Melody*, clarinet motifs, bar 47 and on: gestures. In all these situations, the music consists primarily of patterns which are nothing more than short individual gestures; a ubiquitous element in Xenakis's works. He is particularly famous for the clear, distinctive opening gestures of his pieces. This happens in *Jonchaies*, (example 10) for orchestra,<sup>17</sup> in which the strings execute a long upward glissando, beginning from the lowest register in the basses. A more characteristic example is the opening of *Synaphai*, for solo piano and 86 musicians,<sup>18</sup> (example 10), in which all string sections execute dynamic gestures, from silence to *sfff*.<sup>19</sup> In the aforementioned points of my scores, I extend the idea of the Xenakian

<sup>17</sup> Xenakis, I. *Jonchaies*, for 109 musicians, 1977, editions SALABERT, bars 1-3.

<sup>18</sup> Xenakis, I. *Synaphai*, for solo piano and 86 musicians, 1969, editions SALABERT, bars 1-5.

<sup>19</sup> Solomos, M. 2008. *Iannis Xenakis. To syban enos idiotypou dimiourgou*. Alexandria Editions, 153.

gesture, by building characteristic motifs that resemble aspects of human psychology, such as anger, rush, amazement and calm. These gestures often demand high technical abilities from the performer. Their strain to perform these gestures always affects the aesthetic aspect of the music. This is a very common feature of Xenakis's music, especially when gestures are featured. It is what Solomos means when he refers to the Xenakian "ecstatic gesture" mentioning that "*With Xenakis, [...] virtuosity is measured as pure consumption of physical energy*".<sup>20</sup>

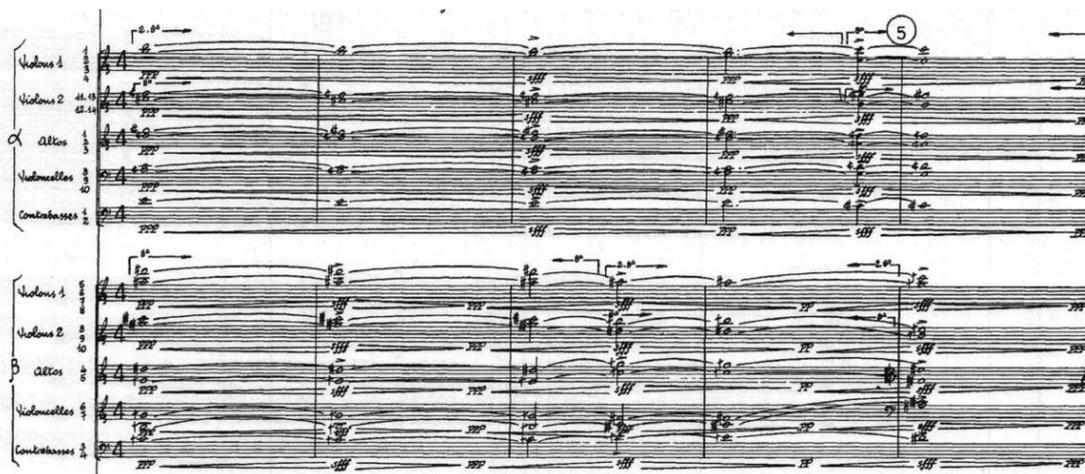
The opening leap gestures of *Ongoing* are reflective of this idea. As we will see in chapter 3, the strain of the performers to execute these leaps reflects expression affecting the aesthetic element.

Example 10: Examples of gestures in Xenakis's works, Jonchaies, bars 1-3, Synaphai, bars 1-5.

### Jonchaies



### Synaphai



<sup>20</sup> Ibid., 157, cited in Antoniadis, P.2011. *Physicality as a performer-specific perspectival point to I. Xenakis's piano work: Case study Mists*. Proceedings of the Xenakis International Symposium.



*Example 13: Primary material of Industry in my neighborhood, bars 1-54*

The image displays a musical score for four instruments: Flute, Violin, Glockenspiel, and Piano. The score is written in 4/4 time and consists of 54 bars. The Flute, Violin, and Glockenspiel parts feature complex, rhythmic patterns with many sixteenth and thirty-second notes. The Piano part is more sparse, with a bass line that includes some sixteenth-note runs and rests. The score is divided into three systems of 18 bars each. The Flute, Violin, and Glockenspiel parts end with a final measure containing a whole rest and a fermata. The Piano part ends with a final measure containing a whole rest and a fermata.

From the above material I generated the first fifty-four bars of the piece. The first sixteen bars are illustrated below:

Example 14: Industry in my neighborhood, bars 1-16

Score transposed

*Industry in my neighborhood*  
for flute, violin, glockenspiel and piano

Ekanehtsoglou  
Manolis

$\text{♩} = 120$

Flute  
Violin  
Glockenspiel  
Piano

Fl.  
Vln.  
Glk.  
Pno.

9  
13

*ff*  
*fff*  
*p*  
*fff*  
*p*  
*fff*  
*p*

This way of thinking proved to be a bit problematic because it did not create any perspectives for further elaboration. It also limited the piece in the development of one kind of material only (like the scale we saw in the previous example). Thus, to achieve the development of larger forms, the procedure described before needed to expand further. In this way, four stages were developed.

The first stage is in reality the subtraction procedure as described above used more than once, either in the same or different primary material. Thereby, a plethora of resulting materials is generated, available for use in the construction of bigger forms.

Examples of application of the first stage are demonstrated in many parts of the commentary. Here, I will exemplify the use of the method in different primary materials with two cases taken by *Pyrrhichios*, for bassoon, guitar and cello. The first case involves the flowing gestures of the opening. In example 15 the primary and the resulting material are illustrated for the first three bars. Here, I used the method to define the length of each glissando. Each one begins from the highest note possible on the string and ends on the fundamental. As illustrated in the example, the primary material is in reality pseudo-material and consists of beats used to define lengths. The second system shows the result of the subtraction. The beats between two rests define the length of the glissando. I chose the rhythmic value of the semiquaver in order to yield many choices regarding the time of the occurrence of glissandi. If I had chosen the process to take place in a palette of rhythmic values smaller than semiquavers (like demisemiquavers) the rhythm would be unnecessarily complex. On the other hand, if I had used larger rhythmic values (like quavers) the occurrence as well as the lengths of the glissandi would be extremely limited.

Example 15: Primary and resulting material bars 1-3, Pyrrhichios

**Primary material**

**Resulted material**

**As shown in score**

The second case refers to the use of the descending scale illustrated in example 16. This scale is used in bars 122(second half) -142 on the bassoon. The material is nothing more than the eleven appearances of the scale. The *Selective Subtraction* method was implemented separately to give the resulting material used in each appearance. The material for the first two are given in example 16.

Example 16: Primary and resulting material, bars 122(1<sup>st</sup> half)-125, Pyrrhichios

*Primary material*

*Resulting material of the first appearance*

*Resulting material of the second appearance*

Observing bars 122-142 we notice that the notes of the scale are played in the rhythmic framework of quaver triplets until the first half of bar 129. After this point, the scale continues in semiquavers. This happens because at this point of the score I wanted to accelerate the rhythm and also make a change from the pulsation of the triplets. However, there is also a difference in the way the *Selective Subtraction* method is used in the tone material of the scale. When the scale appears in triplets the rhythm is defined along with the pitch material; this is the case for the standard way of applying the method. However, after bar 129, I choose to play a memory game with the listener, as from here the method defines only the rhythm; the sequence of the pitches is maintained from the primary material (example 17). In this way, the primary material is ultimately revealed to the listener playing a game of hiding (triplets) and revealing (semiquavers). This type of application happens very rarely in the pieces of this portfolio, because such a standard tone sequence obviously yields an extremely limited material. It also produces a very predictable result.

Example 17: Juxtaposition of the primary and resulting material of two different applications, Pyrrhichios

*Primary material*



*Resulting material of the first application (pitches defined along with the rhythm)*



*Resulting material of the second application (method defines only rhythm, pitch sequence of primary material maintains)*



The second stage of the method reflects work on a more microscopic level. It also signifies the start of the actual synthetic process, as it is in this stage that the individual resulting materials are combined to create larger sound worlds. These worlds form the first small musical entities that later (third stage) will be merged into larger ones.

An example that reflects the results of the second stage is the overall texture of bars 126-133 of *Sustaining Interruption*, for ensemble. Observing vertically, this passage consists of combinations of *f* attacks (percussion, pno, db) and sustained notes (b.cl, bsn, trbn). The material of these two textures were generated individually by the *Selective Subtraction* method and combined vertically to form a larger world. This is actually what this stage reflects: vertical combinations of resulting materials that create bigger worlds which will be combined horizontally in stage 3 in order to yield the final form of the piece. Another example can be found in the first 41 bars of *Sustaining Love*, for bass clarinet, violin and piano. Here, the combinations are realised in two stages. In the first stage the individual quintuplet patterns<sup>21</sup> of the bass clarinet are arranged in sequence. In the second stage, the sequence is combined vertically with the resulting material of the piano and violin chords. Thereby, we have a pointillistic texture of two qualities: one extremely sparse (piano, violin) and one extremely dense (bass clarinet).

In the third stage the synthetic process culminates, for it is here where all the existing individual worlds are incorporated to yield the entity of the piece. This incorporation consists mostly in the horizontal connection of these individual worlds. Thus, crucial in the third stage is the search for ways to connect the individual worlds of the second stage. Such connections could be realised in a variety of ways: a connection could be a sustained note, a powerful attack, or a longer part such as a bridge or a longer section. Below, I mention a couple of ways indicating the points where they exist in the scores.

*Motion, in two*, bars 70-72: Here, what connects the world of continuous quavers (section before bar 70) and the septuplets after bar 73 (denotes the start of the next world) is the repetitive figure of bars 70-72 that imitates, mostly by grace notes, the septuplets of bar 73.

*Motion, in two*, bars 85-87: Another point in the score in which I use continuous repetition to connect two worlds appears in bars 85-87. The previous world of septuplets (bars 73-84) includes the element of natural harmonics. This world is connected with the world that follows (bars 88-100) consisting of a sequence of semiquavers flourished with grace notes of natural harmonics. To effectively connect

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<sup>21</sup> Each quintuplet corresponds to a single pattern.

the two worlds, I isolate the element that they have in common and highlight it through continuous repetition. This is exactly what happens in bars 85-87 with the natural harmonics. By highlighting their existence in a space of three bars between the two worlds, and by bringing them back in combination with a new element (sequence of semiquavers) in the new world, the natural harmonics (the common element) make the new world sound like a natural continuation of the previous one.

*Ongoing*, bar 96: This bar connects the world of leap gestures with the world of pulsations (strings) and *sff* attacks (percussion) through a massive sustained chord. This chord is produced by instruments from all the families of the orchestra. It comes as a natural continuation of the leap gestures, as the instruments end up sustaining either their high or their low note to create the aforementioned chord. The chord continues in some of the instruments after bar 96, becoming part of the next world and thereby completing the connection.

The fourth stage is the most crucial and may last long, especially in large works. In this stage, the piece takes its final form, through the proper additions and cuts. At this point, I usually print what I have written so far in the piece, place it in front of me in a scroll view and mentally play it in my mind. There are always things to fix, mostly to cut. This stage brings up an argument regarding the *Selective Subtraction* method.

We saw in the above analysis that, on its micro level, each piece made with this method comprises smaller individual materials. Working with these materials has often proved a bit problematic. Each material has its own individual direction, so the result of their connection (stage 3) does not guarantee a macro-scale direction. These independent materials have their own things to say and often, their blend in a structure leads to staticity, or to an unclear narrative.

Therefore, the fourth stage is always crucial and plays perhaps the biggest role in the final form of the piece. To fix staticity and unclear direction, I use a variety of tools, including creating a trend. I use it in the middle of bars 90-95 of *String Quartet No. 2*. The comparison between the initial (before stage 4) and final form of this part is given in example 18. Despite the *sff* attacks, which undoubtedly create tension by themselves, I found the initial form a bit static. I wanted instead to create an arch-like effect. In the middle of the part [bars 91(4<sup>th</sup> beat)-93] I raised the notes one or two

octaves higher and lowered them again almost instantly to the initial pitches. Thus, the final form of these bars was generated.

Example 18: Initial and final form of bars 91(last beat)-93, String Quartet No.2

**Initial form of bars 91(last beat)-93**

**Final form of bars 91(last beat)-93**

The fourth stage was particularly important during the construction of *Ongoing*, for orchestra. This piece, in particular, proved to have many problems in terms of the form. The initial length of the opening (until C) was 57 bars instead of the 44 of the final form. I had to erase bars from different points in the passage in order for its form to gain a direction.

Bars 45-62 were also lacking direction, as the individual materials that were merged together in stage two did not hold the listener's attention. For this reason, I boosted the bass register with more instruments (the contrabassoon and the bass trombone were not participating initially) and I also subtracted a few more bars. Thereby, the ascending direction, from the bottom (bar 45) to the top (bar 63) became steeper. Furthermore, to avoid the constant rhythmic patterns that some of the individual worlds of this part were shaping, I returned to the first stage of the *Selective*

*Subtraction* method and I subtracted more notes from these worlds. This happened with the choir of the trumpets and the woodwinds (flutes and oboes). Thus, the rhythmic patterns obtained a more spontaneous character

The last stage showcases another aspect of the method; for in many cases, the subtraction process of the first stage can be used as an auxiliary tool during the fourth stage in order to give shape, either to the individual worlds or the overall form of the piece. Another function of the first stage is distinguished here, as it can be used itself, not only on a micro level, but also to contribute to the sculpting of the overall form of a piece.

The most important aesthetical result of the subtraction method is the intuitive character of the whole procedure from which the entirety of the composition emerges. Forming an intuitive basis, not only supports the composition from a technical perspective, but also influences its aesthetics in a unique manner. Creating aesthetics is, in my opinion, the ultimate goal of the compositional process in general.

### III. Folio of compositions

#### *Pyrrhichios, for bassoon, guitar and cello*

##### *Inspiration and rationale behind the composition*

*Pyrrhichios* was an ancient Greek war dance that has survived through the millennia, although is practiced in a different form nowadays. The first description of this dance was made by Xenophon in his work *Anabasis*:

*"...At one point one of the dancers stabbed the other to the shock and amazement of the crowd. The blood that flowed and the subsequent collapse of the defeated dancer further shocked the observers who cried out in horror. The victor proceeded to dance around the defeated opponent. Suddenly, in a theatrical realization of his deed, he proceeded to kneel by the victim in anguish and stab himself. This further shocked the crowd some of whom rushed to abait this deed. When doing so, they realized that the entire proceeding was fake, as the blood was thickened dye. The two dancers then arose to the amusement of all present..."*<sup>22</sup>

Xenophon, *Anabasis*

##### *Commentary*

The main concern in this work was to find a way of combining the bassoon and the cello with the plucked character of the guitar. Thus, a texture was created consisting of *pizzicato* in the guitar and cello. The transformation of this texture and its combination with the tone colour of the bassoon are the main features of the form.

In example 19, an overall view of the form is illustrated.

##### *Example 19: Pyrrhichios, overall view of the form*

Section	Bars
1	1 – 22
2	23 – 70
2a	23 – 51
2b	52 – 64
2c	65 – 70
3	71 – 80
4	81 – 86
5	87 – 121
6	122 – end

<sup>22</sup> Beekes, R. S. P. 2016. *Etymological Dictionary of Greek*, Editions Brill. 1260 and 1264.

The work opens with a twenty-two-bar section of flowing, *glissando* gestures on the guitar and cello, with their range defined by the natural length of the strings. The registral constraints of each instrument thereby defined much of the structural form of the opening section. The starting points of these gestures were delineated by the *Selective Subtraction* method. In order to establish a structural scheme, much importance was given to the lowest limit (fundamental) of each string of the instruments (Example 20). These fundamentals are introduced to the texture one by one, thus specifying the limits of the ubiquitous *glissando* gestures.

Example 20: Pyrrhichios, section 1, use of strings for cello and guitar

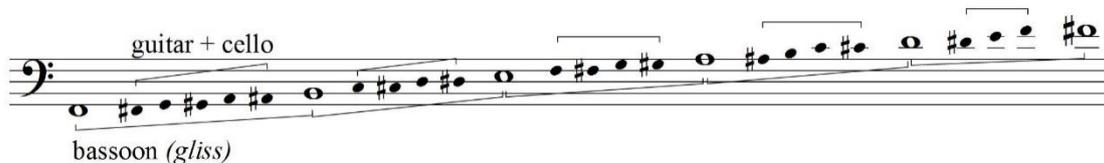
Bars: 1	2	3	4	5	6	7	8	9
Cello: I Guitar: 1			Cello: II	Guitar:2	Cello: III			Guitar:3
10	Cello: IV	Guitar:4	13		Guitar:5	16		Guitar:6
19			22					

I – IV: Cello strings

1 – 6: Guitar strings

In bars 24-29, the bassoon’s *glissando* and the plucked texture interlock together through tone material as follows: the discrete pitches contained within each *glissando* gesture (indicated as crotchet note heads below) define the tone material of the plucked texture (Example 21). The *Selective Subtraction* method was implemented in this material to form the final shape of the texture.

Example 21: Pitch organisation, bars 24 – 29 (Pyrrhichios)



The tone material of bars 52-64 resulted from the implementation of the *Selective Subtraction* method in the scales illustrated by Example 22.<sup>23</sup> Each scale is divided into segments and each segment is a subset of the next. The notes are inserted into the texture one by one, illustrating an arithmetic progression with a common difference of 1, until the whole scale is completed.

Example 22: Principal scales of bars 52 – 64 (Pyrrhichios)

Segments

bars 52-58 (first half)      bars 58 (2nd half) -64

Guitar

Cello

same subdivision      same subdivision      common difference of 2

The above scales are used as primary material, not only in section 2b, but also in the following sections. An example is their manipulation in order to produce the last lines of the bassoon heard at the end of the piece (bars 119-122). The finale of the work draws a meaningful parallel with the opening: the bassoon imitates the flowing gestures of the other two instruments of the opening, whereas the continuous *glissando* is given to the cello.

It is worth mentioning that the first and the final sections of the work are the only ones in which the cellist makes use of the bow: in bars 22-122 the *pizzicato* indication does not change. Also notable is the bassoon's presentation, in section 5, of material other than *glissando* for the first time since the start of the piece. The new material consists of melodic lines of complementary character that transform into the continuous melodic line of bars 119-122.

<sup>23</sup> These scales were generated with the use of the *Selective Subtraction* method on the chromatic scale. Further explanation regarding the procedure is beyond the purposes of this essay.

It is clear from the above analysis that the role of the bassoon is of primary importance because it determines the form. This is because of its almost uninterrupted existence throughout the piece, a characteristic more usually found in pieces for solo instrument. Its material can be separated into two categories: glissando and lines of continuous semiquavers. From the start until bar 87, the glissando is continuous and from bar 87 it is replaced by semiquavers until the end. This is enough to separate the piece into two main parts of clear character and direction. The radically new character of the second part makes the first look like an introduction leading up to and culminating at this moment of change.

This is how the form of *Pyrrhichios* is made. Throughout the piece, apart from the aforementioned primary target, there are also secondary ones. The first appears in bar 23 in which the *glissando* remains stable for a while. What follows is a change, not in the bassoon, but in the guitar and cello as their flowing character becomes pointillistic and leads to the next minor target in bars 65(second half)-70. This culmination is twofold. First, the bassoon ceases for the first time in the piece, but in an inconspicuous, barely noticeable way. In this sense, the culmination is useful in order to divert the listener's attention away from the bassoon and onto the other two instruments.

Second, the *glissando* texture returns; this time, the cello follows the bassoon's oscillations both reaching the aforementioned primary target of bars 87-89. In these three bars the bassoon changes material and leads to the next minor target in bar 122(second half). Here, its material differentiates once more; yet, the new material stands between the two previous. Its shape is something between semiquavers and slow downward *glissando*. I translate this into downward quaver triplets. The semiquavers become slower replaced by quaver triplets whose downward direction resembles the flowing motion of the *glissando*

## ***Sustaining Love*, for bass clarinet, violin and piano**

### *Inspiration and rationale behind the composition*

*Sustaining Love* refers to a method of creating the form of a piece based on a selective subtraction of patterns. The primary material consists of a number of patterns for the

bass clarinet and violin and a chord sequence for the piano. Once the preliminary step of subtraction was completed, the *Selective Subtraction* technique was implemented anew in the resulting material. Only then did I realise that the pattern yielded by the first implementation reminded me of constant speech, a woman confessing to her lover her sustaining loyalty and love.

### *Commentary*

*Sustaining Love* is characterised by an unfolding collection of patterns demonstrated mostly by the bass clarinet (example 23), although a number of these patterns are given to the violin as well. The patterns unfold against a textural background of *sff* attacks developed by the violin and the piano, varying in horizontal density.

#### Example 23: Sustaining Love, selected patterns



A blow-by-blow description of the content of the form is unnecessary for this particular work, as specific patterns exist ubiquitously throughout the score. A principal instrument always lies in the foreground executing these patterns. From the start until bar 41 this role is assigned to the bass clarinet. In bar 42 the violin starts interrupting it. In the following bars the violin's interruptions gradually gain intensity, until bar 73, where it assumes the leading role. The piano takes over in bars 81-90, in a solo passage that develops a thin texture in correspondence with the bass clarinet's collection of patterns. The order of succession closes its circle in bars 91-97, where the three instruments appear to share an equal role; however, equality is finally disrupted by the piano in bar 97 and returns again in the final two bars of the work.

## *String Quartet No. 2*

### *Inspiration and rationale behind the composition*

The *String Quartet No. 2* is a three-movement composition based primarily on texture transformation. To achieve this, several approaches are employed, including harmonic permutation, melodic patterns, fluctuation of dynamics and extended playing techniques. In addition, the acoustic characteristics of each instrument's tonal range were manipulated; the resulting effects on timbre and sonority underpin subsequent texture modulation and texture change.

### *Commentary*

The development of a clearly defined idea throughout each individual movement is the major characteristic of the *String Quartet No. 2* that results in a consistent form. The form is also stimulated by clarity in musical style and the avoidance of redundant, excessively complicated notation.

The main characteristic of the first movement consists of chord progressions. The chordal material was generated by the following table:

*Example 24: Chordal material, String Quartet No. 2, Mov.I*

a ↘													
	B	C	C <sup>#</sup>	D	D <sup>#</sup>	E	F	F <sup>#</sup>	G	G <sup>#</sup>	A	A <sup>#</sup>	B
	A	A <sup>#</sup>	B	C	C <sup>#</sup>	D	D <sup>#</sup>	E	F	F <sup>#</sup>	G	G <sup>#</sup>	A
	G	G <sup>#</sup>	A	A <sup>#</sup>	B	C	C <sup>#</sup>	D	D <sup>#</sup>	E	F	F <sup>#</sup>	G
	F <sup>#</sup>	G	G <sup>#</sup>	A	A <sup>#</sup>	B	C	C <sup>#</sup>	D	D <sup>#</sup>	E	F	F <sup>#</sup>
	E	F	F <sup>#</sup>	G	G <sup>#</sup>	A	A <sup>#</sup>	B	C	C <sup>#</sup>	D	D <sup>#</sup>	E
	D	D <sup>#</sup>	E	F	F <sup>#</sup>	G	G <sup>#</sup>	A	A <sup>#</sup>	B	C	C <sup>#</sup>	D
	C	C <sup>#</sup>	D	D <sup>#</sup>	E	F	F <sup>#</sup>	G	G <sup>#</sup>	A	A <sup>#</sup>	B	C
	F	F <sup>#</sup>	G	G <sup>#</sup>	A	A <sup>#</sup>	B	C	C <sup>#</sup>	D	D <sup>#</sup>	E	F
b ↗													

The pitches converge in single chords according to a diagonal gathering procedure. Beginning from the upper left, moving crosswise to the lower right and from the lower left to the upper right, two chord progressions are produced (**a** and **b** respectively).

*Example 25: Chord progressions a & b (String Quartet No. 2, Mov.I)*

**Chord progression a**

Chord progression a consists of six chords, numbered 1 through 6, arranged in a diagonal sequence across three systems of two staves (treble and bass clef). The chords are: 1. C major, 2. C major, 3. C major, 4. C major, 5. C major, 6. C major. The notation shows a diagonal gathering of pitches from the upper left to the lower right.

**Chord progression b**

Chord progression b consists of seven chords, numbered 1 through 7, arranged in a diagonal sequence across three systems of two staves (treble and bass clef). The chords are: 1. C major, 2. C major, 3. C major, 4. C major, 5. C major, 6. C major, 7. C major. The notation shows a diagonal gathering of pitches from the lower left to the upper right.

The above progressions are not always used in their primary form of succession. For example, the first seven chords of progression **a** formed the first two bars of the

movement; yet, the glissando of the third bar jumps to the third chord of progression **b** rather than continuing the expected pattern to the eighth chord of progression **a**. Similarly, bars 9-10(first beat) and 28(first half) were formed by chords 7-12 of progression **b**.<sup>24</sup> The choices of chord identities and chord progressions result from the desired textural thickness of each passage, which is determined by the number of pitches in each chord. Chords thereby build the texture of the entire movement. When thin sound is desired, one- to three-note chords are used; four- to five-note chords are useful for colours of medium thickness, whereas chords of six to eight notes produce bold texture morphs.

Regarding the second movement, the major textural characteristic is timbre transformation on a sustained pitch (D). Throughout the movement the performers vary their bow placement and pressure. The purpose of the movement is to explore all the possible combinations of *sul ponticello*, *sul tasto* and *arco normale* techniques in combination with three different levels of bow pressure (indicated by Roman numerals). Texture transformation results from the varied vertical juxtapositions of bow techniques against a background of fluctuating dynamics. The points in the score where changes occur in both bow techniques and dynamics were defined by the *Selective Subtraction* method; however, for a more nuanced control over the form, an overall scheme of dynamics was created, defining regions of specific dynamic fluctuations (example 26). The method was implemented within the context of each dynamic region.

Example 26: Overall scheme of dynamic range (String Quartet No. 2, Mov.II)

Bars	Dynamics
32 – 36	<i>p – mf</i>
37 – 40	<i>p – f</i>
41 – 44	<i>p – ff</i>
45 – 46	<i>pp – p</i>
47 – 48	<i>p – mp</i>
49 – 50	<i>mp – mf</i>
51	<i>mf – f</i>
52	<i>f – ff</i>
53	<i>fff</i>

<sup>24</sup> The definite pitch of some double stops was removed, due to technical difficulties in performance.

Finally, melodic patterns, *sff* attacks, sustained notes and *crescendo* figures intermingle to form the third movement. Whereas timbral sonorities are the major structural components of the second movement, here the burden of development is carried primarily by overlapping melodic patterns, interrupted periodically by *sff* attacks and the sustained pitches of the opening. The patterns comprise individual melodic lines, which coincide vertically in specific points throughout the movement. The alteration between individual lines and their convergence results in thinning-thickening texture transformation. Example 27 illustrates the primary melodic material of the opening of the movement, from which melodic lines were generated through the *Selective Subtraction* method.

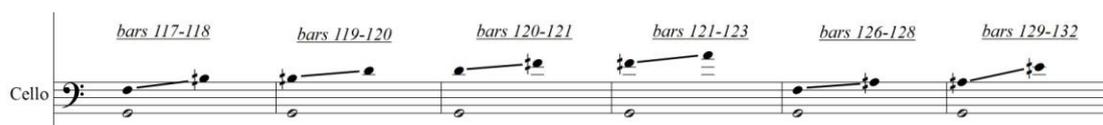
*Example 27: Primary melodic material, bars 54-59 (String Quartet No. 2, Mov.III)*

The image displays a musical score for four string instruments: Violin I (vln1), Violin II (vln2), Viola, and Cello. The score is organized into four systems, each corresponding to an instrument. Each system contains two staves of music. The first system is for Violin I (vln1), covering bars 54-57. The second system is for Violin II (vln2), also covering bars 54-57. The third system is for Viola, covering bars 56-59. The fourth system is for Cello, covering bars 56-59. The music consists of melodic lines with various rhythmic values and accidentals, illustrating the primary melodic material of the opening of the movement.

The sustained notes of the two violins that reoccur throughout draw a meaningful parallel to the opening of the movement. In some cases, *crescendo* figures lead to *sff* attacks, as a reminiscence of the sustained pitches of the opening. The attacks, consisting of isolated pitches from the melodic line, result from the *Selective Subtraction* method. Through the accumulation of *sff* attacks in all the strings, the last segment reaches its culmination in bars 89-end.

The slow fourth movement is based on glissando figures. A characteristic example is the upward *glissando* of the 1<sup>st</sup> violin that constantly interrupts the static background of the opening. Another example is the small upward glissando phrases of the cello in bars 117-132 (example 28). This general ascending process culminates in bars 135-142.

Example 28: Glissando limits (String Quartet No. 2, Mov.IV)



By the end of the movement, the instruments have undertaken different roles: the 1<sup>st</sup> violin and cello have the roles of the principal instruments, whereas the 2<sup>nd</sup> violin and the viola contribute to the general texture.

The fifth movement of the quartet starts with *glissando* figures, immediately establishing a mood of continuous motion. Until bar 173, the role of the cello is of major importance. More specifically, in bars 157-173 it develops a rhetoric of figures whose juxtaposition leads to the culmination that follows (bars 174-178). These figures are derived from bars 90-92 of the third movement (example 29) with the help of the *Selective Subtraction* method.

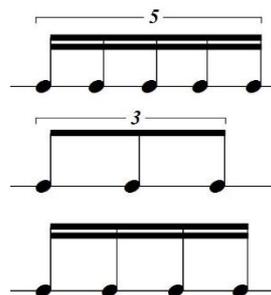
Example 29: Cello line, bars 90-92, (String Quartet No. 2, Mov.III)



From bar 189 onward the form of the piece is built around two *pizzicato* sections: a short and a longer one.

The first (short) section unfolds in bars 190-193 on the basis of a micropolyphonic process (example 30).

Example 30: Micropolyphonic structure, bars 190-193 (String Quartet No. 2, Mov.V)



The second section unfolds in bars 217-229 and is built using the material of the instruments' open strings. More importantly, this section is followed by the last and biggest *glissando* figure of the piece. This free-flowing downward *glissando* acts as a reminiscence of all the *glissando* figures heard not only in the last two movements but throughout the entire work.

In bar 197, once again the cello becomes the principal instrument. It is worth mentioning that after bar 211 its figures share similar characteristics with those in bars 170-173: they are produced through the *Selective Subtraction* method applied to limited material. These figures begin by introducing some of the notes of the final pattern before finally insisting on it. The repetitiveness of the final pattern prepares the listener for an intense section, in which everything is heard over the background of a sustained texture. Lastly, the final pattern spreads to the other instruments.

A question I am often asked regarding my approach to form in the *String Quartet No. 2*, refers to the sequence of the movements. It is a difficult question to answer, because the work does not follow any classical form regarding tempo (eg fast-slow-fast), but rather each movement has its own pace and inner rhythm. However, I could separate the composition into two parts: the first part consists of the first three

movements and the second part the last two. This separation has its rationale mostly in the individual direction which each movement follows and also its beginning and its end. After a first moderately fast movement lasting about two minutes, the second comes to stabilise the mood: the abrupt ups and downs of the first movement have properly prepared us for calm. However, it is treacherous, and as with the variation of dynamics and the culmination of all strings in *ff*, it ends up in a tension of almost equal power with the gestures of the first movement. The third movement on the other hand, plays a more conventional role with the smooth texture in the viola and cello. The high notes in the violins try to form another world and start something new without achieving it, until the end where, in a last attempt to achieve it, they create a texture of *sff* attacks. This time the viola and cello are carried away by them.

If there is a common thread in these three movements, it is the accumulative character of their finales, marked by high dynamic level and mass instrumental character.

After I finished this big first entity, I was wondering what could follow, as the finale of the third movement seemed to end the music for good. Then I took a decision: to begin something almost new. The best way would be to begin from silence moving to a peak; and this is exactly what the fourth movement of the quartet is. It begins from a subtle texture and slowly develops through glissandi to a powerful sliding texture (bars 135-142); however, this is not sustained and here is the difference with the previous movements. They finish with an accumulation, whereas the fourth one passes it and finally ends up in a subtle texture, like the beginning. Another difference is that in the fourth movement the direction of the form is clear and linear towards a peak, whereas in the previous ones the direction varies ending up in the accumulation.

This happens even more in the last movement in which the direction varies more than any of the previous movements. It actually goes a step further, not only diverging but also moving in such different directions that it builds independent entities. Such an entity is the powerful glissando of the opening, or the two pizzicato sections mentioned before and the closing pizzicato part. Indeed, listening to this final movement we realise that it consists of independent parts. These are nothing more than the independent worlds formed by the *Selective Subtraction* method mentioned in Chapter 2. The tool I chose in order to connect them is the glissando.

## ***Motion, in Two, for violin solo***

### *Inspiration and rationale behind the composition*

If there are two sides to a coin, metaphorically speaking, there is a duality. Peace and war, love and hate, up and down, and black and white are dualities.

*Definition in [www.dictionary.com](http://www.dictionary.com)*

The state or quality of being two or in two parts; dichotomy.

*Definition in <http://www.thefreedictionary.com>*

Duality also refers to feminine psychology of going back and forth between the old (traditional) neuroses and the new (feministic) neuroses.

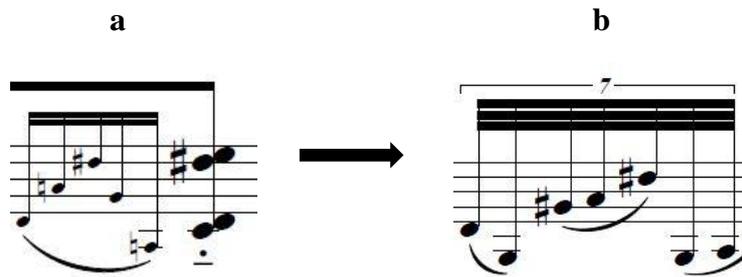
*Me*

### *Commentary*

*Motion, in Two*, is based on pattern expansion and transformation around a number of principal motifs. The primary motif characterising the piece is definitely the G-D perfect fifth figure of the opening. However, this figure is more than a motif; it is an axis around which the first part of the piece is developed (bars start-72). The best word to describe this process is expansion. Throughout first part, the G-D quaver motif is transformed into several patterns of two quavers, quaver triplets, four semiquavers and quintuplets, interspersed with grace-note figures.

In bars 70-73 a motivic modulation leads to **D**, based on two figures (example 31): the repetitive figure of bars 70-72 (henceforth called **a**) and that of the first septuplet of bar 73 (henceforth called **b**). By comparing them, we realise that the grace notes of **a** form the material of **b**. The latter approximates the sound, shape and duration of **a**. This relationship resembles the *stretto* technique in Bach's *Well-Tempered Clavier, Fugue XX*, in which the head of the subject forms the material of the *stretti* (example 32). Likewise in *Motion, in Two*, part of the material of the composition transforms into something else, thus giving consistency to the shape of the overall form.

Example 31: Comparison of repetitive figure of bars 70-72 and first septuplet of bar 73 (Motion, in Two)



Example 32: Example of subject and stretto from Bach's Well-Tempered Clavier, Fugue XX



©Peters, 1937

Although **D** seems to form a new world, its patterns are nothing more than a combination of chords and grace notes taken from the preceding sections, combined with harmonics. Continuous evolution yields the final figures, resulting in a texture of constant movement and thus reinforcing the “motion” of the work’s title.

Bars 120-158 form the longest section of the piece. In this section the grace notes of the opening lead the rhetoric, taking the form of real rhythmic values. To achieve this, the grace notes are organised into figures of demisemiquavers; however, a limited amount of grace notes still appear in order to simplify the otherwise complicated patterns.

This section has a connection with the tone material of **D**, since both sections’ patterns were taken from the grace notes of the opening. Indeed, comparison of the patterns of these bars with those of **D** leads to significant observations. In example 33, four such patterns are compared to reveal their similarities and differences. Furthermore, the change in the character of the patterns is important. The patterns in bars 120-158 incorporate far more episodic elements than those of **D**, with the first figure of bar 120 fulfilling the dual function of ending and beginning anew, signifying

the start of a musical utterance vastly different from what has preceded. Until bar 134, the figures that carry this utterance have a flowing character marked by long lines. Subsequently, shorter lines are incorporated along with figures of more distinctive character (like in bar 137).

*Example 33: Comparison of patterns (Motion, in Two)*

**Section D** **Bars 120-158**

1) bar 83 1st beat bar 122 1st beat

2) bar 76 2nd beat bar 132

3) bar 78 2nd beat bar 151 1st beat

4) bar 76 1st beat bar 153 1st beat

**J** has the character of an interlude in the way Lutoslawski uses it in *Livre pour Orchestre*. As Moura states:

*Another feature that links Livre to the continuous two-movement pieces is the insertion of 'static' interludes between the movements (Intermèdes) in order to provide the listener opportunity to relax the level of concentration.*<sup>25</sup>

The material of section (**J**) relates closely to that of **F**. Sustained natural harmonics produce an airy, quite familiar sound used extensively in the piece and thus, they offer

<sup>25</sup> Moura, E.E. 2014. *Lutoslawski's approach to sound masses and form in Livre pour Orchestre*, vol.4: 71.

an effective way to reduce the tension. **J** is also useful for the preparation of the finale. Moura continues:

*This can be regarded as a variant of the formal scheme of episodes and refrains, which is the typical procedure for an introductory movement in Lutoslawski's works.*<sup>26</sup>

This particular introductory function is the major characteristic of **J**. Preceded by a short introductory passage, the finale character of the last two sections becomes even stronger.

Throughout the piece, five basic points of intensification of similar character occur (example 34). The most interesting feature is that all of them occur at the end of a section and prepare the listener for the next one, or the finale (fifth point).

Example 34: Points of intensification (Motion, in Two)

	<b>Bars</b>
<b>1</b>	28-31
<b>2</b>	51-53
<b>3</b>	70-72
<b>4</b>	186-187
<b>5</b>	195-196

### ***Subtraction Melody, for clarinet in Bb solo***

#### *Inspiration and rationale behind the composition*

The inspiration for this piece originally came during my compulsory military service in Greece back in 2014. It was a Sunday afternoon after my shift when I had the idea to use the *Selective Subtraction* method in melodic lines. However, nothing was written on paper until the project of Psappa "Composing for Clarinet" project arose.

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<sup>26</sup> Ibid.

The clarinet, with its agility and distinctive tone quality, was the perfect means to create the patterns I had been mentally working on for almost two years.

### *Commentary*

As its title signifies, *Subtraction Melody* was made using elements resulting from the implementation of the *Selective Subtraction* method on a principal melodic line, introduced in the first bar. All the melodies heard later in the piece derive from this melodic line. Example 35 illustrates some of these transformations.

#### Example 35: Examples of transformations of the principal melodic line (Subtraction Melody)

Principal melodic line

The image displays musical notation for a piece titled "Subtraction Melody". At the top, a staff shows the "Principal melodic line" in treble clef, starting with a key signature of one sharp (F#) and a time signature of 3/4. The melody consists of a sequence of notes: G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4, B3, A3, G3, F#3, E3, D3, C3, B2, A2, G2, F#2, E2, D2, C2, B1, A1, G1, F#1, E1, D1, C1, B0, A0, G0, F#0, E0, D0, C0, B-1, A-1, G-1, F#-1, E-1, D-1, C-1, B-2, A-2, G-2, F#-2, E-2, D-2, C-2, B-3, A-3, G-3, F#-3, E-3, D-3, C-3, B-4, A-4, G-4, F#-4, E-4, D-4, C-4, B-5, A-5, G-5, F#-5, E-5, D-5, C-5, B-6, A-6, G-6, F#-6, E-6, D-6, C-6, B-7, A-7, G-7, F#-7, E-7, D-7, C-7, B-8, A-8, G-8, F#-8, E-8, D-8, C-8, B-9, A-9, G-9, F#-9, E-9, D-9, C-9, B-10, A-10, G-10, F#-10, E-10, D-10, C-10, B-11, A-11, G-11, F#-11, E-11, D-11, C-11, B-12, A-12, G-12, F#-12, E-12, D-12, C-12, B-13, A-13, G-13, F#-13, E-13, D-13, C-13, B-14, A-14, G-14, F#-14, E-14, D-14, C-14, B-15, A-15, G-15, F#-15, E-15, D-15, C-15, B-16, A-16, G-16, F#-16, E-16, D-16, C-16, B-17, A-17, G-17, F#-17, E-17, D-17, C-17, B-18, A-18, G-18, F#-18, E-18, D-18, C-18, B-19, A-19, G-19, F#-19, E-19, D-19, C-19, B-20, A-20, G-20, F#-20, E-20, D-20, C-20, B-21, A-21, G-21, F#-21, E-21, D-21, C-21, B-22, A-22, G-22, F#-22, E-22, D-22, C-22, B-23, A-23, G-23, F#-23, E-23, D-23, C-23, B-24, A-24, G-24, F#-24, E-24, D-24, C-24, B-25, A-25, G-25, F#-25, E-25, D-25, C-25, B-26, A-26, G-26, F#-26, E-26, D-26, C-26, B-27, A-27, G-27, F#-27, E-27, D-27, C-27, B-28, A-28, G-28, F#-28, E-28, D-28, C-28, B-29, A-29, G-29, F#-29, E-29, D-29, C-29, B-30, A-30, G-30, F#-30, E-30, D-30, C-30, B-31, A-31, G-31, F#-31, E-31, D-31, C-31, B-32, A-32, G-32, F#-32, E-32, D-32, C-32, B-33, A-33, G-33, F#-33, E-33, D-33, C-33, B-34, A-34, G-34, F#-34, E-34, D-34, C-34, B-35, A-35, G-35, F#-35, E-35, D-35, C-35, B-36, A-36, G-36, F#-36, E-36, D-36, C-36, B-37, A-37, G-37, F#-37, E-37, D-37, C-37, B-38, A-38, G-38, F#-38, E-38, D-38, C-38, B-39, A-39, G-39, F#-39, E-39, D-39, C-39, B-40, A-40, G-40, F#-40, E-40, D-40, C-40, B-41, A-41, G-41, F#-41, E-41, D-41, C-41, B-42, A-42, G-42, F#-42, E-42, D-42, C-42, B-43, A-43, G-43, F#-43, E-43, D-43, C-43, B-44, A-44, G-44, F#-44, E-44, D-44, C-44, B-45, A-45, G-45, F#-45, E-45, D-45, C-45, B-46, A-46, G-46, F#-46, E-46, D-46, C-46, B-47, A-47, G-47, F#-47, E-47, D-47, C-47, B-48, A-48, G-48, F#-48, E-48, D-48, C-48, B-49, A-49, G-49, F#-49, E-49, D-49, C-49, B-50, A-50, G-50, F#-50, E-50, D-50, C-50, B-51, A-51, G-51, F#-51, E-51, D-51, C-51, B-52, A-52, G-52, F#-52, E-52, D-52, C-52, B-53, A-53, G-53, F#-53, E-53, D-53, C-53, B-54, A-54, G-54, F#-54, E-54, D-54, C-54, B-55, A-55, G-55, F#-55, E-55, D-55, C-55, B-56, A-56, G-56, F#-56, E-56, D-56, C-56, B-57, A-57, G-57, F#-57, E-57, D-57, C-57, B-58, A-58, G-58, F#-58, E-58, D-58, C-58, B-59, A-59, G-59, F#-59, E-59, D-59, C-59, B-60, A-60, G-60, F#-60, E-60, D-60, C-60, B-61, A-61, G-61, F#-61, E-61, D-61, C-61, B-62, A-62, G-62, F#-62, E-62, D-62, C-62, B-63, A-63, G-63, F#-63, E-63, D-63, C-63, B-64, A-64, G-64, F#-64, E-64, D-64, C-64, B-65, A-65, G-65, F#-65, E-65, D-65, C-65, B-66, A-66, G-66, F#-66, E-66, D-66, C-66, B-67, A-67, G-67, F#-67, E-67, D-67, C-67, B-68, A-68, G-68, F#-68, E-68, D-68, C-68, B-69, A-69, G-69, F#-69, E-69, D-69, C-69, B-70, A-70, G-70, F#-70, E-70, D-70, C-70, B-71, A-71, G-71, F#-71, E-71, D-71, C-71, B-72, A-72, G-72, F#-72, E-72, D-72, C-72, B-73, A-73, G-73, F#-73, E-73, D-73, C-73, B-74, A-74, G-74, F#-74, E-74, D-74, C-74, B-75, A-75, G-75, F#-75, E-75, D-75, C-75, B-76, A-76, G-76, F#-76, E-76, D-76, C-76, B-77, A-77, G-77, F#-77, E-77, D-77, C-77, B-78, A-78, G-78, F#-78, E-78, D-78, C-78, B-79, A-79, G-79, F#-79, E-79, D-79, C-79, B-80, A-80, G-80, F#-80, E-80, D-80, C-80, B-81, A-81, G-81, F#-81, E-81, D-81, C-81, B-82, A-82, G-82, F#-82, E-82, D-82, C-82, B-83, A-83, G-83, F#-83, E-83, D-83, C-83, B-84, A-84, G-84, F#-84, E-84, D-84, C-84, B-85, A-85, G-85, F#-85, E-85, D-85, C-85, B-86, A-86, G-86, F#-86, E-86, D-86, C-86, B-87, A-87, G-87, F#-87, E-87, D-87, C-87, B-88, A-88, G-88, F#-88, E-88, D-88, C-88, B-89, A-89, G-89, F#-89, E-89, D-89, C-89, B-90, A-90, G-90, F#-90, 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C-191, B-192, A-192, G-192, F#-192, E-192, D-192, C-192, B-193, A-193, G-193, F#-193, E-193, D-193, C-193, B-194, A-194, G-194, F#-194, E-194, D-194, C-194, B-195, A-195, G-195, F#-195, E-195, D-195, C-195, B-196, A-196, G-196, F#-196, E-196, D-196, C-196, B-197, A-197, G-197, F#-197, E-197, D-197, C-197, B-198, A-198, G-198, F#-198, E-198, D-198, C-198, B-199, A-199, G-199, F#-199, E-199, D-199, C-199, B-200, A-200, G-200, F#-200, E-200, D-200, C-200, B-201, A-201, G-201, F#-201, E-201, D-201, C-201, B-202, A-202, G-202, F#-202, E-202, D-202, C-202, B-203, A-203, G-203, F#-203, E-203, D-203, C-203, B-204, A-204, G-204, F#-204, E-204, D-204, C-204, B-205, A-205, G-205, F#-205, E-205, D-205, C-205, B-206, A-206, G-206, F#-206, E-206, D-206, C-206, B-207, A-207, G-207, F#-207, E-207, D-207, C-207, B-208, A-208, G-208, F#-208, E-208, D-208, C-208, B-209, A-209, G-209, F#-209, E-209, D-209, C-209, B-210, A-210, G-210, F#-210, E-210, D-210, C-210, B-211, A-211, G-211, F#-211, E-211, D-211, C-211, B-212, A-212, G-212, F#-212, E-212, D-212, C-212, B-213, A-213, G-213, F#-213, E-213, D-213, C-213, B-214, A-214, G-214, F#-214, E-214, D-214, C-214, B-215, A-215, G-215, F#-215, E-215, D-215, C-215, B-216, A-216, G-216, F#-216, E-216, D-216, C-216, B-217, A-217, G-217, F#-217, E-217, D-217, C-217, B-218, A-218, G-218, F#-218, E-218, D-218, C-218, B-219, A-219, G-219, F#-219, E-219, D-219, C-219, B-220, A-220, G-220, F#-220, E-220, D-220, C-220, B-221, A-221, G-221, F#-221, E-221, D-221, C-221, B-222, A-222, G-222, F#-222, E-222, D-222, C-222, B-223, A-223, G-223, F#-223, E-223, D-223, C-223, B-224, A-224, G-224, F#-224, E-224, D-224, C-224, B-225, A-225, G-225, F#-225, E-225, D-225, C-225, B-226, A-226, G-226, F#-226, E-226, D-226, C-226, B-227, A-227, G-227, F#-227, E-227, D-227, C-227, B-228, A-228, G-228, F#-228, E-228, D-228, C-228, B-229, A-229, G-229, F#-229, E-229, D-229, C-229, B-230, A-230, G-230, F#-230, E-230, D-230, C-230, B-231, A-231, G-231, F#-231, E-231, D-231, C-231, B-232, A-232, G-232, F#-232, E-232, D-232, C-232, B-233, A-233, G-233, F#-233, E-233, D-233, C-233, B-234, A-234, G-234, F#-234, E-234, D-234, C-234, B-235, A-235, G-235, F#-235, E-235, D-235, C-235, B-236, A-236, G-236, F#-236, E-236, D-236, C-236, B-237, A-237, G-237, F#-237, E-237, D-237, C-237, B-238, A-238, G-238, F#-238, E-238, D-238, C-238, B-239, A-239, G-239, F#-239, E-239, D-239, C-239, B-240, A-240, G-240, F#-240, E-240, D-240, C-240, B-241, A-241, G-241, F#-241, E-241, D-241, C-241, B-242, A-242, G-242, F#-242, E-242, D-242, C-242, B-243, A-243, G-243, F#-243, E-243, D-243, C-243, B-244, A-244, G-244, F#-244, E-244, D-244, C-244, B-245, A-245, G-245, F#-245, E-245, D-245, C-245, B-246, A-246, G-246, F#-246, E-246, D-246, C-246, B-247, A-247, G-247, F#-247, E-247, D-247, C-247, B-248, A-248, G-248, F#-248, E-248, D-248, C-248, B-249, A-249, G-249, F#-249, E-249, D-249, C-249, B-250, A-250, G-250, F#-250, E-250, D-250, C-250, B-251, A-251, G-251, F#-251, E-251, D-251, C-251, B-252, A-252, G-252, F#-252, E-252, D-252, C-252, B-253, A-253, G-253, F#-253, E-253, D-253, C-253, B-254, A-254, G-254, F#-254, E-254, D-254, C-254, B-255, A-255, G-255, F#-255, E-255, D-255, C-255, B-256, A-256, G-256, F#-256, E-256, D-256, C-256, B-257, A-257, G-257, F#-257, E-257, D-257, C-257, B-258, A-258, G-258, F#-258, E-258, D-258, C-258, B-259, A-259, G-259, F#-259, E-259, D-259, C-259, B-260, A-260, G-260, F#-260, E-260, D-260, C-260, B-261, A-261, G-261, F#-261, E-261, D-261, C-261, B-262, A-262, G-262, F#-262, E-262, D-262, C-262, B-263, A-263, G-263, F#-263, E-263, D-263, C-263, B-264, A-264, G-264, F#-264, E-264, D-264, C-264, B-265, A-265, G-265, F#-265, E-265, D-265, C-265, B-266, A-266, G-266, F#-266, E-266, D-266, C-266, B-267, A-267, G-267, F#-267, E-267, D-267, C-267, B-268, A-268, G-268, F#-268, E-268, D-268, C-268, B-269, A-269, G-269, F#-269, E-269, D-269, C-269, B-270, A-270, G-270, F#-270, E-270, D-270, C-270, B-271, A-271, G-271, F#-271, E-271, D-271, C-271, B-272, A-272, G-272, F#-272, E-272, D-272, C-272, B-273, A-273, G-273, F#-273, E-273, D-273, C-273, B-274, A-274, G-274, F#-274, E-274, D-274, C-274, B-275, A-275, G-275, F#-275, E-275, D-275, C-275, B-276, A-276, G-276, F#-276, E-276, D-276, C-276, B-277, A-277, G-277, F#-277, E-277, D-277, C-277, B-278, A-278, G-278, F#-278, E-278, D-278, C-278, B-279, A-279, G-279, F#-279, E-279, D-279, C-279, B-280, A-280, G-280, F#-280, E-280, D-280, C-280, B-281, A-281, G-281, F#-281, E-281, D-281, C-281, B-282, A-282, G-282, F#-282, E-282, D-282, C-282, B-283, A-283, G-283, F#-283, E-283, D-283, C-283, B-284, A-284, G-284, F#-284, E-284, D-284, C-284, B-285, A-285, G-285, F#-285, E-285, D-285, C-285, B-286, A-286, G-286, F#-286, E-286, D-286, C-286, B-287, A-287, G-287, F#-287, E-287, D-287, C-287, B-288, A-288, G-288, F#-288, E-288, D-288, C-288, B-289, A-289, G-289, F#-289, E-289, D-289, C-289, B-290, A-290, G-290, F#-290, E-290, D-290, C-290, B-291, A-291, G-291, F#-291, E-291, D-291, C-291, B-292, A-292, G-292, F#-292, E-292, D-292, C-292, B-293, A-293, G-293, F#-293, E-293, D-293, C-293, B-294, A-

After bar 50 the obsession with B<sup>b</sup> disappears progressively as it is overshadowed by other elements. Indeed, from bar 61, new motifs and figures make their appearance, evolving into patterns always derived from the principal melodic line. These figures (example 36) differ in length, direction (either ascending or descending) and tone material, although, as mentioned in the first chapter, the general trend is upward.

*Example 36: Examples of new patterns, bar 61 onward (Subtraction Melody)*



The figure of bar 96, along with a new sustained note (E), gives a new breath to the piece. These two elements lead the form to the last fifteen bars (**K**) where everything converges: motifs, figures, patterns, sustained and repeating pitches, and individual notes are all mingled in the last part of the piece.

*Subtraction Melody* is divided into three main parts: start-bar 42, bars 43-114, bars 115-end. From the opening of the score until bar 22, the direction of the form is dictated by the melody of the beginning (bar 3) from which melodies of irregular rhythm derive. The trend of both the initial and derived melodies is clearly upward, interrupted only by the sustained B<sup>b</sup>. However, in bar 25 I make a decision that is completely opposite to the character of the piece. From bar 25 and for the next six bars I insert a passage of regular rhythm and direction. The **Rubato** sign indicates exactly this: a pause in the irregularity, replaced by a calm passage. It is exactly its different character that makes this passage a target toward which the form of the piece moves. This decision is opposite not only to the character of this particular piece, but to the character of all the pieces of this commentary, as the passage of bars 25-30 is the most rhythmically regular part of the whole portfolio.

As it is not a passage crucial for the development of the piece, one may wonder why I chose to include it. The answer has to do with the nature of the second main part of the composition (43-114). Its length, along with its vivid and scherzo-like character, creates an obvious need for a kind of calm and rhythmically regular; yet, the preparation does not finish here. Bars 31-42 that follow, though calm, gradually bring

back the elements of irregularity and movement. From a calm situation, we move slowly to the extremely rapid second section of the piece.

Indeed, it is in section 2 in which short and fast elements are combined to create motion. Like in the opening, it begins from a melody that gradually breaks into numerous small fragments that follow a general upward trend. The B<sup>b</sup> remains, this time much shorter and much more irregular. However, in bar 73 (third beat), it changes. For the first time in the score, the B<sup>b</sup> shifts down to G. From bar 75, we no longer hear the B<sup>b</sup>, as it has been totally replaced by the G. The latter reasserts its dominance with its constant repetition in bars 87-91.

Then, in bar 92 sudden changes occur. The G seems to try to acquire a permanent role in the piece. However, this does not happen, as a moderate tremolo between F and E takes its place. And suddenly again, the tremolo is replaced by the rapid figure of bar 96. However, the tremolo has not said its final word yet, as after this rapid figure, we hear a sustained E. That is to say, the element that dominates the score, which is the sustained note, ends up in the second pitch of the tremolo. From now on, its role is to interrupt the linear development of the rapid figure of bar 96; these interruptions happen regularly, until the third section (bar 115) when calm settles in again.

Although the sustained note is an organic part of the whole entity of the piece, in bar 115 it functions as the connection of two worlds (second and third section) as well. The last statement is reinforced by the fact that the sustained note ultimately becomes an obvious element of the third part. It also contributes to the fluidity of the narrative of the individual melodic fragments after bar 96 and thus to the consistency of the form, for it serves as a common element that fills in the awkward gaps between these fragments.

In the third section, we find figures of similar character to the rapid second section, but in a much slower tempo. At this point, in light of what has preceded, one may expect the piece to end with these figures; but suddenly once more, a sustained F# appears out of nowhere ending the piece, not in calm, but with a crescendo, rather creating a final tension.

## ***Little Mass No. 2, for tenor saxophone, accordion and cello***

### *Inspiration and rationale behind the composition*

*Little Mass No. 2* is the second piece of a composition cycle I intend to realise. The most striking characteristic of these pieces is that although they are composed for small ensemble, they try to highlight sound mass as a primary textural feature. This is the driving force behind some choices I made in this piece, particularly with respect to dynamics and register.

Regarding the first of these parameters, the instruments rarely play in the same dynamic level at the same time. This happens precisely because we need a very equal dynamic balance in order to produce sound mass, but the three instruments used in the piece vary in terms of absolute dynamic level. A typical dynamic combination used extensively throughout the composition is the following:

Saxophone: *pp*, Accordion: *mp*, Cello: *mp*

The other parameter refers to the choice to have the instruments play in the same register. This creates a dizzying sound in which the individual lines become “meaningless as individual events” and are “subordinate to the total aural effect”;<sup>27</sup> resulting in the desired sound mass.

The *Little Mass No. 2* for tenor saxophone, accordion and cello was written specifically for the 2016 MIXTUR festival in Barcelona and is dedicated to the ensemble *Regards*.

### *Commentary*

I divide this trio into two sections: A(bars 1-42) and B(43-end). Section A opens with rapid gestures of gradually increasing rhythmic values. The overall effect is thus of a gradually decelerating rhythm. In addition, the gradual subtraction of notes causes a constant thinning of the overall texture that lasts until bar 42. After this bar, section B follows, consisting of alternations between fast- and slow-paced episodes.

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<sup>27</sup> Hoogewind, M.J. 2000. *Compositional techniques of sound mass in selected works of György Ligeti*. California State University. 34.

When a composer writes a piece with a particular musical goal in mind, it is reasonable to ask at the end of the process whether the final composition agrees with the initial plan. I am not quite sure if the target of the sound mass described above was achieved here; however, I believe I was successful in the following sections in realising the sound-mass effect I initially intended.

Bars 53-56: Here, the combination of the saxophone and the cello in their low registers works perfectly to produce a thin bass lane.

Bars 60-63: In these bars, a melodic gesture is repeated four times, beginning always from the cello, and is transmitted to the other two instruments. The main idea is that all instruments should play in carefully chosen registers and dynamics in order to blend indistinguishably together, as if generated by a single sonic source.

Bars 25-39: Here the texture is similar to the effect of bars 60-63, in which the individual lines of the instruments combine to produce a single melodic gesture; however, in bars 25-39 the sonic effect creates a vertical (harmonic) result, as opposed to the horizontal (melodic) effect in bars 60-63.

## ***Sustaining Interruption, for large ensemble***

### *Instrumentation*

2 piccolos, English horn, Clarinet in Bb, Bass clarinet, Bassoon, Tenor trombone, Piano, Xylophone, Vibraphone, 2 violins, Cello, Double bass.

### *Inspiration and rationale behind the composition*

As members of a society that for a long time treated them like second-class human beings, women have often been the “punching bag” of this world. Throughout history, women’s psychology has been wounded by suppression, degradation and intimidation, all of which inevitably played a role in the formation of certain characteristics now considered feminine. Being deprived of the right to express an opinion, an overwhelming dilemma was created inside women’s souls: to react, or not to react? This bipolar/binary psychological question inspired me to write *Sustaining*

*Interruption.* As a result of my *Selective Subtraction of Tone and Rhythmic Material* composition method, this piece’s basic characteristic is a dichotomy formed by the interaction of these two contrasting situations (tranquillity – motion). Reacting or ignoring, obeying or rebelling, screaming or remaining silent – women have navigated this extremely difficult path, struggling for more humane and dignified treatment. It is exactly this aspect of women’s struggle that I want to highlight with this piece, interpolating “annoying” interruptions amid static textures and (hopefully) objecting to harmful, traditionally masculine ways of thinking.

### *Commentary*

I divide *Sustaining Interruption* into six sections (example 37).

#### *Example 37: Structural overview of Sustaining Interruption.*

<b>Section</b>	<b>Bars</b>
1	1-25
2	26-48
3	49-67
4	68-85
Bridge	86-92
5	93-144
6	145-end

The first section is introductory, based on the asymmetrical utterance of the xylophone and the vibraphone. It is in this section that we first hear the elements that will carry the burden of development later in the piece: the texture of sustained notes, the asymmetrical melodic lines on the vibraphone and xylophone and the *sfff* chord, which signals the sustained piccolo and violin chord that emerges out of silence (bars 17 and 20).

This signal plays a major role in relation to the dichotomy of tranquillity and motion. Throughout the piece various signals interrupt the tranquil parts, giving way to pointillistic and more kinetic textures.<sup>28</sup> For instance, in section 2 this happens in bar 26 with a *sfff* chord in the piano. However, these signals are used for other kinds of

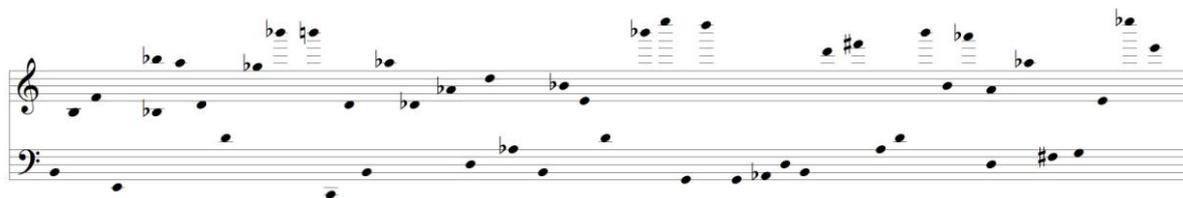
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<sup>28</sup> The opposite can happen as well.

changes as well; in bars 37 and 43, for instance, the same chord causes a sudden orchestrational change. All these changes help the piece maintain its motion and thus develop its form.

After the heavy elements of the first two sections, the third introduces a soft texture of sustained notes. These notes draw a meaningful parallel with section 1. Indeed, in light of example 38, section 3 is nothing more than the development of the sustained notes of the opening. However, unlike the first section, in which the sustained notes are interrupted by sudden gestures, in the third they maintain a developing and fluctuating harmony. The development is realised by introducing a harmonic foreground that evolves from soft sound into dissonance (example 39).

*Example 38: Section 3 pitch order, bars 49-58 (Sustaining Interruption)*



*Example 39: Last dissonant chord of the changing harmony, bar 58 (Sustaining Interruption)*



The effectiveness of section three depends on pitch organisation rather than sudden events that trigger a change as in section one. Of course, the question for section three arises: what about rhythm? How should I know where to place every pitch change? Since these pitch changes had to happen gradually, I thought that the best way was to create the rhythm intuitively using a midi keyboard and Finale music notation software. After several takes, the rhythm of this section was created, guided by the principle that pitch changes should happen gradually and each pitch should emerge as a natural continuation of the previous one.

The fourth section is a combination of everything that precedes it. Here, pointillistic gestures coexist, interrupting each other, creating altogether the most kinetic part of the piece which culminates in the fluid texture of bars 80-85.

According to the general dichotomous structure I have set for the piece, a static texture should follow the kinetic bars 80-85. However, I was convinced that such a sudden change to a static texture would create an imbalance in the form. Thus, I realised that something more kinetic should interfere between this fluid texture and section 5, which is the most static section of the piece. It is not the first time I have worked with hammering textures on strings, as a similar passage exists in my String Quartet No. 2 (bars 89-95). As in the quartet, bars 86-92 of *Sustaining Interruption* were created using the *Selective Subtraction* method, and they function as a bridge between sections 4 and 5. The primary material used is given in example 40 and consists of combinations of pitches taken from pointillistic textures throughout the score.

Example 40: Primary material of bars 86-92 (Sustaining Interruption)

The image displays a musical score for four string instruments: Violin I, Violin II, Cello, and Double Bass. The score is organized into three measures. Violin I and Violin II parts are written in treble clef and consist of sparse, rhythmic patterns of eighth and sixteenth notes. The Cello part is in bass clef and features triplet markings over groups of three notes. The Double Bass part is also in bass clef and includes both triplet and quintuplet markings, indicating complex rhythmic groupings. The overall texture is pointillistic, with individual notes or small groups of notes appearing and disappearing across the measures.

Regarding section 5, the static texture of the violins and piccolos is of major importance as it functions alternately as a foreground or a background. What changes is the orchestration: beginning in the two piccolos and violins, the static texture is then transferred to the basses (bar 126) and eventually returns to the piccolos and violins in bar 136 (example 41). Ultimately, in this section change is fuelled by the orchestrational changes of the sustained notes, rather than rapid motifs and passages.

*Example 41: Orchestration overview of section 5 (Sustaining Interruption)*

b.121	b.126	b.130	b.131	b.134	b.136
Pic1					Pic1
Pic2	B. Cl.	B <sup>b</sup> Cl.	Pic2		
VlnI	Bsn.	VlnI			
VlnII	Tbn.	VlnII			

The sixth and final section seems to be the tail of the fifth, bringing the piece to a close with simultaneous airy, sustained notes in all instruments except piano and percussion. The last time we hear the signal chord, it signifies not a change but the end of the piece, acting as a final interruption.

***Ongoing...*, for orchestra**

*Instrumentation*

- Piccolo, 2
- Flutes
- 2 Oboes, English Horn
- 2 Clarinets in B<sup>b</sup>, Bass Clarinet
- 2 Bassoons, Contrabassoon
- 2 Horns in F
- 2 Trumpets in C
- 2 Tenor Trombones, Bass Trombone
- Tuba
- Percussion (Glockenspiel, Xylophone, Vibraphone, Bass Drum)
- Strings

*Inspiration and rationale behind the composition*

The initial idea behind this work stemmed from the migration crisis that hit Greece during the summer of 2016. At that time, I visited the Softex refugee camp in northern Greece. I was shocked realising that these people had risked life and limb to escape, but now were held in prison-like conditions.

On my way home, all these images I had seen – screaming and crying people, despair, misery – started becoming music. The drama of the migrants fleeing to avoid death regrettably inspired me to start thinking of a form where a number of the woodwinds of the orchestra are inserted in the texture one by one, symbolising the voice and the

protesting scream of each refugee. And I say “regrettably” because of this bittersweet characteristic of art, articulated by Nikos Kazantzakis, a major figure of Greek literature, in the introduction of his novel *Life and Times of Alexis Zorbas*:

*“This sad privilege, to turn life into art, becomes disastrous for many carnivorous souls. Because this way, the extreme passion finds an escape, leaves the chest, and the soul lightens, does not vex any more, does not feel the need to fight bodily, interfering directly in life and in action --- instead it rejoices watching proudly its extreme passion flare into ring shapes in the air and fade.*

*And not only does it rejoice but it is also arrogant; it thinks it is accomplishing a great feat by transforming the transient irreplaceable moment --- the only thing in the infinite time that has flesh and blood --- into something apparently eternal”.*<sup>29</sup>

The continuous struggle of the refugees for a better future was artistically transformed into a piece marked by ongoing development: each section steadily unfolds, ultimately becoming something else. The six sections, though of different characters, all share certain elements in order to weave a common thread through the piece.

### *Commentary*

I base this piece on three parameters: a leap gesture (example 42), sustained notes and pointillistic textures. These parameters are combined to create sound mass texture. Orchestration was a tool of major importance and underpinned the sound mass character of the piece.

#### Example 42: Opening gesture of the bassoon (Ongoing...)



<sup>29</sup> Kazantzakis, Nikos, *The Life and Adventures of Alexi Zorba*, Introduction/Preface. Translation by Panayotis Skordos, MIT Computer Science and Artificial Intelligence Laboratory, Copyright © 2001-2002. Full URL: <http://groups.csail.mit.edu/mac/users/pas/kaza-z01.html>

Regarding the first parameter, one might ask why I chose to restrict these leaps to a single instrument, rather than expanding them to pairs of instruments, which would have been easily feasible for the forces of an orchestra. The answer hinges on dramatic narrative. The leap gestures symbolise the refugees' struggle, each one corresponding to a single person. The performers' strain in playing the high quarter tone brings them closer to this struggle and creates a tone colour much more unique and interesting than if each part were multiplied by two. These screams start individually, entering the texture one by one, organised in a sound mass of intensely protesting character (bars 35-44).

The second important parameter of the work refers to sustained notes. They begin rather early in the piece, mostly in a number of wind instruments. However, the most interesting such passage begins in bar 96, in which the sustained texture is maintained for 39 bars (until bar 135). It is not static, though; changes are brought about by the presence of gestures on specific instruments, relying on dynamics as an important tool. Example 43 illustrates this dynamic variation for bars 96-110.

Orchestration plays important role in the synthesis of pointillistic passages, which is the third important parameter. Bars 136-143 are characterised by powerful *fff* attacks assigned to a vast array of instruments. In such passages, brass instruments can easily prevail in the texture. To avoid this, the material was distributed with the goal of disguising the brass sound amid the sound of the other instruments. The final result resembles the sound of chamber music where all participating instruments share an equal role creating a truly pointillistic effect.

*Example 43: Dynamic variation overview of sustained notes, bars 96-110*  
(Ongoing...)

The musical score for Example 43, titled "Dynamic variation overview of sustained notes, bars 96-110 (Ongoing...)", shows a complex orchestration. The score is divided into two systems. The first system includes Piccolo, Flute 1, Flute 2, Oboe 1, Oboe 2, Clarinet in Bb 1, Bass Clarinet, Horn in F 1, Trombone 1, and Vibraphone. The second system includes Violin I, Violin II, Viola, Cello, and Double Bass. Dynamics are indicated by various markings: *ppp*, *ff ppp sub.*, *mp*, *f*, *ppp sub.*, and *p*. There are also markings for "Half of the players" for the Violin I, Violin II, Viola, and Cello parts. The score shows a dynamic arc that starts with *ppp* at bar 96, reaches a peak of *ff* around bar 100, and then gradually decreases to *p* by bar 110.

The orchestration of *Ongoing...* was designed to support bold sounds, so a well-balanced vertical combination of the instruments was essential. The *fff* massive chord that reoccurs throughout the opening is a good example of bold, *staccato* sound, composed with the goal of producing a percussive effect. The placement of the instruments in close position proved to be an effective strategy for even stronger percussiveness. The harmonic structure of the chord is given in example 44.

However, this chord does not remain static. It loses its power gradually as more instruments abandon it throughout first section and start executing the leap gesture, imitating the opening gesture of the bassoon 1. The texture grows more fluid as it leads to the bridge.

Example 44: Harmonic structure of the massive chord of the opening (Ongoing...)

Piccolo	A
Flute 1	B
Flute 2	Bb
Oboe 1	G
Oboe 2	F
English horn	Ab (Eb transp)
Clarinet in Bb 1	G# (A# transp)
Clarinet in Bb 2	F# (G# transp)
Bass clarinet	B (C# transp)
Bassoon 1	-
Bassoon 2	C
Contrabassoon	E
French horn 1	Eb (Bb transp)
French horn 2	C (G transp)
Trumpets in C 1	C#
Trumpets in C 2	D
Tenor trombones 1	G
Tenor trombones 2	Gb
Bass trombone	F
Tuba	D
VLNI	D# (2nd ledger line up)
VLNII	E (highest in staff)
VLA	div: D3/4 (under the staff) E1/4 (first staff line)
CELLO	C#
DB	Bb

As far as the form of the piece is concerned, for the purposes of this commentary, I separated it into six sections (example 45).

Example 45: Structural overview of Ongoing...

Section	Bars
1	1-44
2 (bridge)	45-62
3	63-96
4	97-107
5	108-123
6	124-end

Observing the textures of the first and the last sections, the whole composition appears to be built around these two extremes. Indeed, the most kinetic sections are 1, 2 and 6. The middle sections, though static in character, feature a constant stream of individual events of different textures. In these sections, different and contrasting textures are combined in a whole. By “contrasting textures” I refer to the three

parameters mentioned above: the leap gesture, sustained notes and pointillistic textures. The traces of these combinations relate to what Jonathan Diamond calls “synthesis” in Stravinsky’s *Firebird Suite*:

*“The result of Synthesis is that contrasting elements are brought into increasingly close relationships with each other, assimilating contrasting rhythms, contrapuntal melodies or harmonies to the point that they work as a unified whole”.*<sup>30</sup>

The “unified whole” is the most prevalent musical aspect in my work, especially in *Ongoing...* and in my other works for large ensemble. Playing with “the boundary between sound and noise,”<sup>31</sup> trying to create a sculpture of different, yet well-combined sounds is, in my opinion, one of the most challenging compositional pursuits.

The last *divisi* part on the strings is static and ends abruptly. It does not develop, expand or elongate. It rather symbolises the never-ending struggle of humanity for better life.

In reality, *Ongoing...*, is an entity that incorporates many different processes. During the third stage of the Subtraction method I struggled to find the proper ways to connect them. Even then, the whole form seemed to me a bit static. The tool I used to overcome this problem was to create trends. Thereby, the direction of the form became clearer. Until bar 45, patterns of continuous leap figures in the winds and repeated notes in the strings follow an accumulative process. Suddenly, in bar 46, everything plunges and an upward trend begins of accumulative character leading to the solitary flutes in bar 63. From the lowest registers to the highest, this upward linear movement has a symbolic meaning; from darkness we move to light, with flutes symbolising brightness, hope and innocence.

After this massive trend, the form reaches a steadier situation. The direction here is an ongoing process of thickening and dispersing the material, drawing a meaningful parallel with the previous accumulative process. Also, the pitches lie in the middle register without changing significantly, thus creating a contrast with the registral

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<sup>30</sup> Diamond, J. 2013. *Theory of Music-Stravinsky*, unpublished article, cited in Philips, A. 2013. *Stravinsky’s Firebird: An analysis of the orchestration*. 5.

[https://www.academia.edu/8907469/Stravinskys\\_Firebird\\_An\\_Analysis\\_of\\_the\\_Orchestration](https://www.academia.edu/8907469/Stravinskys_Firebird_An_Analysis_of_the_Orchestration)

<sup>31</sup> Edwards, J.M. 2001. “North America since 1920.” *Women & Music: A History*. 326-27.

variations of the previous section. Therefore, until here, the development of the form of the piece is based on a common thread and a contrast.

This continues until bar 96, in which the accumulation of the instruments reaches a peak and a dense texture is formed. In such cases, I usually do something radical to cause a shock and to give the form a radically new direction. As we saw above, this happened in bar 46. However, this is not the case here, as the piece continues in the middle registers and rather individual elements create trend (figures in the percussion and *sff* attacks). The process goes even further with bars 107-123 being even calmer: the only movements we notice come from the leaps in some woodwinds and brass instruments reminding us of the opening material. By using a familiar sound the desired calm is highlighted further and the listener is better prepared for the significant contrast that will come with the powerful and extremely kinetic section of bars 124-169.

## Conclusion

The aim of this presentation has been to provide a commentary on the submitted pieces with sufficient information to give a clear view of composer's inspiration, techniques and compositional thought. This aim culminated in Chapter Three, where all pieces were discussed under the view of different musical aspects such as form, orchestration, tone material and rhythm. Many compositional tools were mentioned and analysed in terms of their function in the form of each composition. In some cases, the commentary was accompanied by some discussion about the approach to form. In these paragraphs, many formalistic characteristics were analysed further regarding the problems that emerged during the compositional process. Most of the problems concern matters of form direction and the connection between the individual worlds mentioned in Chapter Two. Solutions were given in relation to the tools used in the four steps of the *Selective Subtraction* method. The latter was mentioned clearly whenever used and in some cases, its implementation was analysed in detail.

These problems were analysed even further in Chapter Two, in which the *Selective Subtraction* method is presented thoroughly and critically. The method is realised in four stages. Each one contributes differently to the building of a piece. The selective subtraction process takes place mainly in the first stage creating the materials that result from its implementation in the primary material. The resulting material engages in the construction of bigger entities. Until stage three, the piece has taken on general form; however, it is not until the end of the fourth that the piece can be considered as completed, an entity that incorporates many smaller individual worlds combined organically.

This point of the method proved to be the most critical. The issues emerge mostly from the very nature of the resulting materials. For it is not a mistake to assume that each resulting material is nothing more than a small process: a process of one direction that inevitably affects the form of the piece. This influence sometimes has a negative result over the direction of the form. We saw that in the second stage the resulting materials are combined to form bigger worlds that are nothing more than individual processes. However, one should be very careful regarding the length of these processes, for in many cases a substantial duration of an individual process

results in excessive stability, exactly because of the one-direction character of the smaller materials that it incorporates.

Thus, the role of the fourth stage proved to be of great importance, as it is used as a tool for making adjustments to the score in order to achieve balance and clear direction. The adjustments vary, from cutting/adding bars and balancing the dynamics, to creating trends and filling gaps that cause awkward silences. Also, in many cases, like in *Ongoing*, the return to previous stages of the method proved mandatory for further implementation and processing of the material. In this case, we saw that the method could be used as an auxiliary adjustment tool at any time during the composition process, when necessary. Ultimately, the subtraction process takes place mostly during the first and the fourth stages of the method.

Keeping in mind the last sentence, we realise that the *Selective Subtraction* method is a multileveled composition method that allows the composer to work on their material from four different perspectives. Each one corresponds to the four steps of the method.

- The first deals with micro elements and the subtraction process per se, featuring subtraction work with the material.
- The second refers mostly to the superimposition of the various materials yielded in the first step, thus featuring vertical sound results.
- In the third, we have the creative juxtaposition and connection of the sounds, producing horizontal sound results.
- The fourth features work towards the overall final form of the piece.

To sum up, the succession of the steps begins from work on micro level, continues to vertical combinations, then to horizontal ones and finally ends up in work from a macro level perspective, allowing the composer to maintain a multi-faceted control of the form of the piece. The multileveled work also allows the composer to have a straightforward control over the organic ingredients of the composition.

Another aspect that emerges from the implementation of the *Selective Subtraction* method on different musical parameters is the achievement of a simple notational style. The production of complex sound through simple notation results in simple motivic figures. The simplicity of this precise notational framework enables the

performer to freely convey the composer's ideas to the listener. The following quote demonstrates a high appreciation of simplicity on the part of Elliot Carter, a composer well known for the use of complex notation:

*"There is an undoubted beauty in reducing things to their essentials or to their simplest form if something is gained thereby".<sup>32</sup>*

Future plans include the challenge of the implementation of the method in larger projects, such as pieces of thirty minutes' duration, or real-time application in stage music; in other words, projects that include live interaction between musicians and performers that will move in correspondence with the individual resulting materials of the piece and not dictated by the obvious general sound everyone is able to distinguish. Further perspectives of the method have already started being examined in electronic music. In this case, the method reflects extensive work with soundwave materials and possible combinations of synthetic sounds in order to build the individual worlds whose combination will yield the final entity of the piece.

A preliminary chapter discussing the composer's influences has preceded all chapters, referring to specific works of the repertoire and their creators. The connection made with works of Mark Andre and George Aperghis referred mostly to technical parameters. The aesthetical influence was discussed mostly in the part dealing with the work of Iannis Xenakis. In all cases, the influences affected the composer in a creative way, demonstrating a thoroughly integrated impact, rather than a blatant, superficial imitation of style.

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<sup>32</sup> Carter, E. 1960. "Shop Talk by an American Composer." *The Musical Quarterly*, Vol. 46, No.2: 197, [www.jstor.org/stable/740370](http://www.jstor.org/stable/740370).

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